Wildland Fire Response Plan

COVID-19 Pandemic

Northern Rockies Geographic Area

Northern Rockies Area
Montana
North Dakota
Northern Idaho
Small portion of South Dakota
Yellowstone NP - Wyoming

Lead Contact:
Michael DeGrosky, Chair
Northern Rockies Coordinating Group

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Cooperating Federal, State and other Agencies:

U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, National Park Service, Bureau of Indian Affairs, Montana Department of Natural Resources and Conservation, North Dakota Forest Service, Montana State Fire Chief's Association, Montana Disaster and Emergency Services, Montana Sheriffs and Peace Officers Association, Montana Fire Wardens Association and Idaho Department of Lands.

1 PREFACE

This Wildland Fire Response Plan (WFRP) has been developed to provide guidance and considerations for maintaining continuity of wildland fire response in the presence of the COVID-19 pandemic for the 2020 fire year in the Northern Rockies Geographic Area. The plan is intended to be a single point, but not the only point of reference for those tasked with management of wildland fires. These considerations include thoughts on planning needs, possible actions, and immediate needs to help wildland fire management agencies and organizations sustain, to the extent possible, the highest degree of resource availability, while providing for the safety and protection of all wildland fire response personnel at all organizational levels in all areas across the country.

The WFRP is constructed for applicability at all levels. However, some of the information presented here may not have the same utility for all participating agencies and organizations. For example, many practices and protocols listed here for consideration may only be acceptable for use by federal agencies and not by state and local governments. In other cases, more specific practices and protocols may be developed and implemented at local levels.

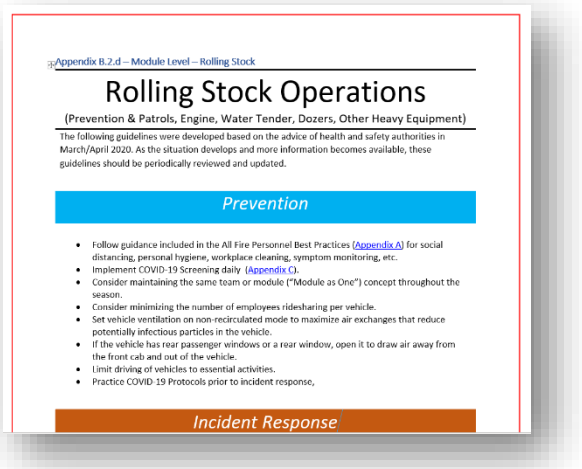
NOTE: Protocols, policies, direction, and other guidance set forth by your agency or leadership are your overarching standards, overshadow this WFRP, and should be strictly adhered to.

Strategic information is intended for all levels of wildland fire response – from national level, regional level, local level, to module level. There is applicable information for everyone in the Strategy portion of the document. There is strategic information throughout the document, but it occurs primarily in the main body of the document, pages 7-24.

Tactical information is intended for local area fire managers, Incident Management Organizations, and the "boots on the ground" in the format of Best Management Practices (BMPs). The BMPs are found in Appendix B. The BMPs have been designed to be concise, to the point, easily understandable, and printable as stand-alone documents for use by the respective resources – very similar to an Engine Captain focusing their attention to the pertinent ICS-204 Division Assignment from an Incident Action Plan (IAP).

Appendix A – *All Fire Personnel Best Practices* – is a companion to Appendix B and should be reviewed and referenced concurrently with Appendix B.

Readers are encouraged to review the entire document and to use the Contents page to identify information most applicable to their needs.


Appendix B.2.d – Module Level – Rolling Stock

Rolling Stock Operations

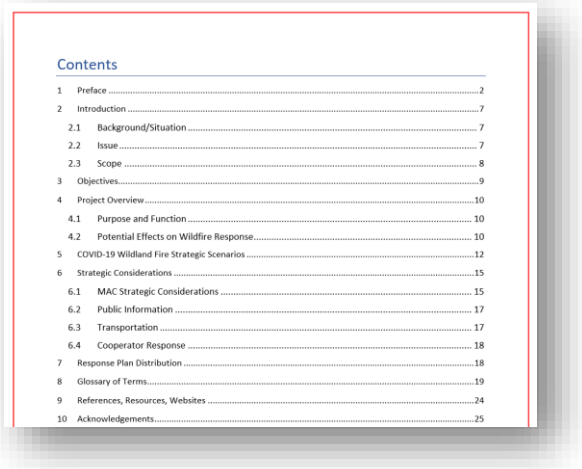
(Prevention & Patrols, Engine, Water Tender, Dozers, Other Heavy Equipment)

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Consider maintaining the same team or module ("Module as One") concept throughout the season.
- Consider minimizing the number of employees ridesharing per vehicle.
- Set vehicle ventilation on non-recirculated mode to maximize air exchanges that reduce potentially infectious particles in the vehicle.
- If the vehicle has rear passenger windows or a rear window, open it to draw air away from the front cab and out of the vehicle.
- Limit driving of vehicles to essential activities.
- Practice COVID-19 Protocols prior to incident response,

Incident Response


Contents

BMPs may not offer the detail that some personnel would like. WFRPs may be supplemented by adding locally developed guidance that includes greater specificity (see NOTE at the end of this Preface). It must be remembered that the COVID-19 pandemic is an evolving situation that has never been encountered before in wildland fire management. Not all the answers are known at the current time and new information and experience will continue to emerge throughout the fire season.

The WFRP was developed by Sexton's Area Command Team 2, in coordination with as many of the appropriate agencies, organizations, and individuals in the Northern Rockies Geographic Area as possible. The Team worked directly with the Geographic Area Coordinating Group Chair, all participating agencies and organizations, dispatch/coordination centers, and various local units. Members of the Northern Rockies Coordinating Group include three local government partners. These partners are the Montana Peace Officers Association, the Montana County Fire Wardens Association, and the Montana Fire Chiefs Association. The contributions of these local government agencies are very important to the overall success of interagency wildfire response in the Northern Rockies Geographic Area. This comprehensive coordination enabled clear communication with all involved participants, fostered improved awareness and understanding of the purpose and intent of the WFRP, reduced possible duplication of effort, ensured a coordinated effort in synchronization with other efforts in the Geographic Area (GA), and promoted support and endorsement at all levels.

NOTE: This plan is intended to provide a higher-level framework of considerations and not specific operational procedures. It is not written in terms of "how to" but instead provides considerations of "what," "why," and "where" with a focus on the "mob to demob" time period. As more information becomes known, the plan should be supplemented by development of more specific operational procedures by agencies and local level units. This continued addition of practical information is strongly encouraged. The Best Management Practices provided in the Appendices are intended to offer information to help reduce the likelihood of COVID-19 spread during wildland fire suppression operations. But, in order for them to be effective they will need to be strictly followed. Because of potential changes from past experiences and practices, local personnel are strongly encouraged to practice, repeat, and understand the information provided in each BMP.

To view Wildland Fire Response Plans from other geographic areas, please visit the NIFC website at: https://www.nifc.gov/fireInfo/covid-19.htm

Record of Changes

The uncertainty associated with the COVID-19 pandemic and the ongoing development of standard protocols and practices, and other changes to existing standards for wildland fire response necessitates that this Wildland Fire Response Plan be a living document and subject to updates as new or more current information emerges. The following **Record of Changes** represents the process to log the dates, source of change, details of the modification, and the date that the modification was added/updated in the plan. This will be the single point source for documentation of WFRP version updates. The first version of this document was published on May 4, 2020, and all subsequent version changes are documented in the table below.

Date	Source	Change	Date Added to WRFP
5/5/2020	**ACT2**	**ACT2 (Sexton) delivered the completed Northern Rockies WFRP to the Coordinating Group Chair.**	**5/5/2020**

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2 INTRODUCTION

2.1 Background/Situation

Coronaviruses are a large family of viruses that cause illnesses ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). Coronaviruses comprise an entire branch of the virus family tree that includes the disease-causing pathogens behind SARS, MERS and several variants of the common cold that infects humans. A new variant of this family has arisen over the last few months and has spread around the world. SARS-CoV-2 is the name of the virus that's spreading; COVID-19 is the disease it causes.

Information regarding current risk and threat of COVID-19 is updated continuously on the Centers for Disease Control and Prevention's (CDC) website.

2.2 Issue

Like other coronaviruses, the SARS-CoV-2 virus infiltrates the airways of its hosts. At worst, these pathogens cause severe forms of viral pneumonia, which in some cases leads to death. The vast majority of COVID-19 cases — about 80 percent — appear to be mild, causing a spate of cold-like symptoms like coughing, shortness of breath, and fever. Many people are suspected of carrying the virus without presenting any symptoms. COVID-19's spread rate suggests the virus is more contagious than any of its predecessors and most strains of the distantly related influenza virus.

According to the World Health Organization, individuals with underlying medical issues including respiratory and heart conditions, as well as smokers, are among those at highest risk. Despite some reports to the contrary, children can be infected, but appear less vulnerable.

The virus is capable of moving directly from person to person through droplets produced by coughs or sneezes that travel through the air to settle directly on skin or frequently touched surfaces, like doorknobs or cell phones. After a person is exposed, symptoms can take weeks to appear, if they do at all. Those who carry the virus without showing signs of illness can still spread the disease.

Projections have been made for significant numbers of individuals in America to become infected with COVID-19. The World Health Organization has declared the widely dispersed geographic spread of COVID-19 a pandemic. The President has declared a national emergency; additionally, all 50 States, the District of Columbia, and all territories have declared states of emergency as well. Current mitigation measures have resulted in business closures, reductions in commercial travel, grocery supply shortages, and restrictions on all types of gatherings even among a moderately small number of individuals.

Wildland fire response is ongoing and increasing in activity. Advance planning is a necessary part of ongoing efforts to prepare for the potential impacts of this pandemic. It will be necessary to ensure that as fire activity increases and demands for firefighters and equipment expand, all steps have been taken to ensure the ability to sustain an effective wildfire response while ensuring the maximum safety of all personnel.

In addition, any exacerbating effects that wildfire smoke may have on COVID-19 are not well known at this time. Although not directly researched or tested, the exposure to wildfire smoke appears to

potentially lead to increased susceptibility to COVID-19, may worsen severity of the infection, and may pose more risks to those who are recovering from serious COVID-19 infection. These concerns are based on research into the respiratory effects of acute and long-term air pollution and specifically respiratory effects of biomass burning smoke and subsequent infection with influenza and other viruses (see Appendix H).

2.3 Scope

The National Area Command Teams (ACT) and one Geographic Area Incident Management Team (IMT) were tasked by the National Multi-Agency Coordinating Group (NMAC) to coordinate with Federal, State, County, and Tribal officials to identify all issues related to the COVID-19 pandemic and wildland fire response in the United States and territories. Their mission entailed direct work with all Geographic Areas (GA) in the US, Geographic Area Coordinating Groups (GACGs), Geographic Area Coordination Centers (GACCs), the National Multi-Agency Coordinating Group (NMAC), and the National Interagency Fire Center (NIFC) External Affairs Staff to develop WFRPs for each of the ten GAs. The teams did not independently prepare the plans but worked in concert with the GAs and all member agencies and organizations to ensure a coordinated plan development. Considerable input came from sources within the GA and this plan would not have been possible without that coordinated effort and comprehensive involvement.

These plans specifically reference and provide direction on maintaining continuity of wildland fire response; sustaining, to the extent possible, the highest degree of resource availability; and ensuring safety and protection of all wildland fire response personnel at all levels in all areas across the country.

Information in this plan is designed to provide considerations that help guide all wildland fire agencies and organizations in maintaining continuity in all aspects of wildland fire response at all levels (National, geographic, and local). Particularly important are areas of initial attack, extended attack, and large fire response, as well as coordination and support functions (dispatch, cache, etc.). This plan outlines potential scenarios that may be encountered at all levels involved directly or indirectly in wildfire response, provides general strategies useful at national levels, delivers general strategies and implementation considerations pertinent to geographic area/regional/state levels, and recommends best practices highly relevant at local levels and various functional areas of wildfire response activities during this pandemic.

This WFRP for the COVID-19 Pandemic for the **Northern Rockies Geographic Area** is a living document and will be managed (continually reviewed and updated as appropriate) by the **Northern Rockies Coordinating Group.**

An important component of planning for COVID-19 wildland fire response that is not included is a “scale-down” strategy. As the pandemic diminishes there will be threshold conditions that allow for adjusting or discarding practices designed to limit exposure and spread of COVID-19. Our current understanding of the pandemic in the United States indicates that we are months away from those threshold conditions. Additional work is needed by experts in epidemiology to help us address the “scale-down” concept.

Although COVID-19 occurrence may currently be negligible (or completely absent) in some counties where wildfire response occurs, it should not be assumed that risk of exposure is negligible and that BMPs can be adjusted or discarded. Our interagency wildfire response is based on a total mobility

concept. Firefighters and support personnel (including caterers, sanitation services, and others) may come from anywhere in the United States. Consequently, our firefighters and support personnel may bring the virus to those areas with low COVID-19 occurrence. The BMPs in this plan are intended to limit spread within wildfire response personnel as well as to and from those communities where wildfire occurs. It is essential that fire managers continue to use BMPs until experts advise that they can be adjusted or discarded.

3 OBJECTIVES

This Wildland Fire Response Plan for the COVID-19 Pandemic for the Northern Rockies Geographic Area was prepared to meet the following objectives:

- Identify issues that relate to the COVID-19 pandemic and wildland fire response. Liaise and identify these issues through coordination with Federal, State, County, and Tribal health officials.
- Develop Wildland Fire Response Plans that address wildland fire response strategies, considerations for implementation actions, and responsibilities of all involved participants from the point of mobilization to demobilization. This information is presented in a format useful for national level management groups, geographic area/regional/state level management groups, and local level operational units and functional staffs involved in response implementation. Specific response capabilities addressed in this plan include:
  - Maintaining continuity in response capability for:
    - initial attack.
    - extended attack/complex fire management.
    - dispatch, support, and coordination.
  - Identification and documentation of procedures to mitigate impacts due to potential exposure to COVID-19 during an incident.
  - Identify, define, and document protocols on how to manage potential COVID-19 exposure incidents for initial and extended attack incidents.
  - Identify, define, and document protocols for Incident Management Teams (IMT) to mitigate COVID-19 exposure concerns and provide to IMTs, and all units.
  - Identify, define, and document protocols for wildland fire response to areas with known exposure to COVID-19.
- Develop Wildland Fire Response Plans without contradicting any current protocols developed by any Agency.
- Ensure that the Wildland Fire Response Plans are developed to promote interagency coordinated response to Wildland Fire Management regarding COVID-19.

4 PROJECT OVERVIEW

4.1 Purpose and Function

Three Area Command Teams and one Incident Management Team were mobilized with responsibility to develop COVID-19 Wildland Fire Response Plans for specific GAs. The respective assignments per team were:

- **ACT 1 Stutler**: Rocky Mountain, Northwest, Alaska.
- **ACT 2 Sexton**: Southern Area, Great Basin, Northern Rockies.
- **ACT 3 Jalbert**: Southwest, Southern/Northern California.
- **Eastern Area T2 IMT Goldman**: Type 2 IMT worked under ACT 2 to develop a COVID-19 WFRP for the Eastern Area.

The four teams developed WFRPs with the goal of coordinating with as many agencies, organizations, and individuals in each GA as practical. They worked directly with each GA's Coordinating Group Chair, various dispatch/coordination centers, and local units. They also worked under the direction and supervision of NMAC, through a Team Coordinator (Joe Reinarz) and maintained frequent contact and communication through multiple daily briefings to NMAC.

All plans were developed using a standardized template and process for national standardization; but development included attention and inclusion of all specific concerns for the GA covered by the plan.

The teams' coordination with GAs during plan development enabled clear communication to all involved participants and vastly improved awareness and understanding of the purpose and intent of the WFRP. It also reduced some, but not all, potential duplication of effort, ensured a coordinated effort, and ensured support and endorsement at all levels.

All four teams worked in this role as a support function, had no control responsibilities, and to the fullest extent possible, did not transfer additional work to any participating GA organizations.

4.2 Potential Effects on Wildland fire Response

The rapid spread rate of COVID-19 indicates how highly contagious it is. Exposure of uninfected individuals to infected individuals triggers a near exponential spread and proliferation of the disease.

Wildland fire incident management norms create an ideal environment for the transmission of infectious diseases: high-density living and working conditions, lack of access to and use of soap and sanitizers, and a transient workforce. These and other environmental and occupational factors (e.g., smoke, heat, plants, insects, fungus, fatigue, and physically demanding work) can increase the likelihood of disease transmission. Often, fire camp situations cause rapid increases in the number of symptomatic fire personnel and suspected cases, resulting in an infectious disease outbreak on an incident. An outbreak is the occurrence of more cases than would normally be expected in a specific place or among a group of people over a given time period.

Working conditions frequently involve smoky conditions and effects that wildfire smoke may have on COVID-19 spread are not well known at this time. This could also potentially increase the occurrence of COVID-19 cases or seriousness and raises additional concerns.

The wildland fire response system is unique in its structure, capability, and function as compared to the first responder system throughout the country. Wildland fire response is initiated at the local level with a finite number of firefighting resources. Should these resources be unable to take care of all needs, additional resources are ordered from neighboring units and ultimately, additional resources can be mobilized from anywhere in the country. What makes this system unique is that no base or location has enough backup local resources to cover responsibilities during high fire activity periods. In the event of substantial personnel absences, even for a scenario of a small to moderate percentage of individuals becoming unavailable due to exposure to COVID-19, additional resources from other units and areas will be necessary. In the event of a high disease spread scenario with a high rate of infection, the associated loss of individuals from service could severely tax the ability to maintain an adequate wildland fire response, even during a moderately active fire season.

These plans were prepared to define strategies to assess risks, develop recommendations for implementation actions, and identify immediate, mid-term, and long-term needs to ensure continuity of wildfire response capability across the country. These plans address exposure prevention, exposure mitigation, equipment and facility maintenance and care, along with strategies for ensuring resource availability.

A letter was sent to the Northern Rockies Geographic Area on March 21, 2020 requesting their assessment of potential impacts from the spread of COVID-19. A summary of their responses to this request is in Appendix E.

5 COVID-19 Wildland Fire Strategic Scenarios

Wildland fire response information and considerations are not presented in a prescriptive format. Since some information is more applicable from a management standpoint and useful by decision makers, strategic considerations for national and geographic area/regional/state considerations are presented in the main body of the plan. Other information more useful and applicable to local level implementers and functional groups who may be on the first line of exposure to the disease is presented in Appendices A and B as best management practices and is suitable for direct adoption and implementation.

Throughout the course of the upcoming fire season, there are potential scenarios that may be encountered by all levels involved directly or indirectly in wildland fire response. These are shown in Figure 1, below. Information for these scenarios is applicable at all response levels and all organizational levels. This information illustrates strategic response considerations and actions employable at national, geographic area/regional/state, and local levels.

Figure 1 shows five possible scenarios that could be encountered during wildfire response in the COVID-19 pandemic. The first is the pre-exposure scenario in which operations are functioning. Exposure in this chart and this plan refers to contact with the coronavirus responsible for COVID-19. Key strategic elements include prevention and containment. Prevention refers to limiting exposure of individuals, while containment means preventing the spread of the disease beyond an individual or a small group of people to the broader community. The second scenario involves exposure with strategic elements of prevention, containment, and quarantine. Quarantine involves separating infected people from those not infected.

The third scenario involves fire response individuals becoming infected. Strategic elements here include prevention, containment, treatment, management, and isolation. Isolation involves separating positive infected people from those who are not infected. The fourth scenario will include recovery with strategic elements of prevention, containment, treatment, and management. The final scenario involves preparation for return to service following recovery from the disease.

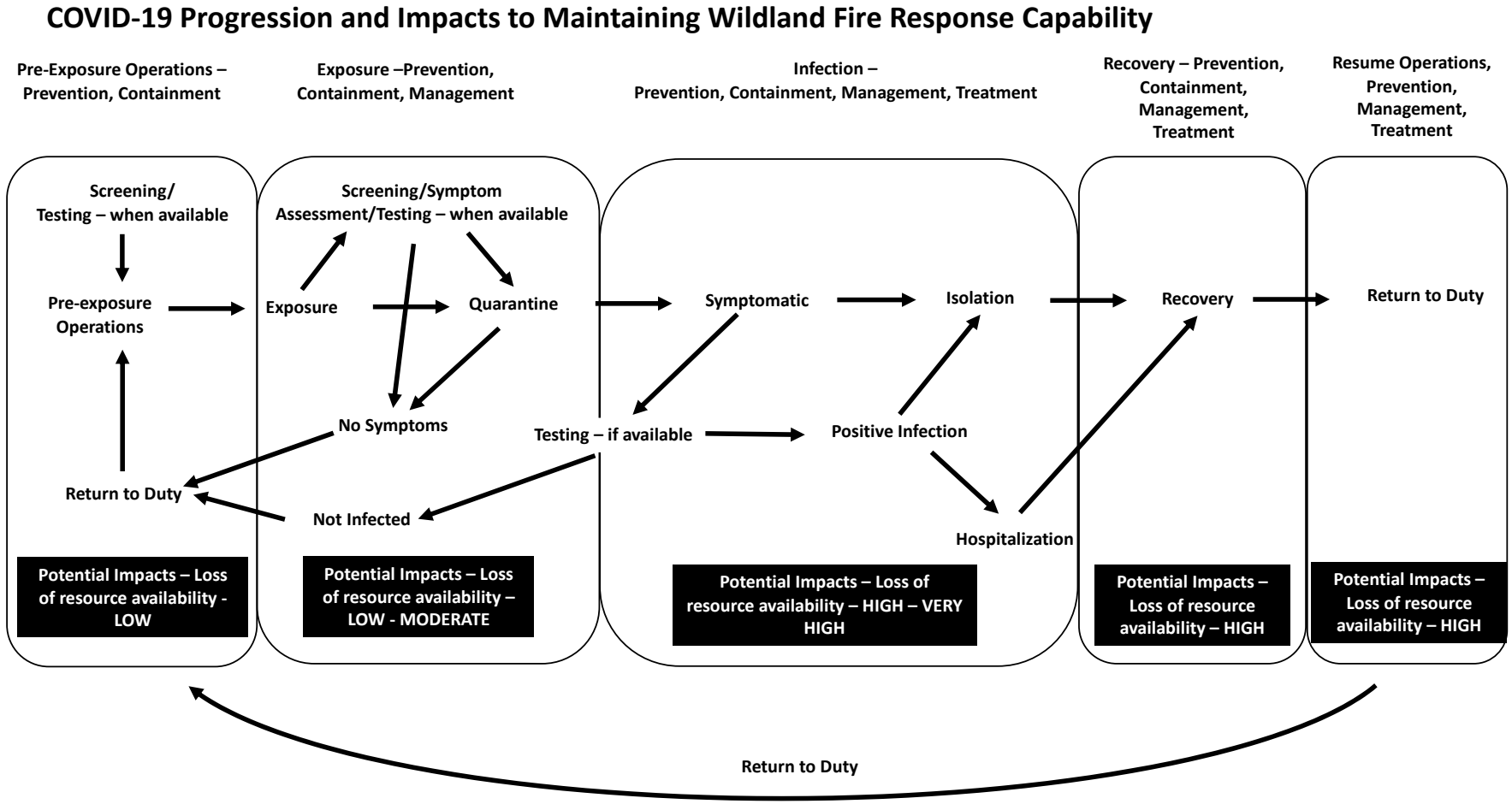

Figure 1*: COVID-19 Wildfire response operations, scenarios that may be encountered, and strategic planning elements for each.*

The following table (Table 1) provides more detailed information regarding strategic issues, immediate needs, prevention/containment actions, and management/treatment actions. This table is by no means the complete authority on strategic responses to this disease but contains considerations useful at management levels. More specific information on these topics that is relevant to local level implementers and functional groups is in Appendix A and Appendix B as Best Management Practices.

Table 1. *Recommended management level issue points for COVID-19 wildfire response including basic strategies, immediate needs, avoidance/containment action considerations, and management/ treatment action considerations.*

Strategies	Immediate Needs	Prevention/Containment	Management/Treatment
• Develop long-term planning to mitigate and respond to COVID-19 spread to prevent the loss of wildland fire response capability, exposure of wildland fire resources to the disease, and potential contamination of initial attack resources by exposed individuals. • Ensure that all personnel are cared for in the safest possible manner and subjected to prevention, containment, management, and treatment as needed. Incorporate social distancing standards into day-to-day operations. • Maintain functioning wildland fire response operations from bases with regular crews. • Identify available commercial laundry businesses for disinfecting/cleaning of Personal Protective Equipment (PPE) and clothing.	• Definition of new protocols/standards for personal hygiene. • Definition of processes for equipment disinfection. • Acquisition of necessary equipment and/or support to disinfect equipment. • Obtain additional handwashing stations as needed. • Contingency planning if not covered by existing COOP's, o Designation of 1st, 2nd and 3rd alternate bases. o Designation of 1st, 2nd, and 3rd alternate staffing units. • Obtain Level B or Splash Protective Suits for use in disinfecting equipment as needed. • Determination of availability and acquisition of disease testing kits. • Determination of proper responsibility for testing exposed personnel. • Determination of process and appropriate products to use for cleaning/disinfection of equipment with special reference to hand tools, vehicles, aircraft, computers, radios, pumps and chain saws, etc. • Determination of protocols for isolation and removal from active duty and locations.	• Close operating base to the public and all non-essential personnel. • Provide recommended social distancing guidelines. • Practice enhanced personal hygiene. • Screen all personnel when entering base area, before starting work – check temperature, check for overall feeling, check for coughing, and other symptoms. • Configure and set up testing capability for firefighters at local unit or local health facilities, when it becomes available. • Prioritize firefighters for testing and vaccination. • Isolate firefighters as much as possible. • Disinfect equipment on a regular basis. • Launder PPE on a regular basis. • Develop a plan for prioritizing fires for response, especially if COVID-19 spread is high and fire season activity is high. • Plan for shifts in wildfire response strategy, ranging from highly prioritized IA to reducing overall firefighter exposure by prioritizing responses.	• Determination of protocols for sending exposed individual home or to medical facilities. • Determination of quarantine protocols in conjunction with local, county, and State officials. • Determine quarantine oversight responsibility. • Determination of protocols to determine when individuals are available to return to active duty. • Provide incident laundry unit if available, if not use commercial services.

6 STRATEGIC CONSIDERATIONS

Specific recommended management considerations for fire managers at the national, geographic area, and sub-geographic area are provided in this section. This information is also applicable to agency units and local levels although some of it will not have the same utility for all participating agencies and organizations. More specific practices and protocols may be developed and implemented at local levels. Strategic considerations of importance include, but are not limited the following points:

6.1 Strategic Considerations

Fire Personnel Readiness

Consider:

- Practicing BMPs applicable to your potential assignments through simulations.
- Managing qualifications and training by adding flexibility/waivers, conducting training on-line or via other remote methods, and including training on COVID-19.
- Expanding prevention activities: expanding public information campaigns and closures and pursuing virtual opportunities.
- Pre-identifying potential control locations for ease of containment.
- Expanding use of emerging technology: leveraging remote operations, briefings, remote sensing and surveillance.
- Rapidly contracting and focusing on specific needs: exploring opportunities for greater use of MREs, medical equipment, PPE, and remote sensing.
- Increasing and maintaining response capacity:
  - Include the use of agency, non-fire personnel.
- Providing employee support for emotional well-being.
- Enhancing situational awareness - building tracking systems for situational awareness of firefighter exposure and infections.
- Practicing social/physical distancing.
- Enhancing personal hygiene.
- Ensuring personnel have more than one set of PPE, making laundering possible on a regular basis.
- Monitoring personnel for symptoms.
- Testing personnel when tests become available and in accordance with Appendix C.
- Strictly adhering to BMPs listed in Appendix B.

Modifying Strategies, Tactics, and Logistics.

Consider:

- Strategy and Tactics
  - Adapting existing wildland fire response plans to include all additional response options provided for in land and resource management plans.
  - Evaluating the full range of available tactics and carefully determining the assignment of types and numbers of firefighting resources, especially for fires that occur in high-risk areas.
  - Exploring opportunities for more indirect attack, focused use of heavy equipment, and designation of management action points using natural barriers.
  - Planning for the potential for increased smoke loads to communities and planning and implementing early warning/communication for likely events.

- Utilizing suppression strategies that will minimize the number of assigned personnel and reduce incident duration.
- Implementing swift initial response to reduce the possibility of large fire occurrence, while not exercising higher-risk tactics to keep fires small.
- Within agency protocols and to the degree possible, augmenting fire-response resources with non-fire staff to help sustain fire-response capability.
- Pursuing opportunities for application of aviation and mechanized assets to reduce assigned personnel.
- Using a prioritization process to assure the effective use of resources.
    - Initial attack remains the highest priority, including the use of aviation assets.
    - Extended attack/complex fire management:
        - Using a prioritization processes for assigning resources to large fires.
    - Emphasizing containment strategies and evaluating magnitude and duration of mop-up to help minimize duration of assignment and potential exposure time.
- Expanding use of Decision Support Centers in all GACCs.
- Utilizing Predictive Services and professional judgement to balance assigned resources and incident duration.
- Using experienced smoke personnel or Air Resource Advisors (ARA) to assess where wildfire smoke may go and impacts of smoke on firefighters and communities with COVID-19.
- Evaluating wildfire smoke level projections and trajectories during development of tactical operations.
- Preparing and implementing remote incident management appropriate for the situation by IMT's - GA's consider conducting simulated virtual IMT incident management prior to most active fire season periods.
    - Identify and obtain necessary technology.
    - Designate IMT sections/personnel that can complete work virtually and what minimum requirements are for managing incidents safely.
- Closely evaluating large fire response to ensure best practices for prioritization are used, especially where life is imminently threatened.
- Evaluating the need for additional catering/showers/washing stations.
- Expanding medical support.
- Separating "Module as One" in camps.
- Closed camps with security; no leaving camp to travel into communities.

- More vehicles may be needed for crew transports, to support the "Module as One" concept.
- Having personnel carry extra PPE.
- Following recommended guidelines for disinfecting fire equipment on a regular basis.
- Following agency-specific policies and protocols regarding use of shared housing

Drawdown Projections and Contingency Opportunities:

Consider:

- Recommending that local units prepare contingency plans for resource drawdown during fire seasons.
    - Evaluating how existing staffing and management will be affected by a 10, 30, or 50% reduction in resource availability.

    - Identifying options available for maintaining continuity in resource levels during drawdown periods.
    - If resource numbers decrease due to COVID-19, consider base closing and/or consolidation.
- NMAC and GMAC considering addressing availability issues as resources are assigned to wildfires or are unavailable due to COVID-19.
- Determining opportunities to obtain international assistance:
    - Identifying sources of additional resources.
    - Identifying potential types and numbers of resources needed at escalating preparedness levels.
    - Pursuing early use of and consultation with Australian fire managers involved in 2019-2020 Australian fire season to draw on recent experiences in working with limited and declining resource numbers.
    - Pursuing early contact with Canadian fire managers to prepare for potential assistance and to coordinate mutual support efforts.
- Pre-planning any international agreements, waivers, funding, and other administrative requirements and have them complete by start of active fire seasons

Leveraging Best Available Information Management and Technology:
Consider:

- Communication:
    - Expanding use of technology and local networks for remote/virtual community meetings and updates.
    - Expanding and focusing communications by developing a COVID-19 communications tool kit and strategies for two-way virtual communications with communities.
- Technology:
    - Preparing for more remote operations, briefings, sensing, and surveillance.
    - Identifying technology needs, costs, and proactively implementing actions.
    - Pursuing increased use of Unmanned Aircraft Systems (UAS) (seek waivers).
    - Identifying and using the best technology to reach affected communities.
    - Expediting contracting for UAS equipment.

6.2 Public Information

Consider national and geographic direction on Information releases regarding COVID-19 -specific issues at wildland fire incidents managed by IMTs (type 1-3). All releases must be consistent and follow the Delegation of Authority the team is working under. Local unit(s) who delegated the incident to the team has approval authority for all releases of information. Local unit Public Affairs offices will maintain close contact with Northern Rockies Area, National, and Department Office directives and be able to guide Public Information Officers (PIO) on what can/cannot be released.

Many rural communities are not well served by information dissemination via internet and social media. Agencies have traditionally relied on in-person community meetings and staffed information boards to allow personal dialogue in these impacted communities. This plan foresees that in many instances, these tools would not be available to PIOs in areas impacted by COVID-19. These communities should be identified and be briefed in advance of fire season to manage expectations and explore alternatives.

The Fire Information BMP in Appendix B provides new and existing information dissemination methods to implement social distancing. Host units should evaluate and update contact lists and e-traplines in

advance and provide to team PIOs within in-briefing packages. That BMP also provides detailed information regarding the Best Practices for the Information function.

6.3 Transportation

General items related to transportation are shown below:

- Use protocols given by CDC to prevent the spread and to reduce the possibility of catching COVID-19 to the extent possible, as related to each specific mode of travel.
- FAA has specific COVID-19 Interim direction issued for all aircraft operators.
- Chief of party should keep passenger information in the event of an exposure while enroute.
- Check personnel for symptoms prior to boarding/travel as part of the manifest check.
- Ensure that the aircraft has been sanitized as recommended by CDC/FAA.
- Ensure latest agency protocols for contract carriers are followed.
- Drivers should consult their agency fleet manager for agency-specific policy on cleaning and disinfecting vehicles. Ground support will have guidelines for team operations.
- Ensure vehicles have been cleaned and sanitized following agency, GSA and CDC standards.
- Ensure vehicles have been cleaned and sanitized prior to rental. Follow appropriate agency, CDC and GSA protocols for daily cleaning of vehicles.
- Establish contact with each Governor's Fire Chief representative for understanding of restrictions and closures.

6.4 Cooperator Response

- Determine opportunities for use of military resources.
  - Identify how military resources can be used and augment existing firefighting resources.
  - Identify accelerated training capabilities to advance readiness earlier in fire season.
- Consider all opportunities for staffing MAC functions remotely.
- Consider the most efficient ways to manage multiple large fire situations (i.e., oversight, span of control, numbers and types of incident organization).
- Consider MAC level management of work-rest for national resources in short supply.
- Work with cooperators, partners, and stakeholders to review existing Agreements and associated Operating Plans to identify any areas where preseason agreements and decisions are affected by the current COVID-19 changed conditions. Ensure any identified limitations are well known and communicated to all levels of fire personnel including field level responders.

7 Response Plan Distribution

The Northern Rockies Geographic Area will distribute this plan to agency cooperators and will maintain and update this plan as conditions warrant.

8 GLOSSARY OF TERMS

Active monitoring: Refers to when the state or local public health authority assumes responsibility for establishing regular communication with potentially exposed people to assess for the presence of fever, cough, or difficulty breathing. For people with high-risk exposures, CDC recommends this communication occur at least once each day. The mode of communication can be determined by the state or local public health authority and may include telephone calls or any electronic or internet-based means of communication.

Afebrile: Not feverish.

Asymptomatic: Not showing any signs of having the disease.

Close contact: being within approximately 6 feet (2 meters) of a COVID-19 case for a prolonged period; close contact can occur while caring for, living with, visiting, or sharing a healthcare waiting area or room with a COVID-19 case or having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed upon).

Cluster: An aggregation of disease cases grouped in place and time that are suspected to be greater than the number expected, even though the expected number may not be known.

Conditional release: A set of legally enforceable conditions under which a person may be released from more stringent public health movement restrictions, such as quarantine in a secure facility. These conditions may include public health supervision through in-person visits by a health official or designee, telephone, or any electronic or internet-based means of communication as determined by the CDC Director or state or local health authority. A conditional release order may also place limits on travel or require restriction of a person's movement outside their home.

Confirmed COVID-19 infection: positive determination of COVID-19 infection from a laboratory test. Also referred to as a Positive COVID-19 infection.

Congregate settings: Crowded public places where close contact with others may occur, such as shopping centers, movie theaters, stadiums.

Containment: A public health strategy in which officials aim to prevent the spread of an infectious disease beyond a small group of people to the broader community. Containment actions include restricting travel from affected regions, identifying infected people and tracking down everyone they live with or have spent time with (contact tracing), and asking those who have been exposed to the virus to stay at home for a period of time.

Controlled travel: Exclusion from long-distance commercial conveyances (e.g., aircraft, ship, train, bus). For people subject to active monitoring, any long-distance travel should be coordinated with public health authorities to ensure uninterrupted monitoring. Air travel is not allowed by commercial flight but may occur via approved noncommercial air transport. CDC may use public health orders or federal public health travel restrictions to enforce controlled travel. CDC also has the authority to issue travel permits to define the conditions of interstate travel within the United States for people under certain public health orders or if other conditions are met.

Coronavirus: A family of viruses that cause illness ranging from the common cold to more severe diseases, such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory

Syndrome (SARS-CoV). The novel coronavirus recently discovered has been named SARS-CoV-2 and it causes COVID-19. Source: WHO

COVID-19: The name of the disease caused by the novel coronavirus, SARS-CoV-2. "CO" stands for "corona," "VI" for "virus," and "D" for disease. Formerly, this disease was referred to as "2019 novel coronavirus" or "2019-nCoV."

COVID-19 PPE: PPE consisting of latex or rubber gloves, face mask, eye protection (goggles/face shield used during general cleaning/disinfection. For personnel displaying symptoms, back off, isolate, and call trained EMS personnel for assistance (fire department/ambulance service).

Drive through testing: Individuals remain in their vehicles, and medical staff in protective gear come to administer the swab test and the swabs are sent to a laboratory for testing.

e-ISuite: A software program used to manage incident resources. The e-ISuite system is a web browser (e.g. Internet Explorer) enabled application for use at the Incident Command Post (ICP) and in agency offices to manage emergency incidents and planned events. No software licenses are required to use e-ISuite. A web browser is all each user will need to run the application. The e-ISuite Enterprise System is hosted on the USFS Fire and Aviation Management National Enterprise Support System (NESS) General Support System (GSS) at the National Information Technology Center (NITC), Kansas City, MO and will support all incidents at an enterprise level.

Endemic: The constant presence and/or usual prevalence of a disease or infectious agent in a population within a geographic area.

Epidemic: An increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area. Source: CDC.

Essential Activities: Tasks essential to main health and safety, such as obtaining medicine or seeing a doctor. The CDC provides further guidance on the following:

- Shopping for food and other household essentials.
- Accepting deliveries and takeout orders.
- Banking.
- Getting gasoline.
- Going to the doctor or getting medicine.
- Essential businesses are defined differently within different States, refer to local guidelines for more information.

Exposure: Contact with someone infected with the coronavirus responsible for COVID-19, without wearing PPE recommended by the CDC.

Flattening the curve: Slowing a virus' spread to reduce the peak number of cases and related demands on hospitals and infrastructure (Source: CDC).

General purpose face mask: A loose-fitting, disposable device that creates a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment. Face masks do not seal tightly to the wearer's face, do not require fit testing, but do provide the wearer with a reliable level of protection from inhaling smaller airborne particles (not suitable for close contact with a known or suspected COVID-19 infection).

Home isolation: Persons with COVID-19 who have symptoms or laboratory-confirmed COVID-19 who have been directed to stay at home until they are recovered. (Source: CDC)

Incident Resource Ordering Capability (IROC): The Incident Resource Ordering Capability is a dynamic modern, flexible and scalable application that aligns with interagency business needs for resource ordering for all hazard incidents. IROC is web-based and supports both PCs and mobile devices. Note: IROC recently replaced ROSS (Resource Ordering and Status System).

Incident Within an Incident (IWI): any accident, injury, or medical emergency during an incident directly affecting Incident Management Team personnel and assigned resources. An IWI may also be a situation involving civilians not associated with the incident but occur in or near the wildland fire or all-hazard event that responding or assigned agency personnel assist with. Protocols for IWI should be predetermined and understood by all incident managers.

Incubation period: The length of time between when an infection begins and when there are apparent signs of the disease. Most information sources give the coronavirus an incubation period of 2-14 days with symptoms most commonly showing at about 5 days after infection (World Health Organization).

Isolation: Separating sick people with a contagious disease from those who are not sick. Source: CDC.

Mitigation: Slowing the spread - taking measures to cause the rate of increase of the number of cases to be slowed to low levels.

"Module as One": The consideration of a module of firefighters as a single individual for purposes of potential COVID-19 exposure and transmission. Modules may range from 2-10 individual firefighters. A "Module as One" rides together in the same vehicle and consequently cannot practice social distancing during vehicle transport. A "Module as One" works together in relatively close proximity while conducting fire assignment duties. Fire managers, IMTs and fireline supervisors should consider all module members exposed if one of the module members has been exposed. During a mobilization (i.e., departure from until return to home unit) a module must remain intact (i.e., no replacements to or from the module).

N95 Respirators: An N95 respirator is a **respiratory protective device** designed to achieve a very close facial fit and very efficient filtration of airborne particles. The 'N95' designation means that when subjected to careful testing, the respirator blocks at least 95 percent of very small (0.3 micron) test particles. If properly fitted, the filtration capabilities of N95 respirators exceed those of face masks. At this time, the Centers for Disease Control and Prevention (CDC) does not recommend that the general public wear N95 respirators to protect themselves from respiratory diseases, including coronavirus (COVID-19). Those are critical supplies that must continue to be reserved for health care workers and other medical first responders, as recommended by current CDC guidance. N95s may be used for other workers to provide protection from other hazards if deemed necessary. Note all workers who wear respirators to protect themselves from workplace hazards must comply with the OSHA respirator standard.

Outbreak: Carries the same definition of epidemic but is often used for a more limited geographic area.

PACE: primary, alternate, contingency and emergency plan.

Pandemic: An epidemic that has spread over several countries/continents, usually affecting a large number of people. Source: CDC

Personal protective equipment (PPE): standard clothing and equipment used to protect fire personnel from workplace hazards. COVID-19 PPE is expanded to include items like face coverings to protect against SARS-CoV-2 infection. Cloth face coverings are recommended for all fire personnel to reduce the spread of the virus from resources who may have the virus and are asymptomatic. Disposable face or surgical masks should be worn by personnel with known or suspected COVID-19 to contain secretions during interaction with other personnel or during transport. N95 filtering facepiece respirators are critical supplies that must continue to be reserved for healthcare workers and other medical first responders. Additional information on PPE for patients and healthcare providers is available from CDC.

Physical distancing: also called social distancing - measures taken to keep physical space between one or more individuals outside of homes, businesses, and other buildings with a goal to stop or slow the spread of a contagious disease. Measures can include:

- not gathering in groups and staying out of crowded places and avoiding mass gatherings.
- working from home.
- closing offices and schools.
- canceling events.
- avoiding public transportation,
- staying at least 6 feet (2 meters) from other people.

Positive COVID-19 infection: positive determination of COVID-19 infection from a laboratory test. Also referred to as a Confirmed COVID-19 infection.

Positive screening: Defined in this plan as a person with indications of illness based on Wildland Fire COVID-19 Screening procedures (Appendix C).

Public health orders: Legally enforceable directives issued under the authority of a relevant federal, state, or local entity that, when applied to a person or group, may place restrictions on the activities undertaken by that person or group, potentially including movement restrictions or a requirement for monitoring by a public health authority, for the purposes of protecting the public's health. Federal, state, or local public health orders may be issued to enforce isolation, quarantine or conditional release. COVID-19 meets the definition for "severe acute respiratory syndromes" as set forth in Executive Order 13295, as amended by Executive Order 13375 and 13674, and, therefore, is a federally quarantinable communicable disease.

Quarantine: In contrast to isolation, quarantine applies to people who have been exposed and may become infected but are not yet infected. In these cases, the people exposed (or potentially exposed) are separated and have restricted movement imposed. Quarantine can be voluntary or mandated. Source: CDC

SARS-CoV-2: The name of the novel coronavirus that causes COVID-19 disease. Source: WHO

Self-monitoring: People monitoring themselves for fever by taking their temperatures twice a day and remaining alert for cough or difficulty breathing. If they feel feverish or develop measured fever, cough, or difficulty breathing during the self-monitoring period, they should self-isolate, limit contact with others, and seek advice by telephone from a healthcare provider or their local health department to determine whether medical evaluation is needed.

Self-observation: Refers to people remaining alert for subjective fever, cough, or difficulty breathing. If they feel feverish or develop cough or difficulty breathing during the self-observation period, they

should take their temperature, self-isolate, limit contact with others, and seek advice by telephone from a healthcare provider or their local health department to determine whether medical evaluation is needed.

Self-quarantine: Staying home and away from other people as much as possible after exposure through voluntary separation through voluntary separation.

Shelter in place: All residents must remain at their place of residence, except to conduct essential activities, essential businesses, and essential government functions.

Social distancing: also called physical distancing - measures taken to keep physical space between one or more individuals outside of homes, businesses, and other buildings with a goal to stop or slow the spread of a contagious disease. Measures can include:

- not gathering in groups and staying out of crowded places and avoiding mass gatherings.
- working from home.
- closing offices and schools.
- canceling events.
- avoiding public transportation,
- staying at least 6 feet (2 meters) from other people.

Spike Camp: a secondary or temporary camp away from the main camp, that can be indoors or outdoors.

Suppression: Where the rate of increase of the number of cases has been slowed to low levels and is maintained for a period of time, potentially up to 18 months.

Symptom: A sign or indication that someone has a disease.

Symptomatic: Showing signs of the disease like fever, cough, and shortness of breath.

UAS: an unmanned aircraft system; consists of an unmanned aircraft, its mission payloads, launch and recovery equipment, ground control station, and control and data links.

Vaccine: A biological preparation that provides active acquired immunity to a particular disease.

9 REFERENCES, RESOURCES, WEBSITES

During the emergence of the COVID-19 pandemic, the sharing of related information was prolific; and since that time, information of all types has continued to emerge and will continue to emerge far after completion of the first version of this WFRP. An abundance of reference material with useful information was available during the development of the WFRPs, and new information and reference materials are continually being produced and shared.

Numerous references, resources, and official websites have been the principal sources of information used in the development of this plan. Due to the substantial amount of material that was reviewed, the information has been electronically stored in an online repository within the FireNet system rather than citing all materials in this WFRP and lengthening this document needlessly.

The online WFRP COVID-19 repository within FireNet consists of a master list of all references, resources, and websites – all cataloged and organized by subject matter in an Excel workbook. The workbook has several color-coded tabs, and each of those tabs are specific to a topic of information: *Aviation; Cache; Dispatch; Fire Response; Information; Liaisons; Logistics; Medical Response; Plans; Quarantine; Transportation; Virtual Ops;* and *Other.*

The first two yellow tabs in the workbook, *"**By Document Name**"* and *"**Web References**,"* are the indexed list of all documents or website references contained in the repository, organized alphabetically.

It is recommended that users of the cataloged repository review the information in the **READ_ME** tab of the workbook. This will assist users in efficiently locating the information of most interest.

This repository, located within FireNet, is public-facing and will be retained for as long as wildland fire response is impacted by the COVID-19 pandemic.

To visit the WFRP *"COVID-19 References_Resources_Websites"* repository within FireNet please click the link below; depending on your browser, you may have to copy/paste the entire URL into your browser address bar:

COVID-19 References_Resources_Websites

Or, copy and paste the following URL into your browser address bar:

https://firenet365.sharepoint.com/:x:/s/2020_COVID-19_GeographicArea_WRP168/EfygkzSDAHJOmTGw7eh2wxkB-_VTb-4H0PD7TkjVX20fLA?e=481kAa

10 ACKNOWLEDGEMENTS

The Northern Rockies Geographic Area and the National Multi-Agency Coordinating Group would like to express their appreciation to Sexton's ACT 2 for their rapid mobilization and adaptation of processes to develop this Wildland Fire Response Plan. To achieve the objectives as described in the Delegation of Authority, Area Commander Sexton and his staff were challenged with a significant task to coordinate among all cooperators, develop a strategic plan for a topic that has not been encountered before and for which no experience exists, and to complete this in a relatively short time completely under a virtual working environment.

All Area Command Teams and the Eastern Area IMT, in close cooperation with the assigned GAs, worked collaboratively in a lateral team-to-team fashion to develop Plans that were consistent, applicable at all levels, and captured the best-known information and protocols at the time of publishing.

Area Command Team 2 would like to acknowledge the time and efforts of the members of the NRCG and their colleagues for providing input, feedback, agency and area specific information, and review of the WFRP. Without this support and active engagement, this plan would not be as complete a product and would not provide the necessary information and value throughout the GA that is needed. We would specifically like to acknowledge the Northern Rockies COVID-19 Wildfire Response Task Group led by Craig Goodell. This group provided outstanding assistance in facilitating contacts, informing us of Geographic Area issues and unique practices.

The following members of the Area Command Team 2 assisted with the development of this Plan:

AREA COMMAND POSITION	NAME
ACDR	Tim Sexton
ACDR	Jim Loach
ACDR (t)	Rick Young
ACLC	Ron Coats
ACLC	Tim Murphy
ACLC (t)	Sue Zahn
ACPC	Mike Lohrey
ACPC	Nick Giannettino
ACPC (t)	Bob Gear
ACPC (t)	Lorri Benefield
RESL	Marla Wertz
LOFR	Kathy Murphy
LOFR(t)	Frank Guzman
Analytics	Karin Riley
Analytics	Karen Short
SITL	Alan Uchida
FBAN	Mark Hale
ACAC	Mike Dudley
ACAC (t)	Mike Kerrigan
Aviation Support	Robert Kuhn
ITSS	Ernie Ortiz
ITSS	Kevin Hoffman

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Appendix A – All Fire Personnel Best Practices

General Information

- Follow the most current direction from the Centers for Disease Control and Prevention (CDC) and local health authority, which currently includes the following: Some personnel (e.g., emergency first responders) fill essential (critical) infrastructure roles within communities. Based on the needs of individual jurisdictions, and at the discretion of state or local health authorities, these personnel may be permitted to continue work following potential exposure to COVID-19 (either travel-associated or from close contact to a confirmed case), provided they remain asymptomatic. Personnel who are permitted to work following an exposure should self-monitor under the supervision of their employer's occupational health program including taking their temperature before each work shift to ensure they remain afebrile. On days these individuals are scheduled to work, the employer's occupational health program could consider measuring temperature and assessing symptoms prior to their starting work.
- Ryan White HIV/AIDS Treatment Extensions Act (2009) has been expanded to include COVID-19. The Act (Part G) provides emergency response employees (EREs) with notification (normally a violation of HIPAA regulations) when they are at risk of exposure to potentially life-threatening infectious diseases through contact with victims during emergencies. This information allows EREs the opportunity to seek timely medical care and to make informed decisions about addressing potential health issues arising from their exposures. Health/medical personnel may be unaware of this provision and reluctant to provide information due to HIPAA regulations.
- We now know from recent studies that a significant portion of individuals with coronavirus lack symptoms ("asymptomatic") and that even those who eventually develop symptoms ("pre-symptomatic") can transmit the virus to others before showing symptoms. CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain (e.g., grocery stores and pharmacies), especially in areas of significant community-based transmission.
- Although not directly researched or tested, the exposure to wildfire smoke may potentially increase susceptibility to COVID-19, may worsen severity of the infection, and may pose a risk to those who are recovering from serious COVID-19 infection. These concerns are based on research into the respiratory effects of acute and long-term air pollution and specifically respiratory effects of biomass burning smoke and subsequent infection with influenza and other viruses.

Best Practices

- Social/physical distancing
  - Avoid physical contact with co-workers and the public; maintain a 6' spacing.
  - Consider appropriate mitigation measures or PPE (plastic shields, face masks) for personnel that have greater potential for close contact with incoming responders.
  - Assign vehicles to firefighters and avoid cross-over of employees and belongings.
  - Discourage shared use of phones, radios, office supplies and pens, or other work tools and equipment.
  - Conduct group meetings virtually with available video-, tele-conferencing, and file sharing applications or limit groups to numbers in compliance with state and local health authority direction (some states are limited to smaller groups).
  - Limit access to facilities for all non-fire personnel.
  - Require personnel to keep a log of close contacts and submit to supervisors daily. Close contact is defined as being within approximately 6 feet of an individual for a prolonged

period or having direct contact with potentially infections secretions from an individual (e.g., being coughed or sneezed on).
- Wear a face mask, bandana, or other suitable cloth covering when social distancing is compromised (e.g., in vehicles, briefings).

➢ Face coverings
- As of April 3, 2020, CDC has updated its recommendation on the use of cloth face coverings to help slow the spread of COVID-19.
- Voluntary use of cloth face coverings is now recommended for use in public settings where other social distancing is difficult to maintain, especially in areas of significant community-based transmission.
- Face coverings should be maintained in a sanitary manner (i.e., laundered without damage or change to shape) and should not be distracting or offensive to others.
- Face coverings should fit snugly but comfortably against the side of the face; be secured with ties or ear loops, include multiple layers of fabric; allow for breathing without restriction; and be able to be laundered and machine dried without damage or change to shape.

➢ Personal hygiene
- Wash hands frequently for at least 20 seconds, with soap, after coughing or sneezing, when hands are visibly dirty, or after touching common surfaces (doorknobs, desktops, etc.).
- Provide handwashing stations near frequently entered facilities.
- Consider the number of dedicated wash stations and/or portable restrooms needed to support each bullet above.
- Use hand sanitizer when getting in and out of vehicles and after fueling.
- Do not touch eyes, nose, mouth with gloved or unwashed hands.
- Cover nose and mouth (e.g., use crook of the elbow) when coughing or sneezing. If using a tissue, immediately dispose the tissue and wash or sanitize hands.

➢ PPE laundry – regular basis
- Ensure clothing/PPE is kept clean and replaced when suspected contamination occurs.
- On assignment, change PPE as often as practical (dependent on availability, laundry service, etc.).
- Wipe down all non-laundered apparel (shoes, wristwatches, jewelry, etc.) with disinfectant.

➢ Workplace/equipment cleaning procedures
- Develop routine daily cleaning procedures for places of work and rest, vehicles, and other equipment. Consult CDC guidance for everyday cleaning/disinfection.
- Use disinfectants on the list of EPA approved cleaning supplies for COVID-19 prevention.
- Follow label instructions and use PPE (e.g., gloves, eye protection) appropriate for the disinfectant being used.
- Designate a trained employee to oversee daily cleaning procedures.
- Ventilate vehicles during and after transport.
- Disinfect all “high-touch” surfaces in rooms and on equipment. In vehicles, these may include keys, door handles, steering wheel, gear shifter, radio and temperature controls, seatbelts, window controls, seats, and dashboard.

- If surfaces are noticeably dirty, clean soiled surfaces with detergent or soap and water before disinfecting them.
- Follow CDC and local protocols to mitigate contact with bodily fluids, including the cleaning or disposal of PPE and equipment.
- Use disposable paper towels with appropriate cleaning solutions, or wipes, for cleaning; towels/wipes – not sprays – are recommended to avoid aerosolizing germs on contact.
- Thoroughly wet surfaces with cleaning solution and air dry; do not actively dry surfaces.
- Wash hands thoroughly after cleaning equipment, surfaces, etc.

➢ Travel/transportation
- Minimize contact with non-fire personnel and time in public areas while travelling.
- When using public transportation such as commercial aviation, use proper PPE to minimize exposure.
- Follow guidelines for cleaning/disinfecting surfaces when staying in motels/hotels.
- Stay in your hotel room to the extent possible and wipe down high touch areas.
- Consider eating in your hotel room, utilizing take out or delivery. Maintain social distancing when eating while on the road.
- Follow guidelines for cleaning/disinfecting vehicles.
- Disinfect nozzles and keypads before fueling vehicles.
- Consider use of rental RVs that can also be used for office space.
- Have a three-day supply of water and MREs for each person if driving.
- Maintain a manifest if travelling with others.
- Expect fewer restroom facilities as you travel to an incident. Some states have closed visitor centers while others remain open. Many food service businesses are now drive thru only. Most vehicle service stations are open.
- When using public facilities, be reminded that there is nothing to indicate the health of those there before you.

➢ Work under the "Module as One" concept
- Minimize exposure by not mixing personnel (e.g., same personnel assigned together for the entire season, on same schedule, to same vehicle, on same assignments, in same camp).
- Use the Module as One concept when assigning vehicles to firefighters and during transit to and from incidents.

➢ Other steps to reduce personal risk
- Eat smaller, more frequent meals that include fruits and vegetables to maintain blood sugar and support the immune system.
- Consume appropriate calories to support activity levels and regular body function.
- Stay hydrated; drink water at regular intervals throughout the day.
- Avoid stimulants near bedtime.
- Provide a sleep environment that promotes sleep quality (i.e., comfort, cool temperatures, clean air, and low noise).

➢ Symptom monitoring/COVID-19 screening
- **Emergency warning signs** for COVID-19 include trouble breathing, persistent pain or pressure in the chest, confusion, and/or bluish lips or face. If these or other symptoms that

are severe or concerning present, **get medical attention immediately**. If possible, put on a cloth face covering before medical help is administered.

- General symptoms include fever (100.4° F or greater), cough, and/or shortness of breath, but may also include fatigue, chills, aches, sore throat, or loss of taste and/or smell, or otherwise unexplained gastrointestinal issues.
- As a follow-up to showing symptoms, assess qualitative exposure to wildfire smoke, duration and relative (H/M/L) smoke level. Continue follow-up for cases resulting in hospitalization.
- Monitor the temperature of all personnel and watch for symptoms (fever is the most commonly presented). Ensure touchless infrared thermometers are available for use.
- Implement *Wildland Fire COVID-19 Screening* (Appendix C) when entering on duty at the home unit or arrival at the incident.
- If screening yields a positive result (positive screening), those Individuals should be removed from work and tested as soon as possible. If testing shows positive, those individuals should be released from the assignment until they meet the return to work criteria as described by CDC. Refer to the following sections on Testing and Positive Infection for further details.
- Individuals who test negative were probably not infected at the time the sample was collected and can return to work, although a negative test result does not rule out getting sick at a later date.
- If an individual who is part of an established module screens positive, the entire module should be tested as soon as possible. The same process for removal or return to work applies for the module for negative or positive results.
- Prior to release and return to home, positive screenings should be isolated in a separate location. This may require separate, dedicated and staffed areas/facilities to ensure that individuals with potential COVID-19 infection do not comingle with other fire personnel.
- Next steps, including testing, should be coordinated with unit leadership, the medical unit and/or local health authority.
- Use appropriate PPE and social distancing protocols when entering the environment or in the presence of symptomatic personnel or positive screenings.
- The NFES 1660 – *Individual Infectious Barrier Kit* or NFES 1675 – *Multi-Person Infectious Disease Barrier Kit* (as needed) should be used by workers engaged in screening, workers helping to manage sick and/or asymptomatic personnel with recent COVID-19 interaction, and workers helping to sanitize infected areas, or any areas suspected of infection. Training and/or education for workers on donning, doffing, and disposal of such PPE is recommended.
- Develop a contact plan that includes a medical evaluation (e.g., COVID-19 testing) for symptomatic/positive-screening off-duty personnel.
- Provide any quarantined individual with a home thermometer, check in daily by phone to monitor symptoms, help with any logistical needs such as groceries, and give encouragement.
- Monitor employees for symptoms for a 14-day period following a suspected COVID-19 contact or exposure. Follow up with suspected exposure source. Have individuals tested and, if negative, allow personnel that had close contact to return to duty.

➢ Testing

- Use approved and recommended testing procedures and guidelines.
- If testing is available, test personnel

- Who are symptomatic.
- Who have been in close contact with someone who is suspected of having COVID-19 or has tested positive.

- Positive infection (test result)
  - Isolate and evacuate to a pre-determined site or hospitalize (as conditions warrant).
  - Require appropriate PPE for all interaction with infected individuals. Except in the case of specially trained medical/decontamination personnel, employee contact with known infection should be limited to only absolutely necessary instances.
  - Transport of infected individuals should be via qualified EMS personnel or fire personnel in full PPE recommended for protection from COVID-19 by federal, state, and local health authorities.
  - Notify immediate supervisor of the situation.
  - Review contact log and follow-up appropriately (i.e., contact tracing).
  - Review wildfire smoke exposure leading up to symptoms.
  - Follow local agency and cooperator guidelines for notification procedures.
  - Consider using a text alert system to notify personnel who have had possible contact with an infected person.
  - Disinfect equipment, including vehicles, used by infected individuals. Recognize that proper PPE use for COVID-19 decontamination requires training by an experienced instructor.
  - Options for contaminated facilities include (1) close affected facility for 7 days to allow any virus to attenuate naturally, (2) use a qualified contractor to clean facility, (3) use a pre-identified, specially trained team of local agency personnel to decontaminate the facility.

- Recovery
  - Follow CDC, local health authority, or attending physician guidelines for recovery.
  - Maintain regular phone contact with recovering individuals.
  - Return to service following recovery, but do not assume a recovered individual is immune to the virus.
  - Returning-to-service employees will continue to follow all guidelines.

- Contingency planning
  - Determine and monitor availability of COVID-19 testing kits.
  - Determine and communicate state and local guidelines for testing personnel.
  - Determine and acquire a supply of approved products for use in decontamination/sanitation of equipment. CDC

Appendix B – Best Management Practices – Outline

1. Coordinating Group
    a. Mobilization Operations (GACC/ Dispatch)
    b. Cache Operations
    c. Cooperator Response
2. Module Level
    a. All Fixed-Wing Aviation
    b. All Rotor-Wing Aviation
    c. Airbase/Helibase Operations
    d. Rolling Stock Operations
    e. Crew Operations
3. Initial Attack Operations
4. Extended Attack/Complex Incident
    a. Operations
    b. Logistics Section
        1. Ground Support
        2. Medical
        3. Supply
        4. Food Unit
        5. Communications/IT
        6. Facilities
        7. Security
    c. Planning Section
    d. Finance Section
    e. Fire Information
    f. Safety
    g. Liaison
    h. Incident Commander
5. Management Practices
    a. Agency Administrator
    b. Fire Management

Mobilization Operations

(GACC/Dispatch)

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring etc.
- Implement COVID-19 Screening daily (Appendix C).
- Keep informed of current local information and local trends of COVID-19 cases.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Reduce exposure by conducting as much work as technology allows remotely. See Appendix F, Remote Operations.
- Be aware of response areas that are hotspots for COVID-19.
- Consider mobilizing resources using ("Module as One") concept to limit exposure potential.
- Ensure neighboring dispatch centers have access to computer programs for back up dispatchers in need of support.
- Consider Interagency Resource Representatives who are knowledgeable of COVID-19 protocols.
- Develop contingency plans to address a shortage of dispatchers.
- Have a pool of backup dispatchers/support personnel in case of shortages.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention, and local health authorities. Implement local unit exposure response plan(s).
- Implement contingency plans (COOP) if GACCs/dispatch center must be temporarily closed.
- Refer to Appendix A and follow guidelines regarding "positive screening".

Back to Appendix B Outline

Updated: (5/3/2020)

Cache Operations

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring etc.
- Implement COVID-19 Screening daily (Appendix C).
- Keep informed and know where to find current local information on COVID-19 and local trends of COVID-19 cases.
- Ensure all personnel know and implement COVID-19 protocols.
- Practice COVID-19 protocols prior to incident response.
- Arrange for additional space to be used for storing and disinfection of returned items separately from the main cache.
- Ensure detailed personnel are aware of receiving cache COVID-19 protocols.
- Consider stocking the cache with increased amounts of hand sanitizer, disinfectant wipes, etc.

Incident Response

- Use electronic devices for filling orders, tracking orders and receiving supplies.
- Use minimum personnel staffing levels to limit exposure.
- Implement supply delivery and receiving protocols to reduce face-to-face encounters where possible. Use direct-drop shipping model whenever possible.
- Use approved PPE (N95 masks, disposable gloves, eye protection, sanitizers) while handling all backhaul.
- Maintain adequate amounts of extra supplies for anticipated IMT orders (MREs, NFES 1660 – *Individual Infectious Barrier Kit*, NFES 1675 – *Multi-Person Infectious Disease Barrier Kit*, and sanitation items, etc.).
- Consider ALL returned cache items as being exposed and contaminated.
- Ensure personnel follow protocols established for cleaning and disinfection of returned supplies and equipment.
- Quarantine all backhaul supplies and equipment in a separate secure area ensuring there is no cross- contamination. Maintain the quarantine for 5 days to allow any virus to attenuate. Reference NEJM.org letter of 4/16/2020. Aerosol and Surface Stability of SARS.
- Have a pool of backup personnel in case of shortages. Extra consideration should be given to personnel with special licenses such as CDL truck drivers and forklift operators.
- Maintain a record of actions taken for information-sharing and lessons learned.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive screening”.

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Updated: (5/3/2020)

Cooperator Response

(Contractor/International Support/Military Support)

COVID-19 adds a significant layer of complexity that directly affects all cooperators' ability to respond to wildfires. Impacts include, but are not limited to travel restrictions between states, canceled gatherings for training and strategic planning meetings, fewer personnel available to respond, shelter in place orders, and other factors. These factors require fire managers and programs at all levels to consider innovative ways to respond to wildland fires while also protecting firefighters from being exposed to or inadvertently spreading COVID-19. Suggested best practices for more tactical aspects of wildfire response are available in other appendices. While by no means comprehensive, this document is intended as a tool to support wildland fire response during the ongoing COVID-19 Pandemic. As the situation evolves and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A), social distancing, personal hygiene, workplace cleaning, symptom monitoring etc.
- Consider using the COVID-19 Screening daily (Appendix C).
- Reduce exposure by conducting as much work virtually (briefings/meetings/gatherings) as technology allows.
- Practice COVID-19 protocols prior to Incident Response.

Incident Response

- Cooperators, contractors, military (including National Guard), and international resources should understand the respective jurisdictional agency's COVID-19 wildfire response protocols.
- If commuting back and forth from home bases is essential, cooperators should continue to use COVID-19 mitigation measures.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening".

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Updated: (5/3/2020)

All Fixed-Wing Aviation

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Utilize video conferencing, texting, messaging, radio or loudspeaker, etc. for briefings and meetings. See Appendix F, Remote Operations.
- Limit who enters the aircraft to essential and maintenance personnel.
- Limit sharing of headsets, helmets, knee boards, gloves, flight suits, tools, etc.
- Ensure the aircraft has been disinfected as recommended by FAA/CDC/GSA/OEM as applicable. Any mitigating measures that may change the contract specifications will require contracting officer coordination.
- After each flight the pilot or the contractor's personnel should follow FAA/CDC/GSA/OEM guidance as applicable to disinfect the aircraft interior including handles, interior seating, seat harnesses and the cockpit. Recognize that State and Federal Agencies could differ in contract requirements.
- After maintenance/fueling, disinfect the aircraft per FAA/CDC/GSA/OEM guidance as applicable.
- Work closely with the GACC to return (when possible) tactical (SMKJ, LEAD, ATGSs, ATs, etc.) and flight support crews to their assigned home base at the end of shift to reduce human contacts and travel induced exposure for flight and maintenance crews.
- When appropriate, have crews respond from their hotel/isolated crew location if the response time meets fire management's need.
- Use call-backs during periods of low activity.
- Consider increasing the use of UAS to mitigate the exposure risk to aviation personnel when it is appropriate and available.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Use electronic forms rather than paper for the dispatching of aircraft.
- Where appropriate work with minimum crew staffing levels to limit exposure (Smokejumper operations should continue to maximize IA capacity).
- If support staffing allows, utilize multiple bases during high activity, even though other bases may be farther from the incident.

- Maintain situational awareness of firefighters being transported and working on the fireline and report any indications of personnel with symptoms following local or team protocols.
- Work closely with the Dispatch Offices to return (when possible) pilots and flight crews to the same base every night, preferably home, to eliminate travel induced exposure for flight and maintenance crews, when possible.
- Consider early establishment of a Geographical Area ATGS/Fixed-Wing and Airspace Coordinator positions within the NRCG Operations/NRCC organization.

Exposure Response

- If the aircraft becomes contaminated do not use until it is properly disinfected per FAA/CDC/GSA/OEM guidance as applicable.
- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening".
- Separate aircraft and personnel away from active operations and other personnel.
- Notify the Controlling Aircraft or dispatch of the status change.
- Contact maintenance inspector after disinfection of the aircraft has been completed.
- Contact Contracting Officer/Agency for further guidance.

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Updated: (5/2/2020)

All Rotor-Wing Operations

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Utilize video conferencing, texting, messaging, radio or loudspeaker, etc. for briefings and meetings.
- Limit who enters the aircraft to essential and maintenance personnel.
- On large fire where appropriate work with minimum crew staffing levels to limit exposure (Helitack operations from their assigned base should continue to maximize IA capacity).
- Consider putting helicopters into limited status, and 2:1 management when possible.
- Consider one-hour call backs during periods of low activity.
- Evaluate allowing vendors to stage at their home base with a 24-48-hour call back. This may vary between agencies.
- With approval of the Contracting Officer, consider reimbursing vendors for transporting relief pilots and crews by vehicle and or light aircraft versus commercial airlines. Agencies/State contract regulations may vary.
- Consider increasing the use of UAS to mitigate the exposure risk to aviation personnel when it is appropriate and available.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Use electronic forms rather than paper for the dispatching of aircraft.
- Consider early establishment of a Geographical Area ATGS/Fixed-Wing and Airspace Coordinator positions within the NRCG Operations/NRCC organization.
- Maintain situational awareness of firefighters being transported and working on the fireline and report any indications of personnel with symptoms following local or team protocols.
- Pilot and mechanic should disinfect the interior and exterior of the aircraft between missions per FAA/CDC/GSA/OEM guidance.
- Consider establishing multiple helibases at the incident to separate crews to limit the potential spread of the virus when staffing allows.
- Limit sharing of equipment such as headsets, helmet, knee boards, gloves, flight suits and tools.

- Due to the limited number and critical need for T-3 short haul mission qualified helicopters, consider using other aircraft for general passenger transport or recon to prevent exposure.

Exposure Response

- If the aircraft becomes contaminated do not use until it is properly disinfected per FAA/CDC/GSA/OEM guidance as applicable.
- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan.
- Refer to Appendix A and follow guidelines regarding "positive screening"
- Separate aircraft and personnel away from active operations and other personnel.
- Notify the Controlling Aircraft or dispatch of the status change.
- Contact maintenance inspector and/or follow agency direction after decontamination of the aircraft has been completed.
- Contact Contracting Officer/Agency for further guidance.

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Updated: (5/2/2020)

Airbase/Helibase Operations

The following guidelines were developed based on the advice of health and safety authorities in March/April of 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Use video conferencing, texting, messaging, radio or loudspeaker, etc. for briefings and meetings (Appendix F).
- Airbases should identify the number of resources that can be staged at existing facilities to maintain social distancing and separation.
- Consider alternate locations on the airfield or adjacent airports to stage aircraft and crews, and types of mission, if necessary, to maintain social distancing.
- Due to the dynamic situation of the COVID-19 pandemic, airbase operations at times may not meet policy requirements. In these cases, prior to the deviation, it will be reported to supervisors who in conjunction with aviation managers will analyze the risk and determine if the operation should continue.
- Limit who enters the aircraft/airbase to essential and maintenance personnel.
- Work with minimum crew staffing levels to limit exposure.
- Follow FAA/CDC/GSA/OEM disinfection guidance after each flight or after maintenance/fueling operations.
- Consider contracting a block of rooms or apartments for the season for agency and contractor flight crews to use. Sanitize the rooms prior to and after each use.
- Work closely with the Dispatch Office and the GACC to return (when possible) SMKJ, ATGSs, ATs, LEADs and flight crews to the same base every night to eliminate travel induced exposure, when possible.
- Consider using one-hour call back to reduce the number of personnel at the airbase.
- During periods of high use, consider options such as double crewing on aircraft and call up additional CWN service.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Use electronic forms rather than paper for the dispatching of aircraft.
- Consider the use of multiple bases, even though some may be farther from the incident, in order to limit the amount of personnel at each airbase.
- Maintain situational awareness of firefighters being transported and working on the fireline and report any indications of personnel with symptoms following local or team protocols.
- When possible assign retardant loaders to individual pits with proper PPE for the shift duration to limit hose and nozzle contacts.
- Communicate with other bases and dispatch to ensure positive coordination (airspace, closest forces concepts, radio frequencies, supervision assigned, etc.) as multiple aircraft from different bases and agencies may be present during initial attack.
- Due to the limited number and critical need for T-3 short haul mission qualified helicopters, consider using other aircraft for general passenger transport or recon to prevent exposure.
- Work closely with Dispatch Offices to return (when possible) pilots and flight crews to the same base every night, preferably home, to eliminate travel-induced exposure for flight and maintenance crews, when possible.

Exposure Response

- If the aircraft becomes contaminated do not use until it is properly disinfected per FAA/CDC/GSA/OEM guidance as applicable.
- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan.
- Refer to Appendix A and follow guidelines regarding “positive screening”.
- Separate aircraft and personnel away from active operations and other personnel.
- Notify the Controlling Aircraft or dispatch of the status change.
- Contact maintenance inspector and/or follow agency direction after decontamination of the aircraft has been completed.
- Contact Contracting Officer/Agency for further guidance.

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Updated: (5/2/2020)

Rolling Stock Operations

(Prevention/Patrols, Engines, Water Tenders, Dozers, Other Heavy Equipment)

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Consider maintaining the same team or module ("Module as One") concept throughout the season.
- Consider minimizing the number of employees ridesharing per vehicle when occupants are not part of a "Module as One".
- Set vehicle ventilation on non-recirculated mode to maximize air exchanges that reduce potentially infectious particles in the vehicle.
- If the vehicle has rear passenger windows or a rear window, open it to draw air away from the front cab and out of the vehicle.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- If you operate a vehicle or other mechanized equipment, clean and disinfect all the surfaces you touch before and after you use it, following established cleaning protocols.
  - Follow the Centers for Disease Control and Prevention's guidance on cleaning of EMS/Law Enforcement vehicles.
  - Use disinfectants that appear on the EPA registered list of disinfectants for use against COVID-19.
- Be self-sufficient during mobilization and demobilization to and from incidents (food, hydration, and lodging) to avoid general population exposure.
- Use protective measures at fueling stops, rest areas, and other necessary business areas.
- Maintain separation from other resources in briefing areas, sleeping areas, food service, supply, staging and other areas of typical congregation.
- Maintain reasonable personal hygiene throughout the operational period (recognizing that the firefighting environment is inherently dusty and dirty).
- Ensure fire personnel have more than one set of PPE (fireline and face masks) making laundering possible on a regular basis.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening".
- When a vehicle has been exposed to COVID-19, follow established protocols for disinfection: Centers for Disease Control and Prevention guidance on cleaning of EMS/Law Enforcement vehicles.

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Updated: (5/3/2020)

Crew Operations

(IHC, T2IA, T2, WFM)

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Consider internet-based or radio meetings and briefings for groups of 10 or more. See Appendix F, Remote Operations.
- Be prepared to be self-sufficient for several days including at a potential remote/spike camp location.
- Minimize group physical training (PT) activities unless they honor social distancing. PT should be outdoors when possible: run, hike, and bike.
- When possible, maintain crew modules as an individual unit ("Module as One"). Evaluate or consider COVID-19 protocols for backfill or temporary assignment of nonstandard personnel to the crew.
- Manage access of non-crew personnel to facilities, vehicles and equipment.
- Frequently (daily or after each use) clean all equipment and vehicles to reduce possible virus contamination (see Appendix A).
- Establish laundry protocols appropriate with the work environment that allows for cleaning of uniforms and PPE as often as possible.
- Practice COVID-19 protocols prior to Incident Response.

Incident Response

- Implement COVID-19 Screening daily (Appendix C) prior to mobilization and at the beginning and end of every shift.
- Consider driving to incidents to accommodate increased inventory needs (self-sufficiency for 3 days, additional clothing, etc.)
- Be self-sufficient during mobilization and demobilization to and from incidents (food, hydration, and lodging) to avoid general population exposure.
- Use protective measures at fueling stops, rest areas, and other necessary business areas.
- Minimize crew personnel involved in check-in.
- Maintain separation from other resources in briefing areas, sleeping areas, food service, supply, staging and other areas of typical congregation.

- Consider ordering additional cache items (e.g. MREs, PPE, sanitation supplies) to maintain self-sufficiency.
- During tactical operations, maintain social distancing between resources as much as possible.
- Maintain social distancing within crew during suppression operations.
- Avoid sharing tools, water, radios, etc.
- Rely on electronic communication in place of face-to-face, when possible.
- Maintain reasonable personal hygiene throughout the operational period (recognizing that the firefighting environment is inherently dusty and dirty).
- Allow time for washing and cleaning of tools and equipment at the end of shift.
- Expect changes in how business is conducted, time frames and methods will be different.
- Exercise patience and maintain vigilance on the health of crew members (see Appendix A).
- Consider the "Module as One" approach limiting a module to groups of 10 or less.
- Ensure fire personnel have more than one set of PPE (fireline and face masks) making laundering possible on a regular basis.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening".

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Updated: (5/3/2020)

Initial Attack Operations

The following mitigation guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidelines included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Include COVID-19 mitigation in briefings and safety messages.
- Consider maintaining the same team or module "Module as One" concept throughout the season.
- Conduct virtual briefings using radios, computer tablets, or other means of avoiding close face-to-face communications.
- Consider virtual briefings to maintain social distancing. (Remote Operations, Appendix F).
- Practice COVID-19 protocols prior to Incident Response.

Incident Response

- Consider video/virtual briefings and maintain social distancing (Remote Operations, Appendix F).
- Consider limiting briefings to key overhead positions; include COVID-19 measures in all briefings and AARs.
- Consider limiting on-scene personnel through judicious use of heavy equipment and aircraft.
- Consider limiting the number of personnel on scene by developing and prioritizing tactical missions based on Values at Risk, COVID-19 risk to responders, and other fire-scene hazards to which responders may be exposed i.e. snags, rocks, extreme fire behavior etc.
- Fireline supervisors will monitor assigned personnel using the COVID-19 Screening (Appendix C) at the beginning and end of shift.
- Consider the use of suppression modules of 10 or fewer personnel.
- When evaluating mop-up standards, consider reducing close interpersonal contact and smoke exposure.
- Consider measures to limit congregation of resources.
- Be vigilant against transfer of risk as an unintended consequence of mitigating virus spread.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening."

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Updated: (5/3/2020)

Operations

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Practice COVID-19 protocols prior to Incident Response.
- Identify opportunities for incident personnel to work remotely. Consider simulations testing remote activities. Possibly engage IMTs, AAs, cooperators and partners to test and evaluate virtual technologies, processes and systems to be proficient remotely, including video teleconferencing and other virtual meetings technologies and briefings. See Appendix F, Remote Operations.
- Be prepared to be self-sufficient for several days including at a potential remote/spike camp location.

Incident Response

- Consider limiting the number of personnel on scene by developing and prioritizing tactical missions based on Values at Risk, COVID-19 risk to responders, and other fire-scene hazards to which responders may be exposed i.e. snags, rocks, extreme fire behavior etc.
- Utilize fewest resources necessary to accomplish mission to minimize exposure to COVID-19.
- Maintain social distancing of suppression modules on the fireline and during off shift periods. Consider staggering resource shifts to avoid congestion points.
- Consider the ability to operate more than two shifts to reduce exposure and increase rest hours (using the same number of personnel).
    - An example, consider a three-shift configuration to reduce the numbers at briefings, meals and shift change while providing more rest. These shifts could be 12-14 hours duration with staggered start/end times (e.g., 0500-1900, 0700-2100, and 0900-2300).
- Factor in time for resources to accomplish COVID-19 mitigations during operational and off shift periods when developing plans.
- Reduce exposure by conducting as much work (briefings/meetings/gatherings) as technology allows remotely (Microsoft Teams, Zoom, phone, radio communication, etc.).
- Consider using computer tablets and other suitable devices to gather and disseminate 201, 215, IAP, etc. to brief incoming resources.

- Maintain contingency plans that will be implemented in the event of remote technology failure.
- Consider restricting Operational Briefings to supervisory fireline personnel or those in direct support, maintaining social distancing.
- Implement COVID-19 Screening daily. (Appendix C).
- Ensure COVID-19 Prevention and Screening Protocols are provided in the IAP and the COVID-19 hazard is evaluated in the 215-R.
- Establish Command and Control communication protocols using methods consistent with COVID-19 mitigation measures.
- Consider available reconnaissance technology (UAS, satellite, MMA) to reduce personnel numbers and close quarters environments such as helicopter cabins.
- Be vigilant against transfer of risk as an unintended consequence of mitigating virus spread.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive screening”.

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Updated: (5/3/2020)

Logistics Section Chief

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- When evaluating all ICPs, staging areas, spike camp locations and facilities, refer to the guidelines in Appendix A. Ensure your logistics staff understands these guidelines.
- Encourage local units to discuss potential feeding, lodging and laundry needs with local businesses prior to wildfire season.
- Practice COVID-19 protocols prior to Incident Response.

Incident Response

- If motel lodging is to be used for travel to and during assignment, contact receiving unit to ensure that local motels/restaurants are open and willing to provide service to fire personnel.
- Consider assigning one person to a room except for “Module as One” personnel.
- If using restaurants for feeding, consider ordering take out rather than dining in.
- Consider remote work for as many functions as possible. Consider using alternate options of communication such as radio, video, etc. for briefings and other meetings. See Appendix F.
- Work with Command and General Staff on considerations for a closed camp to reduce likelihood of COVID-19 transmission to or from local community and firefighters.
- Implement social distancing for workstations, sleeping, briefing, feeding, medical, etc. for group/unit separation.
- Consider configuring work areas and supply sites so that they are easy to clean.
- Consider minimizing the number of individuals in ICP’s and base camps by using spike camps.
- Recognize that additional portable toilets, hand wash stations, trash collection equipment, and shower units may be needed to accommodate modified or dispersed camp footprints.
- Provide sanitation facilities in the field when possible.
- Consider the impacts on the Logistics Section if more staging areas are used.
- Recognize additional medical units may be necessary and should be identified and separated from each other and arranged in the more remote areas of camp.
- Ensure cleaning and sanitizing schedules at end of each shift are implemented for all facilities.
- Train personnel in procedures for supply handling and disposal.
- When face-to-face briefings and other gatherings are imperative, limit attendance to 10 or less and ensure social distancing is practiced.
- Consider alternate work schedules that reduce the number of on-duty personnel.

- Check with local unit to discuss potential availability of feeding, lodging and laundry services with local businesses.
- When considering hotel/motel lodging:
    - For motel lodging, ensure that adequate COVID-19 CDC prevention measures are in place and inquire whether any infected individuals have been guests of the property within the past 7 days.
    - Ensure that motel cleaning products used meet CDC standards, (most common EPA registered household disinfectants should be effective). CDC advises that after 7 days, additional cleaning and disinfecting for COVID-19 visited sites is not necessary.
- Use incident laundry unit or commercial laundry service to clean fireline PPE/uniforms and clothes as often as possible.
- Stagger demobilization of equipment and personnel to limit personal interaction.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening".
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.
- If motel was used before, during or after assignment, notify motel if any fire personnel on the assignment became ill from COVID-19, including dates of lodging and room number.

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Updated: (5/3/2020)

Ground Support Unit

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Practice COVID-19 protocols prior to Incident Response.

Incident Response

- Refer to the Centers for Disease Control and Prevention guidance on cleaning of EMS/Law Enforcement vehicles.
- Consider the need for additional vehicles for support of dispersed crews/modules, e.g. food delivery, trash backhaul, supply/tool delivery, etc.
- Consider alternate working shifts to reduce the number of simultaneously on-duty personnel as a means of limiting potential COVID-19 transmission.
- Ensure workspaces adhere to social distancing recommendations.
- Set up separate tent/gathering areas for assigned drivers and ensure adherence to social distancing recommendations.
- Set up mechanic inspection areas that provide adequate room for vehicles and mechanics to follow social distancing recommendations.
- Schedule vehicle inspections to limit the number of personnel demobing at one time.
- Consider drop points for possible meal or supply delivery where only crew or division representative is allowed to pick up.
- If mobile repairs are needed on the line, maintain social distancing from any fireline personnel.
- Increase ventilation in all vehicles by operating the system in non-circulating mode.
- Have clearly marked drop points and road signs.
- With a focus on social distancing, develop transportation plans that avoid congestion, limit contact with other personnel, and provide multiple parking areas.
- Ensure work areas are disinfected at the end of each shift.
- Document and maintain the daily vehicle assignment and itinerary in the event of COVID-19 contamination.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive infection.”
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.

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Updated: (5/3/2020)

Medical Unit

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Responders should expect different agency, team and health department protocols as they accept assignments. The protocols from health officials can be expected to change as new information becomes available regarding COVID-19. Develop team protocols as directed by agency and federal HIPAA requirements for those who have been exposed or have COVID-19. The areas of concern are protection of personnel from COVID-19, reducing the spread of the virus, and taking care of those who have been exposed to or have contracted the virus. Be aware that there may be personnel who have the virus but show no symptoms.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Assist with development of team protocols for personnel who have been exposed to the COVID-19 virus.
- Medical unit personnel (EMTs) assigned should expect to be isolated from other team personnel, ICP, and base camp.
- Incidents should have a contingency plan for Medical Unit staffing. Medical Unit Leaders (MEDL) are expected to be in high demand and may not be available for incident assignments.
- Have contingency plans in case local medical support (e.g. hospitals and ambulances) is unavailable.
- Practice COVID-19 protocols prior to Incident Response.

Incident Response

- Upon deployment, the MEDL should contact the State Emergency Medical Services office for contact information for state and county health departments to determine requirements and protocols for procedures, including COVID-19 PPE. Phone numbers are supplied under the Resource tab in the following link: Contact Info
- Contact local hospitals and EMS services for their medical support capabilities along with their COVID-19 protocols.
- Consider establishing multiple separate camp medical stations. Examples could be:
  - Station utilized for the typical illness/injuries associated with incident related work assignments.
  - Station for possible COVID-19 patient.

- There should be an EMT assigned to each medical station, however, anticipate a possible shortage of EMTs.
- Identify alternative methods other than face-to-face, including a physical barrier (e.g. Plexiglas, plastic) to do the initial COVID-19 screening in base camp. Medical Unit personnel should be familiar with COVID-19 diagnostic criteria.
- Work with incident facilities to determine if each medical site could have separate sanitation facilities, (i.e. toilet, no touch handwash stations and trash receptacles).
- Medical stations should be well signed and located to reduce accidental contact.
- Consider including pulse oximeters and infrared or touch type thermometers. (Infrared would be preferred because no contact is required.) Be aware that it is anticipated that shortages will continue, and hospitals will be the priority for supplies.
- Clothing worn by Medical Unit personnel should be laundered daily. All disposable PPE should be disposed of properly.
- Distribution of N95 masks should prioritize Medical unit staff.
- Medical unit staff should arrive self-sufficient with COVID-19 PPE and equipment for the first 5 shifts due to potential supply shortages.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening".
- Transport of infected individuals should be via qualified EMS personnel or fire personnel in full COVID-19 PPE recommended for protection from COVID-19 by appropriate health authorities.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.
- Useful websites:
    - CDC recommendations for prevention and control of patients with suspected or confirmed coronavirus disease: CDC.
    - NWCG guidance for Wildland Fire Incidents: NWCG.

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Updated: (5/3/2020)

Supply Unit

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Ensure an adequate quantity of COVID-19 PPE and sanitation/hygiene supplies are available including hand sanitizer, disinfectant wipes etc.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Consider scheduling shifts that can overlap for continued support of incidents and possibly reduce the number of personnel working the same shifts.
- Limit the number of personnel at receiving and distribution sites.
- Identify supply delivery protocols; use radio/phone/computer for ordering to reduce face-to-face encounters.
- Consider expanding the supply site footprint to ensure social distancing and exposing inventory to open air/sunlight.
- Ensure restock orders of items with longer lead times are completed before supply is exhausted.
- Adjust minimum stocking/reorder trigger points to accommodate for backorder and longer lead time delivery of critical items.
- Develop return cache protocols for cleaning, sanitizing, and re-issue, respective to each cache especially items of clothing.
- Consider maintaining adequate amounts of extra supplies for anticipated IMT orders (MREs, NFES 1660 – *Individual Infectious Barrier Kit*, NFES 1675 – *Multi-Person Infectious Disease Barrier Kit*, etc.).
- Identify supply and materials delivery protocols to reduce handling and face-to-face interaction.
- Ensure the handling of used fireline PPE has all mitigation in place to prevent spread.
- Ensure drivers, forklift operators and materials handlers implement recommended sanitizing practices for vehicles and equipment.
- Identify state and local closures/restrictions and their impacts on camp support.
- Consider ALL returned cache items as being exposed to COVID-19. Follow protocols on handling equipment suspected of being contaminated.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive screening”.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.

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Updated: (5/3/2020)

Food Unit

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring etc.
- Implement COVID-19 Screening daily (Appendix C).
- Ensure food service contractor, caterers and vendors are implementing COVID-19 practices and following health department standards and guidelines.
- Increase capacity of self-sufficiency by using fresh foods, bag lunches, and/or MRE's.
- Identify local businesses that are available to provide meals. Encourage take-out from restaurants that are not mobile in nature to avoid conflict with national catering contract.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- If restaurants are to be used during the assignment, determine which local restaurants are open and willing to provide service to fire personnel.
- Consideration should be given for delivery system(s) to provide meals that depart from the conventional serving line. Consider "box" or "bagged" meals.
- Identify methods of meal pickup that enable social distancing.
- Discontinue use of salad bars and other unpackaged self-service food pickup in camps.
- Increase sanitation efforts around catering units.
- Ensure there are alternate methods available for delivering drinking water in case of bottled water shortages.
- Consider using self-contained feeding protocols similar to fire use modules; self-sufficient, independent.
- Consider more spike/satellite camps to limit personnel numbers at ICP/Base Camp.
- Consider designating areas outside of ICP for fire line personnel food and supply drop off, ensuring limited personnel are involved in pickup and delivery and social distancing is maintained.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening".
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.

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Updated: (5/3/2020)

Communications/IT Section

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Communications and Information Technology (IT) are key components to operations on an incident. In some cases, incident duties can be done remotely but, in many cases, personnel are required on-site. Communication Technicians and Information Technology Specialists are required to distribute communications and IT equipment to incident personnel and maintaining, installing and repairing equipment. Potential for close interactions with incident personnel is inherent with these positions.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring etc.
- Implement COVID-19 Screening daily (Appendix C).
- Communications Unit Leaders (COML) and IT Specialist should develop plans for effective use of communications and IT equipment, including evaluating positions and tasks that can be done remotely.
- Develop standards for cleaning radio kits, repeaters, IT hardware and storage labeling. Include best practices information with kits for care, use and return.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Comm tech (COMT) should have proper PPE and follow sanitizing protocols for day-to-day incident work, such as radio cloning and repair.
- Communications Unit Leaders (COML) and IT Specialist should develop plans for effective use of communications and IT equipment, including evaluating positions and tasks that can be done remotely. See Appendix F, Remote Operations.
- Consider cloning one radio for a crew and have crew or resource clone the remainder of their radios. Use gloves. Provide information with directions and tips or tricks for programming.
- Consider modes of travel when selecting equipment (e.g. repeater, phone equipment) locations to minimize potential for exposure.
- Set up pick up and drop stations for supplies and waste; consider exposing supplies to open air/sunlight to limit virus exposure and spread when possible.
- Expand communication/IT footprint to ensure social distancing in facilities or other structures.
- Consider having RADOs work from remote off-site locations.

- Web-based accounts (e.g., Teams, Box) can be set up for the base camp and used as a repository for each team to transfer data without use of equipment that would need to be handed off from person to person.
- Document cleaning of devices during an incident and prior to demob. For radio repair/replacement, control access to one person at a time.
- All returned equipment should be treated as if it has been exposed to COVID-19. Equipment should be cleaned as prescribed in an approved Communications/IT plan. Personnel will wear required COVID-19 PPE to handle and clean equipment to be returned to service.
- Develop feedback loops to evaluate and improve BMPs.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening."
- When equipment has been identified as used by personnel with COVID-19 follow prescribed handling and sanitation techniques to secure equipment. Consider holding equipment out of service for a prescribed amount of time to reduce virus survival on equipment or follow prescribed sanitation methods before returning to service.

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Updated: (5/3/2020)

Facilities Unit

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Safety Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring etc.
- Implement COVID-19 Screening daily (Appendix C).
- Consider the guidelines in Appendix A when evaluating all ICP, staging areas and spike camp locations and facilities.
- Encourage local units to discuss potential lodging and laundry needs with local businesses prior to wildfire response.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Consider remote work for as many functions as possible. (Appendix F, Remote Operations).
- Work with MEDL to determine if additional medical units should be identified and separated from each other and arranged in more remote areas of camp.
- Increase frequency of cleaning and disinfecting schedules.
- Consider cleaning and pumping portable toilets on a more frequent schedule
- Proper training in procedures as well as supply handling and disposal should be done for all personnel involved. Proper COVID-19 PPE for specific assignment should be supplied and required to be used.
- When face-to-face briefings and other gatherings are imperative, limit attendance to 10 or less and maintain social distancing.
- Consider configuring workstations and supply sites to allow ease of cleaning while adhering to social distancing recommendations.
- Keep in mind, additional portable toilets, hand wash stations, trash collection equipment, and shower units may be needed to accommodate modified or dispersed camp footprints.
- Provide sanitation facilities in the field when possible.
- Consider alternate work shifts for camp crews that allow for incident support and can possibly reduce the number of on-duty personnel.
- If motels are to be used during assignment, contact receiving unit to inquire about which local motels are open and willing to provide service to fire personnel.
- For motel lodging, ensure that adequate COVID-19 CDC prevention measures are in place and inquire whether any infected individuals have been guests of the property within the past 7 days.

- Ensure that motel cleaning products used meet CDC standards, (most common EPA registered household disinfectants should be effective). CDC advises that after 7 days, additional cleaning and disinfecting for COVID-19 visited sites is not necessary.
- Consider assigning one person to a room except for "Module as One" personnel.
- Utilize incident laundry unit or commercial laundry service to clean PPE/uniforms and clothes as often as possible.
- Stagger demobilization of facilities equipment and personnel to limit personal interactions.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening".
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.
- If any fire personnel on assignment become ill from COVID-19, notify motel of their room number and dates of lodging.

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Updated: (5/3/2020)

Security Unit

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Ensure that the team Incident Within an Incident Plan addresses violation of camp entry and exit protocols is included.
- Establish virtual section meeting and interview methods. See Appendix F, Remote Operations.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Restrict access to all incident facilities to only necessary personnel.
- Consider badging or using crew manifests for check in/check out at ICP, Base Camp and other satellite facilities.
- Consider coordinating with MEDL for security of medical supplies, if necessary.
- If available, have supplies of masks at security checkpoints.
- Coordinate with local law enforcement on issues of public unrest.
- Determine what closures/restrictions are in place by Federal, State and local officials.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive screening”.

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Updated: (5/3/2020)

Planning Section

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Identify opportunities for incident personnel to work remotely. Consider simulations that test remote activities, possibly engage IMTs, AAs, cooperators and partners to test and evaluate technologies, and processes that can support remote work. See Remote Operations, Appendix F.
- In so far as possible, conduct virtual or electronic meetings and briefings.
- Be prepared to be self-sufficient for several days, including at potential remote/spike camp locations.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Reduce exposure by conducting as much work (briefings/meetings/gatherings) remotely possible. Refer to Remote Operation and Remote Situation Unit papers in (Appendix F).
- Maintain multiple contingency plans in the event of technology failure.
- Conduct Check-In and Demobilization by electronic device. Otherwise, limit exposure by maintaining social distancing and have disinfection protocols in place.
- Use electronic applications for gathering, disseminating, and storing information (e.g. IAPs, maps, QR codes, etc.).
- Ensure COVID-19 Prevention and Screening Protocols are in the IAP and COVID-19 is included in the 215-R.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive screening”.

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Updated: (5/3/2020)

Finance Section

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A), for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Utilize the supplemental NRCG Finance Incident Response Options Matrix to determine on-site, remote and virtual options for finance personnel. Develop protocols to work remotely or virtually to the maximum extent possible.
- Use electronic documentation instead of paper, when possible. This could include restricting system access to authorized users only and cloud-based document sharing. See Appendix F, Remote Operations.
- Situations may arise that place additional constraints on IMTs and may require one IMT to manage multiple incidents. Consider how finance would establish remote units to provide virtual support to multiple incidents.
- Ensure that finance personnel are prepared and trained in how to accomplish their duties with and without technology in case the internet connectivity/technology support is not available.
- Assure there is workable, functioning technology support when available. Although the e-ISuite Enterprise System is currently useable in a virtual setting, system enhancement would improve performance.
- Test processes, systems and applications before actual deployment using simulations.
- Consider modification of business practices to allow for electronic signatures and virtual exchange of information. Ensure electronic protocols are accessible to all incident resources, including vendors who may not be familiar with collaboration software.
- Consider creating Command and General Staff protocols for information sharing and communicating to maintain team cohesion.
- The availability of vendors with pre-season agreements may be limited. Items such as yurts, handwash trailers, computers, shower units and caterers may require Emergency Equipment Rental Agreements, completed by an authorized procurement/contracting officer.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- For finance personnel who cannot work virtually or remotely, use social distancing within section (desk/people spacing, not sharing office supplies).
- Develop protocols for using smartphones and other platforms to scan and send documents. Consider submitting finance-section documents (CTRs, Shift Tickets, OF-288s, etc.) electronically.
- Develop procedures and best practices for protecting PII for personnel working in a virtual environment.
- Limit person-to-person interactions for any issues that can't be resolved via phone or email.
- Establish virtual/electronic procedures with clinics/hospitals/pharmacies to limit Compensation Unit Leader person-to-person contact.
- Land Use Agreements for facilities that regularly house responders (e.g., schools, conference centers, office space) may require services above and beyond standard restoration (e.g., complete professional decontamination). Sanitizing should also be considered prior to occupancy.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening".
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.
- Take necessary precautions to comply with Health Insurance Portability Accountability Act (HIPAA) and to protect Personally Identifiable Information (PII).

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Updated: (5/3/2020)

Fire Information

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Identify opportunities for incident personnel to work remotely. Consider simulations that test remote activities, possibly engage IMTs, AAs, cooperators and partners to test and evaluate remote system technologies, processes and systems to be proficient remotely.
- Insofar as possible, conduct virtual meetings and briefings. See Remote Operations (Appendix F).
- Be prepared to be self-sufficient for several days, including at potential remote/spike camp location(s).
- Practice COVID-19 protocols prior to Incident Response.

Incident Response

- Remote work assignments and workspaces should be used as much as possible.
- Insofar as possible, conduct public meetings virtually. Some applications enable questions from online viewers to presenters in real time.
- Media interviews and visitor contacts should be limited to virtual interactions as much as possible. Use online/video conferencing applications when available. Adhere to social distancing protocols when interacting with the media.
- Use existing systems to fullest extent such as Inciweb, social media and email publication tools such as Constant Contact. These tools should be prioritized over in-person trap-lines and information booths.
- Consider the use of email lists as much as possible to distribute daily updates. Contact trap-line locations, such as stores and other public places, by phone, to get them on email distribution lists.
- Coordinate COVID-19 messaging with local public health departments and cooperating agencies.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive screening”.

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Updated: (5/3/2020)

Safety

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement "COVID-19 Screening" (Appendix C) daily.
- Configure layout/spacing of assigned work area to incorporate social distancing.
- Practice social distancing and utilize daily disinfection procedures of all equipment and work areas.
- Practice COVID-19 protocols prior to incident response.
- Identify opportunities for safety personnel to work remotely between functional areas. Consider simulations testing remote activities, possibly engage IMTs, AAs, cooperators and partners to test and evaluate remote system technologies, processes and systems to be proficient remotely.
- Ensure Safety Officers and Line Safety Officers have technology to support a remote environment.
- Insofar as possible, conduct meetings virtually. See Remote Operations (Appendix F).
- Be prepared to be self-sufficient for several days including potential remote/spike camp location.

Incident Response

- Consider COVID-19 Screening as part of the check-in process (Appendix C).
- Implement "COVID-19 Screening" (Appendix C) daily for all incident personnel and monitor to ensure daily compliance.
- When possible, keep the same line safety officers with their originally assigned divisions/groups.
- Avoid large groups (rule of 10), maintain social distancing (Appendix A).
- Practice COVID-19 mitigation cleaning and disinfecting procedures for equipment and work surfaces daily (ICP/Base Camp functional areas).
- Consider including COVID-19 risk and mitigation in the development of the 215-R.
- Ensure facilities are adequate to meet COVID-19 social distancing protocols (Appendix A) for all base camp activities (sleeping area, briefings, showers, hand washing, etc.).
- Recognize potential for transfer of risk as an unintended consequence of mitigating virus spread.
- Limit public access to Base Camp to reduce the risk of COVID-19 spread from personal interactions.
- Encourage mitigations that limit the sharing of electronic devices, IAP's, phones, radios, water bottles, PPE, snacks, etc.

Exposure Response

- Follow the most current direction from the Center of Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive screening.”

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Updated: (5/3/2020)

Liaison

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

When on an incident during a pandemic, the number of cooperators and assisting agencies will expand. Atypical agencies could include local hospitals and clinics, local and/or county public health officers, regional healthcare coalitions, local, regional or state EOCs and MACs, some of which may never have encountered an IMT. The Liaison might be the initial contact.

Given the potential exposure and spread of COVID-19 the intent is to adapt to a remote work environment understanding that there will be variations to remote work based on incident complexities.

Liaisons should consider developing a pre-incident plan that incorporates remote working opportunities. In-person contact should be minimized and follow appropriate social distancing guidelines.

Prevention

- Follow guidance included in the All Fire Personnel Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Ensure you are properly equipped/trained to accept remote working assignments.
- Be prepared to be self-sufficient for several days including at potential remote/spike camp location; have extra clothes, food, water, etc.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Conduct as much work as possible using technology to host virtual cooperator meetings and share information with participating agencies. Ensure communications technology links are available to participating agencies (e.g., Microsoft Teams, Zoom, Skype, Facebook, etc.) (Appendix F).
- Consider recording presentations to deliver to stakeholders and partners in lieu of in-person cooperator meetings.
- Consider designating an incident specific phone number for Liaison for external contacts in case internet technology fails or is unavailable.

- Consider use of additional Liaisons and trainees to manage remote work activities including assignment to other remote locations where direct linkage to the Incident Command Post (ICP) is necessary (e.g., Emergency Operations Centers (EOCs), Command Centers, regional Multi-Agency Coordination Centers, Joint Field Office (JFO), etc.)
- Identify and establish close working relationships with cooperators including health departments and local Emergency Operations Centers.
- Ensure telecommunication connectivity with ICP.
- Ensure participating agencies and cooperators have a copy of and understand COVID-19 protocols, best practices, etc.
- Assist Safety Officer and Medical Unit Leader to gain information regarding the capacity and integrity of the local and regional healthcare system(s).
- Support Safety, Medical, Inter-agency Resource Representative, and home unit as requested when personnel assigned to the incident are treated for COVID-19.
- Consider ordering a Liaison with ESF8 experience.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive screening.”
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.

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Updated: (5/3/2020)

Incident Commander

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

Prevention

- Follow guidance included in the All Fire Personnel Safety Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Consider Incident Management Team (IMT) participation and identify positions that can work remotely to minimize exposure without compromising safety. See Appendix F, Remote Operations.
- Plan for resource dispersal as logistically feasible; avoid large fire camp configurations.
- Develop an Exposure Response Plan(s) for COVID-19 exposure (Incident within an Incident).
- Ensure that the IMT is properly equipped and trained to accept remote assignments.
- Be prepared to be self-sufficient for several days including at potential remote/spike camp locations.
- Develop an IMT Continuity of Operations Plan with pre-identified backups for critical positions.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Reduce exposure by conducting as much work (briefings/meetings/gatherings) as virtual technology allows, including socially dispersed In-Briefings (Microsoft Teams, Zoom, phone, radio communication, etc.)(Appendix F).
- Coordinate use of remote positions with Agency Administrator during initial mobilization.
- Consider remote workplaces for some sections.
- Develop alternative strategies, conduct trade-off analyses, and select the alternative that best limits COVID-19 transmission, limits risk to firefighters, and achieves objectives.
- Incident Commanders should remain separated from Deputy Incident Commander to ensure continuity of command.
- Consider including the All Fire Personnel Safety Best Practices (Appendix A) and/or team protocols in the IAP.
- Mop-up should be carefully considered and terminated when risk of escape is low and (if escape occurs) low likelihood of damage to high value assets and/or public safety.
- Ensure operational briefings are conducted either remotely, or in small groups, maintaining social distancing and limited to assigned overhead personnel.

- Ensure Base Camp and the Incident Command Post are configured in a manner that minimizes exposure for all incident personnel.
- Encourage electronic documentation.
- Use technology to interact with partners, stakeholders and the public.
- Develop remote means for monitoring team performance.
- Be vigilant against transfer of risk as an unintended consequence of mitigating virus spread.
- Ensure IMT is aware of protocols and coordinating with local health departments.
- Consider the impacts of COVID-19 on evacuations and evacuation centers. Have discussions early on with law enforcement, local health care providers, and shelter personnel. Minimize the duration of time that citizens are displaced.
- Consider the ability to operate more than two shifts to reduce exposure and increase rest hours (using the same number of personnel).
    - An example, consider a three-shift configuration to reduce the numbers at briefings, meals and shift change while providing more rest. These shifts could be 12-14 hours duration with staggered start/end times (e.g., 0500-1900, 0700-2100, and 0900-2300).

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding "positive screening."
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.

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Updated: (5/3/2020)

Agency Administrator

The purpose of the Best Management Practices (BMPs) for Agency Administrators is to list practices for mitigation of the COVID-19 virus before and during incident response. It is recognized that normal activities of wildland fire may be further complicated with the COVID-19 pandemic. Agency Administrators should communicate with employees, communities and cooperators sharing information prior to and throughout the fire season.

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

It will be important for Agency Administrators to stay current with updated information regarding virus spread. Leader's Intent should be updated and shared to ensure a common operating picture for responders and the public.

Prevention

- Follow guidance included in the All Fire Personnel Safety Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Ensure all incident personnel, including IMT members, support team members, Prevention Teams, Critical Incident Stress Management Teams (CISM), Buying Teams, Incident Business Advisors, and all other supporting individuals regardless of whether they are working on-site or remotely, are fully aware of and practice recommended safety and health measures as listed in the All Fire Personnel Best Practices for COVID-19 (Appendix A).
- Implement COVID-19 Screening daily (Appendix C) personally and for all employees.
- Consider allowing telework as much as possible, recognizing that fire responses require some personnel to travel to an incident and take suppression actions. See Appendix F.
- Recognize that wildland firefighters have the right to turn down an assignment due to concerns about COVID-19 exposure.
- Discuss and arrange for potential feeding, lodging and laundry needs with local businesses prior to wildfire response.
- Provide Leader's Intent and support for the "Module as One" concept.
- Consider an increased emphasis on fire prevention. Consider closures of areas where there is a high risk of human-caused fires.
- Communicate with jurisdictional partners routinely to maintain a shared situational awareness and a current common operating picture.
- Manage public and political expectations for wildland fire response, recognizing potential resource shortages and implications.
- Use social media as well as traditional media to communicate with the public and key contacts.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Ensure local Fire Management and Initial Attack ICs are provided with agency COVID-19 related procedures in the emergency response environment.
- Include COVID-19 mitigation procedures and priorities in Delegation of Authority and/or Leaders Intent documentation for all Incident Commanders.
- Initiate discussions with Incident Commanders regarding the increased use of remote positions prior to arrival and throughout the incident.
- Mop-up should be carefully considered when risk of escape is low and (if escape occurs) low likelihood of damage to high value assets and/or public safety.
- Recognize that the availability of incident support staff may be reduced. Pre-planning, based upon local conditions and resource skills, may be useful.
- Consider including COVID-19 in the risk tradeoff analysis when evaluating alternative strategies for response and management of all wildfires.
- Engage with interagency partners on multijurisdictional incidents regarding consistent practices for COVID-19 management in the incident environment.
- Prepare WFDSS decisions that articulate how the incident strategy or course of actions are influenced by COVID-19 avoidance/management factors.
- When deciding to use fire camps, consider non-traditional camps such as spike camps, coyote tactics and remote positions to support the "Module as One" concept.
- Support and authorize the use of militia (other non-primary fire personnel) to respond to incidents.
- Wildfire emergency rehabilitation (e.g. BAER for federal agencies) activities should follow same protocols and principles as wildfire suppression activities to reduce employee exposure to COVID-19.
- Use the minimum resources necessary to achieve objectives.
- If fire exceeds initial attack, consider using analytics to determine the best location for containment that uses the least number of resources while achieving objectives.
- If fire exceeds extended attack, use decision support assistance to determine the most efficient use of resources to contain the fire while achieving public safety and protection objectives. Develop alternative strategies for achieving objectives and use tradeoff analysis to determine which strategy has the highest likelihood of success in achieving objectives while limiting firefighter exposure to hazards (including COVID-19 exposure).
- Be vigilant against transfer of risk as an unintended consequence of mitigating virus spread.
- When Critical Incident Stress/Peer Support is needed, consider the following:
    - Decisions regarding how to respond to a peer support request in the event of an incident will be made on a case-by-case basis and in coordination with regional/agency CISM coordinators.
    - When appropriate and recommended by CISM coordinator, the team will interact using virtual platforms such as Teams or Skype with a tele-health accredited clinician.
    - Conduct the support sessions at the site of the event or meet the employees at their home unit upon their return.
    - Best practices for social distancing and sanitation as outlined in Appendix A will be observed.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities.
- Develop and implement your own local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive screening”.
- If notified by employee or Health Department of positive COVID-19 test results, inform appropriate groups including home Agency Administrator and others (i.e. IC, home unit, Contracting Officer etc.), without disclosing PII and in compliance with agency policy, HIPAA regulations and the Ryan White Act.

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Updated: (5/3/2020)

Fire Management

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Fire managers may need to consider alternative strategies to Initial Attack in order to limit number of personnel needed to suppress fires and to reduce exposure to COVID-19. With a need to reduce human contact through the use of technology on large incidents there may need to be a new strategic approach when it comes to multiple fire incidents.

Prevention

- Follow guidance included in the All Fire Personnel Safety Best Practices (Appendix A) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily (Appendix C).
- Use suppression tactics and strategies that limit inter-unit (squad, module, engine, etc.) human contact to the greatest extent possible.
- Ensure local coordination with cooperators through updating local operating plans that communicate local strategies.
- Improve fire prevention effectiveness by enhancing relationships with stakeholders, cooperators, and the public.
- Consider updating dispatch run cards to reflect changes in dispatch strategies.
- Consider closures and fire restrictions to reduce the number of human-caused wildfires.
- Reassess draw-down levels and the impacts if resources may be out of service after a possible COVID-19 exposure.
- Initial response and extended response shifts should emphasize and promote prevention measures, disinfection and individual care considerations.
- Consider implementing a saturation patrol strategy when PSA(s) are at high risk / probability of large fire growth.
- Encourage local units to discuss potential feeding and lodging needs with local motels and restaurants prior to wildfire response.
- If motels and restaurants are to be used during assignment, contact receiving unit to inquire about which local motels/restaurants are open and willing to provide service to fire personnel.
- For motel lodging, ensure that adequate COVID-19 CDC prevention measures are in place and inquire if any infected individuals have been guests of the property within the past 7 days.
- Ensure that motel cleaning products used meet CDC standards, (most common EPA registered household disinfectants should be effective). CDC advises that after 7 days, additional cleaning and disinfecting for COVID-19 visited sites is not necessary.
- Consider assigning one person to a room except for “Module as One” personnel.
- When using restaurants for feeding consider ordering take out rather than dining in.
- If any fire personnel on assignment became ill from COVID-19, notify motel of their room number and dates of lodging.
- Practice COVID-19 protocols prior to incident response.

Incident Response

- Consider limiting the number of personnel on scene by developing and prioritizing tactical missions based on Values at Risk, COVID-19 risk to responders, and other fire-scene hazards to which responders may be exposed i.e. snags, rocks, extreme fire behavior etc.
- Fires in which a long-term monitoring strategy will be used should consider the ability to monitor from afar.
- Consider utilizing line spike and small spike camps when feasible and effective.
- Consider decentralized staging areas to limit face-to-face contact among resources and require social distancing.
- Use minimum number of resources necessary to achieve objectives.
- If fire exceeds initial attack, consider using analytics to determine best location for containment that uses least resources while achieving objectives.
- If fire exceeds extended attack, consider using decision support assistance to determine most efficient use of resources to contain fire while achieving public safety and protection objectives. Develop alternative strategies for achieving objectives and use tradeoff analysis to determine which strategy has the highest likelihood of success in achieving objectives, while limiting firefighter exposure to hazards (including COVID-19 exposure).
- Mop-up should be carefully considered and terminated when risk of escape is low and (if escape occurs) low likelihood of damage to high value assets and/or public safety.
- Be vigilant against transfer of risk as an unintended consequence of mitigating virus spread.

Exposure Response

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to Appendix A and follow guidelines regarding “positive screening”.

Back to Appendix B Outline

Updated: (5/3/2020

Wildland Fire COVID-19 Screening Tool
Interim Standard Operating Procedures
4/15/2020

NOTE: This Screening Tool represents interim guidance. Additional clarification will be coming as soon as it is defined.

DO YOU HAVE ANY OF THESE SYMPTOMS?

Today or in the past 24 hours, have you had a fever or a combination of more than one of the other any symptoms listed below **in addition to your normal work-related issues?**

- Fever, felt feverish, or had chills? Repeated shaking with chills?
- Cough? Shortness of breath or difficulty breathing?
- Muscle pain? Headache? Sore throat?
- New loss of taste and/or smell?

If in doubt about any of these symptoms, consult a Physician.

In the past 14 days, have you had contact with a person known to be infected with the coronavirus (COVID-19)?

Take temperature with touchless thermometer if available

Wildland Fire COVID-19 Screening Tool
Interim Standard Operating Procedures
4/15/2020

INSTRUCTIONS FOR SCREENING

- If resource is positive for any symptoms prior to mobilization **DO NOT MOBILIZE**.

- At Entries – Consider the adequate number of personnel needed for screening. Although medical personnel are ideal, screeners do not have to be medically trained.

    - If resource is positive for any symptoms including fever (over 100.4) at entry **DO NOT ANNOUNCE** - ask to step aside.
    - Escort sick individual to isolation area.
    - Isolation support personnel should begin documentation. Have sick individual contact Supervisor for further direction.
    - Notify public health officials.
    - Have individual transported as appropriate.
    - Protect and secure any collected Personal Identifiable Information or Personal Health Information

To: Fire Management Board and Non-Federal Wildland Fire Partners
From: COVID-19 Wildland Fire Medical and Public Health Advisory Team (MPHAT)
Date: 04/15/2020
Subject: COVID-19 Interim Screening Protocol for Wildland Fire Personnel

Purpose:

The interagency wildland fire community is committed to preventing the spread of COVID-19 and promoting the health and wellness of all wildland firefighters and support personnel. Consistent and continual monitoring of personnel is the first step in preventing the movement of potentially infected individuals and the spread of COVID-19. This memorandum establishes interim standard operating procedures and protocols for screening of wildland fire personnel at duty stations and during incident management activities to protect all personnel, appropriately manage potential COVID-19 infection, and reduce risk.

Background:

In December 2019, a novel (new) coronavirus known as SARS-CoV-2 was first detected in Wuhan, Hubei Province, People's Republic of China, causing outbreaks of the coronavirus disease COVID-19. The virus has now spread globally. Across the U.S., public health authorities have issued significant restrictions on public gatherings and implemented social distancing practices.

This disease poses a serious public health risk and can cause mild to severe illness; especially in older adults or individuals with underlying medical conditions. COVID-19 is generally thought to be spread from person-to-person in close contact and through exposure to respiratory droplets from an infected individual. Initial symptoms of COVID-19 can show up 2-14 days after exposure and often include: fever, cough or shortness of breath. Recent studies indicate that people who are infected but do not have symptoms likely also play a role in the spread of COVID-19

With the intent to sustain a viable, safe and effective wildland fire management workforce, (Federal, State, local and Tribal assets) during the COVID-19 pandemic, a preliminary measure is to establish common infection screening protocols utilized across the wildland fire community. The MPHAT has been established by the FMB with concurrence of the Fire Executive Council to address medical and public health-related issues specific to interagency administration of mission critical wildland fire management functions under a COVID-19 modified operating posture. The MPHAT includes interagency representation and interdisciplinary expertise (including CDC-NIOSH and medical professionals from USFS and DOI) to advise on all medical and public health related aspects of COVID-19 planning, prevention and mitigation. To that end an interim standard operating procedure has been developed and recommended by MPHAT for immediate adoption and utilization by wildand fire personnel at duty stations and wildland fire incidents to reduce the risk of disease through common screening protocols.

Rationale:

The scale and potential harm that may be caused by this pandemic meets the American Disabilities Act *Direct Threat* Standard.[1] Therefore, routine screening in the workplace is justified and warranted to prevent further community spread of the disease. By identifying, properly triaging, and managing personnel with exposures and these symptoms, personnel can reduce the spread and better mitigate COVID-19 infections among their workforce.

Instructions:

The following screening guidance is recommended for adoption and implementation at duty stations and for all incident management activities across the interagency wildland fire community, as frequently and extensively as possible. Supervisors and incident managers should plan and resource accordingly to support the following SOP:

Pre-Mobilization

Supervisors should ensure personnel have no present symptoms of illness using the *Wildland Fire COVID-19 Screening Tool* prior to consideration of incident assignments. In addition to this initial screen, Supervisors should inform personnel going on assignments of ongoing routine daily screening on all incidents during COVID-19.

Arrival/Entry to Location

All resources accessing any entry point location will wash their hands. If soap and water are not available hand sanitizer may be used. Each resource will proceed to receive verbal screening using the *Wildland Fire COVID-19 Screening Tool* and if possible, have their temperature assessed using a touchless thermometer. Supervisors and incident managers should determine the number of personnel required to support the screening process and consider scheduling and/or staggering resource arrival times to minimize crowding at arrival/entry locations.

Daily Screening

All resources should be encouraged to report any emerging symptoms to their supervisor (Crew Boss, Unit Leader, Module Leader, Duty Officer, Division Supervisor, Floor Supervisor, etc.). In addition, super- visors should assess subordinates' health daily using the *Wildland Fire COVID-19 Screening Tool* to ensure no emerging symptoms. It is recommended the screening questions are asked of all personnel routinely throughout the day.

Positive Screenings

Persons with indications of illness prior to mobilization should be excluded from incident assignments until they meet the return to work criteria as described by CDC (7 days after the start of symptoms and at least 3 days after the last fever not requiring fever reducing medications, and symptoms are improving). Persons found meeting sick criteria or found to be with fever on arrival at an incident entry location should not be allowed entrance and, as above, should be excluded from incident assignments until they meet the return to work criteria as described by CDC. Next steps should be coordinated with unit leadership, the medical unit and/or local health authority. Prior to release and return to home, individuals with signs or symptoms of illness posing a risk of COVID-19 transmission should be isolated in a separate location. This may require separate, dedicated and staffed areas/facilities to ensure that individuals with potential COVID-19 infection do not comingle with other fire personnel.

Confidentiality of Medical Information:

Any medical information gathered is subject to ADA confidentiality requirements [3] [4].

Tools and Supplies

- Verbal Screening - use the *Wildfire COVID-19 Screening Tool*
- Temperature Checks - use only touch-less infrared thermometer if available.
  - Incident management personnel involved with screening should consider purchasing touchless thermometers prior to assignment. Incident emergency medical personnel are strongly encouraged to bring their personal touchless thermometers if available.
- Mask or Face Barrier - Current CDC guidance includes wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain, especially in areas of significant community-based transmission. The use of simple cloth face coverings is

recommended to slow the spread of the virus and help people who may have the virus and do not know it from transmitting it to others. As of April 2020, masks made from cloth material are considered acceptable facial barriers.

- Isolation - use separate facility, yurt or personal tent.
- Dedicated Wash Stations - Consider the number of dedicated wash stations and/or portable restrooms needed to maximally support each bullet above.

Personal Protective Equipment

The NFES 1660 – *Individual Infectious Barrier Kit* or NFES 1675 – *Multi-Person Infectious Disease Barrier Kit* (as needed) should be used under the following circumstances:

- Workers engaged in screening at arrival and entry location
- Workers helping to manage sick and/or asymptomatic personnel with recent COVID-19 interaction.
- Workers helping to sanitize infected areas, or any areas suspected of infection

Note: Appropriate techniques for using personal protective equipment including donning and doffing can be found at: https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html

References:

[1] Interim Guidance for Businesses and Employers to Plan and Respond to Coronavirus Disease 2019 (COVID-19)

[2] Symptoms of Coronavirus

[3] Pandemic Preparedness in the Workplace and the Americans with Disabilities Act

[4] 29 CFR § 1630.14 - Medical examinations and inquiries specifically permitted.

[5] DOI COVID-19 Risk Assessment & Decision Matrix for Managers (*DOI Access Only*)

[6] Discontinuation of Isolation for Persons with COVID-19 Not in Healthcare Settings (Interim Guidance)

[7] Personnel in Mission Critical and Essential Function Positions (*DOI Access Only*)

[8] Coronavirus Disease 2019(COVID-19). Use of Cloth Face Coverings to Help Slow the Spread of COVID-19.

Appendix D – Contact Lists

Northern Rockies Coordinating Group		
Name	**Title**	**Agency**
Mike DeGrosky	Chief, Fire and Aviation Management Bureau	Montana - DNRC
Josh Harvey	Lands Bureau Chief State of Idaho	Idaho - Department of Lands
Ray Hart	Regional Fire Management Officer	BIA - Great Plains Region
Darron Williams	Regional Fire Management Officer	BIA - Northwest Region
Bob Jones (Acting)	Regional Fire Management Officer	BIA - Rocky Mountain Region
Aaron Thompson	State Fire Management Officer	BLM - Montana/Dakotas State Office
Patrick Lonergan	Chief of Emergency Management & Fire	MT - County Fire Wardens Association
Jake Ganieany	State Emergency Coordination Center Manager	MT - Disaster & Emergency Services
Rich Cowger	Fire Chief Columbus Fire Rescue	MT - State Fire Chiefs Association
Vern Burdick	Sheriff /Coroner	MT - Sheriffs & Peace Officers Association
Dan Warthin	Wildland Fire Specialist	NPS - Intermountain Region
Ryan Melin	Fire Manager	North Dakota - Forest Service
David Carter (Acting)	Deputy Regional Fire Coordinator	US Fish & Wildlife Service - Region 6
Ralph Rau	Director of Fire, Aviation and Air	US Forest Service - Region 1
Pamela Jolly	Program Support Specialist	US Forest Service – R1 Regional Office

Northern Rockies COVID-19 Wildfire Response Task Group		
Name	**Title**	**Agency**
Craig Goodell	Northern Rockies Operations Officer	BLM, USFS, NRCG
Greg Poncin	Area Manager Northwestern Land Office	DNRC - Montana
Dave Hamilton	Training, Safety, and Workforce Development Program Manager	DNRC - Montana
Craig Howells (Acting)	District FMO	BLM - Eastern Montana/Dakotas
Tim Murphy	Deputy Fire Operations / NR Contractor Liaison	USFS, NRCG
Dave Williams	Fire Operations Risk Management Officer	USFS - Northern Region
Mike Almas	Deputy Forest FMO	Idaho Panhandle National Forests
Amanda Boatright	Fire Business Lead	BIA - Rocky Mountain Region
Kelly McKee	Center Manager	USFS - Bitterroot Interagency Dispatch Center
Bryan Lorengo	Safety Ranger	Montana Logging Association
Rich Cowger	Chief	Montana - Columbus Fire and Rescue
Sara Lee	Fire Business Specialist	BLM - Montana/Dakotas
Dr. Harry Sibold	Medical Director	EMS - Helena, MT
Mike Goicoechea	Forest FMO	USFS – Beaverhead/Deerlodge NF
Kathy Pipkin	Center Manager	USFS – Northern Rockies Coordination Center

State and County Health Departments

State and County Health Department contacts can be found using this link and going to the Resources list. This gives contact information for the State Emergency Services who can provide the numbers for State and County Health Departments.

NWCG

Appendix E – Northern Rockies Responses to Engagement Letter

NORTHERN ROCKIES AREA POTENTIAL IMPACTS FROM COVID-19 SUMMARIZED

Plans in place or in development to address the four focus areas and information to contribute to Regional Fire Response Plans:

- NRCG has implemented a task group for this plan. Each agency is working on a specific plan and sharing among the NRCG agencies. (NRCC)
- While it might not be specific enough see NR COVID-19 COOP Plan attached. (NRCC)
- COOP specific to pandemic; this is a work in progress and a dynamic document as we are focusing on working through limitations that are in place right now and addressing those, and moving forward with a long-term plan as things ramp up. (BRC)
- All agencies have maintained I/A capability and are responding to fires as needed. Some differences in allowances for number of people allowed in a given vehicle. Dispatch is staffed commensurate with current and expected workload, and a COOP has been prepared to address eventual increase in activity. IMT personnel are receiving direction from their IC's and C&G staff. (CDC)
- We are currently working on plans for each agency that address maintaining fire suppression modules (engines, crews, helitack, etc.) as "family units" to be kept distant from other modules in order to reduce the possibility of community spread within our workforce. Currently addressing onboarding of new and returning seasonal employees, bunkhouse and dormitory policies, physical training, preseason training, transportation to and from projects and issues regarding possible quarantine after an off-unit assignment. (NRCG)
- Looking at closely monitoring fire modules health. Daily individual health checks to reduce probability of module contamination. (NRCG)
- Potentially asking these questions to all staff daily. (NRCG)
    - Have you, someone living in your household, someone with you, someone you have been in close or frequent contact with, or someone you are caring for been diagnosed with COVID-19 (Coronavirus) or had any contact with a confirmed case of COVID-19? (NRCG)
    - In the last 14 days, have you, someone living in your household, or someone with you have been in close or frequent contact with, or someone you are caring for returned from, or made a travel connection through a known COVID-19 hotspot. (NRCG)
    - Do you currently have, or have you had within the last 24 hours, any cold or flu symptoms, including a fever greater than 100.4, shortness of breath, body aches and coughing. (NRCG)
- Take temperature of employees daily utilizing forehead thermometer. (NRCG)
- Use the previous employee monitoring techniques prior to mobilization, at incident check-in, prior to demob from the incident. (NRCG)
- Impress upon all modules the importance of protecting the "family" through social distancing, enhanced hygiene and hyper vigilance to reduce the likelihood of being stood down in quarantine. (NRCG)

- At this time, KDC will continue to maintain minimum staffing with one dispatcher to cover IA responsibilities. All other personnel will telework with the expectation to be available to report back to work in the event activity level increases. The CM or ACM will remain on call when not staffing to maintain coordination for developing events. KDC has developed a COVID-19 COOP which is saved in the NR Dispatchers FireNet drive. KDC will utilize their standard COOP if needed which is saved in FireNet as well. (KDC)
- Completing Dispatch COOP plan and coordination with neighboring centers. (C/GNF)
- Planned meetings within zones to address IA. No products to date. (C/GNF)
- Agency is in the process of filling career fire staff vacancies and hiring normal number of seasonal employees to maintain IA capabilities. (USFWS)
- In addition to the standard "RED CARD" requirements the "Special Service Task Force" would require specialized 'GERM" training as well as special wildland respiratory equipment. (NRCG)
- Maintaining initial attack capabilities at all levels. (NDFS)
    - NDFS Fire Crew has been isolated to provided housing in Bowman ND. Crew has been practicing social distancing and traveling directly to and from project work site. Crew is utilizing infection control procedures i.e. hand washing regularly, cleaning/sanitizing as necessary. (NDFS)
    - Fire Manager working with ND Fire Chief's Association to disseminate information to fire departments and address any issues that arise. (NDFS)
- Maintaining extended attack capabilities at all levels. (NDFS)
    - Same as initial attack planning. (NDFS)
- Maintaining dispatch and coordination capabilities at all levels.
    - NDC is currently teleworking and practicing social distancing as necessary. (NDFS)
- IMT mobilization - Type 1-3. (NDFS)
    - No type 1-3 teams in ND. (NDFS)
- Montana DNRC have established an internal team to develop guidance to our field offices related to all topics above. Currently, our efforts are focused on the arrival of our seasonal workforce and critical training. We are engaged in operational risk management analysis on a series of discreet topics, but we are just getting started with that effort. We will share anything we develop that would be helpful (and want our interagency partners to share what they have). (MDNRC)
- Have a short-term plan (1-month) for assisting IDL on their jurisdictional lands. Hiring workforce at levels consistent with last season. Strategizing on housing, vehicle use and work operations, while adhering to CDC, WO guidance. Daily staff calls with FMO's to develop, evaluate and vet any ideas, opportunities and strategies. (IPNF)

Assistance and Information Sources:

- Agencies within the NRCG. NRCG has implemented a task group for this plan. (NRCC)
- MT Public Health and IAFC COVID -19 Info. Forest Service, BLM, BIA, FWP, NPS, MT DNRC, MT Local Government (Wardens, Fire Chief's) (MT Columbus Fire)
- Local government resources, Contractors/Vendors. Other centers, WildCAD SMEs, Unit Fire Management personnel. (BRC)
- USFS, IDL, BIA, County ECCs, news outlets. (CDC)

- CDC, NIH, USDA, USDOI, State of MT, Contractor Associations, etc. (NRCG)
- All agencies around the Nation are working on this problem and many are developing Best Management Practices (BMPs). We are collecting information from as many sources as possible to develop these plans but currently on an agency by agency basis. (NRCG)
- Information pertaining to staffing direction is coming regional and local forest and fire leadership. Information is also being received from the GACC regarding resource status. (KDC)
- Department, Region, NWCG and NRCG are all providing guidance and information. (C/GNF)
- Agency leadership and Interagency partners. (USFWS)
- North Dakota Department of Emergency Services, ND Department of Health and other states. (NDFS)
- We are lucky to have an experienced Type I IC, who is also a part of the S520 cadre (and others) in our agency (he will also be part of Goodell's NRCG team) who is an advisor/member of our internal planning team. We are, of course, drawing from CDC guidance. Making use of existing and emerging products from NWCG, BLM, FWS, IAFC and Western Fire Chiefs Association. Have obtained a copy of the Southwest Zone plan developed by Van Bruggen's ACT. (MDNRC)
- Local, regional and national direction. Using some examples from other regions to adapt locally. (IPNF)
- Contractor Associations. We have assigned to the GAC Operations Task Force Working with ACT, a Safety Program Manager from the Montana Logging Assn. He has agreed to network with the other Contractor Associations in Montana & Idaho (NWSA, IAL, BWCA, MCA & NRWCA). Contractors represent 50% of the workforce on Large Incidents in the NR. (LASKO ET AL)

Plans for Workforce Exposure to COVID-19 in Relation to Short- and Long-Term Fire Strategy:

- From a local government standpoint many organizations are taking steps to limit exposure to their firefighters, from reduced trainings and meetings to reduced staffing for EMS calls and different types of emergency calls. (MT Columbus Fire)
- Nothing in place yet to address a large workforce shortage due to infection; thinking through options at this time, which will likely include our ADs. (BRC)
- Working on plan. (CDC)
- Each agency within NRCG is currently working on their own plan and utilizing previous pandemic planning as a baseline. Planning is in process and reduced availability of workforce and resources is being considered. (NRCG)
- Reduced resources could occur at any of the 4 focus areas due to:
    - Agency imposed travel restrictions for severity/preposition requests to reduce risk. (NRCG)
    - Employees choosing to not be available for fire assignments due to concerns for their personal risk or risk to their families. This could be especially true for IMTs with a large percentage of ADs in the high-risk group. (NRCG)
    - Employees contracting COVID-19 causing their module or unit to be isolated and quarantined. (NRCG)

- Fire management strategies will need to be based on available resources to implement the strategy. Most agencies are leaning toward aggressive IA. If IA is unsuccessful, then falling back to a strategy based on values at risk that minimizes the mobilization of resources. (NRCG)
- All KDC employees will follow the guidance of 14-day self-isolation when returning from a fire assignment or detail. Before any assignment is taken, conversations will take place regarding the impact the assignment could have on both the employee and the center. (KDC)
- No plans completed yet. Still trying to develop plans for onboarding summer workforce and bunkhouse living. Some conversations with partners have been initiated. (C/GNF)
- Yes, we have the ability to move resources/staff throughout the Region and to bring in resources from other Regions (based on availability). (USFWS)
- Working on plan to provide for needs of staff if exposed. With no direct IA responsibility in ND focus has been how providing for safety of our staff and keep them available for state support if needed. (NDFS)
- See previous comments on current effort. We cannot answer this question at this time. We are not currently working on plans than envision a 25% - 75% infection of our workforce. (MDNRC)
- Not at this time. Discussions are on-going. (IPNF)
- No, but the real questions that should be asked are; what will the strategy be if 25-75% of firefighting capability is unavailable: and what systems will be used to develop and monitor when capability thresholds are reached? (LASKO ET AL)

Current Procedures in Place to Mitigate COVID -19 Exposure during an Incident:

- Unknown at this time. (NRCC)
- Some departments are taking temperatures of responders, splitting crews up and responding in shifts, limiting crew interaction. (MT Columbus Fire)
- Not yet. (BRC)
- Yes. (CDC)
- Not yet but there are some BMPs being developed. Looking at treating each operational module as a “family Unit” and keeping modules separated with non-traditional fire camps. (NRCG)
- Potentially no base camps, spike camps may be preferred, no mixing of personnel between modules, closed camps, etc. (NRCG)
- Possibly developing a separate camp for quarantined modules that have had a COVID-19 exposure. (NRCG)
- The KDC office will remain minimally staffed to help minimize the risk of exposure. All surfaces will be wiped down at the end of each shift regardless of foot traffic in the building. Any employee feeling ill will not report to work. If any employee at KDC has traveled to an area where cases of COVID-19 are reported, the employee will potentially be asked to self-isolate for a number of days to limit potential exposure to other forest employees. (KDC)
- Department/Agency guidance has been provided for vehicles, social distancing, cleaning procedures, etc. (C/GNF)
- Working on local guidance for bunkhouse living and summer workforce. (C/GNF)
- Fire staff are instructed to follow CDC and Department of Interior guidance. (USFWS)

- NDFS is currently referencing CDC guidelines for first responders. NDFS is in the process of fit testing all fire personnel for N95 mask and will provide eye protection and latex gloves. (NDFS)
- See previous comments re. current efforts. Working on it. Likely based heavily in NWCG infectious disease guidance. (MDNRC)
- No, we do have them in-place for Forest resources. (IPNF)
- Aggressive IA to keep fire small when there's a reasonable chance of them getting bigger and requiring large number of people. (IPNF)
- Minimize mop up once secure in order to scatter people back out, and to be positioned for next IA. (IPNF)
- Employ risk informed decision-making approach before staffing fires that appear to be at low risk of resulting in a need to staff with a large number of people later, and appear to be a low risk of producing persistent serious smoke hazards to communities. (IPNF)
- Use a fire danger/staffing level approach for triggers to switch from minimal response with one person per vehicle to normal aggressive response. (IPNF)
- Use thermometers to test for elevated temperatures to screen FFs every day, and wear face masks when working closer than 6 feet apart and when multiple FFs in rig/aircraft. (IPNF)
- Approach a larger portion of the season like it's PL4/5, meaning you don't staff low priority fires. Staff and keep folks in reserve for highest priority fires. (IPNF)
- CAL Fire COVID-19 Guidance, NWCG Guidelines for Noro virus SARS (2010), and Avian Flu Guidance (2007) are available for reference. (LASKO ET AL)

With Potential Loss of Capability from Federal, State and County Agencies, what are the Short- and Long-Term Capabilities within the GACC to Support Incidents:

- The Idaho Panhandle NF is just starting conversations regarding IA capabilities and how we best protect our folks. (IPNF)
- Currently very slow for fire season so hoping for a bit of time to develop strong. (NRCC)
- At the local level we would have to rely heavier on mutual aid, however this lacks some of the horsepower for extended attacks as well as air support. (MT Columbus Fire)
- Unknown. (BRC)
- Plans are in process but similar to PL5 when resources are in short supply, incidents will be prioritized based on values at risk and strategies for managing those incidents will be aligned with the resources available to implement those strategies. (NRCG)
- The KNF have developed mitigations for short term fire response. These measures are currently in effect. Long term response is being discussed. (KDC)
- The Northern Region is typically limited going into our peak fire season on normal years due to being last to the trough so to speak. I would assume we will be faced with significantly diminished resource capacity this season due to COVID-19. Short and long-term capabilities are unknown at this time and will likely remain unknown throughout the year. (NRCG)
- At a minimum, anticipate some delay in readiness due to delay in on boarding summer workforce and extended time to complete orientations/training for new employees due to virtual nature. Refresher relief for existing employees will help some but locally do not want to eliminate entirely. (C/GNF)

- At this point in time, we anticipate normal staffing and ability to reallocate resources. (USFWS)
- To this end, some contract companies have retooled and reequipped their operation in anticipation of being of greater usefulness to the wild land firefighting effort. (NRCG)
- Currently working on these plans. Areas of consideration are can we travel outside of ND, what is process upon return from outside ND, etc. (NDFS)
- I have instructed our personnel to start planning as if we cannot receive support from outside our GA. However, our capacity (especially long-term/core fire year in this GA are very limited – particularly for fires that escape IA. (MDNRC)
- Very minimal. (IPNF)
- I am not aware of any that would significantly affect outcomes. Seems doubtful that military assets will be available. (LASKO ET AL)

Ideas Surrounding how we Manage the Large/Long Term Fire Environment and Directions to IMTs:

- Interagency involvement, consistent across boundaries. (NRCC)
- Make testing available for all team members, the 15-minute test, test before deployment. Manage or maintain testing log, temperature log. (MT Columbus Fire)
- Unknown. (BRC)
- Boost initial attack levels and philosophy and eliminate large fires from happening. (CDC)
- Participation on IMTs is voluntary. It is very likely that Northern Rockies GA will have fewer IMTs available to respond to large/long term fires during the COVID-19 pandemic. This reduction in IMT capability will most likely be a result of IMT members choosing not to accept the risk of exposure. (NRCG)
- As stated above, incidents will be prioritized based on values at risk and strategies for managing those incidents will be aligned with the resources available to implement those strategies. (NRCG)
- This should hold true regardless of the size and duration of the incident as it moves though time and space. Values at risk, associated strategy and necessary resources to protect those values will change over time, as will resource availability. (NRCG)
- From my understanding, there are teams working on this issue. KDC will wait for guidance on how IMT's will handle these situations. (KDC)
- Don't assume we will be able to operate as we're used to operating. Understand that we will NOT be able to force existing strategies around fire management into this new environment. We need to develop new strategies to address both what we know and the assumptions around what we don't. Learning from other regions BMPs and remaining flexible and nimble to adjust on the fly to changing conditions and resource availability will be crucial. IMT's will need to be prepared with plans for dealing with cases and local spread of COVID-19 including quarantine/isolation of both resources, support contractors and IMT members. (NRCG)
- Strategic fire management plans need to account for not only diminished wildland fire response capacities but also local emergency medical response capacities and hospital capabilities. It

should be assumed that the availability of all emergency response functions will be less than we are accustomed to having. Will a reduced emergency medical response function affect wildland fire management strategies? (NRCG)

- I would suggest looking at all resources as "one-time use" for the sake of planning. If you only had the IMT, crew, aircraft, etc. for one assignment and then they were down for 2-4 weeks due to quarantine/isolation or illness, where would you put them? (NRCG)
- Minimize the use of urban facilities to reduce opportunity to get and spread viruses. (USFWS)
- In light of the ongoing and ever present COVID-19 VIRUS issue, it may be in every one's best interest to authorize and create a Special Service Task Force to initial attack (or extended attack) fires or particular regions of existing fires. (NRCG)
- From the state perspective it will be full suppression. (NDFS)
- We will fail in this GA if all agencies are not doing all they can to contain fires at IA/EA. The 2017 experience here made very clear that allowing fires to become established on the landscape will ultimately commit resources in amounts/numbers and for durations and starts a downward spiral. We also learned that fires thought to be in "remote" areas do not stay in remote areas and ultimately impact WUI (committing huge numbers of resources for long periods of time – and, in this environment, causing a whole lot of people to camp together in the field. Need to focus on IA/EA success (particularly since this will minimize person-to-person contact as much as we can). (MDNRC)
- Emphasize initial attack in areas critical to life and safety. Dedicate IA resources (air tankers, smokejumpers, rappelers etc.) to IA only and discourage use on long term events. (LASKO ET AL)
- Deploy firefighting resources for large and long-term wildfires only where there is a high probability for impacts on public safety. (LASKO ET AL)
- IMTs should be required to identify the public safety and Land Management objectives that can be successfully achieved and those that cannot, given suppression resource availability and capability. These would be vetted with Agency leadership and strategies developed to meet achievable goals. (LASKO ET AL)
- Safety of firefighters etc. - need to align with reality and existing policy. Existing safety objective needs to be redefined or if not, a completely different approach to firefighting needs to be identified. "Every firefighter comes home" is laudable concept; "Every firefighter brings home COVID-19" is not. (LASKO ET AL)
- Severely limit movement of suppression resources between geographic areas. (LASKO ET AL)
- Severely restrict size of IMTs; e.g. no deputies, trainees, conduct finance remotely. (LASKO ET AL)
- Severely limit IMT rotation on fires by eliminating Length of Assignment policy. (LASKO ET AL)
- IMTs to identify specific COVID-19 mitigation for each phase of firefighting in plans. (LASKO ET AL)
- Assign each incident a fixed number of suppression resources and develop containment strategies based on the resources assigned. (LASKO ET AL)
- NMAC/GACs to aggressively monitor resource capability, such as:
  - Reduction in air tanker availability due to COVID-19 impact on pilots, etc. (LASKO ET AL)

- Type I and II Engine availability (expect reduction due to Fire Department, DOD & National Guard commitments to Their own jurisdictional needs). (LASKO ET AL)
- Catering assets deployed by FEMA and unavailable for use in wildfires. (LASKO ET AL)
- No MRE's in system for Jumpers or IHCs, as FEMA & Military has them. (LASKO ET AL)
- No hand wash stations, tents, etc. on contract as FEMA has them. (LASKO ET AL)
- Contracted assets. Private Fire Service make up 50% of the workforce on large fires in the Northern Rockies (NR). Not sure how many will not be available due to COVID19 issues (not worth risk, sick, on FEMA mission, etc..). (LASKO ET AL)
- Military assets. (LASKO ET AL)
- International firefighting resources. Determine efficacy of use (availability, safety, ability to transport etc.) & COVID19 availability to travel. Available through National Agreements, Compacts & Subcontracts with Contractors. (Australia, New Zealand, Canada, South Africa, Chile & Argentina). (LASKO ET AL)
- Expand Native American & Inmate Firefighter & Camp Crew programs. (LASKO ET AL)

- Emphasize mechanical fireline vs. handline where possible. Follow with small modules to burn out. Dozer social distance much better than a Type 2IA Crew, as an example. (LASKO ET AL)
- Carefully analyze indirect versus direct tactics in order to implement tactics to minimize exposure and duration of commitment of resources. (LASKO ET AL)
- Where feasible utilize wet mop up systems (e.g. sprinklers) in lieu of dry mopping. (LASKO ET AL)
- Utilize Type 1 & 2 Sprinkler systems for major infrastructure protection in order to minimize engine commitment. (Contract, Farmer & Rancher systems). (LASKO ET AL)
- Northern Rockies GAC consider centralizing deployment of suppression resources. For example: configure Wind Event Task Forces or Critical Missions Task Forces to meet critical suppression objectives and redeploy to other missions as soon as objective is met. Resources would be assigned to NR Operations & loaned to IMTs for short periods of time to accomplish a mission. Potential configurations: (LASKO ET AL)
  - 1-2 T1 IHC, a few engines, a water tender, a skidgine for IA and restricted use on large incidents to accomplish a specific objective. (LASKO ET AL)
  - 2 Type 2 dozers, 1 suppression module, 3 engines and 1 skidgine. (LASKO ET AL)
  - Type 3 engine Strike Teams for rapid IA and structure protection. (LASKO ET AL)
  - Type 4-6 engine Strike Teams for rapid IA and specific missions on large incidents. (LASKO ET AL)
  - NT Heavy Equipment Task Forces. (LASKO ET AL)
- Reposition airtankers following lightning for rapid IA. Compact Air Tankers to be a force multiplier if available. (LASKO ET AL)
- Restrict use of Jumpers and rappelers to IA. Don't let them tied up on large incidents. Minimize use as miscellaneous Overhead for these key IA resources. (LASKO ET AL)
- Restrict individuals in higher risk category (as identified by CDC) from fire management fighting operations that increase risk of exposure. (LASKO ET AL)

- Use personnel who have developed COVID-19 immunity in high exposure situations. (LASKO ET AL)
- Reduce use of fire camps and develop self-sustaining modules. Maximize use of MREs, small unit sanitation practices, Type 3 & 4 catering, etc. (LASKO ET AL)
- Use mobile logistic support modules which can service dispersed suppression resources. (LASKO ET AL)
- Include medical/health advisor in GAC discussions. (LASKO ET AL)
- Increase medical unit capability in LFO and include medical advisor in plans and strategy formulation. (LASKO ET AL)
- Review Firescope FOG for All Hazard incidents considering pandemic. (LASKO ET AL)
- Expand Contract Type 2 & Type 2IA crews with NR vendors & their ties to other GA & Countries. (LASKO ET AL)

Priorities in Terms of Plan Development and Dissemination:

- Most likely it will involve Best Management Practices that isolate modules from each other. There are several things to consider as we move through this such as fire facilities are designed for large groups and not isolation of modules, there will be hurdles. (IPNF)
- The Idaho Department of Lands is working through the same process and anticipates having something put together by the end of the week. (IDL)
- The State of Idaho. BLM is also working on their response. (IDL)
- First initial attack capability (how do we change how we fight fire). (NRCC)
- Try to provide for more rest and hygiene opportunities for all team members and resources on fires. Quick detection of illness. (MT Columbus Fire)
- Initial Attack response (including IA dispatch) – given the time of year in the NRGA, we have a little time to plan. Would like to see a focus on IA, specifically radio capabilities at remote/telework locations. We know the capability exists to have our radio system work through our computer yet cannot jump through all the hoops to get it in place. For us, the radio system is by far the biggest limitation when it comes to effectively managing an IA dispatch center while allowing for social distancing. (BRC)
- Extended Attack (including Expanded dispatch – opportunities to function remotely) (BRC)
- It needs to be an interagency effort with the NR COVID-19 Fire Response Planning Task Group fully integrated in the process. (NRCG)
- Utilize lessons learned from ACT engagements with Eastern, Southern and Great Basin Geographic Areas to be more efficient and effective. (NRCG)
- Ensure there are no “gaps” in the plan that leave important issues unaddressed. (NRCG)
- All Agency specific plans/policy fit seamlessly within the framework of this Geographic Area Interagency Plan. (NRCG)
- Plan should be disseminated to all stakeholders, including Public Health Agencies. (NRCG)
- At the forest level, the priority will be to maintain communication at all levels to ensure our employees remain informed on forest decisions. The health and safety of the staff at KDC will continue to remain the first priority. (KDC)

- First and foremost, I would start a robust public information campaign messaging the FACT that our ability to respond to wildland fire incidents will be impacted by COVID-19. We need to be very clear with the public that wildland fire smoke will likely compound the spread and severity of COVID-19 and that in the event of a moderate to severe fire season, long term smoke exposure in many communities across the region can be expected. Folks that are susceptible to health complications due to long duration smoke exposure should make arrangements to minimize their exposure sooner rather than later. (NRCG)
- NRCG will need an agreed upon comprehensive plan outlining prioritization of incidents and resources. (NRCG)
- While aggressive initial attack will largely serve as the initial response strategy for wildland fire, it's vital internally and externally to understand that under even average fire season conditions, it's highly likely we will not have the resources or capability to extinguish all wildland fires. Prioritization will be required from the start to ensure the most effective use of resources in the areas of highest priority and only where probabilities of success are high. Throwing everything we have at every start will lead to resource shortages in short order if/when resources are exposed to COVID-19. (NRCG)
- Consolidation of various agency direction on order to identify discrepancies that could pose a concern for responders. (C/GNF)
- Mitigations for movement of forces within and across Regions. IMT mitigations. (C/GNF)
- Ensure copies of the NWCG "Infectious Disease Guidance for Wildland Fire Incidents" are posted and readily available on incidents. Also, include this document with information on State health organization contacts for out-of-GACC IMTs incoming to the Northern Rockies GACC (part of in-brief packet). (USFWS)
- Handwash stations can be scarce resources in rural areas particularly during busy seasons and late in the season – then what? (USFWS)
- Moving personnel from state to state. (NDFS)
- Quarantine issues –who pays for what. (NDFS)
- Camp logistics. (NDFS)
- Add value. This effort is requiring the focus of key players at a key time. Focus on issues that we need help with/don't waste time on measures we don't need your help with. Don't add work or measures that don't add value. Recognize that success in this GA is very much interagency including local government. Do not let any one agency to dominate this effort; especially with silly stuff or agency specific needs and measures that don't apply to or benefit other members. Focus on what pertains to the members collectively. (MDNRC)
- Feedback from the field will be critical. We have the luxury of time right now, so let's use it by having a open forum/discussion to help develop a workable "framework" for how we might do business this summer. (IPNF)

Northern Rockies Coordination Center (NRCC) COOP Attachment – COVID-19

In the event the Regional Office/State Office/Field Office and NRCC is affected from COVID-19 the following guidelines will be implemented:

With minimal activity and ordering (will be a Center Manager determination).

- Employees with telework agreements will be asked to work from home if they have internet capability. If not, they will be assigned work that doesn't require internet.
- Employees will be assigned a dispatch function or other work as appropriate.
- 1-2 personnel may be required to physically be in the office for incident support, especially when aircraft ordering is occurring.
- All doors will remain closed and locked and access will be only granted to those who are mission critical.

During pre- fire season with incident activity (will be a Center Manager determination):

- NRCC will staff as appropriate to meet incident needs and work with the NRCG agencies in determining essential personnel. This may be a combination of physically staffing NRCC and telework of certain functions.
- Plan on staff of 2 that will staff the office for 2 weeks, and rotate to the next 2 etc. Meteorologists will alternate 1 at a time with 2 weeks in the office and then switch.
- All doors will remain closed and locked and access will be only granted to those who are mission critical.

During fire season with incident activity (will be a Center Manager determination):

- NRCC will staff as appropriate to meet incident needs and work with the NRCG agencies in determining essential personnel. This may be a combination of physically staffing NRCC and telework of certain functions.
- Plan on staff dividing on 2 teams made up of 4 each in office for 2 weeks, rest will telework, and then switch.
- All doors will remain closed and locked and access will be only granted to those who are mission critical.

In the event of a NRCC employee testing positive for COVID-19 the following will be implemented:

- All employees will be instructed to telework while the office is professionally sanitized.
- All Staff will follow the guidelines set forth by CDC, due to possible exposure.
- During this time, if incident activity warrants staffing, the Center Manager will determine the appropriate staff size needed to accomplish our mission.
- No access to NRCC will be granted to anyone other than NRCC Staff.
- All Employees within NRCC will monitor health and relay and symptoms to Center Manager.

In the event NRCC needs to be shut down due to COVID-19 the following will be implemented:

- Employees will telework from home if activity allows.
- If during typical fire season and incident activity, the Center Manager will work to find space in other Dispatch Centers or a local hotel to move NRCC operations.

- This may also involve procurement (rental) of computers, phone lines, etc. commensurate with incident activity and staffing needed.
- A request will be made to each Dispatch Center to place orders direct to each other if possible until NRCC is operational.

Appendix F – Remote Operations - Virtual Technology

Incident management teams have become more and more reliant on the use of technology that requires a more robust network with internet access. High-speed internet availability is essential to supporting an incident especially when working remotely.

Internet/Intranet Access

- Mobile Broadband Networks (ATT, Verizon etc.)
- ISP (cable, fiber, DSL providers)
- Satellite Systems

The use of readily available Internet Service Providers (ISP) have the equipment and staffing to support a range of connectivity needs at an ICP. Mobile broadband networks and satellite system providers also provide similar services. Deciding on what type of service to use will depend on availability, requirements and costs. Remote users have the same options at a smaller scale. The use of portable network systems can use broadband, cable, fiber or satellite technologies. These methods and size of equipment depend on the amount of bandwidth needed. One user or small group might only need a USB modem or hot spot depending on cellular availability. The use of a local provider at an office, school or business can be the best solution if available. Remote users without cell coverage or local connectivity would require satellite equipment.

Figure 2examples on internet access

Once connectivity has been established, the functionality for voice calls, virtual meetings and access to necessary applications can be made.

Voice Communications

- Cellular Networks
- Landline
- VoIP (voice over Internet protocol)
- Radio
- PTT Applications

Voice communications provides a basic way to connect with team members and cooperators. This can be as simple as an office landline or voice over IP (VoIP) phone. Smart phones and radios provide mobility, but radios can be limited if not connected via an application or specialized equipment. Push-to-talk (PTT) applications are available to use with or without radios on most smart phones. Many off the shelf VoIP phone systems are available to use over the internet and are very inexpensive. SAT phones are the most expensive but provide mobility in a small package that covers most of the country.

Figure 3examples of voice communications

Virtual Meetings

- Skype, Zoom (basic, simple, easy to use)
- Microsoft Teams, WebEx (intermediate, easy to use, license restrictions)
- Adobe Connect (robust, available across agencies, requires support)

Virtual meetings have become the way we are conducting much of our interaction and collaboration. It is cost effective, efficient and reduces travel exposure.

While on assignment to the Paradise Fire in Washington State, The National Incident Management Organization utilized two portable satellite systems that delivered data, telephone and broadband connectivity to users at the fire. Prior to the deployment firefighters only means of communication was through a two-way radio system that was used to give radio briefings. Delivery of incident action plans, maps and other material were driven to the helibase and flown to helispots daily. These trips took over three hours to get to firefighters on the line and most of the time flights were delayed due to weather.

Once the portable satellite systems were in place, the passing of information could be accomplished through emails, and phone call via laptops and smart devices. Additionally, daily briefings were held using Adobe Connect. This conferencing software allowed for the delivery of audio, video and engaging content across devices. Use of these technologies reduced exposure and costs while improving capability, efficiency and redundancy. The design, development and deployment of these types of technologies are outside the norm and if available are limited in scope and vary in cost.

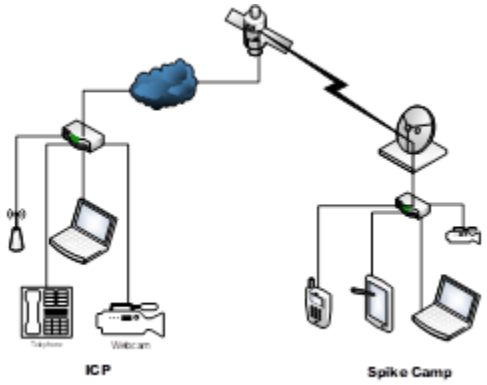

Figure 4 Paradise Fire spike communications

Applications & Software Access

- Incident Applications (e-ISuite, FireNet, IROC, ArcGIS, etc.)
- Resource tracking
- Email
- Box, OneDrive, SharePoint
- WFDSS, SIT-209, WIMS
- Facebook, Periscope

Application & Software Considerations

Units will need to define task purpose and need to conclude appropriate tool/applications for use.

- Number in audience and purpose of meeting. Video platforms have participant limits.
- Is there a need to display/share information? Will Agency firewalls limit use or sharing?
- Will other entities such as county agencies or the public be able to access the applications, and do the tool/applications have a good feedback loop or ability to comment?
- Use of virtual tools may require time to train and learn. Some tools require multiple presenters to handle presentations and coordination of feedback. Access to platform on Gov devices?
- Can tools/applications record presentations or save data for required documentation?
- Licenses may be limited or need purchased, or passwords require time to acquire.
- Does the tool/application have the ability to encrypt video or data sharing for security?
- Have capabilities been explored for tools/applications we currently have? Are there low-tech solutions that could be used that would be effective in a remote environment?
- What equipment is needed to use the tools remotely and be effective, i.e. cameras, monitors, portable printers, scanners headsets, hotspots, MiFi.

It goes without saying that the need for applications and software are essential to meeting team's missions. The way we gather and share information, develop plans, order support needs and execute operations are in some way passed through applications.

Necessary Support Services (dependent on location)

- ITSS, COML
- Internet Service Provider
- Satellite Service Provider
- Broadband Service Provider
- Mobile Communications Services
- Local network support (school, business, etc.)

Comparison of live streaming services

All programs have free trials.

Program	Cost	Live Stream	Availability	Account Sharing	Special Needs
Be Live Very Popular	$30/mo	Facebook, YouTube	Anyone	Connected to ONE-Facebook account Maybe create Facebook profile everyone can access and like every fire page	Initiate with desktop, not mobile (chrome, safari) Guests can be mobile Can refresh, see comments Can schedule-sends Facebook post/reminder Records to Facebook, not comp, can manipulate screens in real time (orientation, make one bigger than the other)
Zoom	$15/mo/host $55/mo to stream	Facebook, YouTube	Personal/agency accounts	Each person needs an account	Webinar platform is additional $40 Must have webinar to live stream Video quality Can record to comp No comments visible
Streamyard		Facebook, YouTube, Instagram	Anyone		Free-20 hours/mo Broadcast from desktop/laptop, no mobile ****Still in Beta testing
Blue Jeans	$40	Facebook	Anyone	One account	Has phone number people can call in Limited, $$ Video is framed/squished when side by side
Ecamm Live	$79 one time	Facebook, YouTube, Periscope, Twitch			Must have a Mac, tech know how Utilizes skype up to 5 guests Can use pre-recorded video during live
Microsoft Teams	Free		Anyone with Office 365	No	

Facebook Multi-person	Free	Facebook	Currently unavailable	Uses personal account to stream to Group	Limited to personal acct/groups (no pages)
Webex Meet					
Go to Webinar					
				Loola, Webinar Jam, OBS, Wirecast,	Programs that do not have streaming capabilities or too expensive/ high tech

Appendix G – Northern Rockies Remote Situation Unit Briefing Paper

Northern Rockies Remote Situation Unit
Briefing Paper

William A. Phillips, Co-Coordinator
Northern Rockies Situation Unit
406-370-4516
william.a.phillips@usda.gov

Morganne Lehr, Co-Coordinator
Northern Rockies Situation Unit
406-531-4232
morganne.lehr@usda.gov

2019 Northern Rockies Remote Situation Unit

Background
In 2017, Northern Rockies Training Center staff developed the remote situation concept which was presented and approved by the NR board, and subsequently stood up remote sit for 32 days supporting Area Command, Type 1 and 2 IMTs, and 10 other groups and functions.

In 2018, The Remote Situation Unit was not utilized, even though CGAC expressed interest in setting up a national Remote Situation Unit. Instead, the NR Data Standards Task Group was established with board support to standardize workflows, processes, tools, and data management of all NR IMTs. The NR GIS Data Standards were implemented, reviewed, and submitted to NRCG subcommittees following an AAR with all SITLs and GISSs in the Northern Rockies. Additionally, NIFC worked with the NR Data Standards Task Group to improve national geospatial standards and incorporated much of the NR Data Standards in preparation of the 2019 season.

The standardization of GIS workflows fostered in-depth conversations about what support an RSU could provide to incident management teams for the 2019 season. RSU coordinators worked with the Northern Rockies Ops and the Northern Rockies Coordination Center to develop a plan to set up the NR RSU at PL3. IMTs were briefed of the RSU Plan during the 2019 Spring Team Meeting in Missoula and CGAC once again expressed their interest in the concept.

2019 Operations

The RSU received numerous requests for support prior to PL3. Initial requests came from the SWGA, in support of the T3 Whitewing Fire in May, which was funded directly by the incident support code. An additional request from SWGA was made shortly after but could not be supported due to scope of effort.

The RSU was then ordered by a NIMO team in July and was officially stood up under a resource order for the Cornucopia Complex in Alaska. The RSU received additional support requests from the Beeskove and North Hills incidents. As work on the Cornucopia Complex wound down, the RSU was shortly reassigned to Beeskove before subsequently being ordered under the NR support code, when additional NR requests were made.

Although the Northern Rockies did not reach PL3 during the 2019 season, the RSU supported eleven NR incidents, one SW incident and one complex in Alaska (see 2019 Incident Report for incident specific information). This included support for one local unit, nine IMT3s, and two IMT2 with technology, data, geospatial, IR, satellite imagery, and mapping products. All NR IMTs tablets and GIS hard drives were set up with firmware updates and loaded with data ready for initial team assignments saving GISSs up to 20 hours of work prior to team assignments. Additionally, the RSU worked with NIROPS to demo and implement new processes for hosting data to improve efficiencies.

The RSU evaluated staffing daily to remain right sized yet flexible for incoming needs and briefed the NRCC on staffing level and incident support. At the height of operation, the RSU had (2) GISS, (3) GISSt, (1) SITL, and (2) SITLt, rotating a total of 8 personnel through. RSU staff charged their time appropriately to incidents based on support provided and the NR Support code was used to supplement management and coordination of the RSU.

2019 Challenges

- Technical complexities:

  - Integrating interagency computers and network limitations;
  - Lack of high-speed internet alternatives at the AFD;
- Integration with Type 1 and 2 IMTs;
- Preseason agency data acquisition.

2019 Successes

- Supporting multiple incidents with reduced staffing improved personnel and cost efficiencies;
- All incidents received mapping support similar to a Type 1 Situation Unit (2 SITLs and 2-4 GISSs);
- Over 33 days RS supported an average of 2.6 incidents per day with an average staffing of 4 personnel;
  - The average personnel staffing included 50% trainees;
- NRCC brought in a SWGA SITL to observe/participate in hopes of establishing a SW remote sit in 2020;
  - The Southwest and Great Basin are in communication to establish RS in 2020

2020 Recommendations

Recommendations for the 2020 fire season will be discussed with the NR Board in November 2019. Recommendations will be based on the support provided by the board to continue efforts supporting data continuity across all phases of incident management from preseason to post fire data support. The recommendation is that remote situation can remain a supported function of the Northern Rockies Coordination Center during periods of high fire activity, but without the data standards support, remote situation unit will become less effective.

Fire GIS support remains a collateral duty for those involved in maintaining high quality standards for the Northern Rockies. There is a significant amount of work that goes into coordinating and implementing pre-season data standards efforts. These efforts create efficiencies that result in a net reduction of work required for incident support pre and post fire. As a result, IMTs have access to effective map products before they arrive at an incident, allowing them to focus their efforts on effective planning and reduce risk to responders. Furthermore, data collection standards aid in agency post fire restoration and salvage efforts, as natural resource planners can hit the ground running, without cleaning up the data to make it consistent across the landscape. The development of these Fire GIS consistencies and efficiencies is not currently part of any agencies program of work in this Geographic Area. NRDSTG members are therefore committing time outside their program of work, which remains limited. Support of a Fire GIS position could create a significant net benefit to all interagency partners and responders.

Northern Rockies Remote Situation Unit

Briefing Paper

William A. Phillips
Co-Coordinator
Northern Rockies Situation Unit
406-370-4516
william.a.phillips@usda.gov

Morganne Lehr
Co-Coordinator
Northern Rockies Situation Unit
406-531-4232
morganne.lehr@usda.gov

Date: 4/10/2020

Topic: 2020 Coordination and Implementation of NR Remote Situation as a function of the proposed Remote Implementation IMT

Issue Summary:
Due to the COVID19 pandemic, the Northern Rockies Remote Situation Unit is being used as a model for implementing key IMT functions remotely during the 2020 fire season. While the concept was tested in 2017, and fully implemented in 2019, many of the established workflows need and require updating to accommodate changes in technology, platforms, and methodologies. Due to high workloads, changes in priorities, and the fast-paced pandemic, the implementation of these updates has not been obtainable. If the preseason updates are not accomplished, the NR Remote Situation Unit has a low probability of success during the 2020 fire season.

Recommendation:
To meet the needs of Northern Rockies IMTs for the 2020 fire season, and reduce duplication of efforts, preseason preparation and in season implementation **should fall under the responsibilities of the proposed Remote Implementation Incident Management Organization.** Within the Organization, a team of subject matter experts will be pulled together to:

1. Update critical GIS processes and workflows;
    a. Compile interagency basedata;
    b. Update map templates;
    c. Update efficiency tools;
    d. Develop processes to assist the NR in the conversion to ArcGIS Pro.
2. Update Mobile Data Collection methods to meet new platform needs;
    a. Update basemaps;
    b. Web maps;
    c. Mobile services.
3. Explore new and current GIS technologies, to improve processes and efficiencies;
4. Identify RSU needs for interoperability and technical support;
    a. Connectivity;
    b. Rental Computer;
    c. Licenses;
    d. Network drive.
5. Develop remote training/webinars;
6. Develop collaboration platforms;
7. Produce a replicable RSU Framework for other geographic areas to implement, if desired;
8. Provide communication and collaboration with National/Geographic efforts;

9. Coordinate and implement the 2020 Remote Situation Unit for the Northern Rockies;
    a. Collaborate with incident IMT SITL;
    b. Provide initial incident setup;
    c. Extend geospatial support and services to incidents, as requested.

Having the NR Remote Situation Unit be a function of an IMO fosters inter-IMO collaboration during the development of other remote IMT functions. Furthermore, it allows for team members to be fully dedicated towards the effort which provides consistency and fosters capacity building.

Appendix H – Wildfire Smoke and COVID-19

Background on Wildfire Smoke and COVID-19 Risks

Community exposure to wildfire smoke has been directly linked to deaths in the United States. A Washington State study attributed 600 deaths to wildfire smoke in 2017 and a US Environmental Protection Agency study estimated annual mortality from wildfire smoke to be between 1500-2500 deaths.[1,2] In addition to an increased mortality risk, exposure to smoke (from wildfire and biomass burning) may affect lung health and has been found to be associated with respiratory infections (influenza, bronchitis, and pneumonia).[3,4,5] Although research has not been conducted on how exposure to wildfire smoke is associated with COVID-19, it may lead to an increased susceptibility to COVID-19 infection, worsen the severity of the infection and pose a risk to those who are recovering from serious COVID-19 infection. These risks from wildfire smoke and COVID-19 combined are an important consideration for both the health and safety of communities and fire personnel.

Wildfire Smoke and COVID-19 Response Plan

As part of the Interagency Wildland Fire Air Quality Response Program (IWFAQRP), the Forest Service began assessing the implications of wildfire smoke combined with presence of COVID-19 in March 2020, leading to the initiation of a smoke response plan. The IWFAQRP (wildlandfiresmoke.net) was created to directly assess, communicate, and address risks posed by wildfire smoke to the public as well as fire personnel as recognized and authorized under the Dingell Act of 2019. The program depends on four primary components: 1) specially trained personnel called Air Resource Advisors (ARAs) who are deployed to incidents to address smoke issues, 2) air quality monitoring capability through a cache of deployable instruments, 3) smoke concentration, dispersion modeling, and public air quality prediction outreach tools, and 4) coordination and cooperation with agency partners. Although the Dingell Act directs use of ARAs to the maximum extent practicable on federal wildfires with Type 1 teams, wildfires of all organization levels with smoke impact issues may also benefit from ARA assistance. States and tribes use ARAs as well and are anticipated to have similar needs in 2020. Dispatches are similar to the IMET program by name request in coordination with the IWFAQRP as outlined in Regional Mob Guides.

All elements of the response plan are subject to change as new science emerges surrounding wildfire smoke and COVID-19 and as operational needs develop/evolve throughout 2020. In order to address both concerns for communities and fire personnel, the IWFAQRP and its partners are developing tools to address the challenge of wildfire smoke and COVID-19. Tools under rapid development are: 1) a Smoke Ensemble Forecast Tool (SEFT) to improve ARA and partner operational smoke forecasting, 2) a Smoke Early Warning System (SEWS) that integrates fire outlooks and potential for significant fire growth with emissions to provide extended warnings to communities, and 3) a Community Assessment of Prescribed fire Smoke Risk (CAPSR) tool for COVID-smoke vulnerability and at-risk populations. At the national level, IWFAQPR is coordinating with the Centers for Disease Control and Prevention, National Institute for Occupational Safety Health, Environmental Protection Agency-Office of Air Quality Planning Standards, Environmental Protection Agency-Office of Research and Development,

National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, and Federal Emergency Management Administration to ensure alignment, coordinated and consistent messaging, and to leverage efforts addressing potential risks posed by wildfire smoke and COVID-19.

Key activities of the IWFAQRP and ARAs are highlighted below.

Interagency Wildland Fire Air Quality Response Program

- Ensure the national cache of smoke monitoring instruments is adequately stocked, well managed, and ready for dispatch.
- Ensure there will be a prepared cadre of ARAs who are well trained in smoke/COVID-19 issues, prepared to use new analysis tools, and work closely with health agencies on public messaging and outreach.
- Prepare ARAs for collaboration with agency administrators and teams on best management practices for reducing smoke exposure of personnel.
- Assess and maintain a roster of ARAs available for remote assignment.
- Create talking points and guidelines for ARA use when engaging with partner agencies and the public on smoke/COVID-19 health issues.
- Create analysis tools for ARAs and train them to better assess smoke effects to communities at heightened risk of, and/or dealing with COVID-19 outbreak and individuals recovering from COVID-19.
- Develop approaches to have ARAs promote individual and community awareness of interaction of smoke/COVID-19 and how to be more smoke ready.

Air Resource Advisors

- Forecast smoke dispersion and concentrations for fire camps and downwind communities.
- Work with MEDL and local health agencies on smoke issues
  - Relay information about smoke predictions (expected concentrations and duration).
  - Characterize vulnerability of community to COVID/smoke.
  - Design and implement locally appropriate outreach and messaging.
- Promote smoke ready community concepts and inform the public and health agencies where to get additional information.
- Establish key lines of communication with IMT, Planning Section, PIO and AA as appropriate based on IMT guidance.
- Order and deploy smoke monitoring equipment as needed.
- Develop smoke projections from active wildfires.
- Work with local health departments to inform of predicted smoke concentration and duration.
- Use dispersion modeling to help identify best locations to minimize smoke for ICP and remote camp locations.
- Use approved messaging to inform the public about smoke/COVID-19 concerns.

- Collaborate with agency administrators and teams on best management practices for reducing smoke exposure of personnel.

Best Management Practices for Wildfire Smoke Considerations

General

- Based on the concerns regarding wildfire smoke and COVID-19, consider having all fire personnel watch the NWCG *Smoke: Knowing the Risks* video (Video)
- Each Geographic Area should establish "leads" (by state if applicable) to plan for and communicate on potential wildfire smoke interactions with COVID-19. Such leads should have practical smoke experience and/or training.
  - Assess local smoke monitoring capability for PM2.5.
  - Inventory federal, state and local agency PM2.5 monitor cache status of equipment, personnel availability and policies for deployment.
  - Communicate expected needs for IWFAQRP Cache equipment.

Agency Administrators

- Establish relationships and contacts with state and local health departments and air regulatory agencies for use when smoke impacts are anticipated and for use by ARAs when assigned to incidents. Promote smoke ready community concepts and where the public and health agencies can go to get information. See: EPA.
- Consider assignment of ARAs to an incident (assigned to the IMT) as early as possible to help address smoke issues including smoke and COVID-19.
- Discuss wildfire smoke and COVID-19 when in-briefing IMTs and/or developing delegations of authority with clear expectations for addressing smoke (e.g.: close coordination with Air Quality Agencies and State/County Health Department).
- Establish guidelines for mop-up standards and other administrative and engineering controls to minimize smoke exposure.

Incident Management Teams

- Locate Incident Command Posts, modular base camps and spike camps in areas with least smoke exposure practicable. Use ARAs for assistance on smoke dispersion and smoke accumulation predictions.
- Consider use of hotels with AC/air handling ability or use of air filtration devices to house teams and crews if smoke will be a persistent problem in camps.
- Consider placing an air quality monitor or sensor in camps to track smoke levels.
- Consider providing medical units with air filtration for isolation of COVID-19 patients.
- Use *Six Minutes for Safety* to discuss smoke impacts on firefighter health.
- Discuss ways to reduce working in smoke on a daily basis.
- Rotate personnel in and out of situations where smoke exposure is unavoidable (mop-up, holding, and firing operations) or use other techniques to reduce smoke exposure.

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