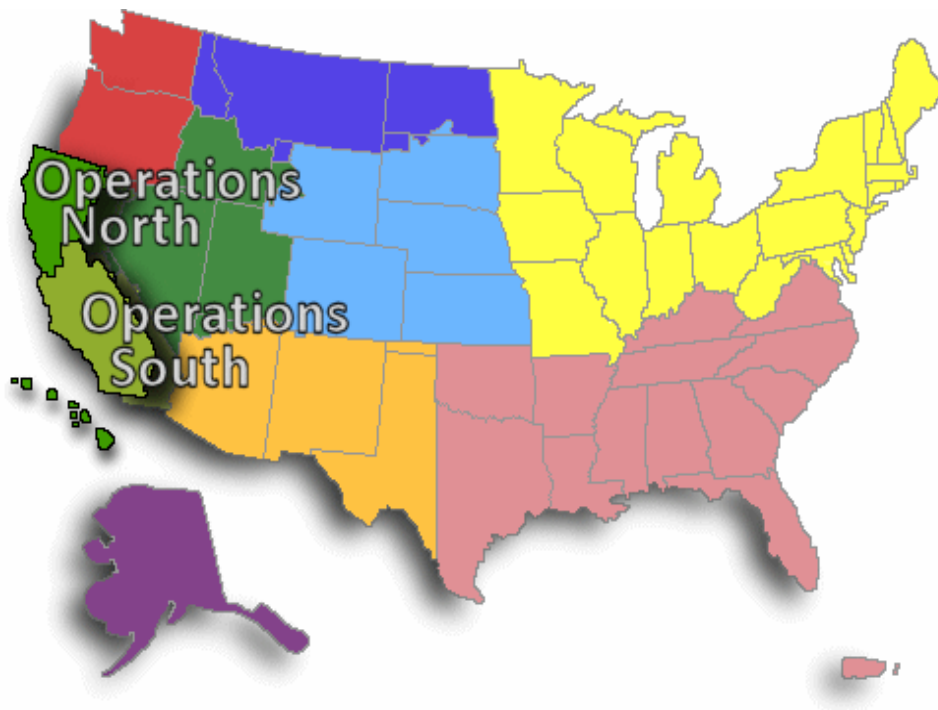


# Wildland Fire Response Plan COVID-19 Pandemic

## Pacific Southwest Area

May 2020



Last Update: 5/03/2020

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# 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 (WFRP) 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, sources of change, details of the modifications, and the dates that the modifications were 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 WFRP
5/04/2020	ACT 3 – Jalbert	Pacific Southwest Area WFRP – first version – delivered to Californina Wildfire Coordinating Group Chair	5/04/2020

# 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 Pacific Southwest Geographic Area. The plan is intended to be a single point of reference, providing considerations for those tasked with the management of wildland fires. The plan presents 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.

**This WFRP is designed with two main sections:**

Information that is **“Strategic”**

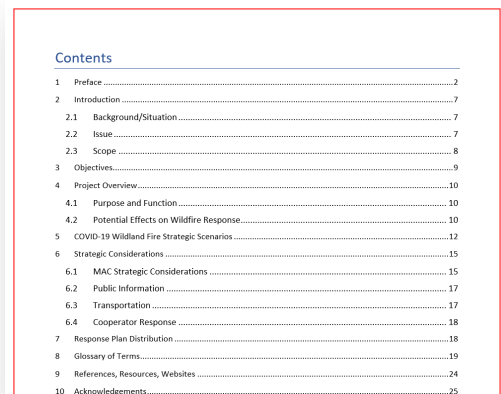
Information that is **“Tactical”**

**Strategic information** is intended for all levels of wildland fire response – national level, regional level, local level, and module level. There is applicable information for everyone in the Strategy portion of the document. Strategic information is found throughout the document but occurs primarily in the main body of the document on pages 7-28.

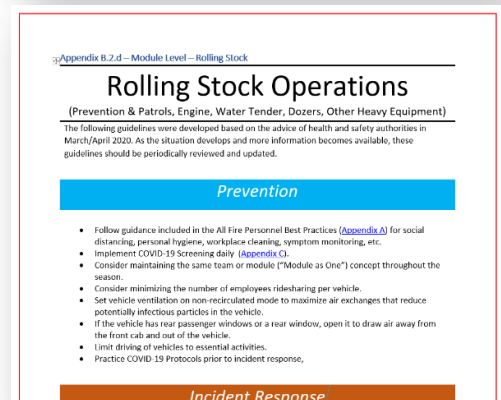
**Tactical information** is intended for local area fire managers, Incident Management Organizations, and the “boots on the ground” in the format of Best Management Practices (BMPs). The BMPs are found in [Appendix B](#) of the Document. The BMPs have been designed to be concise, to the point, easily 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 read the entire document and to use the [Contents](#) page to assist with identifying information most applicable to their needs.



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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

BMPs may not offer the detail that some personnel would like. This detail can be supplemented by locally prepared information (see NOTE below). The COVID-19 pandemic is an evolving situation that has never been encountered before in wildland fire management. All the answers are not known at the current time, and new information and experiences will continue to emerge throughout the fire season.

This WFRP was developed by Area Command Team #3, in coordination with as many of the appropriate agencies, organizations, and individuals in the Pacific Southwest Geographic Area (PSWGA) 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. 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 efforts, ensured a coordinated effort and 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 strategic framework of considerations and not specific tactical procedures. The plan 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. The continued addition of practical information is strongly encouraged. The BMPs provided in the Appendices are intended to offer information to help reduce the likelihood of COVID-19 spread during wildland fire suppression operations. But, for them to be effective, they will need to be strictly followed. Due to potential changes from past experiences and practices, local personnel are strongly encouraged to practice, repeat, and understand the information provided in each BMP.

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## 2 INTRODUCTION

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### 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 infect 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) and the [California Department of Public Health's](#) (CDPH) websites.

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 to carry the virus without presenting any symptoms. COVID-19's spread rate suggests the virus is more contagious than any of its predecessors, as well as most strains of the distantly related influenza virus.

According to the World Health Organization (WHO), 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 WHO 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. Current mitigation measures have resulted in business closures, reductions in commercial travel, grocery supply shortages, and restrictions on all types of gatherings with even moderately small numbers of individuals.

### 2.2 Issue

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 I](#)).

## 2.3 Scope

The National Area Command Teams (ACTs) 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 (GAs) in the US, Geographic Area Coordinating Groups (GACGs), Geographic Area Coordination Centers (GACCs), NMAC, and the National Interagency Fire Center (NIFC) External Affairs Staff to complete 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 the 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). Specific areas include 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 directly or indirectly involved in wildland fire response; providing general strategies useful at national levels, general strategies and implementation considerations pertinent to GA/regional/state levels, and recommended best practices highly relevant at local levels and various functional areas of wildland fire response activities during this pandemic.

This WFRP for the COVID-19 Pandemic for the **Pacific Southwest Geographic Area** is a living document and will be managed (continually reviewed and updated, as appropriate) by the **California Wildfire Coordinating Group (CWCG)**.

An important component of planning for COVID-19 wildland fire response not included is a “scale-down” feature. As the pandemic diminishes, there will be threshold conditions that allow for 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” issue.

Although COVID-19 occurrence may currently be negligible (or completely absent) in some counties where wildland fire response occurs, we should not assume that risk of exposure is negligible and that BMPs can be discarded. Our interagency wildland fire 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 wildland fire response personnel, as well as to and from those communities near where the wildland fire occurs. Fire managers should continue to use BMPs until experts advise that they can be discarded.

This WFRP incorporates intent provided by CWCG member agencies up to the point of delivery as a final product. This WFRP is not intended to conflict or supersede existing or future agency-specific direction. **National Agency direction is referenced in the References, Resources and Websites Section of the WFRP.**

Content from the following CWCG agency-specific documents has been incorporated here:

CAL FIRE, *CAL FIRE COVID-19 Flow Chart\_Final*.

CAL FIRE, (2020, March 15) *CAL FIRE COVID-19 Response Guidance\_Final*.

California Interagency Incident Management Team 3, *Pandemic Plan*.

F.I.R.E.S.C.O.P.E., (2020, March 20), *COVID-19 Bulletin*.

U.S. Forest Service, Pacific Southwest Region 5, *COVID-19 CDC Guidelines*.

### 3 OBJECTIVES

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This WFRP for the COVID-19 Pandemic for the **Pacific Southwest Geographic Area** was prepared with 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 WFRPs that address wildland fire response strategies, considerations for implementation actions, and responsibilities of all involved participants. This information is presented in a format useful for national level management groups, GA/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 the following:
  - Maintain continuity in response capability for
    - initial attack,
    - extended attack/complex fire management,
    - dispatch, support, and coordination.
  - Identify and document 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 (IMTs) and all units to mitigate COVID-19 exposure concerns.
  - Identify, define, and document protocols for wildland fire response to areas with known exposure to COVID-19.
- Develop WFRPs without contradicting any currently developed protocols by any Agency.
- Ensure that the WFRPs are developed to promote interagency coordinated response to wildland fire management regarding COVID-19.

## 4 PROJECT OVERVIEW

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### 4.1 Purpose and Function

Three Area Command Teams (ACTs) and one Incident Management Team (IMT) were mobilized with responsibilities to develop COVID-19 WFRPs 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, Pacific Southwest Area.
- **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 various local units. They also worked under 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 to and inclusion of all specific concerns for the GA covered by the plan.

The teams' coordination within each GA during development of the WFRPs enabled clear communication to all involved participants; vastly improved awareness and understanding of the purpose and intent of the WFRPs; eliminated some, but not all, duplication of efforts; 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 Wildfire 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 activities 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 any 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, raising additional concerns.

The wildland fire response system is unique regarding its structure, capability, and function 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 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 will severely tax the ability to maintain an adequate wildfire response, even during a moderately active fire season.

These WFRPs 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 WFRPs address exposure prevention, exposure mitigation, equipment and facility maintenance and care, and strategies for ensuring resource availability.

## 5 COVID-19 WILDLAND FIRE STRATEGIC SCENARIOS

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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 GA/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 BMPs 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 directly or indirectly involved in wildland fire response. These are shown in Figure 1. Information shown for these scenarios is applicable at all response levels and all organizational levels. This information illustrates strategic response considerations and actions employable at national, GA/regional, state, and local levels.

Figure 1 shows five possible scenarios that could be encountered during wildland fire 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 separates and restricts the movement of people who were exposed to COVID-19 to see if they become sick.](#)

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 includes recovery with strategic elements of prevention, containment, treatment, and management. The final scenario involves preparation for return to service following recovery from the disease.

## COVID-19 Progression and Impacts to Maintaining Wildland Fire Response Capability

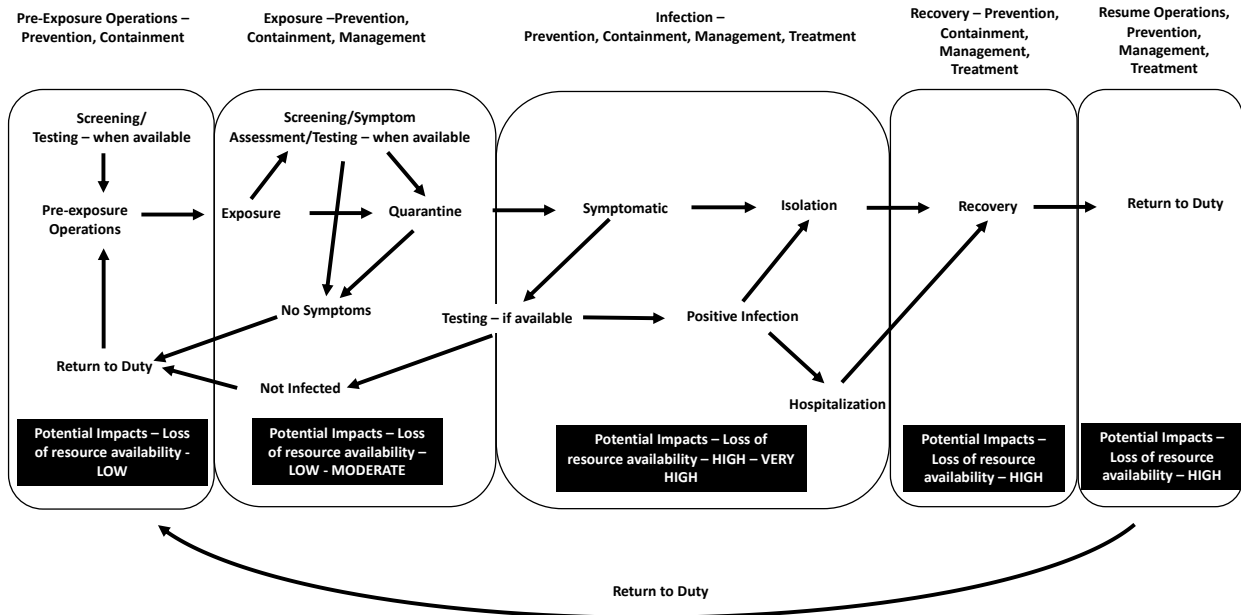


Figure 1: COVID-19 Wildland fire response operations, scenarios that may be encountered, and strategic planning elements for each.

The following table provides more detailed information regarding strategic issues, immediate needs, prevention/containment actions, and management/treatment actions (Table 1). 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 provided in [Appendix A](#) and [Appendix B](#) as BMPs.

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

Strategies	Immediate Needs	Prevention/Containment	Management/Treatment
<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• Maintain functioning wildland fire response operations from bases with regular crews.</li> <li>• Identify available commercial laundry businesses for disinfecting/cleaning of PPE and clothing.</li> </ul>	<ul style="list-style-type: none"> <li>• Define new protocols/standards for personal hygiene.</li> <li>• Define processes for equipment disinfection.</li> <li>• Acquire necessary equipment and/or support to disinfect equipment.</li> <li>• Obtain additional handwashing stations, as needed.</li> <li>• Contingency planning if not covered by existing COOPs,               <ul style="list-style-type: none"> <li>○ Designate 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> alternate bases.</li> <li>○ Designate 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> alternate staffing units.</li> </ul> </li> <li>• Obtain Level B or Splash Protective Suits for use in disinfecting equipment, as needed.</li> <li>• Determine availability of and acquire disease testing kits.</li> <li>• Determine proper responsibility for testing exposed personnel.</li> <li>• Determine 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.</li> <li>• Determine protocols for isolation and removal from active duty and locations.</li> </ul>	<ul style="list-style-type: none"> <li>• Close operating base to the public and all non-essential personnel.</li> <li>• Provide recommended social distancing guidelines.</li> <li>• Practice enhanced personal hygiene.</li> <li>• Screen all personnel when entering base area, before starting work – check temperature, overall feeling, coughing, and other symptoms.</li> <li>• Configure and set up testing capability for firefighters at local unit or local health facilities, when it becomes available.</li> <li>• Prioritize firefighters for testing and vaccination.</li> <li>• Isolate firefighters as much as possible.</li> <li>• Disinfect equipment on a regular basis.</li> <li>• Launder PPE on a regular basis.</li> <li>• Develop a plan for prioritizing fires for response, especially if COVID-19 spread is high and fire season activity is high.</li> <li>• Plan for shifts in wildland fire response strategy, ranging from highly prioritized IA to reducing overall firefighter exposure by prioritizing responses.</li> </ul>	<ul style="list-style-type: none"> <li>• Determine protocols for sending exposed individual home or to medical facilities.</li> <li>• Determine quarantine protocols in conjunction with local, county, and state officials.</li> <li>• Determine quarantine oversight responsibility.</li> <li>• Determine protocols to determine when individuals are available to return to active duty.</li> <li>• Provide incident laundry unit, if available. If not, use commercial services.</li> </ul>

## 6 STRATEGIC CONSIDERATIONS

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Specific recommended strategic and tactical considerations for fire managers at the national, GA, 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. Some of the 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. Strategic considerations of importance include, but are not limited to the following points:

### 6.1 General Strategic Considerations

#### **Fire Personnel Readiness.**

##### ***Consider:***

- ✓ Manage qualifications and train by delaying, virtualizing, expanding focus to COVID-19, and adding flexibility/waivers.
- ✓ Expand prevention activities through public information campaigns and closures, considering virtual opportunities.
- ✓ Pre-identify potential control locations for aggressive response.
- ✓ Expand use of emerging technology: leverage remote operations, briefings, sensing, and surveillance.
- ✓ Rapid contracting and focus on specific needs: explore opportunities for greater use of MREs, medical equipment, PPE, and remote sensing.
- ✓ Increase and maintain response capacity:
  - Seek additional aviation resources and local surge capacity.
  - Maximize use of permanent resources.
  - Employee support for emotional well-being.
- ✓ Track situational awareness: build tracking systems for situational awareness on firefighter exposure and infections.
- ✓ Practice social/physical distancing.
- ✓ Practice personal hygiene.
- ✓ Make laundering possible on a regular basis.
- ✓ Monitor personnel for symptoms.
- ✓ Test personnel when tests become available.
- ✓ Strictly adhere to BMPs listed in [Appendix B](#) and practice their use before fire activity increases.

#### **Modifying Strategies, Tactics, and Logistics.**

##### ***Consider:***

- ✓ Strategy and Tactics
  - Utilize suppression strategies that minimize the number of assigned personnel and incident duration.
  - Implement swift initial response to minimize possibility of large fire occurrence, while not employing higher risk tactics to keep fires small.
  - Adapt existing WFRPs to include all additional response options provided for in land and resource management plans.
  - Make full use of the range of available tactics and prepare for more discriminate use of resources, especially for fires that occur in high-risk areas.



- Explore opportunities for more indirect attack, focused use of heavy equipment, and designation of management action points using natural barriers.
- Plan for the potential for increased smoke loads to communities; plan and implement early warning/communication for likely events.
- Within agency protocols and to the degree possible, augment fire response resources with non-fire staff to help sustain fire response capability.
- Evaluate opportunities for application of aviation and mechanized assets to reduce assigned personnel.
- Use a prioritization process to ensure the effective use of resources.
  - Initial attack remains the highest priority, including the use of aviation assets.
  - Extended Attack/Complex Fire Management:
    - Use a prioritization processes for assigning resources to large fires.
- Expand use of Decision Support Centers in all GACCs.
- Utilize Predictive Services and professional judgement to balance assigned resources and incident duration.
- Use experienced smoke personnel and/or Air Resource Advisors (ARA) to assess where wildfire smoke may go and the impacts of smoke on firefighters and communities with COVID-19.
- Evaluate wildfire smoke level projections and trajectories during development of tactical operations.
- Prepare and implement remote incident management appropriate for the situation by IMTs. GAs 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 the minimum requirements for managing incidents safely.
- Closely evaluate large fire response to ensure best practices for prioritization, especially where life is imminently threatened.
- Evaluate the need for additional catering/showers/washing stations.
- Expand medical support.
- Physically separate groups of resources (maintaining the “Module as One” concept) in camps, when possible.
- Utilize closed camps with security, with no leaving camp to travel into communities.
- ✓ Consider minimizing transfer of vehicles among firefighters to avoid cross-over of employees and belongings and to support the “Module as One” concept.
- ✓ Have personnel carry extra PPE.
- ✓ Follow recommended guidelines for disinfecting fire equipment on a regular basis.
- ✓ Follow agency-specific policies and protocols regarding use of shared housing.

## 6.2 MAC Considerations

- ✓ Adhere to approved, established processes and procedures identified in the MACS 410-1 with the following considerations:
  - Utilize Predictive Services and professional judgement to balance assigned resources and incident duration.
  - Expand use of Decision Support Centers in all GACCs.
- ✓ Recommend that local units prepare contingency plans for resource drawdown during fire seasons.

- Consider existing staffing and action guides, existing dispatching run cards and guidelines, and how they will be affected by a 10, 30, or 50% reduction in strength of force of wildland firefighting and management resources.
- Identify options available during drawdown periods.
- Maintain a strategic coverage of resources to minimize back filling resources. Coordinate among cooperating agencies to ensure a collaborative strategy, helping to minimize unnecessary exposure.
- Maintain situational awareness of those areas throughout the GA where the likelihood of contracting COVID-19 is the greatest.
- Consider this issue during resource mobilization and incident prioritization.
- ✓ Consider activating the MAC groups earlier due to resource shortages created by COVID-19 conditions.
- ✓ Consider COVID-19 conditions in determining Preparedness Levels, as it pertains to the use of cooperators and National Guard resources.
- ✓ States should consider earlier activation of National Guard resources, including aircraft, due to fire activity and resource shortages.
- ✓ Determine opportunities to obtain international assistance, and if so:
  - Identify potential amounts of resources needed at escalating Preparedness Levels.
  - Identify sources of additional resources.
  - Consider early use and consul of Australian fire managers involved in 2019-2020 Australian fire season response, with limited and declining resource numbers.
  - Pre-plan any international agreements, waivers, funding, and other administrative requirements and have them completed by start of active fire seasons.
- ✓ NMAC and GMAC consider possible adjustments in resource drawdown, as fire season progresses.
- ✓ Understand specific agency guidelines regarding resource reassignment and demobilization.

### **Leveraging Best Available Information Management and Technology**

#### ***Consider:***

- ✓ Communication:
  - Expand use of technology and local networks for remote/virtual community meetings and updates.
  - Expand and focus communications by developing a COVID-19 communications tool kit and strategies for two-way virtual communication with communities.
- ✓ Technology:
  - Prepare for more remote operations, briefings, sensing, and surveillance.
  - Identify technology needs and costs; proactively implement actions.
  - Pursue increased use of UAS platforms (seek waivers). Expedite contracting of UAS equipment.
  - Identify and use the best technology to reach affected communities.

## **6.3 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 Public Affairs offices will maintain close contact with GA, national, and department office directives and be able to guide Public Information Officers (PIOs) on what can/cannot be released.

Many remote 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 impacted communities. This plan foresees that in almost every case, these tools are no longer available to PIOs in areas impacted by COVID-19. These communities should be identified and 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 maximize 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 Fire Information function.

## 6.4 Transportation

The focus of this section is to identify the various modes available to transport resources to an on-going incident from within the region or nationally, while considering the potential impacts of COVID-19 exposure and infection associated with each mode. While in travel status, refer to the Travel BMPs. See [Appendix E](#) for transportation specific information.

## 6.5 Cooperator Response

- ✓ Determine opportunities for use of military resources.
  - Identify how military resources can be used to 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 (e.g., 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, contractors, and stakeholders to review existing agreements and associated operating plans; identifying areas where preseason agreements and decisions are affected, given the current COVID-19 conditions. Ensure any identified limitations are well known and communicated to all levels of fire personnel, including field level responders.

## 7 RESPONSE PLAN DISTRIBUTION

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This WFRP will be handed off to the California Wildfire Coordinating Group, to be further distributed to:

- Coordination Centers
- Dispatch Offices
- Agency Administrators
- Fire Staff
- Incident Management Teams
- All levels of firefighting resources

## 8 GLOSSARY OF TERMS

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**Active monitoring:** 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 occurs 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).

**Cloth face covering/mask:** CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain. Cloth face coverings fashioned from household items or made at home from common materials at low cost can be used as an additional, voluntary public health measure. The cloth face coverings recommended are not surgical masks or N-95 respirators. [Face coverings](#)

**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.

**Community spread:** spread of an illness for which the source of infection is unknown.

**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, or 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 non-commercial 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:** 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:** general cleaning for prevention of spread; PPE consists of latex or rubber gloves, facemask, eye protection (goggles/face shield). 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; the swabs are sent to a laboratory for testing.

**Endemic:** 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 maintain 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 and state orders for more information.

**Exposure:** contact with someone infected with the coronavirus responsible for COVID-19, without wearing PPE.

**FirstNet:** the First Responder Network Authority (also referred to as FirstNet) is the independent authority within the National Telecommunications and Information Administration (NTIA), established by Congress in 2012, to develop, build, and operate a nationwide broadband network dedicated to public safety. The purpose of FirstNet is to have an interoperable public safety network so first responders don't have to compete for bandwidth, including cellular bandwidth, with non-public safety users. In 2017, through a public-private partnership, AT&T was awarded a 25-year contract to deploy

and operate the FirstNet network, including the use of 20 MHz of federally owned spectrum. Since 2017, Verizon has launched a private core of their own dedicated network for public safety and first responders, not directly connected with the NTIA FirstNet Authority or the federally owned spectrum. For more information refer to <https://firstnet.gov/>.

**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 facemask:** 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. Facemasks do not seal tightly to the wearer's face or 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 Base Automation:** In the Pacific Southwest Geographic Area, wildland fire agencies utilize some form of incident base automation platform. The federal agencies utilize the program e-ISuite, and CAL FIRE utilizes Incinet.

- **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.
- **Incinet:** a complete mobile computer network system, typically set up at an incident command base, and used to track and manage resources (fire engines, engine strike teams, crews, and miscellaneous personnel) in emergency situations. The system automates the Incident Command System (ICS) used to manage all emergency incidents, such as earthquakes, wildland fires, and floods. It is comprised of both a wired and wireless broadband computer network and a software application, used to automate and link the five sections of ICS. The five sections are Incident Command, Operations, Planning, Logistics, and Finance/Administration. By linking these sections and their related management activities, information is easier to obtain, validate, and utilize, fostering efficient and cost-effective use of resources.

**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 indications give the coronavirus an incubation period of two to 14 days, with symptoms most commonly showing at about 5 days after infection. (Source: WHO)

**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”:** 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 (departure from until return to home unit), a module must remain intact (e.g., no replacements to or from the module).

**N95 Respirators:** 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, 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 many people. (Source: 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 the following:

- staying out of crowded places, avoiding mass gatherings, and not gathering in groups.
- 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:** 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 separates and restricts the movement of people who were exposed to a contagious disease to see if they become sick. In these cases, the people exposed (or potentially exposed) are separated and have restricted movement imposed. Quarantines are by order of a local, state or federal health official. (Source: [CDC](#))

**SARS-CoV-2:** 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 if a medical evaluation is needed.

**Self-quarantine:** staying home and away from other people as much as possible after exposure 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 the following:

- staying out of crowded places, avoiding mass gatherings, and not gathering in groups.
- 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, 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 disease.

## 9 REFERENCES, RESOURCES, WEBSITES

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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:

### **[COVID-19 References Resources Websites](https://firenet365.sharepoint.com/:x/s/2020_COVID-19_GeographicArea_WRP168/EfygkzSDAHJOMTGw7eh2wxkB-VTb-4H0PD7TkjVX20fLA?e=481kAa)**

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](https://firenet365.sharepoint.com/:x/s/2020_COVID-19_GeographicArea_WRP168/EfygkzSDAHJOMTGw7eh2wxkB-VTb-4H0PD7TkjVX20fLA?e=481kAa)

## 10 ACKNOWLEDGEMENTS

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The Pacific Southwest Geographic Area and the National Multi-Agency Coordinating Group would like to express their appreciation to ACT #3 for their rapid mobilization and adaptation of processes to develop this WFRP. To achieve the objectives as described in the NMAC Correspondence 2020-06 Delegation of Authority, Area Commander Scotty Jalbert 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 no experience exists, and complete this in a relatively short time completely under a virtual working environment.

In development of this WFRP, ACT #3 worked in close cooperation with the Pacific Southwest Geographic Area and collaborated with other ACTs in a lateral fashion. This ensured that information in the WFRP was current, consistent, applicable at all levels, and includes the best information and protocols available at the time of publishing.

The following members of Area Command Team #3 assisted with the development of this Plan:

Area Commander	Scotty Jalbert	CAL FIRE / SLU
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Area Commander (T)	Jim Ferguson	CAL FIRE / LMU
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Assistant Area Commander, Logistics	Jim Neumann	CA-MRP

ACT #3 would like to acknowledge the time and efforts of the members of the CWCG and their colleagues to provide input, feedback, agency and area specific information, and review of the WFRP. Without this support and active engagement, this WFRP would not be a complete product and would not provide the necessary information and value throughout the GA.

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## Appendix A – All Fire Personnel Best Practices

### General Information

- Follow the most current direction from the CDC, California Department of Public Health (CDPH), and the local health authority, which currently provide 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 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 scheduled workdays, 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 the Health Insurance Portability and Accountability Act (HIPAA) regulations – when they are at risk of exposure to potentially life-threatening infectious diseases through contact with victims during emergencies. Knowing 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

- Practice social/physical distancing.
  - Avoid physical contact with co-workers and the public; maintain a 6' spacing.
  - Consider appropriate mitigation measures or PPE (plastic shields, masks) for personnel that have greater potential for close contact with incoming responders.
  - Minimize transfer of vehicles among firefighters to 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 (teleconference/video conference, etc.), per agency protocols and approval. See [Virtual operations paper](#), Appendix G.
  - Limit group size to numbers in compliance with local and/or statewide direction.
  - Limit access to incident facilities for all non-incident personnel.
  - Require personnel to keep a log of close contacts and submit to supervisors daily.
  - Wear a facemask, bandana, or other suitable cloth covering when social distancing is compromised (vehicles, briefings, etc.).
- Work under the “Module as One” concept.
- Minimize exposure by not mixing personnel (e.g., keep same personnel assigned together for entire season, on same schedule, to same vehicle, on same assignments, in same camp, etc.). Do not mix modules.
  - Maintain the “Module as One” concept during transit to and from incidents.
- 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. [Face coverings](#)
  - **Use of non-Nomex face coverings on the fireline is not advised.** Fireline personnel should maintain social distancing, to the extent practical.
  - Voluntary use of cloth face coverings is now recommended for use in public settings where other social distancing measures are difficult to maintain, especially in areas of significant community-based transmission.
  - Face coverings should be maintained in a sanitary manner 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).
  - Provide handwashing stations near frequently entered facilities.
  - Use hand sanitizer when getting in and out of vehicles and after fueling.
  - Do not touch eyes, nose, or mouth with gloved or unwashed hands.
  - Cover nose and mouth when coughing or sneezing. If using a tissue, immediately dispose of 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 (depends on availability, laundry service).
  - Wipe down all non-laundered apparel (shoes, wristwatches, jewelry) with disinfectant.
- Workplace/equipment/cleaning procedures.
- Develop routine daily cleaning procedures for vehicles and other equipment.
  - Use disinfectants on the list of [EPA approved cleaning supplies for COVID-19 prevention](#).
  - Designate a trained employee to supervise 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. [EPA approved cleaning supplies](#)
  - Use disposable paper towels and approved cleaning solution or wipes for cleaning; wipes – not sprays – are recommended to avoid aerosolizing the virus on contact.
  - Thoroughly wet surfaces with cleaning solution and air dry; do not actively dry surfaces.
  - Wash hands thoroughly after cleaning equipment, surfaces, etc.
- Other steps to reduce personal risk.
- Eat smaller, more frequent meals that include fruits and vegetables to maintain blood sugar and support 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, comfort, cool temperatures, and low noise.
- 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.
  - If utilizing hotels, stay in your room to the extent possible and wipe down high touch areas. Consider eating in your room or utilizing take out or delivery.
  - Follow guidelines for cleaning/disinfecting surfaces when staying in motels/hotels.
  - 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.
- Symptom monitoring.
- **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, 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 come in contact 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 provide 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, ensure personnel are tested as soon as symptoms appear.

- Positive infection.
  - 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 (e.g., contact tracing).
  - Review wildfire smoke exposure leading up to symptoms.
  - Follow local agency and cooperators guidelines for notification procedures.
  - Consider using a text alert system to notify personnel who have had possible contact with an infected person.
  - Decontaminate 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) time: close affected facility for 7 days to allow any virus to attenuate naturally; (2) use of a qualified contractor to clean facility; and (3) use of a pre-identified, specially trained team of local agency personnel to decontaminate 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 local health department 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 and/or sanitation of equipment.

For additional information, refer to the most recent Fire Management Board Memo and its Attachment.

Fire Management Board. (2020, May 1). *Establishment of Interim Guidance for Prevention of Coronavirus Disease (COVID-19) During Wildland Fire Operations: Memo to Fire Management Board Members. [FMB Memorandum No.20-008].*

Fire Management Board. (2020, April 23). *Attachment [FMB Memorandum No.20-008a].*

## Appendix B – Best Management Practices

1. Coordinating Group
  - a. [Mobilization Operations \(GACC/Dispatch\)](#)
  - b. [Mobilization Operations \(Mob Centers\)](#)
  - c. [CACHE Operations](#)
  - d. [Local Government, Contractor, International, Military Support](#)
2. Module Level
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  - b. [All Rotor-Wing Aviation \(Helicopter\)](#)
  - c. [Airbase/Helibase Operations](#)
  - d. [Rolling Stock \(Engine, Water Tender, Dozer, Heavy Equip., Prevention/Patrol\)](#)
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  - h. [Incident Commander](#)
5. Management Practices
  - a. [Agency Administrator](#)
  - b. [Fire Management](#)
6. Pacific Islands [Mobilization and Support](#)

# GACC/Dispatch

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This document is intended to be used as a tool for GACC/dispatch operations during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices for COVID-19.
- Isolate mission-critical dispatchers from the general public, office staff, and non-essential partners. Restrict certain areas and create physical separation between modules, support functions, and other mission-essential functions.
- Avoid group briefings in a room. If possible, work toward a telework/virtual workforce to reduce exposure.
- Utilize “Teams” for communications remotely.
- If operational, utilize Firenet features.
- Select a possible location away from ordering dispatch center to minimize exposure, e.g., hotel, location on compound, or residence.
- Consider possible need for extra phone lines and/or cell phones.
- Consider hiring a professional cleaning service to disinfect work areas daily.
- Clean AND disinfect frequently touched surfaces, including tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks. If surfaces are dirty, clean them using detergent or soap and water prior to disinfection. Eliminate snack tables and community ice chests.
- Recommend personnel bring a lunch, reducing what is prepared in a community kitchen.
- Build a backup pool of local dispatchers.
- Develop a “Secondary Dispatch” relationship. Ensure Continuity of Operation Plan is updated to incorporate COVID-19. Exercise this COOP.
- Add additional workspace to ensure six-foot separation. Consider using office trailers.

## *Incident Response*

- Conduct the daily “[COVID-19 Screening Tool](#)” at the start of every shift.
- Have cleaning and sanitizing supplies available for use by all personnel.
- Continually assess availability of IMTs. Given illnesses and departments suspending IMT members’ participation due to the current COVID-19, some IMTs may be required to stand down or combine with other IMTs.
- Sanitize work areas before and after shift (keyboards, monitors, phones, desktop surfaces).
- Clean community refrigerator daily.
- Preorder additional laptops through Buying Team.
- Before an employee returns to the home unit, conduct the daily “[COVID-19 Screening Tool](#)” checklist before returning home.
- Follow CDC, local health agency, and/or agency-specific guidelines regarding use of PPE.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Confirm emergency contact information for all employees.

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Updated: 5/02/2020

# Mobilization Centers

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This document is intended to be used as a tool for extended attack/complex wildland fire response for a Mobilization Center (MOB) during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Decontaminate the cab or interior of all arriving vehicles based on CDC, local, and state health agency protocols.
- Brief all incoming crews on established center practices and protocols.
- Establish an isolation facility and how to manage it, in anticipation of an exposure.
- Develop an IWI plan specifically for COVID-19.
- Isolate mission-critical support staff from the general public. Restrict certain areas.
- Identify alternative mobilization centers that allow for social/physical distancing.
- Where possible, work toward a virtual workforce to reduce exposure.
- Clean AND disinfect frequently touched surfaces. Eliminate snack tables and community drink ice chests. Follow CDC and local health agency guidelines.
- Build a backup pool of ICS trained retirees.
- Have medical staff manage COVID-19 testing prior to check in by crews (infrared thermometers).

## *Incident Response*

- Conduct daily “[COVID-19 Screening Tool](#)”.
- Mobilize Interagency Resource Representative that is trained in exposure response and transportation requirements.
- Use the Security Manager staff to maintain a log of all personnel (responders, contractors, visitors, etc.). Initiate prescreening procedures.
- Ensure food service contractors, caterers, and vendors are implementing COVID-19 practices and following local health department standards and guidelines.
- Federal caterers will continue to supply meals, with various modifications: seating may not be provided; single serve areas will no longer be available; use of services through walk-up windows will be limited; and the use of a self-serve salad bar will be discontinued.
- CAL FIRE Mobile Kitchen Units (MKUs) will continue to supply meals, with potential modifications: use of services through walk-up windows will be limited; and the use of a self-serve salad bar may be modified. MKUs will have additional staffing, more handwashing stations, and foaming hand sanitizer stands.
- Remove self-serve drink stations; have an individual issue drinks at a staffed station.
- Separate eating spaces; reduce serving lines. Consider pre-packaged meals.
- Maintain readily available sanitation supplies for distribution.
- Monitor local, regional, and national exposure information for sharing with staff.
- Utilize [WFRP Transportation](#) guidance for mobilizing resources to and from an incident.

- As staff is demobilized, run the [“COVID-19 Screening Tool”](#) before returning to home unit.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx><https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Confirm emergency contact information for all employees.

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Updated: 5/0/2020

# Cache Operations

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This document is intended to be used as a tool for a cache operation during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Utilize CDC and local health agency guidance for cleaning equipment and within the facility.
- Identify COVID-19 PPE (cloth face coverings) and supply needs to have on hand for 2020 season.
- Develop social/physical distancing practices for the facility site plan.
- Develop an IWI process for exposure possibility.
- Arrange for additional facilities to be used for storage and decontamination of returned items, separate from the main cache.

## Incident Response

- Conduct daily “[COVID-19 Screening Tool](#)”.
- Consider ordering heavily for anticipated activity early (MREs, NFES 1660 and 1675 kits, personal barrier kits, nitrile gloves, masks, and gowns).
- Employ return cache protocols for cleaning, sanitizing, and re-issue.
- Implement supply and materials delivery protocol to reduce handling and face-to-face interaction.
- Practice social/physical distancing, per CDC and local health agency recommendations.
- Ensure drivers and materials handlers practice CDC and local health agency recommended sanitizing practices for vehicles and equipment.
- Consider additional sanitary facilities to accommodate personnel cleanliness.
- Hold equipment suspected of contamination in a secure location for a prescribed amount of time to reduce virus survival. (<https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html>)
- Consider ALL returned cache items as being exposed to COVID-19.
- The Cache Manager and Supply Unit Leaders from deployed IMTs should be in contact daily.

## Exposure Response

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Confirm emergency contact information for all employees.

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Updated: 5/02/2020



# Cooperator Response

(Local Government/Contractor/International Support/Military Support)

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This document is intended to be used as a tool for extended attack/complex wildland fire response for cooperators, local government, contractors, international resources and military during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated. Private contractors provide a variety of wildland fire resources that can be utilized during all phases of fire suppression activities. Inform company representatives of the best management practices in [Appendix A](#) – All Fire Personnel Best Practices. and appropriate portions of [Appendix B](#).

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Using CDC and state health authority guidelines, develop and utilize COVID-19 avoidance procedures for staff and resources.
- Reduce exposure by conducting as much work (briefings/meetings/gatherings) virtually or remotely, as technology allows.

## Incident Response

- Conduct daily “[COVID-19 Screening Tool](#)” .
- Make efforts to ensure that all cooperators and contractors understand the respective jurisdictional agency’s COVID-19 wildland fire response protocols.
- State and federal agencies should consider sharing and/or streamlining procedures and protocols for ordering cooperating agency aircraft, when aggressive response is warranted.
- If commuting back and forth from home bases is essential, cooperators should continue to maintain COVID-19 mitigation measures.
- Avoid conducting meetings/briefings in closed areas. Conduct by virtual means when possible.
- Utilize social/physical distancing measures as much as possible during travel and at incident.

## Exposure Response

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Confirm emergency contact information for all employees.

# All Fixed-Wing Aviation

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This document is intended to be used as a tool for wildland fire response for all Fixed-Wing Aviation during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Briefings: utilize video conferencing, texting, messaging, radio or loudspeaker.
- Limit who enters the aircraft to mission-essential personnel and maintenance personnel only.
- Minimize use of shared equipment and disinfect/refurbish before and after utilization.
- After each flight, the pilot or the contractor’s personnel should follow [CDC/FAA/GSA/ OEM](#) guidance to disinfect the aircraft interior including handles, seating, harnesses, and the cockpit. Any mitigating steps that may change the contract specifications will require contracting officer/agency coordination.
- After maintenance/fueling, disinfect the aircraft per [CDC/FAA/GSA/ OEM](#) guidance.
- Work with the GACC to return tactical (SMKJ, LEAD, ATGSs, ATs, etc.) and flight support crews to the same base every night to reduce travel induced exposure for flight and maintenance crews.
- Consider increasing the use of UAS to mitigate the exposure risk to aviation personnel, when appropriate and available.

## *Incident Response*

- Conduct daily “[COVID-19 Screening Tool](#)”.
- Use electronic dispatch orders of resources (106 dispatch cards, Kneeboard, etc.).
- Use minimum crew staffing levels to limit exposure.
- Consider pooling ATGSs within the GACCs and assign as needed. Utilize multiple bases during high activity, even though other bases may be farther from the incident, if support staffing will allow.
- Maintain situational awareness of personnel being transported and crews you are working with on the fireline; report any indications of personnel with symptoms.
- Work with the dispatch offices and the GACC to return pilots and flight crews to the same base every night, when possible, to reduce travel induced exposure for flight and maintenance crew.
- Consider assigning Fixed-Wing and Airspace Coordinators prior to actual fire season.
- Recognize some Airbases may be unstaffed or closed due to COVID-19 activity.

## Exposure Response

- Do not use aircraft suspected of being exposed to personnel with COVID-19, until properly decontaminated per [CDC/FAA/GSA/ OEM](#) guidance as applicable.
- Implement team or local unit exposure response plan. (See [Appendix A](#))
- Isolate aircraft away from active operations and personnel.
- Notify the aircraft controlling the incident or dispatch of status change.
- Contact maintenance inspector after properly disinfecting aircraft.
- Contact contracting officer/agency for further guidance.
- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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Updated: 5/02/2020

# All Rotor-Wing Aviation

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This document is intended to be used as a tool for wildland fire response for all Rotor-Wing Aviation operations during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Briefings: utilize video conferencing, texting, messaging, radio, or loudspeaker.
- Limit who enters the aircraft to mission-essential personnel and maintenance personnel only.
- Work with minimum crew staffing levels to limit exposure.
- Consider putting helicopters into limited status and 2:1 management, where and when possible.
- Consider using one-hour callbacks during periods of low activity.
- With approval of the Contracting Officer, reimburse vendors for transporting relief pilots and crews by vehicle and/or light aircraft versus commercial airlines.
- Pilots and crew members shuttling personnel may need to consider wearing masks.
- Consider increasing the use of UAS to mitigate the exposure risk to aviation personnel, when appropriate and available.

## *Incident Response*

- Conduct daily “[COVID-19 Screening Tool](#)”.
- Use paperless dispatching (106 dispatch, text message, CAD, rip and run, kneeboard).
- Consider assigning a Rotor-Wing Coordinator early in the season at the GACC to increase efficiency.
- Maintain situational awareness of other personnel being transported and crews you may be working with on the fireline. Passengers may need to wear masks or bandanas in addition to full PPE.
- Pilot or Contractor’s personnel should decontaminate interior and exterior of the aircraft between missions per [CDC/FAA/GSA/ OEM](#) guidance.
- Consider establishing multiple helibases within the incident to separate crews and missions (water dropping, cargo, crew shuttle, etc.) and limit potential exposures.
- Limit multi-use equipment (headsets, helmets, knee boards, gloves, flight suits, tools).

## Exposure Response

- Do not use aircraft suspected of being exposed to personnel with COVID-19, until properly decontaminated, per [CDC/FAA/GSA/ OEM guidance](#).
- Isolate aircraft away from active operations and personnel.
- Notify the aircraft controlling the incident or dispatch of status change.
- Contact maintenance inspector after properly disinfecting aircraft.
- Contact contracting officer/agency for further guidance.
- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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Updated: 5/02/2020

# Airbase/Helibase Operations

This document is intended to be used as a tool for wildland fire response for Airbase/Helibase operations during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Briefings: utilize video conferencing, texting, messaging, radio, loudspeaker, pad to pad, pit to pit, or other small modular briefings.
- Limit who enters the airbase/helibase to mission essential personnel only.
- Work with minimum crew staffing levels to limit exposure.
- Airbase/helibase should follow disinfection guidance provided by [CDC/FAA/GSA OEM](#) for their facilities. Consider contracting for these services, if possible.
- If possible, contract for a block of rooms or apartments for the season for agency and contractor flight crews to use. Disinfect the rooms prior to and after each use.
- Work closely with the dispatch office and the GACC to return ATGSs, ATs, LEADs, and flight crews to the same base every night to reduce travel induced exposure.
- Use the contract one-hour call back to reduce the number of personnel at the airbase during periods of low activity.
- Examine the ordering of additional aircraft to help reduce firefighters needed on the ground through more aggressive initial attack.
- Consider options such as double crewing all aircraft during periods of high use and call up additional Call When Needed (CWN) services to obtain a more aggressive initial attack.

## *Incident Response*

- Conduct daily “[COVID-19 Screening Tool](#)” .
- Consider using multiple bases during the response, even though other bases may be farther from the incident in order to limit the amount of personnel at the airbase.
- Airbases/Helibases should identify the number of resources that can be staged at existing facilities to maintain social distancing and separation. It may be necessary to acquire additional office and sleeping space (office trailers, tents, portable shelters, camper trailers).
- Consider additional hand washing stations at the base.
- When proper separation at an airbase cannot be achieved, utilize alternate locations on the airfield or adjacent airports to stage aircraft that do not require the infrastructure of an airtanker base (e.g., helicopters, light fixed-wing, etc.).
- 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.
- When possible, assign retardant loaders to each pit, with proper PPE, for the shift duration, to limit the number of hose and nozzle contact exposures.

- Communicate with other bases and dispatch offices to ensure positive coordination (airspace, radio frequencies, supervision assigned, etc.), as multiple aircraft from different bases and agencies may be present during initial attack.

## *Exposure Response*

- Do not use aircraft suspected of being exposed to personnel with COVID-19, until properly disinfected per [CDC/FAA/GSA/ OEM](#) guidance.
- Isolate aircraft away from active operations and personnel.
- Notify the aircraft controlling the incident or dispatch of status change.
- Contact Maintenance Inspector after properly disinfecting aircraft.
- Contact Incident Contracting Officer/Agency for further guidance.
- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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Updated: 5/02/2020

# Rolling Stock Operations

(Engine, Water Tender, Dozers, Heavy Equipment, Prevention/Patrol Mods)

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This document is intended to be used as a tool for extended attack/complex wildland fire response for Rolling Stock Operations during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated. Expect change in how business is conducted. Strategic thinking and tactical planning, in conjunction with how information is shared across the landscape, will take on new looks.

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Continue to monitor and follow CDC recommendations, local health department, or agency guidance and prescribed practices.
- Make sure vehicles and equipment are fully stocked with disinfecting wipes, hand sanitizers, and soap.
- Maintain crew modules and/or operators as an individual unit to maintain health and reduce risks of exposure. Minimize backfilling or temporarily assigning relief personnel to the engine, tender, or heavy equipment, if possible.
- Stress off-duty responsibility in protecting themselves and their crew from exposure.
- Frequently (daily or after each use) sanitize all equipment and vehicles to reduce possible virus contamination.

## Incident Response

- Conduct daily “[COVID-19 Screening Tool](#)”.
- Refer to additional local or geographic plan for incident response guidance.
- Weigh the risk of responding in multiple vehicles. Where possible, limit the sharing of vehicles for transport of personnel and equipment to the line.
- Plan for travel to and from incidents (food, hydration, lodging) to avoid general population exposure. Use CDC guidance and protective measures at fueling stops, rest areas, and other necessary business areas.
- Sanitize vehicles and equipment at the end of each operational period, utilizing approved cleaning supplies available at Ground Support/Supply Unit.
- Maintain separation from other resources as much as possible during tactical operations. Avoid sharing tools, water, radios, etc. Minimize shifting of resources and equipment between different divisions of the fire to reduce possible cross-exposure between resources.
- Maximize use of radio and/or electronic communication (in place of face-to-face) with overhead and adjacent resources; establish positive communication with heavy equipment operators and overhead, maintaining social distancing. Assign a briefing frequency.



## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Confirm emergency contact information for all employees.

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Updated: 5/02/2020

# Crew Operations

(IHC, T1, T2IA, T2, WFM)

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The need to maintain the health and safety of crew modules during any type of illness episode is critical to maintaining a viable incident response. The COVID-19 virus has exponentially increased this challenge. The following BMP provides some guidance to avoid exposure and contain possible infection. Some are practical common-sense measures, and some will challenge usual crew cohesion activities. This document is intended to be used as a tool for extended attack /complex wildland fire response for Crew Modules during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated. For in-camp support crews (e.g., CCC, etc.), refer to the Facilities BMP.

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Continue to monitor and follow CDC recommendations and local department or agency guidance and prescribed practices.
- Individuals must maintain high hygiene standards and social distancing in the work environment, home, and off-duty activities to avoid exposure of crew members to the virus.
- Avoid group physical training (PT) activities. PT should be done outdoors when possible: run, hike, or bike.
- To maintain health and reduce risks of exposure, maintain crew modules as an individual unit. Minimize backfill or temporary assignment of relief personnel to the crew except when there is a reasonable assurance the backfill staff will not create a COVID-19 exposure.
- Control access of non-crew personnel to facilities, vehicles, and equipment.
- Discourage the use of community ice chests.
- Frequently (daily or after each use) clean all equipment and vehicles to reduce possible virus contamination.

## Incident Response

- Conduct daily “[COVID-19 Screening Tool](#)”.
- Be self-sufficient for duration of travel to and from incidents (food, hydration, lodging) to avoid general population exposure. Use protective measures at fueling stops, rest areas, and other necessary business areas.
- If hotels are utilized, ensure rooms are maintained in accordance with [CDC recommendations](#).
- At incident, maintain appropriate social distancing; minimize personnel involved in check-in. Consider radio or remote briefings. Utilize separation from other resources in sleeping areas (request to sleep out of ICP or Incident Base), food service, supply, staging, and other areas of typical congregation.
- Crews sleeping in large tents should remain in the same tent for the duration of incident.
- Order additional cache items (e.g., MREs, PPE) to maintain self-sufficiency.
- Maintain separation of other resources as much as possible during tactical operations.

- Maintain social/physical distancing within crew. Avoid sharing tools, water, radios, etc. Rely on electronic communication in place of face-to-face.
- Be cognizant of maintaining personal hygiene throughout the operational period. Allow time for washing and decontamination.
- Expect change in how business is conducted. Time frames and methods will be different.
- Exercise patience and maintain vigilance of the health of crew members.

## *Exposure Response*

- Initiate on-site isolation of individual(s) and have them wear cloth face coverings/masks.
- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials have been notified.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Personnel should report symptoms or potential COVID-19 exposure to their immediate supervisor.
- Supervisor will report through chain of command to IC, Agency Representative, or local Agency Administrator.
- If available, incident staff will interview (may be virtual) affected individual(s) for symptoms and determine locations and other personnel that might have been exposed, using COVID-19 approved protocols.
- If exposure is confirmed, DMOB individual(s) to home unit, if possible, for isolation or have them seek further medical attention.
- Follow existing local public health department orders for transportation back to unit.
- Decontaminate equipment, vehicles, crew transports, PPE, etc.
- Consider crew isolation, per agency direction or policy.
- Confirm emergency contact information for all employees.

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Updated: 5/02/2020

# Initial Attack

(Local Initial Attack)

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This document is intended to be used as a tool for initial attack wildland fire response during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Incident Commanders should emphasize and promote decontamination, individual care considerations, and social distancing in all actions.
- Minimize utilization of ‘fill-in’ firefighters to modules assigned to incidents.
- Consider limiting cross-module training assignments.
- Decentralize staging areas to minimize face-to-face contact and intermix of modules.
  - Assure hygienic considerations are met when activating formal staging areas.
- Maintain enough decontamination supplies on all apparatus and at all stations.
- Use appropriate PPE when communicating face-to-face to reduce potential exposure.

## Incident Response

- Conduct daily “[COVID-19 Screening Tool](#)” for all firefighters, including multi-day incidents.
- Create suppression strategies to minimize assigned personnel and incident duration.
  - Use predictive services and professional judgement to balance assigned resources and incident duration.
- Use aggressive initial response to minimize possibility of large fires.
  - Staff fires with resources commensurate with values and incident objectives.
- Minimize briefing size and limit face-to-face contact as much as possible.
  - Consider use of technology (e.g., video technology, radio, map-sharing) to provide operational briefing, as available.
  - Limit face-to-face briefings to mission critical leaders and keep size as small as possible.
  - Place focus on subsequent briefings to modules and employees.
  - Inform responding cooperators of COVID-19 mitigation measures your agency has adopted.
- Consider the application of aviation and mechanized assets to reduce assigned personnel.
- Consider logistical support needs to implement daily decontamination procedures of apparatus and equipment on multi-day incidents.
- Consider holding assigned modules on incidents overnight to minimize home exposure potential.
- Utilize line spike and small spike camps as much as possible.
- Try to maintain resource self-sufficiency to reduce exposure potential.
- Fireline supervisors and module leaders should track interaction with individuals and other modules, to share as needed.

- Personnel should report symptoms or potential COVID-19 exposure to supervisor immediately and initiate local protocols.
- Consider adjusting operational periods to minimize face-to-face module interaction contingent upon strategic needs (e.g., stagger or split shifts).
- Implement mop-up strategies to keep fire in place and limit smoke exposure.
- Consider conducting AARs using available technology and other social distancing mitigations.
- Encourage media inquiries and public information requests to be addressed virtually, using available technology.

## *Exposure Response*

- Incident Commander(s) needs to initiate action to minimize potential cross contamination to other responders.
- Consider Incident within Incident (IWI) activation.
- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Confirm emergency contact information for all employees.

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Updated: 5/02/2020

# Operations

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COVID-19 will change how incident operations are conducted, challenging communications in tactical operations and within incident management organizations. Expect less resource availability, longer response times, and delayed logistical support. This document is intended to be used as a tool for operations personnel during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Utilize virtual methods of communication (e.g., smart phone, radio, internet, map-sharing) as much as possible to minimize face-to-face interactions during incident processes.
  - Incorporate social distancing practices into face-to-face interactions.

## Incident Response

- Conduct daily “[COVID-19 Screening Tool](#)”.
- Be prepared to be self-sufficient for the duration of travel to and from incidents (e.g., food, hydration, lodging) and initial periods of the incident.
- Establish Command and Control communication protocols, utilizing methods consistent with COVID-19 mitigation measures.
  - Employ social distancing, masks, and crowd-size mitigations.
- Use incident established procedures (electronic methods or personal distancing standards) to provide intelligence, conduct planning processes, brief, and conduct administrative business.
- Consider use of available reconnaissance technology (e.g., UAS/drones, satellite, multi-mission aircraft (MMA)) to reduce personnel in close quarters environments such as helicopter cabins.
- Develop and prioritize strategies and tactics based on Values at Risk and COVID-19 risk to responders and public. Consider appropriate numbers to accomplish the incident objectives.
- Factor in time for resources to accomplish COVID-19 mitigations (e.g., decontamination of apparatus and tools, personal hygiene) during operational and off-shift periods when developing plans.
- Consider plans to mitigate health impacts on modules.
  - Consider reduction in total length of assignment for individuals.
  - Consider shorter operational periods, if possible.
- Maintain separation of suppression modules on the fireline and during off-shift periods.
  - Consider staggering resource shifts to avoid congestion points.
  - Maximize the use of line and spike camps.
  - Minimize shifting resources and equipment to different geographic areas of the fire to reduce possible cross-contamination between resources.
- Fireline supervisors and module leaders should track interactions with individuals and other modules, to share as needed.

- Provide pre-designated resource response to potential COVID-19 patient outside of other medical response needs.
- Ensure the resource is equipped with appropriate PPE.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Consider Incident Within Incident (IWI) Activation.
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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Updated: 5/02/2020

# Logistics Section

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This document is intended to be used as a tool for Logistics personnel for wildland fire response during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Plan for unconventional ICPs, camps, lodging, or situations, and supporting them with diminished capabilities.
- Plan to establish and support scattered spike camps (divisions, segments, etc.) to meet modular isolation recommendations.
- Prepare ahead of assignments how to logistically support an incident with increased staffing and equipment.
- Coordinate with local and regional caches to determine COVID-19 support capabilities for an incident.

## *Incident Response*

- Conduct daily “[COVID-19 Screening Tool](#)”.
- Restrict public access to all incident facilities.
- Consider badging at ICP, base, and other satellite facilities.
- When possible, shift away from large centralized ICPs and camps.
- Limit interaction between the incident and local communities.
- Arrange for on-incident support vendors and contractors (fueling, maintenance, sanitation, laundry, etc.) that are in compliance with CDC and CDPH COVID-19 protocols.
- Implement rigorous cleaning and sanitation practices, per CDC and local health agency recommendations.
- Order additional Logistics Section staff to support dispersed operations. Increased staffing will allow greater presence at Check-In, Supply, and Demob.
- Check with Facilities for security needs at isolation areas.
- Plan for scenarios where isolation location can be established.
- Work with local and regional caches to establish ordering and return protocols.



## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s)
- Ensure local health officials are involved.
- Establish Medical Unit standards and procedures to ensure monitoring, testing and isolation treatment procedures can be adhered to.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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Updated: 5/02/2020

# Ground Support Unit

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This document is intended to be used as a tool for extended attack/complex wildland fire response for a Ground Support Unit during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Educate and enforce cleaning and hygiene standards, per CDC and local health agency guidelines.
- Prepare and brief staff of IWI process for COVID-19.

## *Incident Response*

- Conduct daily "[COVID-19 Screening Tool](#)".
- Limit personnel numbers and foot traffic in mechanic and inspection areas.
- Maintain BMP protocols with drivers when transporting personnel and materials.
- Establish a "one driver-one vehicle" assignment policy.
- Consider additional sanitary facilities to accommodate personnel cleanliness.
- Brief all vehicle and equipment contractors on required prevention practices daily.
- Maintain situational awareness when transporting people or materials (airport runs, spike camp runs, etc.).
- Thoroughly clean and decontaminate all arriving ground support unit vehicles prior to use.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s)
- Ensure local health officials are involved in cooperative communications
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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Updated: 5/02/2020

# Medical Unit

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This document is intended to be used as a tool for extended attack/complex wildland fire response for a Medical Unit during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Implement medical screening prior to entry.
- Consider establishing ICP/Base Camp as a “clean zone.”
- Control access to ICP/Base Camp.
- Consider virtual work environment, where feasible.
- Have contingency plans (PACE – Primary, Alternate, Contingency, Emergency) in place for connectivity failures (extra landline phones, etc.).
- Medical unit personnel should review the most current guidance from the CDC.  
<https://cdc.gov/coronavirus>
- Review the Infectious Disease Guidelines for Wildland Fire Incident Management Teams.  
<https://www.nwcg.gov/sites/default/files/committee/docs/iems-infectious-diseases-guidelines.pdf>

## *Incident Response*

- Conduct daily [“COVID-19 Screening Tool”](#) .
- Ensure proper PPE is available, as recommended by CDC.
- Consider placing an Infectious Disease THSP in the Command structure.
- Develop close working relationships with local health authorities and facilities. Inform them of the team arrival and numbers of individuals visiting their area of responsibility. Consider alternative testing and treatment locations.
- Consider additional sanitary facilities to accommodate personnel cleanliness.
- Be aware that guidance for COVID-19 response in the wildland environment is evolving; keep up to date on changes. Stay current on developing guidelines for COVID-19.
- Identify alternative methods of providing medical supplies other than physical contact.
- Incidents should be prepared to establish a minimum of four medical stations in Camp:
  - Typical illness/injuries associated with suppression work.
  - Triage for COVID-19.
  - Quarantine, per local health official order.
  - Isolation, per local health official order.

## Exposure Response

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Establish Medical Unit standards and procedures to ensure monitoring, testing and isolation treatment procedures can be adhered to.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Consider known exposure, a response to exposure, or a positive test as an IWI and monitor/track it to conclusion.
- Incident ambulances should comply with local health authority requirements and carry all necessary supplies to disinfect the ambulance and PPE necessary for COVID-19 transport.

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Updated: 5/02/2020

# Supply Unit

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This document is intended to be used as a tool for extended attack/complex wildland fire response for a Supply Unit during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Develop a Supply Unit IWI COVID-19 protocol for the unit.
- Follow CDC and local health agency protocols for cleaning all work surfaces, tools, vehicles, and equipment.
- Arrange for additional unit-dedicated sanitation facilities and support.
- Consider using more space or area to issue and receive accountable and expendable items to maintain social distancing practices.

## Incident Response

- Conduct daily [“COVID-19 Screening Tool”](#).
- Consider using virtual technology for Ordering to increase social distancing.
- Have contingency plans (PACE- Primary, Alternate, Contingency, Emergency) in place for connectivity failures (extra landline phones, etc.).
- Limit the number of personnel working in a yurt, tent, building, or room.
- Limit the number of personnel at distribution and receiving to essential people only.
- Establish sanitizing requirements for all cache returns, based on CDC and local health agency protocols.
- If possible, consider ordering heavy on MREs, 1660 and 1675 lots, and barrier kits for the incident.
- The Supply Unit Leader and Cache Manager should be in contact on a daily basis.

## Exposure Response

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

# Food Unit

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This document is intended to be used as a tool for extended attack/complex wildland fire response for a Food Unit during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- All food item preparation and packaging for delivery to wildland firefighters need to be completed according to FDA guidelines for food preparation with the current COVID-19 situation (<https://www.fda.gov/food/food-safety-during-emergencies/food-safety-and-coronavirus-disease-2019-covid-19>).
- While infection is most likely caused by person-to-person contact, ensure safe handling of all backhaul by wearing gloves and performing proper hand hygiene.
- Recommend additional cleaning/sanitation protocols.
- Ensure food service contractors, caterers, and vendors are implementing COVID-19 practices and following local health department standards and guidelines.
- Increase capacity of self-sufficiency in Food Unit by being able to support seven days of fresh foods, bag lunches, freeze dried foods, or MREs.

## *Incident Response*

- Conduct daily “[COVID-19 Screening Tool](#)”.
- Ensure food service contractors, caterers, and vendors are implementing COVID-19 practices and following local health department standards and guidelines.
- Federal caterers will continue to supply meals, with various modifications: seating may not be provided; single serve areas will no longer be available; use of services through walk-up windows will be limited; and the use of a self-serve salad bar will be discontinued. Consider having the caterer provide meals in “to-go” boxes rather than sit down meals (no mess tents).
- CAL FIRE Mobile Kitchen Units (MKUs) will continue to supply meals, with potential modifications: use of services through walk-up windows will be limited; and the use of a self-serve salad bar may be modified. MKUs will have additional staffing, more handwashing stations, and foaming hand sanitizer stands.
- Remove self-serve drink stations; have an individual issue drinks at a staffed station.
- Services should be provided to IMT, ICP personnel, and resources that are in close proximity to ICP; however, most fireline resources can be supported through small spike camp operations (to-go style feeding options, similar to “hot cans” or Cambro containers).
- If supporting multiple small spike camps, packaging needs to increase as does logistical support if delivery is required. Packaging will increase trash/recycling volumes.
- Plan accordingly, as caterers may have supply issues.
- Consider MREs for initial attack, extended attack, and Type 3 fires when other options are not viable.

- When utilizing restaurants, ensure that they have facilities large enough to implement increased social distancing or use a takeout option.
- Consider additional sanitary facilities to accommodate personnel cleanliness.
- Consider staggering serving times and using alternate serving method(s) to meet social distancing guidelines.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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Updated: 5/02/2020

# Communications Unit/IT

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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 IT specialists are required to distribute communications and IT equipment to incident personnel and maintain, install, and repair equipment. This document is intended to be used as a tool for wildland fire response for a Communications/IT Unit during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Communications Unit Leaders (COML) and IT Specialists should develop plans for effective use of communications and IT equipment, determining which position/tasks can be done virtually.
- Develop standards for cleaning radio kits, repeaters, IT hardware, and storage labeling. Include best practices information with kits for care, use, and return. Follow manufacturers recommendations.
- Ensure appropriate and adequate COVID-19 PPE for unit personnel.

## *Incident Response*

- Conduct daily [“COVID-19 Screening Tool”](#) .
- Develop or review the “Incident Within an Incident” (IWI) with COVID-19 in mind.
- Require training on COVID-19 protocols for incoming resources prior to assigning tasks.
- Consider expanding bandwidth capabilities to meet the needs of the incident. Improve both incident ICP/Base and field connectivity when working virtually or in remote locations.
- Have contingency plans (PACE- Primary, Alternate, Contingency, Emergency) in place for connectivity failures (extra landline phones, etc.).
- Clone one radio for a crew and have crew or resource clone the remainder of their radios.
  - CAL FIRE is required by the State Administrative Manual, BU 12 MOU, and our Arbitration agreement with BU 12 that only until a Public Safety Communication (PSC) technician arrives at a scene, are CAL FIRE employees allowed to program radios. All radio programming, cloning, and maintenance shall be done by a PSC Technician.
- Consider modes of travel when selecting equipment (repeaters, phone equipment) locations, as it relates to potential for exposure.
- Utilize storage devices such as assigned/non-returned USB drives to share information and programming to reduce handling of hardware between incident personnel.
- Develop strategies for distribution of batteries and communication supplies. 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 Communications/IT footprint to ensure social distancing in facilities or other structures. Consider having RADOs work from remote/offsite locations.
- Utilize Cloud storage or electronically send files to reduce person-to-person contact.



- Develop tracking log of devices cleaned during an incident and prior to demobilization.
- For radio repair/replacement, control access to one person at a time.
- Source and front-load acquisition methods to expand IT capability.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved in cooperative communications.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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Updated: 5/03/2020

# Facilities

This document is intended to be used as a tool for extended attack/complex wildland fire response for a Facilities Unit during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Develop a Facilities IWI procedure prior to assignments.
- Pre-order needed cleaning and sanitation supplies and PPE (face mask, gloves, gowns).

## Incident Response

- Conduct daily [“COVID-19 Screening Tool”](#) .
- Consider the need for expanded areas for all required workspaces.
- Work with local health agency to determine geographic areas with low incidence of COVID-19.
- Establish an isolation area with all required support.
- Provide guidance on use of PPE to all Facilities staff and camp crews.
- Coordinate with other units and sections for a rigorous cleaning and sanitizing schedule.
- Ensure ALL contractors have COVID-19 compliance procedures in place and are implemented.
- Ensure social distancing practices are established and followed.
- Limit unit exposure to essential personnel only.
- Post CDC and local health agency protocols in prominent areas of ICP/Base/Spike Camps, etc.
- If hotels/motels are used, consider the social distancing requirements when arranging rooms.
  - Modules may use two personnel per room while still maintaining social distancing.
  - Ensure the establishment follows CDPH and local health department standards for cleaning and disinfecting the rooms.
- If sleeping trailers are used, ensure the contractor has staff to maintain CDPH standards.
- When using sleeping trailers, reduce the amount of personnel utilizing the trailers by half to maintain social distancing requirements

## Exposure Response

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved in cooperative communications.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

# Security

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This document is intended to be used as a tool for extended attack/complex wildland fire response for a Security Unit during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Develop a Security Unit “Incident Within an Incident” (IWI) plan prior to assignments.
- Work with the home unit to determine if the ICP/Base is to be in or near a security high-risk area.

## *Incident Response*

- Conduct daily “[COVID-19 Screening Tool](#)” .
- Restrict access to all incident facilities.
- Establish virtual section meeting and interview methods.
- Have contingency plans (PACE- Primary, Alternate, Contingency, Emergency) in place for connectivity failures (extra landline phones, etc.).
- Consider badging at ICP, base, and other satellite facilities.
- Consider the use of one-way traffic pattern.
- Increase staffing will allow greater presence at Check-In, Supply, and Demob.
- Check with Facilities for security needs for isolation areas.
- Work with the Medical Unit to identify medical supplies of high value or need.
- Liaise with local law enforcement to ensure a good working relationship, local restrictions, and closures.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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# Plans Section

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This document is intended to be used as a tool for extended attack/complex wildland fire response for a Plans Section staff during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Identify opportunities for incident personnel to work virtually/remotely. 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. [Virtual Operations paper](#), See [Appendix G](#).
- Conduct video/virtual meetings and briefings using available technology.
- Be prepared to be self-sufficient for several days, including potential remote/spike camps due to the need for reduction of personnel at large gatherings (briefings, meetings, and gatherings).
- Continually assess availability of IMTs. Given illnesses and departments suspending IMT members' participation due to the current COVID-19, some IMTs may be required to stand down or combine with other IMTs.

## *Incident Response*

- Reduce exposure by conducting as much work (briefings, meetings, and gatherings) virtually or remotely, as technology allows. Refer to [Appendix G](#) for helpful suggestions.
- 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 decontamination protocols in place.
- Utilize electronic applications for gathering, disseminating, and storing information.
- Conduct Daily "[COVID-19 Screening Tool](#)".
- Ensure COVID-19 Prevention and Screening Protocols are in the IAP and COVID-19 is evaluated in the 215-A.
- Coordinate with MEDL to assure appropriate procedures are enacted as a standard part of the Demobilization process.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx><https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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Updated: 5/02/2020

# Finance Section

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This document is intended to be used as a tool for extended attack/complex wildland fire response for Finance Section staff during the ongoing COVID-19 Pandemic to reduce exposure to Finance Section personnel. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated. Incident Management Team (IMT) Finance Sections, Incident Business Advisor (INBA) and the Buying Team should follow the guidelines for health and safety when interacting with incident personnel. Make sure the technology is available to support the virtual and remote environments, including the ability to enhance the e-ISuite Enterprise to efficiently be used in a remote/virtual setting. All incident agencies should provide legal acceptance of electronic signatures so Finance Sections can process documents with electronic imaging of signed documents.

## Prevention

- Establish a virtual Finance section where possible. Do a risk analysis to balance mission essential functions with risk of exposure for those who are not virtual.
- Ensure adequate protection measures are available to all Finance staff, per CDC and local health agency recommendations.
- Order yurts with opening sidewalls to allow airflow, as the outside environment allows (temperature, moisture, etc.).
- Refer to [Appendix A](#) – All Fire Personnel Best Practices.

## Incident Response

- Conduct daily [COVID-19 Screening Tool](#) and maintain a close contact log, if not working virtually. Ensure Finance personnel are equipped with proper PPE when meeting resources.
- Incident Business Advisors and Buying Team members may work at alternate sites and should follow daily [COVID-19 Screening Tool](#) and adhere to [Appendix A](#) – All Fire Personnel Best Practices for social distancing, personal hygiene, workplace cleaning, and symptom monitoring.
- Establish protocols for Finance staff who work virtually to receive and/or collect information from all personnel on an incident. This includes providing all the necessary tools and equipment to make this possible (laptops, printer, office supplies, etc). Establish electronic submission of CTRs/shift tickets procedures, if possible.
- Assign personnel to a certain group of documents (like A-L and M-Z), electronics, and supplies to limit exposure through the sharing among team members.
- Develop Primary, Alternate, Contingency, and Emergency (PACE) approach, should issues arise with virtual/remote environments (e.g., internet connectivity).
- Establish separate finance areas – a staff work area located in clean area that has restricted access to resources, a resource meeting area located separately from staff work area for any issues that cannot be resolved via email or phone, and a document drop-off area for CTRs, shift tickets, etc.
- Establish protocol for Finance staff and documents to be moved from the drop-off area to the clean area.

- Ensure adequate room for Finance staff work areas. This includes adequate personal workspace (one person per six-foot table).
- Establish resource seating area/review area for resources to audit time/complete paperwork.
- Establish electronic demobilization procedure in conjunction with Demob Unit Leader. Financial demob process can be achieved through email chain (time submission, resources review, final time approved and signed, and documentation package completed).
- Establish virtual/electronic procedures with clinics/hospitals/pharmacies in order for Comp Unit Leader to limit time at those locations. [Reference Medical BMP](#).
- Land Use Agreements (LUA) for facilities that regularly house occupants (schools, conference centers, office space) may require services above and beyond standard restoration (complete decontamination by professional service). Additional details may need to be added to LUA to ensure proper services and compensation. Establish pre-incident LUA to accommodate increased footprint due to COVID-19.
- Items such as yurts, handwash trailers, computers, shower units, and caterers may require Emergency Equipment Rental Agreements. Agreements will need to be completed by an authorized procurement/contracting officer (may be virtual, depending upon availability).
- Incident Contract Project Inspectors (ICPIs) are required to do on-site incident physical inspections for compliancy on VIPR equipment. The following are to support these inspectors:
  - Conduct daily [COVID-19 Screening Tool](#). Maintain a close contact log.
  - Ensure ICPI personnel are equipped with proper PPE when meeting resources.
  - Ensure they have work area that adheres to social distancing.
  - Ensure a daily check-in and check-out (remotely via phone or comm unit) with FSC or finance supervisor while assigned.
  - Recommend working from remote personnel locations, since they will be contacting vendors and camp personnel.
  - Allow ICPI to stay in hotel towards end of assignment to complete inspection paperwork and self- monitor with [COVID-19 Screening Tool](#).
- Follow Logistics BMP for work area cleaning and laundry suggestions.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Develop a process for follow-through and completion of documentation if personnel and/or equipment are unable to complete check-out with finance.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Establish Medical Unit standards and procedures to ensure monitoring, testing, and isolation treatment procedures can be adhered to.

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# Fire Information

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This document is intended to be used as a tool for extended attack/complex wildland fire response for Fire Information section during the ongoing COVID-19 Pandemic. Expect change in how business is conducted; time frames and methods will be different. Exercise patience and maintain vigilance of the health of crew members. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Identify opportunities for personnel to work remotely/virtually. Ensure PIOs have the technology, training, and coordination to be effective and proficient. Practice and prepare to enhance knowledge and the skills necessary to efficiently conduct work off-site.
- Be prepared to be self-sufficient for several days, including potential remote/spike camp locations.

## Incident Response

- Conduct daily “COVID-19 Screening Tool” ([Appendix C](#)).
- Implement a strategy that utilizes a “skeleton” staff physically located at the incident, with support staff off-site. On-site PIO would coordinate with other functions and resources, funneling current information to rest of Information staff for dissemination.
- Emphasize the use of “Intelligence” branch within the Information function, coordinating communication with operations personnel on the ground to receive current status updates.
- Leverage resources with cooperators and partners when looking outside the agencies for PIO skills to support efforts, especially concentrating on technological skill sets necessary to achieve objectives via remote or virtual means.
- Utilize existing systems like Inciweb, Fire EGP, websites, and social media platforms to the fullest extent. Maximize use of video clips for situation updates.
- Utilize traditional media (newspapers, radio) and consider establishing an incoming phone line (that can be answered in multiple locations) if connectivity is limited.
- Limit media visits to ICP and the fire line; maximize remote interview options, including live and recorded sessions distributed through various channels.
- Discourage media from approaching personnel on the incident to prevent potential exposure and to protect the health and safety of firefighters, given the media exemption under California Penal Code 409.5 (d).
- Use email lists and/or email subscription services to distribute daily incident updates, maps, and other information as an “electronic trapline.”
- Utilize “portable” info boards, in the form of an electronic community newsletter for dissemination of information to affected entities; enlist the cooperation of businesses or other establishments to “adopt” an information bulletin board to post maps and information (distributed by PIO via electronic means).



- Conduct video/virtual community information meetings using available technology. Ensure a consistent feedback loop for two-way communication with the community.
- Utilize VOST (Virtual Operations Support Team) for social media monitoring and transmission of approved messages, further minimizing travel to incident.

## *Exposure Response*

- Direct all media questions and reactions to the potential exposure to the incident PIO or to the local or state public health official, following all agency protocols and HIPAA regulations to protect personal privacy.
- Follow current direction from the CDC and State and county health authorities and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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# Safety

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This document is intended to be used as a tool for wildland fire response for Safety Officers during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated. Fundamental approaches to safety and risk management on wildland fire incidents should still be applied in the COVID-19 environment; however, careful analysis of exposure potential, preventative measures, and environmental controls should be incorporated in a safety analysis.

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Be familiar with sources of “best available information” regarding practices that reduce the risk of exposure or transmittal of COVID-19. Review the NWCG Infectious Disease Guide specifically. <https://www.nwcg.gov/committees/emergency-medical-committee/infectious-disease-guidance>.
- Consider having an off-site (virtual) additional position serving in the safety function for complex incidents.
- Ensure personal protective and sanitization items are sufficient for the assignment.
- Review normal position procedures and think in terms of what may need to be different in the pandemic environment.

## Incident Response

- Conduct daily [“COVID-19 Screening Tool”](#).
- Remain focused on identifying the hazards and risks associated to the wildland fire environment, while filtering for the likelihood of exposure or transmittal of COVID-19.
- Encourage practices recommended by the CDC, state or local health authorities for transmittal avoidance, with a filter for what can be practically applied in the emergency response environment.
- Collaborate with Medical Unit Leader to prioritize the incident needs for supplies and equipment related to transmittal avoidance or management.
- Ensure the incident medical plan (ICS-206) contains information related to responder direction for communicating and transporting COVID-19 suspected illness.
- Understand reporting requirements for suspected and confirmed COVID-19 illness.
- Engage with the Logistics Section regarding incident facilities, size, equipment needs, and procedural adjustments necessary to enhance preventative measures.

## Exposure Response

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Establish Medical Unit standards and procedures to ensure monitoring, testing and isolation treatment procedures can be adhered to.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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# Liaison

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The following guidelines were developed based on the advice of health and safety authorities in May 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated. The deployment of an Incident Management Team into a geographic area that is already entrenched in a pandemic response can be viewed as an incident within their incident. Conversely, a community with only minor COVID-19 cases may see a large fire camp as a potential threat to the health and safety of the local community. The Liaison Officer should consider being proactive and assess current status of COVID-19 cases in the county where the incident is based by contacting the local health officials. Much compassion to that fact should be exercised when engaging cooperators and other agencies.

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, and local, regional or state EOCs and MACs – some of which may never have encountered an IMT. The Liaison Officer might be the initial contact. The Liaison Officer needs to maintain a line of communication to explain the important, reasonable, and justified needs of the cooperators to fire operations. The political implications of fire operations working without due regard for local concerns could be problematic. Given the potential exposure and spread of COVID-19, the intent is to adapt to a virtual work environment, understanding that there will be variations to virtual work based on incident complexities.

## *Prevention*

- Follow guidance included in [Appendix A](#) – All Fire Personnel Best Practices for social distancing, personal hygiene, workplace cleaning, and symptom monitoring.
- Ensure you are properly equipped/trained to accept virtual assignments.
- Be prepared to be self-sufficient for several days including potential remote/spike camp location, extra clothes, food, water, etc.

## *Incident Response*

- Conduct daily [“COVID-19 Screening Tool”](#) .
- Conduct as much work as possible utilizing technology to attend virtual cooperator meetings and share information with participating agencies. Ensure communications technology links are available to participating agencies.
- Encourage social distancing and use of PPE if local businesses are to be visited during an incident. Incident personnel should be given clear direction regarding local conditions and health department orders that are in effect, as they relate to shopping and the use of community facilities.
- Consider recording presentations to deliver to stakeholders and partners, in lieu of in-person cooperator meetings.
- Practice social distancing or virtual C&G meetings.
- Consider designating a phone number for Liaison for external contacts in case internet technology fails or is unavailable.

- Consider use of additional LOFRs and trainees to manage virtual work activities including assignment to other remote/virtual locations where direct linkage to the 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 EOC.
- Ensure telecommunication connectivity with ICP.
- Ensure participating agencies have a copy and understand the IMT COVID-19 protocols, best practices, and amended typical operational procedures.
- Assist Safety Officer and Medical Unit Leader in gaining information regarding the capacity and integrity of the local and regional healthcare system(s).
- Support Safety, Medical, IARR, and home unit when personnel assigned to the incident are treated for COVID-19, as requested. Close coordination will be required between the hosting unit, the local health departments, the IMT, and the home unit to determine best course of action to return the responder to their home unit.
- Consider ordering a Liaison with ESF-8 experience or recruiting someone from the local health department to be the Department of Public Health agency representative.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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# Incident Commander

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Incident Commanders will be faced with managing response in a systematically different way in the COVID-19 environment. This will entail minimizing exposure to personnel through maximizing who can work virtually and organizing in ways that avoid large populations of responders being in proximity, while ensuring communication of intent and direction are not compromised. This document is intended to be used as a tool for wildland fire response for Incident Commanders during the ongoing COVID-19 Pandemic. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## *Prevention*

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Review ICS functions on the IMT to identify those essential to be on the incident, who can work from their home units, and those that can work off-site in small groups.
- Maximize the use of video/phone conference capabilities to convene the IMT for pre-response planning.
- Become familiar and keep current with health and hygiene practices necessary to minimize impacts of COVID-19, ensuring your team has a functional plan to implement those on an incident. Utilize the CDC and health authorities as guides.

## *Incident Response*

- Ensure all assigned personnel conduct daily [“COVID-19 Screening Tool”](#).
- Ensure Agency Administrator intent includes both a suppression response strategy and COVID-19 response needs to achieve a successful outcome.
- Provide clear Leader’s Intent to Command and General Staff to take a doctrinal approach that minimizes the number of personnel and the incident duration. Utilize strategies and tactics that offer the highest potential for success and commensurate trade-offs for risk and rewards.
- Consider application of video/phone conference and minimal in-person participation at incident in-briefings and close-outs.
- Emphasize need for subsequent operational briefings to assure all modules and firefighters are included.
- Ensure the deployment of assigned personnel maximizes social distancing opportunities without compromising communications and safety, as much as possible.
- Consider shift length and work/rest ratios to enhance distancing opportunities.
- Be familiar with local direction (agency/state/local) regarding testing, isolation, and treatment of COVID-19 to ensure compliance with these policies, practices, and procedures.
- Ensure engagement with stakeholders and the public is maximized through technology and social media sources to avoid exposure through large gatherings and interactions.
- Utilize the fewest resources necessary to accomplish the mission, minimizing exposure to disease spread.
- Consider limiting access of non-essential personnel to incident facilities.

- Think about separation of ICP and camp locations to limit face-to-face COVID-19 exposure potential.
- Maintain separation of suppression modules on the fireline and during off-shift periods.
  - Consider staggering resource shifts to avoid congestion points.
- Establish an awareness of medical care availability (drawdown) in the local hospital system.
- Consider the impacts of COVID-19 to evacuations and 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 use of a medical officer position and/or expanding the Medical Unit.
- Consider using a county health liaison to fulfill this role as available/needed.

## *Exposure Response*

- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).

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# Agency Administrator

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The purpose and intent of the BMPs for Agency Administrators (AAs) is to list practices for prevention of the COVID-19 virus before and during incident response. This is an unprecedented situation, so our approach to managing risks from both the virus and wildfire cannot be “business as usual.” Portions of our management of fire this season will likely change some of our existing business practices for the future. Prevention, effective/swift initial attack, careful framing of objectives to reflect scarce resources (as if in PL5), and wise investment of where we ask first responders to take risks will be critical components of managing COVID-19 risk during this pandemic. Low risk options for assembling IMTs to manage large incidents are complicated and limited. If known or suspected exposure occurs during incident response, practices must be implemented for the person and possible contacts with others to prevent the spread of the virus. The information known for spread of the virus is rapidly changing, thus there must be a collective corporate will to add and update Leader’s Intent relative to their framing of the at-risk values and options for attaining objectives. Creating an environment where modules have the information about the risks and BMPs for managing COVID-19 and the discretion to manage those risks at the individual and module levels will be key to our success. Consideration must be given to an interagency approach to ensure an integrated and common operating picture from leadership.

## Prevention

- AAs should consider fire restrictions (and closures, if applicable) earlier than normal, regardless of fuel indices, to minimize numbers of unwanted human ignitions. Consider implementing proactive public outreach campaigns, with strong educational messaging.
- Assure that modules in your chain of command have the tools they need to be operationally and logistically self-sufficient and educated on COVID-19 hazards and mitigations that they will need to manage incidents and their personal risks.
- Ensure Leader’s Intent to Type 4 and 5 ICs, taking an approach that both minimizes the number of responders and the incident duration during initial attack. Utilize tactics and strategies that offer the highest potential for success and commensurate tradeoffs for risk and rewards.
- Use all viable technology, maximize virtual environments to the extent possible. This includes all components of complex incident management inclusive of T3, T2, T1 and Area Command organizations and all components of coordination and dispatch functions.
- Understand your role in implementing and protecting the integrity of the IRPG risk refusal process.
- Provide Leader’s Intent and support for the “Module as One” concept.
- Support and authorize the use of militia personnel to respond to incidents and assist with prevention activities.
- Communicate any changes to strategic response to wildland fire planning or resource contributions to local or geographic efforts with jurisdictional partners.
- Manage public and political expectations of wildland fire response in a reduced resource environment; it is going to take political courage to follow through.
- Conduct pre-season COVID-19 wildland fire strategic discussions with interagency cooperators, including scenarios involving evacuations, etc.



- Review approval processes (such as mechanized use in wilderness) to minimize delays that may occur in the initial attack phase of response.
- Address continued sanitation efforts and isolation requirements from incident-related travel and assignments.
- Utilize teleworking and virtual environments to the full extent possible.

## *Incident Response*

- AAs play a critical role in determining what the strategic risk profile will look like for first responders, so carefully consider the objectives you are asking firefighters to achieve. Provide Leader's Intent to implement best practices during mobilization, at incident, and through demobilization.
- Provide clear Leader's Intent on the importance of providing for fire and emergency responder safety as the first and foremost priority so that they can sustain the response capacity that will be necessary to ensure public safety.
- Provide psychological and emotional support considerations for responders by implementing interagency or cooperative chaplaincy, peer support, or CISM programs. Apply COVID-19 social distancing considerations.
- Emphasize that firefighters are to manage risks from fire and the virus simultaneously, rather than separately. Reducing the risks from COVID-19 is not a complication; it is part of our primary objectives.
- Though acting locally, keep the regional and national context in mind when framing objectives and making decisions. Regardless of the national and regional planning levels, take the approach you would use if in PL5. Line officers need to coordinate with other entities (GACCs, leadership, and cooperators) to ensure alignment of regional strategies and resource allocations.
- Objectives should primarily be focused on protecting human life and critical community infrastructure. To reduce utilization and exposure to resources, any other priorities should have a strong rationale to be included.
- Consider suppression strategies that limit air quality impacts and reduce firefighter and public adverse impacts from smoke.
- Conduct and communicate trade-off analyses with cooperators and responders to explore which options best meet incident objectives, while minimizing wildfire and COVID-19 risks.
- Ensure ICs consider the impacts of COVID-19 to evacuations and centers. Discuss plans early on with law enforcement, local health care providers, and shelter personnel. Minimize the duration of time that citizens are displaced.
- Develop contingencies that will be most successful while utilizing minimal resources. Develop triggers so that they are implemented at the appropriate time and not unnecessarily.
- Maintain a laser focus on options that provide the highest likelihood of success relative to the incident objectives, including safe use of the fewest responders for the shortest duration.
- Ensure local Fire Management and ICs are provided with expectations for application of agency COVID-19 related procedures in the emergency response environment.
- Include COVID-19 mitigation procedures and priority in IC's Delegation of Authority and/or Leader's Intent documentation for T1, T2, and T3 incidents.
- Coordinate with ICs/IMT on use of virtual positions at the time of mobilization and throughout the incident.
- Insist on an evaluation of objectives and needs when designing a mop-up standard to reduce the severity and duration of firefighter and public exposure.

- Ensure availability of adequate incident support staff (logistics, READS, AA representatives).
- Engage with interagency partners on multi-jurisdictional incidents regarding consistent practices for COVID-19 management in the incident environment.
- Prepare WFDSS products that articulate how the incident strategy or course of actions are influenced by COVID-19 avoidance/management factors (e.g., mop-up standard).
- Because of mobility issues, understand that response will be geographic in nature and in some cases neighborhoods (e.g., forest, park, or statewide) and not agency specific.
- Include objectives for IMTs to use non-traditional fire camps, spike camps, coyote tactics, and virtual positions to support the “Module as One” concept.
- Agencies shall consider prioritizing wildland fire responsibilities over natural resource management and other administrative assignments to support wildland fire efforts.
- Wildfire emergency rehabilitation (e.g., BAER for federal agencies) activities should follow same protocols and principles as wildland fire suppression activities to reduce employee exposure to COVID-19.
- When reasonable, choose strategies and tactics that minimize the need for suppression repair and BAER activities. Implement the minimal amount of activities truly needed to protect public safety and critical natural resources.
- When appropriate, allow the use of personnel so that loss of a single leader does not result in the loss of availability of the entire module in cases where it comes down to losing a resource. For example, consider use of trainees.
- Consider the number and type of trainees on an incident to reduce the number of personnel at risk of exposure, while balancing the need to train critical shortage positions and meet IFPM/successional planning needs.

## *Exposure Response*

- Implement team or local unit exposure response plan.
- Follow current direction from the CDC, state and county health authorities, and the jurisdictional / responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved in cooperative communications.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- If notified by employee or health department of positive COVID-19 test results, inform IC/IMT/Fire Management, without disclosing Personally Identifiable Information (PII) and in compliance with agency policy and Healthcare Insurance Portability and Accountability Act (HIPAA) regulations.

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# Fire Management

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This document is intended to provide suggested practices for Fire Managers and Duty Officers during the ongoing COVID-19 Pandemic. Agency Administrators and Fire Managers should work with interagency partners to ensure appropriate protocols for wildland fire response. The following guidelines were developed based on the advice of health and safety authorities in May of 2020. As the situation develops and more information becomes available, these guidelines should be periodically updated.

## Prevention

- Refer to [Appendix A](#) – All Fire Personnel Best Practices.
- Assigned resources should track their face-to-face interactions and share as requested.
- Consider building interagency mitigation measures to address cross-agency COVID-19 transmittals during fire response.
- Minimize cross-module contamination potential.
  - Minimize use of “fill-in” firefighters to modules as much as possible.
  - Consider keeping training assignments confined to “within module.”
- Consider adjusting response plans, allowing for utilization of the closest forces concept.
  - Ensure interagency response is maintained to best create exposure resilience.
- Minimize the use of “move-up and cover” from out-of-unit resources, as a planned response, to reduce the potential of cross contamination between modules.
- Initial response and extended response shifts should emphasize and promote decontamination and individual care considerations.
- Update Staffing and Action Guide and preplanned response documents to incorporate local response mitigations.
  - Consider mitigations to keep incident response times short if firefighters are in a delayed response pattern.
- Coordinate with cooperators to implement fire restrictions, as needed.
- Consider local coordination to mitigate resource shortages and incident prioritizations.
- Consider use of QR codes and other opportunities to facilitate remote sharing of documents and electronic map products. Consider non-cellular alternatives.
- Build COVID-19 response and mitigation strategies into WFDSS and establish interagency response objectives during extended attack or for incoming IMTs.
- Minimize potential for IMT transition by forecasting incident complexities.
- Consider using virtual public information campaigns to inform people of fire response concerns and fire restrictions.
- Consider staging out of unit cover resources at hotels/airports rather than entering existing stations to reduce potential module cross contamination.

## Incident Response

- Conduct daily [“COVID-19 Screening Tool”](#) for all firefighters, including multi-day incidents.
- Create suppression strategies to minimize assigned personnel and incident duration.
  - Use predictive services and professional judgement to balance assigned resources and incident duration.
- Establish clear expectation of aggressive initial response to minimize the possibility of large fire response requirements, including prioritizing multiple ignitions.
- Prioritize prevention patrol to deter and detect fires.
- Consider implementing a saturation patrol strategy when PSA(s) are high risk/probability for large fire growth. Emphasize visibility with minimal public interaction.
- Minimize briefing size and limit face-to-face contact as much as possible.
  - Consider if operational briefing can occur over radio during initial response.
  - Limit face-to-face briefings to mission-critical leaders and keep size as small as possible.
  - Place focus on subsequent briefings to modules and employees.
- Decentralize staging areas to limit face-to-face contact with other modules.
- Consider the application of aviation and mechanized assets during initial attack to reduce assigned personnel.
- Consider logistical support needs to implement daily decontamination procedures of apparatus, equipment, and PPE on multi-day incidents.
- Consider holding assigned modules on incidents overnight to minimize home exposure potential.
- Utilize line spike and small spike camps as much as possible.
- Try to maintain resource self-sufficiency to reduce exposure potential.

## Exposure Response

- Share exposure potential with cooperators if personnel become symptomatic following any cooperative actions (e.g., IA, training, meetings).
- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx>  
<https://www.cdph.ca.gov/Pages/LocalHealthServicesAndOffices.aspx>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Confirm emergency contact information for all employees.

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Updated: 5/03/2020

# Pacific Island Mobilization & Support

(Mobilization, Demobilization, Restrictions, Limitations)

## Prevention

- Consider pre-ordering and pre-positioning necessary cache items to support large fire activity and resource mobilization (e.g., hand tools, water handling equipment, kits, expendable items, and COVID-19 specific PPE).
- To the extent practical, test all firefighters mobilizing to Hawaii for COVID-19 before they depart the US Mainland.
- Hawaii state government has launched a web-based app called “[Safe Travels](#),” for travelers who are subject to the 14-day quarantine. Travelers are required to submit travel information prior to their trip. Emergency Response personnel are exempt from quarantine.

## Incident Response

- All personnel conduct daily “[COVID-19 Screening Tool](#)” including when assigned to incidents.
- Become familiar and keep current with health and hygiene practices necessary to minimize impacts of COVID-19. Utilize agency direction, the CDC, and state and local health authorities as guides.
- For those mobilizing from outside of Hawaii, the availability of flights to Hawaii has been greatly reduced due to the COVID-19 pandemic.
  - Mobilization of Pacific Island firefighters may face additional challenges to Mainland destinations.
  - Many routes have been suspended. Check availability to create travel itinerary.
- Emergency responders traveling between islands to maintain continuity of operations of the federal critical infrastructure sectors are subject to self-quarantine while away from their island residence.
  - Upon return to their island residence, responders will not be subject to the self-quarantine.
  - Responders are required to wear appropriate protective gear and follow the social distancing requirements.
- Air cargo is required to fill cache orders. The availability of air cargo transport may be limited by the reduced number of flights arriving in Hawaii daily.
- Consider availability of local healthcare facilities to support firefighter and COVID-19 needs in the event of a large incident.
- Fire season and hurricane season are coincidental in the Pacific Islands. Be aware of possible complications affecting COVID-19 exposure or treatment needs.
- Traditional camp facilities and contract caterers are not available within Hawaii. Lodging and support functions would need to be acquired on an incident basis and could become difficult to obtain during the COVID-19 pandemic.

## Exposure Response

- Incident Commander needs to initiate action to minimize potential cross contamination to other responders.
- Consider Incident within Incident (IWI) activation.
- Share exposure potential with cooperators if personnel become symptomatic following any cooperative actions (e.g., IA, training, meetings).
- Implement specific agency after response protocols.
- Follow current direction from the CDC, state and county health authorities, and the jurisdictional/responsible agencies.  
<https://www.cdc.gov/coronavirus>  
<https://hawaiiicovid19.com>
- Implement team or local unit exposure response plan.
- Implement specific agency response protocols for the affected individual(s).
- Ensure local health officials are involved.
- Determine reporting process for COVID-19 related exposure (local level, home unit, 209, etc.).
- Confirm emergency contact information for all employees.

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Updated: 5/02/2020

**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 wildland 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.<sup>1</sup> 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, supervisors 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 come in contact with other fire personnel.

### Confidentiality of Medical Information:

Any medical information gathered is subject to ADA confidentiality requirements <sup>[3]</sup> <sup>[4]</sup>.

### 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 May 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.](#)

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## Appendix E – Transportation

### **Contract (NICC) Jets**

- Personnel can be checked for symptoms prior to boarding as part of the manifest check.
- Provides a controlled environment for tracking the movement of personnel.
- Minimizes the exposure of personnel to the general traveling public.
- Ability to reduce the number of crews on the flight to maintain social distancing.
- Possibly easier to obtain emergency clearance of crews from state quarantine mandates.
- In the event of a subsequent positive test result, it will be easier to identify personnel who need to be quarantined.
- More flights may be required to transport the crews if social distancing is required.
- A subsequent positive test result may result in the quarantine of the entire jetload, possibly even the flight crew.

### **Commercial Air**

- More flights are available.
- In the event of a positive test, only need to quarantine one crew.
- May possibly be more difficult to check personnel for symptoms if crew travels on different flights.
- Greater exposure to the general population, leading to a greater possibility of exposure.
- May not be able to avoid mandatory state quarantines upon arrival.

### **Agency Vehicles (IHCs, Engines, Modules, etc.)**

- Immediate mobilization response of resources.
- Immediate availability for operational assignments.
- Assigned vehicle mix may not provide proper social distancing, requiring the assignment of additional agency vehicles or providing rental vehicles, delaying response.
- Travel issues may arise, such as lack of open restaurants, rest areas may be closed, and difficulty of obtaining overnight lodging, possibly delaying response.

### **Contract Resources (Crews, Engines, Equipment, etc.)**

- Immediate mobilization response of resources.
- Immediate availability for operational assignments.
- Contractual vehicle mix may not provide proper social distancing, causing the addition of vehicles outside of the contract, possibly requiring the modification of the contract. May result in a delayed response.
- Travel issues may arise, such as lack of open restaurants, rest areas may be closed, and difficulty of obtaining overnight lodging, possibly delaying response.

### **Contract Crew Buses**

- One vehicle per crew.
- Ability to keep one crew assigned to a single bus.
- No need to ensure that the crew has licensed drivers.
- Bus operator responsible for cleaning and sanitizing the vehicle.
- May need two buses to maintain social distance.

### **Rental Vehicles**

- Better able to maintain social distancing.
- In the event of a positive test, may reduce the number of personnel to be quarantined.
- Better able to split the crew for operational assignments.
- Need at least one licensed driver for each vehicle.
- Crew members are responsible for cleaning and sanitizing the vehicles.
- May need additional vehicles to maintain social distancing.

### **Helicopters**

- May be the only way to transport crews to some locations.
- May need to clean and sanitize after each personnel flight.
- In the event of a positive test, in addition to the crew, the Helitack module and pilot may also need to be quarantined, requiring their replacement.

### **Boats**

- May be the only way to transport crews to some locations.
- Use is not dependent on suitable weather for aviation.
- May need to clean and sanitize after each trip.
- In the event of a positive test, in addition to the crew, the operator will also have to be quarantined, requiring a replacement.

### **Single/Twin Engine Planes (Twin Otter, etc.)**

- May be the only way to transport crews to some locations.
- May need to clean and sanitize after each trip.
- In the event of a positive test, in addition to the crew, the pilot will also have to be quarantined, requiring a replacement.

### **Lowboys & Rental Vehicles**

- Transporting an engine on a lowboy while having the engine crew drive rental vehicles keeps the engine in service in the event a crew member exhibits symptoms or has a positive test while enroute, isolating the whole crew.
- If the lowboy operator becomes ill, the engine may be delayed in arriving.



## Appendix F – Northern Rockies Remote Sit Unit Briefing Paper



### Northern Rockies Remote Situation Unit Briefing Paper

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#### 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:



## Northern Rockies Remote Situation Unit Briefing Paper

- 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 GISs);
- 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. NRSTG 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.

## Appendix G – Virtual Operations

Updates and new technology, along with improvements in hardware, have allowed for some incident response operations to be done virtually.

Many traditional face-to-face practices have potential to promote spread of COVID-19, requiring reevaluation of operational procedures to prevent virus transmission. Incident operations have traditionally involved meeting in groups or working in close quarters to share information. Information presented below is meant to provide guidance on some of the available tools and tool selection considerations that can promote virtual operations, helping limit virus spread during incident management. This list is not all-inclusive but rather a starting point. Incident responders can consider developing operational capabilities using these tools.

### Available Tools

- Enterprise video communications (Zoom, GoToMeeting, FireNet)
- Live streaming platforms (Periscope)
- Instant messaging systems (Slack, Skype)
- Video teleconferencing or video calling (VTC, Facetime)
- Mobile applications (Wind Ninja, Collector, Google Forms, QR Code Readers)
- AGOL (Story maps, story journals, data sharing and collaboration)
- Government web-based applications (EGP, WFDSS, IFTDSS, WebEOC)
- Government/public video feeds, portable incident video equipment

### Tool/Application Considerations

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

Other considerations to keep in mind include:

- 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.
- 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 virtual environment?
- What equipment is needed to use the tools virtually and be effective? (Cameras, monitors, portable printers, scanners headsets, hotspots, MiFi.)
- Is Enterprise e-ISuite functional enough for virtual use? Are there mobile apps available to implement virtual check-in and demob, as well as for entering time worked?

## Appendix H – USDA COVID-19 Guidance Masks and Face Coverings



United States Department of Agriculture  
Office of the Deputy Secretary Washington, D.C. 20250

**April 9, 2020**

### **COVID-19 Guidance Masks and Face Coverings**

On Friday, April 3rd, the Centers for Disease Control and Prevention (CDC) released an updated recommendation on the voluntary use of cloth face coverings in public settings where other social distancing measures are difficult to maintain. Recent studies show that a significant portion of individuals with COVID-19 lack symptoms and that even those who eventually develop symptoms can transmit the virus to others before showing symptoms. The cloth face coverings recommended by CDC are not surgical masks or N-95 respirators. Surgical masks and N-95 respirators are critical supplies that must continue to be reserved for healthcare workers and other medical first responders, as recommended by current CDC guidance.

USDA takes the health and safety of our workforce, stakeholders, and customers very seriously. USDA is actively assessing the Department's inventory of Personal Protective Equipment (PPE), including masks, and reaching out to all potential suppliers to order additional equipment.

The Department is taking the following actions aimed at protecting the safety and health of mission-essential employees who are required to perform their duties in-person at their worksite.

**Use of Existing N-95 Masks-** Existing Agency inventory will be prioritized and given to staff whose job functions regularly and in non-pandemic situations require the use of N95 masks:

- USDA's Forest Service (FS) positions include: Law Enforcement & Investigations, Fire, Emergency Medical Services, and other frontline functions that are required to wear N95 masks per Occupational Safety and Health Administration (OSHA) and CDC guidelines and for which no other lower classes of masks are permissible.
- USDA's Marketing and Regulatory Programs (MRP) include: Plant fumigation workers, Southern border workers with chemical exposure, and other high-risk workers covered by a respiratory protection program.
- No other USDA positions are authorized at this time to use N95 masks that are not already required by their job duties to utilize such masks prior to the COVID-19 pandemic.
- USDA is currently evaluating its current stock of N95 masks on hand; initial indications show this stock to be minimal. Once stocks are realized, N95 masks will be used to support functions which are outlined above. Any decision to donate a limited supply of any excess N95 masks above normal and emergency needs to the medical stockpile will be made at the Departmental level.

**Use of Existing Other Types of Masks:** While USDA currently has a very limited supply of other types of masks, we continue to await the delivery of additional paper masks that are in the backorder queue. These other types of masks will also be prioritized to supplement additional needs in USDA's FS, FSIS, and MRP who must perform essential job functions in person at their worksite in settings where other social distancing measures are difficult to maintain, especially in areas of significant community-based transmission.

**If Masks Are Not Available:** If Agencies do not have enough existing inventory of masks, employees may voluntarily purchase or create their own masks or face coverings. Given current supply chain challenges, and to support USDA employees in their ability to follow CDC recommendations, all mission areas **may** authorize a one-time reimbursement of up to \$50 with a receipt to employees who are mission-essential and required to perform their duties in person at their worksite. This \$50 allotment will allow for the purchase of face coverings or materials to make cloth face coverings. Instructions on making cloth face coverings can be found [here](#) and a how to video can be found [here](#).

As additional paper masks become available to the Department, USDA will discontinue the reimbursement policy. The Department will notify the Department should the reimbursement policy be discontinued, and masks become available.

- **Procuring Additional N95 Masks and Other Mask Types:** USDA will prioritize procurement support to FS, MRP, and FSIS to ensure streamlined acquisition and expedited bulk purchase of additional N95 Masks and Other Types of Masks for functions that are required by OSHA and CDC to have masks when performing work. FS, MRP, and FSIS are authorized to work with the Office of Contracting and Procurement (OCP) to procure masks. OCP may authorize these mission areas to purchase locally via purchase cards. Should other agencies believe they have additional needs they should work with their Mission Area COOs. Should the “O Offices” which for the purposes of this memorandum are defined as: the Office of the Chief Financial Officer, Departmental Administration, Office of Budget and Program Analysis, Office of the Assistant Secretary for Civil Rights, Office of the Chief Economist, and the Office of Communications, believe they have additional needs those heads of office should work with OCP directly. Purchase cardholders or contracting officers should not contact OCP directly and should work their Mission Area COO or head of office.
- **Inventory Management:** Mission area Chiefs of Staff and Chief Operating Officers (COOs) will oversee inventory, prioritize, and manage their mask supplies and this deployment following Departmental guidance and provide periodic updates on usage and remaining inventory to OCP as requested.

Agencies and O Office staff should refer contracting and procurement questions to their Mission Area COOs or their heads of office. Mission area COOs and O Offices heads may contact Tiffany Taylor (TiffanyJ.Taylor@usda.gov) with OCP with additional questions.

If there are additional Agencies or O Offices who have job functions that regularly and in non-pandemic situations require the use of N95 masks or other mask needs that are not listed in this memorandum they should contact their Mission Area COOs. Mission Area COOs and O Office heads who do not have a COO should contact Maureen Gardner at ([Maureen.Gardner@usda.gov](mailto:Maureen.Gardner@usda.gov)) with questions.

## Appendix I -- 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 (EPA) study estimated annual mortality from wildfire smoke to be between 1500 and 2500 deaths.<sup>1,2</sup> 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).<sup>3,4,5</sup> 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](http://wildlandfiresmoke.net)) was created to directly assess, communicate, and address risks posed by wildfire smoke to the public and 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 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 surrounding wildfire smoke and COVID-19 emerges 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, IWFAQRP 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 and coordinated, 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 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 and 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. (<https://www.nwcg.gov/publications/training-courses/rt-130/hazards/haz508> )
- 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 monitors.
    - Inventory 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 by ARAs when assigned to incidents. Promote smoke-ready community concepts and where the public and health agencies can go to get information. See: <https://www.epa.gov/smoke-ready-toolbox-wildfires>
- 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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