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## Clackamas Fire District #1

A photograph of two firefighters in a field of tall, dry grass. One firefighter is in the foreground, wearing a red jacket and a helmet, holding a tool. Another firefighter is visible in the background. The image is overlaid with a semi-transparent red rectangle containing the title text.

# 2020 Fire Siege After-Action Review

## Executive Summary

The wildfire siege affecting the West Coast ran between mid-August through December 2020. Wildfires are not new to Oregon, but the scale and scope of this wildfire siege became a new experience for many first responders and the public. Multi-day, dynamic moving incidents are not the norm for any jurisdiction and this type of situation tested its systems, command, and response. While the media reports the number of acres burnt, structures and lives lost, the real story is how many structures and lives were saved, and how few injuries occurred during this adverse environment. Overall, the system was stressed to critical levels, but never broke.

After Action Reviews (AAR) of an incident, considering the size and scope of the 2020 fire siege, will include many recommendations within a framework of continuous process improvement. The origins of the following recommendations were derived from numerous related documents listed in the reference section, as well as Clackamas Fire District #1 (CFD1) staff AAR summaries. This AAR is focused on CFD1 operational subjects that occurred during the actual firefight and only tangibly addresses the pre-fire and post-fire topics based upon industry best practices.

There were many lessons identified. One example is the disconnect between public expectations of first responder capabilities and the reality of a stressed response system. Every point within this AAR, positive or negative, is a lesson learned to make the future better, but follow-through is necessary. Clackamas Fire District #1 will build on the lessons learned and pursue larger policy enhancements for itself, its partner fire agencies, and the State.



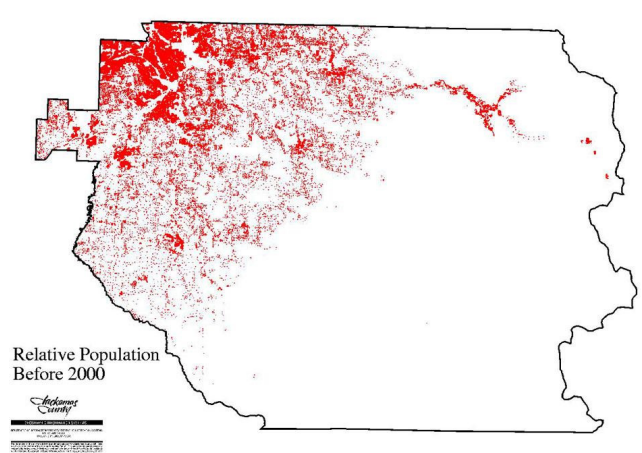
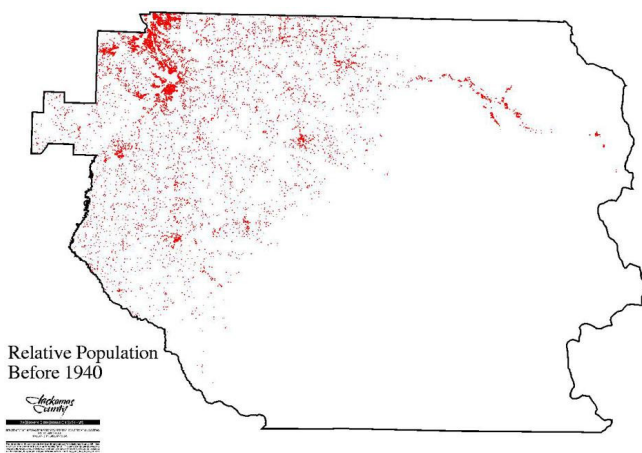
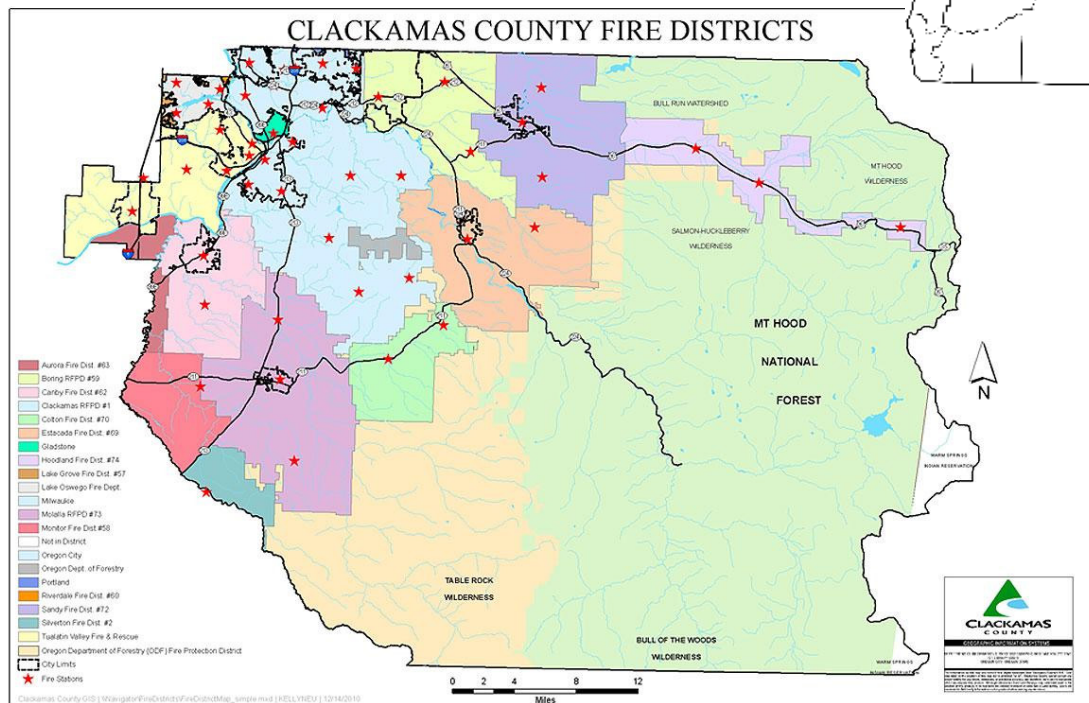


## Let's recognize our successes:

- No lives lost and thousands of homes saved
- Positive and enhanced external relationships / strategic partners – OSFM, County, Federal, ODF & Fire Agencies
- Dispatch liaison proved valuable
- Mitigated the massive number of emergencies that presented themselves
- No major first responder or civilian injuries
- Non-operational staff ("all hands") proved essential
- Years of resiliency, dedication, work ethic, and training proved themselves
- Level 3 evacuations were ordered early and aggressively
- Seamless integration with USFS partners based on previous relationships
- Tactical use of dozers, both indirect and direct, saved homes
- Establishment and function of Joint Information Center
- Frequent press conferences and social media updates
- County wildfire map and informational resources were valuable tools for answering the public's questions
- The ability to adapt with various communication devices and media to meet the requirements in working the incident
- Able to collaborate with other departments (within our organization) to maintain day to day continuity as well as assist in the firefighting effort
- Clackamas Fire District #1 agency support and leadership
- Logistics kept equipment fueled and crews fed
- Fleet maintenance support hours of operation became 24/7
- Early designation of Area Command
- Everyone's "all in" attitude and personal sacrifice to "get the job done!"

# Background

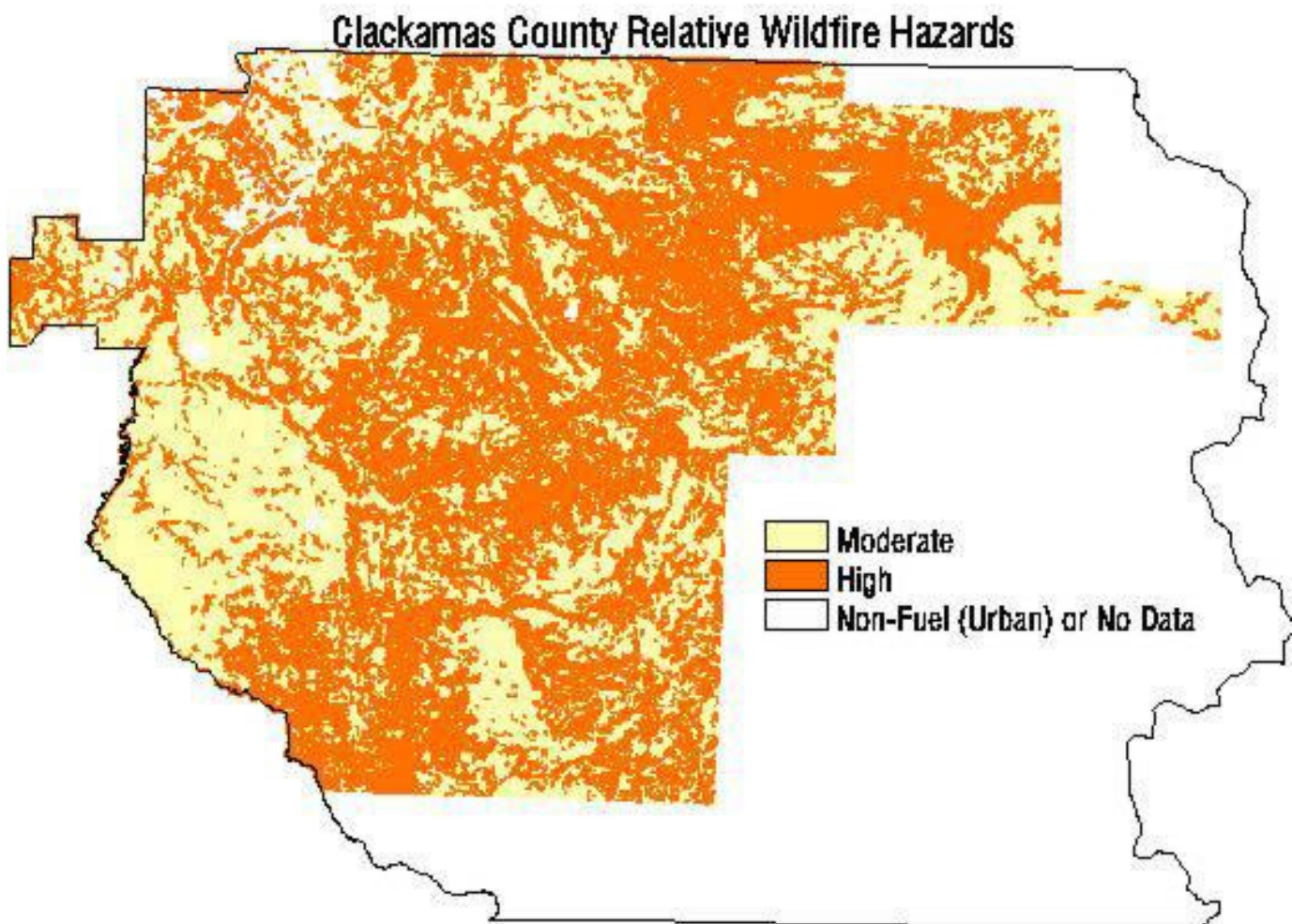
Clackamas Fire District #1 serves the majority of Clackamas County from 23 locations, and partners with 21 neighboring fire agencies, the Oregon Department of Forestry, and federal fire agencies.





The County's population has increased over the years, which is impacting Wildland Urban Interface (WUI) areas. Oregon, as a State, has not adopted the National WUI Building Code and the expanding population development growth is not being addressed as it relates to the wildfire problem. New developments are not adequately addressing defensible space, home hardening components, firefighting water supplies, and life-saving evacuation routes. This situation is further compounded by the large inventory of existing structures that may or may not employ FIREWISE

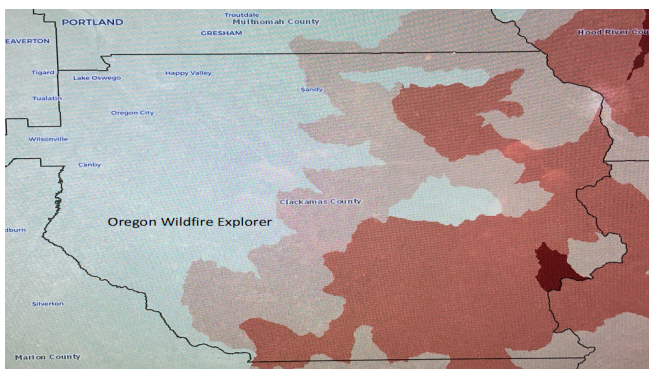
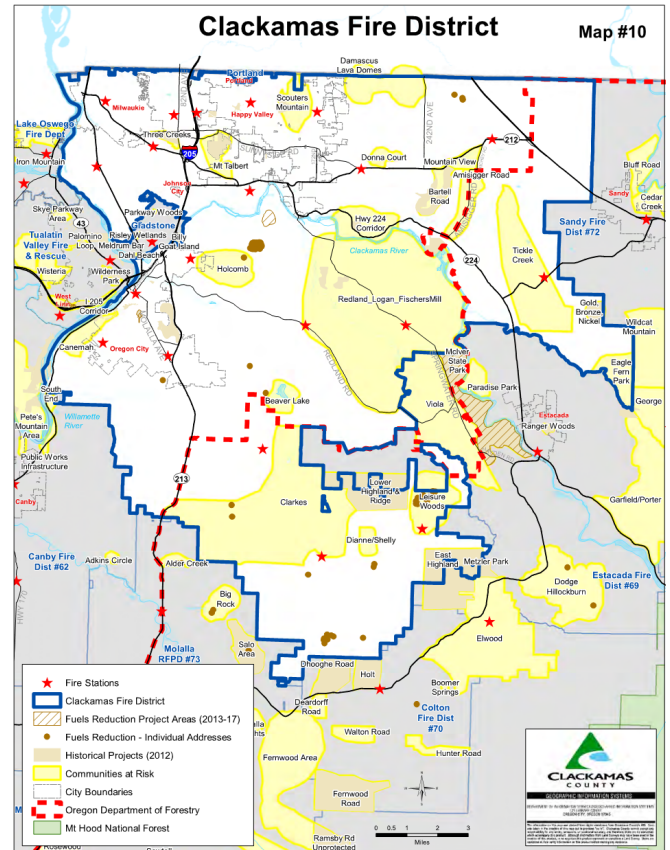
(<https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA>) or Ready, Set, GO! ([https://www.wildlandfirersg.org/s/?language=en\\_US](https://www.wildlandfirersg.org/s/?language=en_US)) tenets. Population growth into wildland fire areas is projected to continue and expand following the post-COVID era where the "telework" environment appears to be replacing standard office space in large urban settings.



# Clackamas County Wildfire Hazard Map

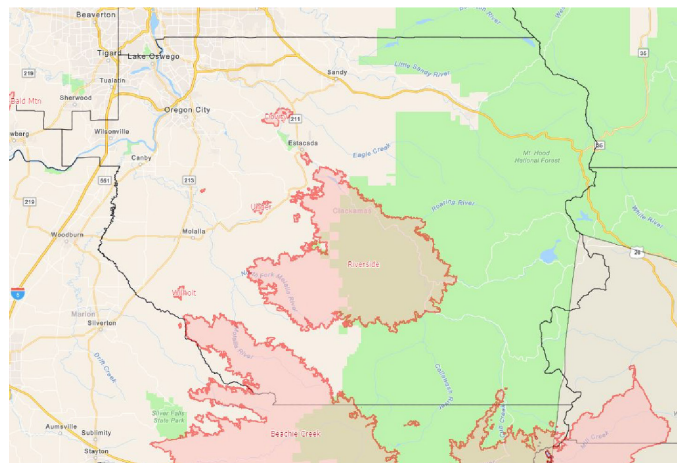
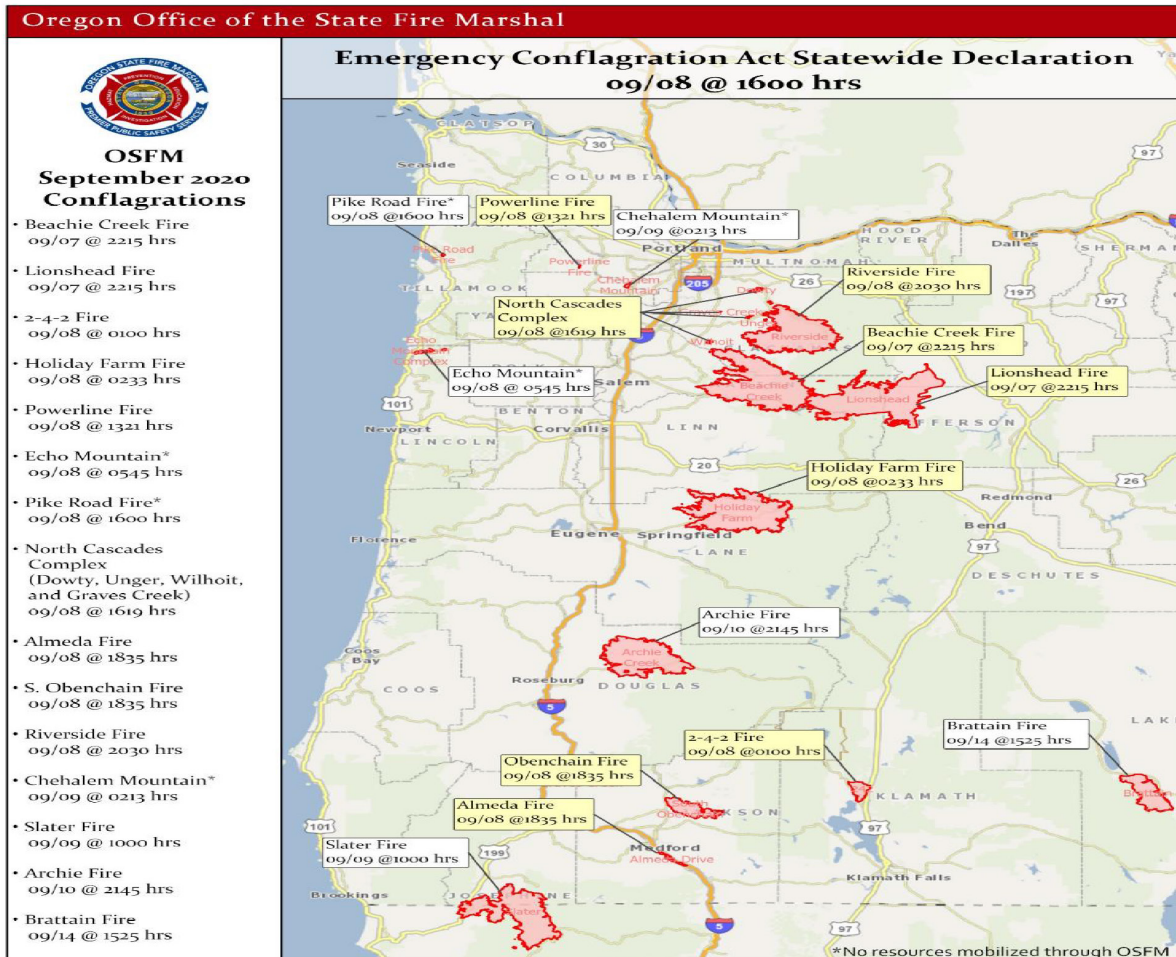
The Fire District and the county are very aware of the wildfire hazards that are addressed in the Clackamas County Community Wildfire Preparedness Plan (CWPP) and the Multi-Hazard Plan. CFD1 is taking steps to address fuels and increase the population's situational awareness through public education programs.

The state incurred the 2020 fire siege beginning mid-August, not as a localized event, but rather a large-scale state disaster that tested all first responders, government leaders, public services, relief organizations, and the public. The National Inter-agency Fire Center (NIFC) was at PL5, the Northwest was suffering from a major drought, and a major wind event caused 2020 to be remembered as the state's largest wildfire deployment of resources, and one of the the most destructive fire events. The two large fires that impacted Clackamas County were the Clackamas Fire Complex (11,210 acres) and the Riverside Incident (138,054 acres, 139 structures lost and 4 injuries). While the media used fire suppression costs to express devastation numbers, the true cost of these fires affected the economy, water quality, medical, social, and mental health of residents, businesses, and visitors.





# 2020 Fire Siege



# Clackamas Fire District #1

## Recommendations

Recommendations fall into two categories: local to Clackamas Fire District #1, and external to the larger State/Regional level. The recommendations are not listed in priority order and will need participating parties to establish the priority order (short, medium or long-term, which need to be define terms), due dates, and who will be tasked for success.

There are three divisions within the recommendations: Restoring Landscapes, Building Fire-adapted Communities, and Fire Response. All three divisions are based upon the 2010 Congressional approved National Wildfire Cohesive Strategy: <https://www.forestsandrangelands.gov/strategy/thestrategy.shtml>

**The key recommendation is to direct staff to return in 90 days with an assignment, priority listing, timeline, budget projections and tracking plan for all the AAR recommendations**

### Restoring Landscapes

Priority\*  
(S, M, L)

Due Date

Who

1. Create a Wildfire Vegetation Management Unit
2. Pursue funding for a Chipper Program
3. Review 2017 Clackamas County CWPP and ensure that concerns are reflected within the CFD1 Strategic Plan and budget  
<https://dochub.clackamas.us/documents/drupal/2f2cb07d-ef5f-4fff-9614-a23f3f0bfce7>



## Building Fire-Adapted Communities

	Priority* (S, M, L)	Due Date	Who
1. Create community networks of FIREWISE or “like” type of fire-adapted community programs			
2. Create/adopt a Defensible Space education program based on risk			
3. Utilize current GIS to create “risk” maps vs. existing “hazard” maps to reflect the actual wildfire threat to natural resources, structures, and life safety			
4. Adopt the Ready, Set, GO! program			

## Fire Response

### Policy / Administration / Training

	Priority* (S, M, L)	Due Date	Who
1. Update the CFD1 Standards of Cover (SOC) plan to better reflect the probability and vulnerability of wildfires; Re-evaluate if the recent Oregon Wildfire Exposure mapping and other documents accurately display the wildfire risk after experiencing the 2020 fire year			
2. Create a “Wildfire” Standards of Cover plan to better design emergency plans, dispatch algorithms, equipment type, and equipment inventory/placement			
3. Create tiered pre-deployment plans when anticipating incidents			
4. Create and conduct table-top command drills for major deployments – Multi-agency Command System (MACS)			
5. Establish clear expectations of fire responders, support staff and communicate those with the public; Conduct a public education campaign to better establish public expectations of what the CFD1 performs in the pre-fire and post-incident environment			

		Priority* (S, M, L)	Due Date	Who
6.	Reduce the FOG of War by investing in new technology for intelligence, planning, situational awareness, accountability, communication, and decision support			
7.	Develop an organizational IAP, include chain of command to establish clear direction for the entire organization			
8.	Create dedicated staffing center for personnel management; Deploy apparatus via TeleStaff and utilize resource manifest documentation, similar to conflagration			
9.	Develop or create better communication between Admin/Ops and to all personnel regarding situational awareness			
10.	Create a better certs/quals system for both personnel and equipment for deployment			
11.	Develop redundant features to back up technology in the event of technology failure and the coordination of outside resources (i.e. paper maps)			
12.	Establish assignments for all staff, line, and support staff needs to know what is expected so they can function in the absence of direct supervision			
13.	Continue to train officers and commanders on "Fire Front Following" and Life Safety First Implementation to allow flexible engagement			
	**Fire Front Following is defined as crews chasing the fire front when not having enough resources to stay behind to watch for small ember re-ignition			
14.	Create dedicated staffing center for personnel			
15.	Establish triage criteria for critical infrastructure and key resources (residential, commercial, governmental), and other properties when firefighting resources are scarce and priorities must be set			



		Priority* (S, M, L)	Due Date	Who
16.	Evaluate establishing Incident Management Teams (IMTs) that relies more heavily on Business and Support Services to backstaff District Operations like logistics, staffing, communication during large scale incidents			
17.	Create a multi-level command structure that can address simultaneous incidents and retain a global view for emerging new incidents			
18.	Recruit, train and command a seasonal hand crew to perform fuels work and handling fire suppression			
19.	Establish an agreement to utilize two “agency” dozers with support equipment for initial attack and coordination of private contract resources			
20.	Explore a seasonal helicopter contract to act as an observation/command platform with the dual function of “Helco” to meet Incident Response Pocket Guide (IRPG)			

## Fire Response Incident Command

		Priority* (S, M, L)	Due Date	Who
1.a	Internally refine ICS use for all incidents by first-in officer and build the system commensurate with incident complexities			
1.b	Train and staff dedicated Liaison for each incident			
1.c	Ensure ICS and supporting documents are implemented immediately and are communicated to staff			
1.d	Enhance knowledge of ICS and update the COOP system			

## Fire Response

### Public Information

	Priority* (S, M, L)	Due Date	Who
2.a			Create greater depth of PIO roster using traditional and non-traditional staffing models
2.b			Revisit the CFD1 website and include wildfire preparation materials like FIREWISE, Ready, Set, GO! or like programs

## Fire Response

### Operations

	Priority* (S, M, L)	Due Date	Who
3.a			Invest in pre-fire relationship building with all partner agencies for better coordination
3.b			Train and reinforce all safety practices particularly LCES, the 10/18 orders, and tree safety prior to deployment
3.c			Evaluate reliance on other agencies (ODF) for air, heavy equipment, and hand crew assets
3.d			Coordinate with law enforcement partners to better facilitate evacuation orders and re-entry
3.e			Monitor personnel work/rest cycles and create options to ensure personnel safety and decision making
3.f			Create system to create rosters for Div. Sup / BC / IC with crews' names and hours worked for each operational period for better accountability
3.g			Develop "hold harmless document" saved to iPads plus basic flowchart for integrating civilian volunteers into operations to utilize their manpower and equipment, and prevent them from operating independently
3.h			Update/develop callback policy; Assign callback/staffing number and staff position with Data Services
3.i			When Evacuations are ordered, ensure CCSO is notified, coordinated and assists
3.j			Ensure that daily briefings are conducted for all line and support staff to maintain their situational awareness (10&18 combined)



## Fire Response

### Finance

	Priority* (S, M, L)	Due Date	Who
4.a	Develop accurate time keeping system to allocate personnel time per incident for cost reimbursement		
4.b	Train staff to become cost apportionment process capable		

## Fire Response

### Logistics

	Priority* (S, M, L)	Due Date	Who
5.a	Maintain an up-to-date list of food vendors, billing info set up with them. Implement staffing rotation and call list for logistics runners/delivery		
5.b	Evaluate the logistical support needed on extended incidents		
5.c	Create a Disaster Donations Relief Coordinator role to receive, store and dispense donated materials without disrupting the incident		
5.d	Create a form for demob return for crews to list logistics needs (i.e. fleet repair write-ups / rig check form)		
5.e	Pre-plan for large-scale food needs; Establish relationships, contracts ahead of time for fast and easy planning		
5.f	Distribute MRE's & stoves to crews on fireground in each battalion until food is delivered		
5.g	Recommend 72-hour kit to each member's green WL bag, and carry green bag year-round; Required bag contents: personal items, clothes, shelf stable food (protein bars, jerky, nuts, self-heating MREs); Add cases of bottled water to each rig in a seldom used compartment		
5.h	Increase logistics PLL for hose, nozzles, and wildland packs		
5.i	Establish contacts and pre-existing relationships for heavy equipment and private vendors		

		Priority* (S, M, L)	Due Date	Who
5.j	Enhance ability to charge and store large quantities of 800 MHz batteries and replacement batteries			
5.k	Improve radio communications with outside agencies; specifically, radio frequencies and communication with Dispatch and the crews			
5.l	Ensure a central portable radio / MDC cache with properly labeled radios			
5.m	Develop process for tracking loaner radios/ MDCs with form for: who, date, radio # located at the central radio cache at Logistics			
5.n	Evaluate need for BK mobile and at least one BK portable in each apparatus/operational rig			
5.o	Provide every Captain/Chief with a login at CCOM for CAD			
5.p	Install MDC mounts for all D1 apparatus, identify mobile data requirements for District vehicles			
5.q	Provide CAD apparatus ID# placeholder for all D1 apparatus for MDC login at CCOM, including staff vehicles			
5.r	Create reserve CAD login unit #s for all units			

## Fire Response Plans

		Priority* (S, M, L)	Due Date	Who
6.a	Ensure that ICS 215 objectives are part of the planning and briefing functions to create a common operating platform			

\* S = Short, M = Medium, L = Long



There are additional topics that can be enhanced for the Region and State, but are outside of CFD1 direct span of control. Sample topics include:

- Create a Statewide Prescribe Fire Council
- Create a Statewide network of FIREWISE or “like” type of fire-adapted community programs
- Create/adopt a home hardening program targeted for socially/economic disadvantaged residents
- Create true “risk” maps vs. existing “hazard” maps to reflect the actual wildfire threat to natural resources, structures, and health
- Adopt modern wildfire building codes and local ordinances to address the wildfire problem
- Partner with the insurance industry and Insurance Commissioner to address policy rates, renewals, and incentives to encourage home hardening and maintenance
- Re-evaluate if the recent Oregon Wildfire Exposure mapping and other documents accurately display the wildfire risk after experiencing the 2020 fire year
- Create a “Wildfire” Standards of Cover plan to better design emergency plans, dispatch algorithms, type of equipment and equipment inventory/placement
- Reduce the FOG of War by investing in new technology for intelligence, planning, situational awareness, accountability, communications, and decision support
- Create a better certs/quals system for both personnel and equipment for deployment
- Adopt a cross-boundary philosophy that addresses how to prepare, fight, and recover from wildfires without creating silo actions and establish a command model to bridge agency/political lines
- Revisit the State’s mutual aid system/Fire Defense Boards to explore enhancing the system’s efficiencies
- Create and enforce standards for critical infrastructure redundancy (i.e. water supply, electrical grids, cell/phone systems, and data feeds)

## Conclusion

The first step toward improvement is to recognize what worked and identify areas for development. These wildfire problems were not created yesterday, and long-term issues will require long-term resolve both in commitment and funding. This report brings forward those elements. The next step is to build both internal and external consensus to develop an implementation plan

that includes milestones. Additionally, determine budget appropriations necessary for goal achievement and update the Clackamas Fire District #1 Strategic Business Plan.

## References

**Clackamas County Unprotected Lands**

<https://dochub.clackamas.us/documents/drupal/e496fa42-2e0e-4bca-8ce4-a139b078f184>

**CFD1 CWPP Excerpt**

<https://dochub.clackamas.us/documents/drupal/2f2cb07d-ef5f-4fff-9614-a23f3f0bfce7>

**Clackamas County CWPP**

<https://www.clackamas.us/dm/ccwpp.html>

**2020 Fire Season Maps**

<https://storymaps.arcgis.com/stories/064d9b11d0584625ba57b172612699c1>

**CFD1 Standards of Cover Plan**

<http://clackamasfire.com/wp-content/uploads/2016/05/standardscover.pdf>

**Clackamas Fire District #1**

<http://www.clackamasfire.com>

**Clackamas Fire District #1 Addendum to the  
Clackamas County Multi-Jurisdictional Hazard  
Mitigation Plan**

<http://www.clackamasfire.com/wp-content/uploads/2019/09/Natural-Hazard-Mitigation-Plan-CFD-Addendum.pdf>