DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER OF PUBLIC LANDS
1111 WASHINGTON ST SE MS 47001
OLYMPIA, WA 98504-7001

November 30th, 2021

The Honorable Bernard Dean
Chief Clerk of the House
338B Legislative Building
Olympia, WA 98504

The Honorable Brad Hendrickson
Secretary of the Senate
412 Legislative Building
Olympia, WA 98504

Dear Chief Clerk Dean and Secretary Hendrickson:

Please accept the enclosed report, submitted on behalf of Department of Natural Resources (department), as directed by the Legislature in the Sec. 310 (10) of the 2021-2023 Operating Budget (ESSB 5092, Chapter 334, Laws of 2021). The bill as passed directed the department to report to the Governor and Legislature on the on the previous wildfire season as recommended by the Wildfire Suppression Funding and Costs (18-02) report of the joint legislative audit and review committee. The first report is due December 1st, 2021, with a follow up report due December 1st, 2022.

Should you have any questions, please contact me at 360-486-3469 or Brian.Considine@dnr.wa.gov

Sincerely,

Brian Considine
Legislative Director
Office of the Commissioner of Public Lands

Enclosure: Legislative Report – 2021 Wildfire Suppression

cc: Members of the Senate Agriculture, Water, Natural Resources & Parks Committee
Members of the House Rural Development, Agriculture & Natural Resources Committee
Members of the House Appropriations Committee
Members of the House Capital Budget Committee
Members of the House Environment & Energy Committee
Members of the Senate Environment, Energy, & Technology Committee
Members of the Senate Ways & Means Committee
Drew Shirk, Executive Director, Legislative Affairs, Office of the Governor

Wildfire Season 2021

Wildfire Division Season Summary

Prepared by
Washington State Department of Natural Resources
Wildfire Division
December 1, 2021

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Please note that these statistics are derived from regional input of data into the Fire Incident Reporting System (FIReS, formerly EIRS), an internal DNR system. Statistics may vary throughout the season until finalized at the end of the calendar year. Additionally, data cleaning may modify these statistics as we work towards more comprehensive and accurate data management. Statistics presented here are the most up-to-date and accurate information provided through Sept. 30, 2021. The large fires described in this report are those fires that started on DNR protection, or are otherwise considered DNR fires. This report does not include details or statistics for other agency fires, except in those instances where DNR was directly involved in developing said information.

Executive Summary

Fighting Washington's wildfires is always a taxing year-round endeavor, even during the best of circumstances. This year, that annual undertaking came with the continued expectation that the ongoing COVID-19 global health crisis would make things even more complex. In response, the Department of Natural Resources (DNR) enacted a number of additional mitigation strategies to reduce the risk to firefighters that proved to be successful. Additionally, drought conditions and record-smashing heat scorched vegetation and baked what little moisture remained out of the soils through May and June, leaving fuels ripe for conflagration. When forecasts predicted significant large fire potential across Washington State in July and most of the state in August, the agency's emphasis focused on minimizing acres burned and providing for rapid initial attack. To accomplish this, DNR issued contracts for additional air resources, including large air tankers, and implemented a robust planning structure that utilized partnerships and agreements to bring in additional ground resources from out of state. Due to those efforts, fire personnel were able to hold burned acre totals below last year's number – despite more fire starts and the extreme drought conditions.

This report examines DNR's response to the 2021 fire season – detailing both challenges and successes while giving an overview of the damage wildfires caused across DNR jurisdictions and the economic costs of fighting them. DNR responded to many fires on lands protected by DNR, like Cub Creek 2 and Walker Creek. In addition to fighting fires across 13 million acres of DNR-protected lands, the agency also provided assistance to combat several other major fires – such as Cedar Creek and Green Ridge – in other jurisdictions. In total, 30 large fires burned over 600,000 acres across federal, private, state, tribal and other agency ownership.

Despite incredibly challenging conditions, our state's wildfire fighting force demonstrated remarkable resolve, the results of which we saw on the ground. Thanks to increased aircraft and emphasis on initial attack, nearly every fire was contained before it had the chance to become a large, complex fire. The number of DNR-jurisdiction fires contained at 10 acres or less was 1,119, or approximately 94 percent – a seven percentage-point improvement over the 10-year average.

Legislative Support

DNR wants to thank the Legislature for its incredible support in passing HB 1168, which will provide critical resources for wildfire response, forest restoration and community resilience. Fire seasons like the one we had in 2021 are a reminder of how important these investments are for protecting our environment and our communities. It is important to note, however, that due to

the compressed timeline, funding provided by House Bill 1168 – the historic legislation passed in the spring concerning long-term forest health and the reduction of wildfire danger – was not available for the majority of the 2021 wildfire season. DNR has already begun taking steps to implement HB 1168 that will increase air resources and firefighters while also helping our forests and our communities become more resilient to growing wildfires.

As we look ahead to having the critical resources at the local and state level to respond to our growing wildfires, however, there are two significant barriers to achieving the full potential of HB 1168 – both of which require legislative fixes.

1. **Wildfire Administrative Prohibition.**

The State of Washington has experienced an exponential growth of wildfires, both in terms of severity and duration. Fire seasons are routinely lasting from April through October, requiring an average of 700 DNR firefighters each year. To do their jobs safely and effectively, these firefighters require as much or more administrative support as regular employees, since a new cadre of non-permanent employees are recruited, hired, on-boarded, equipped, paid, housed, trained, transported and off-boarded each year. They require special equipment, training, housing and transportation that our agency and regional administration staff must support.

However, none of the agency's administrative or indirect activities to support emergency fire suppression staff may be charged to the emergency fire suppression appropriation because of two sentences in the 2021-23 Operating Budget, Section 310(8): "The appropriations provided in this subsection may not be used to fund the department's indirect and administrative expenses. The department's indirect and administrative expenses shall be allocated among its remaining accounts and appropriations."

As the number of seasonal and full-time firefighters increases, along with more severe and frequent wildfires, so too does the workload of central agency and regional administrative staff. These employees work longer hours and postpone their other work until after fire season ends. As a result, staff must deal with normal work in the offseason, which has been getting shorter every year – and the rest of the agency has to bear these administrative costs. DNR recommends that these two sentences be removed from Section 310(8) for future operating budgets, and that a new investment is made to fund the department's administrative needs. This change is supported by an independent review funded by the Legislature, which was conducted by Stellar LLC.

2. **Wildfire Budget Split in ESSB 5092, 2019-21 Operating Budget.**

This is a technical correction for the House Bill 1168 funding. Thanks to the support of the

legislature in passing HB 1168 in 2021, the Department has been able to increase DNR's firefighting and forest health resources, which will contribute to successful wildfire seasons. One minor technical correction would increase the ability of the Department to implement the legislative intent of 1168 more fully. Currently, funding is provisioned in the operating budget for an individual year:

ESSB 5092 Sec. 310(2): "$55,791,000 of the general fund — state appropriation for fiscal year 2022 and $74,632,000 of the general fund — state appropriation for fiscal year 2023 are provided solely for the implementation of Second Substitute House Bill No. 1168 (long-term forest health)."

The Department is recommending that greater flexibility be added to that appropriation to allow for funding across the biennium. This will better support projects like forest health treatments that can span across multiple fiscal years. The Department's recommended technical adjustment is as follows:

ESSB 5092 Sec. 310(2): "$125,000,000 of the general fund is provided solely for the implementation of Second Substitute House Bill No. 1168 (long-term forest health)."

In addition to fixing these two barriers, the agency will also be working with the state legislature to address the issue of "unprotected lands."

Unprotected Lands: In 2018, the legislature directed the Wildland Fire Advisory Committee through HB 2561 to approximately quantify the amount of unprotected land within Washington and make recommendations on how best to provide protection. In the final report, the Advisory Committee identified approximately 358,000 acres (559 square miles) of unprotected land in the state. The Advisory Committee recommended that DNR assume protection of this land. Unprotected lands are distributed in eleven eastern Washington counties with Yakima and Douglas Counties having the most unprotected land.

DNR is currently scoping the legislative and operational changes required to implement this recommendation and intends to bring a legislative proposal for consideration in the 2023 legislative session.

Key Findings

This year's Wildland Fire Management Division Season Summary highlights three key summary findings:

- **The importance of Initial Attack and increased air resources.** DNR made the decision to bring in Large Air Tankers, Heavy Scoopers and Type 1 helicopters on exclusive use contracts during the most active part of fire season, a change from past practice. Additional air resources were added through partnership with the National Guard. As a result, DNR was able to have and prioritize these additional assets within the state, rather than relying on other agencies, to meet the needs of the state. Having ready access to aviation resources meant DNR could respond to fires immediately to prevent small fires from becoming large, catastrophic fires and bring additional resources to bear on the major fires around the state.

- **An excellent safety record.** The safety of DNR personnel is always the agency's highest priority. Despite the added risks of COVID-19 and the challenges of a long, hard fire season, the agency was able to maintain an excellent safety record in 2021: there were no recorded firefighter fatalities and zero significant aviation mishaps.

- **Significant assistance provided by DNR to Washington's neighbors.** In addition to suppressing wildfires across Washington, DNR crews, equipment and other resources helped battle blazes in nine other states this fire season. Many of these deployments were associated with interagency incident management teams, which is DNR's contribution to a complete and coordinated national mobilization system. This system is also reciprocal in that it supports Washington during periods of high fire activity. See Table 2 and Table 3 in this report for the breakdown of resources given and received within the mobilization system.

Fire Season Overview

The 2021 fire season presented significant challenges for wildland firefighters and fire managers from beginning to end. During the peak preparedness season in April and May, there was a lull in COVID-19 prevalence in Washington. Training was completed with minimal disruption, and was primarily virtual. As the season progressed, the Delta variant spread throughout Washington and caused significant impacts to initial attack and large fire management operations. Isolation, quarantine and active illness all had impacts on the health and availability of firefighters. Wildfire managers and IMTs were constantly adapting to changing disease activity and mitigation protocols as the season developed.

Despite an above-average snowpack and normal winter precipitation, drought conditions became significant throughout the spring and summer. From March forward, very little precipitation was received across most of the state. These drought conditions quickly dried up the landscape, increasing fuels while also giving little to no respite from fires from spring through late summer. The drought facilitated an early start to the fire season, with moderate initial attack in many DNR Regions during the spring. Due to the lack of available moisture and warmer weather, the "green-up"[1] period was compressed. This resulted in lower loadings of fine fuels, but early curing of those fuels. Both the Basin and higher elevation timber fuels entered the peak of the season very dry and primed to burn.

EVENT	DATE
Commissioner of Public Lands Burn Ban	July 1
Governor's Burn Ban and Emergency Declaration	July 6
Drought Declaration	July 14
DNR Closes Eastside Lands	July 23

Table 1: Significant dates

Fire season ramped to a high level of activity with the first dry lightning event on July 7, which impacted the Blue Mountains. This storm ignited the Dry Gulch and Lick Creek incidents, which quickly combined to become a Type 1 incident, Green Ridge (Type 2) and two other Type 3 incidents between Walla Walla and Asotin. The PNW Geographic Area Coordination Center (GACC) went to a Preparedness Level (PL) 4, with PL 5 following within a week. Subsequent lightning ignited several large fires in the Spokane area and the Okanogan. The Chuweah and Summit Trail fires were early large fires on the Colville Reservation that were the first of several

[1] Green-up usually occurs once a year in the spring, and signifies the first flush of green, new vegetation.

large incidents to impact the Colville Agency. Other notable fires on the Colville Agency included Whitmore, Spur and Walker fires.

Additional lightning in early August ignited the Apple Acres fire near Wenatchee and the Cedar Creek and Delancy fires in the Methow Valley. All three incidents ultimately grew to Type 1 complexity. From this point in the season, approximately 20 additional large fires occurred from Northeast to Southcentral Washington. Improving weather helped contain the final two Type 1 incidents, 25 Mile and Schneider Springs.

The onset of fall-like weather significantly diminished the large fire threat shortly after Labor Day. Initial Attack continued at a light to moderate level until season-ending rains began arriving during the first week of October. DNR Preparedness Level followed the GACC for most of the season, but downgraded to a PL 3 and PL 2 earlier than the GACC due to late summer rain received across most of the state.

The Cub Creek 2 fire started on July 16th, 2021, five miles north of Winthrop. Photo credit: Inciweb.

Key factors in the 2021 season were the long duration of severe fire danger and difficulty in obtaining resources from customary sources. The significant drought and extreme fire danger present throughout the Western United State meant that nearby states and provinces were unable to help as much as usual. DNR did procure engines, overhead and crews from North Carolina, Tennessee, Kentucky, Oklahoma, Florida, Mississippi, Texas, Maine and other states (Table 2). This assistance would prove to be crucial, as COVID-19 and increased large fire activity across the West and nationally

disrupted federal supply chains and availability of firefighters as the demand for resources increased.

Washington resources also helped battle blazes in nine other states, dispatching resources from February through September (Table 3), fulfilling state-to-state help agreements.

Recognizing that the drought would impact many states' need for resources, DNR took unprecedented steps early in the season to secure additional air resources exclusively for its use. Securing these resources early was critical in keeping 94 pecent of agency fires below 10 acres, and keeping 98 percent of agency fires from becoming Type 1, 2 or 3 incidents. At the peak, DNR was operating 37 tactical aircraft, including heavy scoopers, heavy airtankers, Type 3, 2, and

Table 2: 2021 Out-of-state resources dispatched into Washington. Engines include tenders and chase trucks.

STATE	ENGINES	MODULES	OVERHEAD	TRAINEES	TOTAL DAYS IN STATE
Alberta			4		**68**
Alabama			1		**21**
Alaska	5		38	4	**848**
Arizona			6		**82**
Arkansas			1		**7**
California			2	1	**15**
Colorado			5		**51**
Florida			2	1	**30**
Idaho			6		**96**
Kentucky	2		16	1	**348**
Maine			1		**18**
Mississppi		2	15	5	**251**
Montana			4		**36**
Nevada			1		**26**
New Mexico			2		**37**
North Carolina	7	1	60	16	**1214**
Oklahoma	3		8	3	**361**
Oregon			19	2	**234**
Tennessee	3		13	5	**319**
Texas			2		**15**
Utah	4		20	4	**401**
Wyoming			1		**7**
TOTAL	**24**	**3**	**227**	**42**	**4485**

1 helicopters and a portable airtanker base was established for several weeks at the Olympia airport. This stategical adjustment was made with an eye toward the increased fire potential across the state, and the need to have broader air asset coverage to maintain the short response times required to quickly snuff out fresh fire starts – specifically on the western side of the Cascades.

The DNR Fire Cache supported numerous Type 3, 2 and 1 incidents throughout Washington. Supplies, equipment, vehicles, kitchens, support trailers and other rolling stock were critical in helping interagency incidents achieve their objectives. DNR operations were not impacted by transportation and supply issues as a result of the agency's fire seasaon preplanning process and cotengency measures put into place.

The DNR Planning Section provided meteorology services with dedicated National Weather Service Incident Meteorologists (IMETs) during the peak of activity, and normal fire weather support during the beginning and end of fire season. Constant, ongoing Situation and Fire Intelligence services were also key to success. Planning Section personnel also supported the Northwest Coordination Center with rotational assignments during the peak of the season.

Given all of the challenges presented by the 2021 fire season, DNR personnel attained an excellent safety record. Even with increased fires and a longer season, a total of 227 incident reports were filed – comparable to data from 2020 and 2019, and a significant decrease from 2018 (301 incident reports). Of those 227 incident reports, 33 percent were due to firefighter injury or illness. There were no recorded firefighter fatalities and zero significant aviation mishaps. With DNR's highest priority always being public and firefighter safety, this is the most important achievement of the fire season.

Table 3: 2021 DNR and Washington Fire Service (WFS) resources dispatched out of state. WFS and DNR Overhead include large fire management team personnel.

STATE	DNR AIRCRAF	DNR ENGINES	DNR CREWS	WFS OVERHEAD	DNR OVERHEAD	GRAND TOTAL
Alaska			2		57	**59**
Arizona					11	**11**
California					3	**3**
Idaho	6				6	**12**
Michigan					1	**1**
Missouri					1	**1**
Montana			1	1	6	**8**
Oregon (NWCC)					5	**5**
Oregon	19	6	5	299	362	**691**
South Dakota					1	**1**
TOTAL	**25**	**6**	**8**	**300**	**453**	**792**

Fuels, Weather and Fire Danger Summary

During the month of March, unusual dryness was experienced, but conditions never came with any excessive warming trends prior to the green-up, and therefore left the state with a fairly mild early spring fire season. The dry trend intensified in April, setting the stage for extreme drought to develop (see Figure 1). Most Fire Danger Rating Areas (FDRAs) across the state were sitting well above normal coming into May, though green-up had prevented significant fire growth from occurring. Climate predictions for May were showing equal chance of above or below normal precipitation, though the month continued with below normal precipitation. By the end of May, only the highest elevations of the Olympics and Cascades were not experiencing some level of drought. Eastern Washington FDRAs were setting new daily maximum fuel dryness and sitting at Energy Release Components (ERCs) more typical of August than the end of May. Live fuel moistures were moderating conditions significantly, helping to offset the increasingly dry dead fuel component.

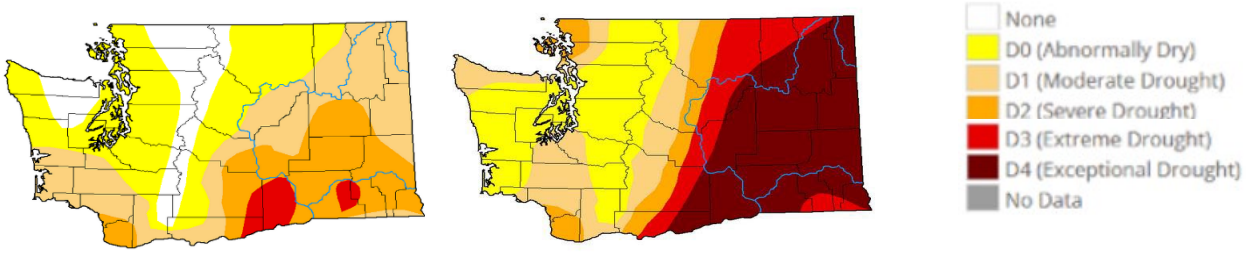


Figure 1: The drought status for 05/25/2021 on the left versus 7/29/2021 on the right. Data courtesy of Brad Rippey, U.S. Department of Agriculture; and Richard Heim,

June predictions for climate looked even worse than they had been in May, and fully lived up to that forecast. One single bright spot was a very wet late-spring storm that came through between June 11th and June 13th, which helped to hold back some of the impacts from the intense heat wave that arrived in the last week of June. Record-smashing heat scorched the live vegetation and baked what little moisture was left out of the soils. The needles of outer branch tips on conifers across the state turned red, what remaining green there was in the grass disappeared, and the fire danger indices began a nearly two–month-long trend of staying above the 97th percentile for a large portion of the state. The Highlands' FDRA in particular set new daily and several all-time maximum ERC values for all but two days between June 22nd and July 31st (see Figure 2).

July continued the hot and dry streak east of the Cascades, but mercifully the west side stayed under a nearly constant marine flow, which kept fuel conditions moderated even without the typical summer showers.

August, typically being much drier than June and July, arrived looking especially grim – though a very strong monsoonal pulse provided some much-needed precipitation during the first week that brought fuel conditions back from record-setting marks in most locations. Several more conveniently timed precipitation events throughout the month allowed many FDRAs to get back to average fuel conditions. Marine flow continued on the west side as well, keeping extreme indices at bay despite receiving less rain than the east side of the state.

Unlike 2020, September stayed closer to normal conditions, bringing some scattered precipitation before the taps opened up in the middle of the month on the west side. The shorter days and more typical early fall weather kept fuels trending downwards for the month, and most FDRAs were again showing Low to Moderate fire danger by October 1st.

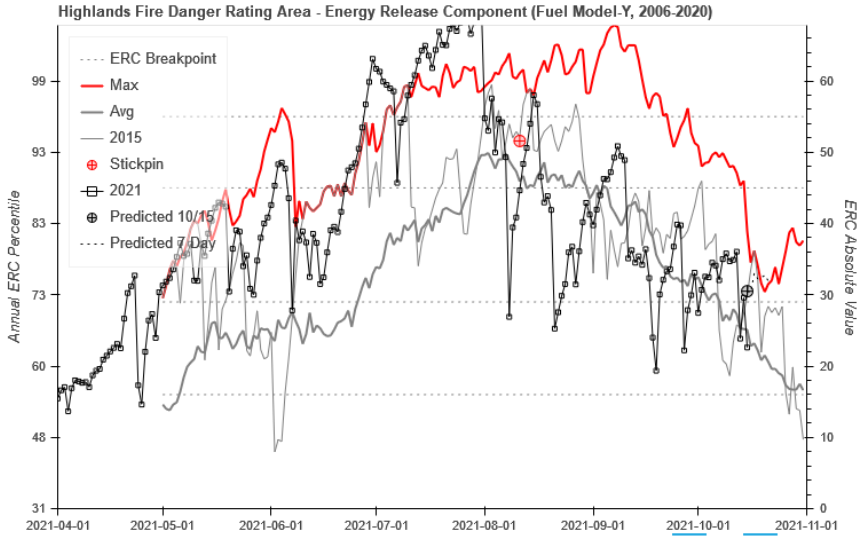


Figure 2: Energy Release Component (ERC) for Highlands Fire Danger Rating Area (FDRA) throughout the 2021 season, including new record-setting marks in June/July

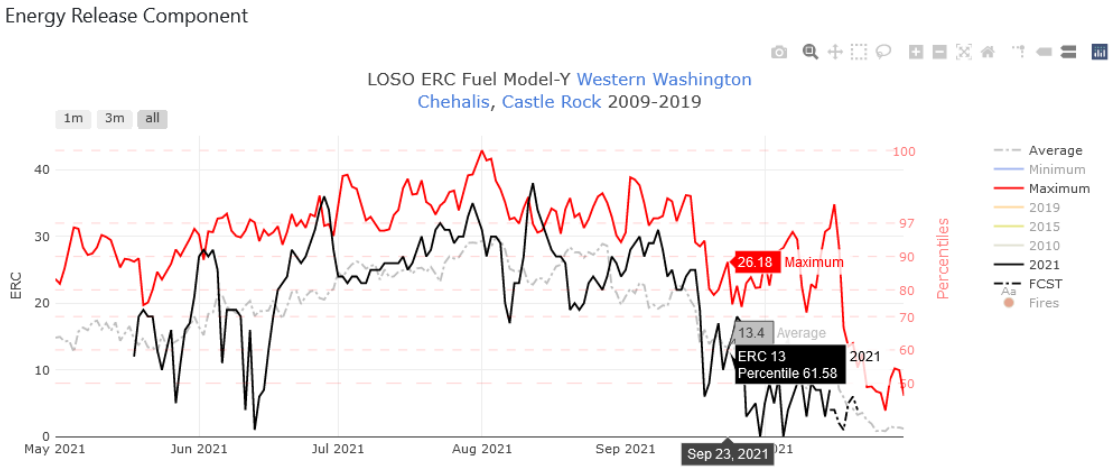


Figure 3: Energy Release Component (ERC) for Lowlands South Fire Danger Rating Area (FDRA) throughout the 2021 season, including new records in June, July and August.

Large Fire Summary

As of September 30, 2021, there have been 30 fires with DNR involvement that are considered large and/or significant (see Table 4 below).[2] Large or significant fires are typically those fires that are greater than 100 acres in timber or 300 acres in grass. For a location of these large fires, please see the Map of 2021 Fire Locations found in the Appendix.

Table 4: Large or Significant Fires with DNR involvement, Jan. 1 to Sept. 30, 2021.

#	FIRE NAME	PROTECTION TYPE	INCIDENT ID	START DATE	REGION	COUNTY	CAUSE	PRIMARY FUEL
1	KOFFMAN ROAD	Assist Other Agency	WA-SES-2021-0262	6/27/2021	SE	Kittitas	Under Investigation	Grass
2	BATTERMAN RD	Assist Other Agency	WA-WFS-2021-0297	7/4/2021	SE	Douglas	Undetermined	Brush
3	ANDRUS	DNR: FFPA	WA-NES-2021-1931	7/5/2021	NE	Spokane	Misc.- Other	Timber
4	DRY GULCH (LICK CREEK)	DNR: FFPA	WA-SES-2021-0655	7/7/2021	SE	Asotin	Under Investigation	Timber
5	GREEN RIDGE	Assist Other Agency	OR-UMF-2021-0659	7/7/2021	SE	Columbia	Lightning	Grass
6	SILCOTT	Assist Other Agency	WA-WFS-2021-0678	7/7/2021	SE	Asotin	Lightning	Brush
7	CEDAR CREEK	Assist Other Agency	WA-OWF-2021-0320	7/8/2021	SE	Okanogan	Under Investigation	Brush
8	WHITEHALL ROAD	Assist Other Agency	WA-SPD-2021-0327	7/8/2021	NE	Douglas	Lightning	Grass
9	BURBANK	Assist Other Agency	WA-MCR-2021-0346	7/10/2021	SE	Kittitas	Undetermined	Grass
10	SUMMIT TRAIL	Assist Other Agency	WA-COA-2021-0087	7/12/2021	NE	Ferry	Under Investigation	Timber
11	CHUWEAH CREEK	DNR: FFPA	WA-COA-2021-0084	7/12/2021	NE	Okanogan	Under Investigation	Brush
12	RED APPLE	DNR: FFPA	WA-SES-2021-0360	7/13/2021	SE	Chelan	Under Investigation	Grass
13	CUB CREEK 2	DNR: FFPA	WA-NES-2021-0373	7/16/2021	NE	Okanogan	Under Investigation	Brush
14	GODDARD ROAD	DNR: FFPA	WA-NES-2021-2076	7/16/2021	NE	Stevens	Under Investigation	Timber
15	SHERWOOD	Assist Other Agency	WA-SPA-2021-2124	7/21/2021	NE	Stevens	Under Investigation	Timber
16	NELSON CREEK	DNR: FFPA	WA-NES-2021-2143	7/23/2021	NE	Spokane	Misc.- Structure Fire	Timber
17	SPRUCE CANYON	DNR: FFPA	WA-NES-2021-2141	7/23/2021	NE	Stevens	Under Investigation	Slash
18	HAZARD HILL	DNR: FFPA	WA-NES-2021-2165	7/25/2021	NE	Spokane	Misc.- Vehicle Fire	Timber
19	WHITMORE	Assist Other Agency	WA-COA-2021-0106	8/3/2021	NE	Okanogan	Under Investigation	Timber
20	WALKER CREEK	DNR: FFPA	WA-NES-2021-2245	8/3/2021	NE	Okanogan	Under Investigation	Timber
21	MOE CANYON	DNR: FFPA	WA-SES-2021-0445	8/3/2021	SE	Chelan	Lightning	Timber
22	SCHNEIDER SPRINGS	Assist Other Agency	WA-OWF-2021-0453	8/4/2021	SE	Yakima	Under Investigation	Grass
23	MUCKAMUCK	DNR: FFPA	WA-COF-2021-2290	8/4/2021	NE	Okanogan	Lightning	Brush
24	CHICKADEE CREEK	DNR: FFPA	WA-NES-2021-2310	8/4/2021	NE	Okanogan	Under Investigation	Timber
25	NASON	Assist Other Agency	WA-OWF-2021-0456	8/4/2021	SE	Chelan	Under Investigation	Timber
26	NINE MINE	DNR: FFPA	WA-NES-2021-2313	8/4/2021	NE	Stevens	Under Investigation	Timber
27	BULLDOG MOUNTAIN	Assist Other Agency	WA-COF-2021-2348	8/5/2021	NE	Ferry	Lightning	Brush
28	MACK MOUNTAIN	Assist Other Agency	WA-COF-2021-2338	8/5/2021	NE	Ferry	Lightning	Brush
29	TWENTYFIVE MILE	Assist Other Agency	WA-OWF-2021-0521	8/15/2021	SE	Chelan	Under Investigation	Grass
30	FORD CORKSCREW	DNR: FFPA	WA-NES-2021-2446	8/15/2021	NE	Stevens	Misc.- Structure Fire	Timber

All data are from DNR's database (FIReS) and ICS-209 forms as of October 6, 2021.

[2] For all fires and all jurisdictions in Washington, refer to Northwest Coordination Center (NWCC) statistics located at https://gacc.nifc.gov/nwcc/content/products/intelligence/sitreport.pdf. DNR only has control over fire statistics associated with their jurisdictional responsibility (generally private and state land); however, all fire agencies report their wildland fire statistics to NWCC.

The 30 large fires listed below (Table 5) burned over 600,000 acres across federal, private, state, tribal and other agency ownership. Any expenditures that DNR has incurred are described in the Financial Highlights section of this report. If expenditures were incurred while assisting a federal or tribal entity that weren't part of mutual assistance during initial attack, those expenditures will be reimbursed. DNR incurs cost associated with DNR protection. DNR protects state, private and other non-federal forestlands within Forest Protection Zones defined in RCW 76.04.165. Any response outside of these zones is considered an "other agency assist."

These same 30 large fires burned forested and non-forested land cover types (see Table 6). Of the total acreage burned in these large fires, about 70 percent of the lands were forested while the remaining 30 percent were not. Non-forested land cover types include shrub lands and crop lands.

Table 5: Ownership Acres Burned, Jan. 1 to Sept. 30, 2021

#	FIRE NAME	FEDERAL	PRIVATE	STATE	TRIBAL	OTHER	TOTAL
1	KOFFMAN ROAD		316				**316**
2	BATTERMAN RD	1,448	11,921	754			**14,123**
3	ANDRUS		232				**232**
4	DRY GULCH (LICK CREEK)	54,539	17,160	8,738			**80,437**
5	GREEN RIDGE	43,725	0				**43,725**
6	SILCOTT		8,137	499			**8,636**
7	CEDAR CREEK	53,888	744	940			**55,572**
8	WHITEHALL ROAD		774	3		91	**867**
9	BURBANK	7,750	111				**7,860**
10	SUMMIT TRAIL				49,554		**49,554**
11	CHUWEAH CREEK FIRE				36,732		**36,732**
12	RED APPLE	2,602	5,094	4,529		55	**12,279**
13	CUB CREEK 2	68,698	672	798			**70,168**
14	GODDARD ROAD		665	149			**814**
15	SHERWOOD				1,257		**1,257**
16	NELSON CREEK		154				**154**
17	SPRUCE CANYON	83	1	45			**129**
18	HAZARD HILL		125				**125**
19	WHITMORE				58,243		**58,243**
20	WALKER CREEK	17,536	5,285	912			**23,733**
21	MOE CANYON	90	1			69	**161**
22	SCHNEIDER SPRINGS	95,122	510	11,721			**107,353**
23	MUCKAMUCK	9,152	3,332	813			**13,297**
24	CHICKADEE CREEK			5,852			**5,852**
25	NASON	610					**610**
26	NINE MINE		133	31			**164**
27	BULLDOG MOUNTAIN	6,206					**6,206**
28	MACK MOUNTAIN	1,235					**1,235**
29	TWENTYFIVE MILE	20,727	657	725			**22,109**
30	FORD CORKSCREW		13,592	2,120			**15,712**
	TOTAL	**383,410**	**69,617**	**38,629**	**145,786**	**215**	**637,656**

All data from Interagency Fire Occurrence Reporting Modules (InFORM) as of October 13, 2021, Data for Cedar Creek and Cub Creek 2 comes from ICS-209 forms. Data are rounded to the nearest whole acre.

In addition to timber and other valuable lands, more than 200 structures and homes were damaged or destroyed during the 2021 fire season (see Table 12 in the Appendix). DNR protects the land, and coordinates with structural fire agencies and emergency responders who are responsible for protecting structures and homes. This provides landowners with a coordinated protection system for their land and structures.

Table 6: Forested vs. Non-forested Acres Burned, Jan. 1 to Sept. 30, 2021.

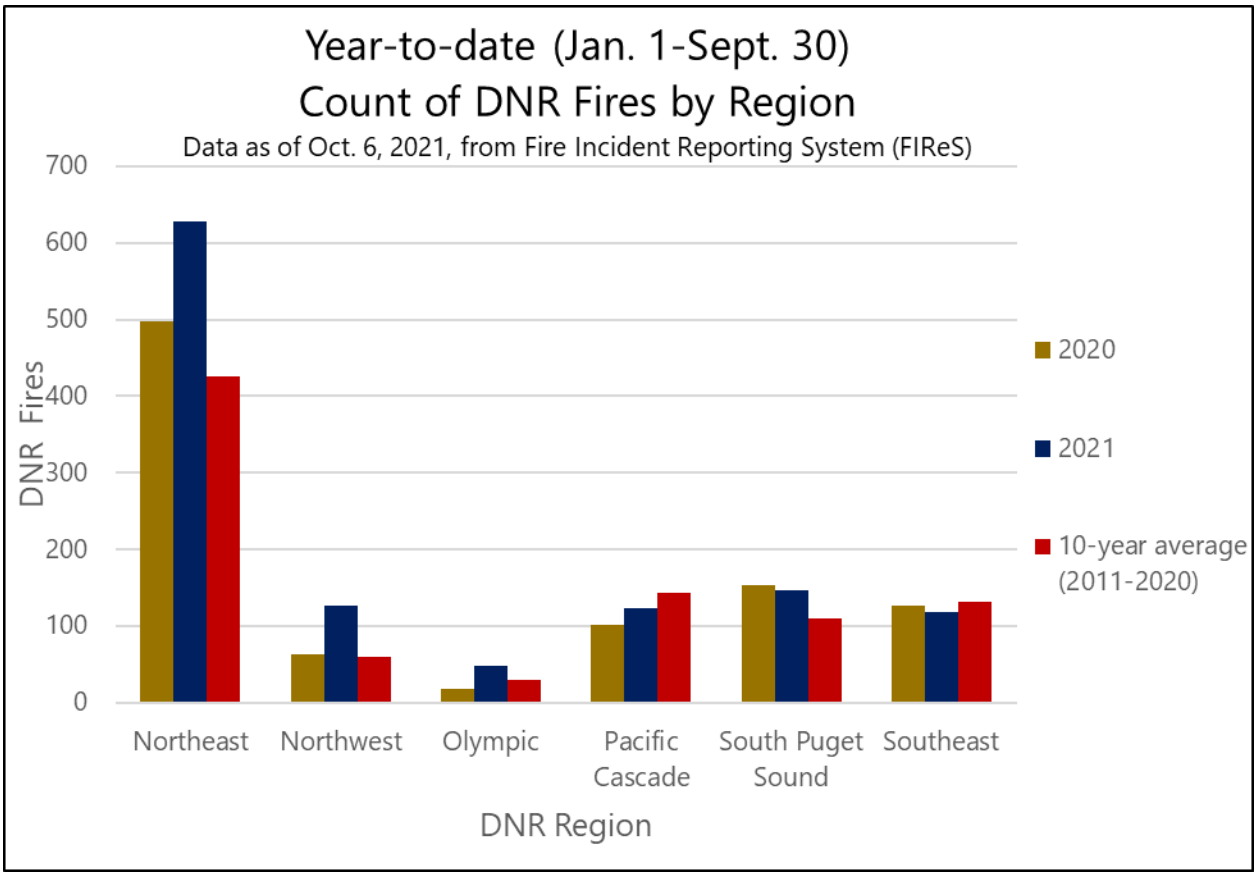
#	FIRE NAME	FORESTED	NON-FORESTED	TOTAL
1	KOFFMAN ROAD		316	**316**
2	BATTERMAN RD		14,123	**14,123**
3	ANDRUS	92	141	**232**
4	DRY GULCH (LICK CREEK)	46,281	34,156	**80,437**
5	GREEN RIDGE	41,681	2,044	**43,725**
6	SILCOTT	7	8,629	**8,636**
7	CEDAR CREEK	47,917	7,655	**55,572**
8	WHITEHALL ROAD		867	**867**
9	BURBANK	8	7,852	**7,860**
10	SUMMIT TRAIL	47,553	2,001	**49,554**
11	CHUWEAH CREEK FIRE	13,340	23,392	**36,732**
12	RED APPLE	840	11,439	**12,279**
13	CUB CREEK 2	62,191	7,977	**70,168**
14	GODDARD ROAD	681	133	**814**
15	SHERWOOD	1,113	144	**1,257**
16	NELSON CREEK	116	38	**154**
17	SPRUCE CANYON	126	2	**129**
18	HAZARD HILL	64	60	**125**
19	WHITMORE	16,651	41,592	**58,243**
20	WALKER CREEK	20,599	3,134	**23,733**
21	MOE CANYON	61	100	**161**
22	SCHNEIDER SPRINGS	97,325	10,028	**107,353**
23	MUCKAMUCK	8,686	4,611	**13,297**
24	CHICKADEE CREEK	5,451	401	**5,852**
25	NASON	603	7	**610**
26	NINE MINE	122	42	**164**
27	BULLDOG MOUNTAIN	5,656	550	**6,206**
28	MACK MOUNTAIN	1,205	30	**1,235**
29	TWENTYFIVE MILE	17,890	4,219	**22,109**
30	FORD CORKSCREW	12,632	3,080	**15,712**
	TOTAL	**448,891**	**188,764**	**637,656**

Analysis of total fire acreage by forested and non-forested land cover type, using GIS data from NIFC and the DNR QDL. Data are rounded to the nearest whole acre.

Fire Season Statistics for DNR Fires

Between January 1st and September 30th, 2021, there were 445 DNR fires on the westside and 746 DNR fires on the eastside, bringing the statewide total to 1,191. This is higher than the 10-year average in the DNR Northeast, Northwest, Olympic and South Puget Sound Regions (see Figure 4 below and Table 9 in the Appendix). Additionally, the number of fire responses was also higher than the 10-year average (see Table 10 in the Appendix).

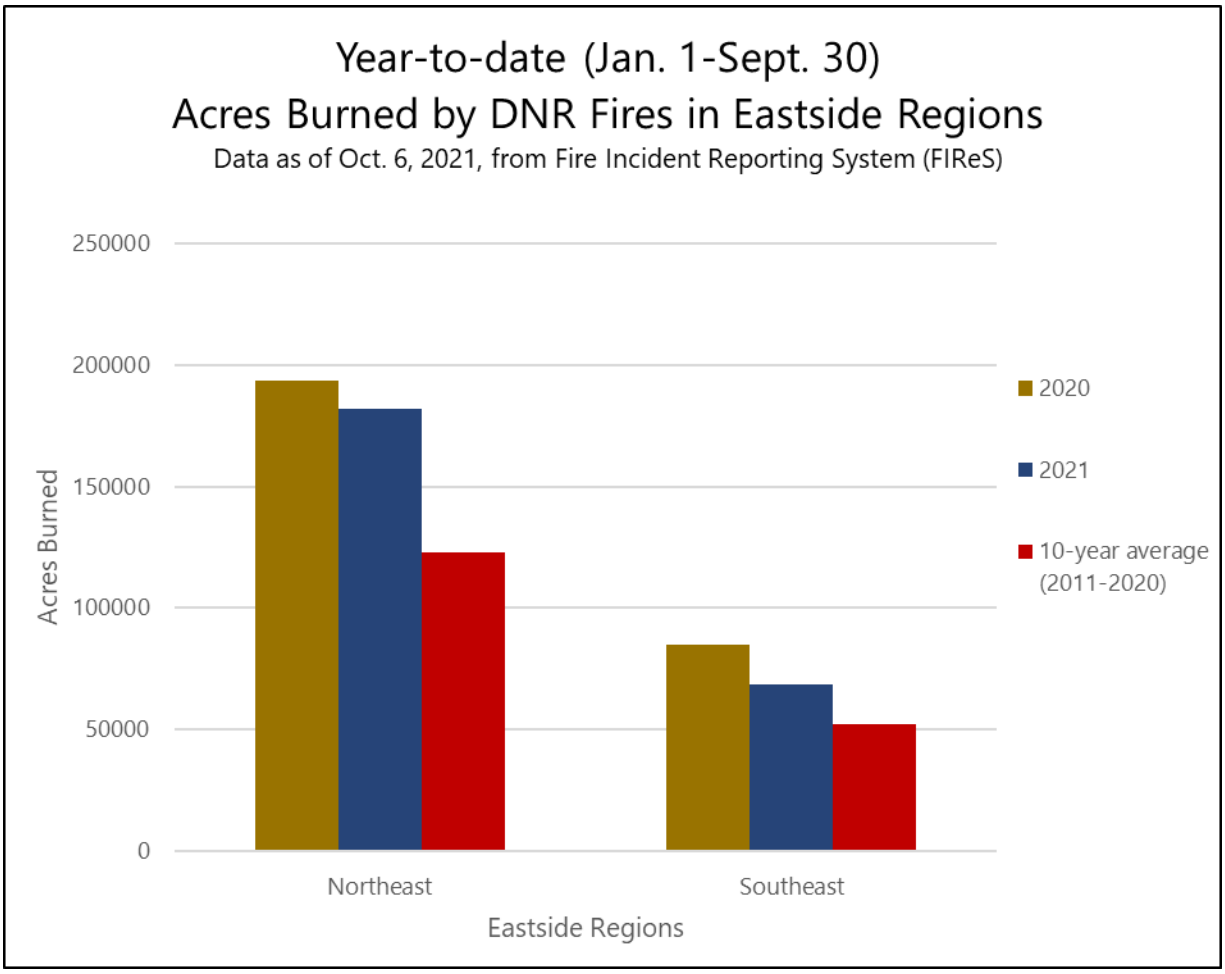
Figure 4:



Most of the fires were contained before they had the chance to become large, complex fires. The year-to-date number of DNR fires contained at 10 acres or less was 1,119, or approximately 94 percent.

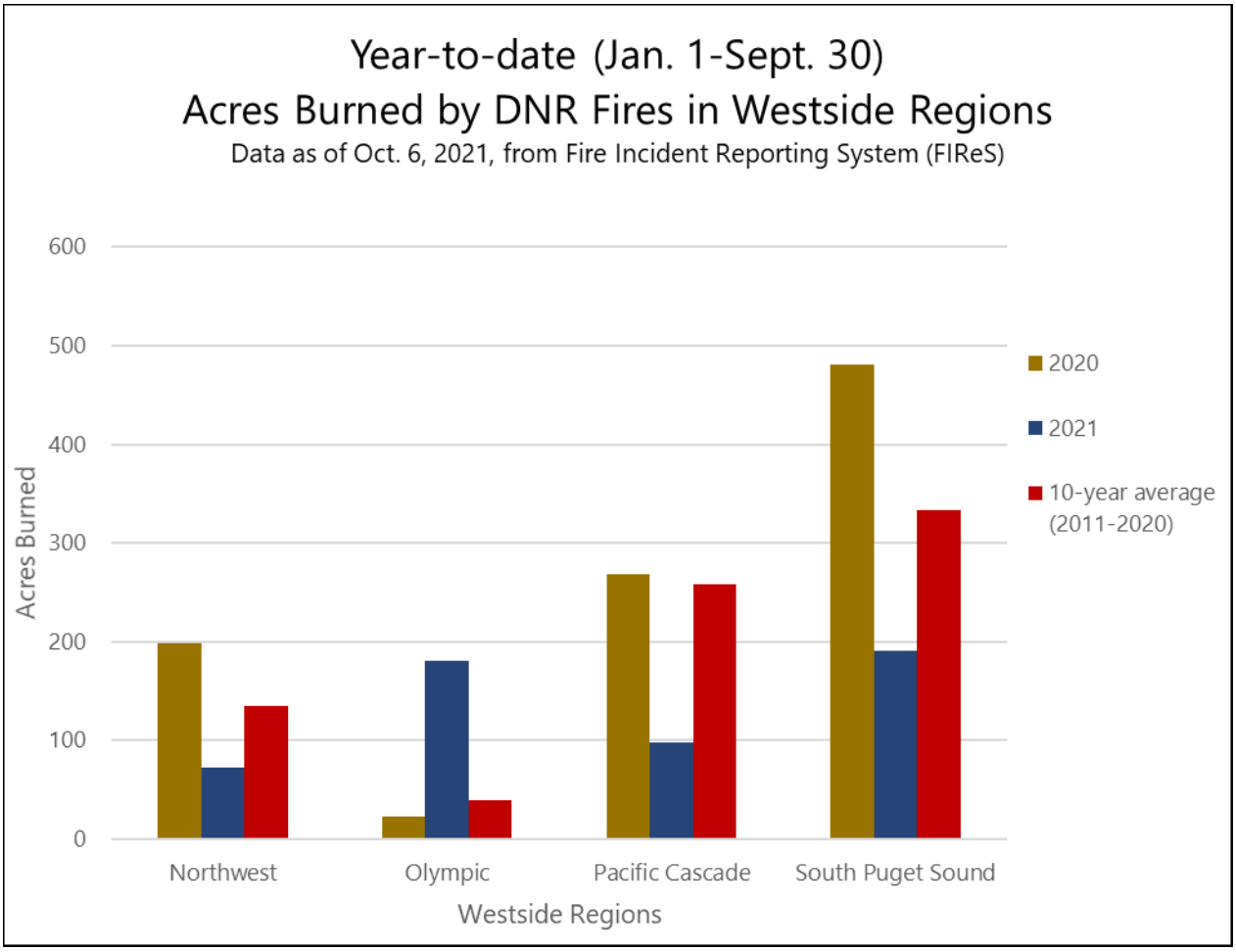
In July alone, there were 176,622 acres reported burned by DNR fires, bringing the year-to-date total to 250,626 acres. The number of DNR acres burned in all fires across the state will be calculated at the end of the season, when reports and perimeters are finalized in January. The number of total acres burned is higher than the 10-year average in Northeast, Southeast and Olympic DNR regions (see Figures 5 and 6).

Figure 5:



As of September 30th, there had been 85 fires started by lightning, which is below the 10-year average (see Figure 8). 74 of these lightning-caused fires were in DNR's Northeast region, while the remaining 11 were in DNR's Southeast region. For more details on fire causes, see Table 11 in the Appendix.

Figure 6:



Currently 141 DNR fires (12 percent) remain under investigation, lightning accounts for 7 percent of DNR fires, and human causes account for 965 DNR fires (81 percent) statewide (see Figure 8). Miscellaneous fires contain those other human-caused fires that do not fall into one of the nine general causes.

Please note: These statistics are not finalized or certified as end-of-year statistics. At the time of this report, the fire year has not closed.

Figure 7:

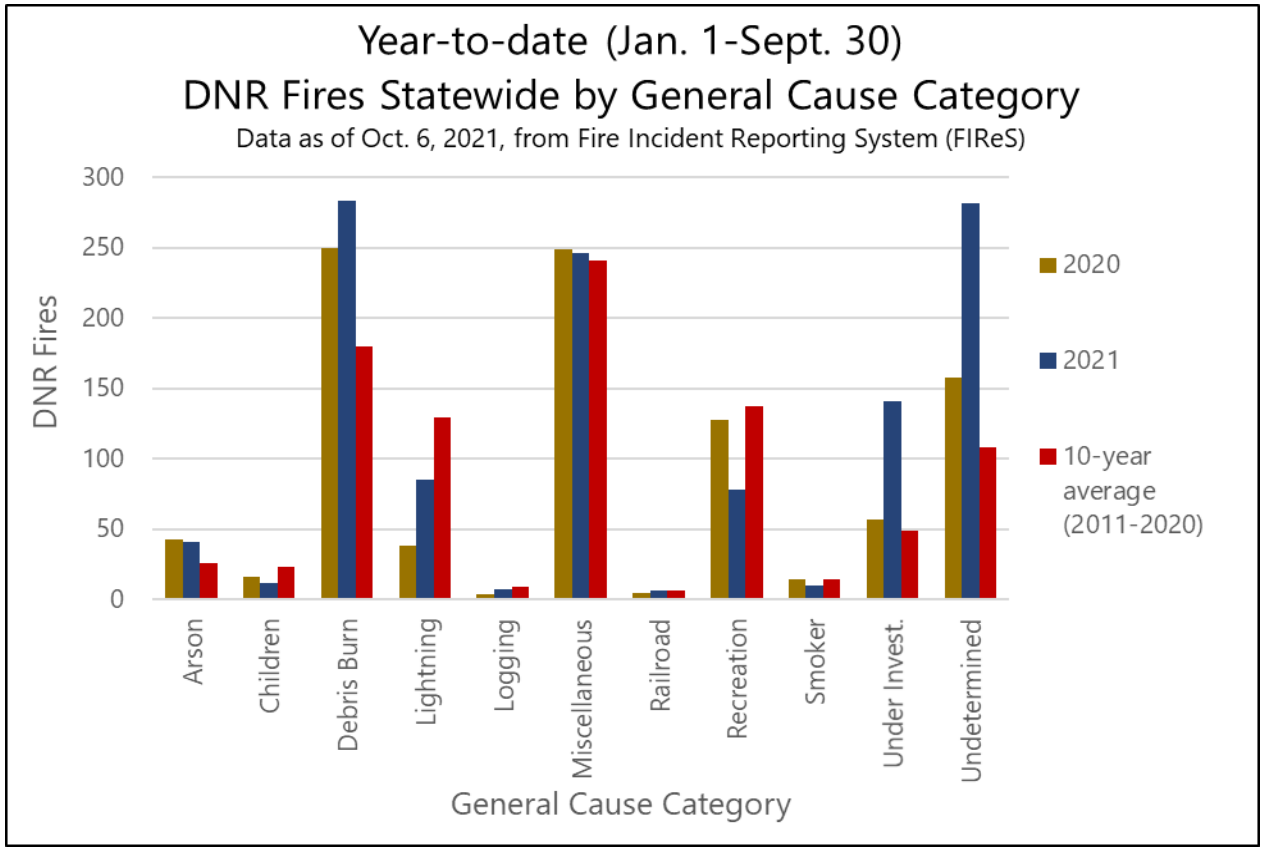
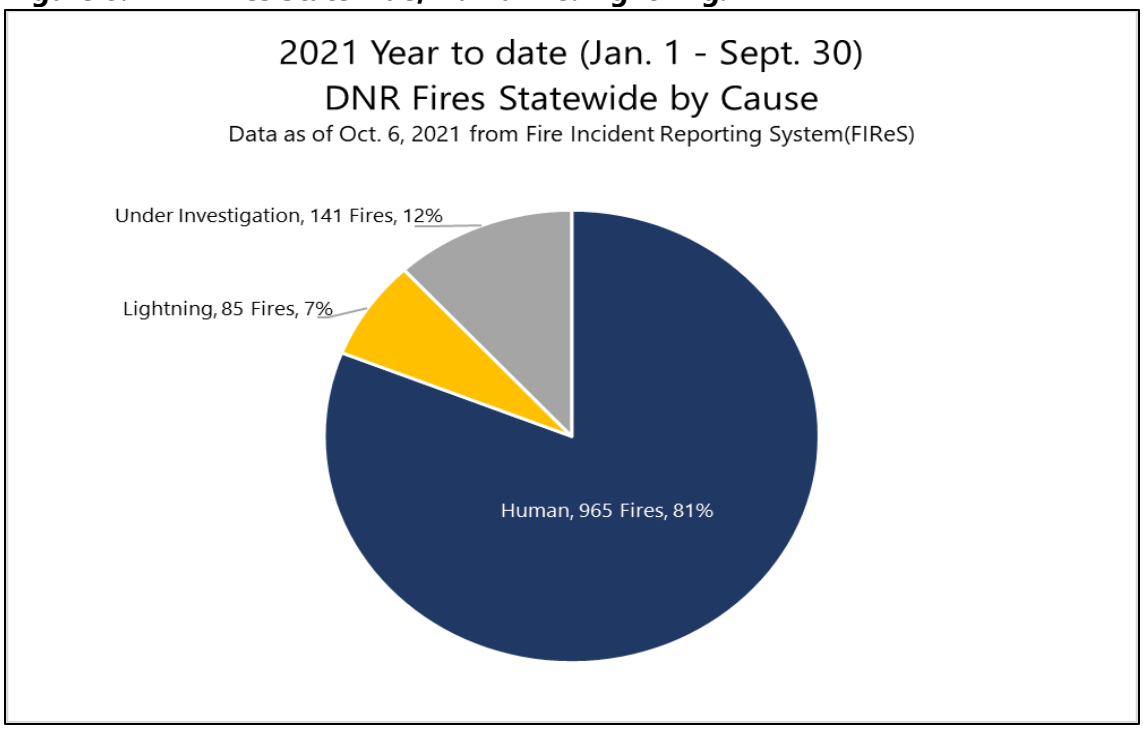


Figure 8: DNR Fires Statewide, Human vs. Lightning.



Aviation

DNR Type II, Sept. 8, 2021 Pilgrim Fire. Photo credit to HMGB Jason Hultman.

As noted above, aviation operations were an area of emphasis in 2021 due to the large fire potential across Washington and the need to expand the air asset coverage area in order to keep response times short. DNR responded over 200 times via Aircraft Support to Initial Attack incidents. DNR committed to heavy aircraft utilization to minimize exposure of firefighters to COVID-19 and reduce the risk to communities by keeping fires small. Key actions include procurement of one K-Max helicopter and one UH-60 heavy helicopter on 89-day exclusive use contracts, four CL-415/415ETF Large Air Tanker (Scoopers) on a 60-day contracts, two Large Air Tankers, and several other Type 1/2/3 helicopters. This in addition to the aviation assets DNR manages. Ultimately, the K-Max and the UH-60 delivered 2,009 buckets/tanks of water totaling over 1.25 million gallons. The K-Max were the most cost-effective resource in terms of cost per gallon, delivered at $0.61/gallon (see Table 7 for more details). The Scoopers by far delivered the most water (4,750,000 gallons) to fires.

DNR ended the 2020 season with nine UH-1H helicopters, one B206L4 light helicopter, plus one leased from Chelan County Fire District 1.

With the agency increasing aircraft usage to respond to the 2021 fire season's additional challenges (drought conditions, extreme temperatures, COVID-19), DNR made the decision to contract a third Air Attack aircraft. This provided for safe operation by having aerial supervision readily available, since having an Air Attack platform in place to act as an "eye in the sky" over any fire that requires multiple aircraft is a standard safety requirement.

DNR contracted with private vendors for five amphibious, single-engine air tankers. These aircraft delivered 2,583 loads totaling 1.5 million gallons. Their cost per gallon was $1.52. Several other CWN aircraft from private contractors were brought on for specific incidents or weather events, including three Black Hawks, one UH-1, one AS-350, one B407, one WAARNG CH-47 and

one LUH-72 and two Medical Evacuation Helicopters (UH-60) from the Minnesota and Wisconsin National Guards. For the first time ever, DNR established a tanker reload base in Olympia to service the entire state as needed. For a breakdown of aviation resources used this year, see Table 7.

DNR Olympia Tanker Base loading NextGen T-540 for deployment to incident. Photo credit to Chief of Air Operations Dave Ritchie

Table 7: Aviation statistics for the 2021 fire season.

DNR Helicopters										
Helo Type (DNR)	Total Incidents	Buckets	Tank Loads	Total Gallons	Cost Per Gallon	Incident Flight Time	Non-Revenue Flgiht Time	Structures Protexted	DNR Incidents	Federal & Other Incidents
Type II's	200	4042	2135	1,603,092	$ 1.05	844.3	266.8	660	184	44
Contract Helicopters										
Helo Type	Total Incidents	Buckets	Tank Loads	Total Gallons	Cost Per Gallon	Incident Flight Time	Non-Revenue Flgiht Time	Structures Protexted	DNR Incidents	Federal & Other Incidents
EU Kmax	19	NR	1458	875,050	$ 0.61	222.5	5.4	NR	8	11
EU UH-60	24	NR	551	413,875	$ 2.11	152	3.6	NR	15	9
CWN UH-60's	31	NR	1874	1,686,760	$ 1.92	292.8	5.8	NR	21	10
CWN Type II's	27	NR	1129	282,466	$ 1.89	210.1	33.5	NR	16	11
CWN Type III's	12	NR	62	8,726	$ 4.10	30.7	6.7	NR	10	2
WAARNG										
Helo Type	Total Incidents	Buckets	Tank Loads	Total Gallons	Cost Per Gallon	Incident Flight Time	Non-Revenue Flgiht Time	Structures Protexted	DNR Incidents	Federal & Other Incidents
CH-47F	6	NR	998	1,033,200	$ 0.72	111.6	3.4	NR	3	3
UH-72A	5	NR	NR	NR	$ 6.45	21.8	7.6	NR	3	2
Fixed Wing										
Airplane Type	Total Incidents	Buckets	Tank Loads	Total Gallons	Cost Per Gallon	Incident Flight Time	Non-Revenue Flgiht Time	Structures Protexted	DNR Incidents	Federal & Other Incidents
Fire Bosses	66	NR	2583	1,549,526	$ 1.52	552.33	4.3	NR	36	30
Air Attacks	62	NR	NR	NR	NR	439.79	54.05	NR	38	24
Scoopers	39	NR	3850	4,748,726	$ 2.61	734.37	4.45	NR	17	22
Tankers	19	NR	127	286,243	$2.79	133.05	5.34	NR	12	7

Financial Highlights

In 2021, the Washington State Department of Natural Resources (DNR) had 17 significant and costly incidents that incurred a cost of $1 million or greater – an increase from last year's seven such incidents. As of September 30th, the DNR estimates the total costs of those incidents to be $68,085,704, compared to 2020 initial estimates of $20,980,992. An itemized costs list of this year's 17 fires is available in Table 13 of the Appendix. The total estimated amount of DNR cost recoverable for 2021 is $15,900,000.

Two additional incidents exceeded costs of $500,000. DNR estimates costs of $975,744 for Muckamuck, and $513,611 for Moe Canyon. As of September 30th, DNR estimates costs associated with Type 4 incidents at $2.8 million and Type 5 incidents at $6.1 million.

DNR had 20 incidents that involved cost share with other agencies. See Table 8 all incidents that involved cost shares and the jurisdictional agencies involved. All direct cost associated with sending resources out of state is reimbursable through our agreements. There are two primary agreement types utilized, direct agreements between state forestry/natural resource agencies and the master agreement between Washington and the federal agencies which DNR is signatory. If DNR has a direct agreement with the state we are providing assistance to, they may order that assistance from the agency directly and DNR will invoice them directly. If the DNR does not have an agreement with that state, the United States Department of Agriculture Forest Service (USDA-FS) will order our resources, DNR will invoice USDA-FS, and the USDA-FS will recover the funds from the state. Washington Fire Service resources that are sent out of state are dispatched from their agreement with DNR and are considered our resources for billing purposes.

Table 8: All incidents involving cost share agreements with other agencies. Note: First agency listed was the payment agency for the incident.

FIRE NAME	JURISDICTIONAL AGENCIES
ANDRUS	WADNR/WSP
CEDAR CREEK	USFS/WADNR/WSP
CHUWEAH CREEK	BIA/WADNR
CUB CREEK 2	USFS/WADNR/WSP
DRY GULCH (LICK CREEK)	USFS/WADNR/WSP
FORD CORKSCREW	WADNR/WSP
GODDARD ROAD	WADNR/WSP
GREEN RIDGE	USFS/WADNR
HAZARD HILL	WADNR/WSP
LYLE HILL	WADNR/WSP
MOE CANYON	WADNR/WSP
MUCKAMUCK	USFS/BLM/WADNR/WSP
RED APPLE	WADNR/WSP/USFS/BLM
ROCK CHURCH	BIA/WADNR
SCHNEIDER SPRINGS	USFS/WADNR
SPRUCE CANYON	WADNR/WSP
SUMMIT TRAIL	BIA/WADNR
TWENTYFIVE MILE	SFS/WADNR
WALKER CREEK (SPUR)	WADNR/USFS/BLM
WHITMORE	BIA/WADNR/WSP

In 2021, DNR had eight incidents declared eligible for Fire Management Assistance Grants (FMAG). These incidents were Andrus, Chuweah Creek, Red Apple, Cedar Creek, Muckamuck, Ford Corkscrew, Twenty Five Mile, and Schneider Springs. When FMAG is declared, Washington State will recover 75 percent of eligible cost from FEMA.

FMAG is a federally funded program administered through FEMA that provides assistance to state, local, and federally recognized tribal governments for the mitigation, management and control of fires on publicly or privately owned forests or grasslands. A FMAG declaration may be requested and issued for an uncontrolled fire when the threat of a major disaster exists. The declaration process initiated once the state submits a request for assistance to the FEMA Regional Director. FEMA will review the claim and will make a determination on whether the claim will be approved.

The distribution of cost for the large fires can be found in Table 13 in the Appendix.

The cost distribution tables include cost for all incidents that were significant and costly or considered large due to their size. The cost are estimates as of September 30th and are based on our actuals in our finance systems, and any estimated encumbrances for costs not currently reflected in our actuals.

Appendices

Definitions[3]

Air Attack: The deployment of a fixed-wing or rotary aircraft on a wildland fire, to drop retardant or extinguishing agents, shuttle and deploy crews and supplies, or perform aerial reconnaissance of the overall fire situation.

Burn acreage on DNR protected lands: the total sum of acres burned for fires listed as: "DNR protection-FFPA," "DNR protection non-FFPA under agreement," "Threat to DNR protection FFPA," and "Threat to DNR protection, non-FFPA under agreement" and instances where this field is null. This excludes fires labeled "DNR Assist Other Agency."

Classified fire: an uncontrolled fire requiring suppression action by the Department or its partnering federal and/or local fire suppression agencies to prevent the fire from spreading to or burning on any lands for which DNR has protection responsibility. This excludes "false alarms," but includes "Unclassified" fires, a now-discontinued classification type used prior to 2019, for the 10-year average calculations.

DNR Fires: classified fires on DNR protected lands.

DNR Protection: any response in EIRS that is not considered "DNR Assist Other Agency." This includes "DNR protection-FFPA," "DNR protection non-FFPA under agreement," "Threat to DNR protection FFPA," and "Threat to DNR protection, non-FFPA under agreement" and instances where the field is null.

DNR Responses: any incident or false alarm to which DNR resources were dispatched, regardless of jurisdiction.

Eastside/Westside:
Refers to east or west of the Cascades based on region boundaries. Northeast and Southeast region comprise "eastside" while the remaining four regions comprise "westside."

Green-up: Green-up for the 1978 version of NFDRS model is defined as the beginning of a new cycle of plant growth. Green-up usually occurs once a year, except in desert areas where rainy periods can produce a flush of new growth more than once a year. Green-up may be signaled at different dates for different fuel models. Green-up should not be started when the first flush of green occurs in the area. Instead, the vegetation that will be the fire problem (represented by

[3] Standard wildland fire terminology is governed by the National Wildfire Coordinating Group. The glossary can be found at NWCG Glossary of Wildland Fire, PMS 205 | NWCG. DNR specific terminology is also listed here and has been agreed to by the Fire Intelligence Committee assembled by the Wildland Fire Management Division.

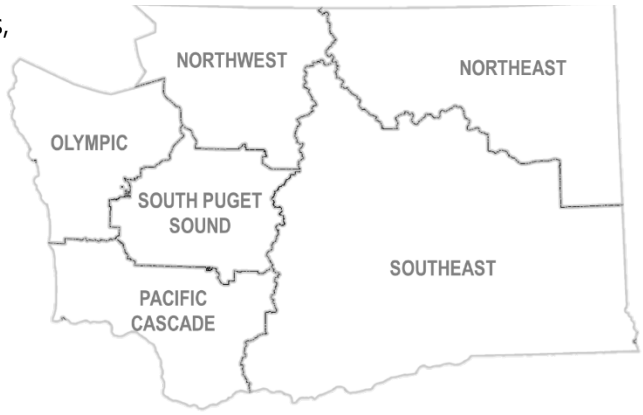
the NFDRS fuel model associated with the weather station) when it matures and cures should be identified. Green-up should start when the majority of this vegetation starts to grow.

Preparedness Level: Increments of planning and organizational readiness dictated by burning conditions, fire activity, and resource availability. Response and support to non-fire incidents requiring a significant commitment of resources may also affect Preparedness Levels. Preparedness levels are set at the National, Regional, and State level.

Regions: There are six DNR-specific regions across the state: Northeast, Northwest, Olympic, Pacific Cascades, South Puget Sound, and Southeast. See Figure 8 below.

Type: Refers to resource capability. A Type 1 resource provides a greater overall capability due to power, size, capacity, etc., than would be found in a Type 2 resource. Resource typing provides managers with additional information in selecting the best resource for the task.

Figure 8: DNR Region locations.



Tables

Table 9: Year-to-date DNR Fires, 2011 to 2021. DNR fires are classified fires on or threatening DNR protected lands. In 2021 there were 1,191 DNR fires, which is higher than the running average of 898.20 DNR fires. This apparent trend of increase in fires over time may be partially due to the way fire reporting has changed over time.

2021 Year-to-date (Jan. 1- Sept. 30) DNR Fires by Region and Year Data as of Oct. 6, 2021, from Fire Incident Reporting System (FIReS)							
Year	**Northeast**	**Northwest**	**Olympic**	**Pacific Cascade**	**South Puget Sound**	**Southeast**	***Total***
2011	270	36	36	133	46	96	***617***
2012	402	60	50	148	56	139	***855***
2013	428	52	28	156	37	142	***843***
2014	483	33	32	174	83	153	***958***
2015	519	73	29	180	138	135	***1074***
2016	384	55	18	128	126	128	***839***
2017	347	79	24	127	128	112	***817***
2018	486	64	38	148	186	133	***1055***
2019	434	76	26	134	145	147	***962***
2020	498	63	19	102	154	126	***962***
2021	628	126	49	123	147	118	***1191***
Total	***4879***	***717***	***349***	***1553***	***1246***	***1429***	***10173***
10-year average 2011-2020	***425.10***	***59.10***	***30.00***	***143.00***	***109.90***	***131.10***	***898.20***

Table 10: Year-to-date DNR Responses, 2011 to 2021. DNR responses include any incident or false alarm, regardless of jurisdiction, to which DNR resources were dispatched. In 2021 there were 2,077 responses in this time period, higher than the running 10-year average of 1,514.50.

2021 Year-to-date (Jan. 1- Sept. 30) DNR Responses by Region and Year Data as of Oct. 6, 2021, from Fire Incident Reporting System (FIReS)							
Year	**Northeast**	**Northwest**	**Olympic**	**Pacific Cascade**	**South Puget Sound**	**Southeast**	***Total***
2011	537	54	48	190	72	180	***1081***
2012	671	79	60	216	93	288	***1407***
2013	746	74	44	180	83	266	***1393***
2014	850	46	49	228	129	307	***1609***
2015	941	94	58	217	228	207	***1745***
2016	687	82	29	174	157	211	***1340***
2017	662	91	35	163	188	199	***1338***
2018	871	84	55	225	231	258	***1724***
2019	900	99	29	176	198	324	***1726***
2020	890	100	41	212	211	328	***1782***
2021	1143	190	63	222	207	252	***2077***
Total	***8898***	***993***	***511***	***2203***	***1797***	***2820***	***17222***
10-year average 2011-2020	***775.50***	***80.30***	***44.80***	***198.10***	***159.00***	***256.80***	***1514.50***

Table 11: Year-to-date DNR Fires by General Cause Category. Of the 1,191 DNR fires so far this year, 283 of them (or 24 percent) were caused by escaped debris burns. Additionally, 141 incidents remain under investigation at the time of this writing.

2021 Year-to-date (Jan. 1- Sept. 30) DNR Fires by Region and General Cause Category Data as of Oct. 6, 2021, from Fire Incident Reporting System (FIReS)							
General Cause Category	**Northeast**	**Northwest**	**Olympic**	**Pacific Cascade**	**South Puget Sound**	**Southeast**	***Total***
Arson	24	10		7			***41***
Children	8	2		2			***12***
Debris Burn	176	21	9	38	9	30	***283***
Lightning	74					11	***85***
Logging	6					1	***7***
Miscellaneous	124	43	10	33	20	16	***246***
Railroad	4			1	1		***6***
Recreation	27	20	5	14	3	9	***78***
Smoker	4	5	1				***10***
Under Invest.	49	4	6	19	48	15	***141***
Undetermined	132	21	18	9	66	36	***282***
Total	***628***	***126***	***49***	***123***	***147***	***118***	***1191***

Table 12: Structures and residences damaged or destroyed in the 31 significant fires with DNR involvement. Data are from ICS-209 forms.

#	FIRE NAME	START JURIS.	RESIDENCES DAMAGED	RESIDENCES DESTROYED	TOTAL STRUCTURES DAMAGED OR DEST.
1	KOFFMAN ROAD	WA-SES	0	2	3
2	BATTERMAN RD	WA-WFS	0	0	1
3	ANDRUS	WA-NES	0	0	0
4	DRY GULCH (LICK CREEK)	WA-SES	0	0	10
5	GREEN RIDGE	OR-UMF	0	0	0
6	SILCOTT	WA-WFS	0	0	0
7	CEDAR CREEK	WA-OWF	0	0	0
8	WHITEHALL ROAD	WA-SPD	0	0	2
9	BURBANK	WA-MCR	0	0	0
10	SUMMIT TRAIL	WA-COA	0	0	0
11	CHUWEAH CREEK FIRE	WA-COA	0	5	14
12	RED APPLE	WA-SES	0	0	6
13	CUB CREEK 2	WA-NES	0	1	3
14	GODDARD ROAD	WA-NES	0	1	3
15	SHERWOOD	WA-SPA	0	0	0
16	NELSON CREEK	WA-NES	0	1	1
17	SPRUCE CANYON	WA-NES	0	0	0
18	HAZARD HILL	WA-NES	0	0	0
19	WHITMORE	WA-COA	0	4	6
20	WALKER CREEK	WA-NES	0	4	18
21	MOE CANYON	WA-SES	0	0	0
22	SCHNEIDER SPRINGS	WA-OWF	0	0	0
23	MUCKAMUCK	WA-COF	0	4	7
24	CHICKADEE CREEK	WA-NES	0	0	0
25	NASON	WA-OWF	0	0	0
26	NINE MINE	WA-NES	0	0	0
27	BULLDOG MOUNTAIN	WA-COF	0	0	0
28	MACK MOUNTAIN	WA-COF	0	0	0
29	TWENTYFIVE MILE	WA-OWF	0	2	12
30	FORD CORKSCREW	WA-NES	5	30	124
		TOTAL	**5**	**54**	**210**

Table 13: Estimated Cost by Incident, Large and/or Significant Incidents with DNR Involvement.

FIRE NAME	REGION	COST SHARE	FMAG	TOTAL ESTIMATED COST	EST. AMOUNT BILLABLE OR RECEIVABLE THROUGH COST SHARE	DNR SALARIES & BENEFITS	DNR EQUIP.	AIR RESOURCES	MISC. EXPENSES	NATIONAL GUARD	DOC	CONTRACTORS	COOPERATORS	FEDERAL RESOURCES
ANDRUS	NE	YES	YES	1,982,662	A*	245,683	27,722	837,499	159,060		54505	272,876	109,226	276,091
CEDAR CREEK	NE	YES	YES	1,511,295	B*	666,603	41,990	315,553	30,383			117,236	339,531	
CHICKADEE CREEK	NE	NO	NO	5,650,791		1,129,285	90,293	903,641	26,708			2,453,067		1,047,798
CHUWEAH CREEK	NE	YES	YES	172,258	(2,358,795)	656,286	28,923	947,149	7,463			59,973	831,259	
CUB CREEK 2	NE	YES	NO	5,768,879	B*	678,023	62,875	2,477,230	960,640	141,700	168073	1,235,799	44,539	
DRY GULCH (LICK CREEK)	SE	YES	NO	4,492,737	(217,305)	307,421	35,762	1,658,489	20,686			2,479,211	208,474	
FORD CORKSCREW	NE	YES	YES	6,343,158	B*	871,954	97,850	821,419	358,370		216495	3,884,195	92,875	
GODDARD ROAD	NE	YES	NO	2,609,290	0	487,687	42,766	452,027	279,112		56432	436,912	267,577	586,777
GREEN RIDGE	SE	YES	NO	355,684	(1,159,666)	176,602	8,390	0	5,489			1,147,564	177,306	
HAZARD HILL	NE	YES	NO	1,017,330	B*	42,036	3,641	307,344	1,016		15542	76,973	0	570,779
LYLE HILL	SE	YES	NO	469,742	(139,433)	185,847	21,632	298,409	44,038		3639	29,943	25,666	
MOE CANYON	SE	YES	NO	513,611	(294,404)	237,384	15,108	254,166	61,184			145,981	94,192	
MUCKAMUCK	NE	YES	YES	975,744	B*	229,861	13,010	188,040	218,321		98923	227,589		
NELSON CREEK	NE	NO	NO	1,214,990	0	66,521	7,693	415,203	119,841		7056	348,179	12,619	237,878
NINE MINE	NE	NO	NO	1,477,604	0	252,981	29,984	193,458	186,522		62871	352,427	137,552	261,809
RED APPLE	SE	YES	YES	2,346,024	(342,715)	502,229	42,291	1,391,049	206,936		35444	449,023	61,767	
SCHNEIDER SPRINGS	SE	YES	YES	3,609,135	424,365	1,691,510	63,798	690,686	21,261			0	717,514	
SPRUCE CANYON	NE	YES	NO	2,695,794	B*	239,627	13,776	1,168,043	233,206		26045	849,987	165,110	
SUMMIT TRAIL	NE	YES	NO	4,527,322	B*	1,076,213	32,918	2,673,873	36,376	127,200		57,453	523,289	
TWENTYFIVE MILE	SE	YES	YES	4,326,046	3,389,884	564,660	39,507	41,238	17,054			21,735	251,969	
WALKER CREEK	NE	YES	NO	16,044,755	B*	2,013,770	116,829	1,707,864	521,162		210342	11,119,220	355,568	
WHITMORE	NE	NO	NO	2,467,892		446,202	14,752	1,764,671	59,014			67,550	115,703	

A* Cost share with WSP, each agency is paying their own cost

B* Due to the late and busy fire season the data to estimate amount owed through cost share was not yet available by the time this report was created.

Map of 2021 Fire Locations