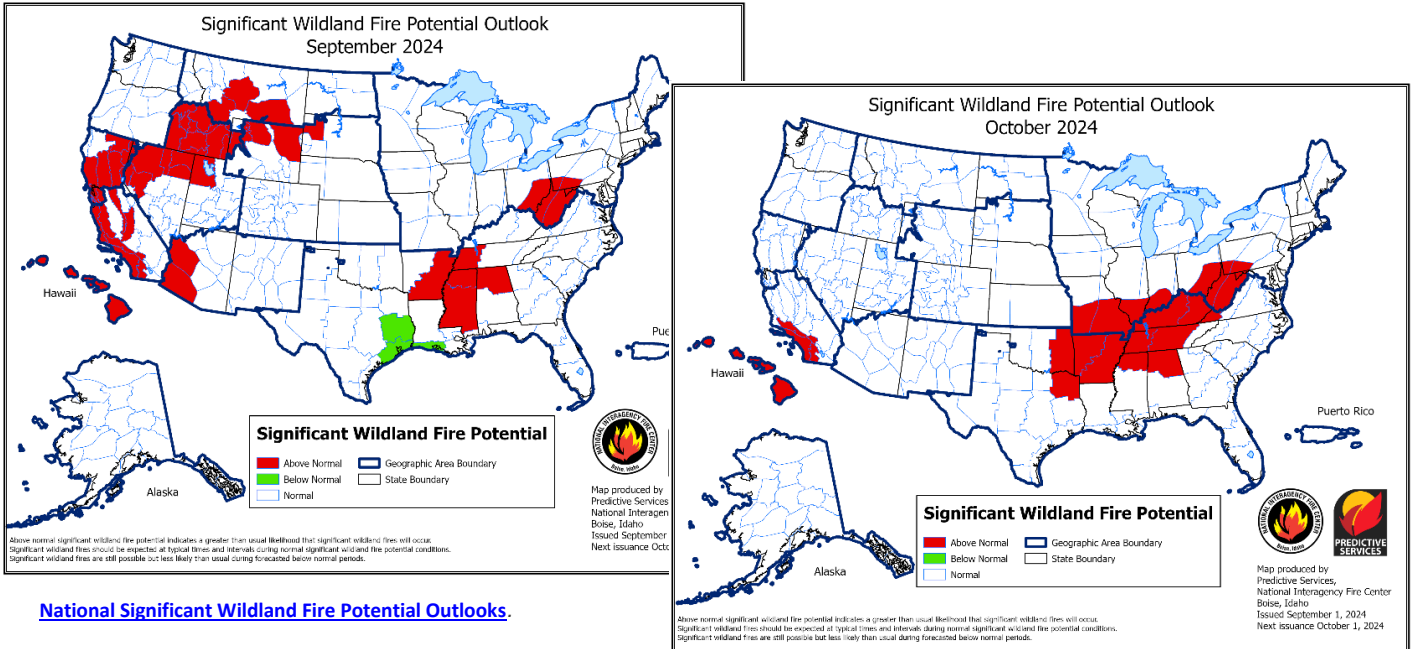


September 2024 - Wildland Fire Outlook

September 2, 2024



[National Significant Wildland Fire Potential Outlooks.](#)

SUMMARY

The Teton Interagency Dispatch area experienced intermittent fire-weather conditions in August – warmer than average and with variable monsoon moisture. Lightning ignited at least 19 fires in August, with multiple Type 3 extended attack fires in the area and the Fish Creek Fire on the Bridger-Teton National Forest staffed by a Type 3 and then a complex incident management team. Today the fire size was 15,506 acres and [Highway 26/287 was closed due to smoke impact](#). Regional and national outlooks for the TIDC area call for warmer and drier than normal weather in the first half of September, with less certainty regarding a potential wetter weather shift in the latter half. As noted in the NIFC September Outlook, “established large fires are expected to continue with moderate to occasionally extreme fire behavior in September.” Live and dead fuels are currently near critical fuel moisture levels at some sites.

August was warmer than normal, with significant rainfall amid continued drought (now including most of Wyoming). Precipitation has been varied. The climate station at Moose received 42% of normal moisture for June through August yet August received a near-normal 98%. Area [SNOTEL sites](#) ranged from 20% normal August precipitation at Granite Creek (6770') to 253% at Triple Peak (8500').

- Fire Danger Rating is High for Bridger-Teton National Forest / Grand Teton National Park. Last year at this time we were at Moderate and in 2022 we moved from Moderate to High fire danger.
- **Above normal fire potential for September**, returning to normal fire potential for October, per the [Great Basin Coordination Center's](#) monthly outlook.
- Current information on fire conditions, indices and fire activity is at www.tetonfires.com. A direct link to outlooks is at <https://gacc.nifc.gov/gbcc/dispatch/wy-tdc/home/predictive-services/outlooks>.

During an average fire season, based on a 20-year fire history from 2001-2020, Bridger-Teton National Forest will average 52 unplanned fires (32 natural starts per year, and 20 human-caused fires) for an average of 16,522 acres per year. Grand Teton National Park will average 10 unplanned fires (six natural starts per year, and four human-caused fires) for an average of 1332 acres per year.

FUELS & CLIMATE OUTLOOK

1. Fuel Moisture

Fuel moisture in Bridger-Teton National Forest and Grand Teton National Park show some sites with increasing moisture, reflecting variable thunderstorms. Most sites are experiencing seasonal drying.

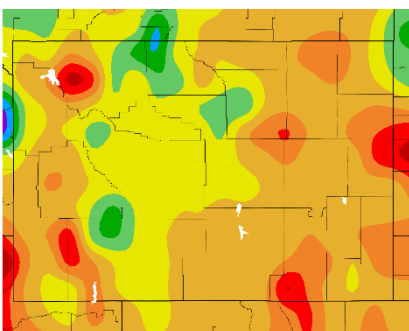
SITE TYPE	FUEL TYPE	East Zone BTNF	West Zone BTNF	North Zone BTNF	Grand Teton NP
Sagebrush	Live Herbaceous (LH) Grass				47 %
	Live Woody (LW) Sagebrush	80 %	100 %	96 %	76 %
Conifer	LH Grass			116 %	109 %
	LW Lodgepole	101 %	138 %		109 %
	LW Fir (Douglas/Subalpine)	SF: 107 %	SF: 90 %	DF: 102 %	DF: 99 %
	1000 Hour Dead	11.5 %	13 %	14.8 %	13 %

Additional fuel moisture data is in **Appendix: Fuel Moisture Trends**, at the [Fire Environment Mapping System \(FEMS\)](#) and in an archive hosted at the [Fuel Moisture Repository Web portal](#).

2. Temperatures

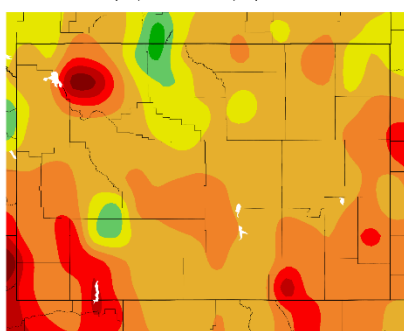
WARMER EARLY SUMMER. The past 30 and 90 days recorded warmer than normal summer temperatures, with increased variability in August due to intermittent monsoon flow and cloud cover.

Departure from Normal Temperature (F)
8/3/2024 – 9/1/2024



Generated 9/2/2024 at HPRCC using provisional data.

Departure from Normal Temperature (F)
6/4/2024 – 9/1/2024



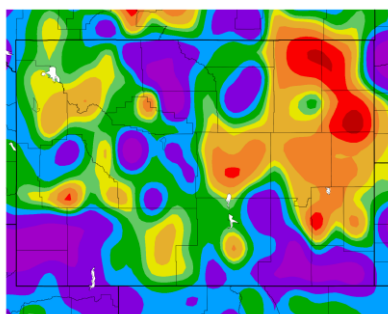
NOAA Regional Climate Centers. Generated 9/2/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

3. Precipitation

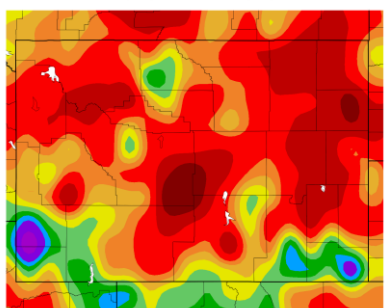
The [30-day percent normal precipitation](#) indicates the variable rainfall patterns from intermittent monsoon flow and thunderstorms, whereas the [90-day period](#) indicates drier than normal conditions for most of the area's summer.

Percent of Normal Precipitation (%)
8/3/2024 – 9/1/2024



Generated 9/2/2024 at HPRCC using provisional data.

Percent of Normal Precipitation (%)
6/4/2024 – 9/1/2024

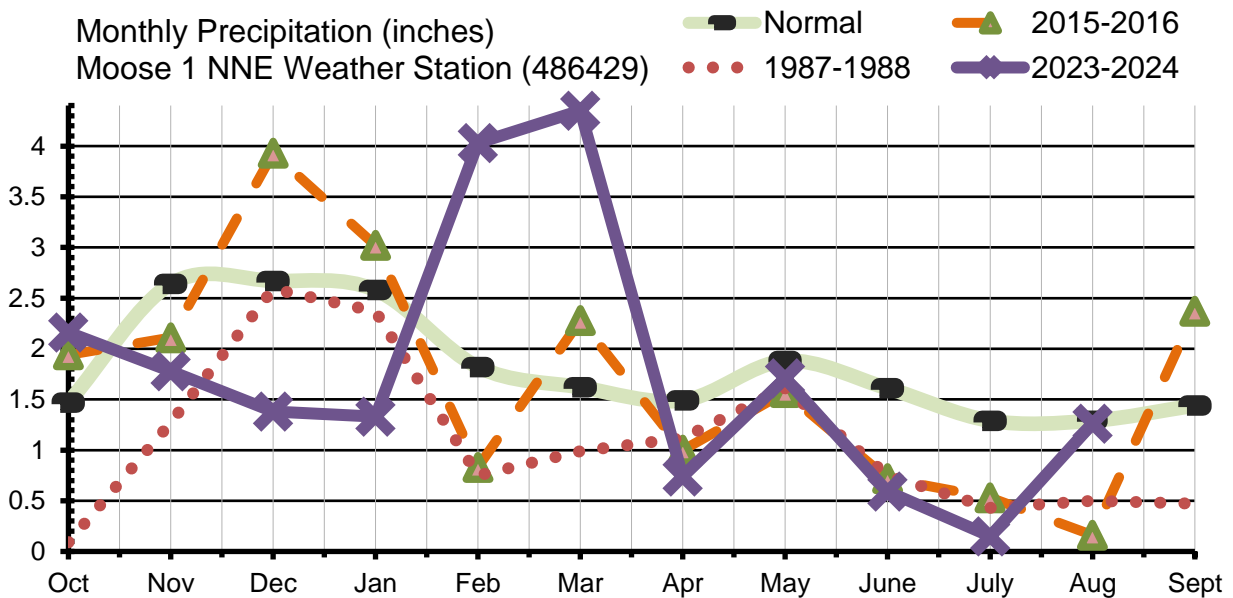


NOAA Regional Climate Centers. Generated 9/2/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

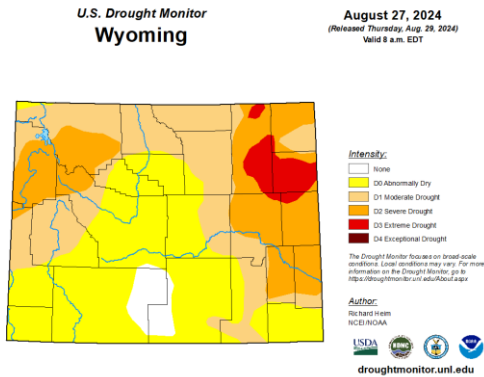
Precipitation tracking at the [Moose 1 NNE WY Climate Weather Station](#) -- the automated Climate Reference Station in the Applied Climate Information System in the dispatch area -- is representative for lower elevation sites in Grand Teton National Park and some North Zone sites. The station recorded 102% of normal for water year-to-date, compared to 113% for last year at this time and 94% for 2016, a prior active fire year, with below-normal precipitation in eight of the past 11 months. Compared to the 30-year record, the past three months received 42% of normal and August received 98%.

Monthly Precipitation (inches)		Feb	Mar	Apr	May	June	July	August	YTD total
	1987-88	0.75	0.99	1.12	1.61	0.75	0.43	0.5	12.47
	1999-00	5.04	1.03	0.4	1.38	0.59	0.36	0.53	14.38
	2015-16	0.83	2.28	1	1.57	0.72	0.53	0.16	18.09
	2022-23	2.29	2.37	1.18	1.61	2.46	0.96	3.53	25.09
	<i>Normal</i>	1.88	2.58	1.82	1.62	1.61	1.29	1.29	20.36
	2023-24	4.06	4.36	0.76	1.72	0.59	0.15	1.26	19.48
% Normal	1987-88	41%	61%	75%	86%	47%	33%	39%	61%
	1999-00	277%	64%	27%	73%	37%	28%	41%	71%
	2015-16	46%	141%	67%	84%	45%	41%	12%	89%
	2022-23	126%	146%	79%	86%	153%	74%	274%	123%
	2023-24	223%	269%	51%	91%	37%	12%	98%	102%

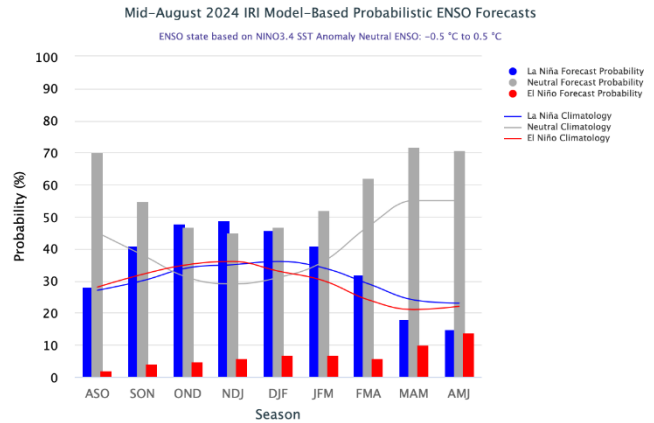


4. Drought Monitor

[Wyoming is in Abnormally Dry to Extreme Drought conditions](#), with 96% of the state in some level of drought compared to no drought reported at this time last year. Early to mid-September outlooks call for warmer and drier conditions, with equal chances of precipitation for the latter half of the month. Lower elevation live fuels are curing and are nearing or at critical fuel triggers.



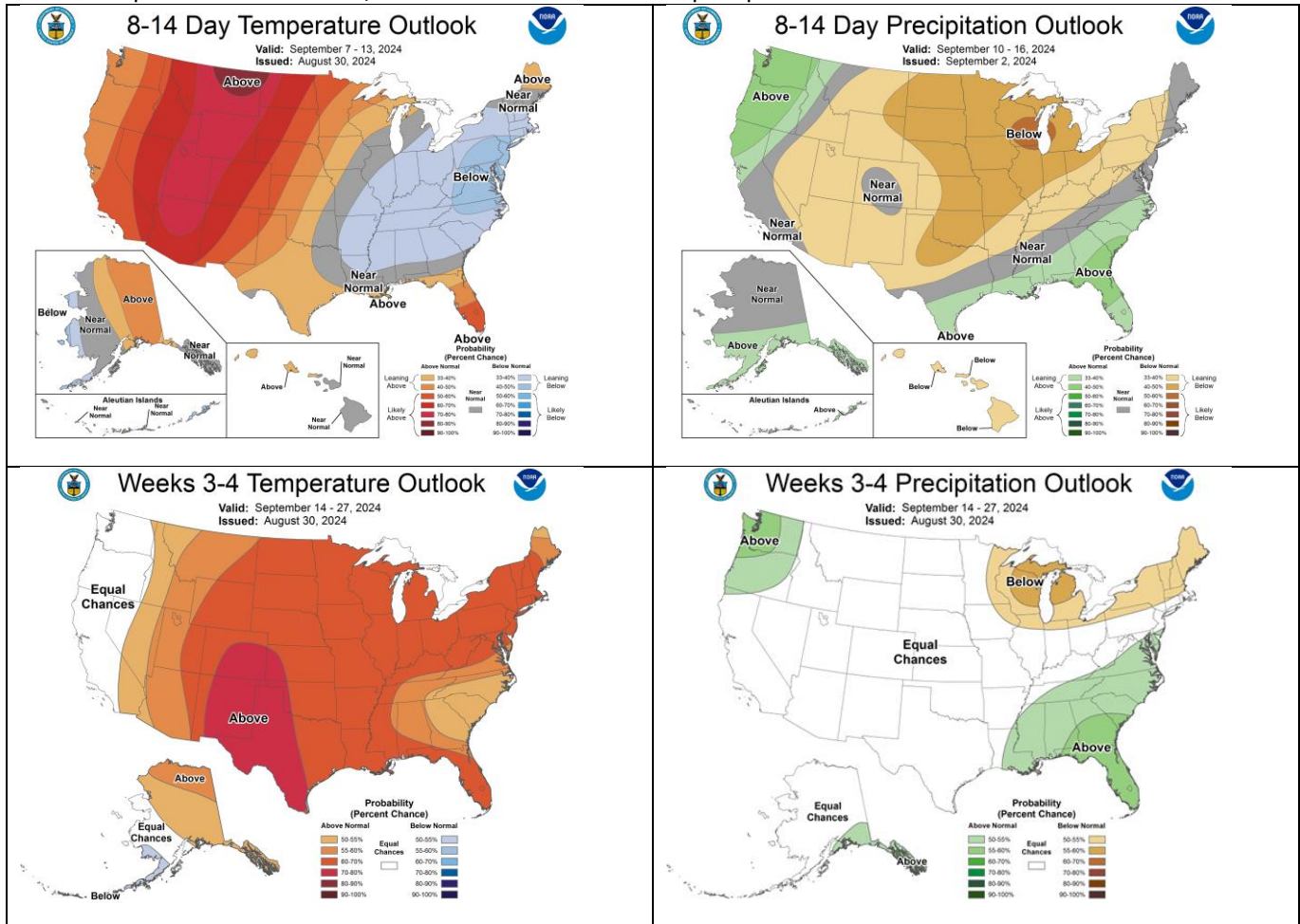
5. ENSO-Southern Oscillation

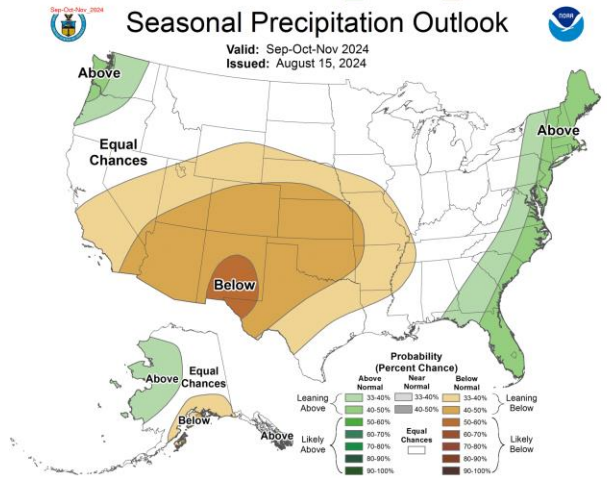
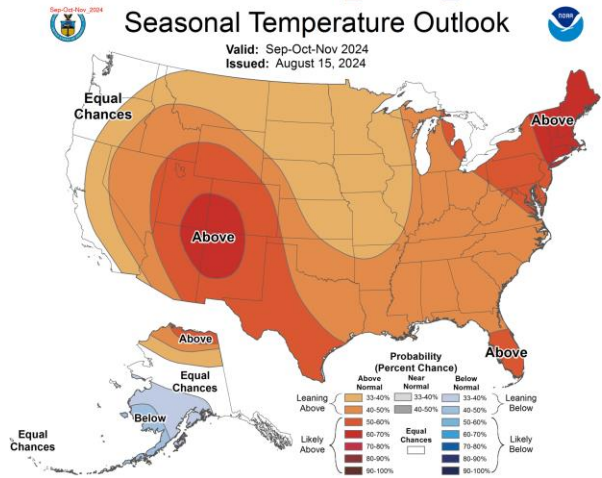
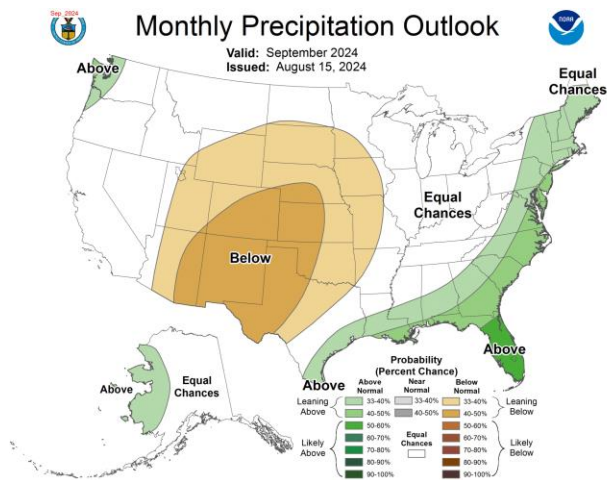
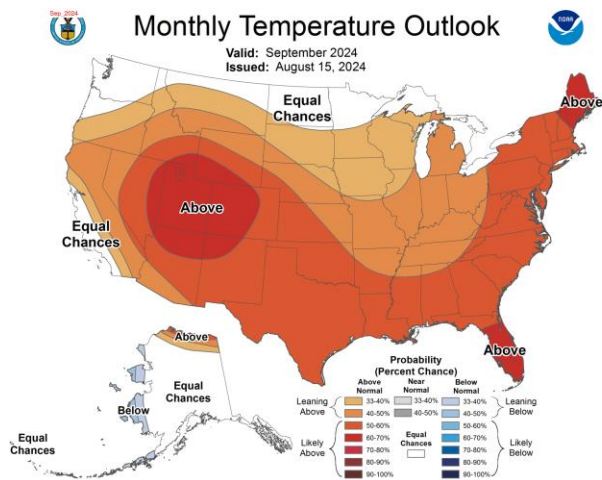


The mid-month ENSO Forecast ([IRI – International Research Institute for Climate and Society | Quick Look \(columbia.edu\)](#)) tracks *El Niño* (warm) and *La Niña* (cool) events in the tropical Pacific. *La Niña* conditions are forecast to increase from late summer through early winter of 2025.

6. Temperature and Precipitation Outlooks

Outlooks call for warmer and drier than normal conditions for most of September. For the second half of September there are equal chances of below, normal or above normal less precipitation.





GEOGRAPHIC AREA OUTLOOKS

The Teton Area fire zone is within the Great Basin Geographic Area. Fire seasons in our zone also track with similar conditions in adjacent areas within the Rocky Mountain and Northern Rockies geographic areas, which converge within the Greater Yellowstone Area (GYA) and share common trends of fire activity. The season outlooks excerpted below support an outlook for above normal fire activity for September in the Teton Interagency Dispatch area as well as surrounding areas.

Excerpts of National and Regional Outlooks from [“National Wildland Significant Fire Potential Outlook” \(September 1, 2024, NIFC Predictive Services\)](#).

National – Executive Summary (excerpts)

Fire activity continued at a high level in early August, but gradually decreased during mid to late August. With decrease in activity the latter portion of August, the National Preparedness Level was decreased from five to four (on a scale of 1-5) on August 22. The Northwest Geographic Area had the greatest decrease in activity, with California, Northern Rockies, and Southwest geographic areas also decreasing. However, the Great Basin had an increase in activity, especially across central Idaho where numerous fires continue to burn. Year-to-date annual acres burned for the US is above the 10-year average at 127% of normal, but the national year-to-date tally of wildfires remains below average, near 81%.

Weather and Climate Outlooks

El Niño-Southern Oscillation (ENSO) neutral conditions are present in the equatorial Pacific Ocean. Sea surface temperature (SST) anomalies in the central equatorial Pacific are near average, while cooler than average SST anomalies are found off the South America coast. A transition to La Niña is forecast into the fall,

with the Climate Prediction Center forecasting a 70% chance of La Niña developing in the September through October period, and 79% chance of La Niña persisting into the winter. Other climate oscillations like the Madden-Julian Oscillation and the weakening easterly phase of the Quasi-Biennial Oscillation are expected to have little impact, leaving the developing La Niña and negative PDO as the main drivers.

Great Basin

Fires remain very active at the end of August, with numerous established large fires across the central Idaho mountains, where extreme fire behavior is regularly observed. New and emerging fires continue across most of the region, even in southeastern areas after a few days of dry and warm conditions.

Above normal significant fire potential is expected in September for most northern areas, where we have established fires in the timbered areas of Idaho and Wyoming, and in areas having above normal fine fuel loading in the lower elevations of southern Idaho and northern Nevada and Utah. Long range models show a persistent ridge of high pressure across the region through at least mid-September, which will bring much warmer and drier conditions, keeping fuels at critically dry levels. There are some indications of a low-pressure trough bringing cooler and wetter conditions in the latter half of September, which would fit the normal seasonal pattern. However, there is much lower confidence in the overall weather pattern beyond mid-September. So, established large fires are expected to continue with moderate to occasionally extreme fire behavior in September, while new and emerging fire activity will be above normal for this time of year for most of September. Afterward, a return to normal (low season) fire activity is expected from October onward. This is due to rapidly shortening days and increasing chances of cool season precipitation events that typically occur in the northern half of the Great Basin by October.

CURRENT FIRE ACTIVITY

[Teton Interagency Dispatch Center – Intelligence Page](#)

To date this year, **63 abandoned non-escape campfires have been reported** compared to 69 at this time last year and 104 in 2022.

[Year-to-Date Fire Activity](#) for Teton Interagency Dispatch Center response zones, September 2, 2024.

Teton Interagency Fire Management Area Totals	Human Fires	Human Acres	Natural Fires	Natural Acres	RX Fires	RX Acres	Abandoned Non-escape Campfires
	8	2.7	24	15,030	6	3828	63

Selected Sources

- Precipitation Tracking: <https://water.weather.gov/precip/>
- Precipitation Tracking focused on [Snotel sites, Wyoming](#)
- Climate Prediction Center, Three-Month Outlooks: <https://www.cpc.ncep.noaa.gov/products/predictions/90day/>
- Drought.gov Portal / Fire: <https://www.drought.gov/drought/data-maps-tools/fire>
- Drought.gov Portal / Wyoming: <https://www.drought.gov/states/wyoming>
- Intermountain West Climate Dashboard: <https://wwa.colorado.edu/climate/dashboard.html>

For further information, see Teton Interagency Dispatch Center at www.tetonfires.com.

Ron Steffens, Long Term Fire Analyst, Grand Teton National Park | 307 739 3675 | ron_steffens@nps.gov

Appendix: Fuel Moisture Trends – September 1, 2024

East Zone - Bridger-Teton NF - Fuel Moistures (with averages 08/16-08/31)

Hoback

Fuel Type	14 Year Average (%)	8/17/2024	2024 Trend (% Change)
10-Hour	13.18	11.05	-11.19
100-Hour	14.8	13.57	-9.16
1000-Hour	16.2	13.5	-6.19
Lodgepole	107.27	98.95	-1.66
Sub-Fir	117.18	106.87	-1.46
Sage	108.44	83.79	-14.35

Half Moon

Fuel Type	14 Year Average (%)	8/17/2024	2024 Trend (% Change)
10-Hour	12.44	5.57	-0.72
100-Hour	11.22	6.56	-2.16
1000-Hour	12.9	10.87	-2.14
Lodgepole	104.22	101.58	0.19
Sage	89.67	81.51	-17.25

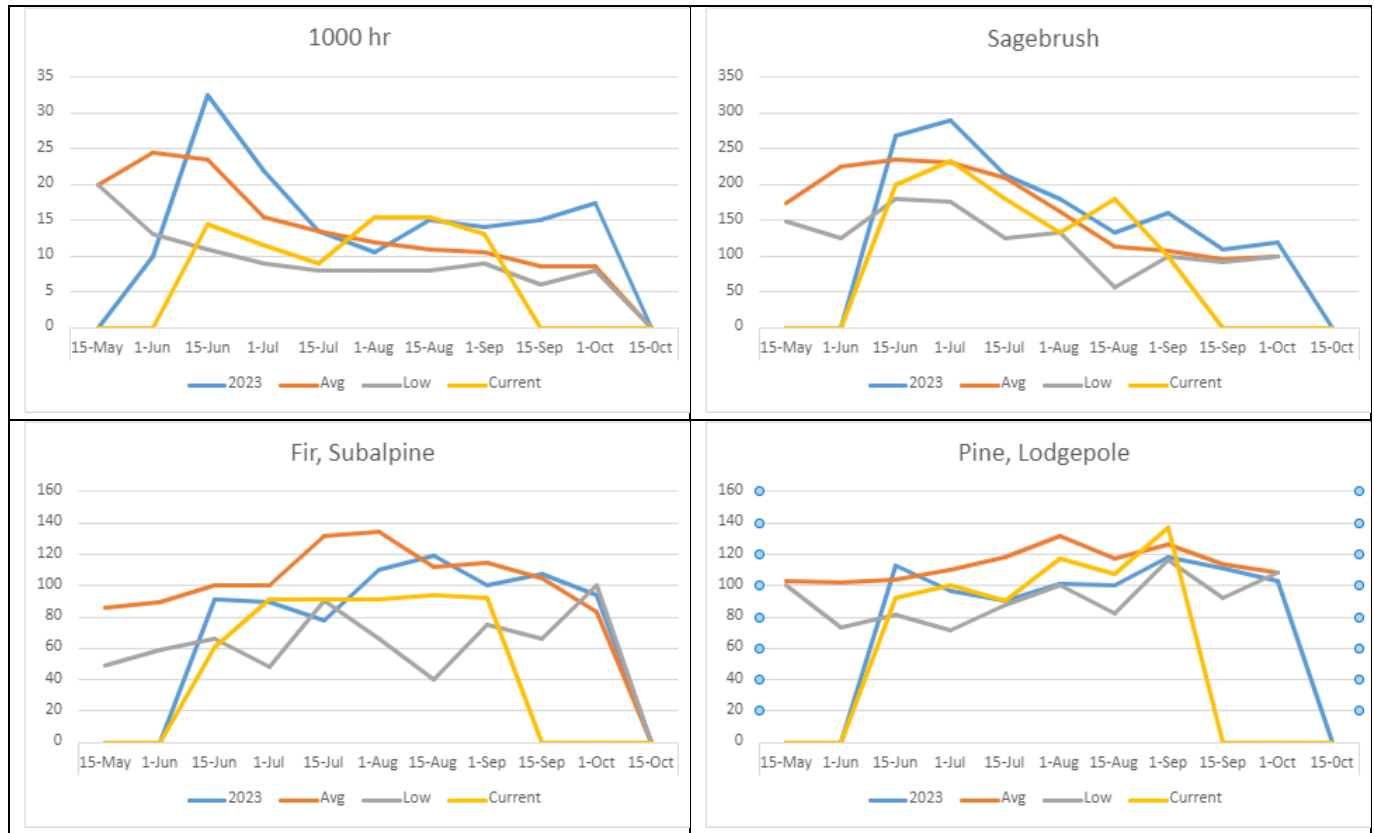
Snyder Basin

Fuel Type	14 Year Average (%)	8/17/2024	2024 Trend (% Change)
10-Hour	9.1	6.82	-6.88
100-Hour	11.44	9.11	-3.35
1000-Hour	14.5	10.03	-7.1
Lodgepole	109.6	102.25	-4.22
Sage	88.63	74.34	-9

North Zone - Bridger-Teton NF - Fuel Moistures

Burro Hill				Cache Creek			
Fuel Type	14 year AVG	8/30/2024	% Difference	Fuel Type	14 year AVG	8/30/2024	% Difference
1000 HR	14.0	10.5	-25	1000 HR	17.5	19.0	9
10 HR	12.5	10	-20	10 HR	15.0	12	-20
Douglas Fir	116.4	110	-5	Douglas Fir	99.6	94	-6
Grass	130.6	116	-11	Snowberry	146.4	144	-2
Sage	94.7	96	1				
Snowberry	105.4	99	-6				

West Zone - Bridger-Teton NF - Fuel Moistures



Grand Teton NP - Fuel Moistures

Critical Fuel Moisture Trends						
Grand Teton National Park (2024)						
	1-Jul	15-Jul	1-Aug	15-Aug	1-Sep	15-Sep
1000 Hour - in Conifer	14	13	12	22	13	-
Live Herb - in Conifer	129	134	113	128	109	-
Live Woody - Conifer	115	111	109	116	106	-
LH - Grasses in Sagebrush	77	58	47	64	47	-
Live Woody - Sagebrush	128	114	87	87	76	-
1 Hour	8	5	8	15	8	-
ERC (Teton FDRA)	39	46	39	30	37	-
Based on Fuel Moisture Sampling. KEY	Low to Moderate Burning Conditions		Transition to Critical Burning Conditions		Critical Burning Conditions (driest 90th percentile)	

