Colorado Fire 101 & 2025 Wildfire Outlook

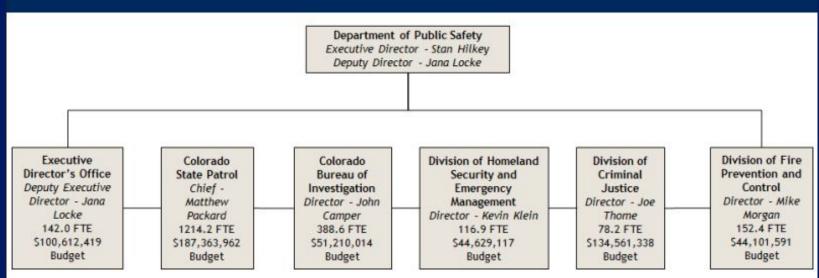
Colorado Division of Fire Prevention and Control Colorado Department of Public Safety

April 22, 2025



Colorado Department of Public Safety

CDPS Organizational Chart



*Numbers based on FY23 Budget Request. Note that DHSEM currently manages approximately \$1.7 billion in federal funding in FY22 that is not included in their total above.





Colorado Division of Fire Prevention and Control



Training



Fire Prevention and Life Safety



Technology Research and Integration

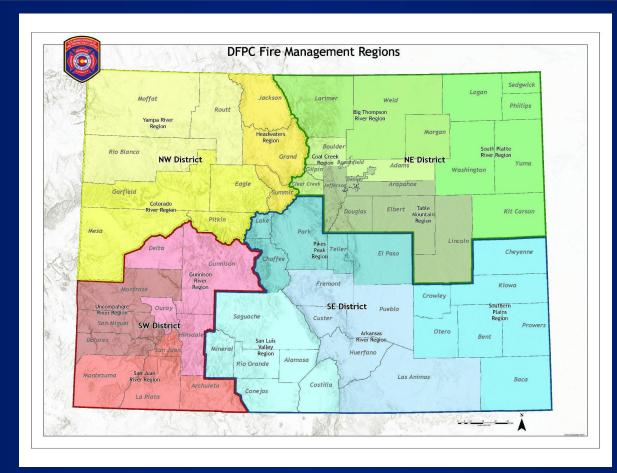
DFPC - Wildland Fire Management Section

- Planning, Preparedness, and Training
- <u>Response</u> Resources Aviation and Ground
- Prescribed Fire Management



- Support <u>Local Agencies</u> technical assistance, tactical resources, and funding
- Intelligence-Based Dispatch and Mobilization of Fire-Based Resources across the State
- <u>Coordinate</u> with federal agencies and other States on preparedness and response

DFPC - Districts and Regions



DFPC Ground-Based Resources



DFPC Staffed Engines



FEPP Program







Overhead and Technical Assistance



CDOT Heavy Equipment Program

DFPC Aviation Resources



Large Air Tanker (LAT) - 120 Day EU



Single Engine Air Tankers (SEAT) 2 Aircraft on 240 Day EU



Call When Needed (CWN) Resources Scoopers, SEATs, UAS



Type 1 Helicopter - 120 Day EU (Temporary through 2023)



Type 1 Firehawk Helicopter (AO)



Type 2 Helicopters 2 Aircraft on 230 Day EU

How Wildfire Works in Colorado

Wildfire in Colorado

• C.R.S.29-22.5-103(1)(a) "The chief of the fire department in each fire protection district in the state is responsible for the management of wildland fires that occur within the boundaries of his or her district and that are *within the capability* of the fire district to control or extinguish in accordance with the provisions of section 32-1-1002(3)(a), C.R.S."



Wildfire in Colorado

C.R.S. 30-10-513 (1)(a) "it is the duty of the sheriff to assume the responsibility for coordinating fire suppression efforts in case of any prairie, forest, or wildland fire or wildfire occurring in the unincorporated <u>area of the county outside the boundaries of a fire</u> protection district or that exceed the capabilities of the *fire protection district* to control or extinguish"



Wildfire in Colorado

- C.R.S. 30-10-513(1)(d) "When a wildfire <u>exceeds the</u> <u>capability of the county</u> to control or extinguish, the sheriff shall be responsible for seeking the assistance of the state by <u>requesting assistance</u> from the division of fire prevention and control in the department of public safety."
- C.R.S. 30-10-513(2) "The director of the division of fire prevention and control <u>may assume any</u> <u>duty or responsibility given to the sheriff</u> under this section with concurrence of the sheriff."



Summary - How Wildfire Works in Colorado

• Fire Responsibility



Responsibility of BIA, BLM, NPS, USFWS, and/or USFS

State Assistance, State Responsibility, and FMAG Fires

Historical Colorado Model

- Wildfires only happen in the mountains between Memorial Day and Labor Day
- Being a wildland firefighter is a great summer job
- Wait until it's over the hill, and then the State will bring the checkbook



State Assistance Fires

Available for Fire Departments <u>and</u> Counties, with Emphasis on Rapid Initial Attack Actions:

- Closest Forces Concept
- Aviation Funding
- 20 Person Handcrews
- DFPC Engines, Modules, and Overhead
- DFPC Technical Assistance
- Allows Local Agencies to Return to Day-to-Day Response Needs

State Responsibility Fires

Fires Where County Capacity has Been Exceeded:

- Must be a County Responsibility Fire
- Analysis conducted with DFPC Staff and Sheriff
- Currently Funded by Emergency Fire Fund (County Contributions) or Executive Order (Disaster Emergency Fund)
- DFPC Assumes Management and Financial Responsibility





Summary of DFPC's Approach

- Use new technologies and approaches
- Early detection and decision support
- <u>Informed early action</u> and rapid initial attack to limit duration, impacts, costs, etc. where fire is unwanted
- Resources that <u>meet Colorado's needs</u> and are under our operational control
- An intelligence-based <u>dispatch and mobilization</u> <u>system</u> to meet all fire-related needs, on a year-round basis, across the State of Colorado

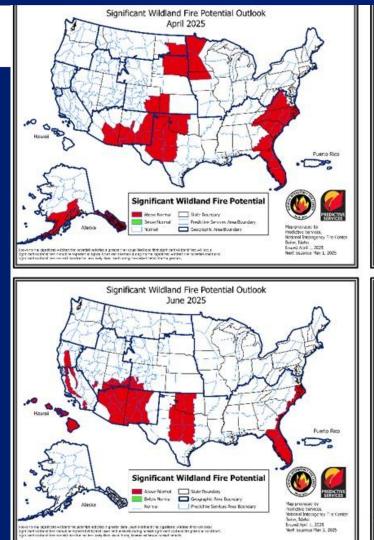
Questions?

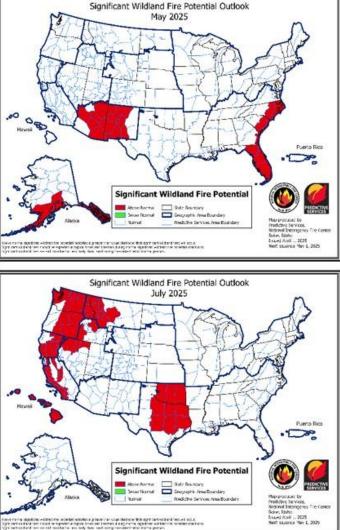
Wildfire in Colorado has grown beyond a natural resource problem and has become a public safety problem impacting lives, homes, watersheds, tourism, economies, and quality of life.



2025 Colorado Wildland Fire Season Outlook

Above Normal potential for SE CO in April and in Four Corners area in June.





What is a 'Normal' wildfire season for Colorado?

- Typical Wildfire season is May through September and usually applied to the forested areas - but wildfires can and do happen in every month of the year.
- Colorado reports an average of 5,618 wildfires each year, and approximately 237,500 acres burn annually (2011 2020).
- Wildfire is a normal phenomenon for our ecosystems.
- Some complicating factors are wildland urban interface, bark beetle activity, the scale of Colorado's wildlands, and even smaller fires can be damaging to infrastructure.

Snow Water Equivalent Percent NRCS 1991-2020 Median April 21, 2025, end of day Cheyenne FortCollins 80 Greeley . Longn 86 N E D T Denver 70 MER Grand Junction to Spring: WEST ELK COLORADO 62 43 Percent NRCS 1991-2020 Median Pueblo 65 ≥ 150% 130% to 149% 110% to 129% 90% to 109% 42 70% to 89% 50% to 69% < 50% No basin value Watershed Boundaries - Region (HUC2) - Basin (HUC6) Natural Resources Conservation Service USDA Mile: 0 10 20 80 100 40 60

Created 4-22-2025

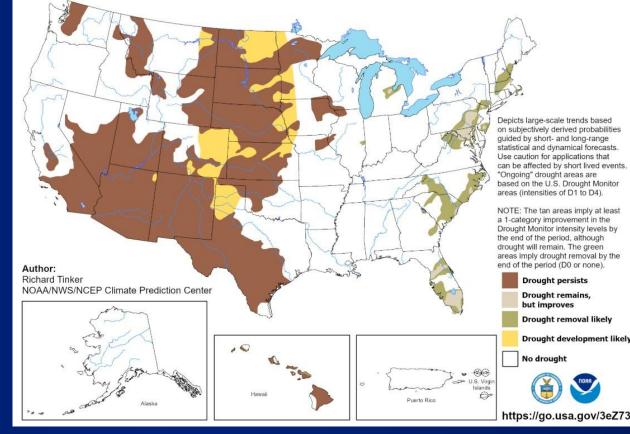
Inited States Department of Agriculture

Snowpack helps reduce early season fire potential but is less a factor by mid-summer

Drought Monitor Seasonal Outlook

Areas that burn during severe drought are often more damaging and prone to have more negative post-fire effects (hydrophobic soils, sediment movement, slow vegetative recovery). U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

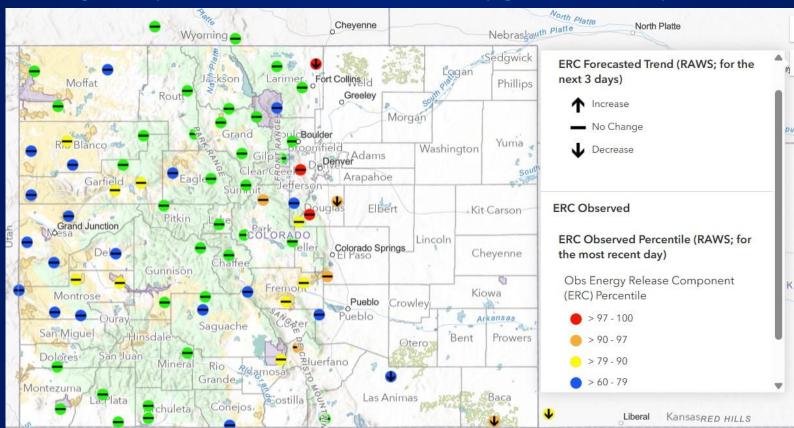
Valid for April 17 - July 31, 2025 Released April 17, 2025



Snapshot of Fire Danger April 22, 2025

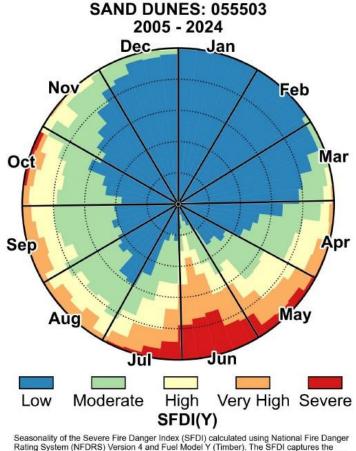
A high-level view of recently observed and forecasted fire danger

https://experience.arcgis.com/experience/6b13a4d0e90f45a7a2a9030dd2cd8c6e/page/Fire-Environment-Update?views=ERCs



Wildfire Season Climatology for Colorado

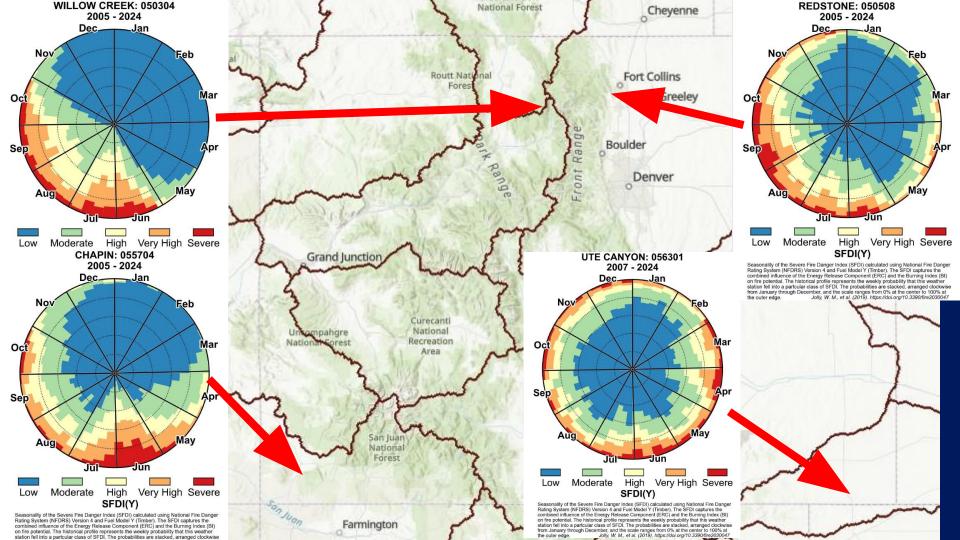
- Colorado has multiple wildfire climate regions: the west slope / Colorado plateau, the Rocky Mountains, the front range foothills and the eastern plains.
- We gather data from a network of Remote Automated Weather Stations (RAWS). This data and analysis is used to derive the "Fire Danger".
- This example is displayed as a seasonal wheel showing the fire environment climatology at Great Sand Dunes NP.



combined influence of the Energy Release Component (ERC) and the Burning Index (BI) on fire potential. The historical profile represents the weekly probability that this weather station fell into a partcular class of SFDI. The probabilities are stacked, arranged clockwise from January through December, and the scale ranges from 0% at the center to 100% at

the outer edge.

Jolly, W. M., et al. (2019). https://doi.org/10.3390/fire2030047



In Summary...

- Significant fire potential will be above normal in April and June in southern Colorado.
- The April increased potential is primarily due to hot and dry episodes paired with wind events on the southeast plains.
- The June increased potential is primarily due to drought and will affect the mountains of southwest Colorado.
- Expecting a normal summer monsoon pattern.