





Large Fire Response...

- Issues with wildfire:
 - WUI & Fire Adapted Communities,
 - Evacuations & Ready Set Go
 - Prevention
 - Preparedness
- 2018 Fire Season Outlook Highlights
- Incident management
 - jurisdictions
 - initial attack vs. extended attack
 - Incident management teams
 - the role of Liaison and Community involvement
- Information:
 - Inciweb
 - NM Fire Info
 - social media
- Pre-planning
 - Wildland Fire Decision Support System,
 - Pre-existing relationships
- Questions





<u>Issues with wildfires</u> Wildland Urban Interface (WUI)

The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

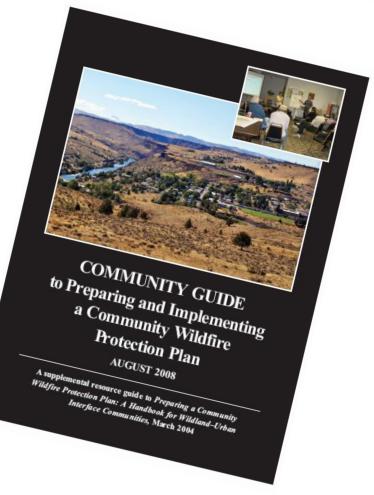


National Wildfire Coordinating Group



Issues with wildfires Community Wildfire Protection Plans

The challenge is to help residents in wildland-urban communities understand the issues and take action to mitigate and prepare <u>before</u> a wildfire starts.







Issues with wildfires Fire Adapted Communities





A human community consisting of informed and prepared citizens collaboratively planning and taking action to safely coexist with wildland fire.

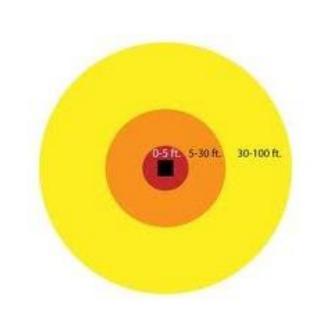
Issues with wildfires Home Assessments





Issues with wildfires Defensible Space Zones

Zone I:0-5 ft. around the perimeter









Issues with wildfires Construct Homes with Fire-Resistant Materials



This home was constructed with fire-resistant materials — masonry siding and noncombustible roofing — and used Firewise landscaping practices that greatly increased its survivability and created a safer working environment for firefighters.





<u>Issues with wildfires</u> Construct Homes with Fire-Resistant Materials



Issues with Wildfires Ready, Set, Go!

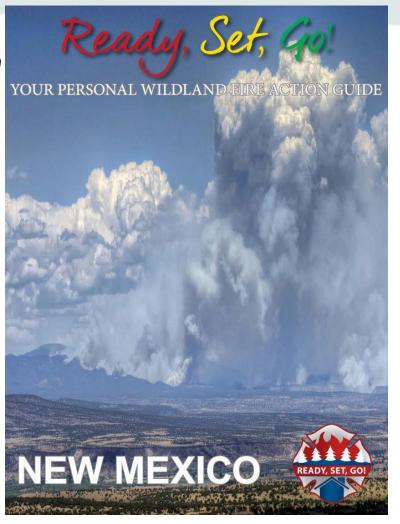






Issues with Wildfire The Ready, Set, Go! Program

- RSG Personal Wildland Fire Action Plan
 - Family and Property Preparation
 - Checklists for Disaster Preparation; what to do as a Fire Approaches; and Emergency Supplies if you have to leave

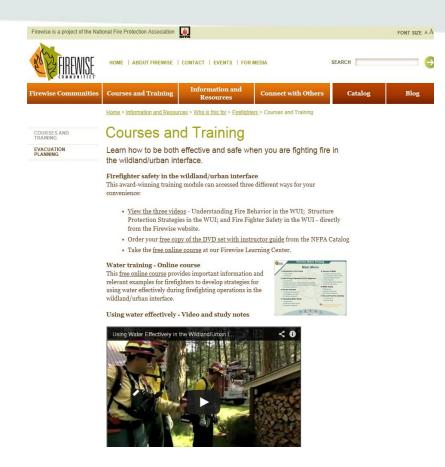


Issues with wildfires Evacuations: 6 P's

1. People 2. Pets 3. Papers & Plastic (credit cards, etc.) 4. Prescriptions, Vitamins, and **Eyeglasses** 5. Pictures and Irreplaceable Memorabilia 6. Personal Computers (information on hard drive & disks)



Issues with Wildfire **Firewise**





National Fire Protection Association

The authority on fire, electrical, and building safety



Issues with wildfires Prevention: One Less Spark Campaign



Issues with wildfires Prevention: Smokey Bear

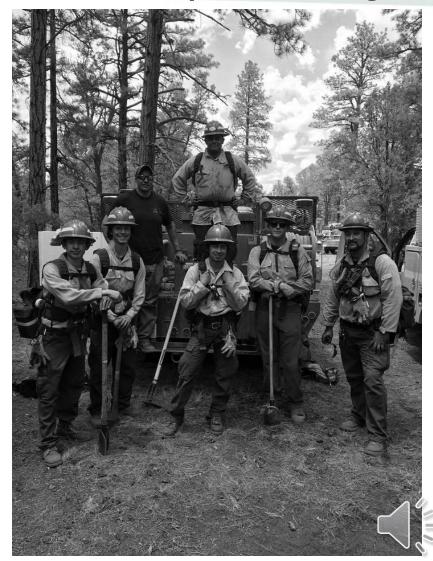




Issues with wildfires Preparedness: Pre-positioning

Planning Levels 1-5

Sharing resources between regions with different fire seasons



Issues with wildfires Firefighting Resources are Limited



Wildfires have grown in size in the last decade

There are not enough firefighting resources to protect every home during severe wildfires

Wildfire is the easiest natural peril to mitigate

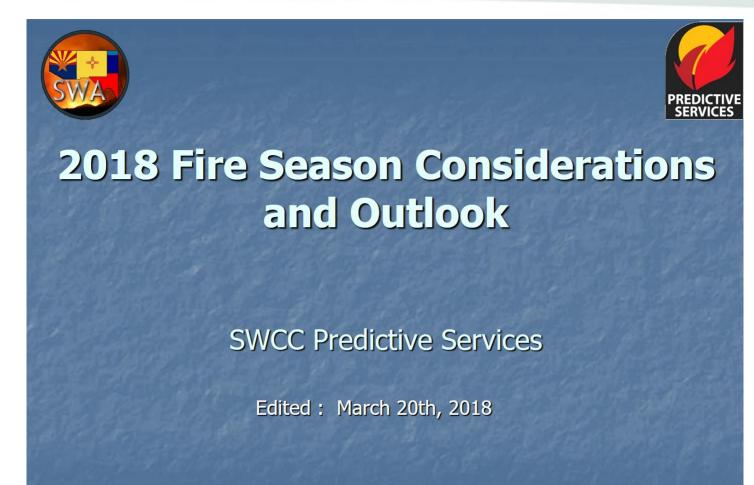




2018 Seasonal Outlook Southwest Coordination Center

Southwest Coordination C SWCC Home National	About Us Site Disclaimer Contact Us	Gila Interagency Hotshots SW Dispatch Center Websites
INCIDENT INFORMATION Fire Information - Arizona - New Mexico	WELCOME to the SOUTHWEST COORDINATION CENTER Welcome Activity Weather Fuels / Fire Danger Outlooks Resource Summa	
InciWeb - Arizona - New Mexico Fire Restrictions	Welcome Daily Ir	cident Activity Preparedness Levels
- Arizona - New Mexico	mobilization of resources between the twelve • SWCC Press	SR Southwest 1 (8/08/17) Ining Situation Report rribed Fire Report (12/20/17)
LOGISTICAL OPERATIONS Dispatch Aviation Crews Equipment / Supplies Overhead / Teams PREDICTIVE SERVICES	Southwest Area and, when necessary, the National Coordination Center in Boise, ID. Located in Albuquerque, New Mexico, the SWCC mobilizes resources for wildland fire, prescribed fire, and all-risk incidents. In addition, the Center provides Predictive Services and Intelligence related-products in support of incident managers and on-the-ground wildland fire managers and on-the-ground wildland	COLORADO KANSAS
Intelligence Weather Fuels / Fire Danger Outlooks	firefighters. > To learn more, go to "About Us"	DENT LOCATION MAP AH COLORADO KANSAS pas OKLAHOI ONA NEW MEXICO Daillar OKLAHOI Daillar Dillar Dillar TWeets by @SWCCNewsNotes @SWCCNewsNotes Altar (AZ-A3S) 1,200 ac. Started 2/08/18. Loc 20 mile N of Sasabe, AZ (31.7011x111.5950). Multimirsidictional incident (AZS BLM BIA &

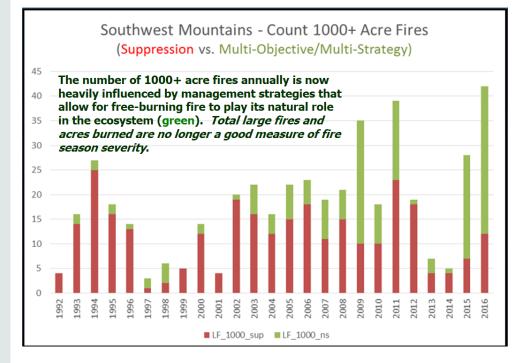
2018 Seasonal Outlook Southwest Coordination Center





2018 Seasonal Outlook Historical Southwest Fire Activity

- Fires about a 50/50 split between human and lightning caused.
- Human caused fires more prevalent in spring, coincident with windy & dry conditions.
- Lightning caused fires more prevalent from June onward, coincident with the approaching monsoon.







2018 Seasonal Outlook Seasonal Fire Potential Main Factors

1. Drought

5. Monsoon

Big Picture Fuels Complex Conditions

2. Fine Fuels Condition

Fine Fuels Component

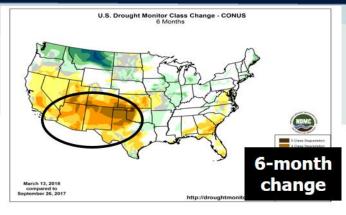
- 3. Seasonal Temperature & Precipitation
- 4. Spring & early Summer Weather Patterns

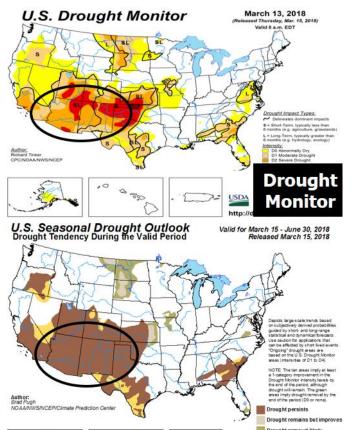
Season Setup

Fire Ignition & Spread









Drought Outlook

2018 Seasonal Outlook Fire Season 2018: Drought

- Long-term drought has increased from west-east across the region over the past 5-6 months
- At least "Moderate Drought" areawide with "Severe Drought" across eastern AZ/far western NM and far NE NM/much of Texas
- Drought outlook calls for overall drought conditions to generally increase through April
- Drought is impacting mainly fine fuels regimes across the east, but starting to have long-term impacts along/west of the continental divide.



2018 Seasonal Outlook Fire Season 2018: Fine Fuels

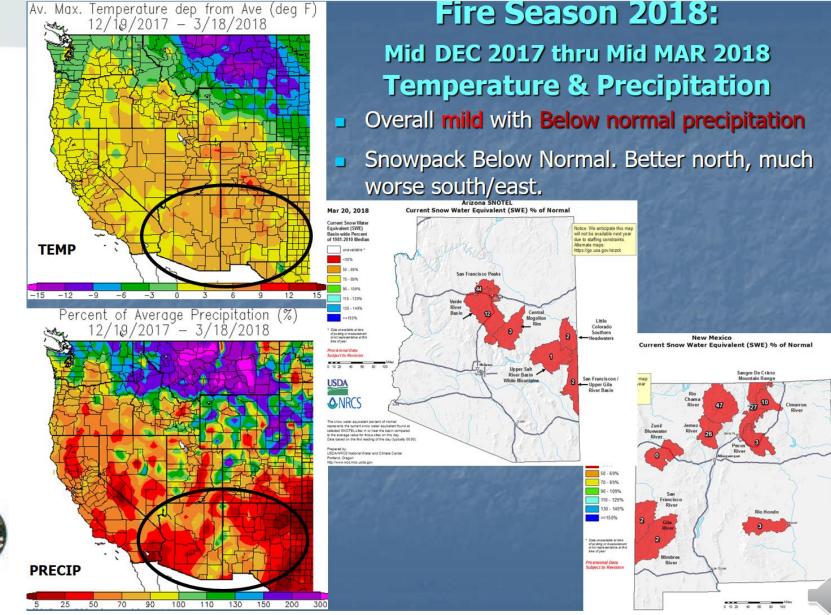


January 25, 2018 – Hobbs, NM



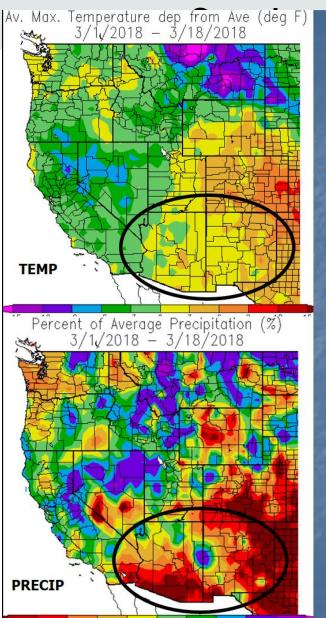


2018 Seasonal Outlook



110

2018 Seasonal Outlook



50

75

100

125

150

200

400

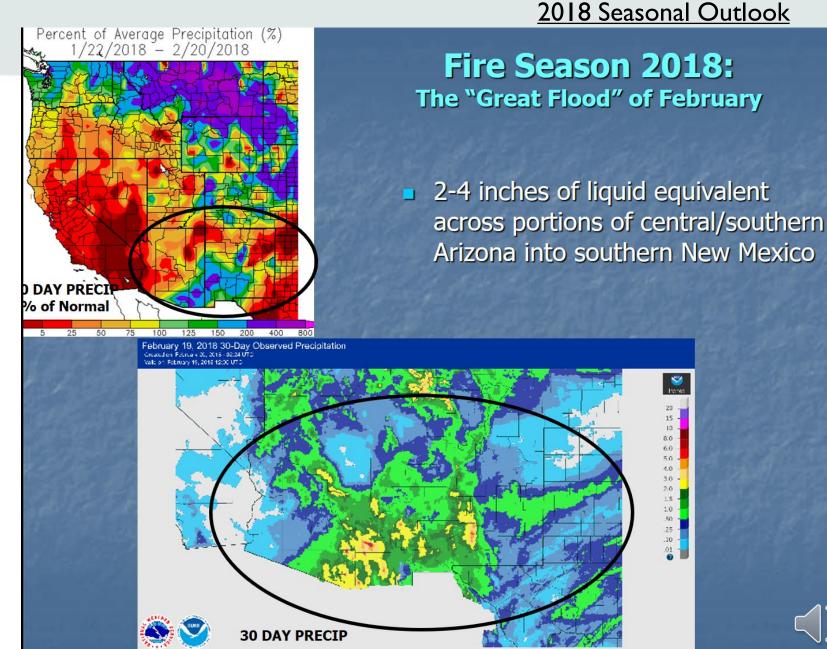
Fire Season 2018: MAR (MTD) 2018 Temperature & Precipitation

 Overall warm and dry, although not as 'robust' as the prior 3 months (esp. far west)

Still been generally dry with a few areas of Above Normal

Is the dry trend changing???

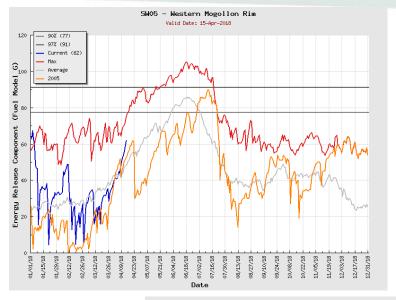


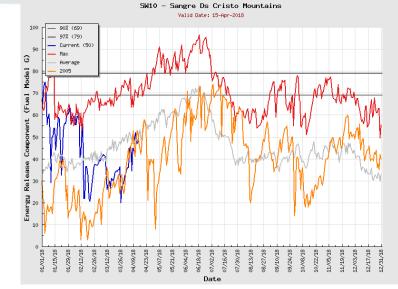


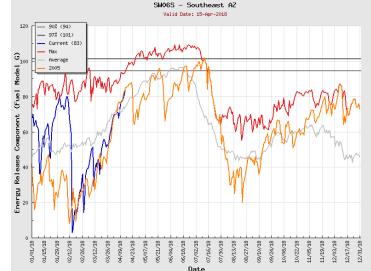


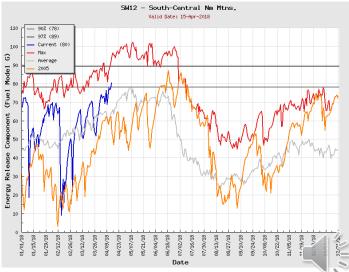
2018 Seasonal Outlook

Tracking 2018 Energy Release Component



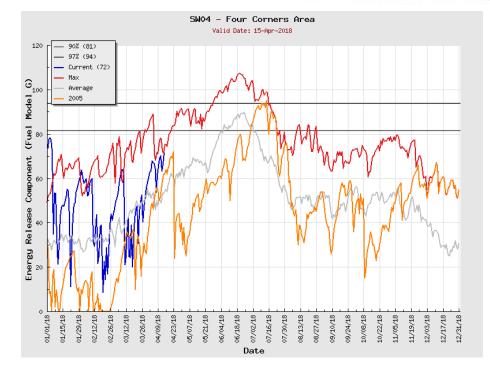


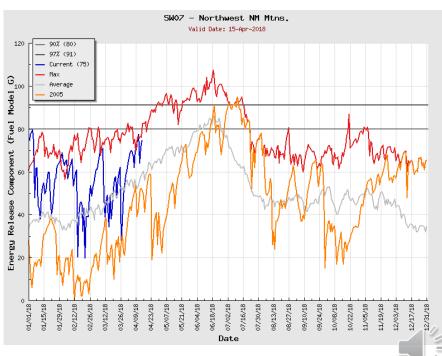






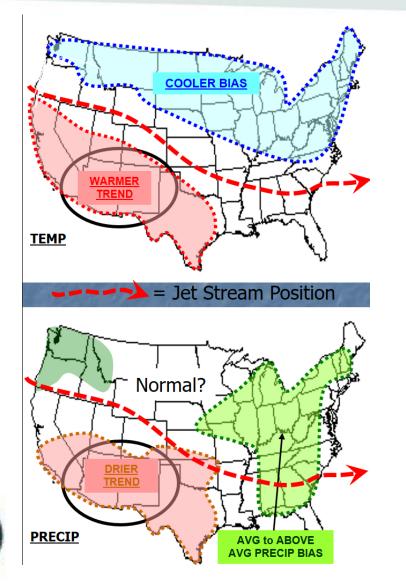
2018 Seasonal Outlook Tracking 2018 Energy Release Component







2018 Seasonal Outlook Temp & Precip Anomalies + Jet Stream

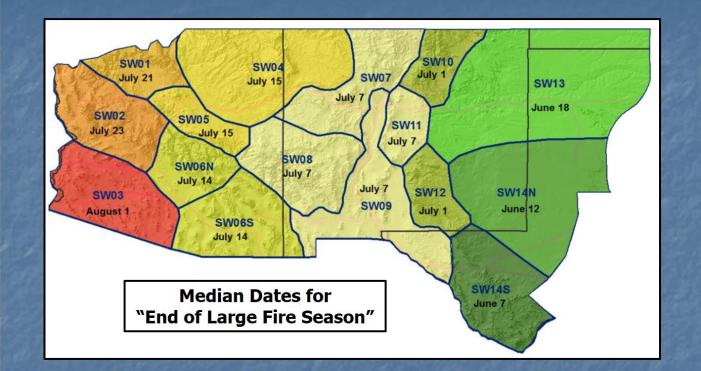


- A west coast/western Pacific ridge setup with the SW Area beneath the ridge or northwest flow expected to bring generally warm spring temps most areas and generally dry conditions
- An evolution away from La Niña by mid-late spring
- <u>Some</u> variability and uncertainty is expected.



2018 Seasonal Outlook Fire Season 2017

Fire Season 2017: Monsoon



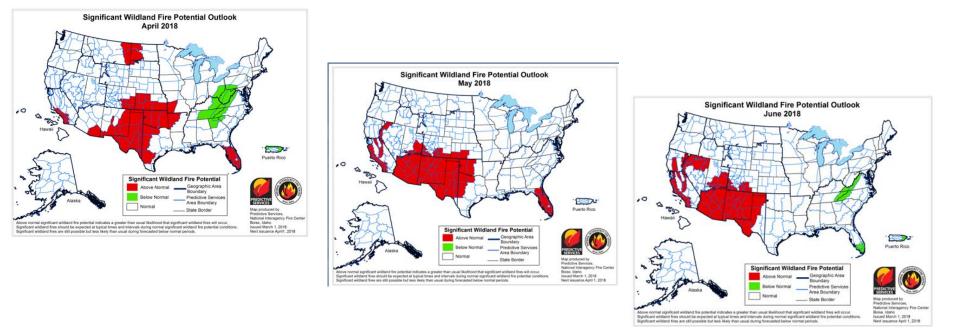
For Reference: Median dates for end of 'large fire' season.



Potential for rapid switch to El Niño conditions in discussion...



2018 Seasonal Outlook National Significant Wildfire Potential Outlook



- General west and northward spread of Above Normal potential through the spring, except as altered by reality!
- Focus on mainly mid and low elevations and brush/grass fuel types short-term, but heavies are 'in the game' for sure come April > June.



2018 Seasonal Outlook Surprises to Watch for in 2018

- Fuels complex (all live and dead wildland fuels) coming into rapid alignment for combustion during a very short time frame sometime later this spring/early summer:
 - Fire behavior that had been subdued by superficial moisture will increase exponentially when alignment is met.
 - Fires being managed under conditions moderated by superficial moisture will roar to life, and possibly defy any management/control efforts until the monsoon.





2018 Seasonal Outlook 2018 Fire Season Factors Summary

<u>Drought – Moderate to Severe drought ongoing area-wide</u>

<u>Fine Fuels Condition</u> – Normal to above normal loading and continuity area-wide...especially eastern/southeastern plains

<u>Seasonal Temperature & Precipitation – Very dry and mild winter with</u> potential to transition into a dynamic and <u>active late winter/spring</u>

<u>Spring & early Summer Weather Pattern –</u> Variable spring pattern arguing against early, widespread fire activity. Might have to wait until APR/MAY to get fire effective weather alignment

<u>Monsoon –</u> Typical seasonal moisture onset & impacts. Still questions, but <u>onset possibly early this year or at least 'on-time'</u>

Bottom Line: No clear, areas to 'rule out' of an active season at this point (although likely changeable spring pattern could alter that)





2018 Seasonal Outlook Southwest Coordination Center



• Part 1

Quantification of Fire Season Potential

The below narratives provide the methodology used to develop the "Fire Season Considerations and Outlook" in Part 2.

Video (16MB)

• PowerPoint Presentation (12MB)

Difficulty with Opening Video Files?

Parts 1 video files were created using Camtasia software and saved in MP4 format. If you are having difficulty opening the files, we suggest downloading Apple QUICKTIME.

Download Quicktime



• PDF Version (6MB)

FACTORS & OUTLOOK MAP

2018 Fire Season Factors Summary

Drought – Moderate to Severe drought ongoing area-wide.

Fine Fuels Condition – Normal to above normal loading and continuity area-wide....especially eastern/southeastern plains.

Seasonal Temperature & Precipitation – Very dry and mild winter with potential to transition into a dynamic and <u>active late winter</u> /spring





2018 Seasonal Outlook Recent Fire Activity

NM State Forestry Large Fires 2018

- Stateline Fire Type 3
 - 28,000 acres in NM, CO, OK in March!
- 246 Fire (Capitan) Type 3
 - On-going ... started April 12
 - 12 starts on the same day in state jurisdiction
- Current Large Fires in NM
- Diener Canyon Bluewater
 - Managed as complex by Type I Team
- 246 Fire see above

FIRE SEASON IS HERE, AND IT IS ACTIVE!







Subject: Exceptional fine fuel loading and persisting drought have combined continue to create dangerous fire behavior conditions across eastern New Mexico, western Texas, western Oklahoma, southeastern Colorado, and western Kansas. Extreme fire behavior has been observed under moderate fire weather conditions, and fires have shown a complete resistance to control during critical fire weather events.

Discussion: Above normal rainfall during the 2017 growing season has produced an abundance of fine fuel loading across the grass dominant fuelscape of the southern Plains. This exceptional crop of grass is supporting above normal significant fire occurrence and fires that are highly resistant to control. The current fire effective weather pattern has produced drying that has pushed ERC values above the 90th percentile. This same fire effective weather pattern produces frequent critical and at times extreme fire weather in the pre frontal and post frontal environments. The fire environment described here can produce fast moving fires that quickly out pace suppression efforts and are capable of threatening communities.

Difference from normal conditions: Fine fuels loadings are 130-150%+ of normal, with 2-4 foot tall grass observed in some areas. The above normal grass loading can effectively lower fire weather and fuel dryness thresholds for significant fire occurrence or fires highly resistant to control. These grass fuel beds will support rate of spread from 2-4 mph with critical fire weather present. Extreme fire weather will produce rate of spread up to 6-7 mph. Portions of the advisory area have received less than 25% of normal precipitation over the past 90 days. The March 15th County Line Fire north of Amarillo Texas produced rate of spread up to 6 mph in heavy load range grasses. The March 15th Gravel Pit fire shown here produced 15 foot flame heights in heavy load range grass.



Concerns to Firefighters and the Public:

- Extreme to unprecedented fire growth and intensity is to be expected with any new or ongoing fires, especially under critical fire weather conditions. This is to be expected on all areas of fire perimeters, including the normally less active flanks and heel.
- Typical barriers to fire spread and behavior cannot be depended on, including roadways and areas burned earlier in the year.
- Fire spread and behavior may not abate substantially during cooler, more humid periods as they typically do...including the overnight hours.
- The public will need to be advised to avoid areas in the vicinity of ongoing fires, monitor the media, and heed evacuation notices should fires occur near their homes or places of employment.

Mitigation Measures:

Fire managers should be prepared to support periods of more frequent fire occurrence as well as
complex, longer duration wildfire incidents; Firefighters should expect to construct wider control lines than
typical in all fuel types; Dozers and maintainers will be best utilized in tandem; Wet-lines in fine fuels will
require frequent patrol and intensive mop-up; Contained fires will require longer periods of patrol to
prevent escape.

Area of Concern: Eastern New Mexico, western Texas, western Oklahoma, southeastern Colorado and western Kansas.

Issued By: Allan Hepworth, R8 USFS, with all-hands interagency coordination between wildland fire experts from the SW, RM, and SA Geographic Areas.

2018 Seasonal Outlook Recent Fire Activity

Fuels and Fire Behavior Advisory Eastern New Mexico, Western Texas, Western Oklahoma, Southeastern Colorado and Western Kansas Date Advisory takes affect – April 18, 2018

Fuels and Fire Behavior Advisory - April 18, 2018

Geographic Areas

Predictive Service Areas

Fuels and Fire Behavior Advisory Area

0

60 120

240

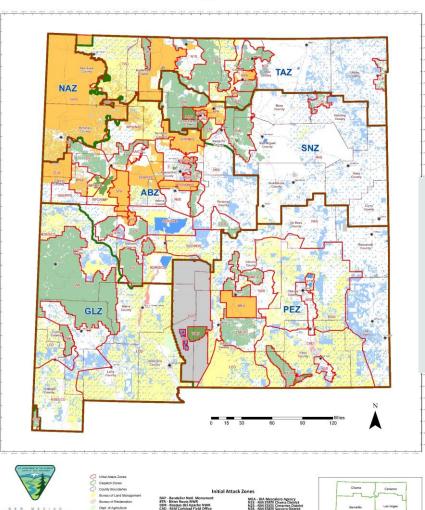
360

480

Miles

NEW MEXICO INITIAL ATTACK ZONES

2017



Dept. of Free

Incident Management Jurisdictions

- Wildland Fire Agency Share Initial Attack
 - Closest resource: Initial Attack Zones
 - Responding Agency vs. Juridictional Agency
- Shared Jurisdiction between NMSF and Counties on State & Private
 - First four hours



Incident Management Initial Attack vs. Extended Attack

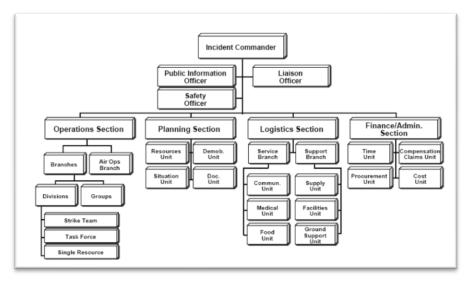
• Initial Attack

- Most fires suppressed at this stage
- 24 hours or less
- Extended Attack
 - When the fire exceeds initial attack capabilities



Incident Command System

INCIDENT COMMAND SYSTEM



Widely used in emergency management

- Key concept is the: **Span of Control** where no one person oversees more 9...ideally 5-7.
- Can **expand** and **contract** as needed.
- **Command Staff:** Safety Officer, Information Officer, Liaison Officer, Agency Rep work directly for IC.
- General Staff: Operations Chief, Plans Chief, Logistics Chief, and Finance Chief oversee key functions.



Incident Management Incident Management Teams



TEAMS (pre-designated)

- Type I
- Type 2
- Type 3

ORGANIZATIONS (incident only)

- Type 3
- Type 4
- Type 5

Complexity: duration, size, values at risk, #s of resources, multiple jurisdictions, etc. etc.

Incident Management Liaison Officer & Cooperator's Meetings

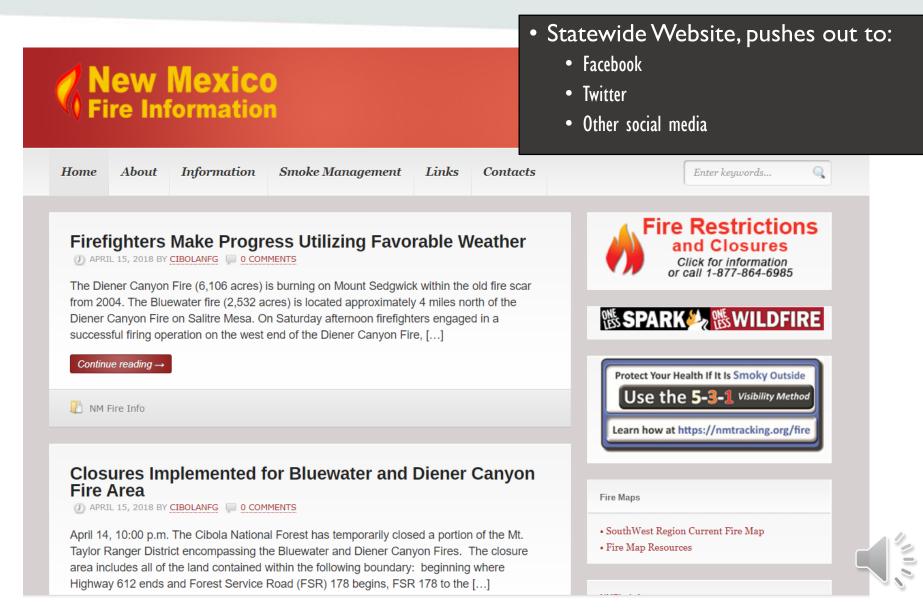
Liaison Officer

- If you are not directly assigned to a task in the incident, then your key contact on a large fire is the: Liaison Officer
- Cooperator's Meeting: often daily with Type 1 & 2 IMTs. IC often attends. More indepth briefings. Coordinate needs and equipment. Plan ahead.
- Often excellent collaborative environment with Incident Management Teams.





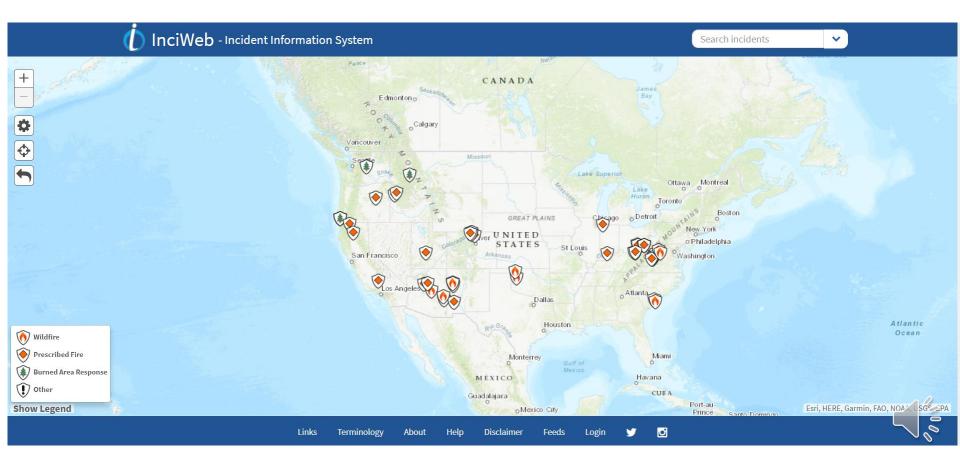
Information NM Fire Info

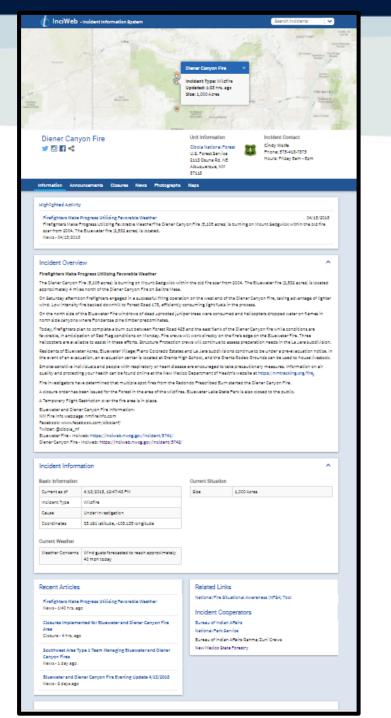


Information InciWeb

National Website:

- All large incidents
- Media, agency, well-informed public
- Interagency, one-stop source of information





Information InciWeb

• Webpage includes:

- Information
- Announcements
- Closures
- Photos
- Maps
- Information includes:
 - Highlights
 - Overview
 - Statistics
 - Related Articles
 - Recent Links



Information Social Media



Twitter

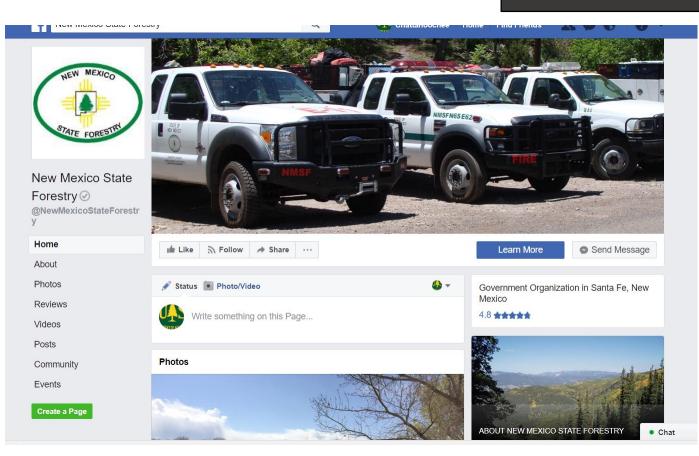


Facebook



• Social Media:

- Often can spread erroneous information
- "Official" sites will limit access to posting
- Other social media



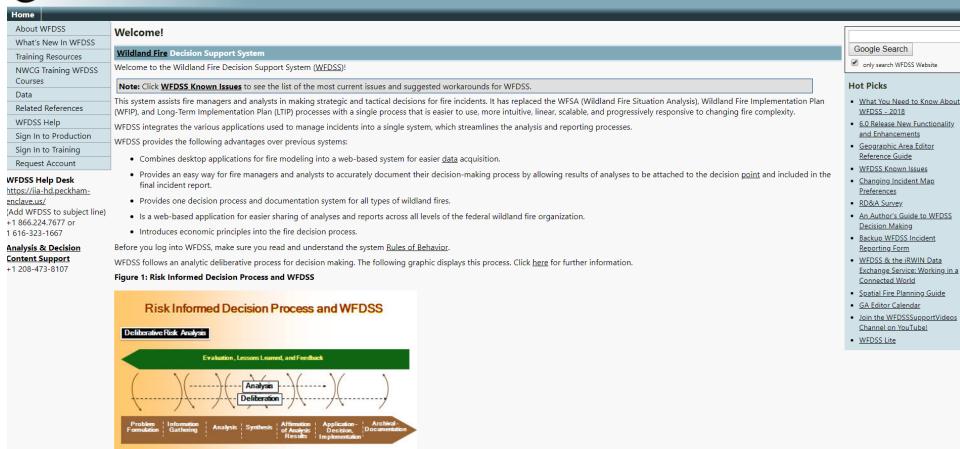
Pre-planning

Wildland Fire Decision Support System (WFDSS)

Wildland Fire Decision Support System

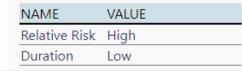
WFDSS Alignment with Deliberative Risk Analysis

<u>Help</u>

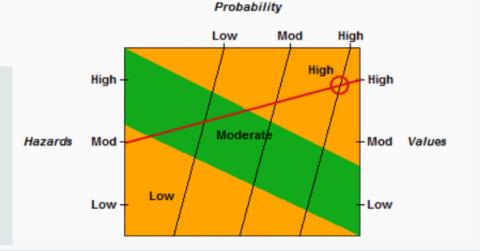


Pre-planning WFDSS input

🗖 Relative Risk



- Wildland Fire Decision Support System (WFDSS)
 - National System
 - Access limited
 - Documents decision making

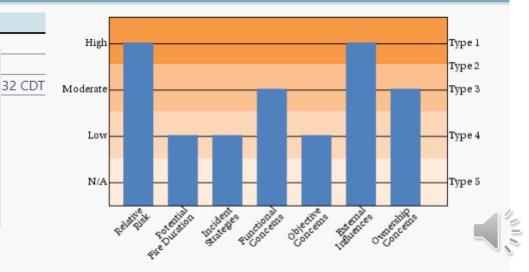


🗖 Organization Assessment

NAME VALUE

Unit Recommended Ora Type 3

- Geospation Information
 - Can pre-load important data
 - Access by juridistional agencies
 - Documents decision making



<u>Pre-planning</u>

Pre-existing Relationships

- Communities that work together on projects before the fire respond much better together during emergencies
- Ways to work together...
 - Firewise Designation
 - Community Wildfire Protection Plans
 - Evacuation Planning
 - Treatment coordination through Watershed/Fireshed collaborations
 - Other programs, events, etc.



Large Fire Response...

Questions?

Preparing for Large Wildfires in New Mexico' Workshops were implemented under a subgrant from the New Mexico Department of Homeland Security and Emergency Management (NM DHSEM) with funding provided by the Federal Emergency Management Agency (FEMA). Points of view or opinions expressed are those of the authors and do not necessarily represent the official position or policies of NM DHSEM or FEMA.





