

Restoring Forest and Watershed Health and Resilience

Presentation to the
Water and Natural Resources Interim Committee
July 10, 2023
Laura McCarthy, State Forester



Photo: Hermits Peak and Calf Canyon Fire, 2022



2022 Extreme Conditions

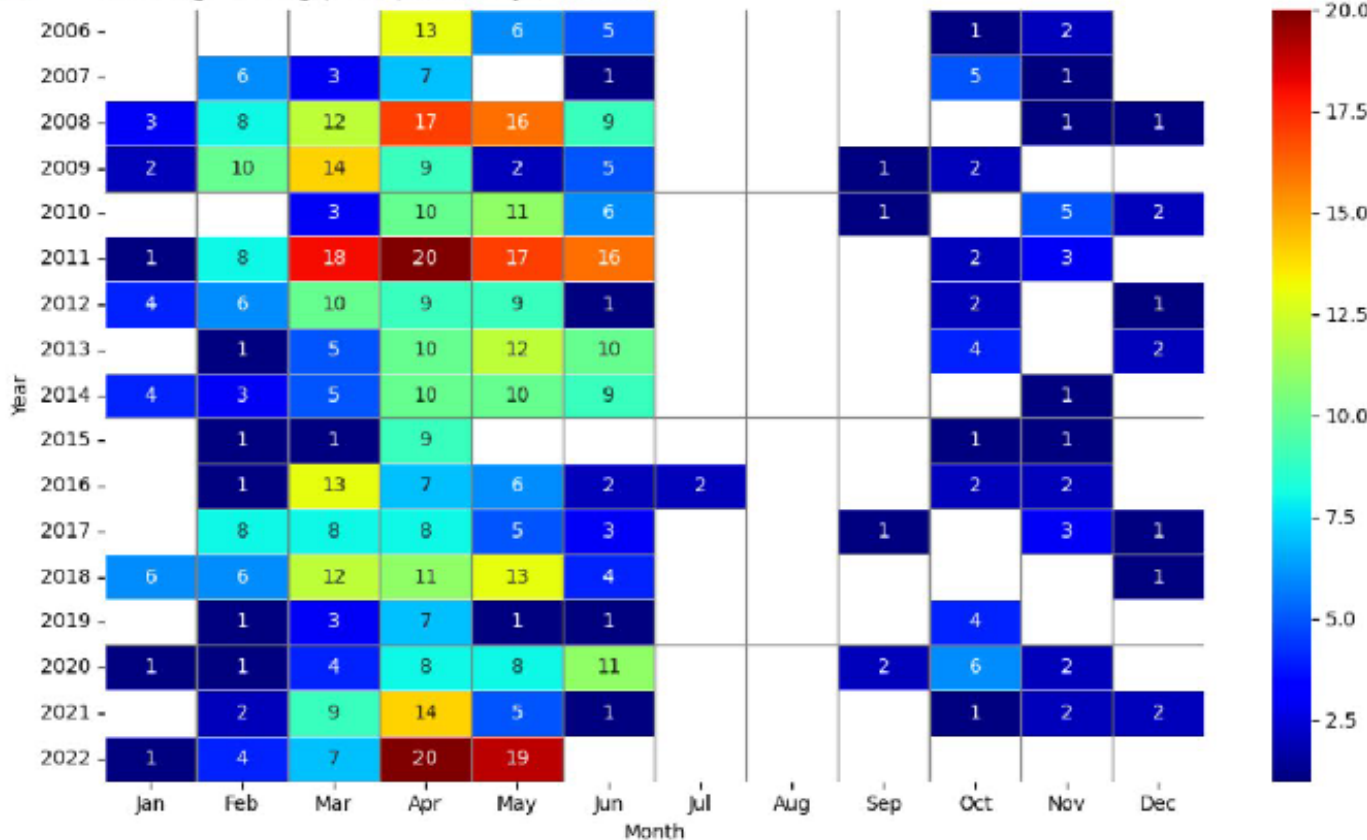
Lessons Learned from 2022

1. Plan for extremes to become “normal”
2. Past is much less reliable as a guide
3. Plan for faster rates of wildfire spread
4. Learn about soil moisture as an indicator
5. Take advantage of “good” weather windows



NWS [ABQ] Albuquerque

Red Flag Warning (FW.W) Issued by Year, Month



For Planning Purposes Only, see the IAP for the Official Forecast
Forecast made Thursday, May 5 - IMET Gary Zell

Conditions	Fri	Sat	Sun	Mon	Tue	Wed
at 7500 FT	6-May	7-May	8-May	9-May	10-May	11-May
Highlights	Elevated Fire Wx - Breezy	Critical Fire Wx Conditions - Windy to Very Windy - Low Daytime RH's Poor Overnight RH Recoveries				
Clouds/Smoke @ 1500 (%)	45	10	5	5	5	25
Average Max Temp (F)	81	84	82	83	80	78
Min Humidity (%)	7	5	6	6	8	7
Max Humidity (%)	40	35	20	24	32	37
Haines Index	6	6	6	6	6	5
Exposed Wind (mph)	19G33	30G50	37G60	35G55	28G48	30G50
Wind Direction*	WNW	WSW	WSW	WSW	SW	SW
Precip Chance (%)	0	0	0	0	0	0

KEY:

	Moderate Burning Conditions	Take Caution - Critical Burning Conditions	Extreme Burning Conditions
Clouds	> 31%	15 to 30%	< 15%
Avg Max Temp	< 74 F	74 to 80 F	> 80 F
Min Humidity	> 20%	16 to 20%	< 15%
Max Humidity	> 39%	25 to 39%	< 25%
Ridge Wind	< 15 mph	15 to 25 mph	> 25 mph
*Wind Direction	Criticality of wind direction highly dependent on burn operations and/or structures threatened		
Haines Index	< 4	4 to 5	> 5

4 or more EXTREME blocks in a day equals the potential for a Critical Weather Day

Overview of FY2023 Wildfire Season

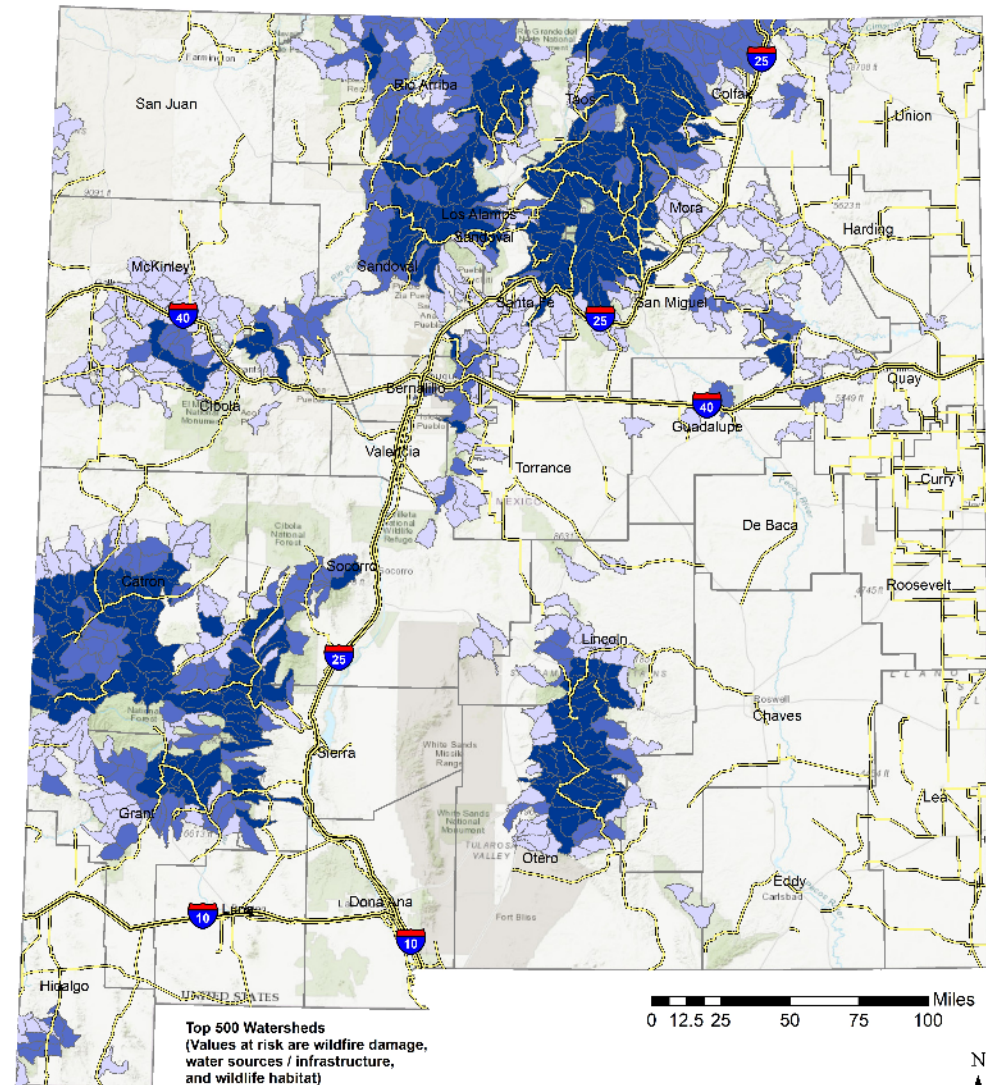
- **Fire Activity (July 1, 2022 to June 30, 2023)**
 - **501** fires across all jurisdictions
 - **431** state and **115** federal
 - **91,072 total acres** burned across all jurisdictions
 - **25,088** total state acres
- **2 FMAG Approvals** (Echo Ridge and Las Tusas)
 - FMAG = Fire Management Assistance Grants.
 - Available from FEMA to states, local & tribal governments, for fires on public or private forests/grasslands, which threaten to constitute a major disaster.
 - 75/25 cost share
- **16 Executive Orders**
 - \$12,000,000 (July 1, 2022 – June 30, 2023)

2020-2030 Forest Action Plan

- Identified the “Top 500” out of 3,219 HUC 12 watersheds based on wildfire risk to:
 - communities
 - water source areas
 - wildlife, fish and plants
- Expert and stakeholder engagement
- Climate change modeling



Top 500 Watersheds in New Mexico



Top 500 Watersheds
(Values at risk are wildfire damage,
water sources / infrastructure,
and wildlife habitat)

- 1 of 3 values at risk
- 2 of 3 values at risk
- 3 of 3 values at risk
- Highways
- Interstates



Energy, Minerals and Natural Resources Department

Strategies

1. Restore forests and watersheds
2. Manage fire
3. Steward private lands
4. Maintain utility ROW
5. Conserve rare plants
6. Reforest burned areas
7. Promote urban and community forests
8. Build the restoration economy
9. Conserve land
10. Provide for outdoor recreation

2020 New Mexico Forest Action Plan

A Collaborative Approach to Landscape Resilience



September 2020



Energy, Minerals and Natural Resources Department



Shared Stewardship

- November 14, 2019
- Governor and Chief
- Priority Setting
- Collaboration

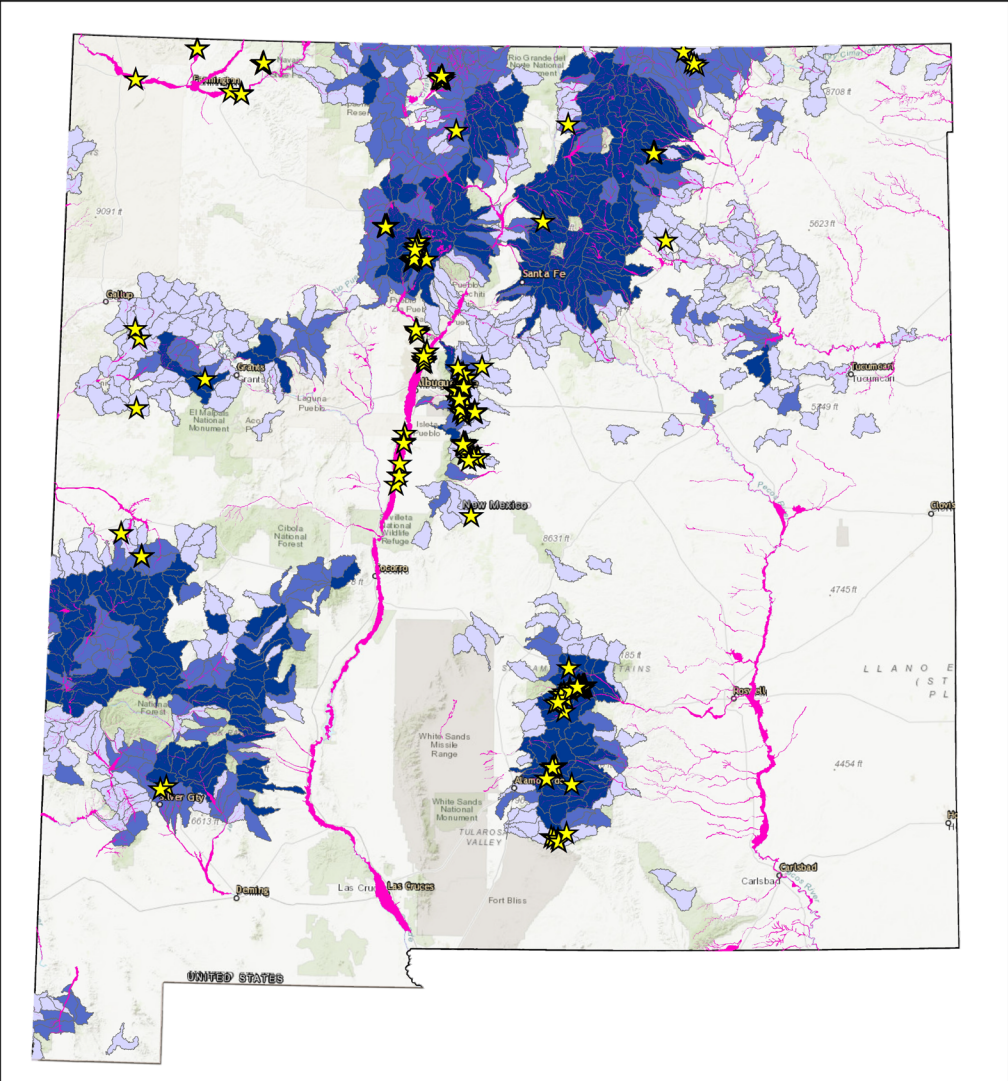


sustainability. The agencies strive to be collaborative, make science-based decisions, and coordinate plans and actions at the landscape scale. This approach requires inter-agency trust and up-front investment of time and energy and incorporates broad experience and knowledge. Through this Agreement, the Forestry Division and the





Pending & Ongoing Watershed Restoration Initiative Projects as of 7/5/2023



Cartographer: Randall Fowler
 Data Source: NMFD
 Projection: NAD 1983 UTM Zone 13N
 Scale: 1:3,000,000
 Date: 7/5/2023

Top 500 Watersheds (Number of Resources Threatened)

- 3 (Dark Blue)
- 2 (Medium Blue)
- 1 (Light Blue)

★ FY23 Treatments

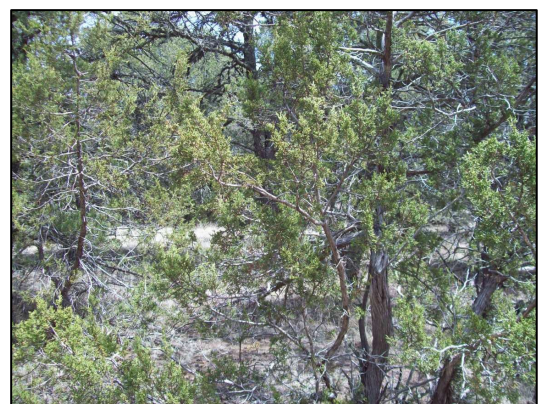
— Riparian Corridor

0 15 30 60 Miles

NEW MEXICO
 emnrd
 Energy, Minerals and Natural Resources Department

Projects completed FY19 to date

- Capital Outlay funding - \$37,635,000
- CIP Funds expended – \$16,069,766
- Encumbered – \$3,521,343
- Leveraged funding - \$46,958,214
- Acres treated FY19-FY23 – 78,094



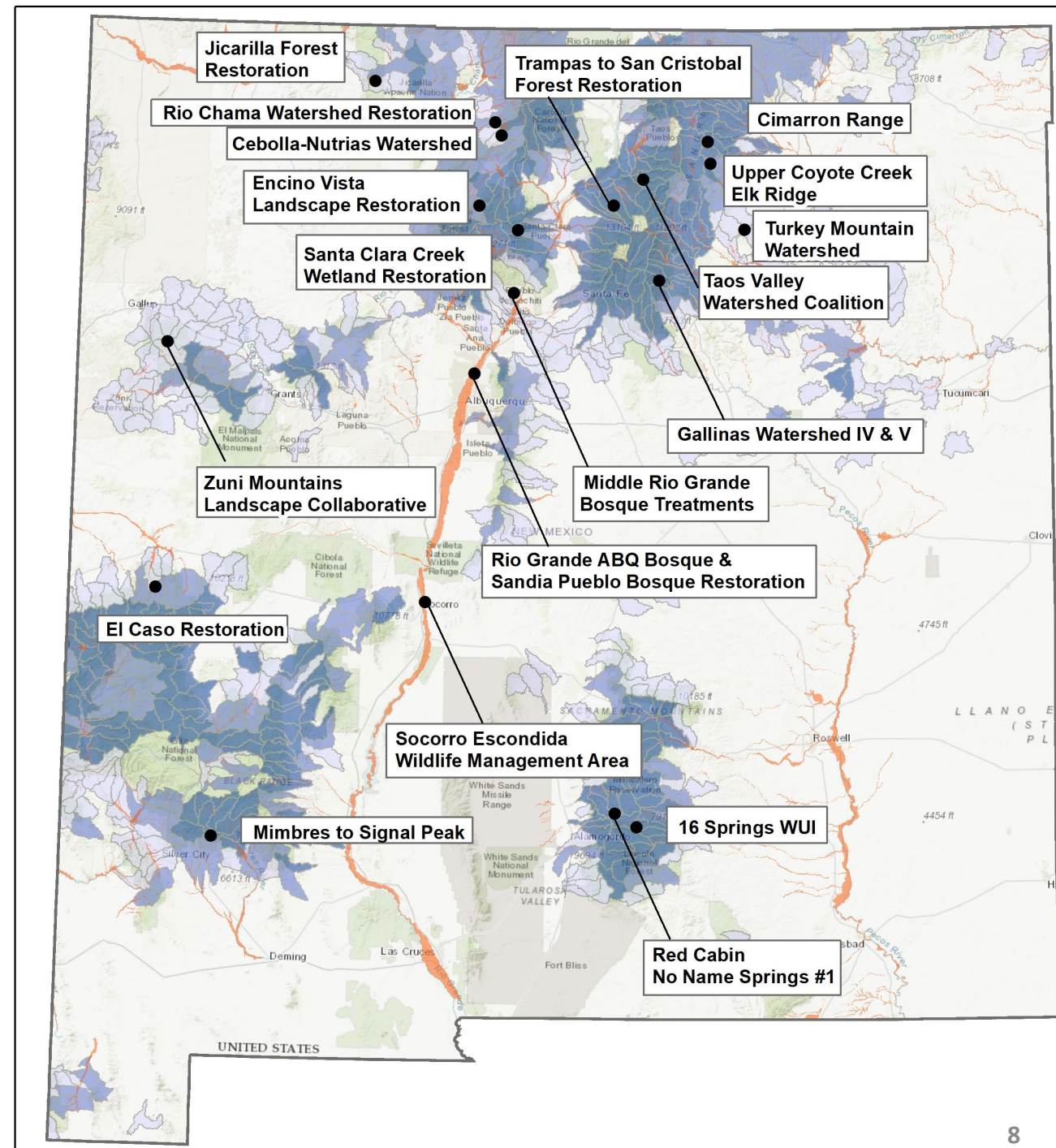
Before

After

Statewide Projects with Forest and Watershed Restoration Act Funding

- Recurring state \$2M for treatments, planning and economic development
- 19 total projects (starting in FY2020)
 - 9 projects completed
 - 10 projects underway
- \$4,607,118 expended
- 10,366 acres restored to date
- Project size substantially increased

[68-4 NMSA 1978]



Sample of activities and accomplishments with Forest and Watershed Restoration Act Funding



Encino Vista



Escondida WMA



SLO Elk Ridge



Turkey Mts



El Caso/Quemado Lake



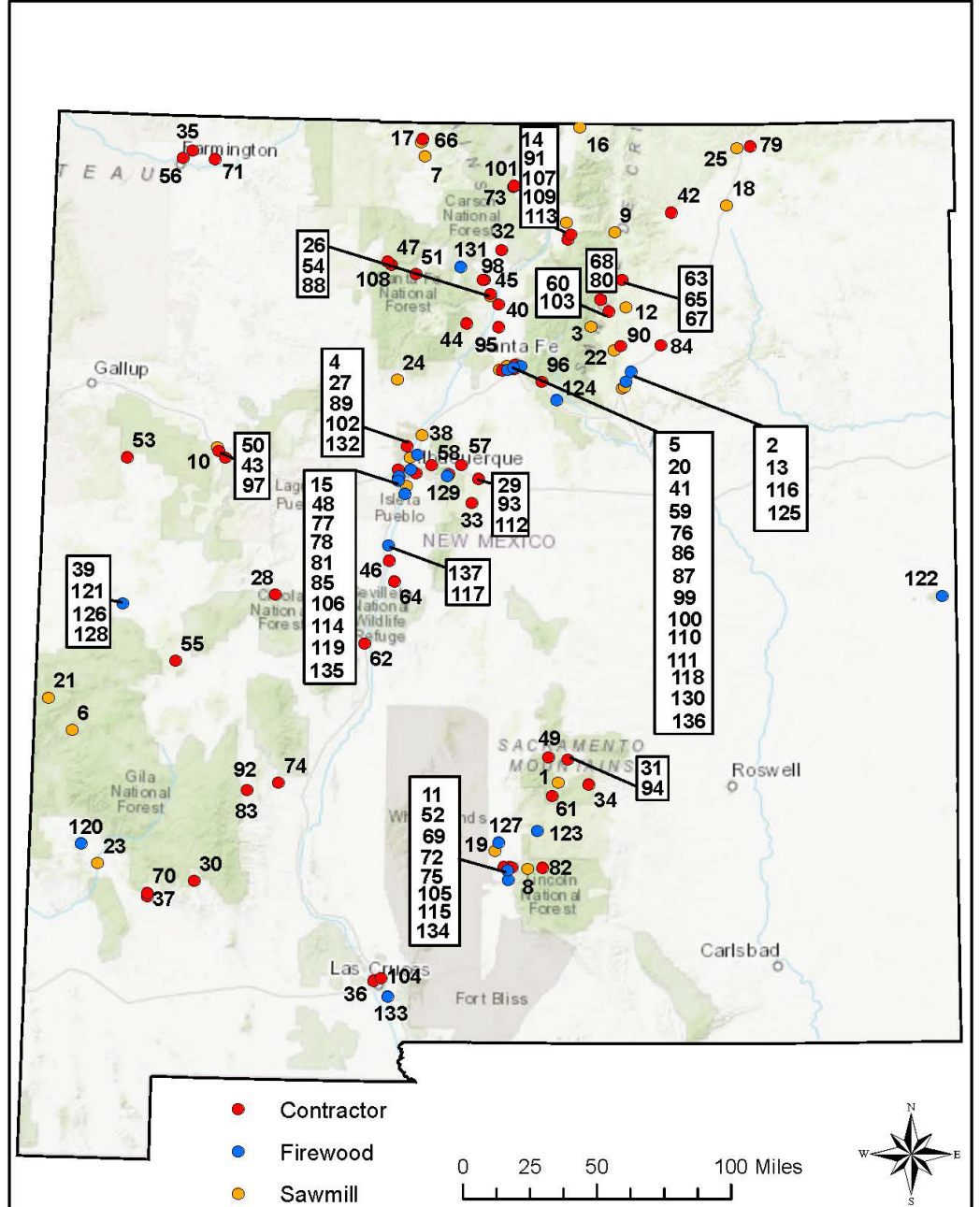
Santa Clara Pueblo



Mescalero Red Cabin



New Mexico Timber Industry 2023



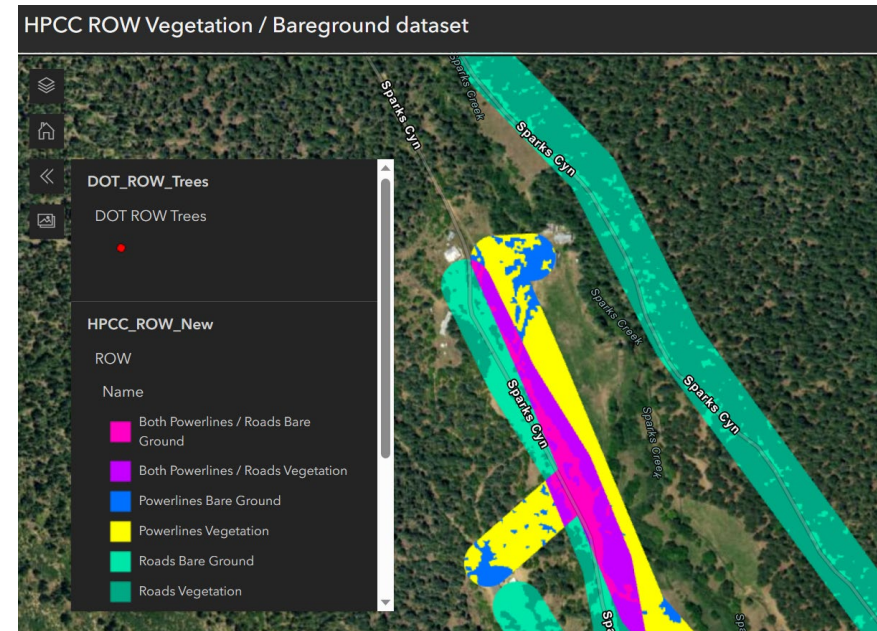
New Mexico Forest Products

HPCC Hazard Tree Removal



NM DOT has removed some trees (see stump) along this county road in Upper Rociada, but not on adjacent private lands that remain hazardous and are targeted for removal with this project.

- 4,000 acres of burned-over vegetation are within 75 feet of a road or powerline on private lands
- \$2.9M Forest Service initial grant (anticipated to increase to \$6M) for NMFD to remove hazard trees on private lands adjacent to roads, powerlines and other infrastructure
- Voluntary: landowners request assistance
- Additional \$3M to remove hazard trees along road on Santa Fe National Forest lands made available as firewood



NM Highlands University and Forestry Division analysis of hazard trees to support the project.



HPCC Emergency Forest Restoration Program

Forestry Division is the technical assistant to the USDA Farm Service Agency program.

- Responsibility for recovery plan development and project inspections
- 400+ recovery plans completed for landowners since Nov 2022
- 40,000 acres with plans to date
- 26,000 acres of dead trees identified for removal
- \$80M in potential landowner reimbursements for recovery actions taken



Forestry Division trained 30 employees loaned from USDA Forest Service offices across the US to provide landowner recovery planning for EFRP.



EFRP Technical Assistants work with an elderly landowner to develop a restoration plan for her property (November 2022).

2022 Bipartisan Infrastructure Law and Inflation Reduction Act

- Forestry Division receiving \$1M+ for 5-9 years for Forest Action Plan implementation
- Increased staffing with 9 positions to provide technical assistance and grants to counties, communities, and NGOs



Rural Fire Capacity Grants

- Purpose: Develop or revise a CWPP, plan projects, prevention education, wildfire response capacity and PPE
 - Who Can Apply: Local government in areas with wildfire risk, under 10,000 pop.
 - Amount: Depends on specific positional needs and location; cost reimbursement
 - Deadline: Annually between August and September
-
- 10 counties applied for and received \$25K for a wildland coordinator in FY23



Community Wildfire Defense Grants

- Purpose: Grants to develop or revise a Community Wildfire Protection Plan (CWPP) and to carry out projects described in a CWPP
 - Who Can Apply: Local governments, tribes and pueblos, non-profit organizations
 - Amounts:
 - \$250,000 for creating or updating a CWPP
 - \$10 million for a project described within a Community Wildfire Protection Plan provided CWPP is no more than 10 years old
 - Deadline: Annually between September and October until 2026
-
- \$1 billion total appropriated for CWDG; \$168 million/year allocated x 5 years
 - 22 applications from New Mexico in FY22 requested \$41 million
 - 5 applications awarded totaling \$11,482,174

Thinning and Burning Will Change Fire Behavior



Untreated



Thinned



Prescribed
Burn



Thinned and Burned

Wildfires Helped by a Recent Prescribed Burn

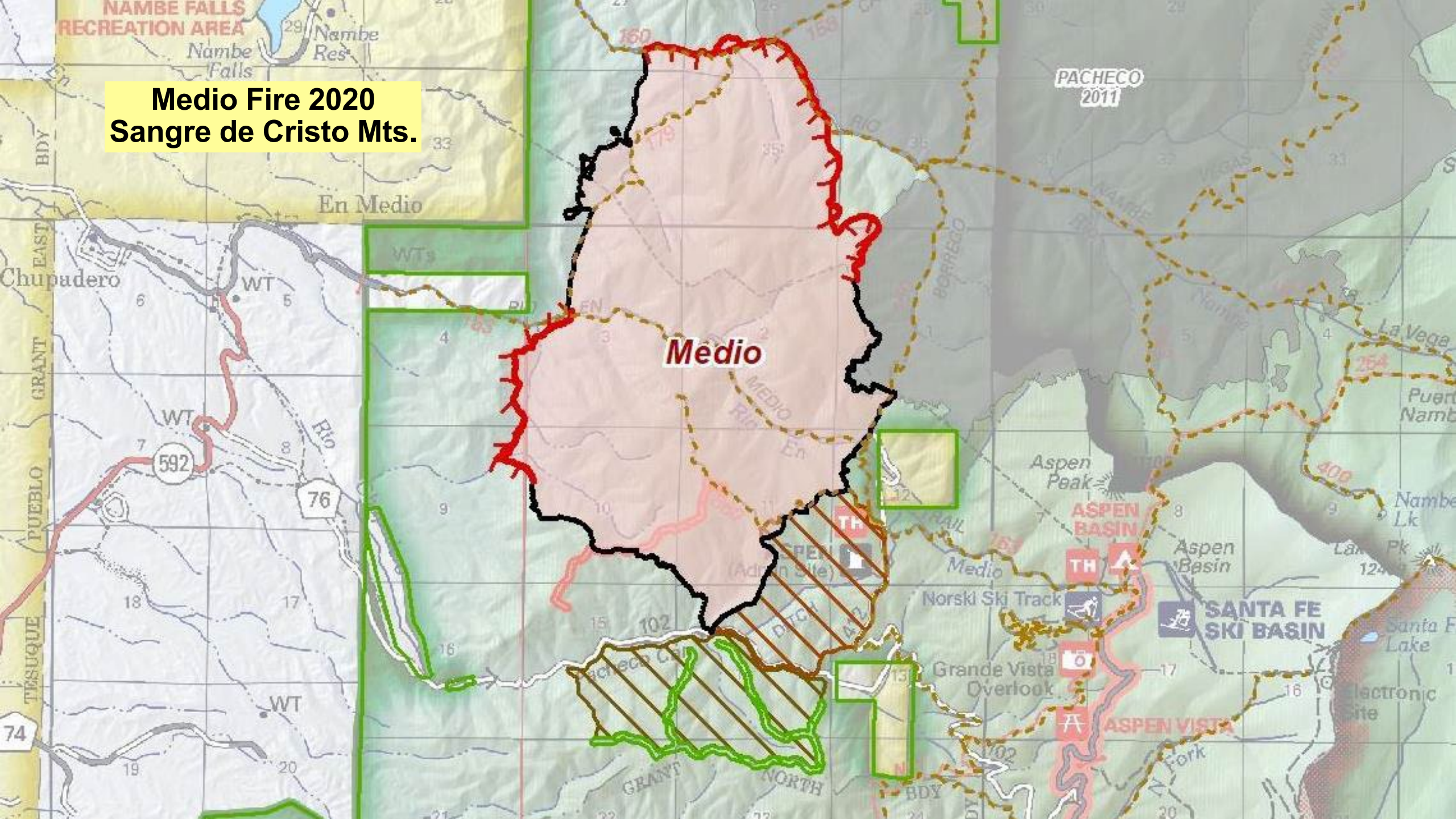


Examples:

1. Cajete Fire 2017
2. Venado Fire 2018
3. Medio Fire 2020
4. Midnight Fire 2022
5. Comanche 2023



**Medio Fire 2020
Sangre de Cristo Mts.**



Prescribed Burning Act

- **68-5 NMSA 1978 directs EMNRD to:**
 - create a Prescribed Burn Manager Certification Program and work with Extension Service on training under that program
 - establish a model burn permit for counties and municipalities
 - any county or municipality that adopts an ordinance requiring a permit shall use EMNRD's model permit
- **Clarifies liability:**
 - simple negligence standard for private landowners undertaking prescribed burns (right to burn)
 - double damages waiver for private landowners undertaking burns who are or use certified prescribed burn managers
- **Implementation Status**
 - Two public hearings - [Dec. 14, 2021 and Dec. 14, 2022]
 - Rule published June 2023
 - Website and online training available July/August 2023
 - Certification Committee nominations requested
 - Model permit – with county input -- starting fall 2023



NM Reforestation Center

- MOA between Forestry Division and NMSU, UNM and Highlands
- Nucleation planting and site selection innovation
- Addresses the reforestation pipeline challenges:
 - Seed
 - Nursery
 - Planting
 - Post-planting



FY23 Fire Response Capability

- 2 State Type II Initial Attack crews
- 21 State all-terrain Type 6 engines
- 143 AD emergency-hire firefighters
- 4 State-contracted wildfire trainers
- 1,751 trained for municipal, county and volunteer fire departments



Planned FY24 Increases in Fire Response Capability

- SPO Job Series for Wildland Firefighters
- 42 firefighter positions created
- 8 wildfire support positions created for fire modeling, auditing, reforestation, tribal forest/fire management
- 5 Type 6 engine replacement
- 8 fire command vehicles, 7 crew transport vehicles to be purchased





Facilities to improve Fire Response Capability



- Pecos River Hotshot Fire Crew and Type 6 engines in Las Vegas
- Eagle Peak Hotshot Fire Crew and Type 6 engines in Socorro
- Engines based in Cimarron, Tierra Amarilla/Chama, Santa Fe, Bernalillo, Los Lunas, and Capitan



Forestry Districts -- Technical Assistance

Bernalillo District
Rio Rancho, NM
505-867-2334

Cimarron District
Ute Park, NM
575-376-2204

Chama District
Tierra Amarilla, NM
575-588-7831

Capitan District
Capitan, NM
575-354-2231

Las Vegas District
Storrie Lake State Park
575-425-7472

Socorro District
Socorro, NM
575-649-8861

