



**2-3-2**  
COHESIVE  
STRATEGY  
PARTNERSHIP

**Full Partnership**

## **Meeting**

**Where:** Ghost Ranch, Abiquiu, NM

**When:** Friday, February 28<sup>th</sup>, 2025

**Time:** 8:30 am – 5:00 pm

### **MEETING NOTES**

#### **Welcome and introductions**

There has been tremendous chaos and confusion in the past month. We acknowledge the grief and frustration that many of you are feeling.

- 20-30% of Forest Service staff have been terminated without cause.
- The 2-3-2's most powerful partner has been weakened, not only in their capacity, but in their spirit.
- Partners have lost funding through the abrupt cancellation of many federal grants and agreements.

There is determination and perseverance in this landscape. This Partnership hasn't faced a disturbance like this one, but we are flexible and resilient.

- Wherever you are on the emotional rollercoaster, we have space for you at the 2-3-2.
- Our power lies in our shared motivation.

We may need to start telling the story of our work differently.

- There is still an audience for restoration, but there is one audience that is listening much more carefully and critically than before.
- The 2-3-2 creates benefits for people on both sides of the political spectrum. If someone wants to know how, tell them to come to a 2-3-2 meeting and we will show them.
- We are actively protecting rural communities and economies – these have been some of our longstanding goals.
- Before we had this influx of federal funding, we were still making strong forward momentum.

Meeting goals:

- Connect and reconnect with partners who share our goals of forest and watershed restoration.
- Discuss the updated Guiding Documents.
- Discuss opportunities to better coordinate work and collaboratively develop projects across jurisdictions.

How we collaborate in meetings and between:

- Listen with an open mind.
- Be hard on issues, but not on people. Critique ideas, not humans.
- Share concerns to increase our awareness and enable us to take action.
- Regard disagreements as problems to be solved, rather than as battles to be won.
- Stay solution-oriented: follow statements of disagreement with suggested alternatives.
- Commit to search for opportunities and alternatives: the creativity of the group will often lead to the best solution.

#### Agreements:

- Listen openly and reflect inwardly.
- Raise the issues and share ideas.
- Critique the idea, not the person.
- Search for opportunities and solutions.

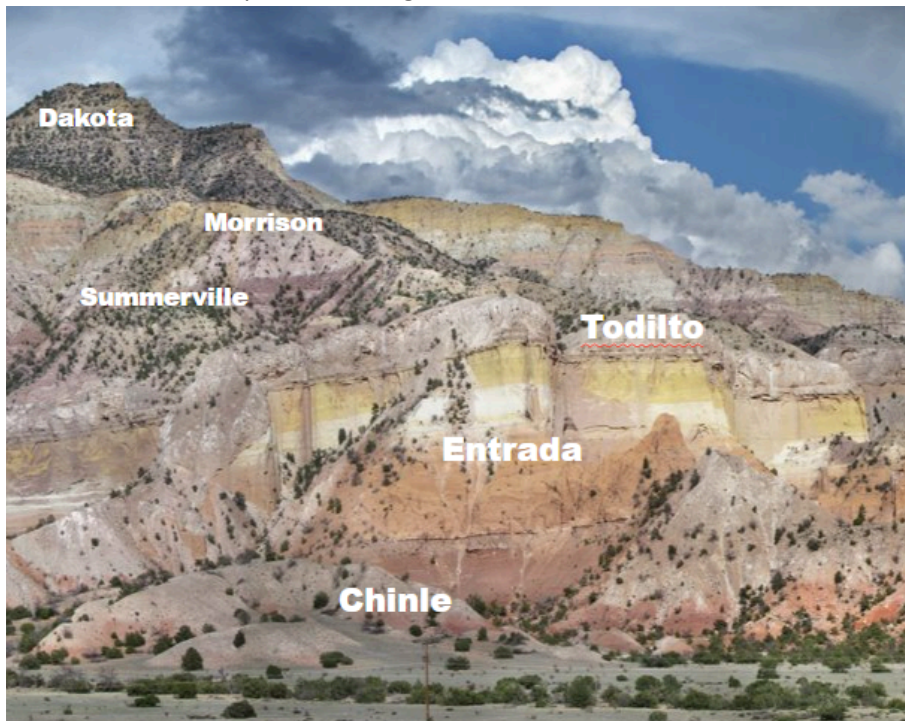
#### At meetings, we will

- Uphold our agreements of collaboration
- Come to meetings prepared and on time
- Participate in the meeting and in small-group discussions
- Monitor our own participation; limit or expand as appropriate
- Respect the facilitators and their commitment to a fair, effective process.

#### Abiquiu: History and geology

##### Geology of northern New Mexico – *Kirt Kempter*

- The Earth has had many ups and downs and it always rebounds.
- The Rio Chama first appeared around 8 million years ago.
  - At that time, there was much more rock material and this area was much flatter without so many canyons.
  - The Big Black Mesa and Abiquiu Mesa were formed by lava flows.
  - Small-scale erosion took place 8 – 3 million years ago.
- Massive erosion has occurred over the last 2 million years.
  - The Rio Chama and Rio Grande have carved down 600 feet.
  - All tributaries are also eroding the landscape, including El Rito Creek and Ojo Caliente.
- The Canones Fault defines the boundary between the Colorado Plateau and the Rio Grande Rift.
  - Rock was deposited during the Mesozoic era when this land was at sea level.



- - Late Triassic Chinle Group sediments
    - ~225-205 million years ago

- Mountains formed in West Texas
- Broad, flat landscape with rivers flowing across New Mexico to the northwest.
- 5 formations: Shinarump, Salitral, Poleo, Petrified Forest, Rock Point
- First dinosaurs in the Petrified Forest formation.
- o Jurassic period
  - Great deserts expand and contrast across the Colorado Plateau region
    - Entrada Formation: ~165-160 million years ago
    - Todlito Formation: ~159 million years ago
    - Summerville and Morrison Formations: ~155-150 million years ago
  - This was the time of the great sauropod dinosaurs. Pangea begins to break apart.
- o Cretaceous period
  - The Cretaceous Sea flooded much of New Mexico and the Colorado Plateau between ~105 and 75 million years ago.
  - The Dakota sandstone records the changing shoreline environment.
    - These are the mesa-capping rocks in the Ghost Ranch area.
    - Lots of oil and gas in New Mexico comes from these shales.
    - This was the beginning of the Laramide orogeny at the end of the Cretaceous.

#### How settlement changed the way water flows in New Mexico – *Jan Willem*

- What did this landscape look like 1,000 years ago?
  - o A mosaic of forested landscapes with openings. It was more diverse than it is today.
  - o Beaver were in every flowing stream.
  - o There was much more fire than there is today. It was less intense and individual fires covered smaller areas. Overall, more of the landscape was burning more frequently.
    - Fire created openings in the forest where snow was retained and infiltrated into the soil.
  - o There were more wetlands.
  - o The Pueblo Revolt in 1680 led to a decrease in fire frequency.
  - o In 1965, increased carbon dioxide levels began appearing in the atmosphere.
  - o Between 1770 and 1830, beavers were extirpated and U-shaped valleys became V-shaped valleys (channelization).
  - o Beginning in the 1830s, there was a massive incursion of people on the landscape. They brought:
    - Mining
    - Cattle and sheep, which concentrated in lower areas
    - Wagons
    - Draining of water from the landscape
- All of this can be reversed.
  - o Beaver need to be reintroduced, and we need to leave them alone when they are established.
  - o The “sponge” of the landscape needs to be restored by increasing soil moisture.
  - o Promote habitat connectivity.

#### Erosion and trail building at Ghost Ranch – *Laura Hand and Angie Krall*

- There is a history of rocky relationships between the Ghost Ranch and the Carson National Forest.
  - o Many dangerous, user-created trails come off the Ghost Ranch onto the Forest.
- Evolution of a public-private partnership: building momentum

- o The right combination of people
- o A big effort that requires commitment and teamwork
- o Positive partnerships make daunting work doable
  - Carson National Forest
  - Ghost Ranch
  - AmeriCorps
  - Albuquerque Wildlife Federation
- Purpose and need
  - o Eroding and braided trails
  - o Trails are not well-marked
  - o Search and Rescue missions
  - o Liability
  - o Non-system trails
- Hatching a plan: land and water
  - o Trail re-routes – altering the current landscape
  - o How water flows through the land
  - o Holistic and sustainable
- Building capacity
  - o Building normative relationships between the Carson, Ghost Ranch and AmeriCorps, including safe practices and sustainability.
  - o Performance improvement, including engaging in low-tech process-based restoration.

### **2-3-2 Guiding Document and Executive Committee stump talk**

Role of the Executive Committee and purpose of the 2-3-2 Guiding Document

- Panelists:
  - o Andrea Jones: founding member of the 2-3-2, District Ranger on the Conejos Ranger District of the Rio Grande National Forest.
  - o Jason Scullion: Forest Strategy Director with The Nature Conservancy, newest member of the Executive Committee.
  - o Jeremy Marshall: Project Coordinator for the Rio Chama CFLRP
- What is the purpose and importance of a Guiding Document for the 2-3-2 Partnership?
  - o The 2-3-2 has evolved majorly over time. It started with about seven people in a parking lot in Chama, and now we are sitting in a meeting with about 90 people.
    - The Guiding Documents need to change along with us. They help us stay true to our mission and values and hold us accountable to serving the larger group.
  - o What was the goal for updating the Guiding Document?
    - Provide updates along with changing personnel.
    - Make it more concise.
    - The collaborative and iterative nature of the revision was valued by Executive Committee members.
    - Feedback was solicited from outside resources who know about collaborative governance or who have known the 2-3-2 since the beginning.
- What role do you play on the Executive Committee?
  - o Jason has a background in education, he can be known as the grammar police. He has lots of experience in conservation and forest management. He grew up in the western Cascades, where he fell in love with forests. He began to understand the importance of forests to our communities when the mill in his town shut down and the community suffered.

- o Jeremy has worked with five different collaboratives in the west, both good and bad (the 2-3-2 is definitely his favorite). He previously worked on the West Zone of the Carson National Forest with Angie Krall, so he knows the landscape.
- o Andrea has lived and worked in southern Colorado for most of her life. She knows firsthand about the lack of resources in this area, which was really why the 2-3-2 was started – to draw resources and attention to this underserved landscape.
- What keeps you up at night, and how does the 2-3-2 help, if at all?
  - o Andrea typically sleeps well, but she has a hard time when people she cares about are being negatively impacted. Having this group as a united voice in the work we are doing is so important. It provides peace and stability, even in tumultuous times.
  - o Jason also sleeps well, but the magnitude of the issues we face gets to him. We are not working at the scale that we need to, but we are getting there. And this group is here to talk about how to reach the scale of the challenge before us.
  - o Jeremy says that just being here at the 2-3-2 meeting and seeing these people helps him sleep better.
- In your time with the 2-3-2, is there a moment that sticks with you?
  - o Jeremy remembers the injunction when the Mexican spotted owl was listed and the 2-3-2 helped connect logging companies with private landowners so they didn't go out of business.
  - o Jason recalled our recent Executive Committee retreat here at the Ghost Ranch, when many different kinds of people representing different communities came together to address challenges at many scales. It gave him a lot of hope.
  - o With the gift of time, Andrea has been inspired by watching the 2-3-2 transition and grow. It's like teaching a toddler how to walk and then watching them run around the room by themselves. Now, the 2-3-2 is self-sustaining and its moving forward with a lot of momentum.

## Q&A

- What is the origin story of the 2-3-2 Partnership?
  - o Folks started identifying the need to work across boundaries at a large scale.
    - Doing things that may seem simple, like letting a wildfire burn across jurisdictions, was very complicated.
  - o There was a common interest in how to use biomass.
  - o We started bringing private landowners, state and federal agencies, and NGOs together to work on these issues.
  - o To learn more about the history of the 2-3-2, check out our [History of the 2-3-2 story map](#).
- How do we proceed?
  - o This group is doing work that aligns with the priorities of the new administration.
- How do you join the Executive Committee?
  - o The Executive Committee can have up to 12 people.
  - o There is interest in bringing in a representative from Trees, Water, People.
  - o We try to maintain a balance of organizational representation on the Committee.
  - o Contact Lily Bruce if you are interested.
- What are some recent projects that the 2-3-2 has been involved with?
  - o Rio Chama CFLRP
    - A variety of timber, fuels and watershed restoration projects.
    - Work on the Rio San Antonio with Trout Unlimited on the West Zone of the Carson National Forest.

- Managed wildfires on the Santa Fe National Forest.
- o Work in the San Juan Chama Project source watersheds, which supply 80% of Albuquerque's drinking water, 50% of Santa Fe's, and significant proportions of other smaller communities' drinking water.
  - There is potential for catastrophic wildfire in these watersheds, which could disrupt water supply for downstream users.
  - The 2-3-2 is coordinating work in this area, including thinning projects.

## Landscape opportunity mapping

### Introduction to landscape opportunity mapping

- Big Horn State Line prescribed burn: a reflection
  - o A prescribed burn across two states (Colorado and New Mexico), two Forests (Rio Grande and Carson) and two Forest Service Regions (Regions 2 and 3).
  - o This is the epitome of a cross-boundary project.
- Forest and watershed health are connected.
- The 2-3-2 is coordinating work by:
  - o Developing watershed restoration action plans.
  - o Conducting landscape-scale forest monitoring.
  - o Conducting socioeconomic monitoring.
  - o Supporting programs like Wood For Life, which provides fuelwood to communities in need.
  - o Improving livestock fencing for wildlife movement.
  - o Supporting youth corps who are contributing to a variety of restoration efforts.
  - o Mapping efforts to identify where we can be doing more cross-boundary work.

### Creating a common language by integrating datasets – *Steven del Favero*

- Goals and questions
  - o Why?
    - An objective, data driven approach to identify where to focus fuels treatments across the CFLRP landscape in order to maximize protection of and benefit to people, property, and resources from the immediate and long-term effects of wildfire
    - Before pursuing a more expensive and difficult to interpret model, proposal to answer some basic questions:
      - What models and data are already available?
      - What models and data can readily be developed?
      - How is treatable forest distributed across the landscape and by land ownership?
      - Could we focus a prioritization model on a smaller portion, or portions, of the landscape?
- Methods
  - o Explore existing models and datasets
    - Many fire behavior and burn probability models
    - 4 quantitative wildfire risk assessments
    - What portion of the CFLRP do they cover?
    - What were the methods and considerations of each?
  - o Develop new datasets to inform prioritization
    - Frequent fire forests (using multiple vegetation datasets)
    - Treatment opportunity (mechanical)

- Fire and treatment history
    - Existing NEPA
  - o Summarize data by sub-watershed (HUC 12)
  - o Explore ways to prioritize by watershed (which data and how to rank)
- Quantitative Wildfire Risk Assessments (QWRAs)
  - o Spatial assessment of wildfire risk to a pre-selected and ranked set of resources and values.
  - o Highly Valued Resources and Assets (HVRAs)
    - What to assess the risk to, from wildfire
    - Relative importance is given to each HVRA
    - Degree of response to various flame lengths, positive or negative
  - o Include Burn Probability and Fire Behavior Models
  - o Expected net value change (eNVC)
    - Burn probability and predicted fire behavior used to predict effects of fire on highly valued resources and assets, essentially a treatment prioritization.
  - o Four QWRA models:
    - USFS R3, CO All-Lands, New Mexico Forest Action Plan, Rio Grande Water Fund
    - Each model covers various portions of the CFLRP
    - Colorado All-Lands
      - 53% people and property
      - 32% infrastructure
      - Vegetation 5%
      - Drinking water 10%
    - Rio Grande Water Fund
      - 60% water
      - 15% vegetation
      - 14% habitat
      - 5% timber
      - 6% people and property
    - Region 3 – USFS
      - 23% WUI
      - 23% municipal watersheds
      - 18% ecosystem function and integrity
      - 15% infrastructure
      - 12% wildlife habitat
      - 9% merchantable timber
    - New Mexico Forest Action Plan
      - Wildland communities and infrastructure
      - Water quality and supply
      - Biodiversity
- Fuels treatment opportunity
  - o Where is the fire-adapted forest and WUI?
    - Consider alternative vegetation type data in addition to LANDFIRE
    - Look at various WUI datasets
  - o What areas have recently burned or been treated?
    - Extensive compilation of multiple datasets
    - How much time to consider before treatments?
  - o Where is there opportunity for mechanical treatments?

- Based on:
  - Slope  $\leq$  40%
  - Distance from roads  $\leq$  ¼ mile
  - Fire adapted forest (LANDFIRE and R3 Ecological Response Units)
  - Non-wilderness
- o What areas are being missed in current treatment planning?
  - Inaccessible, wilderness, etc.
  - Fire-adapted forest never treated or burned
  - Maybe these areas need special attention?
- o Some take aways
  - Fire adapted forest makes up 47% of the CFLRP
    - Of that, about ½ available for mechanical treatments
    - 61% on USFS, 21% private, 12% tribal
    - 89% in New Mexico
- How do we prioritize?
  - o One proposal:
    - Select watersheds based on:
      - Highest ranked from each of the four existing treatment prioritization models (QWRA eNVC)
      - Model of burn probability integrated hazard (run specifically for the CFLRP)
      - WUI% area
      - Omitted some watersheds only partially in the CFLRP

Breakout groups: how can mapping data supplement on-the-ground knowledge and relationships?

### Field trip stop #1: Ghost Ranch nearby trail

Presenters: Connie & Steve

Topics: Instream restoration and watershed health

The **Canjilon Upper Watershed** is an area primarily used for cattle grazing and hay production, with two active streams currently flowing. The **New Mexico Fire Department** has been heavily involved in restoration efforts, implementing **20 treatments to improve** watershed health. Restoration work has focused on **maintaining meadows and wetlands** to sustain water flow, including the **rebuilding of wetlands** and the **recreation of tributaries** to restore natural hydrology. In **Canjilon Creek**, mapping efforts are underway to track water flow, and **willows have been planted** to stabilize banks and help re-entrench the stream channel. These efforts align with **Padre Jim's Flood Plan**, which integrates with the **Community Wildfire Protection Plan (CWPP)**. Specific techniques, such as **raising the creek bed** and **placing head cuts**, are being used to slow erosion and improve water retention. However, several **challenges** remain, including the impacts of **human interaction**, **narrow abutments** causing stream constriction, and **lost water storage capacity** due to **incision, gully formation, and lower water tables**.

**Audience Question:** What did these streams look like before fire suppression?

Were these streams historically broader with natural meanders, like the Albuquerque Bosque? Audience members also asked if cottonwoods and gallery forests were present and how willows and beavers shaped the streams before they became the narrow, channelized systems seen today.

**Audience Questions:** - Where are the headwaters?

Answer: Canjilon Lakes

Conversation on Quasi-Natural Systems

**Audience Question:** How does Cuba La Jara compare?



Conversation over concern of Limited flow in the area and presented as an Example: Rio Puerco—human-made gully formation

**Audience Question:** Can we modify the bridge to help impede flow?

The bridge cannot be modified and is probably not widely accepted. Issues Identified: Existing crossing structures may not support restoration. Lost grade (1-2 feet)—potential for intervention. Goal: Reconnect meanders

**Audience Perennial Flow Question:** How often does the stream flow?

Answer: 8 times per year Factors: Presence of ponds and beavers, Influence of narrow meandering channels

**Audience -Water Spreading Techniques Question:** Can we raise the stream depth to enhance short-term water retention and delivery?

Stream Characteristics & Stewardship Observation: Cobble bed streams, Discussion: Importance of river stewardship in restoration efforts.

**Audience Question:** Are there any additional streams being monitored?

Response: Yes, monitoring includes spring runoff, typical production levels, and diversions. Restoration efforts focus on convincing communities to participate — using community-based approaches. Community engagement is essential; asking communities what they need helps build local capacity. Projects can move through the NEPA process quickly when community support is strong. Example: One project started with 4-6 youth and now supports ongoing watershed maintenance. Community-based management is considered integral to long-term success.

**Aspen & Sod-Building Structures Audience Question:** Can aspens and sods be used to build structures?

Response: Yes, structures like one-rock dams and beaver dam analogs (BDAs) are often built by hand. There has been a decrease in beaver populations, reducing natural dam-building processes.

**Beaver Populations Near Ghost Ranch Audience Question:** How many beavers are present near the Ghost Ranch stream location?

Exact numbers of beavers in the area are unknown, but landowners are actively managing “banker beavers”, which are beavers causing unwanted flooding in playgrounds and other developed areas. To help restore natural stream processes, beaver dam analogs (BDAs) are being used to mimic natural beaver structures and encourage water retention and habitat creation. However, there is ongoing deliberation over balancing the ecological benefits of beavers with the challenges they pose to nearby infrastructure and land use.

## **Field trip stop #2: private landowner property**

**Presenters:** Michael (NMF D Chama Forester)

**Topics:** Private Lands Projects – State Forestry Introduction private lands bordering National Forest

Projects are focused on **non-federal lands**, such as a **90-acre private lands project** managed by the **Chama office** that spans multiple properties. Treatments include **mastication** to address **Piñon Ips outbreaks** and reduce **closed canopies**, which limit grass growth. The overall goal is to **improve biodiversity, fire risk**, and promote **healthier landscapes**, but success depends heavily on **landowner participation** rather than data alone. **Modeling tools** are helping to **speed up project planning**, focusing on **improving snow retention** in forested areas. In this **thinning project**, the property has undergone **60-70% thinning**, improving forest health and making it **easier to build fences** and manage **cattle movement** between neighboring properties.

**Audience Question:** Is there funding available for nonfederal lands adjacent to Forest Service land?

Response: Yes, but funding is restricted by anti-donation clauses, limiting how state and federal funds can be used on private land.

**Audience Follow-up:** Does the same program apply on the Colorado side?

**Response:** Programs and funding vary slightly between New Mexico and Colorado, but similar opportunities exist with his program as well.

**Audience Question:** Is maintenance easier after initial treatments?

**Response:** Yes, starting small and scaling up is preferred. Smaller equipment is often more manageable for long-term maintenance.

**Audience Question:** How do landowners find out about these programs?

**Response:** Through Community Wildfire Protection Plans (CWPPs), outreach from agencies, and partnerships.

**Audience Question:** What does mastication cost per acre?

**Response:** Approximately \$1,000 per acre statewide for contractors. There is high demand for mastication services.

**Audience Question:** Is reseeding required after mastication?

**Response:** Typically, no reseeding occurs, relying on natural regeneration.

**Audience Question:** Is there concern about cheatgrass invasion after treatment?

**Response** Yes, **cheatgrass is a concern**, with some areas transitioning to **sagebrush** instead of native grasses. The hope is that **native grasses** will naturally reestablish after treatment, but **lps bark beetle outbreaks** are adding further stress to the ecosystem. Resources like the **NRCS Invasive Species Program** and **field botanists** offer support, though **better long-term monitoring** is still needed.

**Wildfire Risk Assessment and Cost-Share Programs Audience Question:** What wildfire risk assessments are used, and is there a cost-share program?

**Response:** Cost-share programs exist to help landowners implement treatments. Watershed Protection Programs are also leveraged to improve water retention and watershed health.

**Watershed Protection Projects Speaker:**

Efforts are focused on **increasing water retention** in the **upper watersheds**, supported by **large-scale funding from Congress**. One example is the **treatment of 500 acres on steep slopes**, with work centered around **10 key areas** identified for **watershed health and protection**. **State funding** also helps supplement **federal resources** to keep these projects moving forward. However, there is **concern** that projects could lose **their broader landscape focus** if they become too **narrowly targeted**.

**Thinning Prescription Details -Micheal (Forester ending remarks)**

The thinning prescription aims for a density of 300 trees per acre, with a 60% removal rate focused on trees between 8 to 12 inches in diameter. The goal is to achieve 30 to 35 feet of spacing between trees to improve forest health and reduce wildfire risk. In steeper areas near Forest Service land, specialized contractor equipment is required, with a target rate of treating approximately one acre per day on challenging terrain.