Fire on the Landscape: Prescribed Burning in Ponderosa Pine Forests

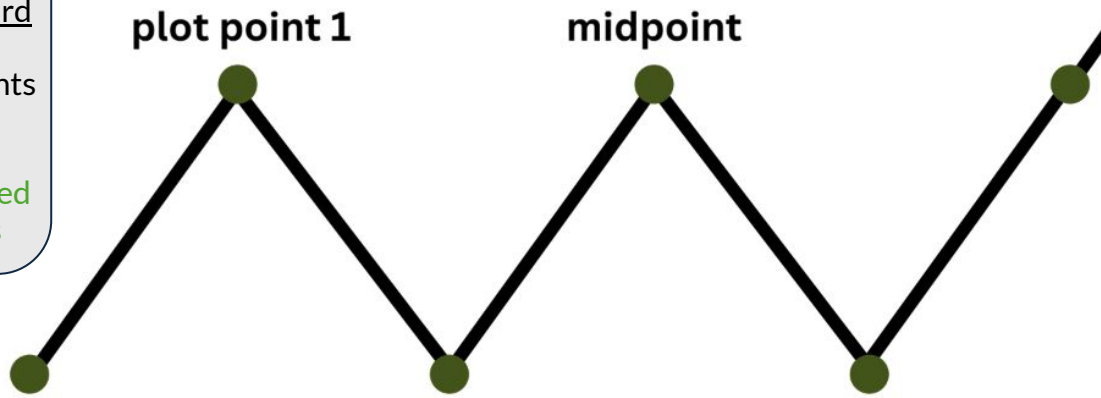
Note: This story is designed to be used within dry, lower elevation ponderosa pine forests.

7-point story structure

Prescribed Burning in Ponderosa Pine Forests

Speaker Cards Key
Location where card should be shown

- Talking points
- *Additional suggestions*
- Values-based statements



hook
Ecologically healthy & balanced forests

Not all forests look the same

plot point 1

pinch point 1
History lesson: fire suppression, Indigenous land use & overcrowded forests

What can we do now? How can the USPP help?

midpoint

pinch point 2
Prescribed fire has an emotional history in CO. How have we learned from the past?

plot point 2
Ponderosa pines were born for fire!

resolution
Role of USPP in restoring fire!

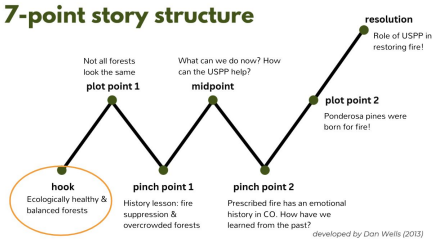
developed by Dan Wells (2013)

Defining an Ecologically Balanced & Healthy Forest

Unhealthy Forests, photos of untreated forests.

Healthy Forests, photos of treated forests.

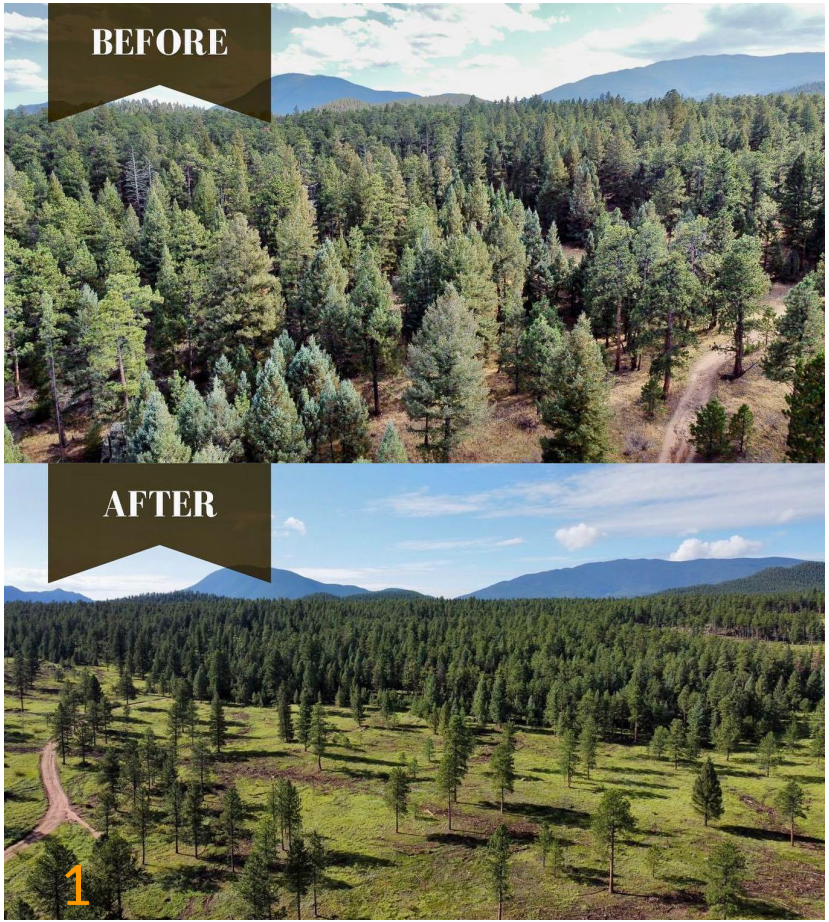
BACK1

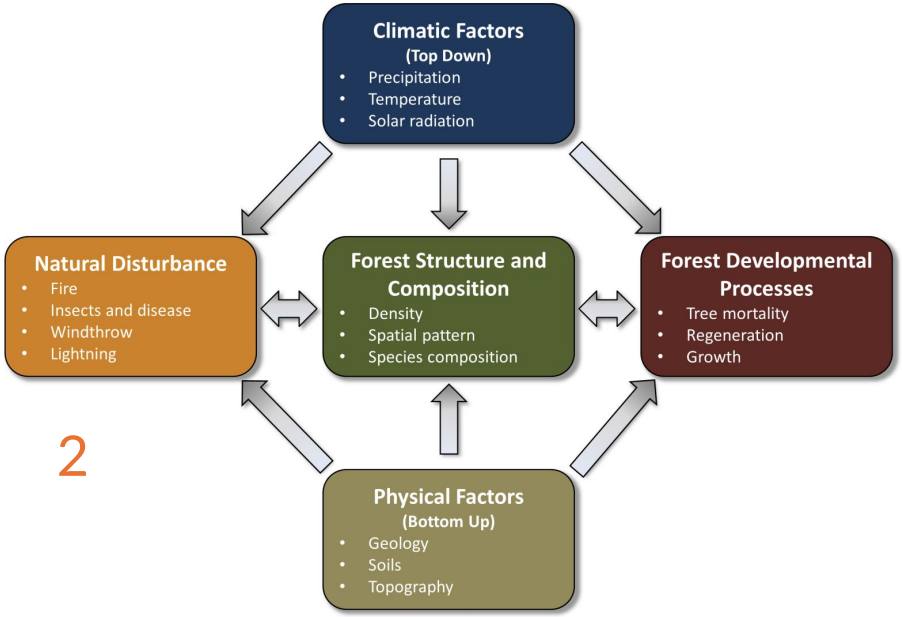


<u>When: Before the start of the walk/field trip/tour.</u>

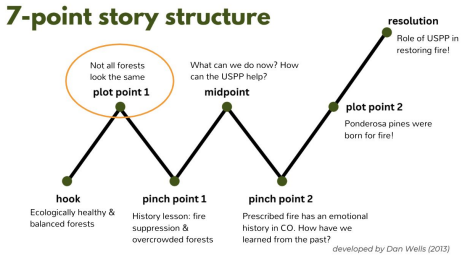
- *Begin the tour with this visioning exercise.*
- *Why? It will help create a shared understanding of how the group understands what a forest is, as well as relevant values.*
- *Prompt:* When you hear the word forest, what comes to your mind?
- *Think quietly. Share around the circle. Share when you agree.*
- *Use "Yes, and."*
- *Reference the deck with the top row being a more dense, less healthy forest, and the bottom row being a less dense, more healthy forest.*
- We've all been taught to see a forest as something different than the next. Reimagining a forest in this context helps us get on the same page.

Not All Forests Look the Same: The Truth about Colorado Forests





BACK2

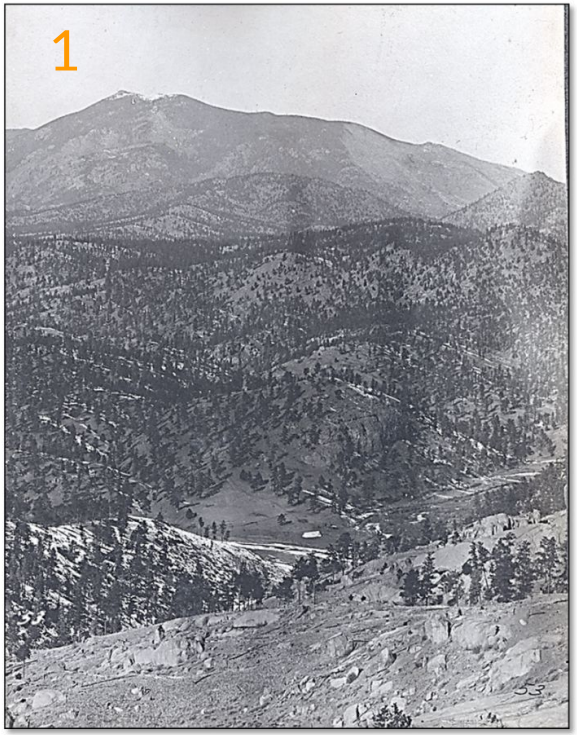


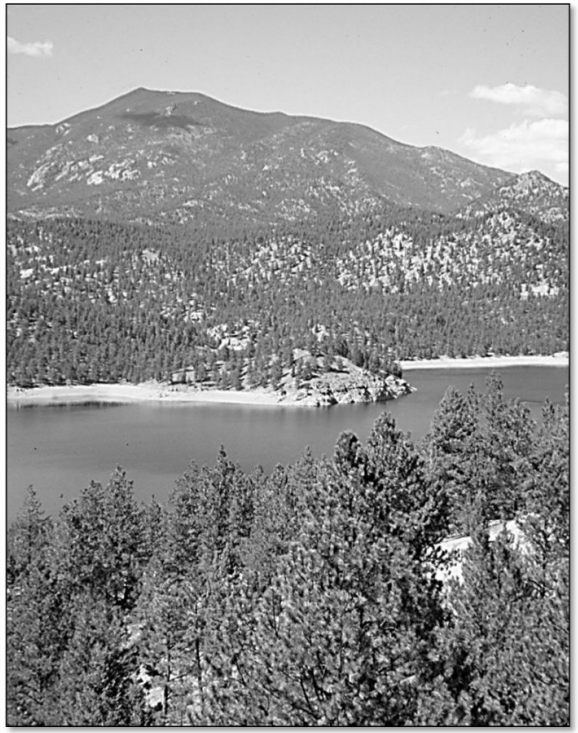
<u>When: As you begin the walk and are entering forested areas.</u>

- We've all been taught to think of a forest as one thing, but in reality, forests take many shapes and forms. This is true across the US, even across Colorado.
- *Provide an example of where forests are dense (a non-fire-adapted forest ecosystem type, like temperate deciduous forests in New England). Then provide context on why that's suitable for that environment. The diagram may be helpful.*
- *Break down how forests in the Front Range here are fire-adapted forests, referencing the diagram.*
- *Share personal stories about experiences in this & other forest/ecosystem types to highlight examples.*
    - *Option to include experiences with wildlife and water, as these are shared values.*
- Each forest type/ecosystem is different and unique. Understanding the forest type and ecosystem we live, work, and play in, is critical to ensuring there's ecological balance.

Looking to the Past for Answers

1





2

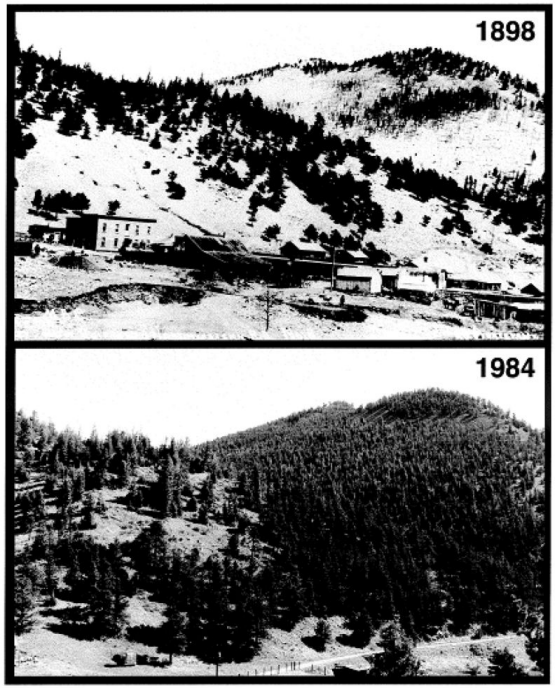
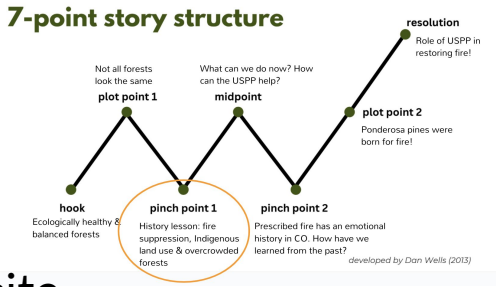


Plate 1 (Plate 17 in Veblen and Lorenz 1991). Sunset, Boulder County.

The slope in the upper right had been recently burned by a stand-replacing fire at the time of the 1898 photograph. In the mid-ground and foreground, the density of the ponderosa pine woodland has increased.

BACK3

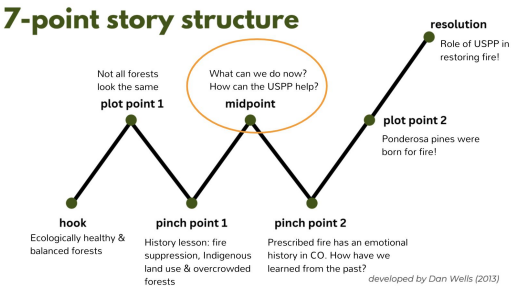


<u>When: As you're taking a break before you reach the treatment site.</u>

- On top of the natural factors, Indigenous peoples worked with these forests too, managing them. The Cheyenne, Arapaho, Lipan Apache, Ute, Eastern Shoshone, Timpanogos, and Comanche are the historical stewards of this land.[1,2]
- Unfortunately, fire suppression policies and the removal of Indigenous peoples from this land, have created ecologically imbalance in a forest dependent on fire.[3,4]
- These photos highlight how different the landscape was prior to federal land use policies.
- *Option to include what your organization is working on in terms of working with or even just recognizing Indigenous communities.*
- We can start fires accidentally or we can start fires intentionally. Cultural burning practices of Indigenous peoples around the world show us that we are part of this Earth and its system, not separate from it all.

Thoughtful Action: Bringing Fire Back when the Time is Right

BACK4

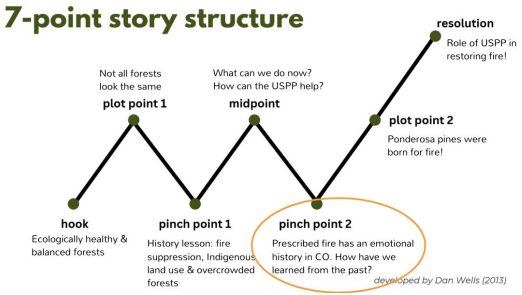


<u>When: At a treatment/prescribed burn site.</u>

- The USPP is actively working to restore fire to the Watershed when the conditions are right.
- The goal is NOT to bring the forest back to how it was hundreds of years ago, it's to strengthen it and prepare it for the future (e.g., climate change, fire, disease, extreme heat). We need to adapt with the forest as it continues to change.
- When it comes to prescribed burning, the conditions need to be right in order for us to use this.
- Prescribed burns are one of the most powerful tools we have to reduce hazardous fuel buildup and help forests recover their natural fire rhythm—when the conditions are right.
- It's not easy to use prescribed fire. We need: A site-specific burn plan developed by certified fire and forest professionals, the right weather, moisture, and wind conditions down to the hour. For more information about these plans, reference the supplemental information.
- Because we can't always burn, we use mechanical thinning instead. Ideally, we use both, as research indicates thinning & prescribed fire together are most effective.
- Prescribed fire, or "good fire," is a natural tool that reconnects people to the land, while reducing the risk of wildfire to our communities. It's a restorative practice, not a quick fix.

Learning What Living with Fire Looks Like

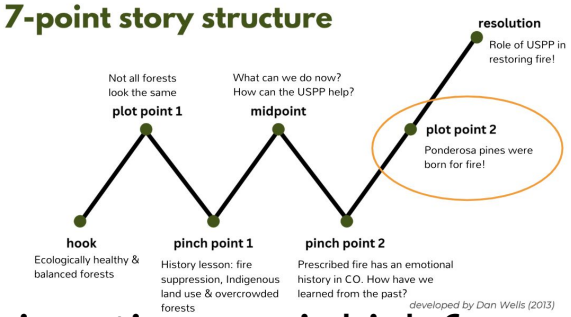
BACK5



When: At a treatment/prescribed burn site.

- It's no secret that fire can be dangerous. The 2012 Lower North Fork Fire was devastating.
- *Option to share a more personal story here if you have a connection to the event.*
- Events like that should never be forgotten. Instead, we must learn from them.
  - *Include learnings and/or reflections from the Lower North Fork Fire, including the formation of the Division of Fire Protection & Control (DFPC).*
- But, the hard truth is that we're living with fire and it's not going away. Here in the Watershed, fire isn't just a threat, it's a necessity for sustaining our forests. The USPP Partners are working to carefully reintroduce fire to the landscape using science, training, and community input to reduce risk and restore balance.
- *End on a high note. Success stories are a great way to highlight that this strategy is possible, effective, and safe. Within the Watershed, the Sand Springs Prescribed Fire project was a success here! Pull from your own reservoir of prescribed burning success stories and/or learning outcomes from the Lower North Fork Fire or other fires.*
- We will continue to acknowledge the emotional weight of the Lower North Fork Fire in Colorado communities, while also affirming the possibility of restorative prescribed burning.

Nature Knows: Ponderosa Pines Were Born for Fire

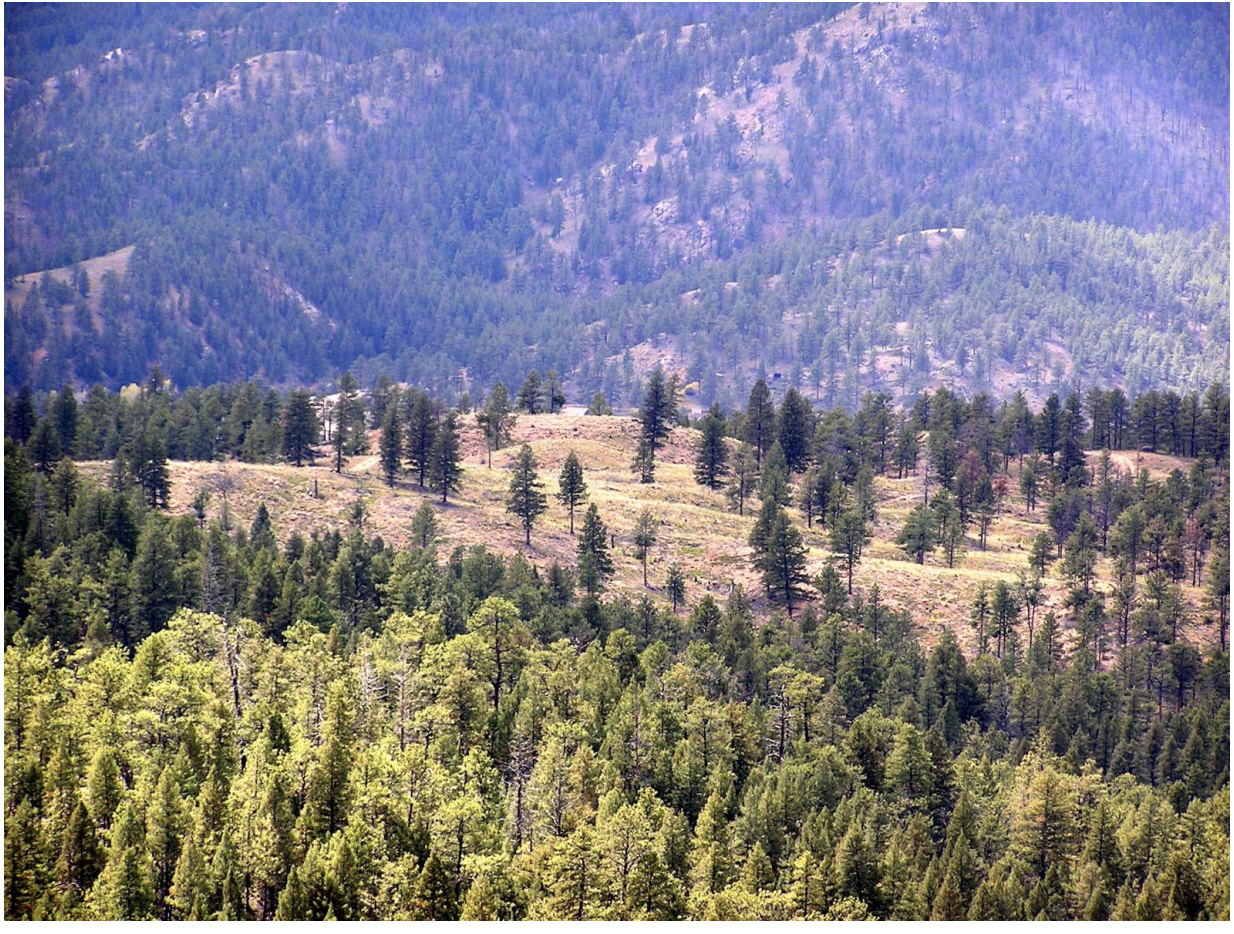


BACK6

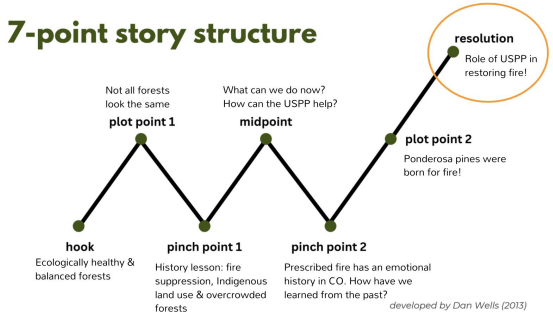
<u>When: At a treatment/prescribed burn site.</u>

- Ponderosa pines need more space in high-fire risk areas. This entire area is high fire risk — in fact, some of the highest risk across the nation.
- Burning is an effective tool to create space.
- Ponderosas are fire-adapted. How do we know that? Their thick bark highlights this trait. And regeneration occurs from nearby surviving trees after a fire, indicating need for space to release its seeds and continue on. *Add your own observations, such as bark fluffing off or the lack of ladder fuels around Ponderosa Pines.*
- Low-severity, prescribed burns feed two birds with one scone by:
  - Creating space in a dense forest
  - Releasing seeds for ponderosa pines, creating the opportunity for a more age-diverse forest
- Prescribed burning or “good fire” is a creative force, opening up ponderosa pine forests, creating habitat for animals and more space for native flowers and plants. It

Treatment Helps Restore the Forest's Ecological Balance



BACK7



<u>When: Wrapping up the tour. Can be any spot you want to show the group.</u>

- The USPP collaborates across the Watershed to restore ecological balance at an impactful scale.
- In essence, we manage to create a “patchwork” of conditions across the landscape, to serve different purposes (reduce fire risk, protect sensitive wildlife, protect clean water supplies, etc.)
- What are your priorities for the forest? What do you want to see happen?
  - *Discuss shared values and goals for the forests.*
  - *Can talk about examples of priority vs non-priority areas for treatment.*
- Highlight water values and wildlife values. What goals for the forest are shared across the group? What do people value most? We are all connected by our love of these forests. Let’s focus on what unites us.

Image Sources

Front 1: What do we know about forest treatments and fire? Photos and long-term studies help us understand.

Front 2: 2023-05-18_USPP GT Tour/Jerome-Miller Miller Gulch 18 May 2023) folder & GTR-373, Figure 8. Figure credit: Rob Addington & Kristen Pelz.

Front 3: GTR-373, Figure 6. Figure credit: Jonas Feinstein and Chad Julian. & GTR-373, Figure A1-4. Photo credit: Veblen & Lorenz, 1991.

Front 4: Creative Commons.

Front 5: GTR-373, Figure 7. Photo credit: Ben Wudtke. & Creative Commons.

Front 6: GTR-373, Figure 9. Photo credit: Peter Brown.

Front 7: GTR-373, Figure 29. Photo credit: Paula Fornwalt.

*Additional information in speaker notes.

Information Sources

1) Native-Land.ca | Our home on native land. https://native-land.ca/.

2) Brundin, J. 'Reclaiming The Genius Of Our Ancestors': For These Students, Helping Solve The Future Of Colorado Wildfires Means Studying Indigenous Traditions. *Colorado Public Radio* (2021).

3) Indigenous fire management buffered climate impacts for centuries. https://cires.colorado.edu (2022).

4) USFS Confronting the Wildfire Crisis (2022) https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/WCS-Initial-Landscapes.pdf