



Echo Canyon Ranch

Community Assessment

November 2023

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Location

Echo Canyon Ranch (ECR) is located in Archuleta County, Colorado, five miles south of Pagosa Springs, with access from US Highway 84. The subdivision entrance is at 37° 12' 28" N, 106° 59' 03" W. ECR is located in portions of Sections 5, 6, 7, 8 and 18 of Township 34 N, Range 1 W; and Sections 12 and 13 of Township 34 N, Range 1½ W.

Echo Canyon Ranch is bounded by Echo Lake State Recreation Area to the northwest and shares a small border with San Juan National Forest on the southwest corner. The western boundary is a 2400 acre private ranch. To the east of ECR is Loma Linda, a Firewise USA® recognized community since 2017. As neighbors, ECR and Loma Linda share egress gate and road information.

Environment and Vegetation

The subdivision elevations range between 7100 and 7500 feet. The climate is semi-arid, typically with seasonal monsoons in mid-summer. The nearby Continental Divide and San Juan Mountain range encourage above average precipitation compared to the rest of the Four Corners area. The past twenty-year cycle has trended considerably hotter and drier than previously recorded in this area.

The majority of the residential sites are in ponderosa forest with Gambel oak understory. There are some small, north facing slopes with dense, stunted Douglas fir. Rocky Mountain Juniper is scattered throughout the area. This area was clearcut between 1880 and about 1910. The current forested areas consist of predominantly single age, second growth trees. In most cases, the trees are overcrowded and stunted. The ponderosa sections have excessive ladder fuels comprised of Gambel oak and juniper.

Significant portions of the road Right of Way and common areas have received fuel reduction treatments. Some residences have created Defensible Space around structures.

There are also large areas of grassy mountain meadows and old pasture.

Fire History and Risk

The ponderosa/Gambel oak forested areas around Pagosa Springs are considered a frequent fire forest system. Prior to European intervention, the forests saw wildfires on five to fifteen year intervals. These were usually low intensity fires that burned back ladder fuels and thinned ponderosa stands.

The subdivision area has not seen a significant fire in over 130 years leading to excessive tree density and ladder fuels.

Significant Archuleta County Wildfires Over Twenty Two-Year Period (2002-2023)		
Date	Fire Name	Size (acres)
2002	Missionary Ridge	73,000
2003	Bolt Fire	2,160
2003	Devil Creek Fire	234
2012	Little Sand Fire	24,500
2013	West Fork Fire (cross-county fire)	58,600
2017	Eight Four Two Fire	1,000
2018	Spruce Fire (close vicinity to ECR)	10
2018	Horse Fire	700
2022	Plumtaw Fire	735
2023	Chris Mountain Fire	511
2023	Coal Mine Fire	286
2023	Quartz Ridge Fire	2,850
2023	Bear Creek Fire	1,093

Maps showing Fire Intensity, Vegetation and Wildland Urban Interface (WUI) Risk are included in the Appendix.

The Community

Echo Canyon Ranch was the first community in the County to develop a Community Wildfire Protection Plan (CWPP). The original 2013 plan was updated in 2023.

ECR is a 1,376-acre community consisting of 24 parcels ranging in size from 37.46 to 66.57 acres and 183.5 acres of open space held in common. The majority of owners are part-time or have not yet built (16/24 = 67%) with an aging population of full-time residents.

Echo Canyon Ranch has 24 lots: 8 full-time residences, 13 part-time residences, and 3 vacant lots with 14 fulltime residents and 23 part-times residents.

The developed lots have homes of diverse construction. Wood siding, stucco and log are common. All roofs are Class A fire rated, predominantly metal roofs with some composite shingle covered structures. Many of the homes have had Defensible Space work done. Some have not and combustible landscaping within 5 feet of structures has been observed. All homes have reflective house numbers at the driveway where they are clearly visible for first responders.

All roads in the subdivision are owned and maintained by the Homeowners Association. There is one main entrance on Echo Canyon Lane. An emergency egress route has been established across Lot 23 with access to adjacent Loma Linda subdivision. Echo Canyon Lane is the main road throughout the community. It is approximately 2 ½ miles long and paved, but has significant portions that are less than the desired 24 foot width. This could be a factor during an evacuation.

La Plata Electric Association supplies electricity to all lots. Pagosa Area Water and Sanitation District supplies municipal water to all lots. There are 13 fire hydrants interspersed throughout the subdivision.

Values at risk

- Lives, both human and animal (cats, dogs, horses, etc.)
- Residential structures
- Infrastructure (electricity, water, phone, roads, etc.)
- Views
- Lifestyle

Resources

Loma Linda is within the Pagosa Fire Protection District (PFPD). The District has 18 paid staff and approximately 40 volunteers. District-wide, the firefighting equipment includes seven engines, five tenders (water trucks), one aerial truck with a 75-foot ladder, five brush trucks, a mobile command vehicle, a maintenance truck and other smaller vehicles. A 1,000-gallon Type 1 engine, an 1,800-gallon Type 3 support tender, and a Type 6 brush truck are housed at Station 3. Station 3 does not have staff on site and is 2.5 miles from the subdivision.

The Archuleta County Sheriff has authority over wildfires in the County. The Office of Emergency Management, a department of the Sheriff's Office has 3 full time staff and 3 seasonal firefighters. They have two engines.

All local fire-fighting agencies have Intergovernmental Agreements that allow them to assist each other when needed.

Echo Canyon Ranch has 13 fire hydrants on the PAWSD municipal water system. Echo Canyon Reservoir, which contains 211 acre feet of water with a depth of 50 feet, borders ECR to the north. In the event of a wildfire, helicopters could fill tanks with water from this nearby source, and would have the ability to extinguish flames directly.

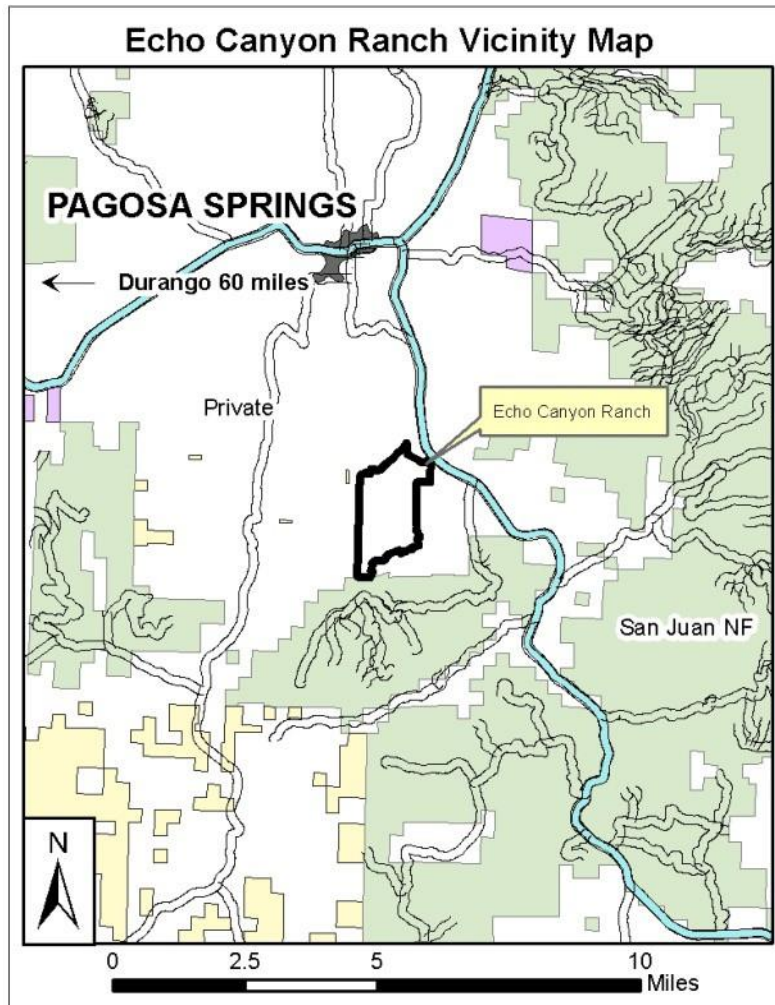
Action Plan				
FREQUENCY	GROUP	PRIORITY	ACTIVITY/PROJECT	EST. COST
Daily/as needed	HOA/WAP	1	Alert owners of fire activities in area, direct them to sources such as CSFS, Inciweb, and Pagosa Springs Sheriff's Department Facebook	\$0
Weekly	HOA/WAP	2	ECRA Ambassadors will continue to review media sources (newspaper, emails, online articles) and share fire mitigation information with ECR owners and other communities at WAP meetings and by email	\$0
Monthly	HOA/WAP	1	At least 1 ECRA Ambassador attend local WAP/fire-related meetings and forward information to other Ambassadors and owners	\$0
Quarterly	HOA	1	Provide mitigation updates to owners via quarterly BOD meetings and emails	\$0
Quarterly	HOA	2	Request parcel owners submit their mitigation hours and document time/costs digitally as information is provided for WAP and Firewise USA® requirements	\$0
Annually	HOA/WAP	2	Encourage all owners to obtain a home ignition and defensible space assessment within their five-acre building envelopes, as well as assessments of their entire parcels. Promote WAP grant opportunities for completing defensible space projects (funding through 2028).	\$0
Annually	HOA	2	Provide outreach events such as videos/films such as the Plumtaw Fire film to owners via in-person/zoom	TBD
Annually	HOA	2	Email copies of FireWise Committee brochures to owners, encouraging zone defense and mitigation activities	\$0
Annually	HOA/WAP	2	Inform owners of grant offerings, assist them in contacting appropriate representatives to obtain a site assessment, and advise them on follow-through of the grant process	\$0
Annually	HOA	2	Email reminders to owners about evacuation procedures and provide updates to ECR's Wildfire Emergency Evacuation Checklist	\$0
Annually	HOA	1	Continue to provide ECRA Firewise Committee/emergency information in New Owner email packets	\$0

Annually	HOA	2	Ongoing review of community-wide mitigation needs, including ECR roadways. Review grant opportunities and site assessment options	TBD
Annually	HOA BoD	1	Budget for ongoing maintenance along the right-of-way bordering ECR Lane	TBD
Annually	HOA BoD	1	Budget for ongoing mitigation along the right-of-way bordering ECR Lane	TBD
Annually	HOA	2	Work with Homeowners/DRC to encourage a site review and plan that includes fire mitigation in the development of a new home builds	\$0
Annually	HOA/WAP	3	Promote use of WAP's Chipper Rental Rebate and Defensible Space incentive programs	\$0
Annually	HOA	2	ECRA Ambassadors will continue to seek ways to engage homeowners and promote the benefits of a community-wide fire-mitigation action plan that results in behaviors and actions beneficial to ECR and surrounding communities	\$0
Annually	HOA	2	Review/update Community Risk Assessment	\$0
Annually	HOA	3	Review/update Community CWPP	\$0
Annually	HOA	2	Promote use of Archuleta County Citizens Alert/Nixle for emergency response preparedness	\$0

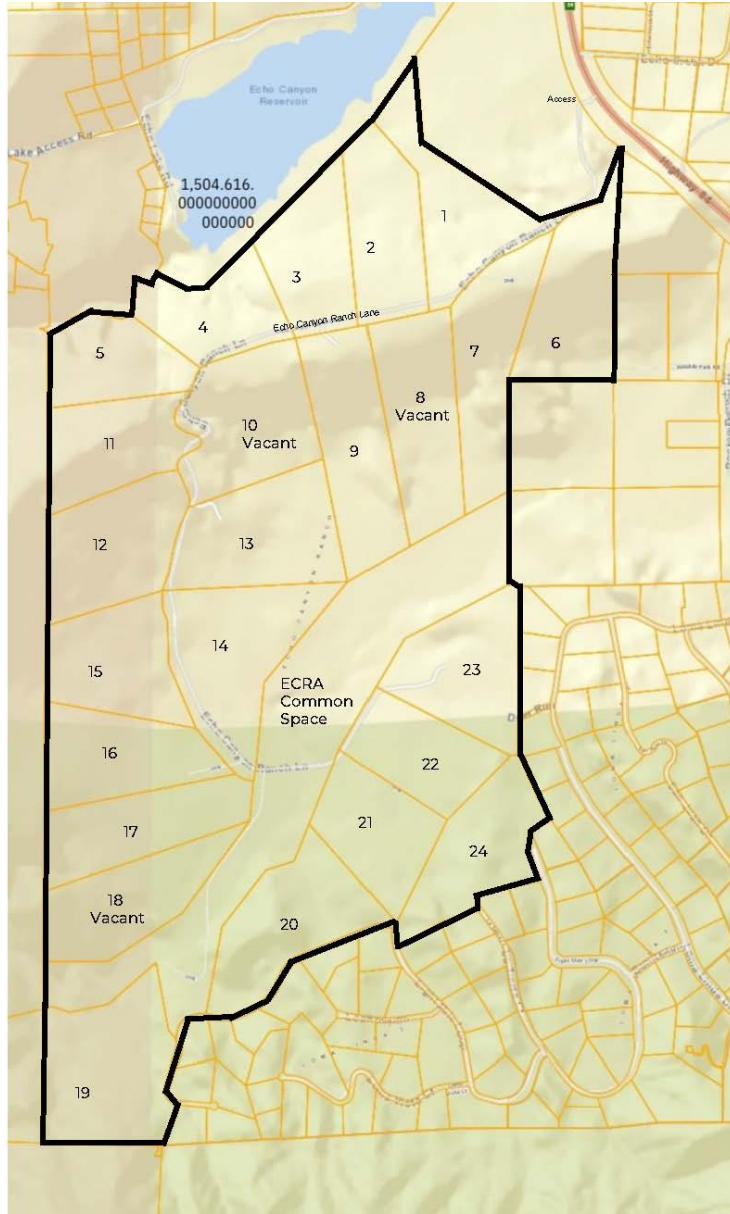
Contributors

- Jan Clinkenbeard, ECR Firewise Committee
- Renee Gentry, ECR Firewise Committee
- Kennie Mackey, ECR Firewise Committee
- Robert Bertram, Pagosa Fire Protection District, Chief
- Mike Le Roux, Archuleta County Sheriff
- Josh Peck, USFS San Juan National Forest, Pagosa District Ranger
- Bill Trimarco, Wildfire Adapted Partnership, Archuleta County Coordinator

Appendix



Echo Canyon Ranch Boundaries



Wildfire Risk Intensity Map



Colorado Wildfire Risk Viewer

<https://co-pub.coloradoforestatlas.org>

ECR Fire Intensity Scale

Quantifies the potential fire intensity by orders of magnitude.

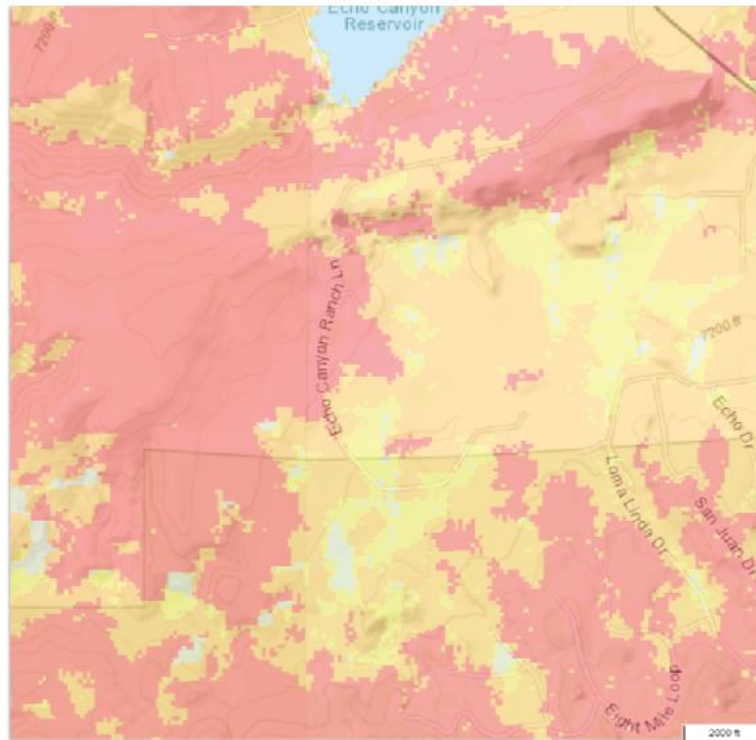
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Fire Intensity Scale

-  Lowest Intensity
-  Low
-  Moderate
-  High
-  Highest Intensity

Wildland Urban Interface Risk Map



Colorado Wildfire Risk Viewer

<https://co-pub.coloradoforeststatlas.org>

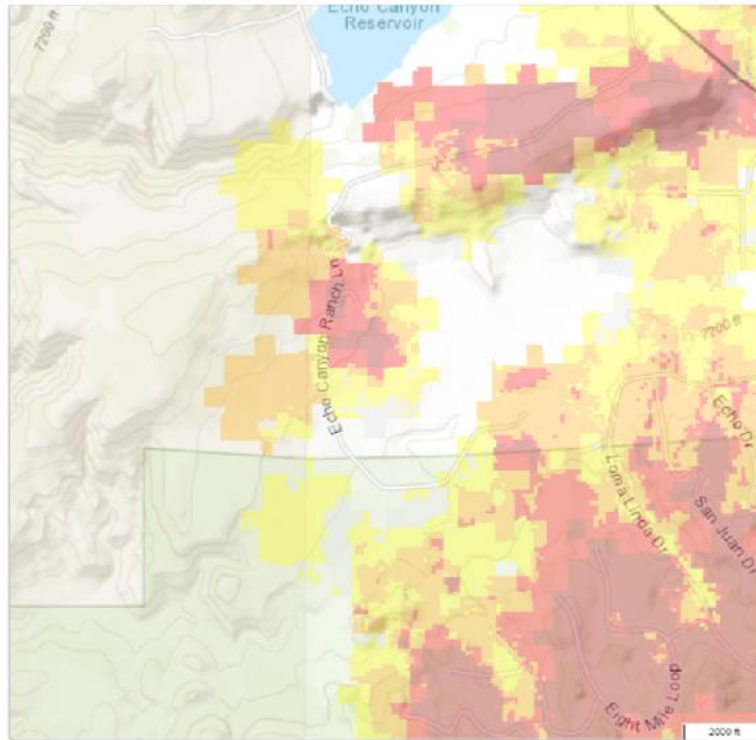
ECR Wildland Urban Interface Risk

A measure of the potential impact on people and their homes from wildfire.

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Wildland Urban Interface Risk

- Lowest Risk
- Low Risk
- Moderate Risk
- High Risk
- Highest Risk

Vegetation Map



Colorado Wildfire Risk Viewer

<https://co-pub.coloradoforestatlas.org>

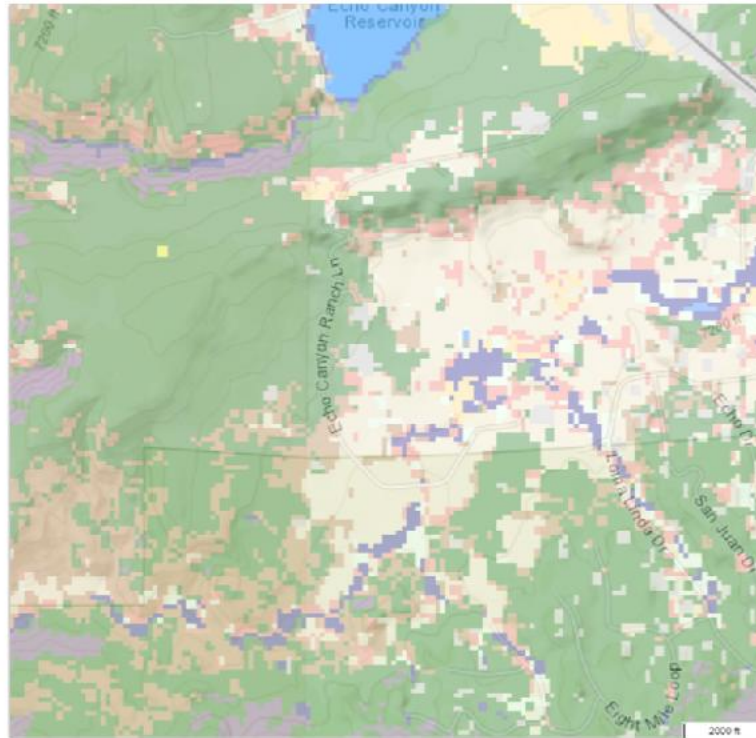
ECR Vegetation

General vegetation and landcover types

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Vegetation

- Agriculture
- Grassland
- Lodgepole Pine
- Mixed Conifer
- Oak Shrubland
- Open Water
- Pinyon-Juniper
- Ponderosa Pine
- Riparian
- Shrubland
- Spruce-Fir
- Developed
- Sparsely Vegetated
- Hardwood
- Conifer-Hardwood
- Conifer
- Barren

Echo Canyon Ranch Fire Hydrant Locations Update 2023 ECR CWPP

