

Land ownership is immensely rewarding— especially in the country. Purchasing the right piece of land is your first step. If you understand as much as possible about the property and its natural environment, you will be able to choose wisely.

In this report you will find descriptions of the property’s basic natural features, topic by topic. Maps, pictures and explanations show what to consider when buying property, and what makes this property a unique and special place. Regional descriptions are included to provide context, because each piece of land is part of a larger landscape.





The Big Picture

In this high altitude view from Google Earth, you can see how the property fits into the larger region. Look at how the landscape is put together: its drainage patterns, vegetation, developed and natural areas. Notice where the property is relative to these features, because they influence it in many ways.

This part of the country has its own unique flavor. So does this piece of property. Read further to learn what to expect from the region and what to look for on the property to understand what makes them special.

Buildings and land use are key factors in most customers' purchase decisions. While some are buying land for a specific use, others may not be planning on any particular activity. In either case, there are important points about land use that you should consider. First, existing land use is a good indication of what the local environment and economy can support. Second, the more a land use modifies the natural environment, the more effort and expense will be required to maintain it. And third, successful management requires an understanding of the land's capabilities to avoid unnecessary damage, frustration and expense. While the map is general, it's a good indication of what the property and area around it are capable of producing. Finally, some states tax land based on its use. Find out more about policies in this state at the end of the report.

Land Use Type	Acreage on Property
deciduous forest	21
grass/pasture	15
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What to look for: Each topic includes a section telling you what to expect in the region along with what factors affect the land's capability to support different types of land use. This will give you an idea of how the property compares. Keep an open mind—you may decide the property has appealing features that are more important to you than land use.

Terrain:

A key feature that strongly influences the environment. It affects the property's views, vegetation, weather, and even the way it feels.

Terrain describes a stretch of land, its physical features and their arrangement. This property is located at an elevation of 9,711 feet, which affects its temperature and sunlight intensity. Compare the maps for two perspectives on the terrain. Closely spaced contour lines on the topographic map show areas of steeper slopes, and wider spaces show gentle slopes or flat areas. The direction that slopes face is the aspect. North facing aspects are cooler and moister while southern aspects are warmer and drier. The steeper the slope, the more pronounced this effect. Because of these influences, varied topography creates environmental diversity. It also modifies weather and temperature by affecting air currents. Follow the link on the last page to download this map.

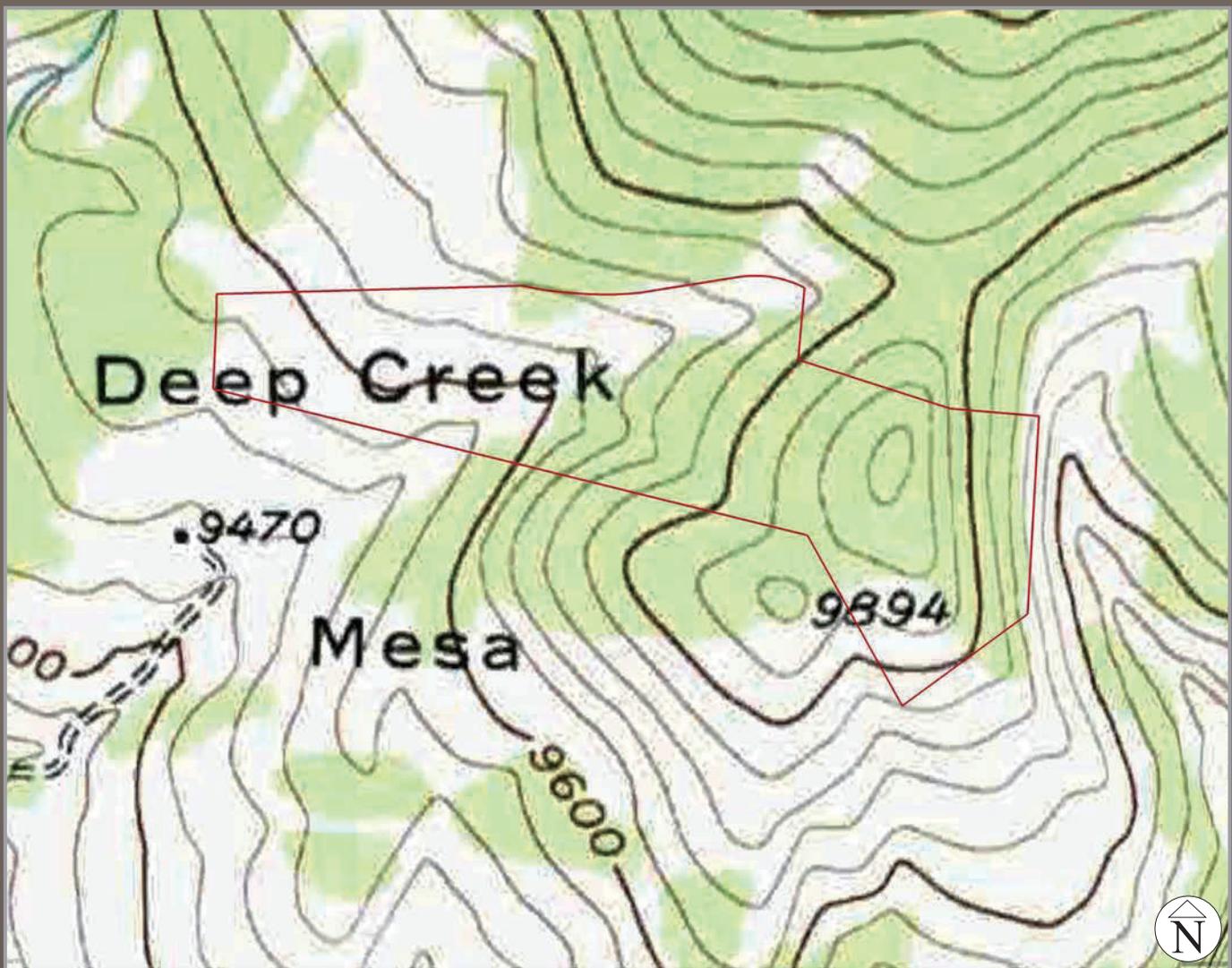


Image: Google Earth with data from Landsat / Copernicus and USGS Historic Topographic Quadrangles

Land Use, Ecoregion and Terrain from Above

You can learn a lot about a property with aerial images and ground-based photographs. Looking closely at maps and images first will make a visit to the property more productive. Knowing what to look for and being systematic with how you look at the property will help. Begin with this north view to see how the land is being used on and around the property. Does this landscape show features that were described for the Southern Rockies ecoregion? Look at the terrain for slope and aspect. You will notice different things as you look at the land from different angles.



Image: Google Earth with data from Landsat / Copernicus

What to Look For on the Land

The same landscape looks different from the ground level. In this photograph of the property, you see a narrower field of view but in more detail. Now look at how the land is being used: there are things you can see that were not clear from up above. These can include structures, infrastructure, changes to the vegetation, and places where the soil has been disturbed or the earth recontoured. A ground-level view does not show the landscape as well, but can show details of human use, terrain and the ecoregion.



Geology:

Consequential because it underlies the property, affecting the soil, land uses, terrain, habitat and potential hazards there.

Geology is a key part of this property. In addition to telling a story of the past, geology impacts its appearance, utility, and ease of construction. This large-scale surface geology map shows the main geologic formations in the region around the property, and the table on the next page gives brief descriptions about them. These only provide a general picture of regional geology, and may not be accurate for the property. You can access a different interactive version and browse through the reference by following the links at the end of this report. Helpful information is also available for geologic hazards which may affect use of the property. You should look into the potential for mineral and oil and gas development in the property's vicinity, which could occur in surface or underlying formations.

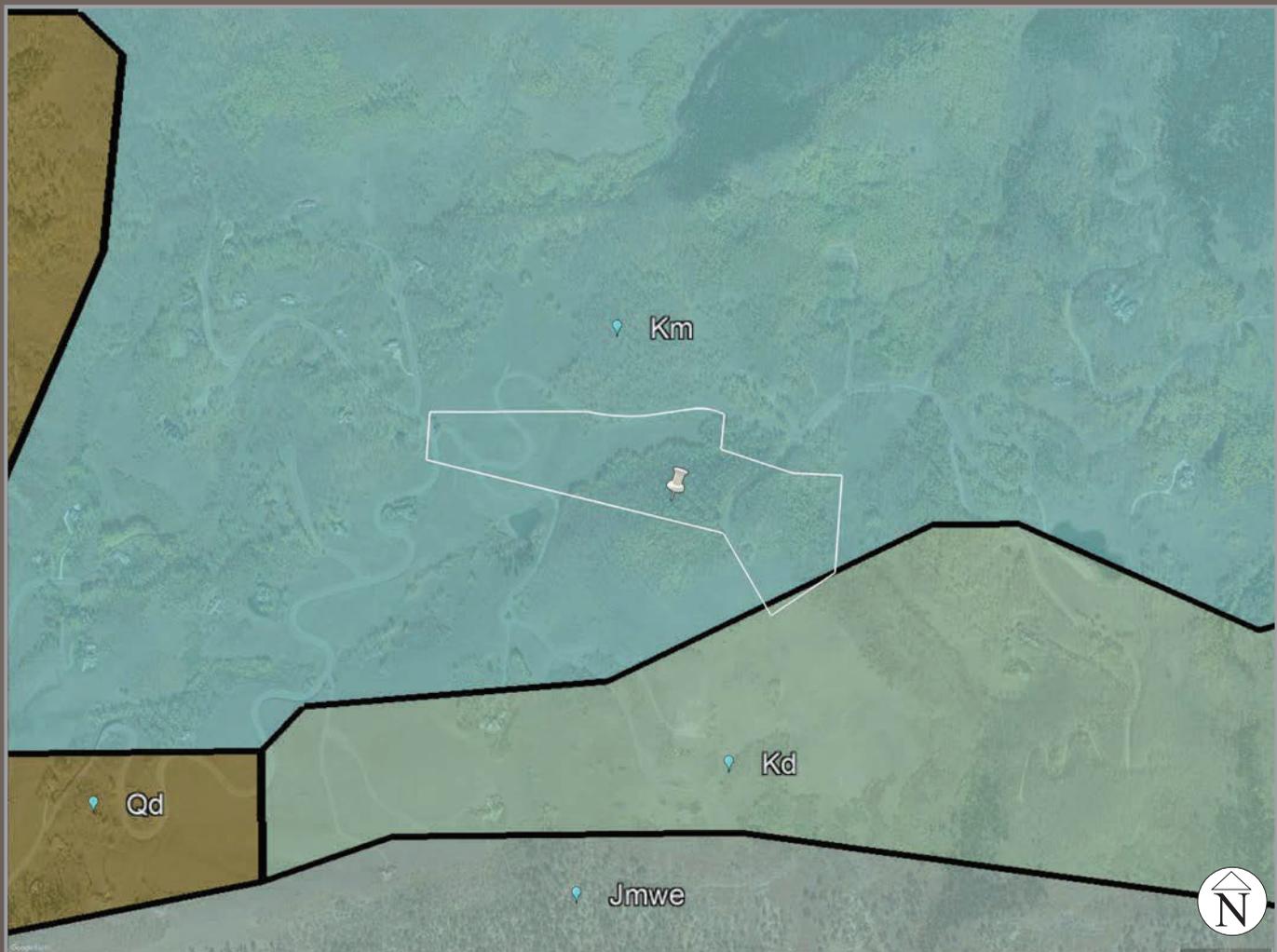


Image: Google Earth with data from Landsat / Copernicus and USGS statewide geologic data

Mineral development may be disruptive or beneficial depending on mineral rights ownership and how you plan to use the land. Croplands typically require large, rock-free areas. Timber land can have surface and shallow bedrock and rock outcrops, but needs to be accessible for harvest equipment. Too much rock can be an issue on grazing land when it reduces forage, makes areas difficult for livestock to access, or complicates construction and maintenance of fencing and other livestock management infrastructure. Surface rock and outcrops add diversity and scenic value, making them an asset for natural habitat.

Formation and Era	Geologic Map Notes
Km: Mancos Shale: Cretaceous	Primary rock type: Shale. Secondary rock type: Sandstone
Kd: Dakota Sandstone: Cretaceous	Primary rock type: Sandstone
Qd: Glacial drift: Quaternary	Primary rock type: Glacial drift with a variety of rock types
Jmwe: Morrison, Wanakah, and Entrada Fms: Jurassic	Primary rock type: Mudstone. Secondary rock type: Sandstone. Other rock types: Limestone

How does this property compare? The region features a rugged landscape where Ice Age glaciers left moraines of cobble, sand and gravel spread across faulted and folded limestones and sandstones. These earlier formations were deposited across many geologic periods when fluctuating shallow seas, coastal plains and sand dunes dominated the landscape. Geology on this property may be compatible with your intended use. If not, you may find it has other assets which are more important to you.

From Stoeser, D.B. et al, 2007. Preliminary integrated geologic map databases for the United States: Central Region. USGS Open File Report.

Vegetation:

Foundational since it determines much of a property's appearance, the habitat it provides, and how well soil and water are protected.

Vegetation varies depending on what the plant species are, their abundance and life forms. From the ground, the larger plants look more widespread than they really are. A vegetation map makes it easier to see the extent and arrangement of vegetation types. On this property, the most common types are aspen woodland (light green) and montane grassland (mixed color). Native plant species you can expect to find are shown on the next page. Except where farming or intensive management is underway, a mix of native vegetation types is typically more productive and resilient than uniform or nonnative vegetation. It is important to realize that vegetation can also create a fire hazard. If you are interested in building on rural property, be aware that fire can occur in all but the most barren vegetation types, but the risks can usually be mitigated.

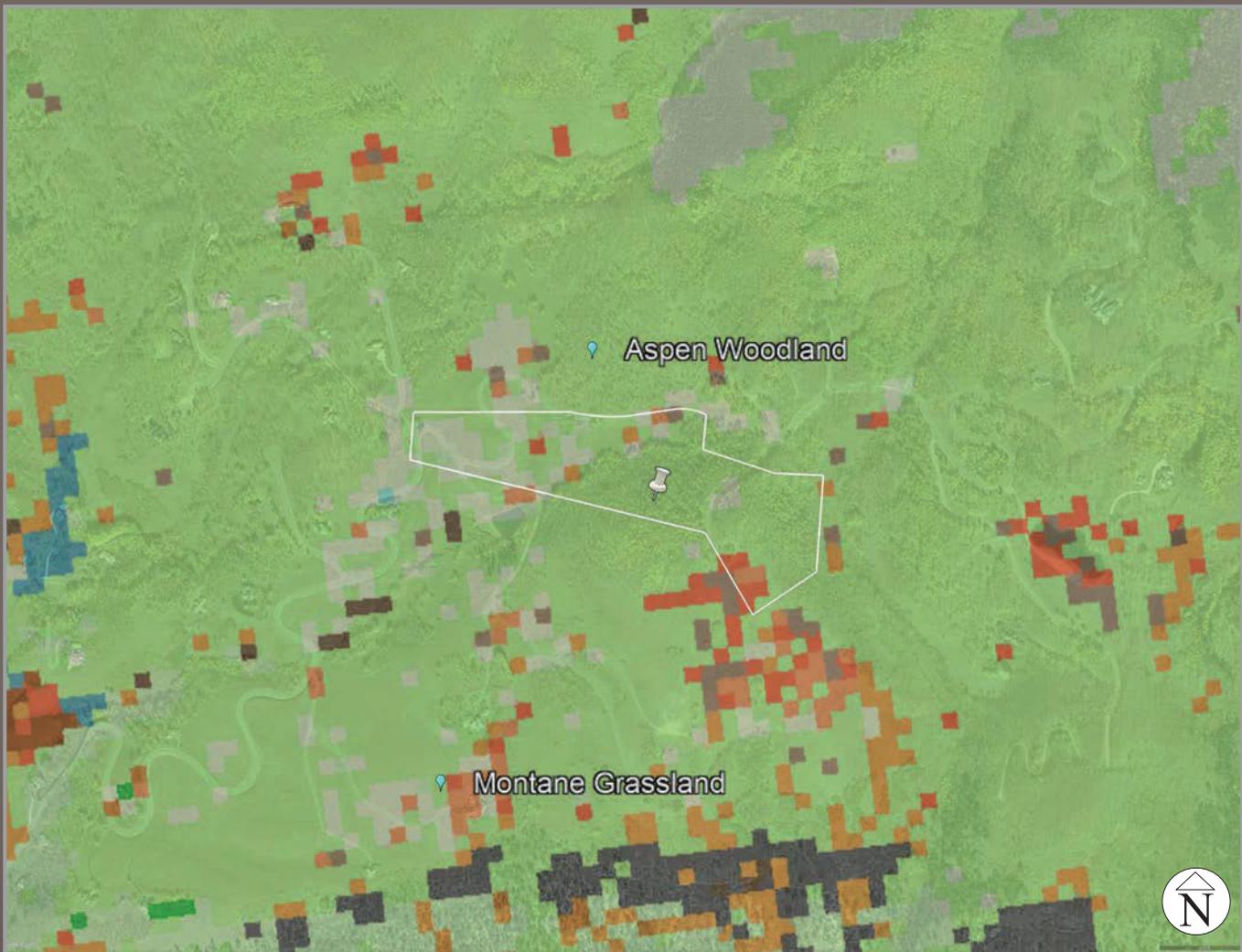


Image: Google Earth with data from Landsat / Copernicus and LANDFIRE data

Vegetation types: aspen woodland



quaking aspen



shrubby cinquefoil



chokecherry



common juniper



slender wheatgrass



heartleaf arnica

montane grassland



Thurber's fescue



nodding brome



big sagebrush



shrubby cinquefoil



bottlebrush squirreltail



rubber rabbitbrush

How does this property compare?

Agriculture removes vegetation but can benefit if there are native plants nearby to support pollinators. Timber land requires forest dominated by marketable species, or a tree plantation. Grassy vegetation with some shrubs and trees makes good rangeland. While any type of native vegetation is suitable for natural habitat, a variety of types will add diversity. This part of the ecoregion has subalpine forests dominated by subalpine fir, Engelmann spruce, and lodgepole pine. Areas of Douglas fir or aspen forests occur at lower elevations. The understory may include whortleberry, kinnikinnick, snowberry, sedges, mountain brome, and forbs. This property's vegetation may be ideal to meet your intended land use. If not there are other values and uses the vegetation supports.

Wildlife:

Important because they will be your neighbors and use this property. Many people consider them an amenity of country living, but they can also cause conflicts.

This property supports a distinctive wildlife community. The pictures below show prominent species likely to be here, along with others listed at the top of the next page. At the end of this report is a link to see more species. These and many other creatures live on the property in a diverse and interconnected community which is most productive when there is healthy native vegetation.

Landowners are often concerned about rare species on their property for a variety of reasons. The next page shows if there is any designated or proposed critical habitat for threatened and endangered species near the property. These habitat designations are defined by the U.S. Fish and Wildlife Service as “...areas that contain features essential to the conservation of an endangered or threatened species and that may require special management and protection ...” Mapped and other rare species may use the property even if there is no critical habitat designated on it.

Wildlife are a consideration when owning rural property. Many landowners love being surrounded by them, and recognize that their land plays a role in the species’ survival and wellbeing. However, some species can conflict with land use, even causing economic harm. Understanding potential conflicts and ways to minimize them before purchasing any property will be helpful to the landowner and the wildlife.



Elk are native ungulates that reach weights of 500-700 pounds, and eat about 20 pounds of vegetation daily. They are common in forest, shrub, and meadow habitats, usually migrating between summer and winter ranges in large groups.



Yellow-bellied marmots are large ground squirrels. As many as 20 marmots will live in burrows in colonies under a dominant male. Active during the day, they feed on plants, insects and eggs. They hibernate for up to 8 months.



Black bears are common throughout this region in low numbers. Solitary and territorial, they eat mostly plant shoots, roots, fruit, nuts and insects-- but also larger animals if they can catch them. You will most likely see them in morning or evening.



Gray jays have permanent, year-round territories in evergreen forests, where they cache food to survive harsh winter conditions. They form monogamous pairs, but also depend on subadult offspring to help raise their young.

More Information About This Area

State tax policies and land use: [State Policy](#)

US Ecoregion descriptions and map: [Ecoregions](#)

USGS Topographic maps for download: [Topographic Maps](#)

National Weather Service data: [Climate and Weather](#)

National geological map collection: [Geologic Maps](#)

State reference on potential geologic dangers: [Geologic Hazards](#)

Historic and current mines: [Hard Rock Mines](#)

Historic and current oil and gas wells: [Fluid Mineral Development](#)

Explanation of mineral rights ownership: [Mineral Rights](#)

Soil survey maps and information: [Soil Surveys](#)

Reducing fire risk to rural property: [Fire Mitigation Tips](#)

Online atlas of wildlife species: [Wildlife Species](#)

Tips on minimizing conflicts with wildlife: [Wildlife Conflicts](#)

Water pollution maps and data: [Water Quality](#)

Flood zone maps: [Flood Zones](#)

State ground water information: [Flood Zones](#)

State regulations for water use : [State Water Policy](#)

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Information

Restoration

Innovation

This report was prepared by Applied Ecological Services for [Your Land Explained](#). Please contact us for additional information about the land use and environmental features on this property.