

COLORADO'S COUNTIES

READING THE MAPS

The first impression created by the map of Colorado Counties is of a large box filled with smaller geometric figures -- squares, rectangles, quadrangles, and so forth. In fact, nearly one-half (29) of the counties have purely geometric, i.e., straight line boundaries. Many of the remaining thirty-five have borders that are partially or even primarily straight lines. Not one of Colorado's sixty-four counties has purely "natural" boundaries, though counties such as Jackson, Summit, Chaffee, Ouray, San Juan, and Huerfano come closest.

Geometric boundaries, as opposed to "natural" ones, have a history of being superimposed upon the Earth's surface with little regard for the nature and distribution of pre-existing physical and cultural landscape features. In contrast, natural boundaries may follow rivers, mountain ranges, edges of plateaus, or other visible physical features.

The most consistently "geometric" part of Colorado is in the eastern Plains. Secondary concentrations of straight line boundaries occur in the northwestern Plateau region and the San Luis Valley. A greater frequency of natural county boundaries is evident in a band extending north/south through the center of the state.

COUNTY SEATS

READING THE MAP

Each Colorado county has a town or city designated the County Seat. This is where government offices are located and where the county's elected officials normally carry out their duties, for example, the judges and their courts. Official records are also maintained at the County Seat.

The present County Seat in each county has not always had that function. Some counties have switched their Seats several times and for various reasons. In some cases, it was the desire to have the seat of government more centrally located or at least more accessible to a majority of the people. Some country seats were originally mining "boom towns," but when the mines were worked out the population dwindled and eventually citizens voted to move the County Seat function to a larger, more important town. At times, towns people in various counties even tried various "extra-legal" means to move the County Seat from some other town to their own, including moving the official records and even the building that housed such documents. Virtually all efforts to move or maintain a County Seat were prompted by the belief that

FEDERAL CONGRESSIONAL DISTRICTS

The U.S. Constitution provides that each of the fifty states will be represented by two Senators and a number of Representatives proportional to each state's population. Since the membership of the U.S. House of Representatives is fixed at 435, with each new census it is necessary to recalculate the number of representatives apportioned to each of the states. States that lose population or are growing slowly may have their number of representatives reduced (e.g., based on the 1960 census, lowa was accorded seven U.S. Representatives; based on the 2000 census, that number is now five). In contrast, Colorado has experienced rapid population growth for several decades. As a consequence, the state gained an additional representative after the 1970 census, and another based on the census of 2000, bringing the total to seven.

Each U.S. Congressional Representative has a "home district." Such districts are really geographic regions, although they may be temporary ones. It is the responsibility of Colorado state government to identify and establish these districts in a fashion that provides an essentially equal number of residents in each district, with districts being as compact as possible, while using existing county boundaries whenever possible.

READING THE MAP

It is immediately apparent that Colorado's seven Congressional Districts in 2002 varied tremendously in area. The Third and Fourth Congressional Districts cover well over one-half of the surface area of the entire state. In contrast, District One based on Denver County is comparatively tiny. This variation in physical size is necessary to provide each of the districts with essentially equal population.

Check the map to see where the boundaries of Congressional Districts depart or vary from county boundaries. This is most commonly done to more nearly equalize the districts' populations. The district boundaries in the heavily populated Denver Metro Region are very complex and frequently combine parts of different counties. Another example is in Otero County where it was necessary to "equalize" population between Districts Three and Four. If Colorado continues to gain population it will be necessary in the future to redraw district boundaries (often termed "Redistricting") to assure equali

INTERSTATE AND FEDERAL HIGHWAYS, PLACES

READING THE MAP

Of Colorado's 85,000 miles of highway, the roads shown are demonstrably the most important and most intensively traveled. The total length of Interstate (1,170 miles) and federal highways (7,100 miles) is slightly more than 10 percent, by length, of all highw

MEAN TRAVEL TIME TO WORK

Analyzing and understanding patterns of Work Travel is a somewhat complicated process. First, several factors can account for the time required for people to get from their residence to their place of employment. Most important are the distance separating the two locations, the physical geography (e.g., topography, weather conditions) through which the route passes, the type and condition of roads, and the nature and volume of traffic encountered.

READING THE MAP

The two most evident patterns are these. One, the shortest amount of time spent getting to work is in rural counties, an especially large grouping of these is evident in extreme eastern Colorado. A second group of counties in the west-central part of the state is similarly characterized by short travel times. Several conditions link all these counties. Population densities are low and there are no large cities; likewise, population growth is below the state's average. With two exceptions (Summit and Pitkin) the counties are rural and agricultural. Most of the residents of the two regions work at or near their place of residence, which is likely a ranch, farm, or business establishment in a small town.

A second but less obvious travel pattern characterizes individuals in the two classes of most time consuming work travel, i.e., between twenty-two and forty-four minutes. With few exceptions, the distance commuters are in the Front Range regi[(flfw@leftbea)6in-12@lbgtassandbfaellsitesate/ecageieeswebras Adams, Arapa twenty-two and thirty minutes, though travel times would probably be longer except for access to Interstate 25.

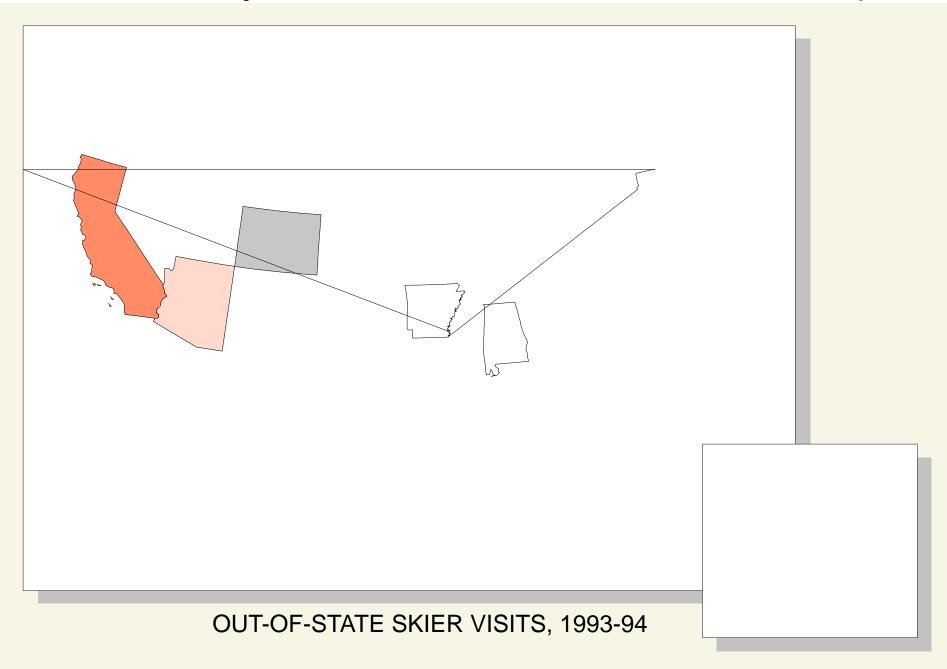
Colorado's longest commutes appear to originate both east and west of Denver and Colorado Springs. Elbert County may be experiencing spill over from the phenomenal residential growth in adjacent Douglas County, yet the former county has few local sources of employment and no physical connection to Interstate 25. The four county block of long commuters to the west involve a more complex situation. The allure of mountain living is clearly a factor, yet it offers limited local employment and residents are forced to seek work elsewhere. A growing volume of traffic, compounded by the nature of the roads and weather, also contribute to an average commute of between thirty and almost forty-five minutes.

QUESTIONS TO THINK ABOUT

As we move across the landscape there is a general awareness of differences between places. The rural/urban boundary is usually rather distinct, as is that between mountains and plains. However, the change that distinguishes many regions, one from another, is often a gradual transition and it is only after we are well into the new regions that the new reality is apparent. With this in mind, look again at the map.

In most cases the colors (class intervals of travel time) occur in progression, e.g., dark red, red,

The Atlas of Colorado: A Teaching Resource -



SKI AREAS

A geography of skiing would seem to depend first and foremost on the distribution of two things, snow and mountainous topography. Both can be found widely distributed over central and southwestern Colorado. But skiing is also dependent upon a third variable, a supply of skiers.

READING THE MAP

Approximately one-half of Colorado's ski areas, and most of its larger and better known ski resorts, are clustered in a five county region west of the Denver metropolitan area [I 10]. This location is not the snowiest part of the state nor does it possess the most spectacular topography. To be sure, the snow is usually adequate and the slopes sufficiently challenging. But what the geography of this part of the state does offer in unrivaled abundance is accessibility to a large metropolitan center with a resident pool of avid and potential skiers, plus air connections to the remainder of the nation and points abroad.

Notice that with few exceptions, all of the state's ski areas are on or near either a Federal or Interstate highway. With their superior design and maintenance, these routes offer more reliable travel during the snowy months of the ski season [I 6, I 23], though traffic congestion is sometimes a problem [I 8]. Proximity to Interstate 70 west of Denver can be especially important for out-of-state skiers who fly to Denver's International Airport and reach their destination by car or bus.

An apparent exception to the concentration of ski areas near major highways is the cluster of ski destinations in Pitkin County, in and near Aspen, Colorado. Congestion and driving conditions on the secondary highway leading from Interstate 70 to Aspen is a concern to those who must travel it frequently during snow season. Proposals have even been aired for a light rail connection along this route. On the other hand, Aspen is an internationally renown resort for the affluent, many of whom arrive and depart by private aircraft. Increased accessibility would, for some members of this "jet set," reduce the exclusivity and attractiveness of this locale. A similar attitude prevails among some who favor the Telluride ski area in San Miguel County.

QUESTIONS TO THINK ABOUT

In 1997, Arapahoe Basin Ski Area announced plans to develop year-round skiing. Even in the "snowiest" years this would require at least two months of artificial snow making, and in some years perhaps twice that amount, to provide acceptable skiing. This suggests that owners and operators of major ski resorts consider large-scale snow making a viable option. In turn, this suggests that future ski resorts might be built at locations somewhat or largely independent of natural snow conditions. How do you think the recent (2000-2002) drought affected Arapahoe Ski area's plans?

Assume that you want to build a new ski resort in Colorado using primarily or exclusively machine-made snow. Where would you place this resort if:

- a. You wanted to maximize access (and your profits!) for Colorado day-skiers;
- b. You wanted to attract more skiers from California;
- c. You wanted to attract more skiers from Texas.

In each case, indicate where you would establish the resort, what other facilities would be needed to support the ski area, and why? Finally, what might be the impact on existing ski areas? What might be the environmental impact of such a year-round ski resort on local vegetation, animal life, and water supply?

NATIONAL PARKS AND MONUMENTS, STATE PARKS NATIONAL HISTORIC SITES

Approximately 42 percent (about 43,000 square miles) of Colorado's land area is publicly owned. Of this, the State of Colorado controls about 3 million acres, but the great majority, 24 million acres (38,000 square miles) are administered by a host of federal agencies. Among the agencies are the Department of Energy, Defense Department, Bureau of Reclamation, and Bureau of Indian Affairs. However, the largest areas of public land are those controlled by the Forest Service and Bureau of Land Management and administered as national forests and parks, recreation areas, monuments, and extensive lands leased for livestock grazing. On a smaller scale, the State of Colorado administers public lands for many of these same purposes.

Rocky Mountain and Mesa Verde National Parks

Rocky Mountain National Park (PH 26)

Rocky Mountain National Park (RMNP) covers over 400 square miles of the front range of the Southern Rocky Mountains. The Park contains some of the most scenic and spectacular landscapes found in the U.S. Within the Park are 76 named peaks with elevations of 12,000 feet or more, with 14,255 foot Long's Peak the highest. Glacial landforms are found throughout the Park and five active glaciers (Andrews, Rowe, Sprague, Taylor, Tyndall) occupy high valleys (cirques).

A great variety of plant and animal life thrives in RMNP. Bighorn sheep, elk and deer are common sights, while coyotes, black bears, mountain lions, and bobcats are present but seldom seen by visitors. Large numbers of visitors are attracted each fall to witness the color change of the aspen tree leaves to a bright yellow. On some weekends the traffic through the park is bumper-to-bumper. (P1, P2)

Mesa Verde National Park (PO 55)

Located in southwest Colorado near Cortez, Mesa Verde is one of the nation's major archeological areas. Translated as "green table," the name Mesa Verde describes the flat topped local topography and its juniper and pinon pine forest cover. The Park covers about 80 square miles and the mesa top is generally 1800 to 2000 feet above the bordering valleys.

This part of the Colorado Plateau surface is cut by scores of steep-sided canyons along whos.eowee0-si13th centu

and many of their personal possessions virtual preserved in the Park. Among the most access and Step House.

Dinosaur and Great Sand Dunes National Monuments, Bent's Old Fort Historic Site

Dinosaur National Monument (PH 34)

Dinosaur National Monument straddles the Colorado-Utah border on the big bend of the Green River. In a single sandstone cliff is preserved one of the world's greatest concentrations of fossilized dinosaur bones, including those of Brontosaurs, Allosaurs, and other species from the age of the giant reptiles. Initially, the remains of many specimens, an estimated 350 tons, were mined from the site and shipped to the Carnegie Institute in Pittsburg. Eventually conservation became the watchword and today the emphasis is upon study of the remains on site, although several skeletons are exhibited in the Denver Museum of Natural History

Among the exceptional landscape features of Dinosaur National Monument are the deep, narrow gorges cut by the Green River. These red-tinted sheer sandstone canyons are bordered by cliffs rising from 1,000 to 3,000 feet above the river. A notable is Lodore canyon, described and mapped first by John Wesley Powell, a one-armed Civil War veteran who led an exploration of the Green River by boat in 1879.

Great Sand Dunes National Monument (PH 21)

The 38,000 acre Great Sand Dunes National Monument is in the San Luis Valley about 40 miles northeast of Alamosa. The Monument consists of over 50 square miles of dune sand deposited in the past 15,000 years by westerly winds blowing across the dry valley floor. As the velocity of the wind slows upon contact with the Sangre de Cristo Range the sand settles out on the valley floor. Some of the dunes are 700 feet high and because of the variable wind patterns all are in a continual state of change. Local legends maintain that wagon trains, herds of sheep, and shepherds vanished in the dunes and that strange webfooted horses roam the dune's inner reaches. What does vanish within the sands is a local stream, Medano Creek, and among the stranger creatures are the giant sand treader camel cricket that uses shovel-shaped hind feet to dig burrows and a beetle that sprays a stinking liquid to fend off predators.

Bent's Old Fort Historic Site (PO 56)

Bent's Old Fort is located on the north side of the Arkansas River about 15 miles west of La Junta. 00027Tc-0.002**Thevio(rtbdbe)sleNdhare83**33; obset, arGenprojtant2557p0oTDbeg8antaGe//Timeil, 241877; 1852 0/Tibe MoDt00224 Tw[d she)irpatrtnr tC Cadsadeo traplems,nSat(ve)t Aligneticatios and others gathered to barter and celebrate. At one time or another visitors to the fort included Kit Carson, John C. Fremont, Colonel Henry Dodge, and Gener(s)fka50én K8.6(e)arny,

QUESTIONS TO THINK ABOUT

Some Colorado counties have neither State Parks, National Parks, nor Monuments. Do you think this is because such counties lack attractive scenery, are too remote, or have too few residents? Plot these counties on a map and study their location.

Some counties have more than one type of park or monument. If you highlighted such counties on the map what kind of pattern do you see? One county has an example of each - - a national park, a state park, and a national monument. Which county is it? Where is it? And why is so much happening there?

DIVERSIONS THA

- 1. Laramie to Cache la Poudre
- 2. Colorado to Cache la Poudre
- 3. Colorado to Big Thompson
- 4. Fraser to S. Boulder Creek
- 5. Blue to N. Frk. South Platte
- 6. Williams Fork to W. Clear Creek

- 7. Blue to Middle Fork South Platte8. Eagle to Arkansas/South Platte
- 9. Frying Pan to Lake Fork Ark.
- 10. Roaring Fork to Lake Cr. Ark.
- 11. Eagle to South Platte

MAJOR TRANSMOUNTAIN DIVERSIONS

MAJOR TRANSMOUNTAIN DIVERSIONS

When national legislation was approved creating the Territory of Colorado, and subsequently, the State of Colorado, there was appa0 TDcosc

QUESTIONS TO THINK ABOUT

Do you know where your water supply comes from? It may be ground water from local wells. But in significant areas of Colorado, the water you use may be transferred from a considerable distance. Water that naturally would have flowed to Utah, Arizona, California, Mexico, and finally to the Pacific Ocean now keeps the lawn in front of your house green or your family's car clean. Your community's demand for water, and willingness to pay for it, literally denies water to the Pacific Ocean and sends it to the Atlantic.

After you have determined the source of the water you use, think about what differences that water makes to the area in which you live. Does it change the appearance of the landscape around you? Does it make a difference in the jobs that are locally available? Does it affect the number of people who can live where you do? What would happen if less water was available?

If you live in a part of eastern Colorado that receives diversion water, what is the source of that water and how is it used locally? Try to imagine your area or neighborhood without benefit of diversion water. Ask your parents to do the same.

If you live in a part of western Colorado from which water is obtained for the eastern slope, identify any changes this produces in your area or neighborhood. By having water diverted, has there been a change in the appearance or the economy of your part of Colorado? Ask your parents to respond to these questions.

If you live on the east side of Colorado's Continental Divide, try to contact a class in a school on the west side (and vice versa). Invite them to discuss the subject of water and water use in the state from their geographic perspective. An E-mail conference could shed light on how we think about and use the limited water resources of Colorado. A topic for discussion might be the traditional axiom, "In Colorado, water runs uphill toward money."

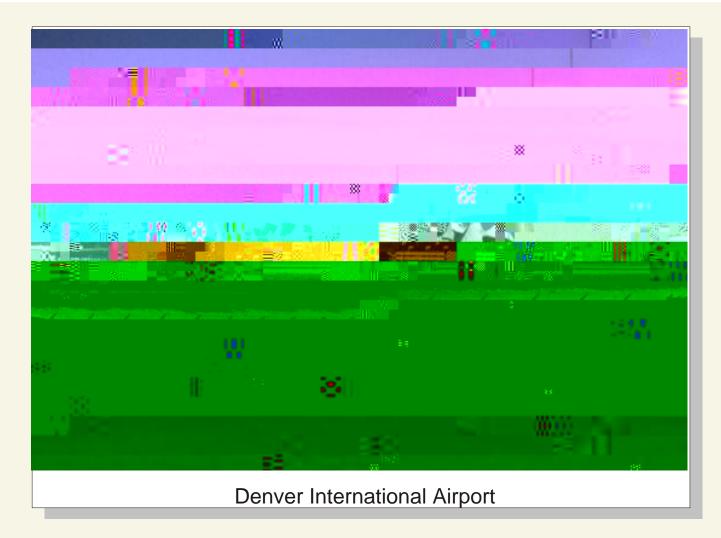
The proposed "Big Straw" project would take the State of Colorado's unused Colorado River water near the Colorado/Utah border and through a very elaborate system of aqueducts, pumping stations, and other facilities ship the water to the east side of the Continental Divide. This project would be very expensive, but could help lessen water shortages during drought years. Do you think the "Big Straw" project is a good idea? Do you think the record-setting 2002 drought might influence opinion on the project? Information on the project can be found at state/local newspaper, state government, and non-governmental organization websites.

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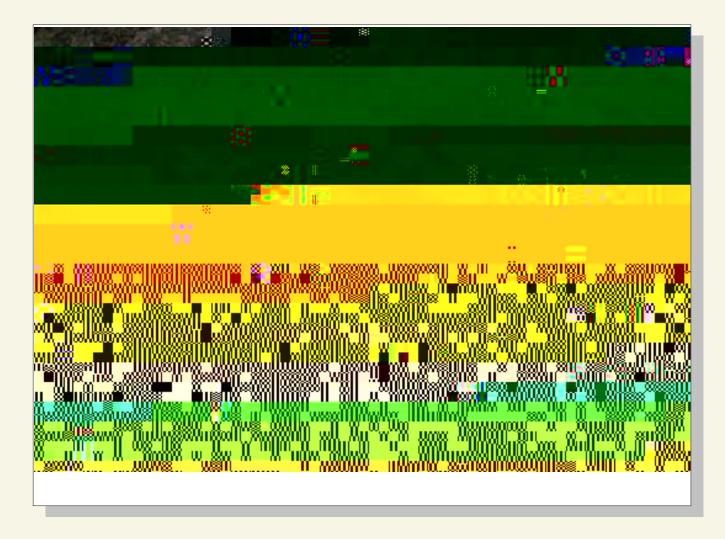


While the population of Denver proper has essentially stabilized, the growth of surrounding commuting suburbs continues to be vigorous. One result can be seen in the "brown cloud" that frequently hangs over the metropolitan area, much of which comes from vehicles operating in this high basin at the foot of the mountains. Responding to poor air quality and the need f

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Colorado can now claim one of the newest and largest airports in the World. Despite much controversy concerning its \$4 billion cost and location, in 1995 the state inaugurated DIA amidst wheat fields 20 miles east of Denver. Touted as state-of-the-art and an all-weather airport, DIA's modernistic terminal resembles a cluster of high tech tipis. Today, the area around the airport is rapidly being developed.



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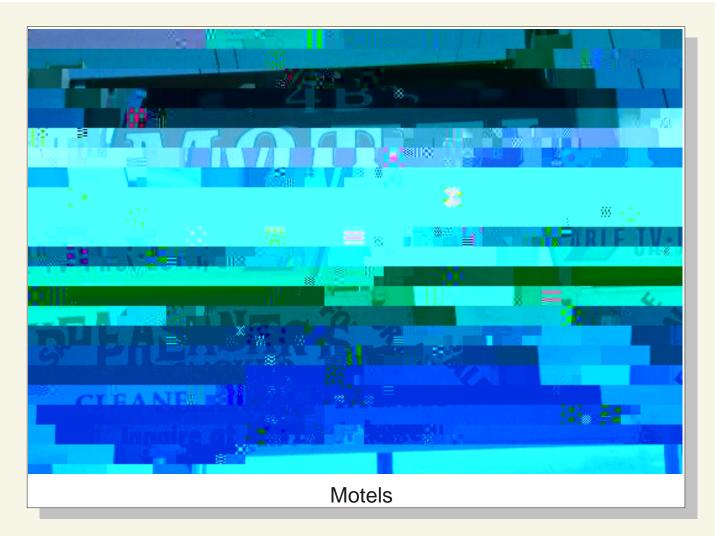


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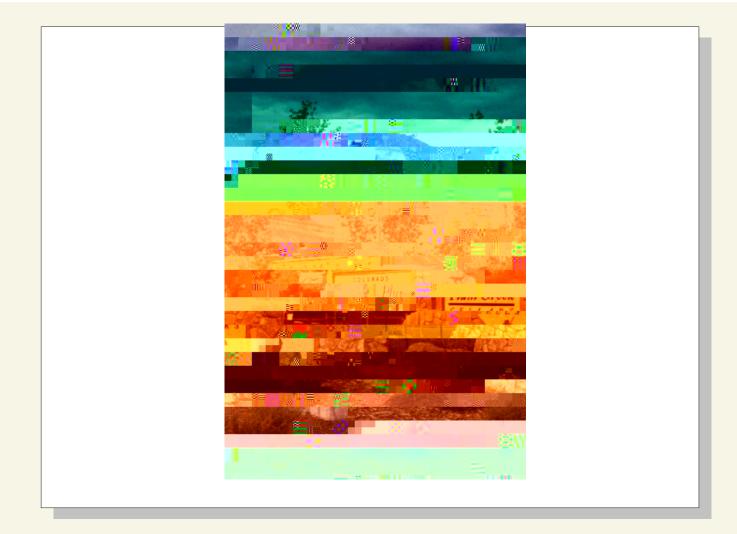
Snow is a mixed blessing in Colorado. Much of the state's agriculture depends upon irrigation water that comes from snowmelt. Likewise,

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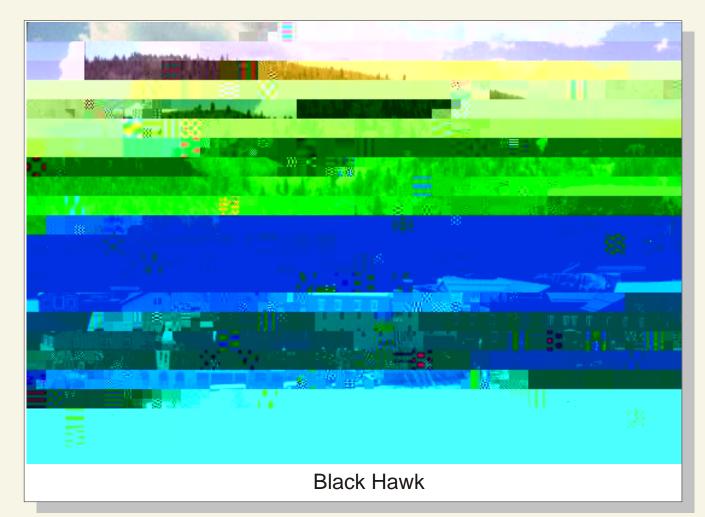


To the uninitiated, the seemingly endless fields of wheat and pastures of native grass convey a feeling of monotony. Many travelers comment that "there is nothing of interest to be seen!" However, in the small towns consistently bypassed by the interstate highway system there is much local "color." Motels in the region advertise and prepare for the annual influx of pheasant hunters, and as the sign suggests, if you lack the skill to shoot one, you can buy one (or more) to take home.

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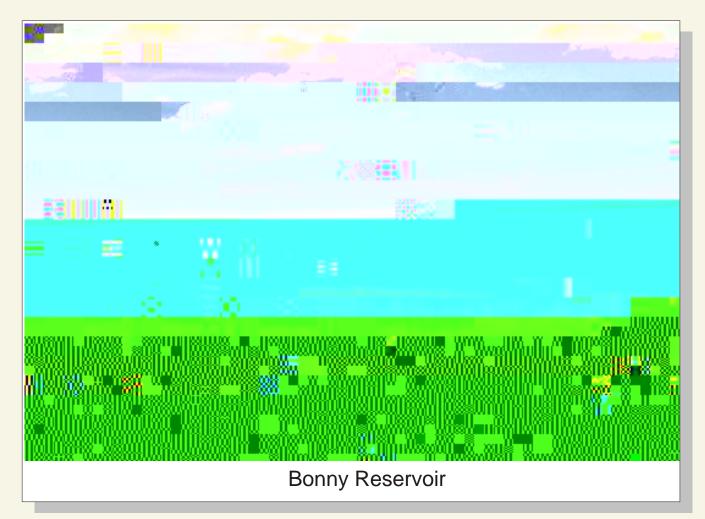


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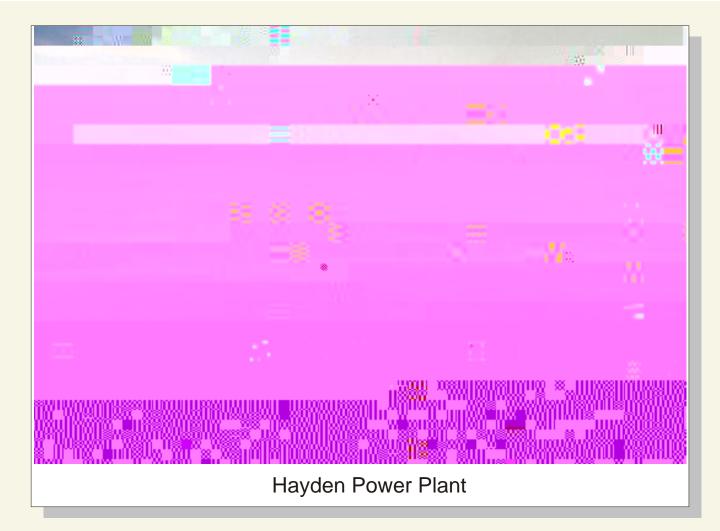
The boomtowns of Black Hawk and Central City were part of the region that produced Colorado's Initial Gold Rush of 1859. Rich placer mining was followed by the general digging up of the mountain sides, as today's huge tailings piles attest. The boom past, the towns' economies suffered as there was little else to support significant population. In recent years legalized gaming has arrived and with it a new boom in casino construction to accommodate increased tourism.

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In 1951, the U.S. Bureau of Reclamation completed a dam on the South Fork of the Republican River for the purposes of flood control and irrigation. Today, the reservoir is the focal point of Bonny State Park, a multiple use facility that includes water sports, fishing, hunting, camping, and bird watching. The park also protects a limited acreage of native "loess prairie," a grassland ecosystem otherwise destroyed by farming and grazing on this part of the Great Plains.

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Relative to other economic activities, mining in Colorado has declined in importance. Much of what remains is either for construction materials, such as sand and gravel, or for energy sources. The thermal electric plant at Hayden burns locally mined coal to produce power for a regional grid extending beyond the state's boundaries. Studies have identified the plant as a source of emissions causing acid rain affecting downwind forests.