



COMMUNITY PROFILE

LA PLATA COUNTY

COMPREHENSIVE PLAN

Map Exhibits for this report are available online at
www.laplatacountyplan.com

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I. INTRODUCTION

The purpose of the *La Plata County Community Profile* is to assemble economic, demographic, land use, planning regulations, and other information that can help the community understand where it stands today and how it has arrived here. The narrative running throughout the community profile is written with the intent of spurring ideas in the reader, not to convince them of one particular interpretation of the data. Where the data was available, long term trends were charted, going back as far as 1970. This long view back in time will help the community look decades into the future in developing the community comprehensive plan.

La Plata County achieved an important milestone 2008 — the completion of the County’s first strategic plan, called the *La Plata County Compass*. This document is the “road map” to our community’s vision of the future. It has been well received by county residents, as it reflects what the Board heard from all of you about your hopes and dreams for La Plata County. The County Compass is our touchstone, and decisions made by the Board are measured against their alignment with the core strategies and objectives of the strategic plan.

The La Plata County Compass strategic plan serves as the foundation for all the County’s policies. The La Plata County Comprehensive Plan will be organized on the Compass Plan, and the district plans & sub-area plans would provide further details of the comprehensive plan. Finally, the County’s land use development code would be created to implement the vision and goals articulated in these plans.

The Community Profile is organized around a number of questions about La Plata County. The questions are not necessarily answered in this report, but reliable information sources and interpretations are presented to inform the inquiry.

WHAT’S OUR HISTORY AND STORY OF PLACE?

WHAT’S THE FORECAST FOR THE FUTURE?

WHO IS IN LA PLATA COUNTY?

HOW DOES OUR ECONOMY WORK?

HOW HAS OUR ECONOMY PERFORMED?

HOW HAS GROWTH RELATED TO THE LAND?

WHAT LAND USE PLANNING IS IN PLACE TODAY?



WHAT'S OUR HISTORY AND STORY OF PLACE?¹

¹ Prepared by Jill Seyfarth, Cultural Resource Planning, Oct 2009

Southwest Colorado has a rich and long standing cultural tradition. The remains of people attributed to Archaic (7500 B.C.-500B.C.), Basketmaker (500 B.C.-750 B.C.) and Pueblo periods have all been found here. The Utes have been in the area at least since the 1500s.

The region lured many explorers in search of gold, silver and other opportunities for wealth. In 1776, Fathers Dominguez and Escalante traveled through the area in search of a route from Santa Fe to the California missions. Much of their route later became the Old Spanish Trail, which was used between 1830 and 1840 by Santa Fe traders on their way to California. The area was part of Mexico until the Treaty of Guadalupe Hidalgo ended the Mexican War in 1848, and the United States claimed jurisdiction. The Colorado Territorial legislature created La Plata County in early 1874. Encompassing present day La Plata, San Juan, Montezuma, and Ouray Counties, this massive region soon proved unmanageable and was redrawn in 1876 to include the equivalent of modern day Montezuma and La Plata Counties. The county further reduced to its current size in 1889, when Montezuma became its own county.

Ownership Patterns-Living Legacies in the County

In 1874 the Brunot Agreement between the Utes and the United States opened land to non-natives. Under the terms of the agreement, the Utes would receive annual payments of \$25,000 in exchange for 3.5 million acres of their land, including all of present day La Plata County. Congress ratified the Agreement on April 29, 1874, and went about its usual course to establish a federal presence in the area through Indian agencies and military posts. The U. S. Government built the Los Pinos Indian Agency near present day Ignacio in 1877. The Fort Lewis military post moved from Pagosa Springs in 1880 and operated for ten years from a site on the La Plata River, about 11 miles south of present day Hesperus.

In 1891, Congress passed the Hunter Bill, which allowed the Utes to choose land that tribal members could individually own and to hold some lands in common. The Mouache and the Capote Ute Bands (now the Southern Ute Tribe) accepted these terms and tribal members selected allotments in 1896. The Weeminuche Band (now the Ute Mountain Ute Tribe) opted to continue to retain their lands in common. The available lands, located in a 15-mile wide band stretching across the southern one third of the county, became known as the 'Ute Strip'. Remaining unallotted lands were opened to homesteaders in May 1899 and created a small homesteading rush. Mormon settlers and others established town sites on the west side of the county. The towns of Kline, Redmesa and Marvel were thriving by 1916.

Unclaimed lands (about 200,000 acres) were returned to the Southern Ute Tribe in 1938. The mix of Ute Tribal, individual Ute and individual non-Ute ownership in the southern 1/3 of the county is the legacy of the Ute Strip. Federal actions related to Ute agreements created other lasting legacies. The 6,000-plus acre military reservation established for Fort Lewis is now owned by the State of Colorado. The old military fort was turned into an Indian School and then into a public school that evolved into a college that moved to Durango in 1956. Fort Lewis College is tuition-free to Native Americans, a stipulation of the transfer of the old military reservation from federal ownership to the

State of Colorado. Ignacio was eventually founded near the Los Pinos Agency, and two large federal water projects (Vallecito Lake and the Animas-La Plata Project) have been developed to address irrigation issues and to meet historic Ute water claims.

Homesteaders and prospectors flocked to the region north of the Ute Strip. The first prospectors followed John Moss from California to the mouth of La Plata Canyon in 1873. Since they were there before the Brunot Agreement had been signed, Moss negotiated an agreement with Ute Chief Ignacio that allowed the miners to use a 36 square mile area in exchange for numerous blankets, livestock and gifts. The miners worked their way up La Plata Canyon with varying amounts of success over the years and leaving a series of privately owned claims within the canyon. A large gold strike in the 1930s brought one last flush of prosperity to the La Platas. The region never enjoyed access from a railroad and the small, isolated mining camps that had been established near the mines faded away.



The fertile valleys of the lower Animas and Pine Rivers attracted the county's very first farmers and ranchers. Other early claims were filed in modern day Hay Gulch and Thompson Park. Later homesteaders settled on the mesa tops and developed irrigation ditch systems to bring water to their lands. Frank Hall noted in his 1895 *History of Colorado* that within the first 30 days after the ratification of the Brunot Agreement "...every acre of available land in the (Animas) valley had been located and staked off in ranch claims."

The northern, higher-elevation claims along the river drainages were mostly used as "summer range" for sheep and cattle. The northern one third of the county had few homestead claims, but was used for livestock and logging. Alarmed by the growing desecration of unregulated logging and grazing on public lands in the west, Congress passed the Forest Reserves Act in 1891. The act empowered the President to withdraw designated lands from the public domain. The withdrawn lands, called reserves, could then be managed to protect their natural resources, including timber and grasses. In 1905 President Theodore Roosevelt signed legislation to create the San Juan Forest Reserve (now the San Juan National Forest). The legislation placed more than 3.7 million acres in Southwest Colorado under federal conservation programs. About forty percent of La Plata County is in federal ownership, much of which was the land located within the designated forest reserve.

Towns, Transport and Industry

Several early towns sprang up to serve the early settlers, including Hermosa (1876), Animas City (1876), Los Pinos Indian Agency (1877) and Pine River (1877/1878). Wagon roads connected the area from Tierra Amarilla, Del Norte (via Silverton) and Rico (via Rockwood). No one had even mentioned the word railroad in this very remote country.

The arrival of the Denver and Rio Grande Railroad (D&RG) in 1881 and its subsequent connection to Silverton in 1882 brought accelerated and intensive change by providing easy (for the times) transportation and freighting, as well as access to the outside world. The D&RG also invested capital and created the City of Durango. The D&RG was instrumental in establishing a smelter in Durango to process the ores from the mines, almost guarantying a prosperous community. When the Ute Strip opened for homesteading, farmers and land speculators filed for homesteads and carved new towns along the railroad including Tiffany, Allison, Oxford (first known as Grommet) and Falfa (formerly called Griffith). A second railroad, the Rio Grande Southern, arrived in 1890, providing connections to the mines around Rico and Telluride. In 1905, the Denver and Rio Grande added a Farmington branch connecting Durango to Farmington, New Mexico. By 1892, the railroad operations, coal mining, agriculture and the smelter were major county industries, followed by lumber and the precious metal mining in the La Plata Mountains. Tourism was a small but steady part of the economy. In the 1890s the D &RG advertised a four day 1,000-mile-loop rail excursion through scenic southwestern Colorado. An exhibit at the Columbian Exposition in Chicago in 1893 of the Mesa Verde's Ancestral Puebloan ruins drew new groups of sight seers as well.

The Depression of the 1930s devastated La Plata County, but was somewhat assuaged by the prolific New Deal programs and the federal support of operations on the county's extensive federal land holdings. One of the New Deal's greatest improvements in rural life came from the Rural Electrification Administration (REA). Under this program the La Plata Electric Association (LPEA) formed to build transmission lines to deliver electricity to the rural areas in the county. By 1939 LPEA had obtained REA loans and constructed 188 miles of line to serve 350 people. Most rural areas received electricity in the mid 1940s. Other federal involvement occurred during World War II when Durango was the home of a radioactive ore processing site that provided some of the uranium for the Manhattan Project; after the war Durango had a vanadium production plant that employed a large percentage of the local workforce.



A new industry brought growth and money into the county after World War II. The Southern Union Gas Company made a significant find in 1945 at the Barker Dome in northern New Mexico and southern La Plata County. The Stanolind Oil and Gas Company (Standard Oil of Indiana) soon followed with a major find on Southern Ute Lands with their "Ute Indian No. 1" well that had potential to produce 15 million cubic feet of gas per day. In 1956, sixteen major oil production firms had offices in La Plata County. Over 800 new homes were built in the county between 1955 and 1960. After five years of investigation and speculation and no new strikes, the oil companies sent their professionals elsewhere. While field operations continued, the influx of well paid administrative professionals was over by the mid 1960s. Another series of gas wells was initiated in the 1970s along with processing plants to remove liquids from the gas.

The gas field development contributed to an already developing road system in the county. The railroad had been the dominant form of transportation into the 1920s but the rising popularity of the automobile demanded better roads. By 1951, passenger traffic on the train was down to a trickle.



The D&RG discontinued service to Alamosa in 1951, as did the Rio Grande Southern Railroad. The Colorado State Highway Department, now known as the Department of Transportation, initiated a series of expanded and realigned roads that have left a lasting legacy in La Plata County. Highways 160 and 140 were realigned in many places, bypassing small communities. Highway 550 through the Animas Valley was moved east from what is now known as County Road 203 and placed down the middle of the valley. Other social changes affected the county in the 1950s. A new community hospital district was formed, providing an alternative to Mercy Hospital which also expanded and remodeled in the 1950s. The community hospital district functioned until the late 1980s. After a very lengthy process, the state-mandated public schools consolidation was completed and all rural one-room school houses were closed in favor of larger regional elementary schools. Junior high and high schools were located in Ignacio, Bayfield and Durango. Government agencies employed a growing number of specialists.

Although the county lost its sole remaining rail freighter, it realized a gold mine in the form of visitors coming to ride the train. Part of a general rise in tourism after World War II, rider ship numbers on the Silverton train began to rebound. The train between Durango and Silverton survived because of a prevailing American sentimentality about the old west that was also a boon for the numerous “dude” ranches operating in the county in the 1950s. Tourism’s strong foothold in the economy, bolstered after the completion of Vallecito Lake in 1941, expanded further with the opening of the Purgatory Ski Area in 1965. Year-round recreation and sightseeing anchor the local tourism industry, as it has for over 100 years. No longer attracted by the opportunities to live off the land, new pioneers came to mine La Plata County’s recreational and scenic opportunities. Starting in the 1960s, the surge from the cities to the suburbs took on its own character in La Plata County, where people with no interest in farming or ranching sought acreage in the country. Ranchers and farmers found themselves with a new opportunity to sell off parts of their land to these new settlers and long held land ownership patterns began to change.

Population

La Plata County enjoyed continuous growth. The population figures below show the fivefold increase between 1880 and 1890 when the trains arrived. A more modest but still remarkable 27% increase occurs from 1890 to 1900 and continues at a very healthy rate after the opening of the Ute Strip and into the 1910s. The table also shows the distribution of people in La Plata County. In the 1890 census about half of the County’s population lived in Durango, but the county population remained more rural until sometime in the 1950s.

Population of La Plata County From 1880 to 1960 Per U.S. Census Data

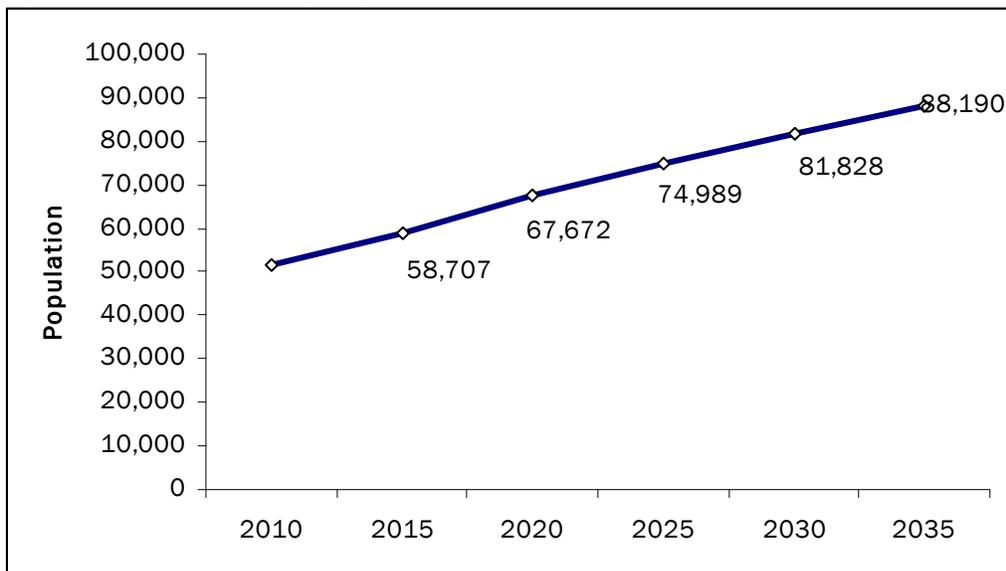
Year	County Durango	Bayfield	Ignacio	Colorado	
1880	1,110				194,327
1890	5,509	2,726			412,198
1900	7,016	3,317			541,483
1910	10,812	4,686	227		799,044
1920	11,218	4,116	267	290	939,191
1930	12,975	5,400	277	464	1,035,791
1940	15,494	5,887	372	555	1,123,296
1950	14,880	7,489	335	526	1,325,089
1960	19,225	10,530	322	609	1,753,947

II. DEMOGRAPHICS

WHAT'S THE FORECAST FOR THE FUTURE?

The Colorado Demography Section provides population forecasts for the entire county (includes the municipalities Durango, Bayfield, and Ignacio). Population forecasts are not available for individual municipalities. The Demography Section forecasts are derived using a seven-step methodology that begins with economic forecasts provided by the Center for Business and Economic Forecasting. The economic forecasts are used to generate labor force supply and demand forecasts, which are then used to derive net migration. Net migration and birth and death rates are combined to produce the forecast summarized in Figure 1.

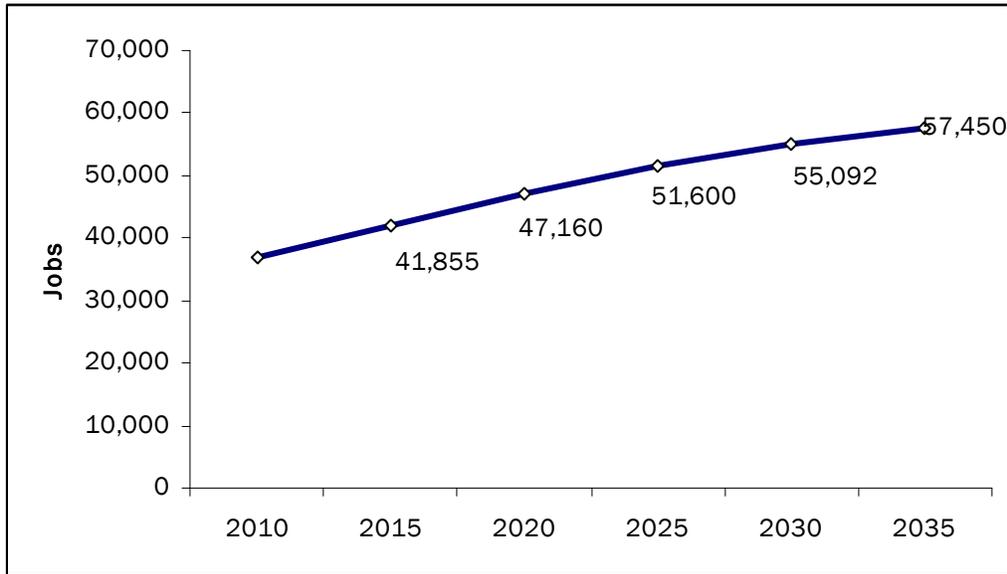
Figure 1 – La Plata County Population Forecasts



Source: Colorado Demography Section http://www.dola.state.co.us/dlg/demog/pop_totals.html

Demographers and state economists are projecting continued growth in jobs, wealth, and population in La Plata County. While the estimates from the 2007 show that the population hovers around 1.4%-1.6% annual growth from 2000-2010, the forecasts show annual population growth rates edging up to 2.6%-2.9% through 2020 and continuing at just over 2% through 2025. In comparing the parallel trajectory of the jobs forecast to the population forecast, the underlying assumption behind the demography section's projection methodology that jobs drive migration and population growth is visible.

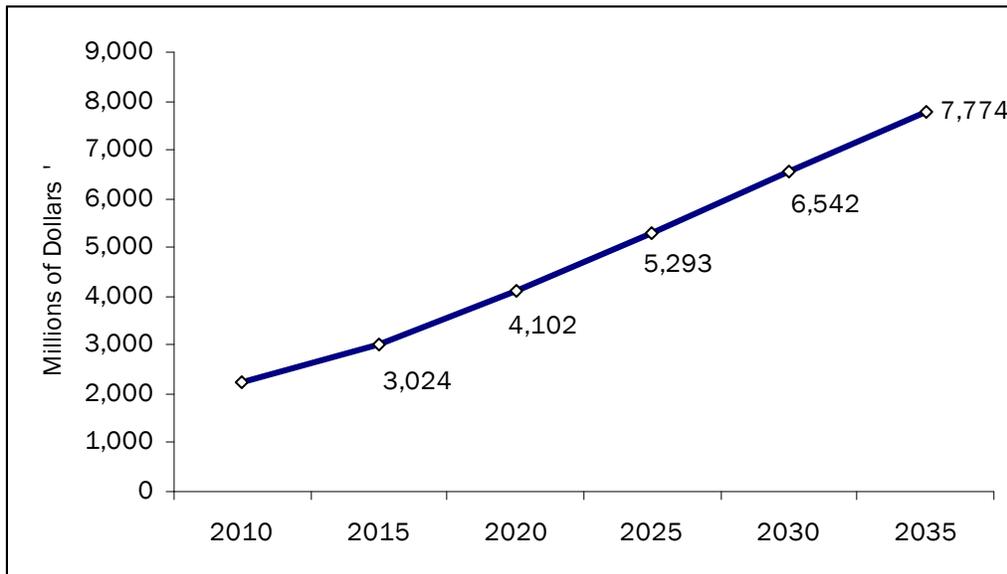
Figure 2 – La Plata County Employment Forecast



Source: Colorado Demography Section http://www.dola.state.co.us/demog_webapps/jobs_cbef

Personal Income is also expected to keep growing, with forecasts (also provided by the Center for Business and Economic Forecasting) predicting that the amount of wealth flowing into La Plata County will more than double between 2010 and 2025.

Figure 3 – La Plata County Total Personal Income Forecast



Source: Colorado Demography Section
http://www.dola.state.co.us/demog_webapps/personal_income

WHO IS IN LA PLATA COUNTY?

La Plata County's demographics analysis must be broadened beyond estimates of the number of full-time residents because at any given time of year, there are thousands of people in La Plata County who are not full-time residents. To keep this characteristic of the county in the forefront, the demographic description breaks the population into segments: 1) full-time residents, 2) tourists 3) second home owners, and 4) college students.

Full-Time Residents

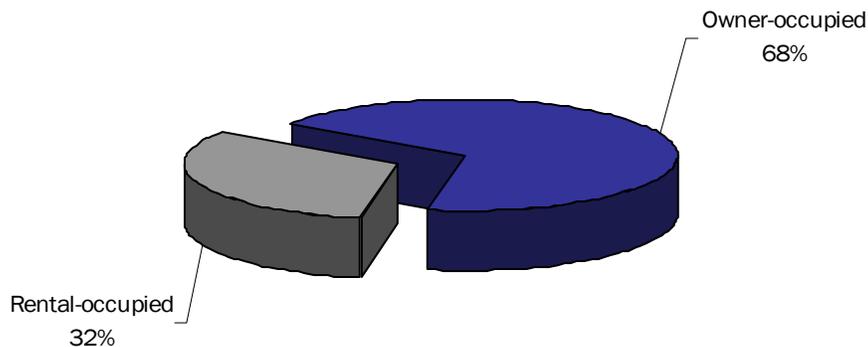
Almost two out of three La Plata County residents are part of the labor force. With a household size of 2.4 residents per dwelling unit¹, about one-third of the county households rent while two-thirds own their homes. La Plata County's per capita income ranks 47th highest of the 64 counties in the state, but falls short statewide per capita income of \$41,200, which is higher because of more prosperous, more populated metropolitan areas included in the statewide statistic.

Figure 4 - Latest Population Statistics

Population 2007	49,758
Labor Force 2007	29,956
Per Capita Income 2007	\$38,263
Housing Units 2007	26,045

Source: Colorado Demography Section

Figure 5 - Tenure of Occupied Housing Units



Source: 2000 Census

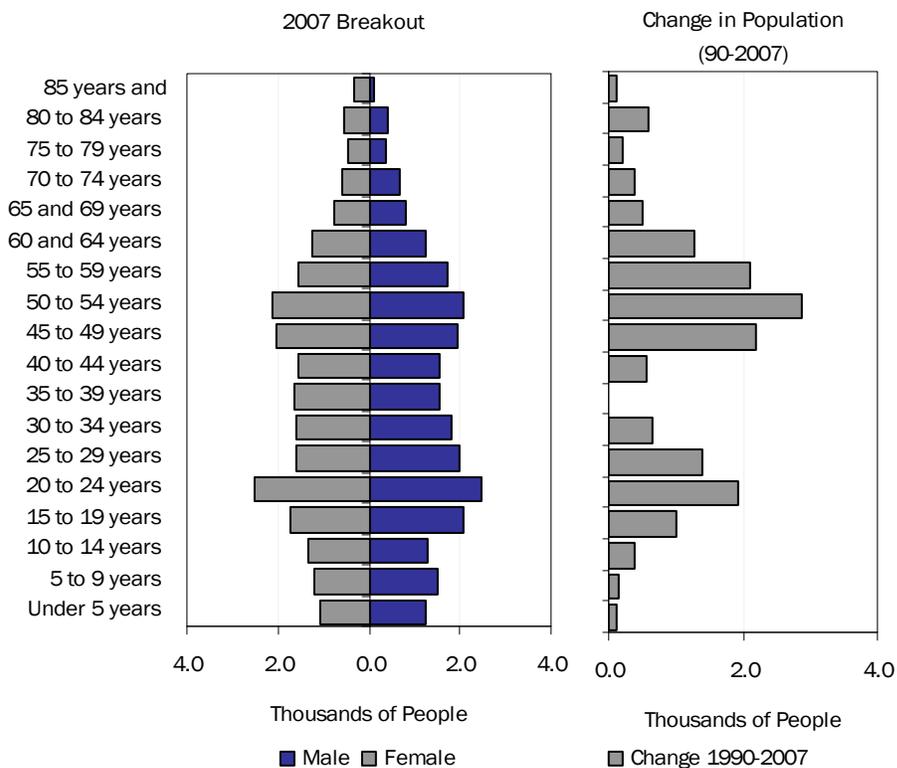
Looking at the age structure in 2007 (Figure 6), one immediate observation is that the baby-boomer generation has an obvious presence in La Plata County. Baby-boomers are currently age 45 to age 63 and form a distinct bubble in the upper reaches of the population pyramid. By looking at how the population changed between 1990 and 2007, it is obvious that the baby-boomers were moving into

¹ 2000 Census

La Plata County, and probably are still moving here as they continue to reach traditional retirement age. In 2000, 18% of the population in La Plata County fell into the baby-boomer generation.

The population pyramid also shows a distinct swell of population in the 15-24 year old range, which is relatively constant for La Plata County, not moving up the pyramid between 1990 and 2000 like the baby boomers. One possible explanation for the swell in this age group is that Ft. Lewis College students and others who initially come because of Ft. Lewis College stay for other reasons. One other possibility is that the growth in construction jobs have made it possible for younger residents to move into the county. The swell in the 15-24 year age group is not reflected nationally, where the population pyramid shows a dip in this same age group.

Figure 6 - Age Structure

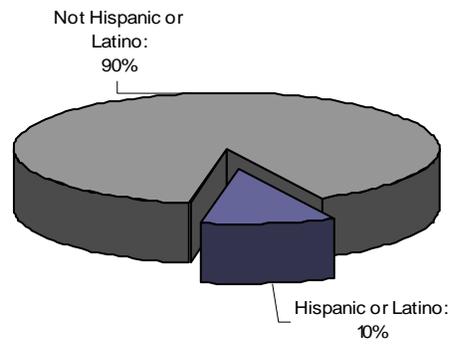
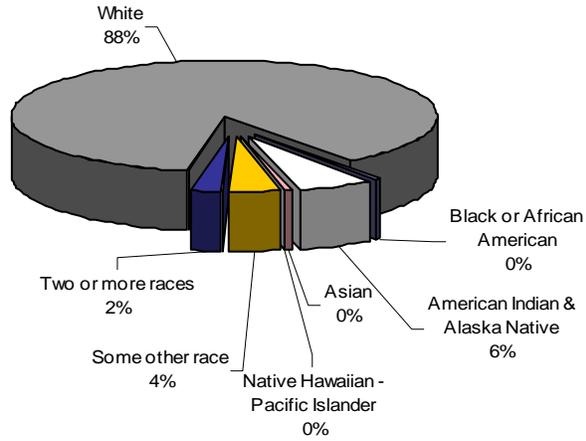


Source: US Census 1990, American Community Survey 2007

The upside-down pyramid shape of the younger age cohorts could spell decreasing enrollment in area public and private schools without migration of families with school-aged children into the community.

American Indians are increasing slightly as a share of the total population, up from 4.9% of the population in 1990, while the White population percentage of the total declined to 87.3% down from 90% in 1990. Most of the American Indian population lives on reservation lands.

Figure 7 - Population by Race, and Hispanic/Non-Hispanic 2000 Census



Source: 2000 Census

Tourists

Lodging data provided by the Durango Tourism Office² provides some idea of the overnight capacity of the county. Assuming double occupancy for the busy nights, hotel and motel rooms have an upper-end capacity for almost 3,500 people per night, with private camping able to handle another 2,200 people per night. Between guest ranches, short-term rental condos or houses, and cabin rentals, there are over 50 establishments renting additional lodging units (# of units not published). Given this inventory it is a reasonable estimate that accommodations inventoried by the Durango Tourism Office appear to accommodate over 6000 people per night. The Durango Tourism Office conducted this inventory over most of the county but it did not include Durango Mountain Resort or any of the campgrounds on USFS or BLM land.

Figure 8 - La Plata County Lodging Inventory

Hotel and Motel Rooms	1,770
Bed and Breakfasts	11
Private RV-Camping Spots	1,103
Guest Ranches	4
Establishments Renting Cabins	20
Establishments Renting Condos or Houses	27

Source: Durango Tourism Office "Trip Planner" 2009

The Durango Tourism Office conducted an informal survey to estimate overnight use in the Durango Area and estimates that there are roughly 750,000 room-nights (1 person, 1 room, 1 night) annually in the La Plata County area. They estimate that an additional 250,000 annual day-trip visits bump the annual visitation up to roughly one million visitor days. The San Juan Public Lands 2007 Annual Report³ estimates that for the whole unit, including Archuleta, La Plata, San Juan, Montezuma, and Dolores counties 1.9 million people visited USFS lands while 660,000 visited BLM lands in 2006. Given that La Plata County accounts for most of the tourist activity in the region, these two estimates of total tourist activity appear to agree with one another.

Figure 9 - Latest Tourist Visitation Statistics

Estimated annual visitor-days 2007	1,000,000
Estimated annual room-nights 2007	750,000
Low estimate of lodging and private campground nightly capacity 2009 (people)	6,000
Durango Mountain Resort skier-days 2007-2008	270,000
Train Ridership 2008	144,687

Source: Durango Tourism Office, Four Corners Quarterly
<http://soba.fortlewis.edu/FCEQ/fceq/index.html>

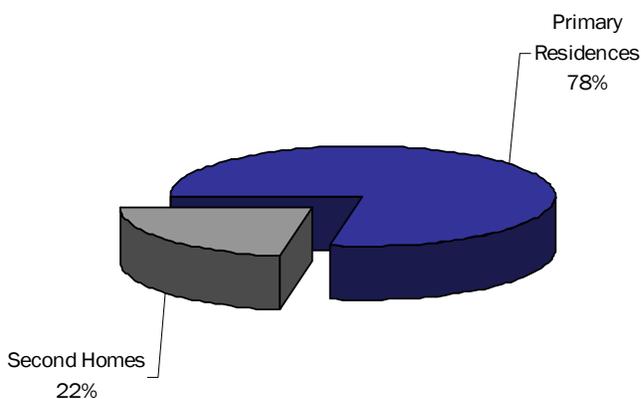
² <http://www.nxtbook.com/nxtbooks/durango/otp08/> Data does not include Durango Mountain Resort

³ <http://www.fs.fed.us/r2/sanjuan/about/>

Second Home Owners

A 2008 report entitled *La Plata County Economic Drivers* conducted for Region 9 Economic Development summarizes a study that estimates the number of second homes in La Plata County at 4,102 units, or 22% of the 18,743 total housing units in 2006 (consultants to Region 9 were Lloyd Levy Consulting and Donna Graves Information Systems). This ratio is much lower than the intensively developed resort areas further north, such as the neighboring Town of Telluride and San Miguel County with 55% second homes or Pitkin County and the mature resort towns of Aspen and Snowmass Village which host over two-thirds second homes.

Figure 10 - Ratio of Second Homes to Primary Residences in La Plata County



Still, with 4,100 second homes in the county accounting for 22% of the housing stock, second homes do not go unnoticed here in La Plata County. Were all the second homes occupied at once with the Colorado statewide household occupancy of 2.5 people per unit (Census 2000), the total second home occupancy would exceed ten thousand people. That's almost twice the estimated occupancy of the county's private overnight accommodations (excludes Durango Mountain Resort and USFS campgrounds). Second homes have the potential to affect peak population more dramatically than any other land use, including hotels and motels.

College Students

With over 3,700 students enrolled in fall of 2008, Fort Lewis College contributes significantly to the population and the economy in La Plata County. Pueblo Community College, now Southwest Colorado Community College, although much smaller, also adds to the population and economic activity in the county. The Fort Lewis College student body lends to the diversity in the county by adding young people to the mix, employing a field of highly-educated professors and staff, and drawing nearly 800 native American students and over 1000 out-of-state students to Durango at any given time.

Figure 11 - Comparing Maximum Second Home Occupancy to Hotel Motel Occupancy

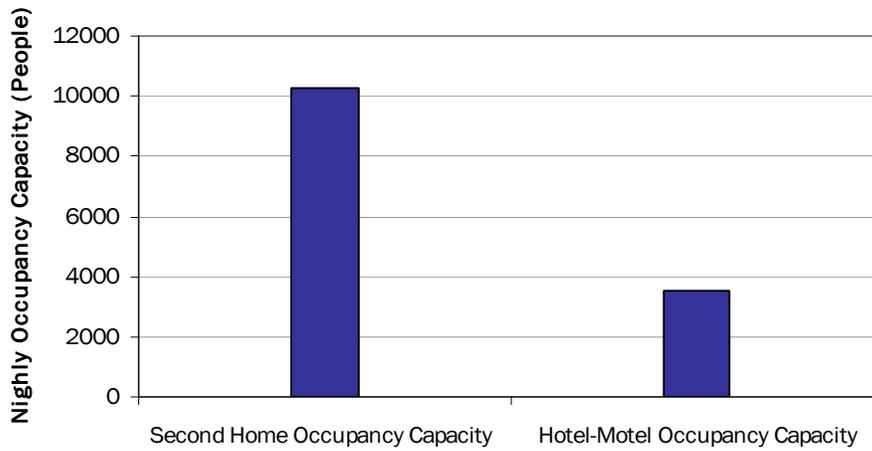
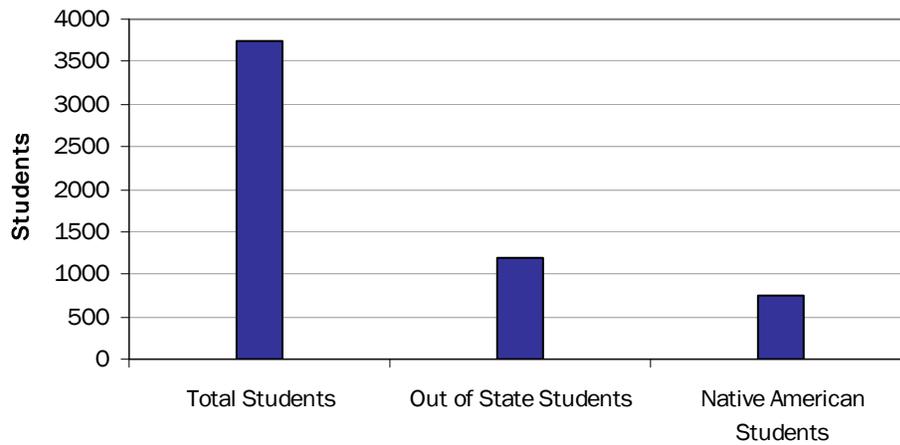


Figure 12 - Fort Lewis College Enrollment



Source: Four Corners Quarterly <http://soba.fortlewis.edu/FCEQ/fceq/index.html>

III. ECONOMIC VITALITY

HOW DOES OUR ECONOMY WORK?

Understanding Economic Drivers

Economic driver industries are those that bring dollars from outside of the local economy. We know that money must flow into our economies from the outside or it would not be long until the local economy was bereft of capital, as all of its monetary resources drifted out from taxes, import of goods, and other forms of remote expenditures. Once new dollars are in a regional economy, some are exchanged for local goods and services, resulting in additional wealth creation by businesses serving local residents. In Colorado, money historically entered local Western Slope markets from the outside when extractive industries, (such as the natural gas and oil industry) sold products to purchasers outside of the local economy. Currently on the Western Slope of Colorado, many of these driver industries have been augmented by tourism and sometimes replaced by it. As a source of outside dollars, tourism has proven to be a very strong, albeit unpredictable, economic driver for many communities. In La Plata County, many diverse activities are the gateway for outside dollars to enter the local economy. Monitoring the strengths and weaknesses of our base drivers can tell us much about the economy because virtually everything else is dependent on the base drivers. Growth or decline in the economy can be traced to the health of the economic drivers. The rest of the economy either serves the driver industries (for example a linen supplier that serves hotels and restaurants) or the employees (grocery stores, auto repair shops, shoe stores).

La Plata County Economic Drivers

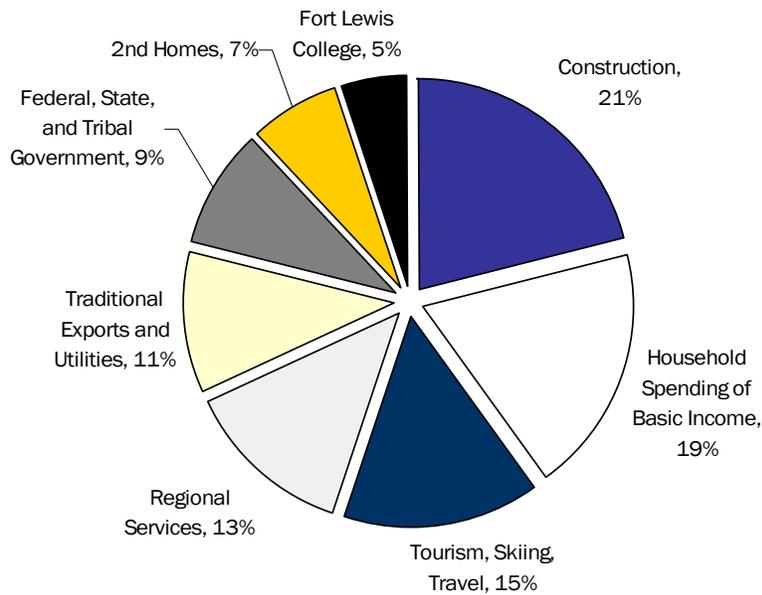
Region 9 Economic Development completed a study in summer of 2008 entitled *La Plata County Economic Drivers: Job Generation by Second Homes and Other Economic Drivers*⁴. This is the most thorough and place-specific economic driver study conducted in La Plata County to date. The purpose of this study was to identify the base drivers in La Plata County and quantify how much each contributes to the total number of jobs. The study includes custom methodologies for isolating effects of economic drivers that are not contained in standardized state and national economic data such as second homes, Fort Lewis College, and tourism. Using a combination of local data for the custom studies and national/state data, consultants quantified the total jobs generated by each of the economic drivers using an input-output model calibrated for local conditions.

TOURISM, SKIING, TRAVEL

Visitors come to La Plata County and spend money that originated outside of our regional economy, meaning that all tourist spending, on anything from lift tickets- to hamburgers- to a piece of artwork from a festival booth, is acting as an economic driver.

Figure 13 - % Share of La Plata County Base Drivers (total jobs)

⁴ Consultants on the economic driver study were Lloyd Levy Consulting, Wheatridge, CO, and Donna Graves of Information Services, Durango, CO



Source: Economic Drivers Study: Job Generation of Second Homes and other Base Drivers, Region 9 Economic Development, Lloyd Levy Consulting, Dona Graves Information Services, 2008

REGIONAL SERVICES

The Durango area has served as a specialized and professional services hub for many decades. Because people from a large area come to La Plata County for these specialized goods and services, these industries bring in outside dollars and therefore constitute an economic driver. The regional services base driver includes industries such as trade and transportation, information and communications, financial and insurance, professional and business, and education and health.

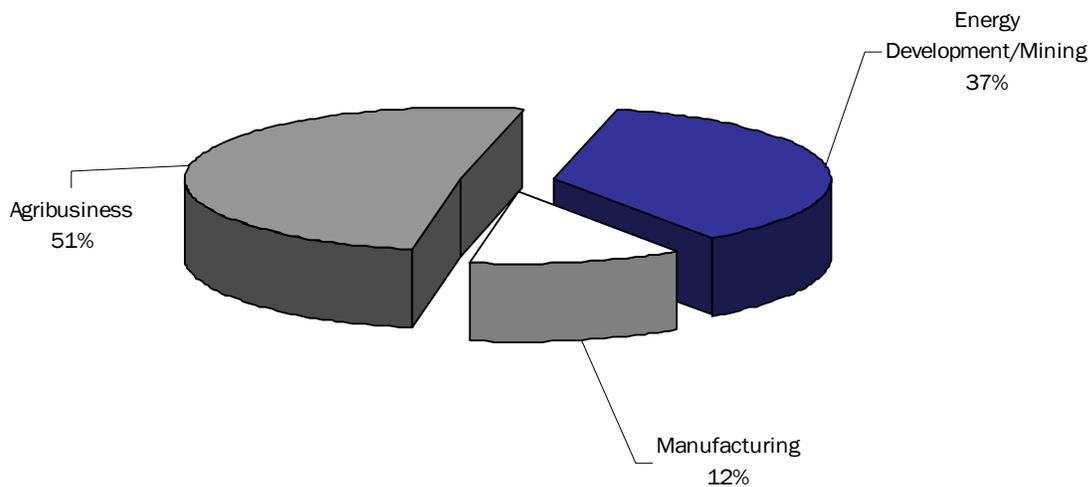
TRADITIONAL EXPORTS AND UTILITIES

According to the Colorado Demography Section forecasts, the components of traditional exports are agribusiness, manufacturing, and mining (includes gas and oil development). As of 2007, agribusiness was the largest traditional export industry in the county accounting for half of the total export oriented jobs (See Figure 14 - Components of Traditional Exports).

STATE, FEDERAL, TRIBAL GOVERNMENT

The tax revenues streaming larger scale government are not necessarily collected locally, so expenditures from these levels of government bring new money into the county and act as an economic driver.

Figure 14 - Components of Traditional Exports



Source: Economic Drivers Study: Job Generation of Second Homes and other Base Drivers, Region 9 Economic Development, Lloyd Levy Consulting, Dona Graves Information Services, 2008

SECOND HOMES

Construction of second homes is funded by out-of-town money. Similarly, as second home occupants spend money on groceries, restaurants, hardware, or entertainment, they infuse yet more outside dollars into the economy, making for a powerful economic driver.

FORT LEWIS COLLEGE

The college is big enough to deserve its own category because it is funded in large part by state and federal funding, which are outside dollars coming into La Plata County in the form of staff salaries, capital projects done by local firms, and other local expenditures. Furthermore, students are generally subsidized by their parents or other federal or state scale financial aid, so student spending is also an economic driver. Local economist often remind us that Fort Lewis College helps ease the swing from summer tourism off-seasons and wintertime, which would be much sharper without a Ft. Lewis College in Durango.

CONSTRUCTION

Because much of the construction is funded by wealth accumulated outside of the La Plata County, part of the construction activity in the county also acts as an economic driver.

HOUSEHOLD SPENDING

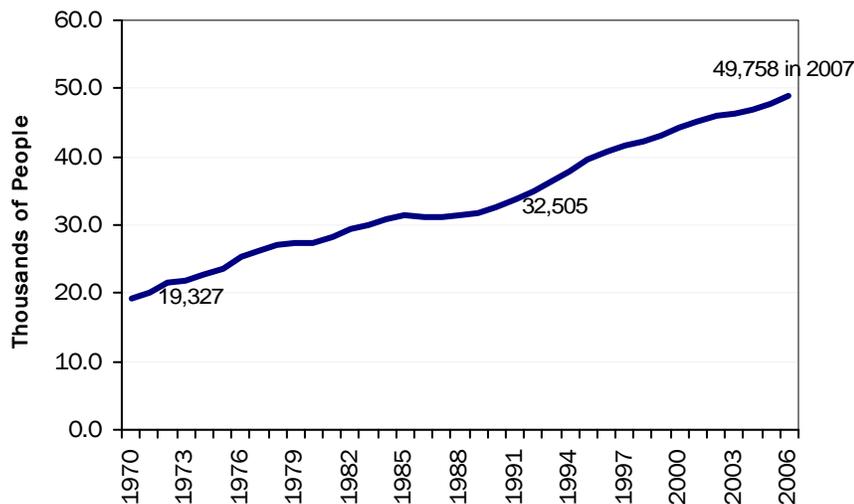
Transfer payments, dividends, rents, and other payments that come into the county via residents' mailboxes are also new dollars flowing into the economy. Households themselves can act as economic drivers, even though they may appear to be regular, working families.

HOW HAS OUR ECONOMY PERFORMED?

A Steady In-flow of People and Wealth

Between 1990 and 2007, La Plata County's full-time population increased by 17,253 people, a 53% increase over the number of people living here in 1990. During the previous 20 year period between 1970 and 1990, the county was all but quiet, as 13,178 new people were added to the mix in La Plata County, representing a 68% increase over the population in 1970.

Figure 15 - La Plata County Population



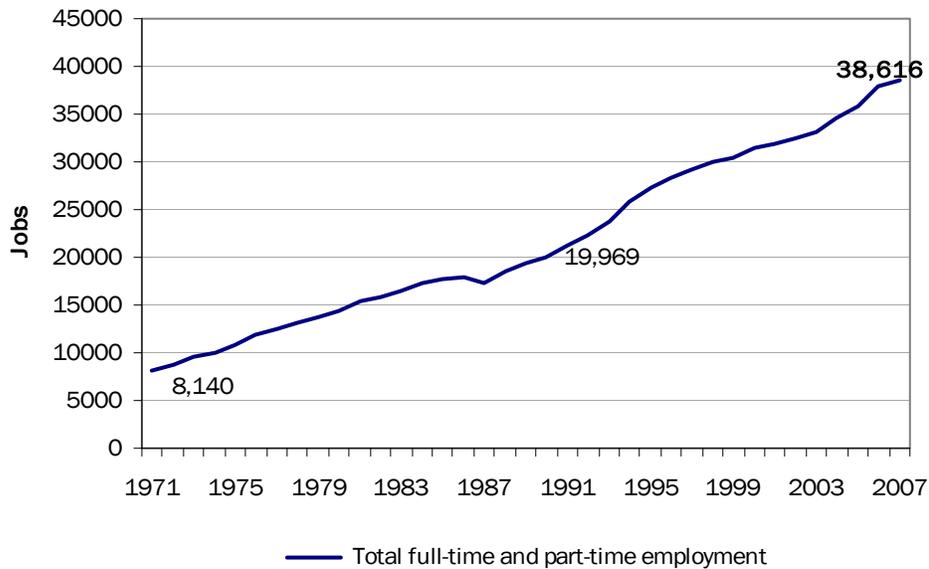
Source: Economic Profiling System, Headwaters Economics; Colorado Demography Section for 2007 estimates

The Colorado State Demographer, Jim Westcott has reminded policy makers statewide for decades now that while other factors certainly contribute, the availability of jobs is a necessary pull-factor for migration. Without jobs, population growth is likely to be slow, flat, or declining. The parallel shape of the jobs and population trends in La Plata County for the past four decades suggests that Westcott is correct (Figures x and x).

The jobs and increasing prosperity running for the past several decades is reflected in the dramatic increase in personal income brought home by county residents. While the population has more than doubled, the annual income brought home by county residents has increased about six-fold (adjusted for inflation).

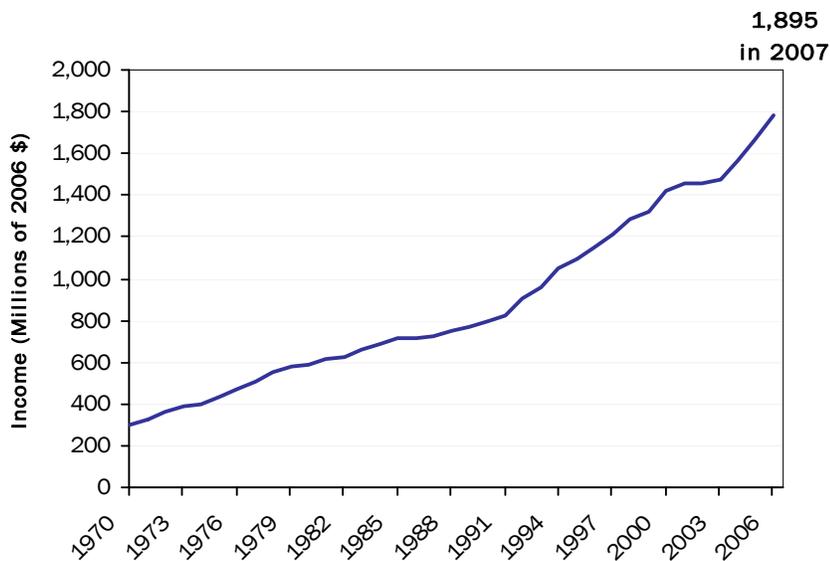
As a regional goods and services hub already established by the early 70s for the surrounding rural areas and reservations, the Durango Area was home to a core set of investors who were (and still are) willing to bet on Durango's future. In addition to the long-standing business community, the economic growth occurring in La Plata County is also the result of national-global scale trends that have also resulted in changes in many other high-amenity communities

Figure 16 - Jobs in La Plata County



Source: Economic Profiling System, Headwaters Economics; Colorado Demography Section for 2007

Figure 17 - Personal Income in La Plata County



Source: Economic Profiling System Headwaters Economics, Bureau of Economic Analysis

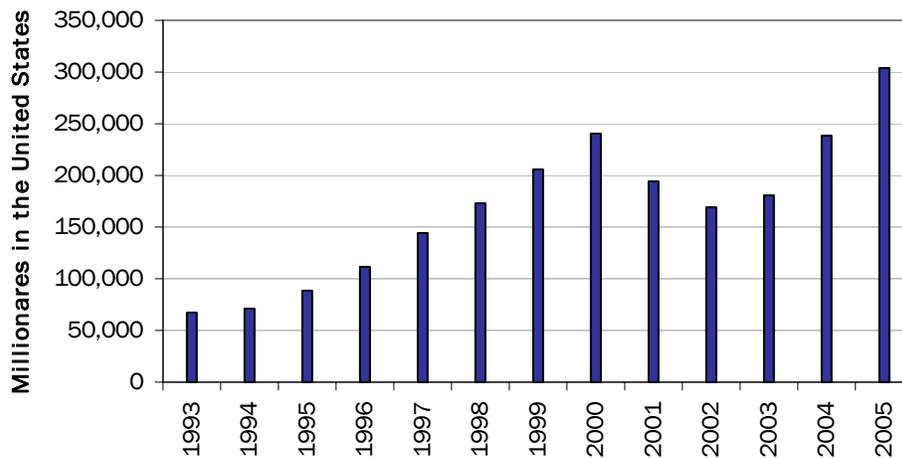
throughout the West. A combination of factors came together beginning in the late 70s to create a 30-year surge of wealth creation in the United States. In 1978, 100,000 households

in the United States brought home \$600,000 or more annually (in today's dollars). By 2006, there were six-times as many households in this very-high income bracket. Figure 18 shows the number of millionaires in the U.S. during the past 2 decades, taking a slight post 9-11 dive, but recovering quickly, leaving over 300,000 millionaires in the United States in 2006.

Large quantities of discretionary income generated during the run-up of the past few decades combined with better automobiles, expanding air travel, and revolutionary changes in communications technology, leaving many families and individuals with more options and mobility. Because of its attractiveness, amenity migrants were leaving hectic urban environments for a more remote, small-town lifestyle in Southwest Colorado.

Many new residents coming into the county have brought capital with them from careers in other places and are investing or spending some of it here in La Plata County. Job markets spurred by this investment combined with energy development to make a good growth period lasting through the early 80s. By the late 1980s, tourism and amenity migration were underway, spurring rates of job, population, and personal income growth that far exceed national averages.

Figure 18 - Number of Millionaires in the United States (2005 Constant Dollars)

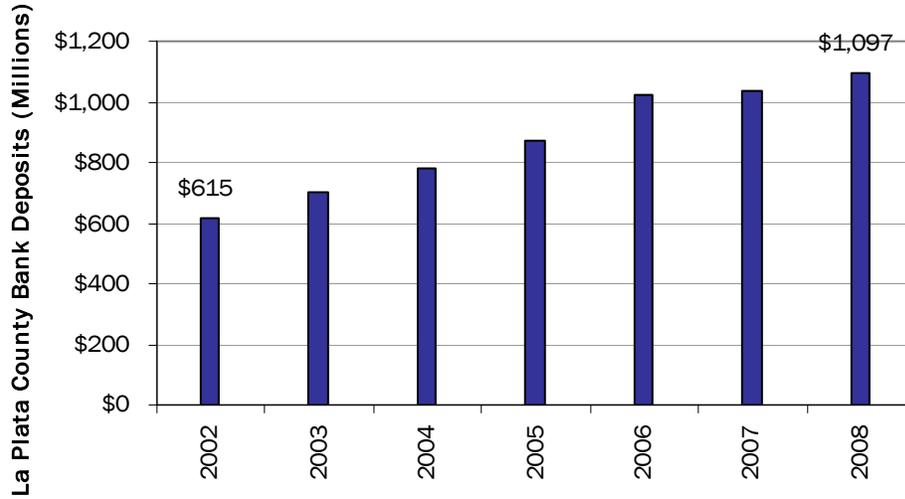


Source: Economic Research Associates, Aspen Area Community Plan, 2008

The national prosperity combined with local strengths including a resilient natural gas industry, 2 million acres of public lands, a national park, a major ski resort, southwest climate, rich heritage, and productive and scenic agricultural land to boost the wealth circulating in the county. In the past decade, wealth has continued to accumulate in La Plata County. In 2008 there were over 1 billion

in banking deposits in La Plata County⁵, reflecting a 78% increase over 2002 when bank deposits were \$615 million.

Figure 19 - Bank Deposits in La Plata County



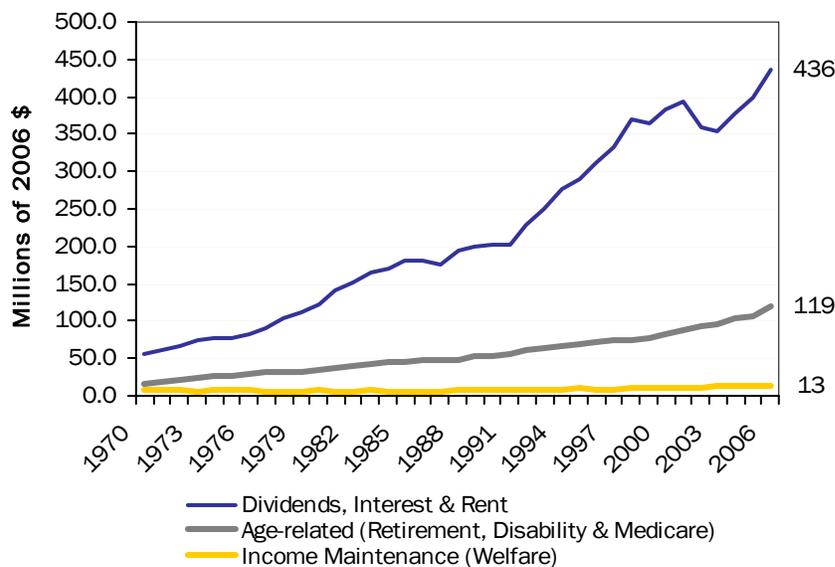
Source: soba.fortlewis.edu/econoweb/, not adjusted for inflation

⁵ http://soba.fortlewis.edu/FCEO/fceq/county_data/la_plata/la_plata.html

The Rise of Non-Labor Income

New residents with investments built in other economies have combined with La Plata county locals who have made their own investments amid favorable local economic conditions to result in an increasing flow of income streaming into the county from dividends, interest, and rents earned from investments. Retirees add to the volume of non-labor income entering the county via Social Security payments, retirement income and Medicare⁶. Transfer payments also include programs like unemployment and welfare which are a small part of the income base in La Plata County, but nonetheless bring outside dollars into the community.

Figure 20 - Non-Labor Income by Source in La Plata County



Source: Economic Profiling System, Headwaters Economics

Construction

Population growth, increased incomes, swelling investment income/savings, and retirement have all resulted in more construction, an economic driver and job producer. The demand for residential construction is apparent in the 11,000 unit increase in housing units between 1990-2007 (see Figure 22- Number and Percent of Total New Residential Units by Jurisdiction 1970-2007). Nearly three of four new houses between 1990-2007 were built in the unincorporated county. In response to this demand, construction jobs skyrocketed through this period.

Regional population growth also stimulated construction in the commercial sector. Significant commercial expansion has occurred in all three municipalities including Bodo, South Durango, and

⁶ 401k revenues are not counted in non-labor income.

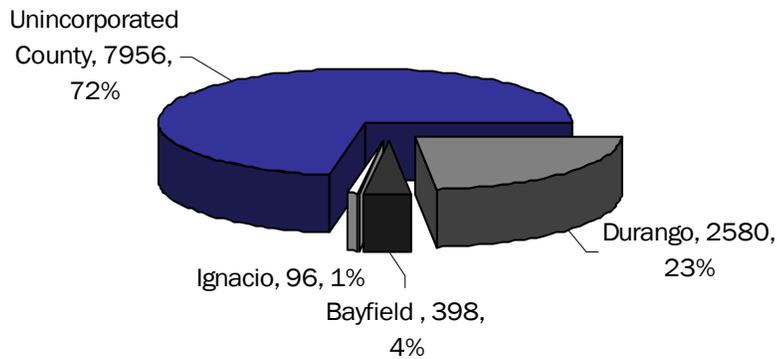
the Grandview area in Durango; the Bayfield Business park in Bayfield; and the new casino-resort in Ignacio.

Figure 21 - Construction Jobs, La Plata County, 1970-2000



Source: Economic Profiling System, Headwaters Economics

Figure 22 - Number and Percent of Total New Residential Units by Jurisdiction 1970-2007



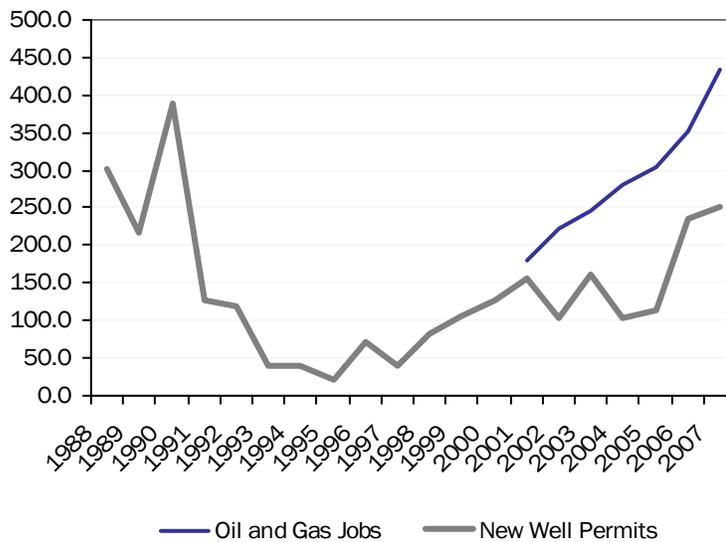
Source: Colorado Demography Section Estimates, 1990 and 2000 Census

Mature Coal-bed Methane Gas Industry on an Extended Boom

Oil and gas activity has been on the rise since the early 1990s as evidenced by the number of annual permits for new wells in La Plata County. Since a nationwide restructuring of economic data in

2000, specific employment data for the oil and gas industry is also available. Job growth in the industry reflects the nearly two decades of increased activity for this economic driver. Oil and gas jobs are valuable additions to our economy because they are not seasonal and they pay high wages. The 2008 forecast report, produced by Fort Worth, Texas-based Cawley, Gillespie & Associates for La Plata County predicts that even with over 1000 new wells, gross gas production will decline 65 percent from 2008 to 2021, from about 403 billion cubic feet to 140 billion cubic feet. Company revenue from gas production is forecast to fall 46 percent, from \$1.6 billion in 2008 to \$864 million in 2018. By 2021, revenue is forecast to shrink to \$571 million.

Figure 23- Oil and Gas Jobs and New Well Permits in La Plata County



Source: Colorado Oil and Gas Conservation Commission, Colorado Demography Section

Economic Diversity

One way to check economic diversity is to compare the composition of La Plata County's economy to that of the most powerful and diverse economy in the world, the US economy. Looking at the share of the total jobs each employment sector (different than economic drivers) holds as a share of the total jobs for La Plata County vs. the entire U.S. economy reveals some important insights.

Manufacturing is much weaker in La Plata County than in the US (4.1% compared to 14.1% in the US).

The tourism industry and spending of second home owners and residents mounts up to a heavy orientation towards the accommodations, food services, and recreation. There are many benefits of having good food and drink, lodging, and recreation in the county, but over-reliance on this sector alone leaves a community subject to seasonal swings and under-employment.

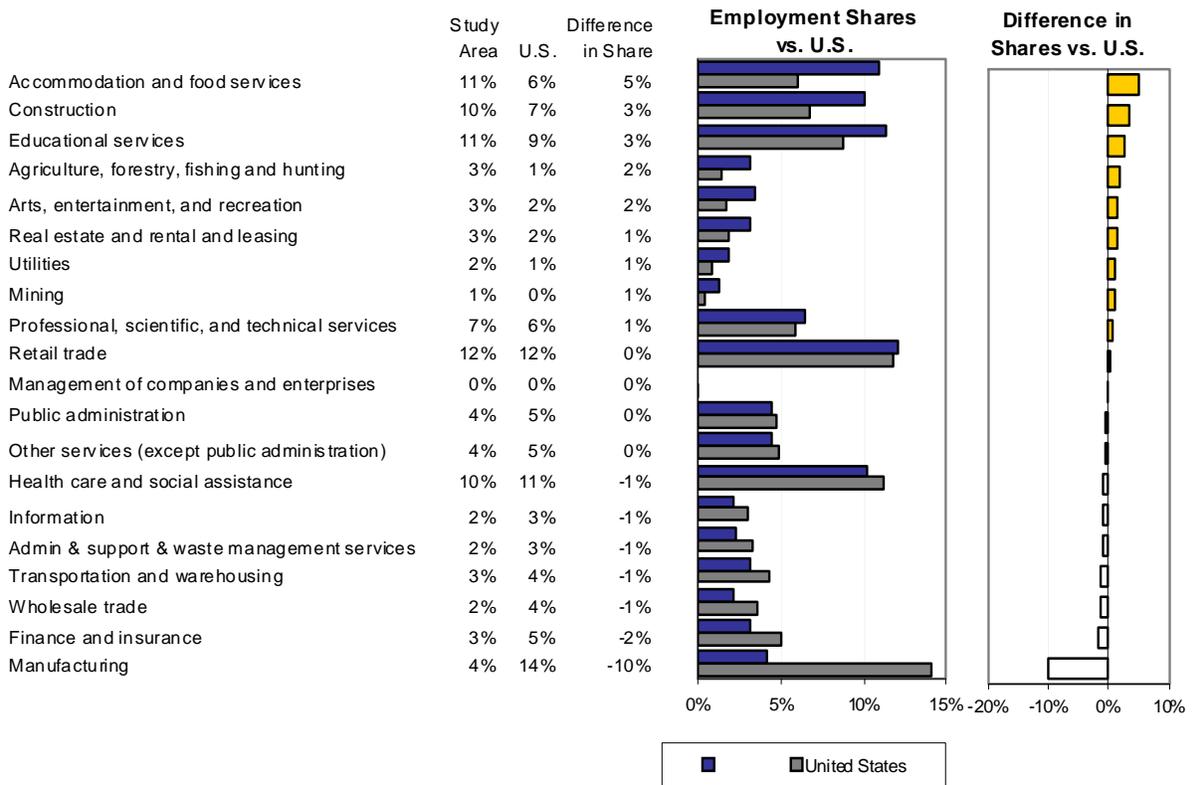
The recent down-turn in the new construction market may have already signaled some vulnerability in how much La Plata County counts on construction as a growth industry (10.0% compared to 6.8% in the US).

The higher number of people working in educational services (11.4% compared to 8.8% in the US) reflects a commitment towards education and a significant number of people making a living by educating people.

Overall, La Plata County contains a diverse, healthy, and growing economy. It is typical for a community to lean more heavily on some industries than others, and often this is a result of deliberate pursuit of certain industries. However, it is best to acknowledge sensitivities at the outset of a planning process.

Figure 24 - Economic Diversity Analysis

Source: Economic Profiling System, Headwaters Economics



CHALLENGES

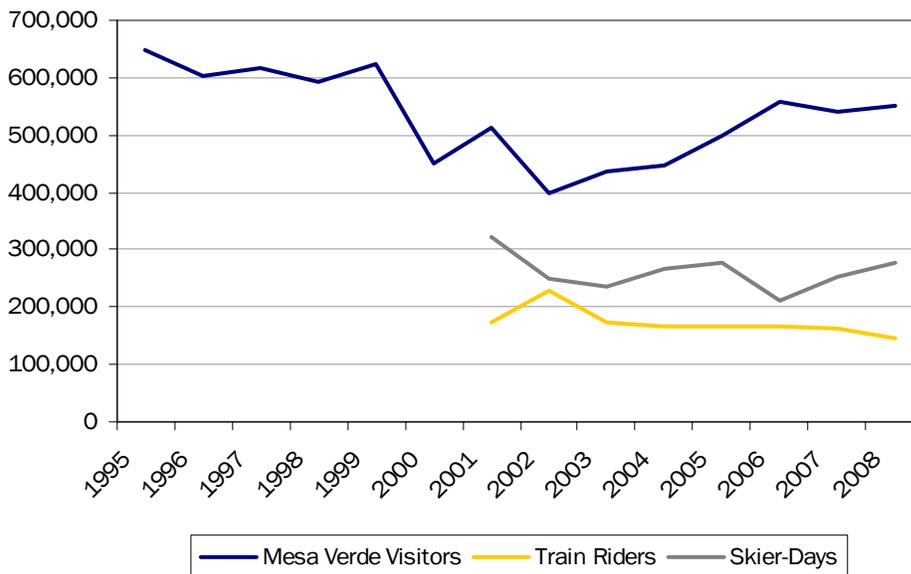
Amid the growth and prosperity in La Plata County, there are also some economic challenges. Other challenges lie in the details underlying each of the industries discussed in the Community Profile, but three main challenges stand out as immediately evident in La Plata County: 1) Tourist visitation appears to be flat for many years running. 2) There are persistent adverse economic conditions for agriculture, and 3) The recession.

TOURISM IS FLAT

One way to gauge the direction of trends in the tourist industry is to examine visitation trends. Visitation trends for some flagship tourist activities are publicly available and serve as reasonable indicators for the general trajectory of industry.

Visits to Mesa Verde show a modest rebound, but fell sharply during the years leading up to and including 9-11 and the epic 2002 fire season. While the dismal tourist season resulting from months of forest fires throughout the state certainly did not help, the decline in visitation to Mesa Verde reflects a national slump in park visitation that began in 1999⁷. Train ridership also appears to be flat or slightly declining for the years that the information was available.

Figure 25 - Visitation Indicators



Source: soba.fortlewis.edu/econoweb/

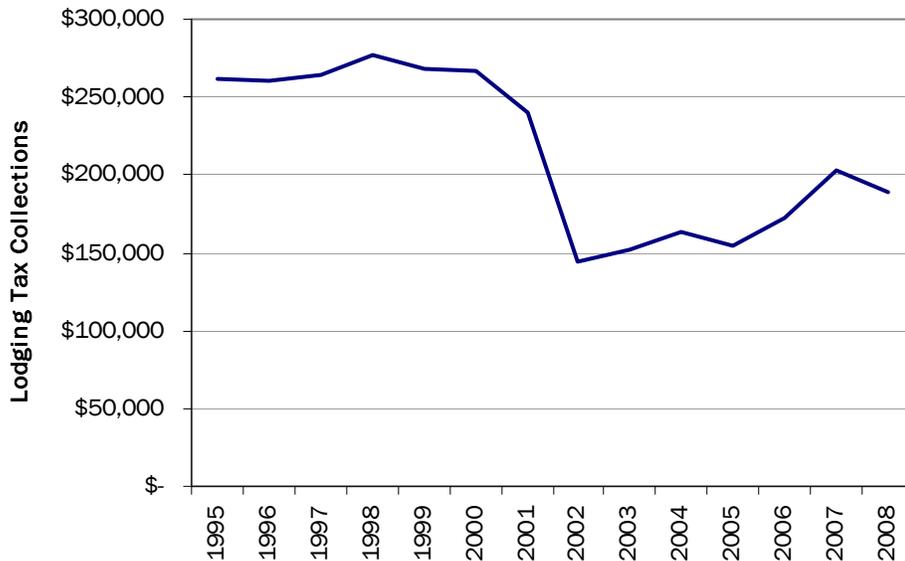
Skier/snowboarder days are flat at Durango Mountain Resort with some good years and some down-years, also reflecting an ongoing national trend. Flat skier days are a reality that ski resorts have

⁷ <http://www.americantrails.org/resources/fedland/npsvisit07.html>

wrestled with for many years now, and have achieved some degree of success by diversifying their markets and making more sales to each customer.

Lodging tax collections are also a close indicator of the level of visitation because they are directly proportionate to spending in the lodging sectors. Strictly speaking, the lodging tax is only an indicator of overnight visitation, but the trend so closely reflects the other indicators that it appears to confirm the general trend that tourist visitation is flat and possibly declining.

Figure 26- Lodging Tax Collections



Source: La Plata County Finance

TOUGH CONDITIONS FOR AGRICULTURE

It is getting more and more difficult to make money in agriculture. Beginning in the early 1980's, expenses outstripped gross income in La Plata County agriculture, resulting in a general trend towards negative net- income for agricultural that continues today.

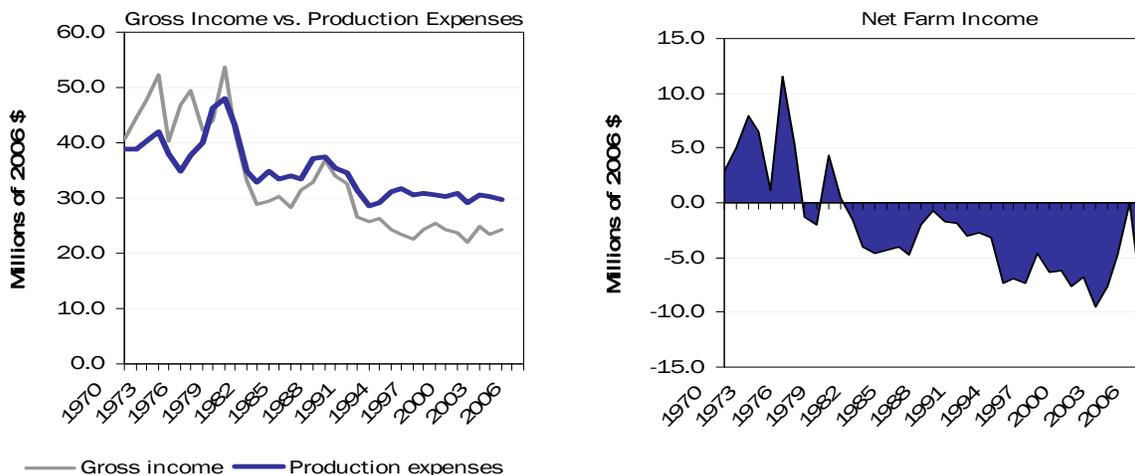


Figure 27 - Farm Income Vs. Expenses

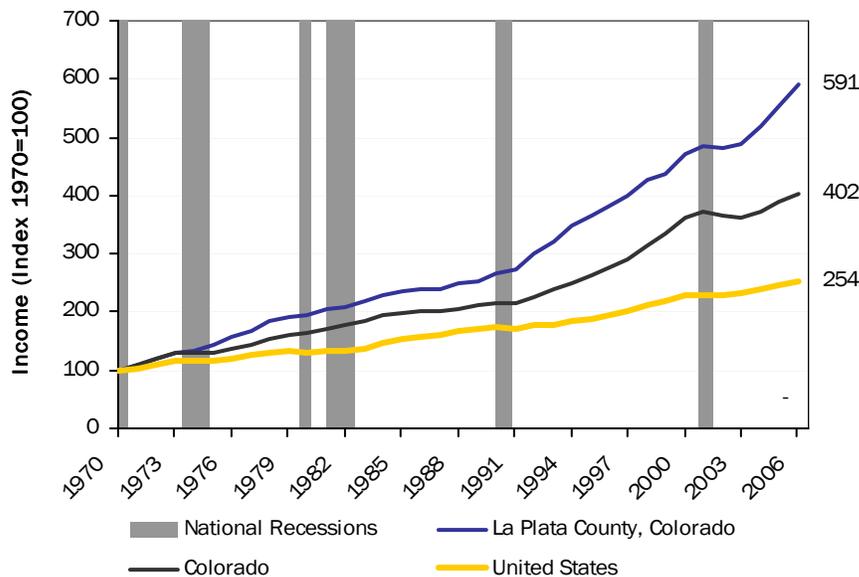
Source: Economic Profiling System, Headwaters Economics

This is an especially disconcerting trend because agricultural lands are an important part of the land base, economy, and heritage in La Plata County. Agriculture is an important component of the county's diverse economic base, and decline in the profitability of a base industry deserves serious attention. Still, despite these economic conditions, the agricultural community shows resilience. Where other industries would have folded long ago, agriculture is a base driver that still adds jobs over the long term, increasing from 790 jobs in 1970 to 1365 in 2000⁸.

RECESSIONS

Since *The Community Profile* has been prepared in anticipation of a comprehensive planning process, it is fitting to take the long-view on recessions. Looking at the past five recessions compared to income indexed for visual comparison, it is evident that La Plata County is affected by recessions, but not for very long after they end and overall it outpaces the state and US in growth.

Figure 28 - Income Compared to the State and the Nation



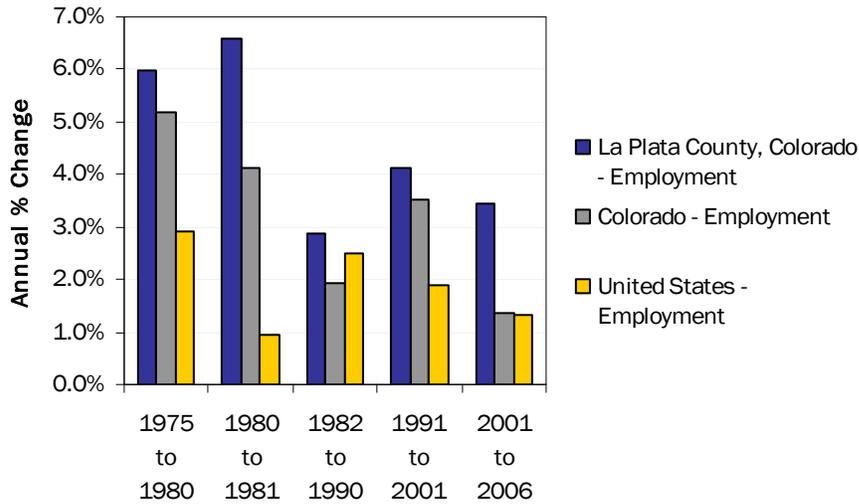
Source: Economic Profiling System, Headwaters Economics

Using employment growth following the recovery following the past five recessions as an indicator, it is clear in every case that La Plata County's economy tended to re-ignite more quickly than average. One explanation for this is that La Plata County residents possess enough accumulated wealth to weather lean times and come out strong on the other side. One other factor could be the

⁸ U.S. Census

dominance of adaptable small businesses in La Plata County and lack of large industries that are hard-hit by recessions.

Figure 29 - Employment During Recent Recoveries - Annualized % Change from Trough to Following Peak



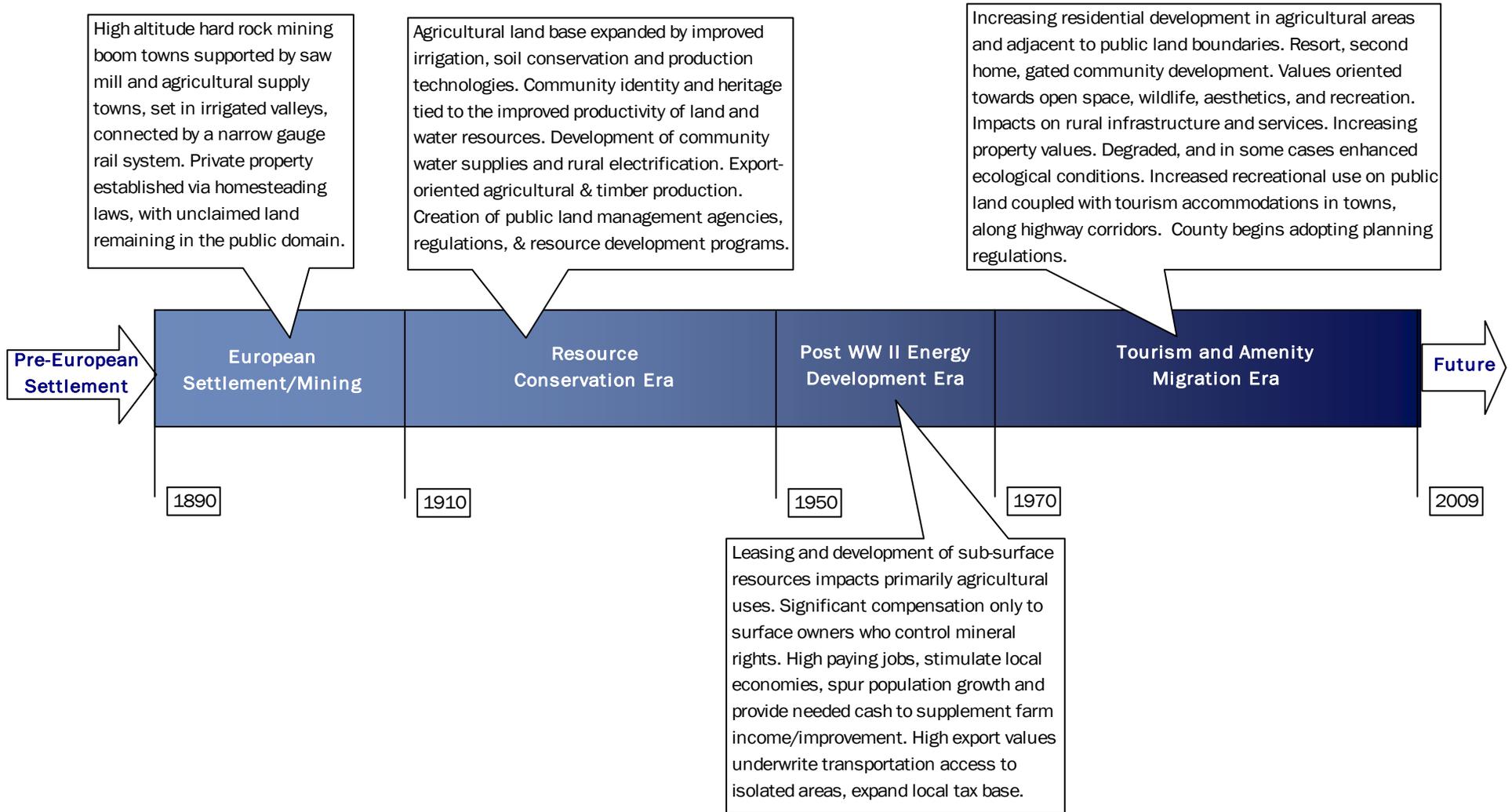
Source: Economic Profiling System, Headwaters Economics

IV. SUSTAINABLE DEVELOPMENT

HOW HAS GROWTH RELATED TO THE LAND?

None of the growth in prosperity and population shown in the *Community Profile* would have been possible without the land-base. In many respects, the economic drivers themselves reflect the way that the land has been settled over the past century or so. Figure 30 traces the history of the relationship of the economy and the people to the land from 1890 to present day. The comprehensive plan extends into the future, prompting the question, "What is the next era?"

Figure 30 - Layers of History on the Land



Source: Adapted from San Juan Productive Harmony Analysis, Mike Preston, Fort Lewis College, 2005

Settlement patterns from each of the eras presented in Figure 30 continue to shape the physical landscape as well as the social cultural and economical character La Plata County today.

The remains of pre-European settlements by the Ancestral Puebloans are a dominant physical, intellectual and economic feature of the region. The more nomadic Ute and Navajo Indians that came in after the Anasazi are a cultural and economic presence of increasing significance.

The mine, town, agricultural valley, and transportation corridor patterns, established during the era of European Settlement, provided the template upon which everything that followed was set. The damage done to the public domain during this era established the constraints and possibilities for public land restoration.

The Resource Conservation Era saw the establishment of boundaries, jurisdictions, authorities and public land management policies intended to preserve, allocate, and provide access to the natural, scenic and recreational resources that have attracted and complemented the settlement, land use and economic development patterns that have evolved. The Resource Conservation Era also saw the strengthening of the agricultural infrastructure and practices that have sustained the valley component of the town, valley, and public land mosaic.

The Post WW II energy development era resulted in improved transportation, community expansion and infrastructure development, and expanded property tax base, royalty income and good wages (some of which helped stabilize and improve farm and ranch operations). The post World War II energy development era was also a period of expanded timber production. The development and availability of energy and wood products was part of a societal trend towards increasing mobility and a major expansion in the nation's housing needs and expectations. Increased mobility supported amenity tourism, which in turn stimulated amenity migration and the resulting development, which have become dominant themes in the New West Amenity Migration Era.⁹

The New West era of amenity migration has had a profound influence on the way people view and value the land and is the dominate force that shaped settlement patterns of the 1990s into the beginnings of the 21st century. The settlement pattern of this era features low density residential development taking place on the agricultural and wooded lands in close proximity to the public lands. In many subdivisions closer to Durango and Bayfield this has resulted in sprawl moving outward from the towns as people try and combine country living with an easy commute to town. The preference for this settlement pattern is documented in the planning efforts during the late nineties and into the present. The resulting district plans put forward policies that favor low density residential development and encourage preservation of agricultural land, wildlife, scenic resources and unique landscapes.

Recently there has been a trend towards more new house lots in higher density City annexations and townhouses and proportionately less low density development in the County. This may be associated

⁹ San Juan Productive Harmony Analysis, Mike Preston, Fort Lewis College, 2005



with the interrelated issues of density, housing affordability, and open space as well as problems related to water and sewer, traffic and wildfire. Does this trend indicate a new relationship of the economy and people to the land and to their communities?

Rural Settlement Patterns

One way to profile rural settlement patterns in La Plata County is to view development patterns in La Plata County through a four-part typology:

DEVELOPMENT ON AGRICULTURAL LANDS

As stated earlier in this document it is getting more and more difficult to make money in agriculture. Beginning in the early 1980's, expenses outstripped gross income in La Plata County agriculture, resulting in a general trend towards negative net- income for the agricultural sector. Adding to the equation is the pressure put on agricultural lands by the rapid expansion of rural residential development and property values that are escalating far beyond the agricultural worth of the land. County land use decisions become ever more complex and contentious with the increasing number of small parcels, surrounded by desirable and developable agricultural parcels.

MOUNTAIN DEVELOPMENT

Mountain Development is primarily associated with condominium developments in and near the Durango Mountain Resort and Ski Area and assorted small destination resorts and retreats scattered throughout the San Juan Range and associated with Hesperus, Vallecito Reservoir. The major constraints to development are slope, water availability and infrastructure costs. There are county standards regulating development on slopes for safety and policies that are intended to protect scenic views by discouraging development on meadows and ridge tops.

DEVELOPMENT IN THE MUNICIPAL PERIPHERIES

Growth proposals in any direction of the municipalities are controversial particularly in terms of traffic, and the "rural character" that has prompted so many to settle out of Town in the past few decades. Major issues for development in the Municipal Peripheries include connections to roadways and traffic patterns and the relationship between annexation and infrastructure costs.

ARID LAND

Development in areas with critical water issues including agricultural land on the plateaus in southern third of the County, the small agricultural towns along State highway 140 and in-holdings on Tribal lands.

What land use planning is in place today?

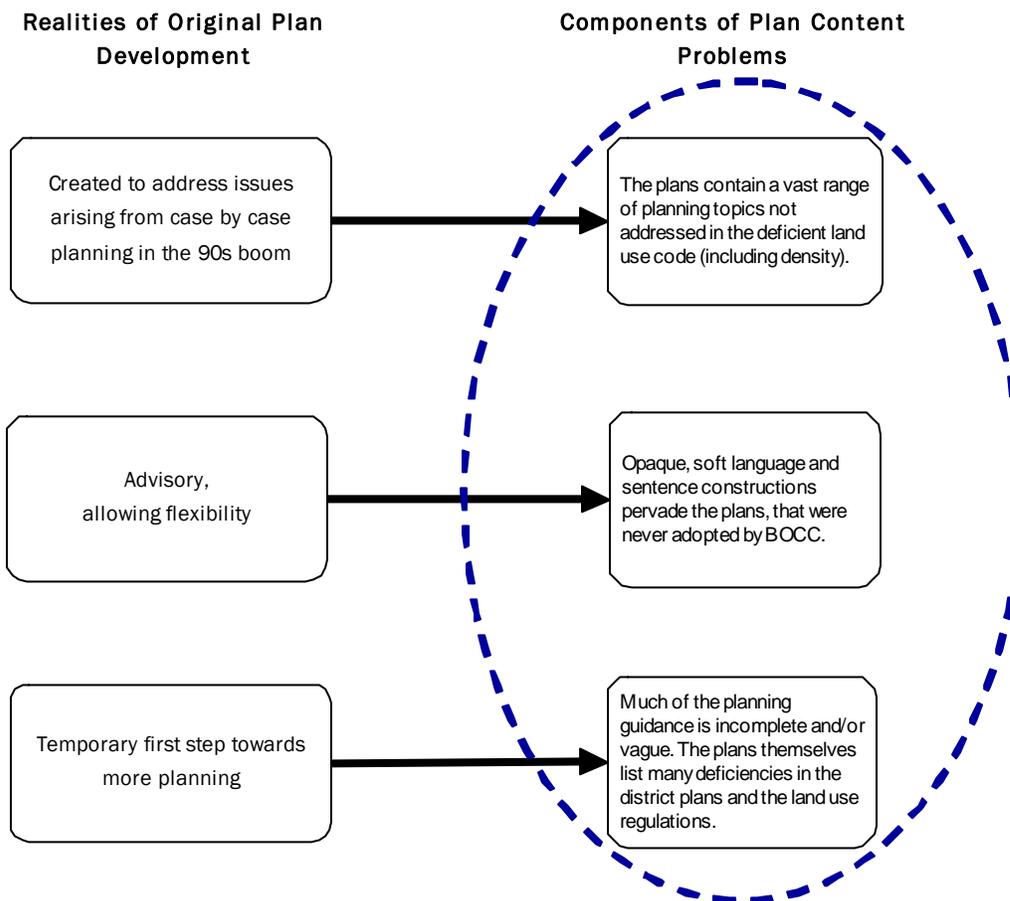
Land Use Code

The La Plata County Land Use System (referred to as the "land use code") is the permitting system by which development is regulated in La Plata County. It identifies three levels of land use activity that require permits, 1) administrative activities, 2) Class I activities, and 3) Class II activities. Land use permits are required for subdivisions and minor subdivision exemptions. The land use code is a hybrid of two types of permitting systems. On one hand permits are evaluated against a set of performance standards, some of which are "required" and others of which are "encouraged". On the other hand, the code contains traditional zoning districts covering the Animas Valley, Crowbar Creek, and part of Gem Village.

The land use code does not address overall density or locate possible commercial or industrial land uses for most of the county that is not covered by zoning districts. Among other details the code covers water, sewer, access, buffering, compatibility, easements, fencing, fire, floodplain, geologic hazards, lot design, school land dedication, utilities, and other nuts and bolts of site planning.

District Plans

The original 7 district plans were adopted in 1996 & 1997 (North County, Florida Road, Vallecito,



Junction Creek, West Durango, Florida Mesa, Bayfield) but the Ft. Lewis Mesa plan was adopted in

2007 and is different from the other district plans in its organization and contents. The plans all contain typical comprehensive planning headings: issues statements, vision statements, goals and objectives, guiding principles. The 1996 and 1997 plans are accompanied by mapped land use classifications and narrative for any one of over 20 land use classifications.

The planning process was initiated in the mid-1990s because the case-by-case performance based approach to planning in La Plata County was resulting in some contentious outcomes, particularly dispersed commercial and industrial uses in the unincorporated county. There was a call for a more holistic approach that would result in some degree of predictability. Some participants in the district planning process were fundamentally opposed to zoning regulations. The district plans were adopted by the planning commission, but the key elements making way for an acceptable level of support by the community was that they were 1) advisory and 2) that they maintain flexibility. The district plans were intended by many to be used “temporarily” as advisory guidelines during the development review process, then overtime the plans would be fine-tuned and formal development regulations and zoning would be developed.

The fact that the plans were initiated to address the deficient land use code has resulted in an ambitiously wide array of policy guidance, some of which is typically contained in a comprehensive plan, some of which is typically contained in a land use code, and some of which would more likely belong in a governmental strategic plan. The result is a difficult-to-navigated set of plans containing dispersed pockets of guidance for development review and an assortment ideas for long range planning.

Despite these shortcomings, the content and direction contained in the district plans will be of great importance as the comprehensive plan and future land use plan are developed. The community visioning process and the development of the countywide comprehensive plan will draw together the common values of the community and chart a common course for the county. The *District Plan Evaluation* shows a "high degree alignment" of values and strategies between district plans on several topics, such as

- Sustaining Agricultural Land Uses
- Wildlife
- Scenic Resources and Unique Landscapes

Alignment on other planning topics in the district plans is more moderate, but still signals the potential for county-wide agreement given a comprehensive community planning process. One would surmise that many of the values expressed in the 10+ year-old district plans are still in place today. Integrating new values, ideas, and strategies will be of central importance in developing the comprehensive plan and future land use plan. Still, the values, goals and strategies that are common between district plans and with which the community still agrees will be part of the platform upon which the county-wide comprehensive plan is built.

FOOD AND AGRICULTURE

The percent of farmland has been doing down while the number of farms has gone up. This is due to the decrease in the average size of farms, probably because of the subdivision of land into smaller parcel to meet the demand for hobby farms and ranches. As evidence of the prevalence of hobby operations, over half of the farm operators in 1997 cited farming as a secondary occupation. In that same year, almost two-thirds of the farms produced less than \$10,000 in sales.

In 1997, over two-thirds of agricultural value came from livestock and poultry while the remainder came from crops. The five top agricultural products in La Plata County were, in descending order of market value:

- Cattle and calves
- Hay solage, field seeds, grass seeds
- Dairy products
- Sheep, lambs and wool
- Nursery and greenhouse crops

Two of the current manifestations of La Plata County's agricultural heritage are the local farmers' markets and the "Taste of Durango," a festival featuring food and craft beer from local restaurants and breweries.

In spite of the declining economic importance of agriculture, there is considerable interest in its revitalization, especially in organic products and local sales. Several organizations, such as the La Boca Center for Sustainability, are involved in local agricultural and food issues. The La Boca Center, located south of Ignacio, has programs in market gardens, animal husbandry, draft horse farming, blacksmithing and farrier services and training, and permaculture design.

Growing Partners of Southwest Colorado was formed in 2004 to implement a sustainable food program. It consists of five organizations, each of which is involved in local food issues:

- Southern Ute Community Action Program
- The Garden Project of Southwest Colorado
- La Boca Center for Sustainability
- Tuttle Land Refuge
- Southwest Marketing Network

The Growing Partners received a grant from the USDA, which led to the publication of the *La Plata County Food Assessment*. The goals of the assessment were:

- Identify resources and needs regarding:
 - The local food system
 - Underserved populations
 - Farm-to-School
 - Key stakeholders
- Strengthen links between food system groups
- Promote community learning and participation through the community food assessment
- Use the results of the community food assessment to plan effective Community Food Projects

The *La Plata County Food Assessment* contains a wealth of information on local agriculture, food resources, school meals, health and nutrition, and food security. It concludes with recommendations for future food projects, some of which may be appropriate for integration into the *Comprehensive Plan*.

ENERGY AND MINERALS

Oil and Gas

Oil and gas production is a major activity in La Plata County. According to the County Assessor's office, in 2008 there were 43 active oil wells, 124 oil and gas wells, and 2,992 gas wells in the county. Most of the gas wells are for coal-bed methane production. Oil and/or gas wells are generally located south of US 160, with fewer wells in the western part of this area.

La Plata County is the leading county in Colorado in natural gas production and ranks as the sixth county in the nation. The total production of gas in 2008 was approximately 415 billion cubic feet. Oil production was quite low – in 2008 it was 37,360 barrels.

The production of gas in the county may be undergoing a temporary decrease due to lower prices. For example, in the second quarter of 2009, BP America, the county's largest natural gas producer, decommissioned one of its two drilling rigs operating in the county.

The approved spacing of wells is now 80 acres, down from an original 320 acres. It may go down to 40 acres in some areas and, possibly, 20 acres.

There are no oil refineries in the county but there are two gas processing plants: the Ignacio Gas Processing Plant (also known as the Williams Plant) and the BP Plant operated by BP America Production Company. The Williams Plant processes conventional gas—a mix of gases such as butane, propane, and CO₂. It separates the various gases, removes moisture, purifies the gases, and adjusts the pressure prior to the gas entering the pipeline. The BP Plant processes coal-bed methane gas; therefore, it does not need to separate the gases but removes moisture, purifies the gas, and adjusts the pressure.

Natural gas is distributed and sold within the county by Atmos Energy and Kinder Morgan. The Town of Ignacio, however, owns and operates its own natural gas distribution system. Natural gas is often not available in rural areas. Some rural households use propane for heating and/or cooking but the number of customers is not available.

Gas production is expected to migrate in the future to the Gothic Shale Formation located in the west side of the county. The first sale by BLM of gas rights in this area was to have been held recently but has been postponed because of public opposition.

Although oil and gas production contributes to the economy of the county in a significant way, there are some concerns:

- Truck traffic causes dust, adds to the traffic congestion, and is perceived to be unsafe by many people;

- Methane and hydrogen sulfide gas seepage can contaminate the groundwater and result in potentially higher fire hazards at the surface;
- Various production operations produce green house gas (GHG) emissions;
- Wells and their roads have a visual impact;
- Noise from the operation of pumps and compressor stations can be an annoyance to nearby residents;
- Drilling on small lots (less than 10 acres) magnify the issues of noise, visual impact, and potential loss of property values;
- The temporary roads to individual wells are sometimes used as access roads for new houses, thus contributing to sprawl and resulting in unclear legal rights to the road after the temporary easements expire; and

The potential impacts of coal-bed methane production have been analyzed in some detail in the *La Plata County Impact Report*, dated October 2002.



ELECTRICITY

La Plata County does not produce nearly all of the electricity that it uses. Production facilities within the county include a waste heat recovery system at the Williams gas plant, three hydroelectric plants, and somewhat more than 100 small photovoltaic and wind energy systems.

The La Plata Electric Association (LPEA), a membership cooperative, provides electricity to users in the entire county. It purchases the vast majority of its electricity from the Tri-State Generation and Transmission Association, which in turn obtains electricity from a number of sources in the western United States, including two of the hydroelectric plants in La Plata County. LPEA also purchases a small amount of electricity directly from the waste heat recovery system mentioned above and offers net metering for small photovoltaic and wind energy systems within the county.

MINERALS

La Plata County has or has had significant amounts of several minerals:

- Gravel – commercial gravel operations are currently active in the county;
- Gold – historically significant – one mining permit to reestablish a mine in Wildcat Canyon is currently on hold;
- Silver – No current active commercial activities;
- Uranium – No current active commercial activities, although there is increasing interest in uranium production in southwest Colorado; and
- Coal – Coal production was significant during the operation of the smelters (see below); the only remaining mine, the King Coal Mine, located in Hay Gulch south of Hesperus, produced 400,000 tons of coal in 2003.

The Smelter Mountain plant, and to a lesser extent the Standard Smelter (later the San Juan Smelter) and the Animas City Smelter, smelted significant amounts of silver, lead, gold, and copper beginning in the 1880's. The Smelter Mountain plant was the last to close, shutting its doors in the 1930's. It was re-opened in 1943 as one of two uranium recovery plants in Colorado used to produce uranium for the Manhattan Project. It has since been shut down.

COUNTY SUSTAINABILITY EFFORTS

In 2006 the La Plata County Board of County Commissioners approved a resolution supporting the U.S. Mayors Climate Protection Agreement. In 2007 the county took the first step outlined in the agreement by commissioning an inventory of greenhouse gas emissions in the county. (*Baseline Greenhouse Gas Emission Profile and Forecast*, April 3, 2008) The following sources were included:

- Electricity consumption
- Natural gas consumption
- Other stationary fuel combustion
- On-road vehicle transportation
- Aviation activity
- Rail transportation
- Solid waste disposal
- Wastewater treatment
- Medical waste incineration
- Land-use activities and land-use changes
- Coal mining
- Non-road vehicle and equipment use
- Refrigerant losses
- Natural gas production

For the baseline year of 2005, the county's total greenhouse gas (GHG) emissions from the above sources were estimated to be 5,019,511 tons of carbon dioxide equivalent.

La Plata County created the Sustainability Office in 2008 to coordinate sustainability activities within the county and with other entities. It focuses on the following strategies:

- Work with all county departments and the County's Energy Management and Resource Conservation Team to focus attention on and advance the county's sustainability goals;
- Promote county employee awareness and participation in conservation, recycling and other sustainability efforts by being a visible champion of sustainability issues throughout the year;
- Increase community awareness and visibility of the county's activities with respect to sustainability issues; and
- Collaborate with other organizations to promote sustainability initiatives as those opportunities arise throughout the year.

The issues in which the Sustainability Office is engaged include energy efficiency and renewable energy, greenhouse gas (GHG) reductions, materials recycling and reuse, and green purchasing.

The county is a financial contribution member of the Four Corners Office for Resource Efficiency (4CORE), which is coordinating preparation of the countywide *Climate and Energy Action Plan* to reduce greenhouse gas emissions levels. Durango and Ignacio, along with other organizations, are also members. The planning process, which got underway in 2008, is scheduled to be completed during the first quarter of 2010.

ENERGY EFFICIENCY

The La Plata County Sustainability Office has been very active in promoting energy efficiency within the county. La Plata County had an Energy Audit performed on its own buildings in 2007 and in 2008 made a sizeable investment in making its buildings more energy efficient. It has adopted an Engine Idling Policy and has completed a Countywide Carbon Emissions Inventory Study.



La Plata County has partnered with other local organizations to fund the Four Corners Office for Resource Efficiency (4CORE) to serve as a one-stop information center on how residents and businesses can increase energy efficiency and renewable energy. As mentioned above, 4CORE is also coordinating the preparation of the *Climate and Energy Action Plan*.

The La Plata Electric Association (LPEA), the electric utility serving the county, also participates in energy efficiency programs. LPEA provides free energy use information that helps homeowners and business owners make their homes and businesses more energy efficient. LPEA also administers energy efficiency credits for water heaters, electric motors, and heat pumps. Lastly, it offers Energy Star® appliance rebates that are made available by its wholesale power supplier, the Tri-State Generation and Transmission Association.

During La Plata County's 2008 scrap metal recycling event, LPEA provided a \$25 rebate for each old refrigerator or freezer brought in for recycling. This served as a great incentive to get inefficient appliances off the system as well as to promote recycling.

LPEA also has initiated several energy efficiency measures in house, including development of smart grid initiatives and fleet improvements. The latter include introducing hybrid vehicles into the fleet and adding fuel efficiency to the list of criteria for making vehicle purchases.

RENEWABLE ENERGY

Solar Energy

There are some solar thermal systems in the county, but their number is not available. Permits for these systems are not required from the county. Climate conditions are quite favorable for solar thermal systems.

There are approximately 100 solar electric (photovoltaic) systems on or near houses within the county that are subject to net metering. The actual installed number may be slightly higher. In the second quarter of 2009 the county began requiring permits for photovoltaic systems. More accurate numbers of installed systems, therefore, will be increasingly available as permit information is collected.

Increased educational programs about solar energy and the existence of new incentives are expected to accelerate use of solar energy.

Wind Energy

There are no large-scale wind farms installed in the county. There are only two small wind energy systems known to exist within the county, both of which are subject to net metering. La Plata County is not considered a prime area for extensive use of wind energy because the wind resource is so limited.

Geothermal

There is at least one small-scale geothermal system in the county—the Smiley Building in Durango uses a geothermal system for heating. There are no geothermal plants that produce electricity.



Apparently there is the potential for larger systems using deep-underground heat sources for generating electricity.

Biomass

Some homes, especially in rural areas, use wood for heating, but the number of homes is not known.

Hydroelectric

There are three hydroelectric plants within the county:

- Vallecito Plant (5.8 MW) – owned by Ptarmigan Resources & Energy, Inc. and operated by the Pine River Irrigation District; electricity purchased by the Tri-State Generation and Transmission Association;
- Lemon Dam Hydroelectric Plant (76 kW) – owned and operated by the Florida River Water Conservancy District; electricity purchased by the Tri-State Generation and Transmission Association; and
- Tacoma Hydro Plant (8 MW) – owned and operated by Xcel Energy; electricity produced for use by the Public Service Company of Colorado.

Several micro-hydro plants may be currently operating, but this has not been confirmed.

Utility Programs

LPEA, the electric utility serving the county, offers Green Power from its wholesaler, the Tri-State Generation and Transmission Association, which originates in wind-generation and other renewable energy facilities across the western United States. In this way, people can support renewable energy development without installing their own systems. Tri-State also purchases electricity from a number of hydroelectric plants, including two in La Plata County.

The Tri-State Generation and Transmission Association also is participating in developing the 30 megawatt Cimarron I Solar Project in northeastern New Mexico – this electricity will supply all customers, including La Plata County customers through LPEA, by 2011.

LPEA currently purchases electricity from a 5 MW waste heat recovery system at the Williams gas plant – as the name implies, this energy would be wasted if it was not used to produce electricity. LPEA is also researching the use of in-county photovoltaic, geothermal, hydroelectric, and biomass systems, developed either on its own or in partnership with other entities.

LPEA offers net metering for small-scale (25 kilowatt or less) electricity producers, primarily from photovoltaic and wind systems. It also offers a Renewable Generation Rebate, a one-time rebate for residential or small commercial grid-tied installations. The rebate is \$2.00 per watt with a \$3,000 limit.



Materials Recycling and Reuse

The county has adopted a County Facilities Recycling Policy requiring county employees to recycle cardboard, paper, aluminum and metal cans, plastic bottles, glass, and single-use alkaline batteries. Steps have been taken to set up recycling drop-off stations in all county facilities for collecting these materials.

The first scrap metal recycling event was held in 2008. Over 216 tons of scrap metal were collected, including 17 old cars and 257 refrigerators or freezers. As noted under “Energy Efficiency” above, the La Plata Electric Association provided a \$25 rebate to homeowners for each old refrigerator or freezer they brought in for recycling.

La Plata County and the City of Durango jointly coordinate and hold a Household Hazardous Waste Collection event annually each fall to provide a safe and convenient place where citizens can dispose of their stored household hazardous wastes. The 2008 event served 658 customers and resulted in the collection of 22,099 gallons of waste.

V. TRANSPORTATION

The transportation network in La Plata County is critical to the quality of life and economic vitality of the region. Transportation has been addressed over the past few years in various studies. These studies document existing conditions, project future conditions, and include recommendations for transportation improvements to mitigate both existing and future congestion.

The studies have been reviewed and evaluated for the La Plata Comprehensive Plan. They are incorporated herein by reference. Studies include:

- *Southwest Transportation Planning Region, 2035 Regional Transportation Study*, January 2008 Prepared for SRPC, CDOT, prepared by URS Corporation
- *La Plata County and the City of Durango Transportation Integrated Plan (TRIP)*, 2006, prepared for La Plata County, City of Durango; prepared by LSA Associates, Inc.
- *US 160 and SH 172 Access Control Plan*, December 4, 2008, prepared for CDOT
- *Final Environmental Impact Statement/Final Section 4(F) Evaluation For US Highway 160 from Durango To Bayfield La Plata County, Colorado* prepared by USDOT, FHA, CDOT
- *Road Impact Fee Study, La Plata County*, August 2007 prepared for La Plata County, prepared by Duncan Associates
- *Inventory and Prioritization of Roads in La Plata county for Improved Bicycling, Pedestrian, and Motorist Safety*, DRAFT, June 2006, Prepared by Safe Roads Coalition (SRC)
- *La Plata Regional Transit and Future Growth Plan*, June 2009, Prepared by Landsman Transportation Planning, LLC

In addition to these documents pertaining specifically to transportation needs in the region, the following Land Use Planning documents were reviewed.

- *La Plata County Comprehensive Plan, 2001* (La Plata County)
- La Plata Planning District Land Use Plans
 - ✓ Animas District
 - ✓ Bayfield District
 - ✓ Florida Mesa District
 - ✓ Florida Road District
 - ✓ Junction Creek District
 - ✓ North County District
 - ✓ Vallecito District
 - ✓ West Durango District

Existing Transportation Network

The existing transportation network in La Plata County is comprised of federal, state, and county highways. Some of the county highways are significant to the overall regional network, whereas others are only locally significant. The map in Exhibit 31 illustrates the overall regional network and identifies those county highways that are considered significant to this network because of their

function to provide access to established communities and recreational areas within the county. Exhibit 32 provides a brief inventory of the roadways that are considered relevant to this study. The table provides the planning districts each roadway segment falls into, the functional classification, current and forecast congestion levels, surface conditions, and amount of commercial truck traffic. Note that the information provided in this table is information that is available at this level of the study. More detailed information will be obtained and provided in the next phase. The table also shows that all of the State and Federal highways have been designated as Scenic Views. This is a county designation and differs from State designations in that it does not consider non-motorized transportation.

“Level of service” is a concept used to describe the operational performance of a roadway or intersection. Letter grades from A through F are assigned (similar to academic grades) where LOS A is free flowing traffic without congestion, and LOS F is forced flow with extreme congestion. LOS C is the usual performance goal for rural areas, and LOS D or E is usually allowed in urban settings. These performance goals allow some congestion during peak periods, whereas the rest of the day is virtually uncongested.

The recent studies indicate that, with the exception of a section of US 160 between Durango and Bayfield and a section of 550 through Durango, the existing roadways are currently operating at an acceptable level of service. Volume projections for 2035 are based on current land use plans and indicate that these two highways will continue to degrade and the remainder of the system will continue to operate satisfactorily.

According to the TRIP Study (2006), traffic volumes in the unincorporated county are expected to increase by about 67 percent by 2030. This updated comprehensive plan will analyze future traffic projections based on the land uses developed as part of the updated plan and so, projections of future volumes will differ from the projections of the TRIP study.

Other issues considered in determining where improvements are necessary or warranted on this network are jurisdictional policy, bridge ratings, safety (crash ratings), wildlife conflicts, alternate modes, and commercial truck traffic. These issues are addressed in the various planning documents cited above.

Exhibit 31 Existing Transportation Network

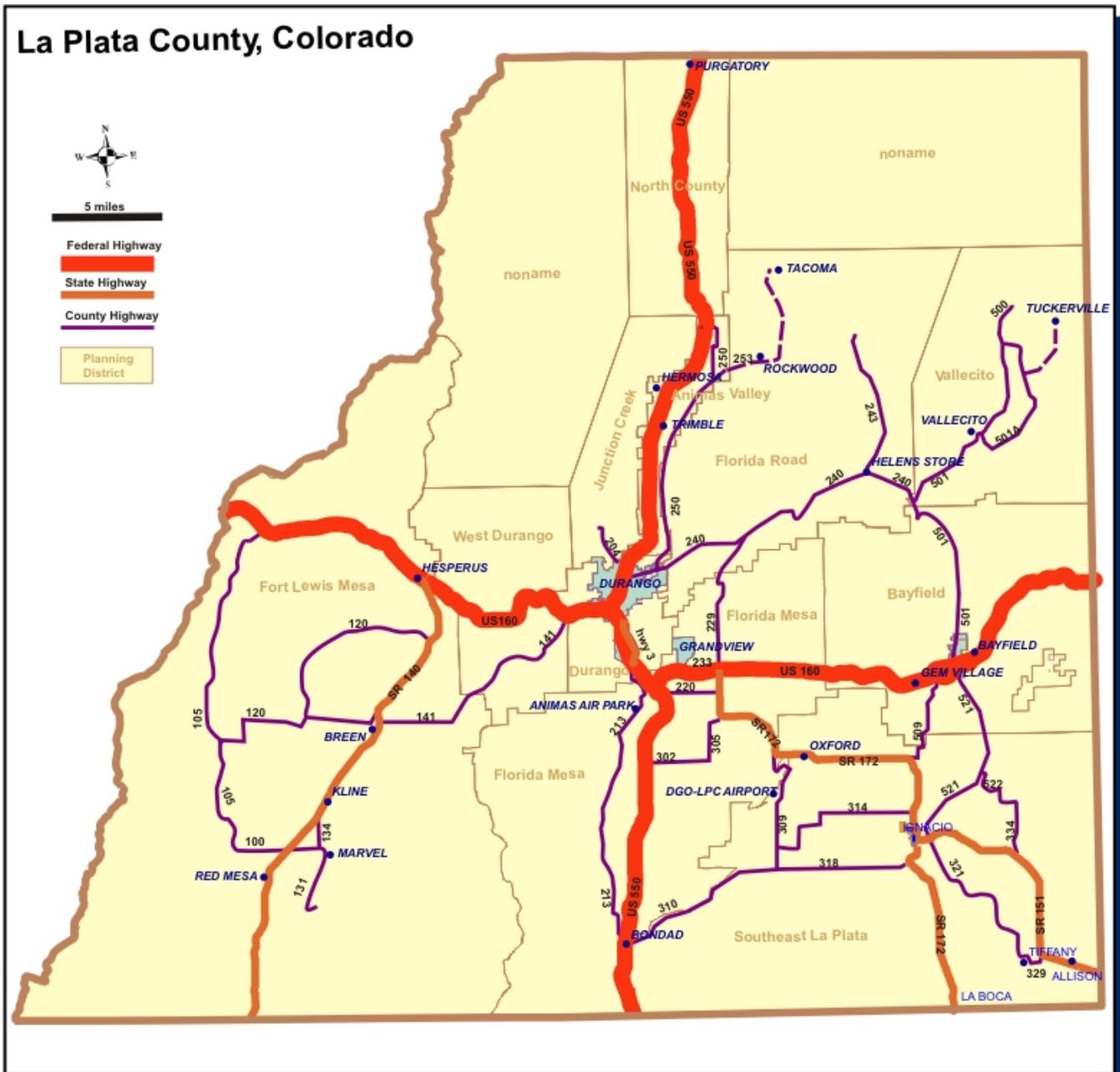




Exhibit 32 Inventory of Significant Roadways

Roadway Segment	Planning District	Functional Classification	Scenic Route	Current	Level of Service		Trucks per lane
					Projected (2035)	Surface Condition	
FEDERAL HIGHWAYS							
US 550: (North) County Line to CR 250 (North)	North County	Principal Arterial	YES	C/+	D	Poor to Good	0 - 120
US 550: CR 250 (North) to Trimble	Junction creek Animas Valley /	Principal Arterial	YES	C/+	E/F	Good	0 - 120
US 550: Trimble Lane to Mead Lane	Durango Animas Valley /	Principal Arterial	YES	D	D	Good	120.1 - 330
US 550: Mead Lane to US 160 (North)	Durango	Principal Arterial	YES	E / F	E/F	Good	120.1 - 330
US 550: US 160 to CR 302	Florida Mesa	Principal Arterial	YES	C/+	D	Good	120.1 - 330
US 550: CR 302 to CR 310	Florida Mesa	Principal Arterial	YES	C/+	C/+	Fair to Good	120.1 - 330
US 550: CR 302 to (South) County Line	Florida Mesa	Principal Arterial	YES	C/+	D	Good	120.1 - 330
US 160: (West) County Line to SR 140	Fort Lewis Mesa	Principal Arterial	YES	C/+	D	Good	120.1 - 330
US 160: SR 140 to CR 141	West Durango	Principal Arterial	YES	C/+	D	Good	120.1 - 330
US 160: SR 141 to US 550 (North)	Durango	Principal Arterial	YES	C/+	D	Good	0 - 120
US 160: US 550 to Santa Rita Drive	Durango	Principal Arterial	YES	E / F	E/F	Poor	120.1 - 330
US 160: Santa Rita Drive to US 550 (south)	Durango	Principal Arterial	YES	E / F	E/F	Poor	120.1 - 330
US 160: US 550 to CR 222 (Spring Valley Rd)	Durango	Principal Arterial	YES	D	E/F	Poor	0 - 120
US 160: CR 222 to Bayfield	Florida Mesa / Bayfield	Principal Arterial	YES	E / F	E/F	Good	0 - 120
US 160: Bayfield to (East) County Line	Bayfield	Principal Arterial	YES	C/+	D	Fair	120.1 - 330



CR 318: CR 310 to SR 172	Southeast La Plata	Collector	Paved
CR 321: SR 151 (San Ignacio) to SR 151 (Tiffany)	Southeast La Plata	Collector	
CR 334/CR 522: CR 521 to SR 151	Southeast La Plata	Collector	
CR 500: North of CR 501	Vallecito	Collector	
CR 501: US 160 to CR 250	Vallecito	Collector	
CR 521: US 160 to CR 151	Southeast La Plata	Collector	Paved
SR 302/305/306: US 550 to US 160	Florida Mesa	Collector	

Alternate Modes

The county has adopted the “complete streets” philosophy where alternate modes of transportation are considered. This is the belief that streets should accommodate all modes and should be “..a routine part of the street and road planning, design, construction, and operating activities”¹⁰. These modes include pedestrian, bicycle, transit, and provisions for persons with disabilities.

The Safe Roads Coalition (SRC) inventoried the major roadways including state and federal highways and identified bike/pedestrian usage levels and safety concerns. The study recommends safety improvements along these roadways, which are primarily adding paved shoulders or ongoing maintenance of existing shoulders. Most of these recommendations are included in current improvement programs. A bicycle/pedestrian path along CR 501 north of Bayfield is to be completed during this year (2009).

The *2035 Regional Transportation Study* includes a comprehensive inventory and discussion of the existing transit system in the county and identifies duplications and deficiencies in service as well as recommendations for planning for the future needs of the area. The *La Plata Regional Transit and Future Growth Plan* was completed in June 2009 and addresses current and future multi-model needs of the county. The Regional Transit Plan recommends some enhancements to the transit system and promotes implementation of a Regional Transportation Authority (RTA) to oversee and coordinate the various transit operations as well as coordinate efforts to enhance bicycle, pedestrian, van/carpool, and park and ride lots.

Durango Transit provides public transportation services in the City of Durango and provides transportation for persons with disabilities within 10 miles of the city limits in unincorporated La Plata County. Southern Ute Community Action Programs (SUCAP) provides public transportation through its Roadrunner service that connects Ignacio, Bayfield, Forest Lakes and Durango and provides inner city transportation services in Ignacio and Bayfield. La Plata County Senior Services provides door-to-door service through La Plata County along the major highways to seniors and disabled persons. Community Connections provides door-to-door transportation around La Plata County to persons with developmental disabilities. There is a regional rideshare program and several private shuttles, taxi services, and limousine services available.

Exhibit 33 inventories the current alternate modes access along the significant routes.

¹⁰ *Inventory and Prioritization of roads in La Plata County for Improved Bicycling, Pedestrian, and Motorist Safety*



Exhibit 33 Alternate Modes Inventory

Roadway Segment	La Plata County Senior Service	Grey-hound	Local Public	Elderly / Disabled	SUCAP	Ped/Bike use
US 550: (North) County Line to CR 250 (North)	X	X		X		Mod
US 550: CR 250 (North) to Trimble	X	X	X	X		Mod
US 550: Trimble Lane to Mead Lane	X	X	X	X		Mod
US 550: Mead Lane to US 160 (North)	X	X	X	X		Mod
US 550: US 160 to CR 302	X	X		X		Mod
US 550: CR 302 to CR 310	X	X		X		Low
US 550: CR 302 to (South) County Line	X	X		X		Low
US 160: (West) County Line to SR 140	X			X		Low
US 160: SR 140 to CR 141	X			X		High
US 160: SR 141 to US 550 (North)	X		X	X		High
US 160: US 550 to Santa Rita Drive	X	X	X	X		Low
US 160: Santa Rita Drive to US 550 (south)	X	X	X	X		Low
US 160: US 550 to CR 222 (Spring Valley Rd)	X		X	X		Low
US 160: CR 222 to Bayfield	X		X	X	X	Low
US 160: Bayfield to (East) County Line						Low
HWY 3 (east 5th Avenue	X		X	X		
SR 140: US 160 to CR 141	X			X		Moderate
SR 140: CR 141 to CR 134	X			X		None
SR 140: CR 134 to (South) County Line	X			X		None
SR 172: US 160 to CR 309	X		X	X		High
SR 172: SR 309 CR 509 (Missouri Center Rd)	X		X	X	X	High
SR 172: CR 509 to CR 314	X		X	X	X	High
SR 172: CR 314 to SR 151	X		X	X	X	High
SR 172: SR 151 to CR 318	X		X	X	X	Low
SR 172: CR 318 to (South) County Line			X		X	Low
SR 151: SR 172 to CR 334	X		X	X	X	
SR 151: CR 334 to (East) County Line						
REGIONALLY SIGNIFICANT COUNTY ROADS						



Roadway Segment	La Plata County Senior Service	Grey-hound	Local Public	Elderly / Disabled	SUCAP	Ped / Bike use
CR 100: CR 105 to CR 134						Low
CR 105: US 160 to CR 100						Low
CR 120: CR 141 to CR 140						Low
CR 134: CR 100 to CR 136						Low
CR 141: US 160 to CR 120						High
CR 204: US 550 to CR 205						High
CR 213: US 550 (AT CR 220) to US 550 (at CR 310)						High
CR 220: US 550 to SR 172						Moderate
CR 234: US 160 to CR 240						Very High
CR 240: US 550 to CR 501						High
CR 243: CR 240 to north						Very High
CR 250: CR 240 to SR 550						High
CR 309: SR 172 to CR 318					X	Low
CR 310: US 550 to CR 318						None
CR 314: CR 309 to SR 172					X	Low
CR 318: CR 310 to SR 172					X	None
CR 321: SR 151 (San Ignacio) to SR 151 (Tiffany)					X	
CR 334/CR 522: CR 521 to SR 151						
CR 500: North of CR 501						
CR 501: US 160 to CR 250						
CR 521: US 160 to CR 151						
SR 302/305/306: US 550 to US 160	X			X	X	

Community Concerns

This phase of the project will invite the community to provide input into the study process by advising the team of specific concerns. Some of these concerns have been disclosed within the district planning documents. The land use plans of most of the districts include some goals and visions for the transportation system within the district. Common concerns to most of these districts are the desire to maintain the rural or agricultural character where it exists today, to preserve scenic views, and have new development mitigate impacts as they occur. Specific concerns of each of the districts are:

Bayfield

- Preserve scenic views along US 160, CR 501
- Maintain rural character
- Beautification of US 160 corridor
- Increase traffic law enforcement
- Wildlife / vehicle conflicts
- District transportation plan

Florida Mesa

- Maintain rural character
- Gateways to community along major roadways
- Wildlife / vehicle conflicts
- Capacity issues on US 160, US 550, and SR 172
- Reduce commercial truck traffic on local streets
- District transportation plan
- Weight limit enforcement on High Flume Road, La Posta Road
- Public transit
- Qualify certain county roads for state funding

Florida Road

- Preserve scenic views along Florida Road, Texas Creek Road (CR 245) and CR 235
- No improvements that will increase speed limits
- Bike paths along Florida Road
- Avoid a new Animus connection to the valley

Junction Creek

- Maintain rural character
- Preserve scenic views
- Maintain rural road standards
- Bike paths along Junction Creek Road
- Avoid new Animus connection to the valley

- Avoid road easement through “notch”

North County

- Maintain rural character
- Preserve scenic views on SR 550
- Maintain rural road standards
- Improve access control on SR 550
- Develop multi-use trail system throughout the community
- Public transit

Vallecito

- Maintain rural character
- Preserve scenic views
- Improvements to CR 501
- Emergency access plan since CR 501 is the only access into/out of community

West Durango

- Maintain rural character
- Preserve scenic views
- Reduce speed limits
- Improve access control on Rafter J/King Mountain, Durango West II, and Lightner Creek
- Roadway improvements on CR 211 and CR 141
- Intersection improvements at US 160 / Lightner Creek, US 160 / Wildcat Canyon Road, Rafter J/King Mountain / Wildcat Canyon Road, and Durango West I / US160
- Improve pedestrian access / safety
- Bike paths
- Construct new roadway between US 160 and CR 125
- Increased safety through new traffic regulations

Fort Lewis Mesa

- Maintain rural character
- Preserve scenic views

Planned Improvements

La Plata County is in the process of adopting a Transportation Impact Fee to fund capacity and safety improvements throughout the unincorporated county. Duncan Associates prepared the *La Plata Road Impact Fee Study* to address funding requirements for roadway and intersection improvements. The improvements identified in this study include capacity expansion identified in the TRIP study and paving unimproved roadways that are warranted based on county regulations, which require paving of any roadway with an ADT of over 400 vehicles. In addition to these improvements, the Colorado Department of Transportation has scheduled improvements on US 160 and US 550. Exhibit **



summarizes the improvements that have been identified on the significant roadways that will be included in this study.

Exhibit 34 Planned Improvements

Roadway Segment	Planned Improvements	Source
US 550: Trimble Lane to Mead Lane	Add shoulders	SRC
US 550: Mead Lane to US 160 (North)	Add shoulders	SRC
US 550: US 160 to CR 302	Reconstruct to 4 lanes	CDOT
US 550: CR 302 to CR 310	Reconstruct to 4 lanes	CDOT
US 550: CR 302 to (South) County Line	Reconstruct to 4 lanes	CDOT
US 160: US 550 to CR 222 (Spring Valley Rd)	Reconstruct to 4 lanes	STIP bid 6/2009
HWY 3 (east 5th Avenue	Widen to 4 lanes .5 miles from Ewing Mesa to 8th Ave	TRIP
SR 140: US 160 to CR 141	Add/improve shoulders	
CR 141: US 160 to CR 120	Add Shoulders; Pave 4.13 miles from CR 125 to US 160	SRC / Fee Study
CR 204: US 550 to CR 205	Add Shoulders; Pave .7 miles from Durango City Limits to IGA Boundary	SRC / Fee Study
CR 213: US 550 (AT CR 220) to US 550 (at CR 310)	Reconstruction of section north of 214 is complete; reconstruction near Basin Creek and Indian Creek nearing completion	PW Budget 2009
CR 220: US 550 to SR 172	Add shoulders; Pave 2.77 miles from US 550 to SH 172	SRC / Fee Study
CR 234: US 160 to CR 240	Add shoulders; Pave 4.46 miles from US 160 to CR 225	SRC / Fee Study
CR 240: US 550 to CR 501	Add shoulders; Widen to 4 lanes from Folsum Road to CR 250	SRC / TRIP
CR 243: CR 240 to north	Pave 2.6 miles from existing end of pavement to Sawmill road	Fee Study
CR 250: CR 240 to SR 550	Add CLT; bike from CR 240 north .7 miles (IGA Boundary); Pave 5.58 miles from IGA Boundary to CR 252	TRIP / Fee Study
CR 309: SR 172 to CR 318	Pave 4.09 miles from CR 318 to CR 309A (end of pavement) with shoulders	Fee Study
New CR between CR 223 and CR 510	Construct .86 miles of new roadway (East of CR 225)	TRIP / Fee Study
New Road network between Grandview and Durango	Between Grandview and Durango; construct new arterial road	TRIP / Fee Study
New Road (Ext 316)	Construct new Road in Ignacio from north of CR 318 to CR 314	TRIP / Fee Study

Source: TRIP = TRIP STUDY 2030; Fee Study = La Plata Road Fee Study; SRC = Safe Roads Coalition

VI. NATURAL ENVIRONMENT

La Plata County's diverse wildlife and abundant natural and scenic resources are assets prized throughout the nation. These unique resources largely define the character of the community. Access to wildlife, scenic beauty and recreation are major reasons most residents live in the community. Tourists drawn to these irreplaceable natural environments are a major economic driver for the County. Responsible stewardship and conservation of these resources is critical to the health of the ecosystem, and in turn to the health and wellbeing of the people. Development, mining, livestock grazing, logging, recreations, roads, non-native species, habitat fragmentation, drought and hydrological modifications pose challenges for the future preservation, conservation and management of the county's natural environment.

Significant portions of the county are lands protected from development by federal agencies. The ecosystems and the plant and animal species which depend on them do not recognize these jurisdictional boundaries, relying on all lands for habitat. These interconnected systems are susceptible to the impacts of growth and development. The loss of biological diversity is a world-wide phenomenon which is impacting the county also. Threats to a stable and balanced ecosystem require effective stewardship of the land and efficient processes which maintain and regenerate the natural cycles of the region.

Regenerative Ecosystems.

Vegetation and plant communities are influenced primarily by elevation, but also by slope, aspect, soils and moisture. La Plata County, situated in the La Plata and San Juan Mountain ranges, straddles two ecological regions. The southern half of the county is located on the Colorado Plateau, a warmer, drier region at lower elevations characterized by sage plains, arid plateaus and mesas. The Colorado Rocky Mountains, encompassing the northern portion of the county, containing high peaks and meadows, is characterized by cooler temperatures, higher elevations, steeper slopes and greater moisture.

Four climatic zones are located in the county according to the May, 2004 document, *Assessment of Critical Biological Resources, La Plata, County, Colorado*. Produced for La Plata County by the Colorado Natural Heritage Program, this and a companion document, *Survey of Critical Wetlands and Riparian Areas in La Plata County*, surveyed the county for critical biological resources with the goal of identifying rare or endangered species and habitats which those species are reliant upon. These four climatic zones include alpine, found above 11,500 feet, sub-alpine, located generally between 9,000 and 11,500 feet elevation, upper montane, roughly between 7,500 and 9,000 feet and lower montane, below 7,500 feet. Ecological systems vary over these zones.

Different ecological systems are found in each climatic zone. The alpine and sub-alpine climatic zones, the county's highest elevation zones, above 9,000 feet, range from alpine meadows to spruce-fir forests. Mixed conifer forests, Douglas fir forests, and Aspen forests are found at elevations of the upper montane climatic zone. The lower montane zone hosts ponderosa pine forests, Gambel oak shrubland, pinyon-juniper woodlands, and shrub-grass-forb rangeland.

The protection of biological diversity is necessary for the survival and regeneration of plant and animal communities and for the welfare of humans. According to *Assessment of Critical Biological Resources, La Plata, County, Colorado*, May, 2004, biological diversity is described at four levels; genetic diversity, species diversity, community diversity and landscape diversity. It includes “variations in the biologic communities in which species live, the ecosystems in which communities exist and the interactions among these levels.” The linking of these different levels of diversity to each other and to the human environment is critical for a healthy future.

The aim of a regenerative ecosystem is to achieve a balance between the economic, social and ecological environments. The built environment must interact with natural ecosystems and their cycles in a stable and balanced manner for the long-term welfare of the region. Protecting the water, soil, habitat and communities is the surest way to assure the quality of life for future generations. A healthy relationship between the natural ecosystem and human culture is achieved by protecting crucial resources and by assisting in the recovery of degraded or damaged ecosystems.

The degradation of natural and scenic resources as the result of human activity is not always clearly evident. Some direct impacts are easily identifiable and mitigation methods may be readily identified and implemented. It is not so simple to identify and mitigate for all of the accumulated direct and indirect impacts of human action. The attraction of the county’s scenery and wildlife, which draws new residents and visitors each year, poses a threat to the health of the region’s ecosystems. The needs of society must be integrated with the integrity of the natural environment.

Native Species.

The diverse ecosystems in the county provide home to many native species. Common large mammals include American elk, bighorn sheep, black bear, and mule deer. Smaller furbearers common to the county include beaver, muskrat, coyote, raccoon, fox, pika and skunk.

Federal and state listed endangered species include black-footed ferret, lynx, Mexican spotted owl, southwestern willow flycatcher, boreal toad and wolverine. Species listed as threatened by the state include bald eagle, northern river otter, and western burrowing owl.

Other species are on the state list of special concern. These include Botta’s pocket gopher, ferruginous hawk, greater sandhill crane, Gunnison sage grouse, long-billed curlew, midget faded rattlesnake, northern leopard frog, northern pocket gopher, peregrine falcon, sage grouse, Townsend’s big-eared bat, and western snowy plover.



Twenty-seven rare or imperiled species of plants have been identified in La Plata County. Many of these are associated with riparian areas or wetlands and have been impacted by invasive species and by hydrological modifications such as dams and irrigation canals.

Invasive Species.

Invasive species are a threat to biodiversity in La Plata County, and across Colorado. Introduced both accidentally and intentionally, these alien species cost the community in environmental integrity and in agricultural economy. Invasive plants have disrupted ecosystems and degraded the habitats of native wildlife by out-competing and replacing native plants. Much of the indigenous cottonwood and willow riparian vegetation, breeding ground for many species of bird, has been replaced by invasive tamarisk along waterways throughout the county. Invasions of bark beetles have had a great impact on forest health, wildlife habitat, and scenic resources. Local and statewide initiatives are actively working to educate the public and to remove or control select invasive species such as tamarisk and Russian olive and regenerate the native vegetation communities they replaced.

Wetlands and Riparian Areas.

Wetlands are lands where the water table is usually at or near the surface or the land is covered by shallow water. Riparian areas are linear areas along lakes and waterways which support interaction between aquatic and terrestrial ecosystems. Both wetlands and riparian areas are of high biological significance and support a diverse variety of plants and animals. The *Survey of Critical Wetlands and Riparian Areas in La Plata County* identified at least 32 major wetland/riparian plant communities in the county. Wetlands and riparian areas help protect water quality, store floodwaters and enhance biodiversity. These unique ecosystems are especially susceptible to off-site activities which impact water quality and hydrologic systems.



Riparian areas and wetlands represent an important element of the landscape, although they are only a small percentage of the area. These complex ecosystems are used by more than 70% of wildlife species. Lower elevation riparian vegetation includes cottonwood, alder, river birch, river hawthorn and willow species. Most of the riparian areas in the county are threatened by invasive species. Russian olive and tamarisk are found along the Animas and other waterways in the region. Cottonwood regeneration has been negatively impacted by river damming and alteration. Bald eagles, great blue heron and other birds rely on mature cottonwoods for nesting and roosting. Perennial streams and rivers provide habitat for fish and aquatic organisms.



WATER QUANTITY AND QUALITY¹

¹Prepared by Peter Butler, Chair of the La Plata County Water Advisory Committee, Nov, 2009

General Water Use

La Plata County has four rivers running through it; Pine, Florida, Animas and La Plata. This water is used for agriculture, domestic use, municipal use, industrial use, recreation and environmental purposes. Generally, water is diverted from rivers and streams for the first four uses. A portion of that water is consumed through evaporation, transpiration, or deep percolation to groundwater that is not readily available for use. Groundwater may not readily available for use if it is too expensive to extract or is of poor quality. Water that is diverted or withdrawn from streams and is not consumed is considered return flow because it is available to use again.

Domestic, Municipal, and Industrial Use

The largest, non-agricultural water division in the county is for the City of Durango. In the middle of summer, Durango might divert up to about 14 cubic feet per second (cfs) – almost 9 cfs from the Florida and the rest from the Animas. Durango diverts approximately one acre-foot (a-ft) of water per year for every 5 people it serves. That is a higher per capita use than one would expect around much of the county because it includes commercial use, tourists, and park watering where potable water is used.

In La Plata County, with a population of approximately 50,000 residents, it is reasonable to assume domestic and municipal water use (diversions) is around 10,000 a-ft per year. This corresponds well with the Statewide Water Supply Initiative (SWSI) report from 2004 which projected annual domestic, municipal, and industrial use in the county at 11,300 a-ft in 2009. For comparison purposes, the average annual volume of the Animas River is about 550,000 a-ft and the minimum flow in the Animas River in Durango during drought is about 100 cfs.

There are approximately 70 water systems (public, private, and community) permitted under the Safe Drinking Water Act in La Plata County, many of which are quite small including summer camps, campgrounds and small developments. The six systems that each serve at least a 1,000 people (Durango, Bayfield, Ignacio, Animas Water Company, Lake Durango, and Forest Lakes) serve about 30,000 people. Roughly, 65-70% of the county population is connected to permitted water supply systems, 7-12% haul water, and 20-30% are on individual or shared wells.

Agricultural Use

Approximately 95% of the surface water diversions in county are for agriculture. In some cases water may be diverted more than once such as when the return flow from one diversion reaches a stream before the next diversion. Except for Lake Nighthorse, the vast majority of water stored in the county is for agricultural purposes. The biggest reservoirs have the following capacities: Vallecito – 130,000 a-ft; Lake Nighthorse – 120,000 a-ft; and Lemon – 40,000 a-ft.

Much of La Plata County has more agricultural land than available irrigation water, at least at a reasonable cost. Except along the Animas River, many irrigators run short of water at least during

some years. In some locations, there is a perpetual shortage of irrigation water, especially where there is no water storage such as in the La Plata River Basin.

Recreation and Environmental Use

These uses generally do not include water diversions and there are no estimates as to how much water is used for these purposes.

WATER FOR FUTURE DEVELOPMENT

Groundwater

There are no known large, deep aquifers in the county with good quality water. The most viable supplies of groundwater exist in riparian and irrigated areas which recharge aquifers. Thus, development based upon groundwater will migrate to these areas. In many parts of the county, irrigators have been increasing their efficiency of water use by reducing ditch seepage and water percolation below the root zone. In addition, some irrigated areas have been taken out of production. It is possible that some locations, wells dependent on groundwater recharge from irrigation will eventually go dry.

River valley aquifers are found in shallow loose sediments like gravel and sand next to rivers and streams. They are usually found within the immediate proximity of a river or stream valley. These aquifers are recharged by the river flow and usually have good water quality and sustained yield because of the regular recharge from the river. However, the groundwater is often close to the ground surface and is therefore very susceptible to pollution from adverse surface conditions.

The Florida mesa aquifer is found in southeast La Plata County. This aquifer consists of a thick gravel deposit situated over a large area. Much of La Plata County's densely populated suburban area is situated over the Florida Mesa Aquifer. Recharge to this aquifer is primarily from irrigation water used on farms and ranches in the area. This aquifer typically has good water quality and yield. However, as more water wells are drilled and fewer farms are irrigated, the aquifer is at risk of becoming depleted in certain areas.

Bedrock shale and sandstone aquifers are often tapped in southwest Colorado. The most commonly drilled bedrock aquifers in La Plata County are the Animas and Nacimiento Formations in the southeast part of the county. However, many other bedrock formations are also drilled in other parts of the region. Most of these aquifers are mixed beds of sandstone and shale. The yield and quality of water removed from bedrock aquifers can vary widely. And because recharge into bedrock aquifers is usually very slow, bedrock aquifers can easily suffer from the effects of overuse or groundwater mining.

Crystalline fractured aquifers are most commonly found in northern La Plata County in granite and volcanic rocks. While these types of rocks have little or no pore spaces, groundwater is accumulated and transported in interconnected fractures within the rock. Wells that are drilled into a network of fractures can yield water. However, a nearby well that does not intercept fractures may yield no water at all.



In 2007, the County Commissioners adopted strict rules for basing subdivision development of greater than five lots on groundwater. Significant studies must be conducted to show that water withdrawals do not exceed groundwater recharge *excluding* recharge from irrigation. Those rules also allow for development based upon water hauling under extremely limited circumstances. The county does not allow for development based upon produced water from gas development because that water is only temporarily available.

Surface Water

There are substantial sources of surface water available for development, but they are located in only certain areas and that water is very expensive to distribute around the county. Those sources could be diminished depending on the external factors discussed below. The biggest source of water for development is Lake Nighthorse. The Animas-La Plata Project is designed to supply southwest Colorado with almost 82,000 a-ft (diversions) of municipal and industrial water each year. Out of that amount, the Southern Ute Indian Tribe and the Ute Mountain Ute Tribe have been each allocated 33,000 a-ft (enough for 165,000 people). So there is plenty of water available for development on tribal land.

Originally, the Animas-La Plata Conservancy District has been allocated 5,200 a-ft from the Project. Of this amount, Durango has an option to buy 3,800 a-ft for future development (enough for 19,000 more people), and the La Plata West Water Authority is interested in 1,400 a-ft (7,000 more people) for domestic water supplies in the La Plata River basin. Durango also still has unused water rights on the Animas River as well. The State of Colorado has been allocated 10,460 a-ft (enough to double the current population of the county) which has not been contracted to any entity. In a few years, the state will need to reimburse the federal government for this water (current estimates are about \$27 million) or the water will revert to the Tribes. The La Plata-Archuleta Water District has expressed an interest in some of this water.

There are other sources of water for development as well. The County has water rights for 9 cfs, and the County and the Southwestern Water Conservation District jointly have water rights for 20 cfs from the Animas River and tributaries for future development upstream of Durango's water park. These water rights were a result of a stipulation underlying the city's recreational in-channel diversion water right. The Pine River Irrigation District has discussed providing 3,000 a-ft from Vallecito to the La Plata-Archuleta Water District. In addition, water rights may be converted from agricultural use to municipal and domestic use, especially where agricultural land is converted to development.

There are two proposed rural water districts which would distribute water around large parts of the county. The La Plata-Archuleta Water District would like to supply water to the southeastern part of the county from the Animas River to the eastern edge of the County and from just north of Highway 160 to the New Mexico border, excluding areas around Bayfield, Durango, and Ignacio. The La Plata West Water Authority would like to supply water to the La Plata River drainage from Hesperus south to the border. The estimated cost of full build out of each system is around \$85-\$100 million.

External Factors

Some external factors that could limit water use in La Plata County are the Colorado River Compact, climate change and endangered species. Under the Compact, Colorado is obligated to let a certain amount of water flow downstream to other states in the Colorado River system. Increased water use in other parts of Colorado, such as greater transbasin diversions from the Upper Colorado watershed to the Front Range or massive oil shale development in the northwestern part of the state would mean that more of Colorado's obligation could fall on the San Juan basin which in turn could limit local water development.

Climate change could cause a similar impact as the transbasin diversions. Colorado's obligation to downstream states doesn't change even if there is less precipitation. In addition, as has been seen over the past few years, drought reduces the availability of local water supplies. The needs of endangered species can also affect water development. For example, endangered fish limited the size of the Animas-La Plata project. It is unknown if current endangered species will require more water to survive or if other species will make their way onto the endangered species list.

WATER QUALITY

Groundwater

The quality of groundwater in the county varies greatly by location. In some areas it is very good; in others the water has high levels of total dissolved solids (salts) and frequently high levels of iron and manganese. It all depends on what type of geologic formation a well is drilled into. There are pockets of poor water quality from other constituents as well. A selenium belt exists from around Oxford over to Sunnyside. There are elevated levels of fluoride east of Bayfield. Some water wells have methane particularly near the outcrop of Fruitland formation.

Surface Water

Generally, La Plata County has very good water quality in its rivers and streams with some modest exceptions. At times there have been elevated metals in the Animas River that have affected aquatic life. These metals come from San Juan County. Some people feel that nutrient levels in the Animas River from just north of Durango to the New Mexico border could become a problem. Areas of the La Plata drainage have some elevated iron levels that could affect aquatic life.

The main issue in local reservoirs is mercury which is generally thought to be coming from atmospheric deposition from coal-fire power plants. Vallecito has a fish consumption advisory because of mercury, as do a number of other reservoirs in southwest Colorado.

THREATS TO WATER QUALITY

Water quality throughout La Plata County is generally good with some mining-related heavy metal pollution and sedimentation. However, as the community grows it is critical to identify and mitigate sources of water quality pollution and degradation. There are several factors that can contribute to declining water quality within a watershed.

Mining Pollution

Mining-related pollution of heavy metals and sedimentation is a common problem throughout the west, but many efforts are underway to identify sources of pollution and mitigate impacts on water quality.

Roads

Roads are a potential source of sediment in watersheds. Roads can change natural run-off patterns by increasing the amount of impervious surface in a watershed, and/or by intercepting overland flow or shallow subsurface run-off. The network of road drainages often routes this water, and the associated sediment, directly into streams which can impact aquatic life. Road sometimes require physical changes to streams, floodplain, and riparian areas. Rapid sedimentation can fill in water storage reservoirs and ponds. The map entitled *La Plata County Road Density by Watershed* shows that the highest densities of roads are in the less rugged, mostly private or tribal ownership southeast portion of the county. Meanwhile, in the northern watersheds of the county, road densities are low overall, but narrow corridors force roads closer to streams and rivers. The La Plata River drainage also has a low density of roads, reflecting the low density of development in this area.

Sewage

While public sewer systems are tightly regulated by the State, the county holds authority to regulate or delegate the authority to regulate individual septic disposal systems. Old or poorly designed or sited systems can adversely affect surface or ground water. Septic systems that are placed too close to a stream or river can result in sewage pollution into the surface water. The attractive river valley geography that is characteristic of Southwestern Colorado's foothills is prime real estate. According to a GIS-based structure count over 6,000 structures are located within 1/4 mile of the centerline of the four major rivers in the county. Including the first order creeks (Hermosa Creek, Junction Creek, Lightner Creek, and other 1st order creeks) in the analysis bumps up the number structures located within 1/4 mile of the centerline rivers and 1st order creeks to nearly 7,600 structures, about 20% of the total structures in the county. These estimates also include a 1/4 mile buffer around the shoreline of major lakes in the county. See the map entitled *Buffers for Selected Streams for Structure Count* for an illustration of the 1/4 mile from centerline corridors for the four major rivers in the county (6,135 located in this buffer).

Figure 35 - La Plata County River Corridor Structure Count

<i>La Plata, Animas, Florida, and Los Piños Rivers in the county</i>	✓ Structures
<i>Structures¹¹ w/in 1/4 mile of rivers centerlines</i>	✓ 6,135
<i>Structures w/in 1/4 mile of rivers and 1st order tributary centerlines</i>	✓ 7,592
✓ <i>Total Structures in the county</i>	✓ 37,403

Not all of these structures are residential structures or are occupied such that they require septic systems, but presumably many of the structures along the rivers and creeks in the county use septic systems that are also located within 1/4 mile of the river or creek centerline or lake shoreline. Old or leaky individual septic disposal systems (ISDS) or systems that are not designed to handle current flows can contribute to a decline in water quality if they are located too close to the river.

The settlement of the river corridor is well-underway and demand for river-side development is expected to continue. Subdivision layout and other site planning have a role to play in maintaining water quality as well as the review of ISDS by the designated health agency. Special care must be taken for ISDS that are proposed to be located in the floodplain because surface waters can interface directly with the system.

IMPACTS FROM DEVELOPMENT

New development in the county can result in altered drainage courses and increased impervious surfaces. Drainage and erosion plans are required for subdivisions and other major developments in La Plata County but this continues to be a potential source of sedimentation and pollution in the future if unmitigated.

Contamination

Relatively small amounts of contaminants can cause large amounts of damage to both surface and groundwater quality. If gasoline, oil, road salts and chemicals or other human products get into the groundwater they can cause it to become unsafe or unfit for human use. Some of the most common sources of these pollutants are leaking fuel storage tanks, septic systems, inappropriate chemical storage sites, landfills, and the widespread use of road salts and chemicals. If fertilizers, insecticides and pesticides are improperly applied and are washed into the ground by irrigation and precipitation they can also reduce water quality in the aquifer. Similarly, contamination of surface water can impair its quality for its intended use (irrigation, recreation, fishing, treatment for drinking). The

¹¹ "Structures" includes all permanent structures and all uses (residential, commercial, industrial, outbuildings, agricultural).

nearly 7,600 structures within 1/4 of the centerline of the county's major rivers and creeks pose a threat to water quality from unintentional contamination from the contents of these structures.

Gas and oil development and gravel mining and processing

Extractive activities are known to have impacts on water quality if not properly mitigated. Impacts can result from storm water flows, erosion, sedimentation, leakage of chemicals and equipment, leakage of drilling pit fluids, and discharging of water used or produced by wells. The State Water Control Division plays the major role in regulating and enforcing water quality related to these industries. Gravel mining and processing requires special attention because they tend to happen along rivers and streams, creating the need to mitigate surface water impacts carefully. Meanwhile, oil and gas development is very widespread in La Plata County, with wells extending throughout most of the southern half of the county.

Community Efforts to Improve and Protect Water Quality

The existing capacity for community-based solutions to maintaining and improving water quality in La Plata County includes at least five groups and covers two of the major watersheds. These groups are critical for mobilizing community projects and generating and disseminating information to citizens.

- *Animas River Stakeholders* was formed in Silverton in 1994 in response to a possible superfund designation. The group continues to locate and evaluate sources of metal contamination in the Animas River Headwaters and strategize for mitigation of mine pollution.
- *San Juan Citizens Alliance* has participated in several water quality-related projects throughout the San Juan Mountains.
- *Trout Unlimited's* mission is "To conserve, protect and restore North America's coldwater fisheries and their watersheds"
- *Friends of the Animas River* was founded in 1993 to bring attention to the health and vitality of the Animas River and its riverine systems.
- *Pine River Watershed Group* sets out to define water-quality conditions, protect citizens from floods, and determine sources and causes of water-quality degradation in the upper Pine River watershed and Vallecito Reservoir.

Regulatory Context

Water quality is regulated at the federal, state, and county/municipal scale of government. In preparing for a community planning process that considers water quality, an early step is to clarify the roles of the county, the state, and the federal government in the water quality regulatory framework. Figure 36 illustrates the multiple layers of regulatory and enforcement capacity for affecting positive outcomes and mitigating impacts on water quality. In a comprehensive planning process, one key to success will be articulating community goals for water quality and finding ways to align regulatory structures that are now in place to accomplish these goals.

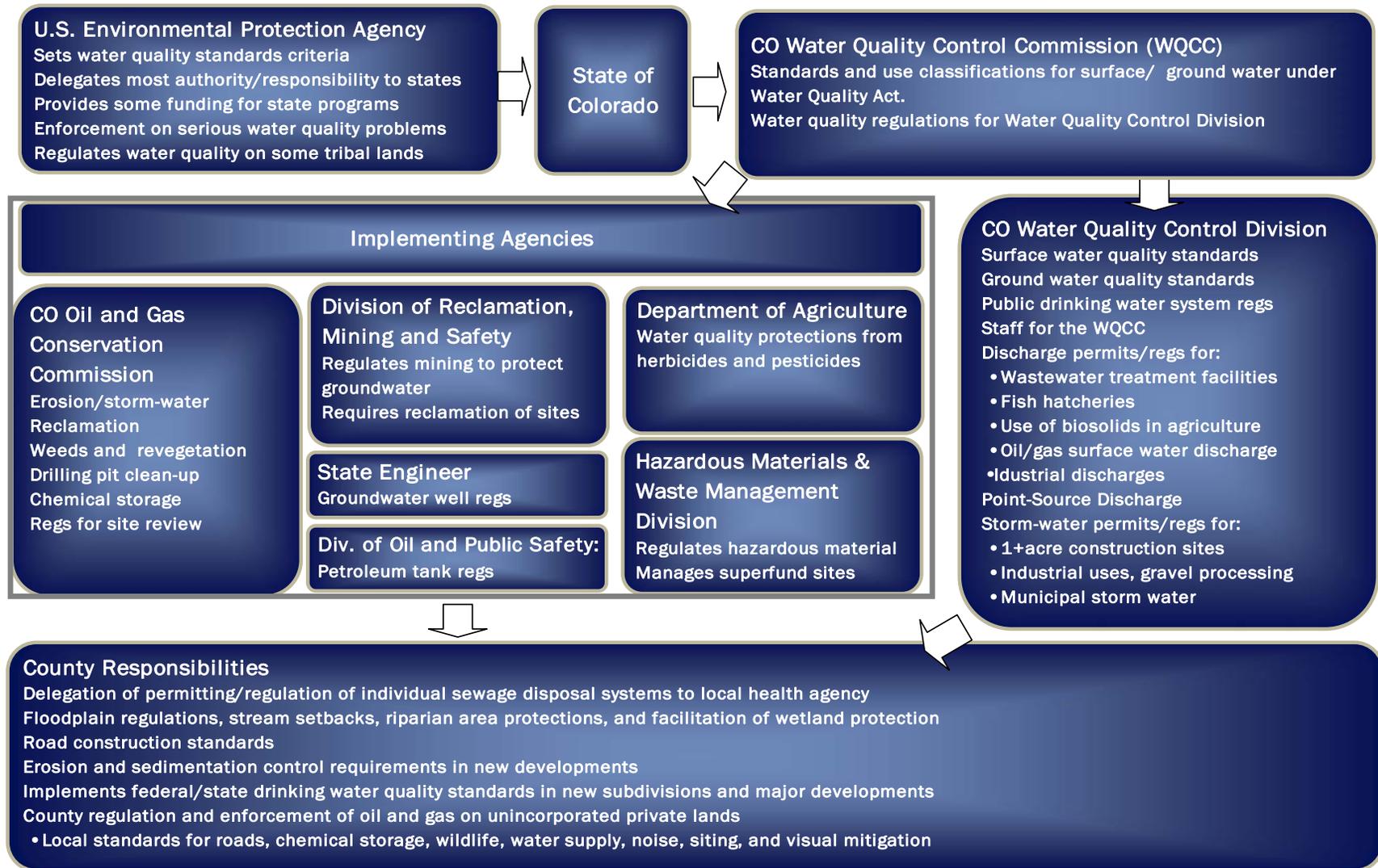


Figure 36 - Water Quality Regulatory Framework

Sources: Various websites materials for Environmental Protection Agency, Colorado Department of Public Health and Environment, Colorado Oil and Gas Conservation Commission, La Plata County Planning Department

AIR QUALITY

Because La Plata County is in the midst of highly valued and scenic federal lands air quality is not only important for healthy breathing and ecosystems, clean air is a prerequisite for an outstanding view. The scenic beauty of the public lands near La Plata County has motivated air quality protections in our region via site specific designations that trigger higher air quality standards when evaluating permits for activities affecting air quality.

Because air masses move around, air quality is generally evaluated on a regional basis. The Colorado Department of Public Health has determined that the air quality in the Southwest Region of Colorado "attains all air quality standards"¹².

One purpose of the federal Clean Air Act is to "preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value" (CAA, Sec. 160). As part of the programs to implement this, the most outstanding special areas are given a Class I designation, which have higher standards for air pollution and special rules for visibility that must be considered in evaluating. In our region, there are three class I areas that receive special attention from the EPA, the state, and federal land managers. Having these class I areas nearby affords some degree of federal protection against local and regional air pollution that would cause a failure to meet EPA air quality and visibility standards in the area. See map entitled Regional Air Quality Map for an illustration of Class I areas nearest La Plata County.

Figure 37 - Class I Areas in and Near La Plata County

✓ <i>Class I Area</i>	✓ <i>Administering Agency</i>
✓ <i>Weminuche Wilderness</i>	✓ <i>USFS</i>
✓ <i>Mesa Verde National Park</i>	✓ <i>National Park Service</i>
✓ <i>Canyonlands National Park</i>	✓ <i>National Park Service</i>

The State of Colorado Department of Public Health has identified outstanding scenic vistas in the *Vista Database of Scenic and Important Views*. Visibility at these vistas is considered by the State of Colorado when permitting new large emissions sources (PSD permits/New Source Review) or when issuing smoke emission permits associated with burning.

¹² <http://www.cdphe.state.co.us/ap/down/AOCCstatewidepresentation.pdf>

Figure 38 - Scenic and Important Views in and Near La Plata County

✓ Colorado Air Quality Division Scenic, Important Views	
✓ Andrews Lake Overlook	✓ Durango Mountain Resort
✓ Bolam Pass Overlook	✓ Lizard Head Pass Overlook
✓ Kennebec Pass Overlook	✓ Animas Overlook
✓ Jersey Jim Fire Tower	✓ McPhee Overlook
✓ Cave Basin Ridge	✓ San Juan Overlook
✓ Chimney Rock Archaeology Area	✓ Mt. Wilson, Lizard Head Wilderness
✓ Lookout Peak	✓ Mt. Eolus, Weminuche Wilderness
✓ Cimarron Peak, Weminuche Wilderness	✓ Chalk Mountain, South San Juan Wilderness
✓ Benchmark Lookout	✓ Sockrider Peak

Source: Colorado Air Pollution Control Division (2005).

DECLINING REGIONAL AIR QUALITY

Mesa Verde National Park has been monitoring ozone since 1993. A trend of increasing ozone has been measured within the Park¹³. These same studies found that visibility is in decline at Mesa Verde National Park as well. Ozone levels approaching have also been measured near the Colorado/New Mexico border and it was found that the ozone levels in the Four Corners Region are similar to those in large metropolitan areas; unusual for a rural area¹⁴. In response to local concerns about ozone, San Juan Public Lands officials monitored ozone in 2005 near Bayfield, Colorado and found that it failed to meet the Colorado Ambient Air Quality Standard for ozone by more than ten percent¹⁵.

Threats to Air Quality

POWER PLANTS

Coal-fired power plants are the largest point sources of air pollution emissions in the Four Corners Region. Two large power plants are located in San Juan County, NM: San Juan Generating Station (1800 MW) and Four Corners Power Plant (2000 MW). Desert Rock Energy Project is a proposed

¹³ National Park Service. 2005. Air Quality Conditions and Trends in Parks – Annual Report 2004. Air Resources Division. U.S. Department of the Interior, National Park Service. Washington, D.C.

¹⁴ New Mexico Environment Department. 2004. Air Quality Bureau, 8-Hour Ozone Measurements in San Juan County. Santa Fe, New Mexico. <http://www.nmenv.state.nm.us/aqb/projects/Ozone.html>.

¹⁵ San Juan Public Lands 2008 Draft Forest Plan EIS <http://ocs.fortlewis.edu/forestPlan/DEIS/pdf/Vol1%20Ch3.1%20Air%20Quality.pdf>



1500 MW coal-fired power plant proposed to be built in Burnham, 30 miles Southwest of Farmington. Air quality and visibility protection are issues of significant concern with respect to the permitting of these new facilities. Coal-fired power plants are large sources of CBM wells and associated infrastructure are cumulatively large sources of Oxides of Nitrogen (NO_x), Oxides of Sulfur (SO_x), and Volatile Organic Compounds (VOCs), CO₂, mercury, and other emissions¹⁶.

OIL AND GAS DEVELOPMENT

Coal bed methane (CBM) development is a relatively new large local source of air pollutants occurring in just the past few decades. There are over 23,000 CBM wells in the San Juan Basin (extending beyond the county) and development of 11,000 additional wells is projected over the next 20 years¹⁷. CBM wells and associated infrastructure are cumulatively large sources of NO_x, SO_x and VOCs,. Construction and traffic on unpaved well roads are sources of dust and fine particulates.

WILDFIRES AND PRESCRIBED BURNING

One of the most noticeable influences on air quality is the frequency and range of wildfires and prescribed burning in the region around the county. The emphasis on fuels management to reduce fire risk on public lands has resulted in more frequent prescribed burns which are temporary, but can affect air quality tangibly for miles around the burn.

DURANGO-SILVERTON TRAIN

The coal smoke and other pollution emitting from the trains along the length of the route has been discussed for many years. State health officials list it among the primary sources of emissions in the region¹⁸.

AUTOMOBILES, HOMES, AND BUSINESSES

Our automobiles, furnaces, stove pipes, and exhaust vents all contribute to air pollution incrementally. The air pollution problems in populated metropolitan areas is enough to demonstrate that an increase in population in La Plata County means an incremental decline in air quality without commensurate mitigation.

Air Quality Community Groups

The Four Corners Air Quality Task Force emerged to enable a broad and inclusive collaborative process for regional air quality planning. This group consists of affected states, tribes and federal land managers in the region and tackles threats to air quality including power plants, oil and gas development, and automobile emissions.

¹⁶ San Juan Public Lands 2008 Draft Forest Plan EIS
<http://ocs.fortlewis.edu/forestPlan/DEIS/pdf/Vol1%20Ch3.1%20Air%20Quality.pdf>

¹⁷ San Juan Public Lands 2008 Draft Forest Plan EIS
<http://ocs.fortlewis.edu/forestPlan/DEIS/pdf/Vol1%20Ch3.1%20Air%20Quality.pdf>

¹⁸ Around the State in Air Quality <http://www.cdphs.state.co.us/ap/down/AQCCstatewidepresentation.pdf>



The Train Smoke Task Force was convened to make recommendations to DSNCR to mitigate smoke pollution along the train's Durango-Silverton Route.

Air Quality Regulatory Framework

Because air masses move long distances, the regulating air quality is a state and federal responsibility, except that local governments control land use, transportation, and development permitting. Figure x details the air quality regulation framework.

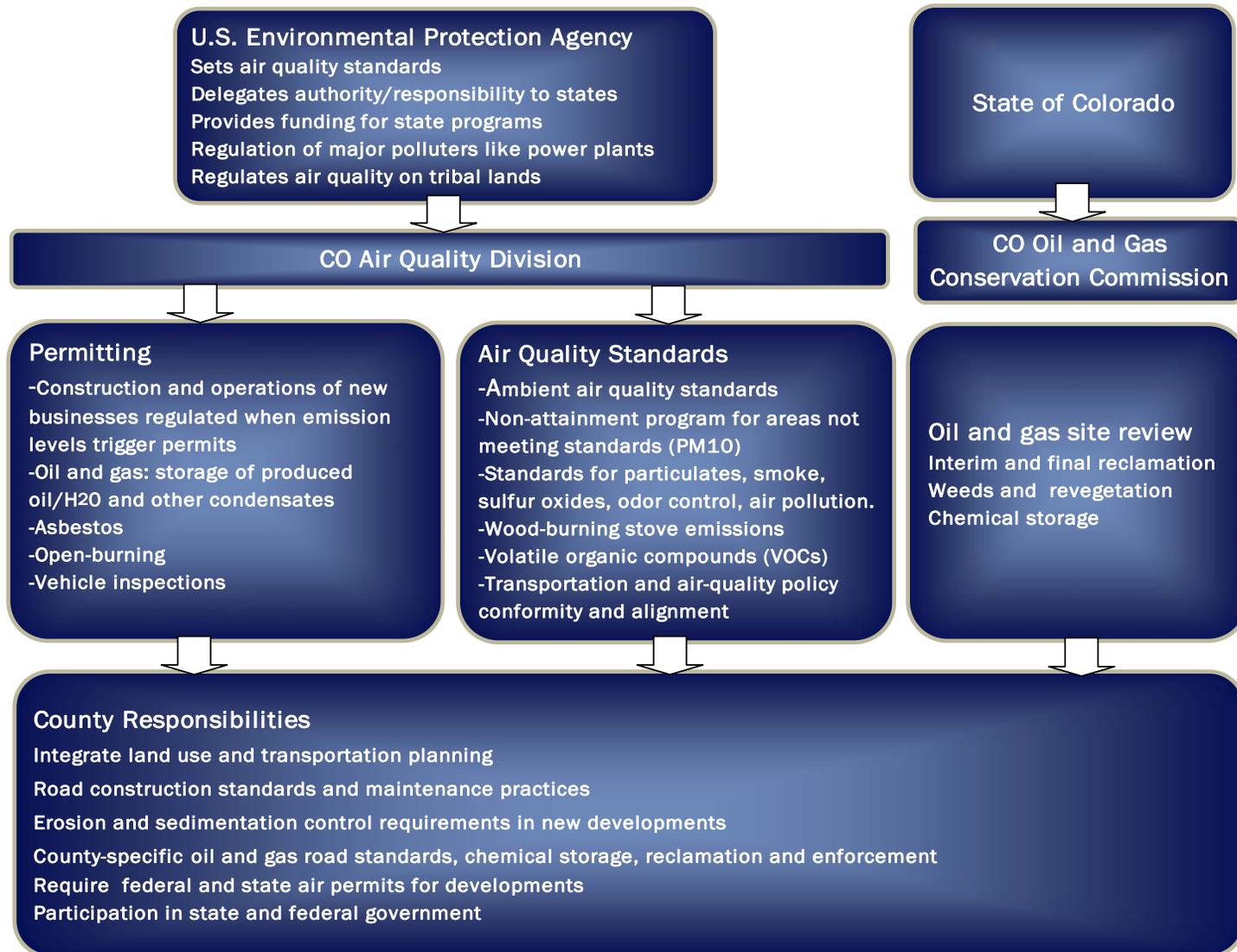


Figure 39 - Air Quality Regulatory Framework

Sources: Various websites materials for Environmental Protection Agency, Colorado Department of Public Health and Environment, Colorado Oil and Gas Conservation Commission, La Plata County Planning Department

GEOLOGIC AND FLOOD HAZARDS

La Plata County's terrain, hydrology, climate, and vegetation produce natural processes that pose a risk of damage or destruction of property and harm to people. Opposite many other natural environment planning topics, natural hazard planning is concerned with the natural environment's impact on human settlement. Figure 40. lists the geologic and hydrological processes that are of concern in La Plata County.

Figure 40 - Geologic and Flood Hazards

✓ <i>Steep/unstable slopes</i>	✓ <i>Avalanches</i>
✓ <i>Rock fall</i>	✓ <i>Soil shrink/swell</i>
✓ <i>Debris flows/mud flows</i>	✓ <i>Floods</i>

Comparison of the map entitled Percent Slope with the map entitled Geologic Hazards confirms that the steep terrain and geologic hazards are integrated characteristics. For the most part, geologic hazards are only a threat to development in or near steeper mountains, foothills, and drainages. Very few private land areas in La Plata County are in avalanche prone terrain but there are some exceptions, up in La Plata Canyon, and near Lemon Reservoir, for example.

La Plata County Planning System for Geologic Hazards

La Plata County's district plans and land use code steer new development away from geologic hazards by requiring site-specific geologic studies and slope surveys and promulgating standards to avoid these areas.

Shrink/swell potential is a geologic hazard that is dangerous to structures because the ground shifts, cracking structures and foundations. The Map entitled Soils-Shrink Swell Potential shows that shrink-swell potential is mostly a mesa-top concern in La Plata County, the one location that is generally free of other geologic hazards. Shrink-swell can be mitigated to some degree by careful geo-technical engineering.

La Plata County Planning System for Development in the Floodplain

Many of the district plans discourage development in the Federal Emergency Management Agency 100 year floodplain, while the land use code requires specific construction techniques for construction in the floodplain. Floodplain protection aligns with many other county policies stated in the district plans and the land use code. Minimizing development impacts on the floodplain also preserves riparian habitat and scenery, reduces water pollution from septic systems and contamination, and keeps aquatic habitat intact by minimizing damage to vegetation cover. The map entitled 100 Year Floodplain shows that the major watersheds in La Plata County result in a large amount of private property in the floodplain. The county also requires a 50 foot setback from stream banks for all development, which additionally mitigates floodplain hazards.

RESTORATION OF OIL AND GAS LAND

La Plata County oil and gas lands have been the site of drilling, exploration, and production for over two decades. However, all gas and oil wells have a limited life, rarely producing economically viable amounts for more than 30 years. In a comprehensive planning process, it is wise to look around the corner for future transformations of the landscape. The decline in production, plugging of wells, and disinvestment in the San Juan Basin gas fields will result in extensive changes in the landscape and it is worth preparing for this transformation before it occurs. County and State permitting systems are in place for placing oil and gas facilities and mitigating impacts of drilling and production. Some state measures are in place for reclamation, but these are site-specific requirements that may lack a comprehensive approach.

Regulatory Structure

Currently restoration of oil and gas surface lands is accomplished in two phases:

- Interim reclamation- Required after construction, before production
- Final reclamation- Occurs after the well is plugged and out of production and before surface management is returned to the land owner.

Construction of well pads, pipelines, and facilities results in disturbance of areas that are not used during gas or oil production. Both the Colorado Oil and Gas Conservation Commission (COGCC) and La Plata County require storm water drainage improvements, re-contouring, soil restoration, revegetation, pollutant clean-up and other measures to clean up and restore the areas disturbed during construction and drilling operations and stabilize the site for production.

Only the COGCC regulates and enforces final reclamation. COGCC rule 1004 includes most of the typical reclamation requirements as listed in Figure 41.

Figure 41 - COGCC Final Reclamation Regulation Topics

✓ <i>Drilling pit clean-up</i>	✓ <i>Culverts removed</i>
✓ <i>Roads reclaimed</i>	✓ <i>Re-contour/soil restoration</i>
✓ <i>Equipment removed</i>	✓ <i>Re-plant agricultural lands</i>
✓ <i>Weed control</i>	✓ <i>Special rules for floodplains</i>

Role for the County in Final Reclamation

The map entitled Oil and Gas Wells shows that gas wells extend throughout the southern end of the county. Because reclamation is important for the wildlife, scenery, water and air quality, and the protection of county property owners, it may be worth evaluating the final reclamation regulations and enforcement provided by COCGG and if the state system is deemed inadequate to achieve



community goals, it may be appropriate to develop county regulations and enforcement for final reclamation.

WILDLAND URBAN INTERFACE

Newcomers, attracted to the county's natural and scenic resources, are choosing to build homes in the forests which drew them to this area. This new development is frequently happening in habitat at risk for catastrophic wildfire. Development where houses meet or intermingle with contiguous wildland vegetation is the wildland urban interface (WUI), defined as:

...areas extending 1½ miles from the boundary of an at-risk community defined by the USFS and BLM's inventory and which lack emergency access routes; are in poor proximity to water sources; have areas with steep slopes; have high risk vegetation types; and/or that are in close proximity to fuels on public lands.

Source: La Plata County – Community Wildfire Protection Plan

Ecosystems have evolved in the presence of fire over time. Native plants and animals in La Plata County have adapted to natural fire frequency and severity. Wildfires are getting larger and more intense according to historic fire data. Grazing, wildfire suppression and human development have resulted in greater accumulation of fuel and higher intensity fires have resulted in large losses of property and of species habitat.

Wildfire risk to humans and structures is greatly increased by the intermixing of homes and natural habitat. The continuing drought, extensive forested lands and the decline of trees from beetles and disease keep the risk of catastrophic wildfire high. The 2002 Missionary Ridge Fire is such an example, having burned more than 70,000 acres and destroyed 57 homes north of Durango. The development of housing in or near forested areas also leads to widespread habitat fragmentation, the introduction of invasive species and a loss of biodiversity.

In 2002, five southwest Colorado counties, including La Plata County, joined together with multiple local and national agencies to create Community Fire Plans to coordinate wildfire education, mitigation and emergency response. The regional collaboration maintains the Southwest Colorado Fire Information Clearinghouse, www.southwestcoloradofires.org. They provide information about efforts to protect public and private lands from catastrophic wildfire events and education to property owners on ways to reduce the risk to their properties through fuel reduction, insect management and defensible space creation.

La Plata County - Community Wildfire Protection Plan (CWPP), created in 2006, updated the 2002 Community Fire Plan for La Plata County. Federal, state, and local governmental agencies and fire fighting entities collaborated on identifying community resources and detailing goals, strategies, and recommendations for reduction of wildfire damage by:

- Reduce risk in the wildland urban interface;
- Increase public involvement in wildfire prevention and education;
- Reduce ignitability of structures;
- Increase and strengthen the tools for local governments and fire departments to encourage firewise policies and practices; and



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- Increase the number of fuel reduction projects on federal lands in the WUI and other priority areas.

The La Plata County – Fire Risk Zones map, which accompanies the CWPP, was developed with local fire chiefs and the La Plata County Planning Department to map the relative wildfire risk in populated areas of La Plata County. The GIS mapping is based on vegetation, slope, aspect, emergency access, proximity to water and proximity to potential fuel. The map is used by the county to assess risk, identify future fuel reduction projects on Federal Lands and for land use decision making.

The La Plata County - Community Wildfire Protection Plan calls for several key approaches to implementation, including:

- Continue use of the Fire Risk and Fuel Treatment maps
- Utilize the Communities-at-Risk inventory by local Federal Land fire managers to define the WUI and Prioritize future fuels treatment projects.
- Support and build capacity of the Firewise Council of Southwest Colorado.
- Expand and enhance the Firewise Council of Southwest Colorado’s Neighborhood Ambassador Program.
- Initiate fire mitigation projects on federal lands identified in the CWPP planning process after appropriate review processes are completed.
- Continue working collaboratively with all stakeholders to develop and pass La Plata County policies that will increase safety in the WUI and in all areas of high concern and risk.

VII. HEALTHY COMMUNITIES AND HOUSING

HOUSING

For decades, the cost of housing in La Plata County has gone up faster than family incomes, creating a growing demand for modestly priced homes. As documented in the housing needs analysis prepared in June 2007 by the Regional Housing Alliance of La Plata County (RHA) and Enterprise Community Partners, an estimated 3,500 families (18% of households in the county) spend more than they can afford for housing.¹⁹

As rising costs force families to spend more on rent or mortgage payments, there is less money to pay for other expenses such as groceries, transportation, medical care, and insurance. Furthermore, to obtain affordable housing many people have little choice but to commute long distances to their workplaces. These long commutes increase their transportation costs, add to traffic congestion and air pollution in the community, and diminish time with their families.

Rent and Required Income

In 2006, almost one-third of year-round households in the county were renters—nearly 6,200 out of an estimated 19,500 year-round households. However, there are less than 1,000 below-market rental units and rental vouchers available to county residents. Consequently, only about 5% of the population has access to affordable rental housing.

To afford rental housing, most families in Durango, Bayfield or Ignacio need to earn considerably more than the Colorado minimum wage (\$7.28/hour), or they need to get a second job.²⁰ Average rents in Durango are among the highest in Colorado, and the community's low vacancy rate (3%) is likely to keep rents high for the foreseeable future. The average rent for market-rate housing in the area is affordable to a family with an income of \$31,400 (53% of the area median income for a family of four). Federally assisted rental housing is therefore essential for families with incomes below that level. About 7,000 families in La Plata County—almost one third of the population—have incomes below \$30,000.

Those traditionally served through housing assistance programs include low-income families and individuals, elderly residents, and persons with disabilities. The ability of persons with disabilities to access housing is one indicator of independence and integration into mainstream society. However, the number of rental vouchers available to persons with disabilities has decreased by more than 50% since 2000 due to funding cuts in the budget of the Department of Housing and Urban Development (HUD); as expected, the number on households waiting for rental assistance has simultaneously increased. In 2000, 35 people were on waiting list for assistance; today that number is 83.

¹⁹ The Regional Housing Alliance of La Plata County provided most of the information summarized in this section of the community profile.

²⁰ A full-time employee earning the Colorado minimum wage can only afford a monthly rent of \$379. According to the RHA, the average rent for a one-bedroom unit in Durango is \$645.



In addition, the capacity to serve homeless and special needs populations is limited to the following facilities:

Name of Project	Organization	Units/Capacity
Durango Community Shelter and VOA Southwest Safehouse	Volunteers of America	40 individuals on average a night
Homeward Bound	Housing Solutions	7 unit complex
Transitional housing vouchers	Housing Solutions	14 vouchers

Home Prices and Required Income

In the past six years, the gap between home prices and income has grown even faster than the gap between rents and income. Median home prices increased 104% in La Plata County while median incomes increased only 20%. In 2006, the median price of an existing home (\$325,000) was 44% higher the national median home price, and the median household income was lower than the national median by 1%. A local family with the median income could afford a home priced at no more than \$220,000 (two-thirds of the median price).

The greatest need is for homes priced below \$275,000. In 2000, 85% of the home sales were in that price category, but today only 35% of existing homes have prices that low. Moreover, few new homes are being built at prices below \$275,000. Many families would not qualify for a home loan sufficient to afford homes built by the private sector. Because of the cost of land, infrastructure, labor, and materials, the builder would have to be subsidized to build homes in this price category.

Increasingly, vacationers, second homeowners, retirees and well-to-do people from outside the area are purchasing homes in La Plata County. This strong, well-established trend is driving up the cost of land and construction (two major cost components of new development) for all types of housing. The trend is likely to persist over the long term, causing home prices to continue to be 40-50% higher than throughout the nation as a whole.

In 2006, Durango had the highest median sales price in La Plata County (\$345,200) followed by the unincorporated area (\$330,000); then Bayfield (\$273,000) and Ignacio (\$173,600).²¹ These prices are unaffordable to the majority of families eligible for assistance through governmental housing programs. For example, the maximum affordable price of a three-bedroom home is \$175,000 for a family of four with an income of \$49,900.

At the local level, multiple efforts are underway to provide housing opportunities through partnerships between local governments and private development. Nonprofit housing organizations also play an important role in providing affordable housing. The following organizations are key to efforts in La Plata County:

²¹ Due to sales of mountain and “view” properties, the median price in the unincorporated area is nearly as high as the median for Durango.

Regional Housing Alliance (RHA) of La Plata County, created through a 2004 inter-governmental agreement between the County, Town of Ignacio and City of Durango, builds resources and capacity to create affordable housing opportunities in the community. The RHA's action plan highlights the following programs:

- 1) Fair Share Programs: Formal agreements require development to dedicate a percentage of resources to affordable housing as part of the local governmental approval process;
- 2) Homes Fund: This community investment fund provides mortgage assistance for families and will soon provide financing for land acquisition for affordable housing development;
- 3) Design and Development: The RHA acquires land that can be used to develop affordable and attainable housing through public-private partnerships; The RHA, through a Rose Fellow architect provides green building technical assistance to local developers and designs a number of affordable/attainable homes each year;
- 4) Homebuyer Assistance: This program prepares families to become homeowners through a 9-hour financial literacy and homeownership class, one-on-one counseling, and financial/mortgage assistance;
- 5) Policy and Education: These activities aimed at promoting housing through public awareness. Policy areas include encouraging annexations, green home designs, adopting smart growth principles, design guidelines, and preserving existing affordable housing in the community.

Housing Solutions of the Southwest provides housing and energy assistance services to very low to moderate income families, individuals, elderly residents and special needs populations in five southwest Colorado counties. Specific services include weatherization, homeowner rehabilitation and replacement, home repair loans, rental assistance, housing development, transitional housing and self sufficiency programs, emergency homeless prevention, housing counseling, down payment assistance, first time homebuyer training, and HUD foreclosure opportunities.

Habitat for Humanity secures land and builds or renovates homes, employing the "sweat equity" labor of the homeowners and using tax-deductible donations of money and materials to lower development costs. The houses are sold at no profit to partner families (who have incomes that are 30-50% of median income), and no-interest mortgages are issued over a fixed period of up to 20 years.

Colorado Housing, Inc. (CHI) serves low to very low income families in need of housing. CHI conducts a mutual self-help homeownership program through which families secure a mortgage, budget their home construction, and work in a community construction group with the support of CHI. CHI supports energy efficiency construction through grants, outside technical assistance and sustainable building best practices to increase the long term affordability of each home.

Mercy Housing provides low income rental housing in La Plata County through the Low Income Housing Tax Credit Program. In addition, Mercy Housing has a subsidiary, called Mercy Loan Fund, which provides affordable loan capital to community-based nonprofit developers of affordable housing.



La Plata County Community Development Corporation (CDC) develops sites for affordable housing that is constructed by other nonprofit organizations (including Habitat for Humanity, Colorado Housing, Inc., and Volunteers of America). The organization has assembled a team of local attorneys, real estate agents and appraisers, bankers, engineers, architects and contractors, most of whom contribute time and materials to CDC projects.

Southwest Center for Independence administers Section 8 Housing Choice Vouchers for persons with disabilities. The Center has 75 of these vouchers to administer.

Volunteers of America (VOA) completed the first 30 units of a senior housing development in partnership with the La Plata County Community Development Corporation. They will begin construction of 29 additional low income senior rental units in 2009. Part of a national, nonprofit, faith-based organization, the local VOA also manages the Southwest Safe House and the Community Shelter.

Funding Partners for Housing Solutions is a nonprofit Community Development Financial Institution (CDFI) certified by the U.S. Treasury. As a CDFI, Funding Partners creates access to capital and credit for low income families and individuals in underserved markets throughout Colorado. Currently, Funding Partners manages mortgage programs for the Regional Housing Alliance.

HEALTHCARE AND SOCIAL SERVICES

The availability, cost and quality of healthcare affect virtually every citizen in La Plata County. Businesses, companies, and retirees planning to relocate evaluate the healthcare system and facilities along with roads, telecommunications, schools, and taxes. Further, the access to and cost of healthcare constitute a major expense for businesses, and many companies are increasingly unable to offer health insurance for their employees.²²

La Plata County has a stake in the viability of the healthcare system that serves its population. Almost one out of every five La Plata County residents were uninsured in 2000.²³ When residents are uninsured or under-insured, it puts pressure on healthcare institutions, which are forced to absorb unreimbursed costs. These costs may lead healthcare providers to charge higher rates and fees, insurance companies to raise premiums, and jurisdictions to increase local taxes. Moreover, the recent economic downturn has simultaneously increased demand for healthcare services and caused healthcare resources to shrink.

HEALTHCARE SERVICES

Access to primary healthcare is a critical issue in rural Colorado. Primary care physicians usually provide the entry point into the healthcare system. They handle continuing care of patients with a

²² Much of the information summarized in this section of the community profile is based on information contained in the website by the Southwest County Access Network. 9 July 2009 <<http://www.scan.org>>

²³ The estimate is from a county-specific study, "Primary Care Access Improvement for La Plata County, September 2007," JSI Research and Training Institute, Inc. <<http://www.chaclaplata.org>>

variety of medical conditions and perform basic diagnosis and non-surgical treatment of common illnesses and conditions. In addition, primary care physicians are responsible for providing disease prevention, health maintenance, counseling, and patient education in a variety of healthcare settings. In addition to these services, good healthcare involves a continuum of care including pediatric, geriatric, dental, optometry, mental health, alcohol and substance abuse treatment as well as care for people with disabilities, hospice care, and access to the services of a variety of medical specialists.

ACCESS TO HEALTHCARE AND THE UNINSURED

Even people with insurance may have difficulty gaining access to healthcare when there are no providers available to see them. Rural communities usually have an insufficient number of primary care providers, and a growing number of providers and physicians are not accepting Medicare, Colorado's Children's Health Insurance Program (CHP+) or Medicaid patients and/or certain insurance plans.

Both nonprofit hospitals, Mercy Regional Medical Center and Southwest Memorial Hospital, provide significant charity care, which costs each hospital millions of dollars annually. These "safety net" clinics serve uninsured and under-insured individuals as well as those on public insurance programs. Additionally, many private practices serve these populations. Together the clinics and private practices are unable, however, to meet the full demand for services due to low reimbursement rates.

The percentage of uninsured in La Plata County exceeds the state percentage. According to the Colorado Health Institute, roughly 770,000 people in Colorado were uninsured (or 17% of the population) in 2003-2004.²⁴ The percentage of uninsured in La Plata County in the year 2000 was 19%.²⁵ Those at greatest risk of being uninsured include people living below 200% of the federal poverty level, young adults, Hispanics, people who work for companies with fewer than 100 employees, and people with little education.

USE OF EMERGENCY ROOMS

Throughout the United States, residents without insurance are much more likely to delay needed care and therefore develop more serious health problems. They are also more likely to use the local hospital Emergency Room (ER) as their healthcare provider; almost 25% of patients seen at local emergency rooms have no insurance. Unfortunately, emergency rooms are the most costly method of delivering healthcare, and they are not organized to provide patients with coordination, continuity and integration of healthcare.

HEALTHCARE NEEDS OF SENIORS

Seniors are the fastest growing segment of residents in the region. As people age, they often experience a growing range of health problems, and their healthcare needs can become more chronic. Unfortunately, according to the Area Agency on Aging, the number of long-term care beds in La Plata County is decreasing due to the loss of two facilities—the number of dropped from 270 in

²⁴ Colorado Health Institute, "Southwest Colorado: A Demographic and Health Profile," November 1, 2007. <<http://www.coloradohealthinstitute.org>>

²⁵ "Primary Care Access Improvement for La Plata County."

2000 to 180 in 2007. Further, there is a scarcity of nursing home and assisted living beds in the region while the need for private nursing, simple housekeeping services and custodial care continues to grow. Additionally, there is a need for in-home care, which could allow seniors to “age in place” in their homes.

CHILDREN AND FAMILIES

La Plata County has a lower proportion of children under the age of 18 than the state as a whole. In 2006, about one out of every five county residents (10,336) was a child younger than 18 compared to one out of every four Colorado residents.

Data from the Colorado 2008 KidsCount suggest that, as a population, the children of La Plata County are less vulnerable than children of the state as a whole. Some key statistics include the following:

- In 2006, the teen birth rate was 12.4 births per 1,000 persons for La Plata County compared to 23.7 per 1,000 persons for Colorado as a whole.
- In 2006-07, the enrollment of children under the age of 18 in the Medicaid program was 21% for the county compared to 24% for the state.
- The percentage of children qualifying for free lunch in 2006 was about 20% for the county and 28% for the state.
- The 2006 high school graduation rate is higher than the state rate—81% compared to 74%.
- 2007 educational proficiency rates in math, English, and writing at both the third and eighth grades are consistently higher than the rates for the state.

However, it is important to recognize that the resources to support children, youth and families in La Plata County are diminishing while the need for social services is growing. Simultaneously, the population is becoming more diverse and therefore more challenging to serve. To address these problems, La Plata County, in association with other local governments and organizations, completed the “Children, Youth and Families Master Plan” in 2008. As the plan explains, “Supporting families and their children through the first two decades of life helps ensure that youth become valuable resources to the community and its workforce rather than a drain on resources through high cost social programs and lost earning power.”

The Master Plan identifies seven key areas for action based on extensive research by the National League of Cities (NLC) and extensive community-based involvement in the planning process. The seven areas are as follows: 1) Early Childhood Development, 2) Education and After School Services, 3) Health and Safety, 4) Youth in Transition, 5) Family Economics, 6) Neighborhoods and Community, and 7) Youth Development.

A committee, comprised of citizens and professionals, made recommendations in each of the seven areas. The County is implementing many of the recommendations, which are listed below:²⁶

²⁶ La Plata County’s Children, Youth and Family Master Plan, May 15, 2008, p. 24.

- **Early Childhood Development:** To make quality childcare services and in-home supports accessible to all children, ensuring they have the opportunity to begin their lives with a foundation that will support lifelong thriving
- **Youth Development/Education and After School Services:** To create a combined, countywide youth engagement and service learning system that ensures all youth, in harmony with adults and elders, can be meaningfully involved in the decision, structures and processes that affect their thriving
- **Health and Safety:** To support and promote thriving by increasing the positive communication and interactions between all citizens and the health and safety networks that serve the county
- **Youth in Transition:** To create an informational system that connects everyone in the county to the resources they need to thrive and to help those with whom they interact to thrive
- **Family Economics:** To ensure that everyone residing in La Plata County has the opportunity to earn a livable wage
- **Neighborhood and Community:** To recognize and empower everyone within La Plata's neighborhoods to create activities, places and organizations that help people find their voice and thrive

MEDICAL HOSPITALS AND MAJOR HEALTHCARE PROVIDERS

La Plata County has many quality physicians, dentists, and medical and dental specialties. The following medical facilities provide services to county residents:²⁷

- **Animas Surgery Hospital** provides patient surgical services to the Four Corners region.
- **Durango Cancer Center** provides comprehensive support, education, and treatment services. The center is part of the Mercy Medical Center's accredited cancer program,
- **Four Corners Healthcare Center** is a skilled nursing facility located in Durango that provides in-patient and outpatient physical, occupational and speech therapy services.
- **Mercy Medical Center** is located in Durango and is the largest regional hospital in rural Colorado. Board-certified care is available in 36 specialties.
- **San Juan Basin Health Department** has a Prenatal Clinic and Prenatal Plus program that provides services to Medicaid eligible residents and those with incomes of up to 185 percent of the poverty level. It has also a variety of services to help maintain elderly and disabled persons in their homes.
- **Southwest Colorado Mental Health Center** offers complete psychiatric services. The Center has a staff psychiatrist, a psychiatric nurse and professional mental health workers.

²⁷ La Plata Economic Development Action Partnership, 9 July 2009
<<http://www.laplatacountycolorado.org/community/health.asp>>



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- **Southwest Memorial Hospital** is a nonprofit medical facility, located in Cortez, which serves veterans.
 - **Sunshine Gardens West Senior Center** is a full-service senior care center. It offers assisted living, independent living, senior apartments with services, and home health services. The Center also has a skilled nursing wing.