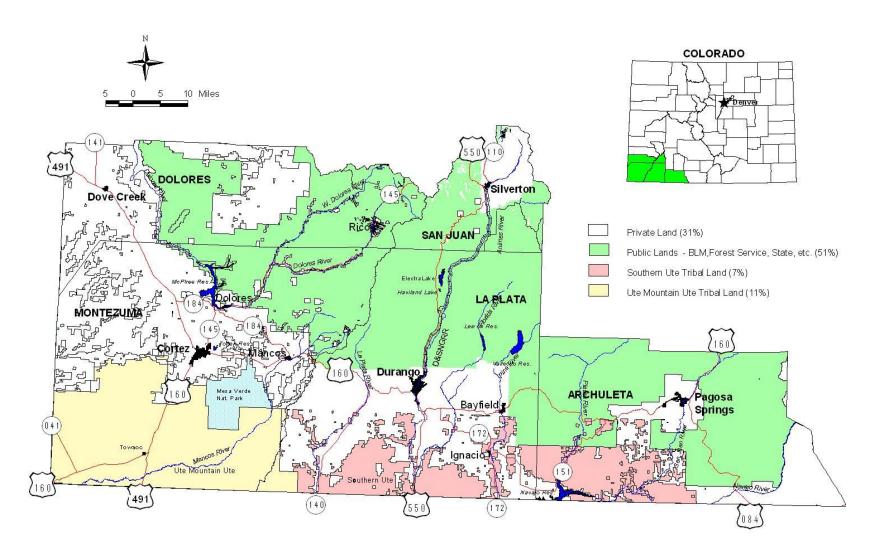
## MAP OF REGION 9



Region 9

# 2. REGION 9 OVERVIEW

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#### **EXECUTIVE SUMMARY**

This section summarizes the social, environmental and economic issues that are common to the counties. Posed in a framework of sustainability, these include: affordable housing, disaster preparedness, education, energy assessment, energy impacts, environmental variables, health care, population trends, telecommunications, transportation and workforce development. The overview includes a comparison of each county's unemployment rates, employment sectors, personal income characteristics, and other factors that affect economic performance. Information on the tribal populations within the region is also provided.

	Census 2000	Census 2010	Avg. Annual % Change
Archuleta	9,898	12,084	2.2%
Dolores	1,844	2,064	1.3%
La Plata	43,941	51,334	1.7%
Montezuma	23,830	25,535	0.8%
San Juan	558	699	2.5%
Region 9	80,071	91,716	1.5%
Colorado	4,339,019	5,029,196	1.5%

From 2000 to 2010 the growth rate slowed down in most counties (as compared to 1990 – 2000), except San Juan County, which saw the fastest growth of any county and exceeded the statewide growth rate as well.

Source: Colorado State Demography Office 3-2011

When unemployment rates are compared, we see that La Plata County was below state and national levels in 2010. Historically Dolores and San Juan Counties have higher unemployment rates than the rest of the region. This is probably due in part to their low populations.

Unemployment Rates 2010			
Archuleta	10.2%		
Dolores	17.5%		
La Plata	7.2%		
Montezuma	9.2%		
San Juan	10.8%		
Colorado	8.9%		
National	9.6%		

Region 9	# of	% of	Income	% of
2009 Total Employment	Jobs	Jobs	(\$000)	Inc.
Agriculture	1,782	3%	19,654	1%
Mining & Utilities	1,311	3%	136,864	6%
Construction	5,096	10%	271,766	12%
Manufacturing	1,135	2%	43,315	2%
Transportation & Warehousing	1,068	2%	57,270	3%
Wholesale & Retail Trade	6,844	13%	256,599	12%
Information	570	1%	32,671	1%
Finance,Insurance & Real Estate	3,371	7%	164,550	8%
Services	19,877	39%	713,117	33%
Government	10,048	20%	485,996	22%
Total	51,102	100%	\$ 2,181,802	100%

In 2009 the service sector provided 39% of jobs and 33% of job income in the region. These jobs include highly paid professionals as well as lower paying unskilled labor. Trade is also important in the regional economy, providing 13% of jobs and 12% of job income.

As this table illustrates, the five counties in southwest Colorado vary in their composition of Total Personal Income (TPI). Most income is job based (employment), though significant amounts of income enter our economy from other sources, such as

2009 Total Personal Income Estimates						
	Employment	Residency	Div., Int	Transfer	Total	60+
	Income	Adjustment	& Rent	Payments	(\$000)	Share
Archuleta	53%	3%	33%	11%	\$ 358,774	21%
Dolores	49%	18%	20%	13%	\$ 55,369	16%
La Plata	71%	-1%	24%	5%	\$ 2,114,441	14%
Montezuma	55%	12%	22%	10%	\$ 802,919	16%
San Juan	56%	12%	24%	8%	\$ 20,690	15%
Region 9	65%	3%	24%	7%	\$3,352,193	15%

Source: Estimates provided by the Colo.State Demographer

transfer payments and dividends, interest and rents. Payments to retirees accounted for almost 15% of the estimated TPI in the region in 2009. That was \$502,828,950!

Per Capita Income 2008					
	PCI 2008 % of US				
USA	\$	40,166	100%		
Colorado	\$	43,021	107%		
Archuleta	\$	29,206	73%		
Dolores	\$	30,134	75%		
La Plata	\$	40,677	101%		
Montezuma	\$	32,858	82%		
San Juan	\$	37,914	94%		

Total personal income divided by the total number of residents in the county gives us an estimate of per capita income (PCI). This table highlights how the counties in our region measure up against the rest of the state and the nation. This data lags by about 2 years.

Source: Bureau of Economic Analysis Regional Overview – CEDS Update 2011

## **REGIONAL ISSUES**

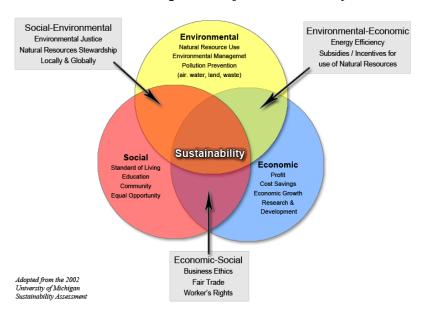
The purpose of the Comprehensive Economic Development Strategy (CEDS) is to create a plan for retaining and creating better paying jobs, fostering stable and more diversified economies, as well as maintaining and improving the quality of life in southwest Colorado. This section looks at the issues that should be considered from a regional rather than countywide perspective, and includes comparisons of each county's population trends, unemployment rates, employment sectors, personal income characteristics, and other factors that affect economic performance. Information on the tribal populations within the region is also provided. Finally, we will look at strategic planning from a regional perspective.

## Sustainability as a Framework

A sustainable community is one that preserves and restores the integrity of its natural environment, nurtures healthy human and other living systems, and maintains a vital self-reliant economy, generation after generation. A sustainable community meets the basic needs of all people. These include: air, water, food, shelter, health, safety, autonomy, connectedness, meaning and purpose. Meeting these needs in a sustainable way also entails meeting the needs of <u>all</u> life in the local environment. These principles were examined by focus groups during the construction of *The Draft La Plata County Comprehensive Community Plan* (2011). However, we believe they reflect an emerging regional philosophy, which is why they have been included here.

The Principles - Economics, society, and environment exist as a related ecosystem. The businesses we attract to our community and the ways in which people participate in our economy have financial, societal, and environmental benefits and costs associated with them. This may include impacts on our local and regional air and water quality as well as contribution to the greenhouse gas emissions from this region. The way we build and support our economy affects the way we use energy, the location and design of our buildings and homes, our transportation choices and options, our waste generation and our food consumption, to name a few. If we make economic decisions without considering the impact of those decisions on the other systems in which we operate (our environment and our society), then we undermine our efforts to improve the quality of life in this region.

# The Three Spheres of Sustainability



Furthermore, we're recognizing more and more the ways in which unexpected events ripple through these systems and change our communities. Our economic development choices can determine how we respond to those ripples (or waves as the case may be). Events such as a housing bubble or a recession, or changes to our water quality and availability, or epidemic scale health concerns can move our region into unfamiliar and potentially costly scenarios. As such, strategies meant to encourage economic

development in this region must be flexible and resilient so as to be able to respond to the unexpected and open our eyes to emerging opportunities.

## What does sustainability look like when it is successful?

Our region develops on principles that respect and protect our private property rights, and our natural, cultural, and heritage assets while providing opportunities for our diverse population to thrive in southwest Colorado. We take a big picture view in planning and employ effective principles to achieve our desired development patterns. To protect our rural lifestyle, we grow around designated centers integrating new and old neighborhoods while supporting agricultural lands. These centers are serviced by a well-planned infrastructure and multimodal transportation system. Groups work together to maximize scarce resources. Local governments guide development in a way that is symbiotic with local municipalities, sovereign nations, neighborhood communities and property owners.

Our local businesses are prosperous, our economy is diverse, and our counties are fiscally healthy. We approach economic development with a long term view and seek cooperative, integrated, and creative solutions to foster regional economic growth. Businesses support a work environment that values productive employees, innovative personnel practices, and continuous workforce development to ensure services are delivered in an efficient, ethical and responsible manner.

Our agricultural industry is thriving as a result of increased local markets and innovative programs that ensure agricultural viability without regulations that diminish land value. Our agricultural system is an important provider of food to our community and to the world. We recognize water is a finite resource and plan based upon that understanding. We are proactive in addressing impacts of drought and potential water shortages. Our planning takes into account the unique characteristics and needs of each watershed and ensures a reliable water supply for all users.

We are a national leader in conventional and renewable energy industries. As a region we invest in efficient, safe and healthy resource technologies. Thus, we are renowned for our energy independence and as an exporter of conventional/traditional and renewable energy. Locally we reduced energy demand through efficiency, conservation, and design.

Within each county, and throughout the region, we ensure efficient multi-modal transportation systems that complement our land use strategies. Walking, cycling and equestrian routes connect our neighborhoods, towns, and employment. Roads and public transportation networks are well planned to enable people of all ages and abilities to get around safely, efficiently, and conveniently through the county. Our airports connect us to the rest of the world, contributing to our economic vitality. Our region is a vibrant and exciting destination that shows off our natural assets, rich heritage, and diverse cultures.

Diversity in our community is valued and celebrated. People from different age groups, cultures, backgrounds, and interest frequently come together to participate in local activities, events, and projects. The local economy provides opportunities for all people, young and old, to grow their families, advance their careers and be productive members of the community. Our communities provide opportunities such as life long learning programs, quality recreational facilities, available childcare, and equal access to affordable health care and housing.

Our communities support the protection and enhancement of a healthy natural environment on a local, regional and global scale. We are a leader in environmental stewardship for our proactive and balanced approach to conserving natural resources. We enjoy a healthy environment with clean air and water, and dark night skies. Wildlife corridors connect natural areas throughout the region, creating ecosystem linkages and improving wildlife vitality. Damage from invasive weeds has been reduced and our native species are thriving. As extractive industries develop and decline, disturbed lands are successfully reclaimed and utilized.

## **Measuring Progress**

This vision of sustainability helps to capture regional and community preferences, but measurements must include social, ecological and economic considerations to enable us make informed and well guided decisions. The traditional mechanisms for measuring prosperity, and presuming a correlation to quality of life, do not actually measure how well we are protecting the things we value. For example the Gross Domestic Product (GDP), which refers to the market value of all final goods and services produced within a country in a given period, is often used as a proxy for standard of living. However, it only takes into account a material standard of living and only for those things on which our market places a quantifiable value. This means that such things as the state of environmental health, equity and wealth distribution, and cultural resources are not accounted for, so our ability to measure our progress has been limited.

Though other regional indicator reports, notably *Pathways to Healthier Communities* (five editions produced from 1996 – 2006) and the *Southwest Colorado Index* (2008), <a href="http://www.scan.org">http://www.scan.org</a> track a number of social, economic and environmental variables to try to capture our progress toward an improved quality of life, they could be expanded and put into a sustainability framework. A model supported by the Sustainability Alliance of Southwest Colorado (SASCO) is called the Genuine Progress Indicator (GPI), which is currently being used in Maryland, Utah, Vermont, Minnesota, and Ohio. The premise is to have a way to capture costs and benefits that the current models do not address. The table below shows some indicators that are used in the GPI model.

Economic Indicators	Social Costs	Environmental Costs
Net Capital Investment	Cost of Crime	Water, Air and Noise pollution
Cost of Underemployment	Value of Housework	Ozone Depletion
Income Inequality	Cost of Family Changes	Services of Highways and Streets
Personal Consumption Expenditures	Cost of Personal Pollution Abatement	Commuting
Adjusted Personal Consumption	Value of Volunteer Work	Motor Vehicle Crashes
Cost of Consumer Durables	Cost of Lost Leisure Time	Non-Renewable Energy Resource Depletion
Value of Higher Education		Net Farmland and Forest Cover Change
		Water Shortages for Municipal Supply and Agriculture
		Flooding, Wildfire, Invasive Species

Other communities are also employing a view of sustainability throughout their economic development plans and deploying different strategies to measure their successes. For example, the City of Fort Collins Utility has implemented what they call the Triple Bottom Line Analysis Map in which they evaluate projects and decisions based on the impacts to social, environmental and economic components of their community. And La Plata County is in the process of finalizing a Climate and Energy Action Plan that is structured around the triple bottom line. Also in process is the development of a **regional** Resource and Energy Action Plan. Through processes such as the CEDS we will continue to develop strategies that move us towards sustainability.

## **Affordable Housing**

Affordable housing continues to be of concern throughout the region, and has been identified as a significant barrier to economic development. A healthy community is one in which families and individuals of all income levels live in adequate and affordable housing. At present, this is not the case for portions of our region. High rents and home prices, coupled with relatively low wages, make affordable housing a prime concern in most of our towns and rural areas. In order to obtain affordable housing many people are forced to commute long distances to their workplaces, which increases transportation costs, adds to traffic congestion and air pollution, and takes more time away from their families.

While the current economic climate has created some favorable conditions for home ownership, such as lower home prices and historically low interest rates, there are still many obstacles to providing affordable housing in southwest Colorado. These include lack of developable land and infrastructure or funds to provide infrastructure. In reality, affordable/attainable housing cannot really be addressed on a broad scale until overall wages are aligned with housing costs.

At the local level, multiple efforts are underway to build affordable housing by groups such as Housing Solutions for the Southwest, Habitat for Humanity, and Colorado Housing Inc. Local governments are also seeking ways to partner with private development to provide housing opportunities. Housing authorities are in place in Archuleta, Montezuma and Dolores Counties. In La Plata County an inter-governmental agreement created the La Plata County Regional Housing Authority to serve the Durango, Bayfield, Ignacio, and rural county areas. These separate entities are currently looking at ways to collaborate and are committed to working together to address housing issues and create a regional environment that shares resources, expands services, and increases opportunity. Their first steps have resulted in a *Southwest Colorado Regional Housing Plan* – prepared by Economic & Planning Systems (EPS #20829) – draft January 21, 2010. Their findings and recommendations have been included in this CEDS document in each of the county profiles. Future efforts in providing housing will need to reflect the population shift of aging baby boomers needing different housing stock than is currently the focus.

## **Disaster Preparedness**

This is a new requirement by the EDA, and they are in process of establishing guidelines for what the section should include. When the guidelines are received they will be included in subsequent CEDS documents.

### **Education**

A quality public education system plays an important role in sustaining a community's economic health by providing an educated workforce, involved citizens, and increased earning power that has a direct effect on business profits and tax revenues. An effective educational program also improves success rates for students across all socio-economic strata.

There have been significant changes in the way Colorado schools are rated, as well as in the State Standards and Assessments, since the last CEDS report. A landmark education reform initiative known as "Colorado's Achievement Plan for Kids," or CAP4K, was signed into law in May 2008 (SB 08-212) to align the state public education system from preschool through postsecondary. The Education Accountability Act of 2009 (SB 09-163) aligns the accountability system to focus on the CAP4K goals: holding the state, districts and schools accountable on a set of consistent, objective measures and report performance.

District	2010 Accreditation Category
Archuleta County 50 JT	Accredited
Bayfield 10 JT-R	Accredited
Dolores County RE No. 2	Accredited with Improvement Plan
Dolores RE-4a	Accredited
Durango 9R	Accredited
Ignacio 11 JT	Accredited with Priority Improvement Plan
Mancos RE-6	Accredited
Montezuma-Cortez RE-1	Accredited with Priority Improvement Plan
Silverton	Accredited

Source: Colorado Department of Education <a href="http://www.schoolview.org/performance.asp">http://www.schoolview.org/performance.asp</a>

The Colorado Department of Education (CDE) will annually review each District's performance but Districts are required to accredit their own individual schools on four performance indicators, and can include additional measures adopted by their local school boards. District and school Unified Improvement Plans (UIP) are based on four performance indicators: academic achievement; academic

growth; gaps in growth levels for a variety of historically disadvantaged subgroups; and success in preparing students for postsecondary and workforce readiness (based on dropout rates, graduation rates and scores on the ACT college entrance exam).

Based on these indicators, the CDE determines if each district (and the district in turn, their schools) exceeds, meets, approaches or does not meet the indicators. According to the 2010 one-year performance reports (first time the UIP format was required), all nine districts in the region were accredited, although three districts need improvement, as shown in the following table. Five districts (Archuleta, Bayfield, Durango, Dolores County RE4a [Dolores High School], and Mancos), met the state's goal in its Academic Achievement Performance Indicator, which includes CSAP results in reading, writing, math and science. Silverton scores were not used as a metric because fewer than 16 students were tested.

This new rating system, as well as the overhaul in the Colorado State Standards, suggests a paradigm shift about the role schools play in educating our workforce. CAP4K's goal is to ensure all students graduate high school ready for work and to succeed in today's competitive global economy. New standards and new assessments were also established to teach and measure "21<sup>st</sup> Century Skill and Readiness Competencies", which are summarized at <a href="http://www.cde.state.co.us/cdegen/downloads/PWRdescription.pdf">http://www.cde.state.co.us/cdegen/downloads/PWRdescription.pdf</a> in the "Postsecondary and Workforce Readiness Description." The new measurements place more emphasis on critical thinking, problem solving, creativity and innovation, and utilizing information technology.

Additionally, as of fall 2011, all Colorado students in grades 9 to 12 will be required to complete an Individual Career and Academic Plan (ICAP). An ICAP is designed to assist a student and their parent/legal guardian in exploring the postsecondary career interests and educational opportunities available to the student, aligning course work and curriculum, applying to postsecondary education institutions, securing financial aid and ultimately entering the workforce. The ICAP should also identify "Contextual and Service Learning Opportunities," defined as "activities performed by the student that establish connections between school-based instruction and the world of work, careers, and learning that occurs beyond the school itself."

## **Energy Assessment**

An *Energy Assessment for Southwest Colorado* was recently prepared (December 2010) by the Four Corners Office for Resource Efficiency (4CORE). The purpose of that document was to provide an overall understanding of the energy use for five southwest Colorado counties (Archuleta, Dolores, La Plata, Montezuma and San Juan) to inform the future creation of the Resource and Energy Action Plan (REAP). This energy assessment specifies the electricity, natural gas, and other heating fuels used in the residential, commercial, industrial, and agricultural sectors, where available. In the case where this sector breakdown was not available, information on largest users was provided. The following discussion is drawn directly from the report. More information regarding 4CORE programs is available at <a href="http://www.fourcore.org/">http://www.fourcore.org/</a>.

"This report consists of research on energy use and costs in southwest Colorado primarily for the year 2009. When the 2009 data was unavailable, other annual data was used. Energy industries researched include electricity, natural gas, propane, coal, geothermal, biomass and various renewable sources.

Electricity use in 2009 for the five-county region was estimated at 1.68 Billion kilowatt hours (kWh), costing \$146 Million. This data was gathered from the electric co-op utilities serving the region, all members of <u>Tri-State Generation and Transmission Association</u>, including <u>Empire Electric Association</u>, <u>La Plata Electric Association</u>, and <u>San Miguel Power Association</u>.

Renewable electricity production in 2009 was estimated at 124 Million kWh, with 26,153,000 kWh purchased from non-local sources. Sources of renewables include solar, ranging from grid-tied residential to large commercial arrays, micro hydro, small wind, wind purchased from other regions, waste heat recovery, and wastewater methane capture.

This data was gathered where available, primarily from Empire Electric Association and La Plata Electric Association.

Natural gas use for the region was estimated at 2,126,707 thousand cubic feet (MCF), costing \$12.3 Million. This data was gathered from <a href="Atmos Energy">Atmos Energy</a> and <a href="Source Gas">Source Gas</a>, the two natural gas companies serving the southwest Colorado region.

Propane use for the region was estimated at 12.8 Million, costing \$23 Million. This data was gathered from individual propane companies serving the region. Some companies gave no data, and others used "ball park" estimates of the quantities sold in 2009. In addition, a \$1.80/gallon average price was used to calculate cost for all companies. For this reason, this data should be used with the knowledge that it is not comprehensive, nor exact in price.

Much of the electrical power used locally is generated from non-local companies and locations. Tri-State's owned and contracted portfolio of electric energy is derived from coal, natural gas and oil-fired and combustion turbine generation facilities located throughout its four-state member service territory (more recently - solar and hydro are also used). Tri-State owns and operates plants in Colorado and New Mexico, and it receives a share of power from plants in Arizona, New Mexico and Wyoming. Some of the natural gas used locally may be produced locally, but (most of) the companies who generate the majority of this gas are not locally-owned. Finally, even the renewable energy in the Green Block and Power programs ultimately comes from out-of-state and non-local sources. Decreasing energy use and demand will ultimately decrease the money leaving this region."

## Next steps: Where to focus energy efforts

Energy goals for southwest Colorado will be determined by the REAP Advisory Board in early 2011. Some projects coordinated by Community Energy Coordinators in other parts of Colorado have goals as high as a 20% decrease in energy by 2020.

Proposed objectives for energy goals included in the REAP document could include:

- Increase the number of energy audits (commercial, industrial, agricultural and residential)
- Increase the number of energy efficiency retrofits for homes and buildings
- Increase the number of "energy-educated" homeowners and building managers
- Increase the number of renewable small-scale installations and large-scale projects
- Increase the number of educated businesses and employees.

## **Energy Impacts**

The extraction of resources such as carbon dioxide (CO2), natural gas/coalbed methane, and oil play a major role in the region, both in terms of fiscal impacts as well as impacts on the physical environment, individuals and communities. While the extraction of these resources is mainly regulated by the Colorado Oil and Gas Conservation Commission (COGCC), counties also play a regulatory role, as do federal agencies and tribal governments. The COGCC website is: http://cogcc.state.co.us/

This table provides totals from 1990 to 2009 by county with grant totals associated with production of minerals. In addition to augmenting services through tax revenues the natural gas industry also provides assistance to local governments in the form of Energy and Mineral Impact Grants which are used for construction of buildings, road maintenance and improvements, and services (recreation, fire departments and libraries).

Energy Impact Grants by County		
Total		
\$3,696,249		
\$4,768,957		
\$55,848,938		
\$11,200,960		
\$2,750,178		

Oil and gas development allows local governments, through increased revenues, to provide substantially higher levels of service than they could provide absent the industry's tax base.

Oil and Gas as % of Total Tax Revenue					
Archuleta	La Plata	Fiscal Year			
County	County	Year			
3.8%	65.9%	2006	2007		
4.4%	55.3%	2007	2008		
5.4%	54.3%	2008	2009		
5.1%	54.6%	2009	2010		

The natural gas industry contributed the majority of the total tax revenue generated by La Plata County and a smaller portion in Archuleta County. The industry pays property taxes on the production value of the natural gas produced and property tax on the physical property it owns. According to the county

tax abstracts and audits, the percentage of taxes paid by the oil and gas industry is shown here for FY 2007 – 2010.

Producers of natural gas, CO2 and oil all pay royalties based on the value of the production and in La Plata County alone there are approximately 4,000 local mineral owners. The federal government is also a mineral owner and the royalties paid on federal minerals or leasing is the second largest source of federal income behind federal income taxes.

Conflicts do arise between developers of natural resources and landowners. None of the counties track complaints or compliments. According to the COGCC website, since 2000 in Archuleta County there have been 14 complaints or requests on issues from noise, spacing, pits or road damage. There are 110 active wells in Archuleta County. Since 1997, there have been 4 total complaints from residents in Dolores County. There are 43 active wells in Dolores County. The requests were for information regarding royalty payments and the complaints were regarding pits, fencing and noise. Since 1995, in La Plata County there have been 354 reported complaints or requests for information from the COGCC. These are all resolved and they consist of inspections, requests for water well testing, reclamation, noise, or reports of smell. There are currently 3,308 active wells in La Plata County. Since 1996, in Montezuma County there have been 8 reported complaints that consisted of water well testing, soil sampling or tampering. There are currently 114 wells in Montezuma County.

When coal bed methane (CBM) development began in La Plata County in the late 1970s, the spacing order (used to determine how many wells are allowed per section) for CBM wells was 320 acres (two wells per section). In April 2000 the COGCC approved an application to allow an additional 636 natural gas wells to be drilled in the region over the next 5-10 years. This infill well application allowed one gas well every 160 acres instead of one every 320 acres. Since 2004, there have been 18 requests for infill wells in specific locations within La Plata County where there is now 80 acre spacing. Memorandums of Understanding (MOU) were entered into with La Plata County providing for road impact fees, electrification of wells to mitigate sound and other provisions to address concerns raised about the possible impacts these additional wells might create. All MOU's can be found at:

http://www.co.laplata.co.us/departments\_elected\_officials/planning/natural\_resources\_oil\_gas/mou

COGCC Oil and Gas Permitting						
County 2007 2008 2009 2010						
Archuleta	26	47	11	18		
Dolores	10	12	21	8		
La Plata	251	328	298	191		
Montezuma	12	22	39	19		
San Juan	0	0	0	0		

Although the permits are declining, this does not mean that production will continue to decline. The current trend is a result of natural gas prices, access to operating capital and pipeline capacity.

These charts provide the production history from the last 4 years according to the production information contained within the database of the Colorado Oil and Gas Conservation Commission.

Production (mcf) of conventional gas and coalbed methane						
County	2007 2008 2009			2010*		
				incomplete		
Archuleta	4,770,997	6,959,370	9,832,291	9,563,892		
Dolores	890,471	724,322	814,867	599,715		
La Plata	418,990,433	425,079,981	425,079,005	419,881,741		
Montezuma	654,696	592,095	872,696	639,886		

There are only eight counties in the state that produce CBM. In the Region 9 locations, only Archuleta and La Plata Counties have production of CBM. La Plata

Production (mcf) of coalbed methane						
County	2009	2010*				
				incomplete		
Archuleta	4,291,871	6,323,994	8,443,183	8,433,696		
La Plata	370,187,958	378,111,679	378,543,862	374,661,332		

County ranks number 1 and Archuleta County ranks number 3 in the State for total CBM production. These two counties combined produce seventy-seven percent of the State's CBM production.

Montezuma County is the top producing county for C02. In 2009, Montezuma/Dolores Counties production of CO2 is responsible for extra production of 250,000 barrels of oil per day in west Texas.

Production of CO2 (mcf)							
County	2010*						
				incomplete			
Dolores	0	37,538,320	41,128,524	40,765,314			
Montezuma	354,923,186	313,869,391	346,813,287	211,794,057			

San Juan County has no production but benefits solely as a recipient of mineral impact grants, primarily as a result of their historic mining production. Archuleta County is experiencing a slight increase in permit and drilling activity; and Montezuma and Dolores Counties are decreasing in permit activity as a result of a few exploratory (wildcat) wells that have been drilled in the Gothic Shale. Mineral development in all counties will continue and have historically existed since the 1940's.

There is no question that energy development will continue regionally and is a sustainable business. Local governments, landowners, members of the oil and gas industry, environmental groups, and the COGCC are seeking ways to prevent and mitigate adverse impacts to public health, safety, and the environment. These measures include new technologies to deal with adverse environmental impacts, continued water well testing, and the provision of incentives for well operators to engage in projects and activities that benefit the public interest.

#### **Environment**

Environmental considerations play a key role in southwest Colorado's economic development activities. Residents of our communities value the high quality of life provided here, including clean air and water and scenic views. A healthy environment can be a selling point for a region's economic development efforts. Businesses - and their employees - like to live in a safe and healthy environment. This is increasingly true in the information technology era when businesses and jobs can relocate almost anywhere they wish. Increasingly, areas that offer the best environmental resources are often the most attractive to business interests that have the ability to move. A healthy environment can also be a draw to tourists and outdoor enthusiasts of all kinds, from fishermen and hunters to hikers or bird watchers. Unfettered or unplanned development, by contrast, can fragment natural areas and/or deplete them of their wildlife, their pollution mitigating qualities, or their natural beauty.

Federal agencies are required to integrate environmental values into their decision-making processes by considering the environmental alternatives for their proposed actions, and reasonable alternatives to those actions pursuant to the National Environmental Policy Act (NEPA). NEPA requires agencies to first avoid and minimize negative environmental impacts and to provide compensation only after all avoidance and/or minimization efforts have been attempted. Some of the environmental factors addressed by NEPA are described in sections below.

#### Climate

Region 9 is located at the juncture of four states (Colorado, Arizona, New Mexico and Utah - the Four Corners); and three distinct physiographic regions; the Rocky Mountains, the Colorado Plateau and the San Juan Basin. The topography includes high mountain peaks and valleys, towering mesas, deep canyons and deserts. Southwest Colorado is intensely seasonal. Snow begins falling in the high country in late September or early October, and by Halloween, seasonal closures turn many unpaved roads into routes for snowmobiles. The San Juan Mountains are the snowiest region of the Colorado Rockies, with average annual snowfalls approaching 400 inches in some spots. Skiers and snowboarders treasure this abundance of white gold. Winter lingers well into the season that is called spring on the calendar. In fact, the greatest snowfalls generally occur in March and April. Winter sports usually wind down in early to mid-April. At about the same time skiers are packing up their poles, the snow in the higher elevations begins to melt. Cresting streams offer thrilling, if chilling, white-water rafting and kayaking. Summer in the mountains, is brilliant sunshine in cobalt blue skies, although even in the warmer valleys the growing season is marginal in length. Spring's last frost often occurs in June; the first frosts of fall might begin in late August. Late summer brings brief and often intense showers on many August afternoons, sometimes accompanied by dramatic thunder and lightning. In the harsh, dry climate of the mesaand-canvon country around the Four Corners, summers are hot, winters can be windy and cold. and spring and fall are mild.

## **Air Quality**

Air quality is important from an economic standpoint, not only because of the human health implications, but also because it affects the view sheds in a five-county area where attracting businesses and tourists is contingent on a high quality of life. Pollution sources within the Four Corners include coal-fired power plants, motorized vehicles, oil and gas operations, wildfires and intentional burning, road dust, and other sources. There are 16 existing power plants in the vicinity of the Four Corners (within a 200 mile radius) and another one is proposed <a href="http://www.mountainstudies.org/sites/default/files/pdf/education/Air Quality Book 2009.pdf">http://www.mountainstudies.org/sites/default/files/pdf/education/Air Quality Book 2009.pdf</a>. In addition, there are currently 3,575 active wells in southwest Colorado and 13,281 active wells in northwest New Mexico (La Plata County Energy Council – personal communication).

Under the Clean Air Act, the US Environmental Protection Agency (EPA) sets limits on certain air pollutants, using science-based standards to protect human health and the environment. A geographic area that does not meet a primary standard is called a non-attainment area. States and tribes develop State Implementation Plans that outline how they will control air pollution. Some of the air pollutants that are presenting challenges in the Four Corners area are ozone, mercury, nitrogen and sulfur oxides, and particulate matter. Ozone is normally considered a big city issue, but it is of growing concern in the Four Corners area. In this region, ozone is mainly caused by power plants and oil and gas development (CIRA). Ground–level ozone can cause chest pain, coughing, throat irritation, and congestion and can worsen bronchitis, emphysema, and asthma. Many plant species, including crops, such as soybeans, and Ponderosa pines and Aspen trees are extremely sensitive to ozone exposure.

Air monitoring results from 2006-2008 at Navajo Dam in northwest New Mexico indicated high ozone levels in violation of a primary standard. However, these results were reviewed by the EPA and found to be invalid. One of the instruments used to detect ozone was malfunctioning and produced incorrect readings (<a href="http://www.epa.gov/airtrends/values.html">http://www.epa.gov/airtrends/values.html</a>). The EPA is reconsidering the current ground-level ozone standards. The standards may become more restrictive. A final standard is expected to be set in mid-2011.

Mercury is a naturally-occurring element found in air, water, and soil. It can also be a toxic air pollutant. Coal-fired power plants are the largest man-made source of mercury to the air in the United States. Mercury in the air eventually settles to the ground, where it can be washed into aquatic ecosystems, such as lakes, streams, and wetlands. Bacteria in wetlands and lake bottoms can change mercury into a highly-toxic form, called methyl mercury, which affects functioning of nerve cells. The methyl mercury bio-accumulates, increasing in concentrations up the food chain. Fish consumption advisories for mercury contamination are in effect for five lakes and reservoirs within Region 9 in Archuleta, La Plata, and Montezuma counties. Mesa Verde National Park has recorded some of the highest mercury concentrations in the nation.

There is currently no human health or environmental standard for mercury in air, rain, or snow. However, the EPA is developing new rules to regulate mercury from coal-fired power plants. Dry deposition is the accumulation of gases or particulate matter in dry weather, in contrast to wet deposition, which is rain or snow-borne. A two-year mercury-monitoring project by the EPA will conclude in August of 2011 and will establish baselines for dry-mercury deposition and look at the effectiveness of the collection devices and the variability of annual accumulations. Early findings indicate that significant amounts of the toxic element are deposited at Mesa Verde and at Molas Pass in the mountains of San Juan County under dry conditions by wind (Durango Herald 2/10/11). Regional haze is caused by a collection of fine particles, smoke, dust, and moisture, suspended in the air. Emissions from power plants, burning of fossil fuels, soot from natural and manmade fires, and airborne dust from disturbed soils all contribute to this pollution, which respects no borders and can travel great distances. Haze affects wide geographical areas, often far away from the original emission point, and is therefore called "regional haze". The EPA has established a visibility protection program to protect Class 1 areas "of great scenic importance", including Mesa Verde National Park and the Weeminuche Wilderness Area, from impairment due to manmade air pollution. Visibility at both Mesa Verde National Park and the Weeminuche Wilderness Area are impaired due to haze. When the air is clean, natural visibility conditions in most of the western United States are in the range of approximately 110 to 140 miles. However, when regional haze is present, visibility is reduced to about 33-90 miles. Poor visibility is often an indicator that there are other impacts that we cannot directly observe, such as human health affects. http://vista.cira.colostate.edu/improve/Overvoew/hazeRegsOverview\_files/frame.htm

Colorado adopted a Regional Haze Plan in 2010 and 2011 that specifies long-term strategies to restore visibility in Class I areas to natural conditions. The plan includes reduction of emissions and new controls for oxides of nitrogen at power and cement plants. These nitrogen oxide controls will also benefit ozone reduction efforts (<a href="http://www.cdphe.state.co.us/ap/ozone.htm">http://www.cdphe.state.co.us/ap/ozone.htm</a>). Particles in the air less than ten microns in diameter (PM10) can become lodged deep in the lungs and are not easily expelled. This can cause negative health effects, particularly for people with heart or lung disease, respiratory problems, the elderly, and children whose lungs are still developing and who are more likely to have asthma and are more active outdoors.

The Pagosa Springs area was classified in 1987 as non-attainment for PM10. Strategies in the State Implementation Plan for reducing PM10 included paving unpaved roads, street sanding with a reduced amount of fine sand, and motor vehicle emission control. The area was re-designated as "maintenance", rather than non-attainment, in 2001. Pagosa Springs receives \$200,000 federal Congestion Mitigation and Air Quality funding per year for activities such as paving dirt streets and purchasing street sweepers to reduce air emissions of particulate matter. The air shed will be monitored for PM10 until at least 2021.

Another source of air pollution is nitrogen and sulfur oxides from burning fossil fuels in power plants, vehicles, and other types of engines, such as those associated with oil and gas wells. Both sulfur and nitrogen oxides form acid rain. Mountain and desert ecosystems are more vulnerable than other types of ecosystems to nitrogen deposition. In addition, hydrogen sulfide occurs in natural gas and can be emitted at harmful levels from some seeps and natural gas drilling operations in the San Juan Basin. The EPA released a proposal to reduce smog-producing nitrogen oxides at the Four Corners Power Plant in Farmington, New Mexico from 45,000 tons per

year to 5,800 tons per year, an 87% reduction of emissions. The plant is the nation's largest source of nitrogen oxides. The agency is seeking public comment through May 2, 2011. (Durango Herald 2/12/11).

(<a href="http://cogcc.state.co.us/Library/sanjuanbasin/blm/NaturalResource/MFCOcropSJB.htm">http://cogcc.state.co.us/Library/sanjuanbasin/blm/NaturalResource/MFCOcropSJB.htm</a>); (<a href="http://cotane.nmt.edu/gotech/Main.aspx">http://cotane.nmt.edu/gotech/Main.aspx</a>)

During the last update of this report, many Coloradoans were concerned about future air quality from a potential new coal-fired power plant in northern New Mexico called the Desert Rock Energy Project. If built, it would be the third power plant in the San Juan Basin, along with the Four Corners Power Plant and San Juan Generating Station. The Desert Rock Energy Project was permitted by the EPA, pursuant to provisions of the Clean Air Act in July of 2008. Several environmental groups appealed the permit, and the EPA appeals board essentially voided the permit, returning it to the EPA's regional office for reconsideration, based on five environmental issues, including air quality. The EPA informed the permit applicant of the need for additional information, but to date has not received a complete record. The applicant has not officially canceled the application, but it is not being actively processed.

In La Plata County, concerns about the Durango and Silverton Narrow Gauge Railroad's coal emissions, resulted in an Air Quality Advisory Council, formed in 1998. This group is working collaboratively on finding solutions to this air quality threat and others such as oil and gas wells and rapid development. They published "A Comprehensive Summary of Air Quality in La Plata County" in August 2005 complete with data, studies, results from a citizen survey and recommendations for improvement. For details on this issue please refer to the La Plata County profile in this document.

Colorado operates its own air quality program, and the Southern Ute Indian Tribe/State of Colorado Environmental Commission has been formed to oversee the development and implementation of a comprehensive program to protect air quality on the reservation. This is being accomplished through ambient monitoring, permitting of pollution sources, emissions inventories and continued research of air pollution and its sources. The program is currently growing to include a permitting section that will regulate all air pollution sources within the exterior boundaries of the reservation.

#### **Cultural Resources**

The discovery of the Ancestral Puebloan (formerly known as Anasazi) ruins at Mesa Verde National Park strongly influenced the passage of the Federal Antiquities Act in 1906. The region contains thousands of important archaeological resources that are now protected, and which have become a valuable economic resource as visitors from across the globe visit the region to learn more about our prehistoric and historic past. Various federal land management agencies, such as the United States Forest Service and the Bureau of Land Management (BLM), have implemented a permit system for archaeological studies on their jurisdictional properties (including historic and prehistoric sites). Specific guidelines have also been developed to direct the treatment of human remains found at archaeological sites. Both State and Federal legislation protects Colorado's cultural resources. The Colorado Historical Society (CHS) recognizes thousands of cultural resources in Region 9 as being eligible to the Register of Historic Places, though they are not yet listed. Region 9 also has various cultural resources that are included on the State and/or Federal Register of Historic Places, which is maintained by the National Park Service (established in 1966).

In 2000, the Canyon of the Ancients National Monument was established. It is administered by the Bureau of Land Management and covers over 164,000 acres with over 6,000 archeological resources recorded. A management plan for the Monument provides strategies for allowing some historic extractive uses to continue, including grazing and gas development while also managing cultural resources and recreational visits (which are increasing in great numbers each year).

More than 40 Native American tribes have a historic interest in various parts of Colorado, including two resident tribes in portions of Archuleta, La Plata and Montezuma Counties (the Southern Ute Indian Tribe and Ute Mountain Ute Indian Tribe). The National Historic Preservation Act (NHPA)

mandates that governmental agencies consult with Native American tribes during the planning of federal-aid projects both on and off Indian reservations.

#### **Environmental Justice**

Environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. In response to allegations by the Congressional Black Caucus in 1990 that environmental risk was higher for minority and low income populations and a subsequent study that supported the allegations, a 1994 presidential executive order directed every federal agency to make environmental justice part of its mission.

There are three fundamental environmental justice principles: 1) to avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, in minority and low-income populations; 2) to ensure full and fair participation by all potentially-affected communities in the project decision-making process; and 3) to prevent denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations. Region 9 is fully-aware of and in agreement with the need to address environmental justice requirements in all federally-funded projects. An example of recent compliance with environmental justice principles is the US Highway 160 interchange and four-laning project from Durango to Bayfield, for which a record of decision was issued in October of 2006. The Colorado Department of Transportation identified low-income and minority populations within the corridor and developed an outreach program for minority and low-income residents during project scoping and development of alternatives to ensure they had opportunities to participate in the public process.

Mobile home park owners and owners of small businesses, including minority-owned businesses, were surveyed about how the project could affect them. Bilingual flyers announcing the EIS scoping meeting were distributed at the mobile home parks, and there was a Spanish language interpreter at the scoping meeting. A subsequent meeting was held pursuant to a request made by a resident of a mobile home park. In response to the input of residents from two of the mobile home parks, sections along the alignment were re-designed to reduce impacts to these mobile home parks and improve their access. A recent project within the corridor added a westbound auxiliary lane. A noise wall was constructed adjacent to the Mountain Vista Mobile Home Park to mitigate the noise impact from the project.

## **Farmland Protection**

The National Agricultural Land Study of 1980 -81 found that millions of acres of farmland were being converted each year due to sprawling development. Much of the sprawl was the result of programs funded by the federal government. With this in mind, Congress passed the Farmland Protection Policy Act (FPPA) in 1981. A project for which farmland is acquired, such as State highway construction projects and airport expansions, or those which will indirectly lead to the conversion of farmland, are subject to the provisions of the FPPA (http://www.nrcs.usda.gov/programs/fppa/)

#### **Floodplains**

Floodplains are another critical environmental feature that can have significant impacts on land development. Floodplains are the margins of land adjacent to streams and rivers that accommodate excess water during periods of flooding. Streams and rivers are subject to periodic flooding that can damage or destroy whatever is contained in the floodplain. The presence of a floodplain in a development corridor is important as it may affect the alignment, design, construction and long-term maintenance aspects of the project. Floodplain information is readily available from local, state, and federal government agencies along with guidelines pertaining to the development or modifications of floodplain.

## **Hazardous Waste Sites**

Identifying a community's potential for hazardous waste early in the development planning process can help avoid unexpected time delays, increased costs, and potential danger to both employees and public health and safety. Construction typically involves subsurface activities that may disturb

contaminated soils, groundwater, parcels of land and businesses that are sometimes contaminated by hazardous waste. An evaluation will help reduce the possibility of encountering hazardous waste, purchasing contaminated property, and minimize liability. The evaluation should include a review of current and historic land use activities, a review of regulatory agency lists, an inventory of documented hazardous waste generators, and a field survey to assess various physical features on the property that may indicate presence of hazardous waste. In addition to evaluating the property to be acquired, adjacent properties and the surrounding area should be surveyed because contamination can come from off site. An investigation should include the identification of nearby businesses that store or use potentially hazardous materials.

#### Noise

Development-related noise is regulated by federal agencies in response to the Noise Control Act of 1972 (86 U.S.C. 1234-1250). Both the US Department of Transportation and the EPA are involved in noise regulation. All federal projects must assess highway-generated noise in compliance with Federal Highway Administration (FWHA) noise abatement criteria. In most cases, the noise from vehicles is not be an issue if the speed limits are less than 30 mph or less, unless large truck traffic is extremely heavy or steep grades are associated with the roadway. Rural highways, roads, non-urban and small urban municipal streets usually have a maximum noise influence area that does not exceed 200 feet on either side of the roadway centerline. Rural Interstate highways usually have a noise influence limit of 300 feet or less on either side of the centerline.

In general, noise increases from completed transportation projects are due to capacity increases or alignment changes. For these types of projects, a noise analysis study is required if noise sensitive receivers (examples are residences, hotels, and schools) are present within a 500-foot radius from the proposed edge of traveled way throughout the extents of the project. Mitigation, such as noise barriers, might be required.

Each military or joint-use airfield is required by military regulations to have an Air Installation Compatibility Use Zone study which shows the noise "footprint" associated with its operations. Airports with regularly scheduled commercial airline service have a similar study required by the Federal Aviation Administration. These studies can be used by planners to assess airport noise impacts on the surrounding community.

#### **Open Space**

The environmental issue that has received the greatest public input was about the impact of growth on open space. Population increases are driving development particularly in the unincorporated areas of each county. Four non-profit conservancy organizations are active in the region and are members of the Colorado Coalition of Land Trusts (CCLT). These conservancy organizations have assisted land owners in voluntarily preserving land in Region 9 via conservation easements. Though it is difficult to pin down the exact number of acres within these easements, a consortium of organizations called COMap have tabulated 70,795 acres within the region as "private protected" lands (<a href="http://www.nrel.colostate.edu/projects/comap/samples.html">http://www.nrel.colostate.edu/projects/comap/samples.html</a>). While this protected open space represents only 2% of all land in the region, the effort is important because parcels are placed under easement based on values such as view sheds, public lands access points, wildlife corridors, and farm land preservation. The practice of conservation easements was made more attractive by the State of Colorado's tax credits granted in the early 2000s that allows the landowner to sell the value of the easement for cash rather than a tax write off. Each county government in the region has locally-defined land use policies, comprehensive plans and codes and thus, this wide-ranging topic is also covered in each county's CEDS section.

## **Paleontology**

The State Antiquities Act (24-80-401) seeks to protect all fossils on state-owned lands and lands controlled by any subdivision of state government. Protection is provided by requiring a permit to collect, damage or destroy fossils on state-owned lands. Similar laws and regulations protect fossils on federally owned lands. The majority of Colorado remains un-surveyed for fossil remains. Areas not requiring examination for fossils of scientific importance are those areas where the rocks

are older than 600 million years or younger than 7,000 - 8,000 years. The remaining areas could potentially contain fossils of scientific significance.

#### **Parklands**

Parks and recreational resources play an important role in southwest Colorado. They provide opportunities for physical exercise and mental relaxation, gathering sites for community activities and events, and they draw tourists and recreationists to the area. Parks and recreational resources may be operated by local governments, state and federal agencies, and tribal governments. Federal regulations protect publicly owned parks and recreation areas from federal actions, such as transportation or other infrastructure projects, wherever prudent and feasible alternatives exist. If publicly owned parklands or recreation areas will be impacted by a transportation improvement, a mitigation plan is required. These lands should be identified early in the planning process.

#### **Public Lands**

Public lands play a decisive role in southwest Colorado's economies. For example, the San Juan National Forest averages 1.7 million visitor days per year, significantly contributing to the tourism industry in the Four Corners. The region is characterized by vast public lands including the following acres: 1,584,592 - United States Forest Service; 342,901 - Bureau of Land Management; 61,069 - State of Colorado; and 53,720 - National Park Service. The breakdown of public land acreage per county can be found in the county sections of this report. The prosperity of rural western communities is directly tied to designated wilderness areas, national parks and other public lands. A report, *Prosperity in the 21<sup>st</sup> Century West*, published by the Sonoran Institute, analyzed economic statistics from 400 western counties and found that new businesses, investments and residents tend to locate near public lands. The better managed and protected those lands are, the more they contribute to the economic well-being of local families, communities and businesses.

The San Juan National Forest and Bureau of Land Management's (working together as the San Juan Public Lands Center) Resource Management Plan Revision is underway. The plan will outline the types of uses that will occur, locations, and other land management decisions such as: identifying where commercial timber will be harvested, where grazing will occur, and locations where motorized recreation will be allowed. A unique aspect of this planning process is that it combines the BLM and USFS into one document. In public meetings, key issues were identified as concerns and are presented in each county's CEDS section. The San Juan Public Lands Center received over 18,000 comments on the Draft Land Management Plan and Draft Environmental Impact Statement that was published in December of 2007. Significant information surfaced during review of public comments and industry feedback, and it was determined that the emerging potential for oil and gas exploration had not been adequately addressed, and the USFS and BLM decided it was necessary to publish a Supplement to the DEIS. The Supplement should be available for public review in April of 2011. It is anticipated that the Final Environmental Impact Statement and Land Management Plan will be published in the summer of 2012. With the traditional land uses such as mining, grazing and logging declining in the region, the stewardship, management, and protection of our public lands is a complex topic deserving of ongoing public, community and governmental involvement and action.

#### **Threatened and Endangered Species**

Development can be harmful to plant and animal species. Impacts can result from destruction of habitat, animal mortality (including vehicle-wildlife collisions and construction activity), fragmentation of habitat, or changes in species behavior such as altering foraging or denning patterns. Extinction of a species represents an irretrievable loss of a biological resource and biodiversity. In addition to its other inherent value, this resource may have yielded powerful medicines, new genetic stock for agriculture, or provided new scientific insights. The loss of a species reduces the resilience of the environment to respond to climatic or environmental crises. Consequently, the protection of threatened or endangered species is an essential component in any long range planning effort, and a review should be made prior to the undertaking of any

economic development project to identify these species. A list of endangered species in Colorado can be found at <a href="https://www.wildlife.state.co.us">www.wildlife.state.co.us</a>.

To comply with the federal Endangered Species Act, agencies that might impact threatened and endangered species evaluate all possible adverse impacts and take necessary measures to avoid harming proposed, candidate and listed species before, during and after construction and maintenance activities. Appropriate compensation is utilized after all reasonable avoidance and minimization techniques have been exhausted.

Senate Bill 40 (SB40) (33-5-101-107, CRS 1973 as amended) was created primarily for the protection of fishing waters, but it does acknowledge the need to protect and preserve fish and wildlife resources associated with streams, banks and riparian areas in Colorado. This is accomplished through erosion control, water contaminate control, discharge conditions, construction procedures, vegetation manipulation and noxious weed control. These measures, when properly used, can ensure that Colorado waters remain conducive to healthy and stable fish and wildlife populations which depend on the state's rivers and streams.

#### Wildlife

Animal/vehicle collisions are the number one cause of crashes in southwest Colorado, and the Colorado Department of Transportation (CDOT) estimates that approximately 70 percent of all accidents are due to collisions with wildlife. In comparison, the statewide average for Colorado is nine percent of all accidents. In 2009, the Western Transportation Institute calculated the average per vehicle cost associated with an animal/vehicle collision to be \$6,617 for deer and \$17,483 for elk (http://www.ecologyandsociety.org/vol14/iss2/art15/).

In September of 2008, as a pilot project, CDOT installed a \$1.2 million electromagnetic wildlife detection system along a one-mile stretch of US 160, in an important deer and elk migration corridor east of Durango. The system operates on changes in the earth's magnetic field. Cables are buried nine feet deep, 30 feet from both sides of the highway. The cables record movement of animals having the same electromagnetic signature as deer and elk, and when animals of this size are detected in the highway right-of-way, a sign lights up that alerts motorists to the presence of animals.

The system has displayed some false positive results, and CDOT is researching the flaws. The system is the first of its kind to detect large animal movements near the edge of a highway, and the "bugs" are being worked out of this research project. However, anecdotal evidence indicates that there are fewer carcasses found in the detection area than in adjacent areas. If the project is successful, the technology could potentially have widespread use in highway corridors with high animal-vehicle collisions. Of note, the automobile insurance industry has expressed an interest in the results of the study, with a possible review of insurance rates.

In 2008, the Western Governors' Association established the Western Wildlife Habitat Council (WWHC) to coordinate and manage implementation of the WGA Wildlife Corridors Initiative Report. The mission of the WWHC is to identify key wildlife corridors and crucial wildlife habitats in the western United States and coordinate implementation of needed policy options and tools for preserving those landscapes. Colorado Division of Wildlife personnel are working with the state of New Mexico to map deer and elk migration corridors that cross the state line and to develop collaborative management strategies and combine resources.

On July 1, 2007, a Colorado law took effect that minimizes the impacts of oil and gas development on our fish and wildlife resources. The law, labeled the Colorado Wildlife Habitat Stewardship Act, directs the Colorado Oil and Gas Conservation Commission (COGCC) to "plan and manage oil and gas operations in a manner that balances development with wildlife conservation in recognition of the state's obligation to protect wildlife resources and the hunting, fishing, and recreation tradition they support" (<a href="http://www.ourpubliclands.org/colorado/housebills">http://www.ourpubliclands.org/colorado/housebills</a>) . The Colorado Division of Wildlife, Southwest Region plans to begin a five-year study in the summer of 2011 regarding

bear/human conflicts, a growing concern in urban interface areas. The study will focus on the city of Durango, and it is expected that the study results will be applicable statewide.

## **Water Quality**

The Federal Clean Water Act established programs aimed to control non-point sources of pollution, and to supplement programs addressing pollution from discharge at specific identified sites (point sources). The quality of water in primary rivers and streams are tested for point source pollutants such as metals, bacteria, sediments, nutrients, and salinity. There are several categories of non-point source activities, including: agriculture, forestry, construction runoff, urban runoff, resource extraction, land disposal and hydrologic modification.

Region 9 is contained within the San Juan River Basin, which includes the San Juan River and its principal tributaries, the Piedra, Los Pinos, Animas, La Plata, and Mancos Rivers. The San Juan and Dolores rivers ultimately reach the Colorado River, but they are considered to be within the San Juan River Basin for water quality management purposes. Although the population in the San Juan River Basin is sparse compared to other parts of the United States, increased growth and tourism are placing demands on several communities to provide adequate wastewater treatment. Several year-round resorts are proposed in the upper San Juan River region, which could significantly impact future water quality.

In southwest Colorado, drought, wildfires, mining activities, agriculture, and population growth have altered the landscape from its natural condition. These changes have potentially degraded the water-quality of streams, rivers, reservoirs, and groundwater by introducing or increasing levels of metals, nutrients, synthetic organic chemicals, and sediment. There are several drainages in the region with water quality issues. In 2010, southwest Colorado reported 17 impaired river sections totaling 346 miles on the following rivers: mainstream and tributaries (mercury); Los Pinos River (mercury); La Plata River, Mancos River, McElmo Creek, and San Juan River (iron, copper, and mercury); Dolores River (mercury); and the Lower Dolores River (iron). The U.S. Environmental Protection Agency requires states to develop Total Maximum Daily Loads (TMDL's) for impaired river segments. A TMDL is the maximum amount of a pollutant that a waterbody can receive and still maintain water quality standards (<a href="http://www.cdphe.state.co.us/op/wqcc/">http://www.cdphe.state.co.us/op/wqcc/</a>).

The State of Colorado conducts an on-going project aimed at investigating the presence of certain contaminants in fish that can potentially be consumed by the human population. The results of these studies are analyzed and, if warranted, is the basis for issuing fish consumption advisories. Other governmental agencies, such as counties and cities may also issue advisories. Fish consumption advisories for mercury are in effect at five reservoirs in the region: McPhee, Narraguinnep, Navajo, Toten, and Vallecito. These elevated levels may be occurring due to emissions from northern New Mexico's coal fired power plants.

In the upper reaches of the Animas River, a relatively extensive mine remediation project has been ongoing since the early 1990s, involving the plugging of mine tunnels and the relocation of mine waste. The Animas River Stakeholders Group is comprised of mining interests, local citizens, and government interests are helping to direct and oversee the activities.

Lower in the Animas drainage, the long-proposed Animas/La Plata water diversion and storage project (A-LP) southwest of Durango has been constructed. Pumping of water into the 120,000 acre-foot Lake Nighthorse is expected to begin in the spring of 2011 and may take up to three years to fill, depending on La Plata River flows. Authorized by Congress in 1968, A-LP has been through various delays, including cost overruns, which are being negotiated by the federal Bureau of Reclamation and the state of Colorado. The A-LP settles Native American water-right claims and provides water for household and industrial uses to three tribes and four non-tribal entities: the Southern Ute Indian Tribe, the Ute Mountain Ute Indian Tribe, the Navajo Nation in New Mexico, the state of Colorado, the Colorado Water Resources and Power Development Authority, the San Juan Water Commission, and the La Plata Conservancy District.

When the A-LP facility is open to the public, the lake is expected to draw 163,000 visitors per year, who will spend an estimated \$8 million per year on food, lodging, gas, and other supplies, according to a recent feasibility report by RPI Consulting. By 2025, the report estimates, Lake Nighthorse could bring 230 jobs and \$10.8 million per year in revenue to the area. Some activities at the lake could include close-to-town camping, swimming, boating, trails, and riding options.

The National Park Service is in the process of developing a recreation plan for Lake Nighthorse. They have made public participation in the process available through open houses, public forums, design workshops, and a website where people can post their comments and view others' input. A concern of many residents is the likelihood of motorized sports on the lake. People who prefer a more tranquil, natural setting are averse to the idea of speedboats and ATV's at the lake. In an effort to resolve this issue, the National Park Service has been addressing individual components of the motorized complaints, which include noise, pollution, and wakes. Some of the options suggested are designing separate areas for motorized sports, restricting engine decibels, banning fueling stations, and inspecting boats for invasive mussels. It appears likely that a boat ramp will be constructed at Lake Nighthorse, as the State of Colorado has provided a \$3 million grant for a boat ramp with the contingency that gas-powered boats be allowed on the lake within three years of completion.

The original A-LP bill included \$20 million for the recreation component, but that was removed in 2001. Some funding possibilities include Great Outdoors Colorado grants, federal assistance, concessionaires, a recreation district, or some kind of public/private partnership. The reservoir's opening to recreation is subject to Bureau of Reclamation approval and a qualified, non-federal entity to manage it.

A water rights issue that has emerged in the region involves legal challenges by property owners who sue to protect their water rights from natural gas drilling. Two local ranching families took the State Engineer's Office to court for not protecting their water rights from gas wells and won in the Colorado Supreme Court in 2009. The gas industry was concerned that all gas wells in the state would need to be permitted, and the state engineer's office drew maps showing where gas wells interact with surface water. The reasoning is that water used in the drilling process does not need to be replaced for gas wells outside these zones, because the water is assumed to be so deep underground that it will have no effect on surface water. Several lawsuits are active at the writing of this report.

Another facet of water quality is stormwater discharge and regulation under the EPA's National Pollutant Discharge Elimination System (NPDES). The purpose of an NPDES permit is to maintain water quality by controlling the discharge of pollutants into the waters of the state. The Colorado Department of Public Health and Environment is responsible for the implementation and enforcement of these regulations.

#### Wetlands

Wetlands are a critical natural resource, and as such, have come under federal protection. Wetlands can vary greatly in appearance. They include riparian wetlands that are dominated by cottonwoods and willows that are adjacent to rivers and streams and montane wetlands such as beaver ponds, wet meadows, and other boggy areas. There are several types of wetlands in the region depending on the elevation, topography, and water source. Wetlands provide many important ecological functions, including water quality improvement, stream bank stabilization, fish and wildlife habitat, and aquatic food chain support. Wetlands also provide several functions important to communities, including flood attenuation and storm water detention, groundwater recharge and discharge, and recreational opportunities. Every practical effort should be made to avoid, minimize or mitigate for impacts to this resource.

## **Livable Wages**

What level of income is necessary to support a given size and type of household? A livable wage addresses the essential financial needs for basic living tools such as shelter, healthcare, childcare, and nutrition. When one earns less than a livable wage, he or she is forced to make undesirable choices such as working two or more jobs, working longer hours, making longer commutes, sharing a residence, or giving up basic items such as a telephone or insurance. A healthy community has a diverse and sustainable economy that pays livable wages and offers meaningful work.

The Region 9 Economic Development District of Southwest Colorado (Region 9 EDD) has estimated livable wages since 1999, using a consistent method in order to compare costs and wages each year. Using that same method, we have prepared a basic expenditures budget, using costs drawn from the Bureau of Labor Statistics Consumer Expenditures - for the nation as a whole - for 2009 (the latest available) and adjusted those costs for inflation, using the Denver/Boulder Consumer Price Index for 2010. We then added expenditures for rent and childcare that are specific to our towns and counties.

A mileage allowance was added for the communities of Silverton, Rico, and Dove Creek to recognize the extra distance that people in those towns must travel for many basic goods and services. We did not include the two Tribes in our region as many of their costs are subsidized.

In the report (<a href="http://www.scan.org/Livable%20Wages%2010.pdf">http://www.scan.org/Livable%20Wages%2010.pdf</a>) the livable wage per hour for each community is summarized, as well as how many jobs an individual would need (at minimum wage) to sustain just the basic needs of a household. The detailed results for each community can be seen in the County Profiles. Within our region, Silverton (San Juan County) and Pagosa Springs (Archuleta County) are the least expensive places for a family to live, while Rico (Dolores County) and Durango (La Plata County) are the most expensive places to live.

Since 2007 the cost of living has actually **gone down** in many of the communities in SW Colorado. This is due primarily to decreasing rents and declines in prices of some consumer goods and services.

Livable Hourly Wages	2007		2010		%	
by Area		*Family of 4		amily of 4	Change	
Southwest Colorado		renting 3 bdrm		nting 3 bdrm	2007 - 2010	
Archuleta - Pagosa Springs	\$	32.58	\$	27.66	-15%	
Dolores - Dove Creek	\$	32.54	\$	33.10	2%	
Dolores - Rico	\$	38.92	\$	35.51	-9%	
La Plata - Bayfield	\$	34.31	\$	31.37	-9%	
La Plata - Durango	\$	33.60	\$	35.12	5%	
La Plata - Ignacio	\$	33.16	\$	33.53	1%	
Montezuma - Cortez	\$	32.01	\$	29.48	-8%	
Montezuma - Dolores	\$	33.02	\$	30.63	-7%	
Montezuma - Mancos	\$	34.37	\$	30.34	-12%	
San Juan - Silverton	\$	33.34	\$	27.64	-17%	

<sup>\*</sup> assumes 2 children requiring full time day care

To further refine our understanding of the local economy Fort Lewis College and Region 9 EDD have combined resources to construct and maintain a consumer price index for Southwest Colorado – the Southwest Colorado Price Index (SCPI). In general, a consumer price index measures the rate at which the prices of consumer goods and services are changing over time. It is a key statistic for purposes of economic and social policy-making, and has substantial and wideranging implications for governments, businesses and workers and households. The SCPI, as well as other key economic data, is available through the *Four Corners Economic Quarterly* at <a href="http://soba.fortlewis.edu/FCEQ/dpi.html">http://soba.fortlewis.edu/FCEQ/dpi.html</a>.

Since December 2008 through June of 2010, the SCPI indicates the cost of living in the region has dropped 3.6%. Grocery costs have dropped 7%, monthly mortgage costs on a median priced home have dropped 0.4%, utility expenses are down 28%, and transportation expenses have dropped 18%. However, health care costs have increased 6%, and miscellaneous goods & services have increased 4%. Nationally, inflation was about 5% from 2007 to 2010 according to the Bureau of Labor Statistics.

### **Health Care**

Health care is just as important and vital to a community's infrastructure as roadways, water, and telecommunications. The impact of increasing health insurance costs for small businesses, as well as continued high levels of uninsured residents, affects all of Southwest Colorado. Many in this region work in small firms or are self-employed. One out of every five working-age adults under the age of 65 is uninsured in Colorado.

The cost of health insurance has risen faster in Colorado than the U.S. average, which is why an increasing number of small employers are either dropping coverage altogether or passing the cost increase on to their employees. These growing costs make it challenging if not impossible for local businesses to purchase health insurance plans, thus, they cannot offer health care incentives to attract and retain employees. In the 10-year period between 1996 and 2006, employers' cost to provide individual health insurance coverage to their employees in Colorado rose by 112%, while employees' cost rose by 105%. For family coverage, the increase was 161% for employers and 87% for employees. Such increases are unsustainable for obvious reasons.

Also, a number of specific health care challenges exist in the Southwest region:

- The costs to deliver care to southwest Colorado are higher than in urban areas.
- The population is increasing and aging in southwest Colorado, which creates new demands on the health care network.
- The high cost of living is a prohibiting factor in attracting new health care providers.
- The number of providers taking Medicaid and Medicare is limited due to inadequate reimbursements in relation to costs.
- The percentage of the population who are uninsured in each county in Region 9 is higher than the state percentage.

Estimated Percentage of Uninsured 2007						
Estimated State						
Percentage (2007)	Archuleta	Dolores	La Plata	Montezuma	San Juan	
18%	24%	26%	25%	24%	30%	

Source: Source: U.S. Census Bureau, Small Area Health Insurance Estimates (SAHIE) <a href="http://www.census.gov/did/www/sahie/data/2007/tables.html">http://www.census.gov/did/www/sahie/data/2007/tables.html</a>

With national solutions and options through the 2010 Patient Protection and Affordable Care Act (the Act) being fully implemented in 2014, it is more important than ever that local solutions be implemented, and that local health care organizations position themselves for national reform. While some controversy continues to exist around the Act, if fully funded and implemented, small businesses will be able to shop for competitive and lower employee insurance packages through an "insurance exchange." The law requires states to establish the exchanges by 2014 (<a href="http://www.colorado.gov/healthreform">http://www.colorado.gov/healthreform</a>).

Alternative solutions such as worksite-wellness programs should also be explored by businesses. These programs can reduce employers' costs and the well-being and productivity of employees. Fortunately, there is evidence in the region that communities are working together and trying different approaches. For example:

- Through collaborative efforts in Archuleta County between the Upper San Juan Health Service District, the Dr. Mary Fisher Medical Foundation, and voters who passed a special mill bond levy, Pagosa Springs Medical Center came to fruition, opening its doors in 2008. The new facility has been a significant factor in attracting providers to the area. Before the facility opened, there were two in the community; now there are 18 physicians working at PSMC, with more being actively recruited.
- Southwest Mental Health started doing business as Axis Health System in April 2010, as a
  reflection of its changing role from exclusively mental health and substance use services,
  to an integrated, regional health system merging traditional behavioral health services with
  primary care, wellness and health lifestyle services.
- Since its merger with San Juan Basin Technical College in 2009, Southwest Colorado Community College increased its offerings in health-care-related certifications, which could help fill the regional health care workforce shortage. Since 2009, at least 8 new healthrelated certifications were added, including Radiologic Technology, Nurse Aide, Medical Assisting, Phlebotomy and various certification levels of EMS.
- In La Plata County, the Health Care Alliance of La Plata County is bringing together high-level decision-makers from key health-related organizations to catalyze and share resources and guide projects through implementation. Current efforts include the creation of a Health Information Exchange (to increase electronic communication of health records); increasing the number or providers who accept Medicaid; and implementing a fully integrated health care system. A community-based group, the Citizens Health Advisory Council, is working to implement in partnership with the Alliance projects that were identified in the 2010 La Plata County Health Care Capacity Project's Strategic Plan
- San Juan Basin Health Department continues to offer a wide range of regional services including child and family health, reproductive health services, home care, skilled home health, long-term-care options, and a caregiver support program.

There are gaps in health-related services in the region to take note of and track in the future, including:

- Access to adult dental care for the uninsured and underinsured is limited, as few dentists
  accept Medicaid or other public coverage. Southwest Smilemakers, a program of the San
  Juan Basin Health Department, and another children's clinic in Durango that opened in
  2009, Smiles 4 Kids, are helping to serve lower-income children. Yet Smilemakers can
  only treat adult Medicaid patients who have dental emergencies. Lack of regular dental
  hygiene only leads to more serious issues later such as periodontal disease and tooth
  infections.
- Community Connections, Inc. (CCI), a regional organization that works with children and adults with disabilities, served 246 people including 147 children in 2010. As of March 2011, Community Connections had a waiting list of over 70 adults and families of children with disabilities. Since 2009, CCI received over \$500,000 in cuts, including a 50% cut to the Family Support program which is intended to prevent out-of-home placement for children with disabilities who are living with their families. Many of the adults served by CCI require support 24 hours/day and cuts to their programs impact wages for staff who have already been traditionally underpaid. Adults in the Supported Living Services

Program have seen drastic reductions in the services available to support them living independently or in their family's home.

Serving the region's seniors with "aging in place" care, which allows seniors to remain in
their homes without having to go to a nursing home. Due to the rural isolation of some
older residents, this can be a challenging issue, but solutions lie in increasing resources for
home care, skilled home health, outreach nurses, and transportation. Model programs that
bring skilled nursing services to seniors at home are also operating in the region. These
programs should be sustained and expanded.

There is some level of health services being offered in most communities in the region. For more details regarding specific services see the county profiles.

#### Sources:

- Health Insurance Affordability in Rural Colorado http://www.coruralhealth.org/resources/documents/insurance2009.pdf
- Pagosa Springs Medical Center <a href="http://www.pagosamountainhospital.org/">http://www.pagosamountainhospital.org/</a>
- United States Census Data <a href="http://www.census.gov/popest/eval-estimates/eval-est2010.html">http://www.census.gov/popest/eval-estimates/eval-est2010.html</a>
- Axis Health System <a href="http://www.axishealthsystem.org/">http://www.axishealthsystem.org/</a>
- Community Connections, Inc. (970) 385-3458
- Mercy Home Health & Hospice (970) 382-2000
- San Juan Basin Health Department <a href="http://sjbhd.org/">http://sjbhd.org/</a>
- Southwest Colorado Community College (970) 247-2929

## **Population Trends**

	Census 2000	Census 2010
Archuleta	9,898	12,084
Dolores	1,844	2,064
La Plata	43,941	51,334
Montezuma	23,830	25,535
San Juan	558	699
Region 9	80,071	91,716
Colorado	4,339,019	5,029,196

The numbers show that our region is growing, particularly Archuleta and La Plata Counties. From 1990 to 2000, our region's population grew 37 percent.

Some people move here for economic reasons, such as the availability of jobs. Others cite quality of life issues, such as clean air and water, and outdoor recreation opportunities.

From 2000 to 2010 the growth rate slowed down in most counties, except San Juan County, which welcomed slow growth rather than the declines seen in the prior decades.

Average Annual % Change						
1970-1980   1980-1990   1990-2000   2000-201						
Archuleta	3.4%	4.6%	8.5%	2.2%		
Dolores	0.1%	-0.9%	2.3%	1.3%		
La Plata	4.2%	1.9%	3.6%	1.7%		
Montezuma	2.7%	1.4%	2.7%	0.8%		
San Juan	0.0%	-1.1%	-2.5%	2.5%		
Region 9	3.3%	1.8%	3.7%	1.5%		

Source: Colorado State Demography Office 3-2011

Population Forecasts							
Region 9 2010 2015 2020 2025 2030							
Population	91,716	104,998	118,743	132,488	145,802		
Avg. Ann. % Change		2.7%	2.5%	2.2%	1.9%		

Growth isn't going to stop in the coming decades, although predictions are that it will eventually slow down.

Source: Colorado State Demography Office 3-2011

As a region we must find ways to plan for and manage growth. The challenge is to align economic growth and development in ways that will enhance the quality of our lives and protect our natural environment and rural lifestyles.

#### **Telecommunications**

#### **Background: Need for Broadband Infrastructure Investment**

Broadband is a foundation for economic growth, job creation, global competitiveness and is changing how we educate children, deliver health care manage energy, and access, organize and disseminate knowledge. Southwest Colorado communities exist at the endpoint of the nation's telecommunications network and are not fully integrated into the larger digital world. Not having access to broadband applications limits institutions, individuals and businesses from participating fully in 21<sup>st</sup> century technology. Government services and democratic participation are also shifting to digital platforms.

To date, the "Digital Divide" has not been bridged between communities within the region, or between southwest Colorado and the urban areas in Colorado. The socio-economic status of the region, low population densities, low median household incomes, geographic distance from interregional Internet hubs (in Denver and Albuquerque), and extraction-based economies have not been attractive to service providers.

Cell phone coverage, broadband Internet connectivity, and the variety of other services offered by telephone, telecommunications, and cable television companies are all important, but the methods through which these services are reaching end users are changing in ways that demand new

wireless and wired technologies. Further investment from both the private and governmental sectors is necessary if these new technologies are to be implemented.

## **Regional Telecommunication Goals**

Region 9 has made the development of the region's telecommunications infrastructure a priority for almost two decades. Citizens, local governments, businesses, and regional community development groups have spent many collective hours discussing the problems and potential solutions of the region's telecommunication services and infrastructure needs. For the next several years, improvements will be made to the regional telecommunications infrastructure through two public investment projects. The Southwest Colorado Access Network (SCAN), part of which is now in place in Cortez and Durango, and the statewide Educational Access Gateway Learning Environment Network (EAGLE-Net) will invest in middle and last mile telecommunications infrastructure to link Region 9's incorporated cities and towns to regional hubs (in Durango and Cortez) and to the national telecommunications backbone via local and regional network structures.

This region's telecommunications goals are:

- To construct and leverage infrastructure to provide redundant, high bandwidth telecommunications capacity and connectivity to public agencies, private enterprise, and the general public of southwest Colorado and the Four Corners Area
- To encourage cooperation between public and private organizations to establish a regional telecommunications network that minimizes market inefficiencies
- To promote universal access within the region, and for the region's communities to have the same level of services as urban areas at comparable costs
- To establish local, regional, and inter-regional partnerships that work for the common good
  of the region by acknowledging that providing services to rural communities will benefit
  larger communities
- To build a service-oriented regional telecommunications network that is compatible with the Colorado State Network ((CSN) and EAGLE-Net, as well as private telecommunication providers.
- To increase competition among private telecommunication services providers in the region by leveling the playing field for access to infrastructure
- To give communities control over the destiny of telecommunications services in their areas
- To invest in fiber and wireless infrastructure solutions that can be efficiently upgraded to newer technologies, including Ethernet
- To create multi-service networks that allow governments, community institutions, businesses and residences to choose from among multiple service providers for different services and solutions
- To provide the private sector with adequate telecommunications capacity and services to create and attract new high paying jobs
- To provide the public with access to Distance Learning and video conferencing through the schools and library systems
- To improve health care delivery by providing Tele-Medicine and access to specialists available in the larger cities.

#### Regional Infrastructure Investment: Beanpole I

The "Beanpole I" project of the Southwest Telecommunications Consortium produced mixed results that left the rural communities in southwest Colorado without the means to sustain participation in the State Multi-Use Network (MNT), which is now the Colorado State Network (CSN). The region's rural communities could not support investment in telecommunications infrastructure, particularly after tax revenues and state and federal funding decreased with the economic downturn in 2008. After the Beanpole I funds were expended, the communities of Durango, Cortez, Bayfield and Ignacio were left with partially completed networks, including a limited amount of infrastructure owned by the governments. With the exception of Cortez and Durango, investments in telecommunications infrastructure have been carried out by private telecommunications companies. Those investments have largely been limited to upgrading existing electronics and

equipment, rather than extending new services into rural communities. Contrary to the plan of Beanpole I, the smaller communities were not able to connect to Cortez and Durango after the grant funds were expended.

#### Interim Local Efforts to Improve Telecommunications Infrastructure

The region's rural communities have largely discontinued use of the CSN, where not mandated by executive order, because of concerns over high costs. Local and higher education institutions in southwest Colorado do not anticipate participating in the CSN moving forward, despite a new five-year contract with Qwest for services. Local and regional private service providers are providing fiber and wireless solutions to rural communities because of community dissatisfaction with the performance and costs of national service providers. These communities also lack the budget and level of use to justify hiring full-time IT support staff and purchasing certain software and applications. There is momentum among the region's smaller communities to share IT support staff and collectively purchase software and applications to reduce costs. The Town of Silverton is awaiting judgment from the Public Utilities Commission concerning Qwest's failure to bring a fiber solution to the town as part of the original MNT contract. More information on the individual communities can be viewed in the county plans.

The cities of Cortez and Durango are currently constructing fiber and wireless infrastructure to implement private, intra-community networks. Cortez will operate a multi-service, open network that will bring fiber to homes and businesses and provide transport services for private service providers to reach locations throughout the city. Durango does not plan to operate a comprehensive, citywide network. Instead, Durango will invest in and provide dark fiber to private service providers, who will offer transport and end-user services on the city's physical infrastructure. Cortez and Durango are supplementing their funding with SCAN project funding to move forward with outside plant construction and purchase necessary electronics.

## Regional Infrastructure Investment: Southwest Colorado Access Network

The Southwest Colorado Council of Governments (SWCCOG) was officially formed in December 2009, and intergovernmental agreements are currently in effect between fourteen governmental jurisdictions across the region. In response to the inability of the Beanpole I project to bring telecommunications infrastructure investment to the region's rural communities, the SWCCOG contracted Manweiler Telecomm Consulting (MTC) to assess the region's telecommunications infrastructure. MTC completed the Telecommunications Infrastructure Assessment Report January 26, 2010 and presented the report to the SWCCOG Board. The SWCCOG used the Manweiler Report to apply to the Colorado Department of Local Affairs (DoLA) for Energy and Mineral Impact Assistance Funds to invest in regional telecommunications infrastructure. The SWCCOG was awarded a \$3M grant, with \$1M in local match, to expand a regional telecommunications network, the Southwest Colorado Access Network (SCAN). The project must be completed by December 31, 2013. In July 2010, the SWCCOG contracted with Region 9 to provide grant administration services, and in September 2010, the SWCCOG contracted Mid-State Consultants, Inc., as Project Manager.

The vision for the Southwest Colorado Access Network (SCAN) is to build a state-of-the-art private telecommunications network that is supported by publicly owned or leased infrastructure. This network will provide secure connections between community public offices, including government, education, law enforcement, search and rescue, and medical facilities. SCAN will offer high speed transmission, greater bandwidth and the ability to deliver data transfer, telephony and internet services in an efficient and cost-effective manner.

The SCAN project will also enable these communities to purchase telecommunications services in an efficient and cost-effective manner. By providing interconnect on a local and regional basis, the SCAN project will allow governments to aggregate demand for services and share support for those services. In addition, SCAN will enable private Internet Service Providers (ISPs) to lease bandwidth in order to deliver similar services to currently under-served residential and business customers throughout the region.

The specific objectives of the SCAN project are:

- To offer SWCCOG members and interested community anchor institutions access to greater and more reliable bandwidth than is currently available at or below current monthly recurring costs.
- To improve government (and other community anchor institution) efficiencies by improving staff efficiencies, expanding potential public access to regional online and virtual services, and offering an environment for potential application and service sharing.
- To support economic development by investing in telecommunications infrastructure
  throughout the region, the excess capacity of which can be used by private sector service
  providers to improve and extend their service offering reach making more competitive and
  better telecommunications services available.

The SWCCOG is collaborating with the region's public K-12 schools, emergency services, fire districts, libraries, higher education institutions, and other community anchor institutions such as local government agencies (city and county offices) to aggregate demand in the form of a purchasing consortium. In the fall of 2010, SWCCOG consultants conducted an online survey of local, tax supported agencies in southwest Colorado. The objective of this study was to identify and quantify current and future telecommunications usage and demand of the identified anchor institutions. The study identified 259 agencies as potential consortium members. Of these, 185 agencies responded to the survey, including 59 government agencies, 46 public safety agencies, 55 schools, 15 health facilities and 10 libraries.

The SWCCOG hopes to partner with the statewide EAGLE-Net project to invest concurrently in last and middle telecommunications infrastructure. The EAGLE-Net Alliance is a not-for-profit organization formed through inter-governmental agreements with network participants throughout the state. EAGLE-Net received a \$100M grant from the National Telecommunications and Information Administration (NTIA), with \$40M in private match. The purpose of the EAGLE-Net project is to bring a broadband connection into every school and library district in the state. EAGLE-Net will identify one community aggregation point in each school and library district to which their services will be delivered, in line with their charge to provide middle mile services. The school and library districts, and their communities, will bear the costs of getting those services to the other schools and libraries in their districts. There is great potential for collaboration between the SCAN and EAGLE-Net projects, but there also is uncertainty about the level of the EAGLE-Net investment in southwest Colorado. Telecommunications will remain a high priority economic development goal in this region until all communities have excellent services at affordable prices.

## **Transportation**

In southwest Colorado, highways are generally recognized as the most significant element of the regional transportation system. However, transit, aviation and other modes of transportation are playing a more important role in the planning and implementation of an integrated transportation system. Because of the impact that transportation decisions have on development decisions (and vice versa), questions about the kind of transportation projects planned, and where they are constructed, have become intertwined with growing concerns about land use, development patterns, traffic congestion, expensive and time consuming commutes, the level of exhaust emissions from vehicles, and, most recently, the effects all of this may be having on global climate change.

Regional transportation efforts are coordinated by the Southwest Regional Planning Commission (SWRPC), formed by intergovernmental agreement and which includes appointed representatives from all seventeen governmental jurisdictions, including the Ute Mountain Ute and Southern Ute Indian Tribes, the counties of Archuleta, Dolores, La Plata, Montezuma, and San Juan, and the

municipalities within those counties. This geographic area comprises the Southwest Transportation Planning Region (SWTPR) and the SWRPC provides input into transportation issues, including the planning and implementation of the southwest Colorado long-range transportation plan. The current long-range plan, the Southwest Transportation Planning Region 2035 Regional Transportation Plan, was adopted in January of 2008. The Southwest TPR receives administrative support from the Region 9 Economic Development District.

During the planning process of the Southwest Transportation Planning Region 2035 Regional Transportation Plan, key issues and emerging trends were identified that influenced the direction of the plan. They were the basis of discussion at public meetings and with the SWRPC. Some of the primary issues are as follows:

- Safety issues, including vehicle/wildlife crashes throughout the Transportation Planning Region
- Congestion in regional corridors especially on US 160 and US 550 in and around Durango, due to increased population and tourism
- Deterioration of highway infrastructure throughout the SWTPR due to increasing traffic volumes, including truck traffic
- Coal Bed Methane (CBM) development in La Plata and Archuleta Counties has led to increased truck traffic and the potential for safety conflicts. [Since 2008 there has been a decrease in development and all wells in La Plata and most wells in Archuleta county have telemetry – resulting in less truck traffic -- La Plata Energy Council – personal communication]
- Public transportation and bicycle and pedestrian transportation given more consideration as economically- and environmentally-viable alternatives.

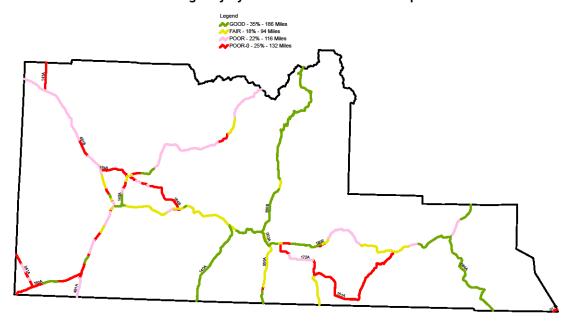
#### **Transportation System Inventory**

**Highways** - There are no interstate highways within the SWTPR. The Colorado Department of Transportation (CDOT) rates the condition of highway surfaces with its Pavement Management System, providing a range of years of Remaining Service Life (RSL) of the pavement for each highway segment. The RSL calculation is based on roughness, cracking, patching, rutting and other indicators of smoothness and structure. A good surface condition corresponds to a remaining surface life of 11 years or more. A fair surface condition corresponds to a remaining surface life of 6 to 10 years, while a poor evaluation represents a remaining surface life of less than 6 years. The surface condition of the 509-mile regional state highway system has generally improved since the previous CEDS report, with 35 percent of the system rated good, 18 percent fair (compared to 25 percent good and 16 percent fair previously) and 47 percent poor (compared to 60 percent previously). RSL 0 specifies sections of state highway that have deteriorated to the point that there are zero years of remaining service life. CDOT does not normally use Surface Treatment funds to resurface these roads, because they require major reconstruction, with replacement of the road base.

The Colorado Transportation Commission's (which directs policy for the state highway system) goal for surface treatment is 60 percent good and fair. Pavement condition of state highways is currently 53 percent good/fair in Region 9 and 48 percent statewide. To achieve a 60 percent good/fair rating statewide by 2030, a budget of \$690 million per year would be needed for surface treatment. From fiscal year 2012 through 2015, the state will spend approximately \$200 million per year on surface treatment, and at this rate, the percentage of good and fair roads is projected to be approximately 22 percent by 2030.

#### Southwest Transportation Planning Region 2010 State Highway System Pavement Condition Map

Revision Date 8/23/2010



**Scenic Byways** - The Colorado Scenic and Historic Byways program is a statewide partnership for the purpose of providing recreational, educational, and economic benefits to Coloradans and visitors. This system of touring routes in Colorado offers travelers identification of key points of interest and services while providing for the protection of significant resources. Scenic and Historic Byways are nominated by local partnership groups and designated by the Colorado Scenic and Historic Byways Commission for their exceptional scenic, historic, cultural, recreational, and natural features.

There are two scenic and historic byways within Region 9 – the San Juan Skyway and the Trail of the Ancients. The picturesque San Juan Skyway makes a 236-mile loop from Cortez through Durango, Silverton, Ouray, Ridgway, Telluride, Rico, and Dolores. Some of the attractions along the route are Mesa Verde National Park, 14,000-foot-high mountains, including Mt. Wilson, El Diente, Wilson Peak, and Mt. Sneffels, music festivals, hot springs, skiing, hiking, and jeeping. The San Juan Skyway was designated by the U.S. Secretary of Transportation as an All-American Road, the highest level of designation, in 1996.

The Trail of the Ancients is a 114-mile byway located within Montezuma County, Colorado, northeast Arizona, and southeast Utah. The route connects some of the nation's richest archaeological sites, including Mesa Verde National Park, Hovenweep National Monument, and the Ute Mountain Ute Indian Reservation. The byway also accesses the Anasazi Heritage Center in Dolores and the Four Corners Monument.

**Transit** - The Safe, Accountable, Flexible, and Efficient Transportation Equity Act – A Legacy for Users (SAFETEA) was signed into law in 2005. The bill included a 46% increase in transit funding over the previous bill. The legislation also increased the share of the total federal transit program that is invested in rural areas. Even so, transit services are recognized by the public as a large gap in the region's transportation infrastructure. The growing population is finding affordable homes predominately in the rural areas, and therefore residents are commuting longer distances between these communities for work. There are currently no designated park-n-ride facilities (although a park-n-ride is planned for U.S. Highway 160 at County Roads 222 and 223 in La Plata County),

and two of the five counties offer no public transit. Transit providers generally serve special populations, i.e. elderly or disabled persons, within limited service areas, though there is new service between Ignacio, Bayfield and Durango in La Plata County. Transit is now part of the 2035 Transportation Plan, rather than being produced as a separate document.

The Southwest Region Transit and Human Services Transportation Coordination Plan was adopted in January of 2008. The report serves as the planning document that meets state and federal requirements and guidelines for funding eligibility for eligible transit providers. One of the requirements of the plan was to analyze the mobility gap – providing equal mobility to persons in households without vehicles as those with a vehicle. The study also looked at transit ridership for specific social service programs, demand for service by the elderly, persons with disabilities, the general public, and resort need. The analysis showed that nearly 96 percent of the transit need is not being met, though in the economic climate transportation providers are doing everything they can to provide the highest levels of service possible. However, given the constraints of funding and other factors, it is difficult to meet all the needs that could possibly exist in any area.

The Southwest Region Transit and Human Services Transportation Coordination Plan process included several opportunities for public input. The following list is a summary of input:

- Need better transit connections within communities, weekend service and more regional transportation services for the general public and for medical services.
- Lack of intercity bus service in the region.
- The need for job access to Mercy Medical Center (in La Plata County) during the weekends.
- More reliable and frequent public transportation would change behavior about using public transportation.
- Public transportation opportunities should be looked at to support the growing tourism and second-home market throughout the southwest region.
- Alternative modes such as pedestrian, bicycle and transit were given a high priority for addressing transportation demand.
- Lack of commuter choices and coordination of car/vanpool programs.
- Need for greater coordination between transit agencies, such as a common centralized dispatch system.
- Lack of regional connectivity from Alamosa to Pagosa Springs; Pagosa Springs to Durango; Cortez to Durango to Pagosa Springs; Cortez to Farmington and Ignacio to Bayfield.
- Need for a Regional Transit Authority (RTA) in La Plata County area with collaborative efforts from communities and the county.
- Many human service agencies and employment-related agencies expressed a transportation need for their clients.

Several transit providers expressed capital needs for buses, bus shelters, and garages. The City of Durango needed a transit center, which was constructed in 2009. Details regarding the transit center are provided in the individual County profiles.

**Bicycle and Pedestrian Facilities** - Multi-model solutions to transportation are important to residents in the region. According to the 2000 U.S. Census, 4.1% of Durango residents over the age of 16 ride or bicycle to work, over ten times the national average. Many of the communities within the SWTPR are developing trail corridors for pedestrians and bicyclists that will link open spaces and provide safe access to schools, shopping, and recreation areas. Unfortunately, more current data is not yet available.

**Intercity Bus Service** - Intercity bus service in the region is provided by Greyhound/TNM&O. The bus, which originates in Albuquerque, stops at the Durango Transit Center twice per day and also makes stops in Cortez, Telluride, Grand Junction, and Denver.

**Freight** - Noticeably absent from the SWTPR are freight and passenger railroads, though the Durango & Silverton Narrow Gauge Railroad (D&SNGRR) is a nationally noted historic asset to the SWTPR. This 45-mile scenic railroad runs between Durango (La Plata County) and Silverton (San Juan County), roughly paralleling U.S. 550. The D&SNGRR is not considered part of rail freight service for the SWTPR.

There are currently no freight distribution centers in the region. Freight movement is limited by mountainous terrain and seasonal road hazards that create safety hazards. The cost of importing materials by truck is very high, which limits export of locally-manufactured products. Freight distribution by air is also limited.

**Airports** - Aviation facilities within the region include five airports. The airports contribute to mobility in the region and support the local economy. Of the five airports, two provide commercial service in and out of the region, while the other three are classified as general aviation facilities. Commercial service is available at the Durango-La Plata County Airport and the Cortez Municipal Airport. There is no public transit service provided to either airport, although private service is available.

# Southwest Transportation Planning Region 2012-2017 Statewide Transportation Improvement Program (STIP)

Federal and state transportation funds for southwest Colorado are administered through the Colorado Department of Transportation's (CDOT) Region 5, headquartered in Durango. Region 5 is responsible for state highways in 141/2 counties in the south-central and southwest portions of the state. Funding for projects within CDOT programs, such as maintenance, bridge replacements, highway resurfacing, and signing and striping, are determined by performance measures. For example, the lowest-rated bridges are in most need of being replaced, and these bridges will generally be replaced in order of ranking in the region. However, projects funded by a discretionary "pot" of money, called Regional Priority Program funding, are programmed in collaboration between CDOT and the regional planning commissions (RPC's) within CDOT Region 5, including the SWRPC.

The six-year plan, called the Statewide Transportation Improvement Program (STIP), is updated every four years. The FY 2012 through 2017 STIP for the Southwest Transportation Planning Region (SWTPR) is shown in the following table. Projects must be included in the long-range plan, the Southwest Transportation Planning Region 2035 Regional Transportation Plan, before being programmed in the STIP. Modifications to the STIP may be requested by the SWRPC to support changes in priorities as a result of emerging or unforeseen issues. Amendment requests are discussed with CDOT and approved by the SWRPC for amendment of the long-range plan, prior to new or substantially-changed projects being added to the STIP.

	SWTPR 2012-2017 Statewide Transportation Improvement Program (STIP)						
ROUTE	DESCRIPTION	PROJECT TYPE	COST				
	REGIONAL PRIORITY PROGRAM POOL (includes FASTER)						
160	US 160 at 8 <sup>th</sup> Street in Pagosa Springs	Intersection improvements	\$2,770,000				
160	US 160 at Vista Blvd./Meadows Drive in Archuleta County	Intersection improvements	\$2,130,000				
172	SH 172 at La Plata County Roads (CR) 311 and 513	Intersection improvements	\$1,750,000				
145	SH 145 at Montezuma CR P	Intersection improvements	\$520,000				
491	US 491 at Montezuma CR 25 (Lebanon Rd.)	Intersection improvements	\$440,000				
550	US 550 at 9 <sup>th</sup> Street in Durango	Intersection improvements	\$1,120,000				
491	US 491 at Dolores CR J	Intersection improvements	\$520,000				
491	US 491 at Dolores CR M	Intersection improvements	\$1,690,000				
160	Safety improvements west of Pagosa Springs near Hurt Drive	Highway safety improvements	\$6,365,000				
550	Intersection improvements and pedestrian bridge at Sunnyside S. of Durango	Intersection and pedestrian safety improvements	\$9,900,000				
141	Reconstruct a segment of highway with 0 years of remaining service life	Reconstruction	\$1,120,000				
160	Passing lane between Durango and Bayfield	Design	\$300,000				
160	ROW acquisition for 4-laning between Durango and Bayfield	ROW acquisition	\$2,540,000				
160/491	Safety improvements/ passing lane south of Cortez	Design	\$300,000				

State and local transportation budgets have not kept up with the needs of aging roads and bridges, as well as the need for public transit, and bicycle and pedestrian paths. Legislation passed since

the previous CEDS report has provided much-needed transportation funding to southwest Colorado.

**Colorado FASTER** - Legislation passed in early 2009, known as FASTER (Funding Advancement for Surface Transportation and Economic Recovery), has provided revenue for transportation projects in the region that would not otherwise have been constructed. The purpose of the bill is to provide a long-term revenue source to repair deficient bridges and deteriorating roads around the state. FASTER is funded by an average increase of \$41 per vehicle registration, tolling on sections of highway in some parts of the state, and a \$2.00 per day on car rentals and is expected to generate approximately \$252 million annually for bridge replacement, highway safety, and transit projects. Specific FASTER highway safety projects within Region 9 are shown in the individual county profiles.

FASTER funding is also available for regional and statewide transit projects in the amounts of \$5 million and \$10 million per year, respectively. CDOT Region 5 is allocated approximately \$521,000 per year for regional transit projects, and they collaborate with the three regional planning commissions to develop three-year plans.

ARRA - Under the American Recovery and Reinvestment Act (ARRA) of 2009, CDOT Region 5 received \$31 million for highway projects and \$1.078 million for transportation enhancement projects, such as construction of multi-use trails. All of the ARRA projects within Region 9 were located in La Plata County. Specific ARRA projects are shown in the La Plata County profile.. The San Juan National Forest averages 1.7 million visitor days per year, which significantly contributes to the tourism industry in the Four Corners. The 1,800-mile trail system within forest lands includes major segments of the Continental Divide and the Colorado Trail. Some of the projects constructed in public lands using ARRA funding include: repair of 169 miles of backcountry trails and reconstruction of 17 bridges; installation of 38 new toilets at campgrounds and trailheads; controlling the spread of Tamarisk and other invasive species at Canyons of the Ancients National Monument and along the Dolores River; employment of 48 veterans for hand-thinning and brushpiling; energy upgrades at the Anasazi Heritage Center; remediation of the historic Eveline Mine; restoration of old ranger stations, fire lookout stations, and archaeological sites; and completion of \$4.9 million deferred maintenance.

Safe Routes to School Program - In 1969, about half of all students walked or bicycled to school. By 2001, however, fewer than 15 percent of all school trips were made by walking or bicycling, with a corresponding increase in the number of children arriving at school in private automobiles. Some communities throughout the United States have documented that parents driving their children to schools can constitute 20 to 30 percent of the morning rush hour traffic. This decline in walking and bicycling has had an adverse effect on traffic congestion and air quality around schools, as well as pedestrian and bicycle safety. In addition, a growing body of evidence has shown that children who lead sedentary lifestyles are at risk for a variety of health problems such as obesity, diabetes, and cardiovascular disease (http://www.rwjf.org/files/research/20090320srtsfinalpolicy.pdf).

Safety issues are a big concern for parents, who consistently cite traffic danger as a reason why their children are unable to bicycle or walk to school. For these reasons, the federal Safe Routes to School Program was established in 2006 to assist communities in enabling and encouraging children to safely walk and bike to school. Local agencies work with the Colorado Department of Transportation to apply for funding.

**Avalanche Control** - Snow avalanches can result in economic impacts on recreation, tourism, commerce, and industry, as well as safety hazards for the citizens of southwest Colorado. Since 1950, avalanches have killed more people in Colorado than any other natural hazard, and in the United States, Colorado accounts for one-third of all avalanche deaths (Real Vail 11/23/10). Two high-mountain passes, Coal Bank and Molas, are located in San Juan County along U.S. Highway 550, a major north-south transportation and freight route in the region. In addition, Red Mountain

Pass is situated just north of San Juan County on U.S. Highway 550, and Wolf Creek Pass, a segment of U.S. Highway 160, is located east of Archuleta County (the Wolf Creek Pass Ski Area is renowned as having the most snow of any ski area in Colorado). Each of these mountain passes have avalanche paths that reach the highway, including 100 on Red Mountain Pass (the highest number in Colorado), 61 on Wolf Creek Pass, 11 on Molas Pass, and four on Coal Bank Pass. Avalanche hazard and control result in road closures several times each winter. As these highways are the main (or sole) routes through several towns and communities in the region, road closures can result in several-hour detours to some destinations. For the winter seasons from 2007 through 2010, the Colorado Department of Transportation spent an average of \$3,500,000 on avalanche control, 150 hours on ice control, and an average of 6,000 hours on special snow removal (requiring snow-blowers and motor-graders) each winter.

## **Workforce Development**

Workforce development in the Southwest region of Colorado is addressed through a partnership of education, economic development, chambers of commerce, small business development, businesses and the public workforce development system (CO Dept. of Labor & Employment - CDLE) operated through the Colorado Workforce Centers located in Cortez (Montezuma County), Durango (La Plata County) and Pagosa Springs (Archuleta County). The formal collaboration of these entities occurs in the context of the Southwest Workforce Region (same boundaries as the Region 9 Economic Development District) Workforce Board. An informal collaboration and information exchange occurs among a variety of partners at the recently formed Workforce Development Network (WDN).

The Southwest Colorado Workforce Board (SCWB), made up of greater than 50% private business members, along with economic development entities, education and other workforce system partners, convenes regularly to conduct the region's workforce system business. In 2010, the SCWB developed its own work plan to achieve the goals of the state-wide workforce development strategic plan.

Elements of the SCWB work plan include the following:

- Increase the value and relevance of SCWB meetings
- Form a smaller, more manageable Board with specific, targeted representation
- Identify three (3) to five (5) key ongoing activities/tasks that the SCWB wants to accomplish
- Document what the SCWB's partnering agencies do and how they can help achieve SCWB goals
- Utilize networking opportunities/methods to reach out to other potential partners who are not formal members of the SCWB. (This element has been met by the subsequent formation of the WDN.)

The purpose of the Workforce Development Network (WDN), which meets following the SCWB meetings, is to extend the efforts and outreach of the Workforce Board to include business and citizens who have an interest in economic development, addressing workforce development needs and perspectives of businesses throughout the region. Recent reports at the WDN sessions have included a Listening to Business survey, STEM Business Scholarship Program, and the launching of the Southwest Connect web portal.

Education's role begins with K-12 schools in the nine (9) school districts in the region, all of which are also assisted by the San Juan Board of Cooperative Educational Services (SJBOCES) and its Career and Technical Education (CTE) programs. SJBOCES has taken the lead in organizing the Southwest Colorado CTE Consortium, made up of seven of the nine school districts to date, to further the effectiveness of CTE in the region and student transition to post-secondary education and workforce training opportunities.

Four adult education entities operate in the region, in Cortez, Durango, Ignacio/Bayfield and Pagosa Springs. They provide basic General Education Development (GED) preparation, as well as several special programs, such as Bridges to Success, which provide adult learners with a focus on financial management, computer/internet functions, professional culture and college connections, all of which gives lower income workers opportunities to increase their workforce competitiveness for living-wage employment. Two of these sites include video conferencing technology and internet-supported instruction that broaden the ability of local workers to access post-secondary academic and vocational training from distant sites.

One community college serves the region, that being the Southwest Colorado Community College (SCCC), a branch of Pueblo Community College. Following a recent merger of the community college with the San Juan Basin Area Technical College, its east (La Plata County) and west (Montezuma County) campuses now bring a full range of industry-recognized credentialed vocational training to a much larger percentage of the region's population, in such sectors as health care, trucking, welding, wildfire technology and business applications. An Industry Training Center at the west campus has housed energy-sector training in the recent past and will engage in solar-related training in 2011. Many workers in the region also attend San Juan College (SJC) in Farmington, NM, to access their vocational and associate degree training through the School of Health Sciences and the School of Energy. Fort Lewis College, located in La Plata County, offers the full range of bachelor level degree programs found at liberal arts colleges. Many of its graduates remain and work in the region, in part as a result of an aggressive internship focus at the college that exposes students to the region's business, government and non-profit sectors.

As a sub-region of the Colorado Rural Workforce Consortium (CRWC), the Southwest Workforce Region workforce centers offer the full range of employment and training workforce services supported by CDLE. These fall into either Employment Services (implemented by CRWC/CDLE staff) or Workforce Investment Act (WIA) programs (implemented by The Training Advantage – TTA, a division of the Southern Ute Community Action Programs, Inc. – SUCAP). Workers and job seekers can access a variety of services, such as:

- skills inventory and assessment
- career exploration
- referrals to job openings
- assistance with job search and work readiness skills
- assistance with vocational training for locally in-demand occupations
- supportive services and case management to assist with personal needs, such as work clothing, work tools, transportation, child care and housing.

Employers are assisted with a database for job listings and skill screening and referral of qualified applicants. The federal WIA programs require demonstration that funds invested locally in training and supportive services for individuals will result in their employment in "in-demand" occupations in the region.

In conjunction with the Western Workforce Region, the Southwest Workforce Region workforce system and partners have been awarded two grants over the past three years intended for specific industry workforce training. In the spring of 2008, a U.S. Dept. of Labor (DOL) energy grant supported three-year partnerships with SCCC and the Delta-Montrose Technical College to train job seekers and incumbent workers in heavy equipment operations, commercial driving, mine safety, welding and computer-aided design (CAD). Beginning in the fall of 2009, a SECTRS (Strategies to Enhance Colorado's Talent Through Regional Solutions) Initiative grant supported both a planning and implementation phase for workforce development improvements in the health care sector, including retention in the entry level positions, improvement of the health care career ladder and workforce pipeline, regional training for incumbent workers, and enhancement of RN training in lieu of experience in specialty areas. The planning phase of this grant conducted extensive data analysis of both Southwest and Western regions on growing industries in these areas concluding that the health care industry offered the greatest benefit to each region. Other

industries that were ranked high are Professional/Technical Services (Accountants/Bookkeepers, Lawyers, Civil Engineers, Management Analysts, Photographers), Specialty Trade Contractors (Carpenters, Laborers, Supervisors, Managers, Painters, Electricians, Plumbers), Construction of Buildings (Contractors, Builders, Remodelers) and Oil and Gas Extraction/Mining (Mgrs., Well Head Operators, Pump Operators, Property/Real Estate, Engineers, Construction Equip. Operators, Machine Operators, Heavy Equip. Mechanics, Truck Drivers).

New publicly-funded workforce and job development efforts have included:

- HIRE Colorado, which paid wages for a work experience/on-the-job training period, following which many employers retained the employee
- the Veteran Work Incentive Program (VWIP), which provides tuition for eligible veterans
- the Colorado Enhanced Approved Training Program (CEATP) to assist those receiving unemployment with increased benefits while attending vocational training for an "indemand" occupation
- Elevate America, a public-private venturing assisting workers with Microsoft Certification.

On-going publicly funded programs at the county level include Colorado Works and Employment First, employment programs for recipients of Temporary Aid to Needy Families (TANF) and food stamps. In the private sector, workforce development challenges exist in situations where limited and specialized technical workforce training is needed, as for small manufacturing operations or when a small number of health care practitioners need a specific re-certification and must travel distances for the required training. Growth of regional training opportunities is within the plan and auspices of the region's Workforce Board and Network.

Interest in "green" industry regionally includes assessment of that sector's impact on job growth and associated workforce development needs. Longer-term and stable job creation may be seen where there is growth in demand, such as with residential and commercial solar installation, for which workforce training needs are met on the job or through programs such as offered through the SJC School of Energy and SCCC. The likelihood of both public and private expansion of geothermal use in Pagosa Springs in the near future brings into light the rural workforce dilemma when special projects require a few highly skilled workers for a finite period of time, making it difficult to quickly prepare local workers to take those jobs, though this effort will be supported by another energy-focused grant from CDLE. From a somewhat different direction, the Four Corners Office for Resource Efficiency (4CORE) has worked with SCCC to recently attain funding to train workers to perform residential and commercial energy audits. The energy-focused grant from CDLE will provide scholarships for the commercial energy audits. In this case, the training is now available, but the demand for the service needs growth.

Finally, a higher percentage of livable wage jobs would create more opportunities for expanding training and other workforce development offerings. The size of the tourism-related portion of the regional economy, along with much retail, correlates with the size of the low paid and low skilled workforce. Workforce development efforts tend to help unskilled job seekers compete for those jobs and help those employed attain additional skills needed in higher wage positions for which there are fewer opportunities. Finding ways to provide one-time skilled training regionally for small groups of people in one industry sector will fill one gap in the current workforce development continuum.

# **Regional Economic Profile**

### **National/International Economic Context**

Region 9 is affected, both adversely and positively, by the national and international economies in a variety of sectors, according to Dr. Robert Sonora (Associate Professor of Economics at Fort Lewis College in Durango). The most obvious is in the energy sector, where natural gas prices have been relatively volatile over the past five years. The price of gas follows oil prices and while world gas prices rose upwards of 80% in 2008, they fell close to 80% by mid-2009. Falling prices create declines in the local county tax base and a subsequent fall in county services. It may also pressure local governments to increase residential property taxes in the future.

Despite continued historically low national mortgage rates, kept in check by increasing national mortgage competition and low bond rates, mean and median in-town residential housing prices have fallen -15.61% and -13.71% respectively, from 2006-2010. This is attributed to what we are calling the Great Recession. Rising unemployment and falling per capita incomes have resulted in higher than normal foreclosures in the region. In the 4<sup>th</sup> quarter of 2010, Archuleta County had a foreclosure rate of 68% of occupied housing units, followed by San Juan (37%), Dolores (36%), Montezuma (21%), and La Plata (21%). It is important to note, however, that counties with small populations are prone to very volatile foreclosure rates as a small rise or fall in the total number of foreclosures can significantly change the foreclosure rate in terms of a percentage. Foreclosures in rural resort counties also often reflect 2<sup>nd</sup> homes or time shares.

The financial crisis led world investors to flee to dollar assets, primarily US Treasuries and bonds, causing a temporary strengthening of the dollar against our twelve largest trading partners. Also, nationwide exports of travel and passenger fares - a measure of foreign visitors - fell about 20% during the Great Recession, but have been recovering over the past year or so. Given Region 9's natural beauty; popular tourism attractions such as Mesa Verde National Park, Durango Mountain Resort, and the Durango & Silverton Narrow Gauge Railroad, the area is able to attract tourists from around the nation and world. However, while enplanements were up consistently each year since 2007, visits to Mesa Verde and the Railroad were down, implying either fewer visitors to the region or tourists are not visiting these attractions as they have less disposable income.

The majority of regional employment is not nationally and/or internationally competitive, resulting in relatively low incomes for Region 9 residents, which consists primarily of service jobs that are dependant on the tourism sector. Higher wages are seen in education, natural gas, health and government sectors, though in some cases wages and salaries are still below the national average.

Finally, over the past year or so, increased weather and political uncertainty has led to a decline in global food supplies which has been pushing agricultural prices upwards. Though agriculture and animal husbandry play a relatively small role in Region 9's total income (less than 3%), the regional economy is susceptible to volatile global market forces. We should see global demand for agricultural goods rise and with it a commensurate rise in prices, particularly in developing countries. One effect this could have is strengthening the regional agricultural complex.

### **Economic Drivers**

The Economic Drivers study grew out of a desire to estimate how many jobs are associated with the building, sales and maintenance of second homes. In Archuleta County 16% of jobs were attributed to 2<sup>nd</sup> homes; in Dolores and La Plata this number is 7%; and in Montezuma it was 4%. San Juan County was not included in the study. To put this information in context the study also examined each county economy as a whole and all of its main economic drivers.

This discussion is drawn from a report prepared by Lloyd Levy Consulting for Region 9 in October 2010, using 2007 data. Although the numbers of jobs are down 12% from 2007 to 2009, the proportions of jobs in each economic sector are very similar, thus we believe the drivers identified here are still pertinent. A breakdown of the economic drivers/sectors for Archuleta, Dolores, La Plata and Montezuma Counties are included in the county sections of this document. The full report, including multipliers specific to each county, can be found at <a href="http://www.scan.org/regional\_data.html">http://www.scan.org/regional\_data.html</a>.

What is an economic driver? Economic drivers are related groups of activities that bring "outside" money into the local (i.e., county) economy. A traditional example of an economic driver is a base industry, like agriculture, mining or manufacturing, which sells most or all of its products into markets that are located outside of the county. These sales support the direct "basic" jobs in each industry sector (the farmer, miner or assembly worker). In turn, additional supporting jobs are generated as basic industries buy goods and services and as local residents—who work for the basic industries or the basic industries' vendors—spend their income. The additional jobs are known as the "multiplier" or "ripple" effect. The multiplier effect occurs as income is spent and respent within the local economy, minus the "leakage" to outside economies that occurs with every round of spending. The sum of the basic jobs plus the supporting jobs comprises an economic region's total employment.

However, sales of traditional commodities and services into outside markets aren't the only economic drivers. Basic jobs also occur in services industries if the industry targets outside markets. Tourism is a prime example because it generates jobs in a range of industries. The area's natural and built amenities attract visitors from outside the county that spend money on accommodations, food services, admissions, transportation and shopping. Visitor spending, using money that comes from outside the county creates the basic jobs and, through the multiplier effect, contributes to total employment. For our purposes, tourism can be broken down into two categories: "traditional tourism" which consists of day and destination (overnight) visitors, and "second homes". In this study we have not included timeshares or fractional ownership of residential units as second homes because we believe the spending patterns of these visitors most closely resemble traditional tourism. On the other hand, second homeowners also make purchases related to construction when they build or renovate homes, and when they purchase goods to furnish these homes.

Finally, there is an economic driver that is often important in a small economy consisting of direct additions to personal income from employers, governments and institutions located outside of the county. For example, social security payments to retired residents of the county and certain public assistance payments given to distressed households generate basic jobs in industries that supply household goods and services. Today's county economies usually have more than one economic driver, but counties vary in their diversity. Sometimes one economic driver clearly dominates. Elsewhere, several economic drivers may be more balanced. A more balanced economy may mitigate employment ups and downs, sometimes even in the face of national economic trends.

The driver study is a tool for measuring and evaluating a response to growth and change and for strategizing for economic development. Region 9 hopes that these studies will provide the starting point for public discussions to review the results and consider the implications for the future – for each county and the region – of the strengths and weaknesses, opportunities and problems accompanying each economic driver.

#### **Economic Clusters**

The identification of these drivers also allows us to refine our understanding of regional economic clusters. In recent years, "cluster strategies" have become a popular economic development approach among state and local policymakers and economic development practitioners. An industry cluster is "a group of firms, and related economic actors and institutions that are located near one another and that draw productive advantage from their mutual proximity and connections". Cluster analysis can help diagnose a region's economic strengths and challenges and identify realistic ways to shape the region's economic future.

www.brookings.edu/metro/pubs/20060313 clusters.pdf

For example, to provide a more accurate picture of the agricultural sector we can expand agricultural industry analysis by linking production to other segments of the economy that directly and indirectly support agriculture. These industries are known as *agribusiness*, and include services such as processing food products, trucking, storage, sales of farm equipment and supplies; as well as impacts on credit institutions and commodity brokers. Similarly, the oil and gas industry employs heavy construction and excavation firms to clear sites, trucking and pipeline companies to transport products, chemists, electricians, welders and a complex supply chain to support that industry. It is hoped that the same labor force and supply chains will feed the "new energy" economy of solar, wind and hydroelectric power.

Creative Industries are another example of an important economic cluster. Creative Industries are the fifth largest employment sector in the state of Colorado. There are 186,251 jobs in the Creative Cluster and this accounts for 3.9% of the state's estimated 3.2 million jobs. This sector is as large as biotechnology/biomedical and IT and Telecommunications, and is larger than defense and security, agribusiness, food processing and technology. While over half of the creative industry employees are located in the Denver Metro Area, Creative Industries are a significant portion of rural Colorado employment. The rural parts of the state account for 13.3% of total employment and 8.4% of creative industry employment in Colorado. In Region 9 the program priorities for this cluster are similar to those adopted by the Office of Economic Development and International Trade (OEDIT).

### **Unemployment Rates**

Unemployment Rates 2010				
Archuleta	10.2%			
Dolores	17.5%			
La Plata	7.2%			
Montezuma	9.2%			
San Juan	10.8%			
Colorado	8.9%			
National	9.6%			

When unemployment rates are compared, we see that only La Plata County was below state and national levels in 2010. Historically Dolores and San Juan Counties have higher unemployment rates than the rest of the region. This is probably due in part to their low populations. These rates are seasonally adjusted because unemployment rates are generally much higher during the winter months.

## **Employment and Income 2009**

Historically, industry sectors such as mining, agriculture and forestry supported the southwest Colorado economy. Currently these industries provide less than 7% of employment earnings in the regional economy. These base industries have been replaced over time by tourism.

Region 9	# of	% of	Income	% of
2009 Total Employment	Jobs	Jobs	(\$000)	Inc.
Agriculture	1,782	3%	19,654	1%
Mining & Utilities	1,311	3%	136,864	6%
Construction	5,096	10%	271,766	12%
Manufacturing	1,135	2%	43,315	2%
Transportation & Warehousing	1,068	2%	57,270	3%
Wholesale & Retail Trade	6,844	13%	256,599	12%
Information	570	1%	32,671	1%
Finance,Insurance & Real Estate	3,371	7%	164,550	8%
Services	19,877	39%	713,117	33%
Government	10,048	20%	485,996	22%
Total	51,102	100%	\$ 2,181,802	100%

In 2009 the service sector provided 39% of jobs and 33% of job income in the region. These services jobs include highly paid professionals as well as lower paying unskilled labor. Trade is also important in the regional economy, providing 25% of jobs and 18% of job income.

Source: Colorado State Demography Office 3-11

Specifics regarding the number of jobs in each sector are also included with each county's profile.

## **Total Personal Income**

Region 9 - 2008 TPI	(\$000)		
Earned Income <sup>1</sup>	\$	1,972,707	
Residency Adjustment	\$	108,269	
Dividends,Interest & Rent	\$	815,952	
Transfer Payments	\$	434,573	
Total Personal Income	\$	3,331,501	

When all sources of income in the local economy are combined, we can estimate Total Personal Income (TPI).

<sup>1</sup>Earnings by Place of Work minus SSI Contributions

Source: Bureau of Economic Analysis

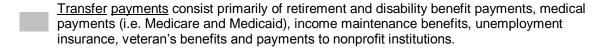
The Colorado Demographers Office also provides <u>estimates</u> for TPI in 2009. As this table illustrates, the five counties in southwest Colorado vary in their composition. Most income is job based (employment), though significant amounts of income enter our economy from other sources, such as transfer payments and dividends, interest and rents. Payments to retirees accounted for almost 15% of the estimated TPI in the region in 2009. That was \$502,828,950!

2009 Total Personal Income Estimates							
	Employment	Residency	Div., Int	Transfer	Total	60+	
	Income	Adjustment	& Rent	<b>Payments</b>	(\$000)	Share	
Archuleta	53%	3%	33%	11%	\$ 358,774	21%	
Dolores	49%	18%	20%	13%	\$ 55,369	16%	
La Plata	71%	-1%	24%	5%	\$ 2,114,441	14%	
Montezuma	55%	12%	22%	10%	\$ 802,919	16%	
San Juan	56%	12%	24%	8%	\$ 20,690	15%	
Region 9	65%	3%	24%	7%	\$3,352,193	15%	

Source: Estimates provided by the Colo.State Demographer

#### **Total Personal Income Trends**

These charts allow us to see how the components of Total Personal Income have changed over the long term in each of the counties. Generally, we see a trend of decreasing employment income, and increasing income from dividends, interest and rent, and transfer payments. Residency adjustments illustrate how the economy of each county is tied to the others as people commute to where the jobs are, but take their paychecks home. For more information regarding commuter patterns go to <a href="http://dola.colorado.gov/demog/WorkerFlow.cfm">http://dola.colorado.gov/demog/WorkerFlow.cfm</a>.

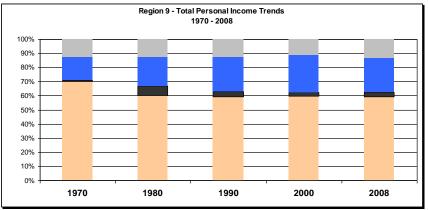


<u>Dividend</u> income is income that is paid in cash or other assets to stockholders by corporations in the U.S. or abroad. <u>Interest</u> income consists of monies received from money market mutual funds and interest from other sources. <u>Rental</u> income consists of income from the rental of real property, the net income of owner - occupants of non-farm dwellings, and the royalties received from patents, copyrights, and from the rights to natural resources.

Residency adjustments are made when a person receives income for work performed and paid for from outside their place of residency, (i.e. commuters). Negative numbers mean that more people were coming into the county for work than were commuting out.

Earnings are derived by place of work, including farm and non-farm earnings.

Generally, from 1970 to 2008, we see a trend of decreasing employment income, and increasing income from dividends, interest and rent, and transfer payments. Residency adjustments illustrate how the economy of each county is tied to others as people



commute to where the jobs are, but take their paychecks home. <a href="http://www.bea.gov/regional/reis/">http://www.bea.gov/regional/reis/</a> (Table CA04)

## Per Capita Income

Per Capita Income 2008						
	Р	CI 2008	% of USA			
USA	\$	40,166	100%			
Colorado	\$	43,021	107%			
Archuleta	\$	29,206	73%			
Dolores	\$	30,134	75%			
La Plata	\$	40,677	101%			
Montezuma	\$	32,858	82%			
San Juan	\$	37,914	94%			

Total personal income divided by the total number of residents in the county gives us an estimate of per capita income (PCI). This table highlights how the counties in our region measure up against the rest of the state and the nation. Unfortunately 2008 is the latest year available.

Source: Bureau of Economic Analysis

### TRIBAL POPULATIONS

The planning and management area of Region 9 includes two Indian reservations, including the Southern Ute and the Ute Mountain Ute Indian Tribes. Historically, the Utes roamed throughout the Four Corners and Western Colorado in several distinct hunter-gatherer bands. The Southern

Ute divisions were the Muache, Capote, and Weeminuche. As a result of the Dawes Act in 1887, and the subsequent Act of 1895, the previously defined Southern Ute reservation lands were broken into two distinct units. Most of the Muache and Capote Utes accepted farming allotments in the eastern portion, which became known as the Southern Ute Indian Reservation with agency headquarters at Ignacio, in La Plata County. The Weeminuche Utes, led by Chief Ignacio, refused to accept allotments and moved to the western portion, which became known as the Ute Mountain Ute Indian Reservation with agency headquarters at Towaoc, in Montezuma County.

## **Ute Mountain Ute Indian Tribe**

The Ute Mountain Ute Tribe's land is located in southwest Colorado and eastern Utah, and covers 910 square miles. The land is held in trust by the United States government. The Tribal enrollment in 2011 was 2,095, with the majority of the members living on the reservation in Towaoc, Colorado (Montezuma County), and in White Mesa, Utah. The Tribal census shows the largest percentage of the members are in their early twenties and younger.

The Ute Mountain Ute Tribe is a major contributor to the regional economy. In 2011, the Tribe was one of the largest employers in Montezuma County with 1,578 jobs in all aspects of tribal government and operations, and at their Ute Mountain Casino and RV Park. The Tribe has just updated a *Ute Mountain Ute Tribe Comprehensive Economic Development Strategy* (2010).

In the 1950s, the Bureau of Reclamation completed a project that diverted water from the reservation to non-Indian ranches. A dispute followed, and settlement of those water rights issues in 1988 led to the Federal mandate and creation of the Ute Mountain Farm and Ranch Enterprise. The Ute Mountain Ute Tribe's Farm and Ranch Enterprise is an irrigated agricultural project designed for 7,634 acres of Ute Mountain Reservation land. The purpose of the project is to operate a market-oriented agricultural enterprise that maximizes successful commercial ventures in addition to providing skilled, year-round employment. When completed, the state-of-the-art farm will feature 109 center-pivot sprinkler plots, ranging in size from 40 to 140 acres each.

The Enterprise continues to experiment. The land provides opportunities for valuable research and training of staff and tribal members. The Enterprise uses the latest technological advancements, including computerized links, radio-controlled irrigation systems, and weather station equipment. These peripherals are integrated into an information centralized network at the Farm and Ranch headquarters. Enterprise staff tests many varieties of crops to determine which are best for the climate and soil types or the area. Test plots include alfalfa, corn, and wheat, and a wide variety of other crops are under consideration. The Farm and Ranch Enterprise offers special training and summer youth programs for tribal members. Ute Mountain Ute apprentices work with professional and technical staff, gaining hands-on experience, as well as learning the duties and responsibilities of all positions. The Tribal cattle herd is a part of this successful tribal enterprise.

The U.S. Bureau of Reclamation Dolores Irrigation Project is a water storage and delivery system for irrigation in Southwest Colorado. Water is stored in the McPhee Reservoir, located ten miles north of Cortez. The Towaoc Canal links the reservoir to the Ute Mountain Ute Indian Reservation about 41 miles away. The canal delivers an average of 22,900 acre-feet of water annually to the reservation for agricultural uses. The project is an outstanding opportunity for the Ute Mountain Ute Tribe, bringing technologically-advanced agricultural capabilities to the reservation and allowing the tribe to compete as a viable producer in today's marketplace.

The Weeminuche Construction Authority is a commercial construction enterprise owned and operated by the Ute Mountain Ute Indian Tribe. Since 1985, the Weeminuche Construction Authority has provided comprehensive construction services to a wide range of clients including federal, state, and local municipalities, agriculture concerns, and building and heavy construction. Projects include oil and gas field construction, residential and commercial buildings, heavy construction, road building, canals and water systems, sand and gravel, and municipal improvements. Projects are performed with maximum use of Indian laborers and craftsmen.

Additional skilled craftsmen from the local work force complement the staff, allowing them to handle projects over a wide range of size and scope.

The Ute Mountain Casino opened in September of 1992, creating hundreds of new jobs for the tribe and others in the Four Corners area. Approximately 78 percent of the employees at the casino are Native Americans. The Ute Mountain Gaming Commission, mandated by the Tribal Gaming ordinance of November 1991, is responsible for the regulation and control of gaming on Ute Mountain Ute Tribe reservation lands. After expenses, casino revenues are allotted to the Tribal Programs and Operations, Education, Economic Development, and Social and Family programs.

The Sleeping Ute RV Park opened in April of 1994 and is located within a short walking distance of the casino. The 84-site park hosts full-service recreation vehicle sites, as well as tent and teepee areas. This tribal enterprise was funded in part by a Bureau of Indian Affairs business development grant and partially by economic development funds.

Travelers from all over the world visit the Ute Mountain Tribal Park, including the visitors' center and tours. The Tribal Director and staff describe the Pueblo culture and Ute Mountain Ute history to visitors. The tribal park has a non-profit foundation for ruins stabilization, with support of the Ute Mountain Ute Tribe and the Colorado Commission of Indian Affairs. The Park Director and staff believe that a low-impact type of tourism will protect the natural resources, preserve the ruins and environment, and provide visitors with a quality experience on the lands of the Ute Mountain Ute Tribe.

Source: <a href="http://www.utemountain.com">http://www.utemountain.com</a>

## Southern Ute Indian Tribe

The Southern Ute Indian Tribe is a sovereign entity and governs its own people, resources, and lands through a seven-member council. The tribal council includes a chairman and six council members elected by the tribe's membership. The Tribe has its own constitution, code of laws, and a tribal court system. Exercising powers of self-government is critical to maintenance of the Tribe's identity as a sovereign entity that pre-dates the federal and state governments. The powers exercised by the Tribe and the rights enjoyed by its members are the result of the Tribe's sovereign status and the unique trust relationship between Indian tribes and the federal government. In many cases, the rights of tribal members that are recognized by the federal and state governments arise from treaties entered into between the Tribe and federal government. The Tribe regularly collaborates on a government-to--government basis with federal, state, and local agencies in areas of mutual interest, such as transportation, natural resources development, and environmental protection,

The Southern Ute Tribal enrollment is 1,400, with the majority of the members living on the reservation. The reservation land base includes 750,000 acres, seven major rivers, and the Navajo State Park. Tribal headquarters are located adjacent to the Town of Ignacio, in La Plata County.

Over the past 25 years, the Southern Ute Indian Tribe has become a major player in the local, state, and national economy. The Tribe is aggressively creating and operating new businesses both on and on-Reservation in the areas of oil and gas production, natural gas gathering, real estate development, housing construction, sand and gravel products, media, and gaming. The Tribe currently is the largest employer in La Plata County. The Sky Ute Lodge and Casino opened in 2008. Through contributions of a percentage of its annual gaming revenue, the Tribe is a supporter of many area non-profit organizations. The Southern Ute Growth Fund was started in 1999 and has investments spanning America and Canada. The Growth Fund reports a portfolio of over \$1 billion. In summary, Tribal activity, including gaming, generates millions of dollars per year in La Plata County, in direct and indirect economic activity.

The Tribal Employment Rights Ordinance (TERO) is a Tribally-adopted law that aims to promote the employment of Indians on or near the Reservation, to provide a preference in contracting for businesses owned by Indians, and to prevent discrimination against Indians in the employment practices of employers conducting business within the jurisdiction of the Tribe, in a manner consistent with federal law. The TERO extends to all businesses, including those owned by non-Indians, in certain commercial dealings, contracts, leases, or other arrangements or activities affecting the Tribe.

Source: "Living in La Plata County - The Southern Ute Indian Tribe" brochure.

## STRATEGIC PLANNING

# **Community Values**

During the CEDS process we continue to discover how each county is at a different place in terms of their goals and objectives around economic development. However, throughout the region, many of the same community values continue to surface including:

- Appreciation for the heritage and landscape upon which the communities of southwest Colorado have been built
- Diverse and sustainable economies that pay livable wages, offer meaningful work, and create diverse, well-balanced economies
- Building the capacities of the local economic development groups
- Housing and health care that are affordable, accessible and efficient
- Effective telecommunications infrastructure and technology training services that will make our region competitive and a participant in the global marketplace
- Business parks that attract new businesses, help existing businesses, and are in keeping with local land use policies and community values
- Balancing ecological and economic needs, encouraging problem-solving, constructive dialogue and solution finding between all sectors
- Adequate infrastructure that is fairly paid for by communities, developers, and business entities
- A strong agriculture sector so that our open lands and small-town living can be preserved
- Transportation systems that allow us to travel in a safe, efficient and cost-effective manner
- Effective education systems that are preparing students to meet the academic and technological challenges of tomorrow.
- Appreciation for community enhancements such as the arts, cultural attractions, recreation opportunities, and recognition that these enhancements are tied to economic development success
- An accessible and adequate supply of community services including human service resources and law enforcement.

# **Key Economic Development Directions**

Colorado's Bottom Up Economic Development Initiative asked for residents across the State, county by county, to share their stories, challenges, and strengths by developing a strategic economic development plan for each county. These county plans were developed and then representatives from each county team and the two Tribes developed a comprehensive regional plan. The top five economic development priorities are listed below. Each county's economic development priorities are also included individually in the CEDS.

- 1) Expand and maintain broadband/fiber optics infrastructure to support and anticipate the needs of future growth.
- 2) Improve community amenities necessary to attract, retain and grow business; including healthcare, education & housing.
- 3) Be business friendly and make the region an effective and efficient place to do business.
- 4) Encourage the retention and growth of existing businesses.
- 5) Diversify the economy and improve access to markets.

## **Vision Statement**

An examination of these shared values led to the creation of an economic development vision statement that could be applied region-wide. A vision statement must encompass a shared vision one that is a broad but concise description of what we as a community want to be in the future in regards to economic development. The following vision statement describes the assets and values and focuses on moving the region toward achieving our goals for the future.

"We strive to encourage economic development that preserves our small-town and traditional heritage, takes care of our natural resources, and provides opportunities for our children to stay in southwest Colorado."

# **SWOT Analysis**

The starting point for a credible economic development strategic plan is an assessment of the strengths and weaknesses of the region in regards to economic development. This is the baseline by which the region begins to understand where they are in relation to the vision. Once the SWOT analysis is completed, strategies for the solutions can begin to be identified. By working with the communities in the region the following SWOT analysis and strategies were identified:

### **Strengths**

- Entrepreneurial spirit
- Diversity of landscape
- Scenic beauty (agricultural and public lands)
- Local cultural, historical assets
- Small-town living and lifestyle
- Recreational opportunities
- Fort Lewis College & other institutions of higher learning
- Climate
- · Retirees with skills

## Weaknesses

- Not many opportunities for jobs, higher wages
- Economies that are highly dependent on one or two sectors or seasons
- Loss of open space and a decline in the agriculture sector (related issues)
- · Lack of telecommunications infrastructure in the outlying areas

- Lack of available, trained workforce, housing, health care and childcare could challenge existing businesses and new business relocation
- Inadequate public infrastructure in some areas
- Lack of resources to deal with the most challenging issues (e.g. housing and transportation)

## **Opportunities**

- Tourist destination with major attractions
- Availability of air service
- Value-added marketing, strategies for enhancing agriculture
- Development of business incubators
- Healthy Lifestyles of residents
- Amenity migration ~ people want to live and work here
- Development of telecommuter businesses
- Widely diverse, well-educated population
- Networking among companies for mutual support and benefit.

#### **Threats**

- Growth could ruin or compromise the qualities that make the region where people want to live
- Transportation & public infrastructure's capacity unable to meet demands of growth
- Natural resource management
- Funding cuts at all State agencies
- Regulatory barriers

# **Regional Goals, Actions & Implementation**

Ideally, the goals of a region should reflect its vision statement. A goal is a specific statement of what the region would like to be or achieve. Goals should be focused on the priority issues impacting the development of the region. The actions should then reflect the steps needed to accomplish the goal. By applying goals and actions, we can begin taking the steps towards the vision. The regional goals and actions cover 17 areas required by the Economic Development Administration.

## **Economic and Community Technical Assistance**

Goal: Build the capacities of county-level economic development groups that are working to accomplish prioritized, locally defined economic development projects.

#### Actions:

- 1. Build the capacity (ies) of the county-level economic development groups by providing organizational, technical and financial assistance, where possible and needed.
- 2. Assist county-level economic development groups in accomplishing priority listed in the Community Development Action Plans (CDAPs).

### **Work Force Issues**

Goal: Better understand southwest Colorado's workforce so as to match employers' needs with qualified employees. Improve retention, promote employees' skills, and provide "new economy" training opportunities. Address work force impacts such as child care, affordable housing and transportation.

#### Actions:

- 1. Be an active participant of the Southwest Workforce Center Board and assist in identifying workforce issues, needs and action steps.
- Analyze opportunities and partnership networks, and utilize state employment programs to develop and improve technology training facilities and programs.
- Promote and support training for employers and employees on better understanding the needs of the current workforce and available programs for assistance.
- 4. Increase knowledge and utilization of workforce centers, and state programs by area employers.

#### Infrastructure

(sewer, water, roads, fire and emergency services, electricity and telecom)

Goal: Ensure that southwest Colorado has the adequate physical infrastructure needed to plan for and meet its future economic development and workforce needs.

#### Actions:

- 1. Ensure that infrastructure systems that are at capacity are identified in the CDAPs and plans are made to address future expansion issues in a timely manner.
- 2. Ensure that community needs are considered in decision-making involving infrastructure planning done by any relevant state agencies such as the Colorado Department of Transportation (CDOT).

## **Telecommunications**

Goal: Ensure that southwest Colorado has the telecommunications infrastructure and information technology training needed to meet the demands of a competitive global marketplace.

- 1. Implement the SCAN (southwest Colorado Open Access Network) and continue to work developing improved telecommunications infrastructure including: redundant fiber connectivity to the national "backbone", adequate bandwidth for new technologies, affordable rates, and services in rural areas.
- 2. Ensure that once the necessary telecommunications infrastructure is in place, adequate training and other services are available that will help businesses use the new technologies.
- 3. Improve 911 services with fiber as appropriate.
- 4. Meet national Broadband Plan goals by 2015.

## **Recruiting New Jobs & Businesses**

Goal: Strengthen and diversify the regional economy by recruiting diverse businesses that strengthen the job market(s), and are compatible with community goals.

#### Actions:

- 1. Continue to support technology, adequate infrastructure and services needed for businesses (see telecommunications and infrastructure).
- 2. Increase technical assistance services for businesses locating to southwest Colorado through economic gardening services, collaborations between economic development groups, the Small Business Development Center and Region 9 EDD.
- 3. Facilitate access to capital, and expand Business Loan Fund.
- 4. Partner with the State Enterprise Zone program, the Office of Economic Development and local economic development groups on, prospecting trips and statewide marketing/advertising campaigns to attract businesses to the region.
- 5. Work in partnership with the southwest Colorado Travel Region, tourism offices, and chambers to create marketing programs that inform tourists of business opportunities in the region.
- 6. Capitalize on the amenities of the region in retaining and creating new jobs.
- 7. Support the development of facilities (business incubators, convention centers) in communities that desire to support such infrastructure.
- 8. Continue to assist communities in expanding, starting or "filling up" their business parks by providing development, marketing and capital assistance.
- 9. Reduce regulatory and legislative barriers that inhibit desirable businesses from relocating to the area.

## **Strengthening Existing Jobs & Businesses**

Goal: Improve, diversify and strengthen the regional economies by helping <u>existing</u> businesses to be more effective, to expand, and to attract and retain a viable, competitive workforce.

- 1. Include actions from "Recruiting New businesses" above.
- Establish business incubators working with county and regional partners that can grow and provide training for existing businesses.
- Increase business technical assistance through the Small Business Development Center at Fort Lewis College. This includes expanding the Business Advisor Group, business networks, and economic gardening services, to assist businesses with trade leads, new market(s) identification and other specialized businesses opportunities.

- 4. Develop a collaborative business retention program
- 5. Develop improved technology training, education facilities and programs that can train or re-train workers and employers in the region for emerging technology jobs (a.k.a. the training of "knowledge workers").
- 6. Develop and implement specific strategies to reduce "retail leakage".
- 7. Identify and monitor policies that might negatively impact businesses.
- 8. Implement projects that strengthen Main Streets/downtowns.

## Goal: Identify and foster creative industries.

- Increase access to direct financial support by persuading traditional funders and lenders of the value of investment in creative industries, by exploring growth in public/private partnerships, exploring expansion of existing funding programs to include creative industries and reaching out to marginalized individuals and businesses.
- Create and expand professional development and networking opportunities by encouraging Chambers of Commerce to enlist more creative businesses as members, focus on SBDC training for creative industries, identify and empower creative leadership to carry the message, and create policy partnerships.
- 3. Promote the regions creative industries including art and cultural events, craft, food, film, publishing and technology by developing awareness of the region's creativity and creative products; encouraging tourism agencies to highlight local creative assets; and by identifying and supporting programs that celebrate creative accomplishments and cultural heritage.
- 4. Increase access to arts and creativity skills in all levels of education by helping creative businesses connect with education opportunities; supporting schools that use the arts as a strategy for student success and workforce readiness; and by expanding the knowledge base of legislators, education leaders and other stakeholders about the role of arts learning.
- 5. Stimulate increased support by presenting to and educating local government officials and community leaders about the impact of creative industries; developing resources for communities to utilize the arts and creative assets as a strategy for economic and community development; encourage the creation of creative districts; encourage front line community tourism and visitors bureaus to be familiar with creative assets; and compile data on the region's creative communities.

## **Enterprise Zone Program**

Goal: Continue to operate the Enterprise Zone program as a tool for improving the economies of qualified areas.

- 1. Operate and promote the program as per the State's guidelines.
- 2. Advocate policy changes when appropriate.
- 3. Measure program progress and increase participation annually throughout the region.

### **Tourism**

#### Goal: Maintain, develop and diversify the tourism industry in the region.

#### Actions:

- 1. Develop innovative, participatory and educational tourism initiatives that involve: heritage tourism projects, agri-tourism, and cultural tourism.
- 2. Support and enhance tourism efforts initiated by the Native American cultures and tribes in the region.
- 3. Continue to work in partnership with the southwest Colorado Travel Region and the State to carry out marketing programs that promote the attractions and cultural amenities of the region. Including those that expand the marketing of special events; that ensure the development of adequate infrastructure for cultural activities; and that assist communities in developing "shoulder season" tourism attractions.
- 4. Maintain the quality of life features that attract tourists to the region such as open space, public access to trails, a clean environment, and ample recreational opportunities.
- 5. Utilize direct base economic analysis to better understand the components of tourism based employment and target marketing efforts to areas of tourism that are more sustainable.
- 6. Assist the Four Corners Film Office to bring productions to the region increasing area promotion, and resulting in an expanded film-based tourism market.
- 7. Build close working relationships with public land offices.

## **Agriculture**

## Goal: Support and assist the agriculture sector to become more viable.

- Develop data gathering strategies that will accurately portray the agriculture sector.
  Work with farmers and ranchers, and other interested parties, to identify, gather
  and disseminate agriculture economic data that is complete and can accurately
  measure the value of the sector in our region.
- 2. Keep the agriculture resources viable so farmers and ranchers can earn a living in the industry by:

- a. supporting the eradication of noxious weeds
- b. ensuring an adequate agricultural water supply
- c. promoting stewarding initiatives
- d. encouraging land use practices that keep the resource viable
- e. working in concert with the DOW and ranchers to manage wildlife concerns
- 3. Provide farmers and ranchers tools for estate planning and reducing their taxes including implementation of such tools as conservation easements and incentives for agricultural lands preservation (e.g. the transfer of development rights).
- 4. Increase awareness of and utilization of value-added agricultural marketing and production strategies.
- Support the development of local markets for locally grown products, including Farmer's Markets.
- 6. Support the businesses that can "dovetail" with crops grown by local farmers and ranchers.
- 7. Encourage stronger leadership in the sector as well as increased cooperation and communication.

# **Affordable Housing**

# Goal: Meet the diverse Housing needs in southwest Colorado.

#### Actions:

- 1. Encourage collaborative efforts between housing providers to provide comprehensive, region-wide services.
- 2. Identify and monitor policies, regulations and local land use plans that might impede homeownership.
- 3. Encourage and support the development of private/public partnerships to provide affordable housing units to the region.
- 4. Prepare for the aging demographic shift in the region and the resulting changes in desired housing stock.
- 5. Encourage programs/education to increase homeownership success such as:
  - a. Pre-purchase /post purchase counseling and education
  - b. Down payment assistance
  - c. Weatherization/rehab services
  - d. Foreclosure counseling
  - e. Renter/homeowner advocacy.

## **Land Use Issues**

Goal: Keep our public and private lands viable and economically and ecologically healthy so as to foster improved economies in each county, and adequately plan for the future.

- 1. Finalize the San Juan National Forest Forest Plan with a focus on balancing the economic, ecological and social needs of the region.
- Develop or continue to implement locally-created and defined land use policies and comprehensive plans that help manage growth, and plan for transportation, services (fire, water, sewer), infrastructure, housing, recreation and economic development needs and priorities.
- 3. Support the development of projects that meld economic and ecological goals together so that land-based jobs are maintained and the environment is improved.
- 4. Improve coordination and collaboration with federal land management agencies.

#### **Health Care**

## Goal: Ensure adequate health care services are available and accessible.

#### Actions:

- 1. Work with existing groups to find solutions to the funding crises that the health care industry faces.
- Ensure tax credits and loans are available.
- 3. Ensure that the current level of services can continue to be provided for our growing region.
- 4. Encourage regional solutions in health care strategic planning and resource distribution, including addressing the issue from a Four Corners perspective.
- Assist each community in meeting the facility needs of its primary health care facilities.
- 6. Increase collaboration between healthcare professionals, facilities, boards and stakeholders across communities.

#### Education

# Goal: Support a successful continuum of education, from preschool through higher education.

- 1. Identify education/training needs in the region and provide a variety of educational opportunities.
- 2. Develop strategies for tele-technology training to meet the future telecommunications industry's workforce needs and provide opportunities for young people to stay in the region after high school and/or college.
- Work to increase collaboration and service enhancement between education institutions.

### **Child Care**

## Goal: Expand the availability, affordability, and quality of childcare.

#### Actions:

- 1. Provide information on tax credits, loans and other potential funding resources for eligible applicants who are expanding or staring child care centers.
- Support on-site childcare centers in businesses where such centers can be feasible.
- 3. Support the provision of training programs, services and policies that increase the quality of childcare in the region.
- 4. Assist in the development of non-traditional-hour child care (e.g. 24-hour care, 12-hour care, weekend care).
- 5. Assist with administering grants for childcare projects.

## **Community Enhancements**

Goal: Facilitate the creation, enhancement or expansion of community amenities or "essentials" which make southwest Colorado an attractive place to live for current and future residents.

#### Action:

- 1. Ensure that community amenities are identified and prioritized in the CDAPs.
- 2. Assist communities in implementing historical, recreational, artistic and/or cultural preservation projects through:
  - a. providing technical assistance
  - b. assisting with grant support
  - c. providing loans to implement projects
  - d. offering information and referral resources

## Networking

Goal: Improve the region's effectiveness and collaboration through expanded networking with other organizations.

- Convene regional groups with Region 9 EDD to address focused economic development issues, monitor implementation of the CEDS and tackle issues that can be better addressed through regional collaboration.
- 2. Work with the Small Business Development Center and county economic development groups to collaborate resources and expertise to form a one-stop-shop to meet needs and priorities of the region's communities.
- Provide opportunities for county-level economic development groups to meet and build their support network.

4. Work with the southwest Colorado Council of Governments to strengthen regional leadership by defining regional issues, advocating for mutual goals, and administering regional programs.

### **Evaluation and Measurement**

Goal: Expand the region's ability to monitor economic vitality and the attainment of goals and strategies outlined in the CEDS.

- 6. Continue to work with the State Demographer to refine and use the Base Analysis methodology. Establish targets utilizing direct base analysis.
- 7. Support the continued development and distribution of community indicators and regional statistical documents, and track their data trends.
- 8. Utilize professional expertise for regional research projects.
- 9. Expand CEDS economic development measurements.
- Provide IMPLAN modeling in region as evaluation and measurement resource for businesses.

# **BOTTOM UP - ECONOMIC DEVELOPMENT STRATEGY**

Region 9: La Plata, Archuleta, Montezuma, San Juan and Dolores Counties

Priority(ies)	Expand and maintain broadband / fiber optics infrastructure, to support and anticipate the needs of future growth.	Improve community amenities necessary to attract, retain and grow business. Community essentials of focus are: Healthcare, Education, Housing	Be business friendly and make the region an effective and efficient place to do business	Encourage the retention and growth of existing business.	Diversify the sconomy and improve access to markets [Infrastructure]
Strategy(ies)	Adopt policies and create cooperative government/ private sector partnership that will get us to the FCC  Meet the National Broadband Plan of 50 megabits per second download and 20 megabits per second upload by 2015.  Expand the number of households capable of sending and receiving multiple channel high-definition video to reach the 2020 FCC standard of 100 mbps download and 50 Mbps upload.  Improve area connectivity and fiber optic coverage	Identify gaps and resources in community essentials  Reduce regulatory and legislative barriers that inhibit the delivery of the community essentials	Develop a non-adversarial culture in all state local and federal government agencies  Develop a collection point (internet based, etc) in Region 9 for new business prospects to know who to work with, in the region. (Should be replicated around the State)  Improve access to capital  A business friendly marketing campaign	Tourism - Increase funding for marketing and advertising tourism.  Preserve heritage industries through financial stabilization, possibly including a form of loan or interest forgiveness  Evaluate local energy resources  Creating an environment to exploit local energy resources  Increase technical and vocational education for high school and 18 to 20 year olds  Promote and encourage healthy and vibrant regional downtowns  Reinstate very important energy impact grants	Upgrade infrastructure (broadband, transit, etc to attract more diverse industries:  Transportation: - Support competitiveness of airfare to/from Durango airport - Streamline efficiency of shipping/receiving freight  Work with CDOT to upgrade roads, improve responsiveness to business expansion and create a more consistent and timely access planning and approval process

	Promote Open Access Networks.				Regional branding initiative
					Establish
					Permanent Facility
					(Mountain Studies
					Institute) for
					Education and
					Science
	Bring up to FCC	Identify regulatory barriers	Red-tape:	State Tourism Office	Improve
Action(s)	Standard Plan for	that are inhibiting	- Stream-line local land-use, planning	charge \$1.00 fee to	consistency of
	2015 for broadband:	community essentials	and permitting processes to be more	support tourism through	CDOT regulations/
	50 megabits per		business friendly	rental cars	standards across
	second download	Collaborate to review PPOR	- Better coordination with federal		region
	and 20 megabits per	formulas	land management agencies (USFS and	Provide loan forgiveness	
	second upload		BLM)	or interest reduction for	Work to enhance
		Increase the legislative	CDOT needs to be more standardized	students that pursue a	assets with focus
	Leverage available	advocacy and coordination of	equitable and consistent	degree in a heritage	on business:
	state and federal	regional school boards to	- Change the culture of state agencies	industry (e.g. ranching,	Highlight small
	funding for	impact regulations and	(CDOT, Division of Reclamation and	farming, mining)	airports, carriers,
	broadband	barriers to quality education	Mine Safety, CDPHE, etc) to		in a focus towards
	infrastructure		recognize their role in economic	Establish a loan loss	business. Rather
	(example, Southwest	Work to increase	development	reserve fund for heritage	than going to
	Colorado COG's	collaboration between	- Specific technical assistance: Charge	industries and energy	Denver
	SCAN project and	healthcare professionals,	DOLA with developing a model		
	EagleNet).	facility managers, boards and	permitting process with menu items	Develop a list of local	Asset map of
		stakeholders across	for local communities	business experts to use	transportation
	Close the fiber optic	communities.	- Strive for the simplification and	as mentors	resources and
	gap between		consistency of regulations on a State		carrier capacity
	Silverton and the	Bring in experts such as Colorado Rural Health Center	Level	Develop a regional	for business.
	adjacent counties (37			Rising Star Program	Provide
	miles).	to educate the general public	New Business Prospecting:	recognizing customer	information
	Improve 911 services	on health policies and	Create a one-stop shop – collecting and disseminating information	service	needed by new businesses movine
	with fiber optic	impacts.	needed for new business prospects	Streamline the pathway	into the region
	capabilities.	I	via Region 9 (where local	going through the	mito the region
	capabilities.	Implement recommendations from	communities cannot serve that role)	regulatory process for	Work to help
	Repeal SB-152	regional housing groups	- OEDIT to drive a State-wide	energy industry while	business transport
	(Qwest Bill)	about affordable housing.	prospecting flow of information, as	continuing to protect	goods more
	(direct bill)	about anordable nousing.	prospecting now or information, as	continuing to protect	Poogsillore

	immediately.	(Montezuma County Housing	OEDIT used to do	the public interest	cheaply
		Authority, Colorado Housing,			
		Housing Solutions, Regional	Capital:	Provide incentives for	Support efforts to
		Housing Alliance, Habitat for	- Expand lending on a local level	non-traditional and	attract new air
		Humanity	- Encourage the State to create a	emerging energy	service and lower
			county-level lending group extending	industries (geothermal,	fares for
		Prepare for demographic	loans with the equivalent of a 10-15	solar, wind, etc)	passengers.
		shift in the type of housing	year treasury rate, tax free with USDA		
		stock needed	backing to help fund start-up and	Create mentoring	
			expanding businesses (CHFA, SBA)	programs for technical	
		Identify and monitor policies	- Develop new revolving loan funds	and vocational	
		and regulations that might	and microloan funds in Counties	curriculums	
		impede home ownership	where they do not already exist (CDC,		
			Chamber, etc)	Devise an assessment	
		Support a successful	- Reinstate energy impact funds—	tool to determine what	
		continuum of education from	keep your hands off!	our existing businesses	
		preschool through higher		need to grow or improve	
		education, for all ages	Marketing campaign:	business	
			- Accomplish everything that has		
		Identify education/training	been listed		
		needs in the region and	- Promote business friendliness along	Explore mechanisms to	
		provide a variety of	with, quality of life, uniqueness of	encourage downtown	
		educational opportunities	Four Corners Area in conjunction with	revitalization with input	
			tourism to bring people and	from downtown	
			businesses ("Come to visit. Be	businesses	
			prepared to stay!")		
			- A quality and targeted workforce		
			development program		
	Increase affordable	Ensure that quality	More capital available	Job growth that meets	Increased access
Expected	bandwidth capacity	community essentials are		or exceeds population	to markets
Outcome(s),	to 50 megs or greater	available to attract, retain,	Attracting new businesses to the	growth	
i.e.,	in all towns and	and expand businesses	region		Bring ticket costs
Measurable	growth areas by 2015				at airport to no
Results			Stop local leakage of retail sales		more than 110%
	Ensure that 99% of				of national
	residents have access				average
	to high speed				
	telecommunications.				