

# Economic Impacts: National Conservation Area Designation

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*Alpine Triangle: Colorado  
August 2010*

*Prepared For:*



*Prepared By:*



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## INTRODUCTION

This report represents an objective analysis of the possible impacts of a Federal National Conservation Area designation in the Alpine Triangle – the political boundaries utilized in this study include the counties of Hinsdale, San Juan, and Ouray.

This report is not exhaustive and no primary research was conducted to complete the analysis. Where additional research or efforts could be considered helpful are noted within the specific section.

The primary question to be addressed in this analysis is:

***What economic effects would changing BLM management status of the Alpine Triangle from the existing powers emanating primarily from the Federal Land Policy Management Act (1976) to National Conservation Area status have?***

In short, we find that this name/designation/management status is likely to impact these three variables:

1. Possible recreation oriented visitation and use patterns including the attendant impacts on tourist and local expenditures and local economies, business, and government revenue collections
2. Impact on traditional industry that takes place in the triangle – mining, grazing, and timbering
3. Impact on the budget and management style of agency

This study expressly and specifically does not consider the following:

1. The political or philosophical implications of federal government management power expansion or removal or the legal/constitutional issues surrounding preemption and federal/local government interactions and relationships
2. The empirical or theoretical impacts of ecological system preservation or utilization from a scientific or philosophical standpoint.

We do not address these topics because of an opinion about their legitimacy or accuracy – they are not considered simply because they lie outside the scope of this limited inquiry focused on economic impacts.

Finally, this report makes the following two assumptions:

1. That the Alpine Triangle without a National Conservation Area designation will continue to be managed into the foreseeable future for multiple uses including resource extraction and extensive and diverse recreational purposes as provided for under the Federal Land Policy Management Act and as outlined in the recently released Recreation Area Management Plan.

That if the Alpine Triangle were to be designated as a National Conservation Area – that the designation and accompanying management while not identical in every detail would be very similar in theme to the 16 other previously designated National Conservation Areas.

## SECTION ONE. FRAMING THE QUESTION OF IMPACT - REGIONAL ECONOMICS AND BASELINE INFORMATION

The BLM's, *Alpine Triangle Recreation Area Management Plan (RAMP)*, defines the Alpine Triangle as, "186,252 acres of public land between the towns of Lake City, Silverton, and Ouray in southwest Colorado". The triangle includes the alpine loop byway, the headwaters of the Lake Fork of the Gunnison River and the Animas River. Portions of the triangle are in Ouray, San Juan, Hinsdale and Gunnison County. The majority of the area is located in San Juan and Hinsdale counties. This analysis focuses on impacts of an NCA designation on the local economies of Hinsdale, San Juan and Ouray counties. Gunnison County due to the very small amount of the triangle within the county's borders and the fact that the primary access points to the triangle lie in the other three counties.

The following information is intended to place the triangle and the counties in its economic influence area into context. The final analysis will utilize the categories of impact to monetize the economic effect of NCA designation status.

The best data available concludes that the Alpine Triangle receives more than 600,000 visitor days annually although recent trip counting data may also suggest that the total number of visitors has likely remained static for the past few years. But it seems likely that from 1982 to 2000 the use of ATV traffic has followed a national trend by increasing significantly – perhaps by as much as 100%. Scenic driving and sightseeing have also increased, along with winter recreation, including backcountry skiing, snowmobiling, ice climbing, heli-skiing, and dog sledding. The area is popular with all types of recreationists because of the access provided to high alpine terrain via the numerous drivable dirt roads and trails. There are over 350 miles of dirt trails and roads that allow users to hike, bike, ride horses and 4-wheel drive.

*Figure 1- Alpine Triangle Trail and Road Inventory*

Route Type	Total Miles	Authorized Use	Designation
Foot & Horse Single Track Trail	58	Foot and Horse	Limited: Non-mechanized
Mountain Bike Trail	30	Foot, Horse and Mountain Bike	Limited: Non-motorized
Road- All motorized and non-motorized	189	Foot, Horse, Mountain Bike, Motorcycle, ATV and Full Sized Vehicles	Limited: Motorized and Mechanized
Road- Street Legal Vehicles	83	Foot, Horse, Mountain Bike, and Street Legal Vehicles	Limited: Street Legal Motorized; No unlicensed OHV or ATV use.

Source: Alpine Triangle Recreation Area Management Plan Environmental Assessment

## BASELINE PROJECTIONS

The main objective of this study is to examine the potential economic impacts of an NCA designation on the local economies of the three affected counties, and it is important to frame this discussion with an idea of what the future may hold for each county and the region as a whole. For this reason baseline projections were prepared for population, housing, income and employment. The projections and forecasts were obtained from the State Demography (SDO) office, or when not available, are linear projections calculated by RPI.

### POPULATION

In 2010 the SDO estimates that the total tri-county population is 6,400, with 77% residing in Ouray County. Over the next 25 years the SDO forecasts that the total population will rise at an average annual rate of 1.6% to over 9,000, with all counties experiencing population growth. Hinsdale County is expected to have the largest proportional increase and the strongest average growth rate. San Juan County is expected to have the slowest growth with a 25 year population change of less than 100. The combined population is expected to increase by over 2,500 people representing a 40% increase over current levels.

*Figure 2- Population Projection Through 2035*

	2010	2035	Change	Total% Change	Annual % Change
Hinsdale	901	1,378	477	53%	2.1%
Ouray	4,946	6,963	2,017	41%	1.6%
San Juan	570	666	96	17%	0.7%
Total	6,417	9,007	2,590	40%	1.6%

Source: Colorado State Demography Office

### HOUSING

The housing projections were prepared by RPI consulting from historical building trends (1985 - 2008). It should be noted that this is a projection whereas the SDO numbers represent a population forecast. Housing is expected to increase at rates similar to the population increase with housing increases slightly higher than the expected population gains - suggesting that some portion of the housing inventory is 2<sup>nd</sup> homes and/or vacation rentals. Over all the housing stock in the tri-county area is expected to increase by 45% with Ouray and Hinsdale counties seeing the strongest rates of growth.

Figure 3- Housing Unit Counts Through 2035

	2010	2035	Change	Total % Change	Annual % Change
Hinsdale	1,447	1,997	550	38%	1.5%
Ouray	3,098	4,698	1,600	52%	2.1%
San Juan	762	987	225	30%	1.2%
Total	5,307	7,682	2,375	45%	1.8%

Source: RPI Consulting

## INCOME

The SDO forecasts strong increases in capita income for the three counties over the next 25 years. By 2035 total personal income is expected to increase by over 300%, with an average annual increase of over 10%. It should be noted that the annual percent change figure is the total change distributed over the 25 year projection. Again the income is expected to increase at the fastest rate in Ouray and Hinsdale counties. To put these forecasts in perspective it is important to examine what has occurred in the last 25 years. In 1985 the combined personal income for the three counties totaled \$41 million; in 2010 personal income is estimated to total \$205 million. Since 1985, personal income has increase by over 400% with an annual change of 16%. Personal income in the western slope rural/resort areas has grown at typically higher rates than population and housing - these changes may be due to a relatively few, relatively high income individuals moving into the area and skewing the totals.

Figure 4- Total Personal Income 2010 through 2035 in Millions

	2010	2035	Change	% Change	Annual % Change
Hinsdale	\$ 22	\$ 87	\$ 65	295%	12%
Ouray	\$ 163	\$ 724	\$ 561	44%	14%
San Juan	\$ 20	\$ 66	\$ 46	230%	9%
Total	\$ 205	\$ 877	\$ 672	328%	13%

Source: Colorado SDO

## EMPLOYMENT

Employment in the three counties is expected to increase at rates slightly higher than population increases. The SDO prepares employment forecasts that isolate specific segments of local employment. Direct basic jobs are traditional jobs that bring money into the economy from outside the political boundaries, and include industries such as mining, tourism agriculture and regional/national services. Household basic jobs are a result of money flowing into households from sources such as investments, public assistance, and commuting. Resident service jobs are a result of resident spending in the local economy and regional service are composed of jobs that provide health, professional, and business services. It should be noted that the tourism category includes construction associated with 2<sup>nd</sup> homes. These definitions

will be covered in greater detail in the next section. Employment trends that have been occurring for the past two decades are expected to continue; that is, that local economies will become more reliant on tourism for outside money and continue to develop resident and regional service jobs. In total the job market is expected to increase by over 90%, with tourism, and regional services showing the largest gains, while traditional export oriented basic jobs remain relatively flat, and/or decrease as a proportion of the total economy.

*Figure 5- Employment through 2035*

	2010	2035	Change	% Change	Annual % Change
Agriculture	162	234	72	44%	1.8%
Mining	2	3	1	50%	2.0%
Manufacturing	22	33	11	50%	2.0%
Government	109	140	31	28%	1.1%
Tourism	1,217	2,784	1,567	129%	5.2%
Regional Services	229	591	362	158%	6.3%
Household Basic	819	1,418	599	73%	2.9%
Resident Services	1,093	1,843	750	69%	2.7%
Total	3,653	7,046	3,393	93%	3.7%

Source: Colorado SDO

## EXISTING LOCAL ECONOMIC CONDITIONS

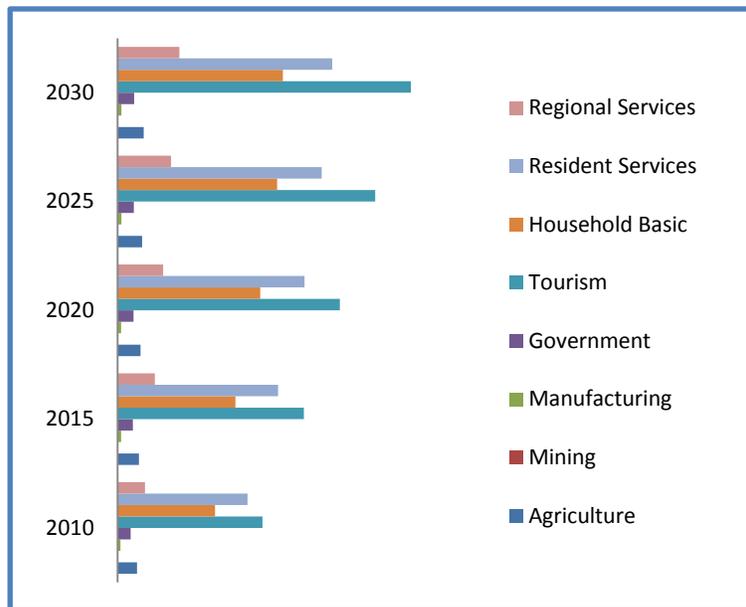
### DEFINING THE LOCAL ECONOMY

For the purposes of analyzing the economic impacts of an NCA designation the local economy is defined as the combined economies of Ouray, San Juan, and Hinsdale Counties. The majority of business that provide services for economic activity occurring in the area are located in these three counties. Most of the money associated with the economic activity flows through the businesses and governments located in the tri-county area and while the local economies of each county have always been heavily dependent on this area the source of that dependence has changed. In the past resource extraction was the primary driver – currently each county is heavily reliant on tourism and recreation including second homes and retirees.

Economic base analysis works by categorizing all industry into three classes known as direct basic, indirect basic and resident services. There are many variations on this theme, and some economists choose to make the categories more or less complex. This report will limit its examination to these three.

**Direct Basic** - industries that bring in dollars from outside the local economy. We know that money must flow into our economies from the outside or it would not be long until the local economy was bereft of capital, as all of its monetary resources drifted out (through taxes, import of goods, etc.). In Colorado, money historically entered local Western Slope markets from the outside when extractive industries (such as mining, manufacturing or agriculture) sold products to purchasers outside of the local economy. Currently on the Western Slope of Colorado, many of these currently flat or declining traditional base industries have been replaced by tourism and its attendant manifestations. Direct base industries that fall under the general title of tourism include all the activities that are the gateway for outside dollars to enter the local economy via visitor spending. Monitoring the strengths and weaknesses of base industries can tell us much about the economy because virtually everything else is dependent on the base drivers. Growth or decline in the economy can be traced to the health of this sector, and scrutiny of the base drivers can even allow for some economic forecasting.

**Indirect Basic** - the second tier of our three-tiered framework. Indirect basic industries supply the basic industries with the materials and services that they need to conduct business. For restaurants, this might include the food and liquor vendors, lumberyards for the construction industry, manufacturers for the retailers, linen cleaners for lodging, etc.



**Non-Basic** - the final tier of our framework is that of the local resident services. Employees form the backbone of the labor force supplying the direct and indirect base industries. Employees earn paychecks and in turn, and spend that money for services. Local resident services are simply the commercial services that we all use in our everyday lives to maintain an enjoyable residence in town or county. They include but are not limited to: grocery stores, barber shops, hardware stores, discount retail, shoe stores, etc.

Clearly, there is some overlap between the categories. For example, some tourists shop at grocery stores while local residents eat at restaurants built primarily for tourists. Fortunately, there are some reliable and long-standing techniques establishing ratios for how much each industry is utilized by which group of users.

Another reason to utilize the base analysis framework is that existing data is especially amenable to input and analysis. We are capable of tracking employment and income in each industry type—this allows us to know how strongly each industry group is performing over time. Looking at historical trends and making some future projections is an excellent vantage point for understanding the regional economy.

## COMBINED, TRI-COUNTY ECONOMIC BASE ANALYSIS

The SDO prepares county wide economic base analyses based on employment, for this analysis the three county base analyses were combined. All three counties have similar industries driving the economy.

The SDO breaks employment down into 6 categories, Traditional, Regional Center, Tourism, Households, Indirect Basic, and Non-Basic. Because of the seasonal nature of the three counties, RPI classified economic activity associated with retirees and interest/dividends as tourism activity because seasonal residents in a resort community act as tourists. In other words because seasonal residents are not part of the year round economy it makes more sense to classify them in the tourist sector.

*Figure 6 – Employment Category Breakdown*

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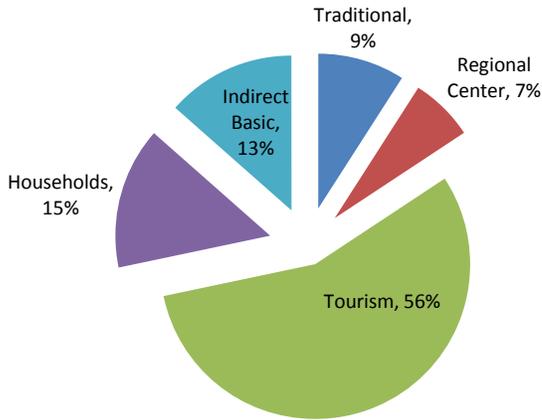
Traditional	Agribusiness, Mining, Manufacturing, Government
Regional Center	Construction, Communications, Trade and Transportation, Professional and Business Services, Finance, Insurance, Real Estate, Education, Health
Tourism	Resorts, Recreation, Lodging, Tourist Services, 2nd home Construction, Retirees, Interest and Dividends
Households	Commuters, Public Assistance
Indirect Basic	Support industries for basic industries
Non-Basic	Resident Services

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Source: Colorado SDO

Employment in the tri-county area is primarily driven by tourism and household expenditures not related to resident spending. The non-resident household spending is primarily a function of commuters, and retirees. The traditional sectors that originally fueled economic development now account for only 9% economic base activity. This breakdown should come as no surprise given the seasonal nature tremendous recreational opportunities. Furthermore, this pattern is present throughout resort communities in Colorado and the Mountain West.

Figure 7 – Economic Driver Base Industries by Type (Employment based)



Source: Colorado SDO

#### SECTORS OF CHANGE

Designating the Alpine triangle as an NCA has potential to affect the tourism sector, the traditional sector (natural resource extraction and agribusiness) and through those mechanisms sales and property tax revenue streams in each of the counties.

#### TOURISM

It is possible, and will be examined later in this report, that an NCA designation could alter the types of recreation that are permissible within the Alpine Triangle and therefore altering visitation and spending patterns. A change in visitation and spending could significantly affect on the tri-county's largest economic driver. As previously stated tourism is the largest economic driver and is annually responsible for an estimated \$50 million in retail spending. For example, a 10% change in visitation rates in the area could impact total regional retail sales by as much as 7%, and impact local employment by 4%.

#### NATURAL RESOURCES

A more restrictive management plan might affect resource extraction in the Alpine Triangle; there are an estimated 2,325 mining claims in the area, which compose over 20,000 acres or 11% of the total acreage. The mining industry currently composes around 6% of the traditional industries in the three counties although in the past it has occupied a much higher percentage. Mining is traditionally a very volatile industry with distinct boom and bust cycles dramatically affecting local economies. The Bureau of Economic Analysis provides historical personal income data by industry at the county level. Because the number of firms operating in the area was relatively small for a number of years, some annual data is not available for all counties. However it is valuable to analyze the impacts that the mining industry had on San Juan County in the 1980's and early 1990's.

During the boom years, mining was on average responsible for over 89% of the personal income in the County, however once mining operations began to decrease and bottom out in the early 1990's mining income accounted for less than 1% of total personal income. Furthermore, between 1987 the peak year, and 1992 total personal income in the county decreased by 40%.

The personal income of a mining claim in a boom year, adjusted for inflation is over \$6,500, if mining in the area returned to boom year levels, and economic potential of greater than 15 million dollars could be realized. This would increase total personal income by more than 70% above 2008 levels.

*Figure 8- San Juan County Mining Impact Analysis*

	Boom years (1984,1987,1988-1990)		Bust Years (1992-1994)	
Average Personal Income from Mining	\$	10,636,200	\$	110,333
San Juan County Income per Mining Claim <sup>1</sup>	\$	6,589	\$	53
Average Total Personal Income	\$	13,169,800	\$	9,797,667
Mining % of Total		81%		1%
Estimated Mining Claims		2,325		2,325
Economic Potential	\$	15,320,412	\$	123,233
2008 Total Personal Income	\$	21,649,000	\$	21,649,000
Potential as Percentage Increase from Mining		71%		0.6%
		Boom years (1984,1987,1988-1990)		Bust Years (1992-1994)

Source: Bureau of Economic Resources, RPI Consulting

Currently the BLM does not have plans to allow commercial timber harvesting operations in the area. BLM source cite access issues and the relatively low quality of timber resources. Therefore the NCA designation is not likely to affect merchantable timber. Forestry has not played a significant role in the local economies for more than 30 years .

#### AGRIBUSINESS

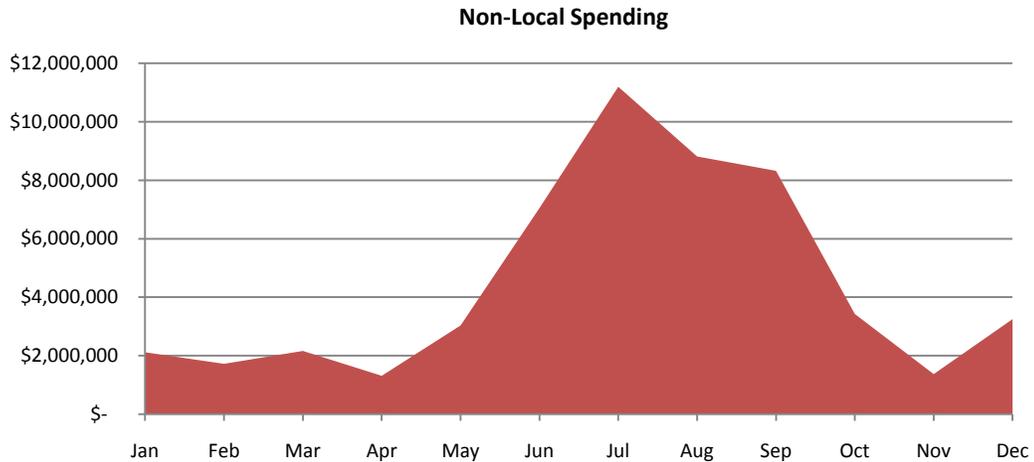
The final sector that could be impacted by a designation change is the agribusiness sector which is responsible for half of the employment in the traditional sector. In the past, NCA designation has not prevented or eliminated grazing on public lands; however it is worth examining to further establish broad economic value. According to the BLM 17,000-20,000 sheep graze on over 110,000 acres of rangeland in the Alpine Triangle. The livestock value of grazing in the triangle is probably between \$4-5 million.

<sup>1</sup> Adjusted for inflation.

## SALES TAX

If visitation and spending patterns change, there will be implications on non-local spending volumes and therefore sales tax collections. Non-local expenditures account for 70% of spending that occurs in the three counties, and non-local May-October spending accounts for over 50% of all sales. A designation change is not likely to alter spending patterns of visitors; however it could increase or decrease the number and types of visitors that recreate in the Alpine Triangle.

*Figure 9- Non-Local Spending by Month*



Source: County Finance Department, RPI Calculations

## PROPERTY TAX

A NCA designation could also affect property values and therefore the amount of revenues that the local governments collect. A change in designation might affect residential values of homes that are close to or within the alpine triangle. Currently the three counties have a total combined residential property value of just below \$1.5 billion; approximately 70% of the value is concentrated in Ouray County. On average, residential property composes 39% of the total property value in each county.

Figure 10 – 2009 Property Values

	Total Assessed Value	Residential Assessed Value	Residential % of total	Res Market Value
San Juan	55,548,760	\$ 13,654,320	25%	\$ 171,536,683
Ouray	196,906,330	\$ 82,538,920	42%	\$ 1,036,921,106
Hinsdale	49,906,540	\$ 22,820,220	46%	\$ 286,686,181
Total	302,361,630	\$ 119,013,460	39%	\$ 1,495,143,970

Source: Department of Local Affairs, Property Tax Division

Small resort towns on the western slope rely on sales and property tax collections to fund government operations. A change in residential property values could have significant impacts on property tax collections in the county. On average one quarter of general fund property tax revenues originate from residential property.

Figure 11- Residential Funding of Major Funds by Percentage

	General Fund	Road and Bridge	Public Welfare	Other
San Juan	23%	2%	0%	0%
Ouray	26%	8%	7%	1%
Hinsdale	22%	1%	2%	21%
Average	24%	4%	3%	7%

Source: Source: Department of Local Affairs, Property Tax Division, RPI Calculations

#### SUMMARY OF FINDINGS

- Population in the three counties is expected to increase by 40% through 2035.
- Housing in the three counties is expected to increase by 45% through 2035.
- Personal income in the three counties is expected to increase by 328% through 2035.
- Employment in the three counties is expected to increase by 93% through 2035.
- Impacts associated with an NCA designation are likely to affect tourism, mining, sales tax collections, and property tax collections.

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## SECTION TWO. PROFILE OF THE TRIANGLE AND ITS USERS

### MARKET DAYS

The environmental assessment portion of the Alpine Triangle RAMP provides user data from the BLM's Recreational Management Information System (RMiS) - in 2008 over 600,000 people visited the alpine triangle. 60% of these users were general recreationists, with the remaining population composed of train riders, winter recreationists, river rafters and other commercial guiding operations. It is an assumption of this report that a designation change would not significantly affect train ridership, river rafting, or commercial guiding operations and so, for the purposes of this report the possible affected annual user day population in the triangle is estimated at 389,000 (i.e. winter and summer recreation days combined).

*Figure 12- BLM Alpine Triangle Estimated User Days*

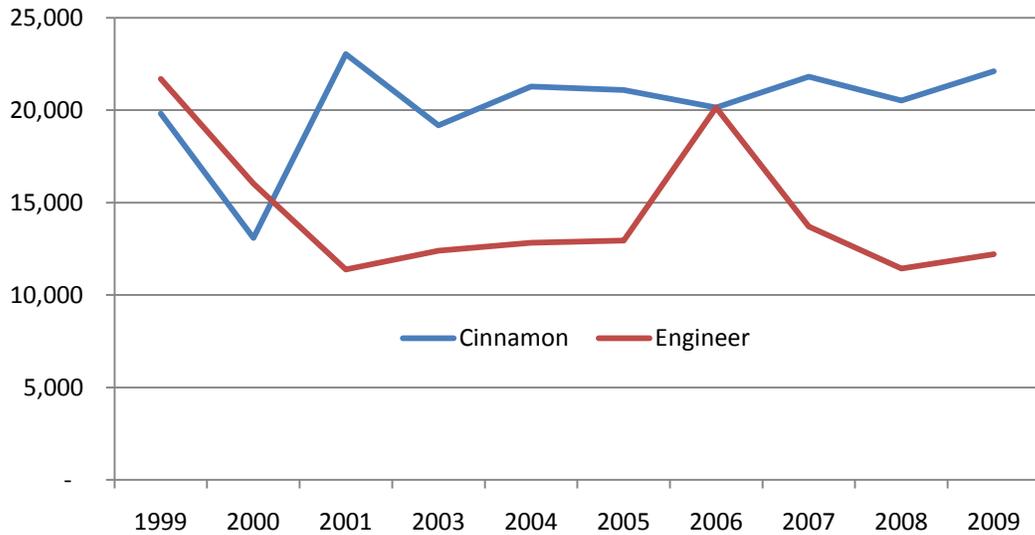
Alpine Triangle RAMP Visitor Estimates	2008 RMiS Data	% Of Total
Recreation User Days	366,000	60%
Train	180,000	29%
Winter and Shoulder Season	23,000	4%
River User Days	18,000	3%
Commercial Outfitter	24,000	4%
Total	611,000	

Source: Alpine Triangle Recreation Area Management Plan Environmental Assessment

### HISTORIC TRAFFIC COUNTS ON CINNAMON AND ENGINEER PASSES

Traffic counts compiled by the BLM, show that usage of Cinnamon and Engineer Passes by motorized vehicles has remained relatively flat over the past decade. Cinnamon pass fluctuated between the peak year (2001) with 23,000 trips and a low trip volume of 13,000 occurring in 2000. On average the pass experiences 20,000 trips annually. Similarly, traffic on Engineer pass fluctuated between 21,000 and 11,000 with an average volume of 14,000. While this trend is not all inclusive it does indicate that tourism and recreation in the alpine triangle has remained relatively stable in the past decade. Another local tourism indicator, train ridership, has seen declining rates over the past 5 years.

Figure 13- Traffic Counts on Cinnamon and Engineer Passes 1999-2009<sup>2</sup>



Source: BLM

## USER GROUPS

With the annual number of users established, it is possible to isolate the types of users recreating in the Alpine Triangle. In 1998 the BLM, the San Juan Mountain Association and The University of Arizona, conducted a survey that profiled Alpine Loop Byway users – this is currently the best information available. While many users were involved in a variety of activities, the primary is the excellent access unimproved roads provide for general sightseeing, scenic, and off highway travel. The next largest segment of users were individuals or groups whose primary use was focused on non-motorized travel. This includes hikers, climbers, horse packers, bikers and kayakers. The remaining users were those visiting the area primarily to camp, hunt and fish.

Figure 14 - Summer Recreational User Break

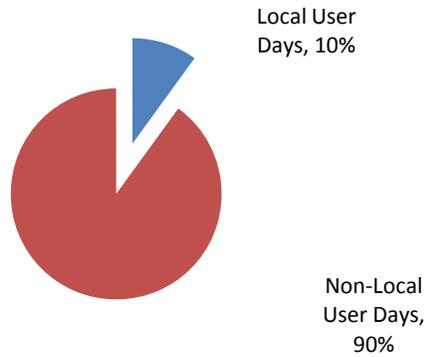
Camping	5%
Hunting/Fishing	3%
Non-Motorized Travel	18%
Unimproved Road Travel	74%

Source: Alpine Triangle Recreation Area Management Plan Environmental Assessment, 1998 Final Report of the Alpine Loop Backcountry Byway Customer Study, RPI Calculations

<sup>2</sup> 2002 data not available.

Expenditure patterns differ between not-only user groups but between locals and non-locals as well. According to the 1998 survey, 33% of the users were from Colorado with only about 10% of the total users considered to be locals.

Figure 15- Users by Locality



Source: 1998 Final Report of the Alpine Loop Backcountry Byway Customer

Because the unimproved road travel category is so large it is sub-classified. According to the Colorado Off Highway Vehicle Coalition there are over 180,000 households that participated in off highway vehicle travel in 2008 and the use of ATVs on backcountry roads has been steadily increasing over the past two decades - the Alpine Triangle EA states,

...in the case of ATVs, where their increase in use has been part of a national trend where, “from 1982 to 2000, driving motor vehicles ‘off-road’ became one of the fastest growing activities in the country, growing in number of participants over 12 years old by more than 100 percent”

Because of this national trend, it is no surprise that half of summer unimproved road users travel by ATV. Twenty years ago a family of four traveling in the area would likely be concentrated in a single four wheel drive vehicle, now it is more likely that the family of four has spread out and is each driving an ATV. It is assumed that the statewide population is analogous to the Alpine triangle user population.

Figure 16 - Unimproved Road Travel Breakdown

Category	Colorado Households	% of Total
Snowmobiles	17,356	8%
ATV	92,294	43%
Dirt Bikes	49,350	23%
4 wheel drive	54,986	26%

Source: Economic Contribution of Off-Highway Vehicle Recreation in Colorado

The final user breakdown includes winter users occupying 6% of total use, and unimproved road travel occupying the largest portion with a 70% participation rate. One in three users is likely to access and recreate in the Alpine triangle on an ATV. It should be noted that while many travelers, including fishermen and jeepers will camp in the area, however, the camping category is focused on users who are primarily drawn to the area because of the camping opportunities – with four wheel drive roads being a secondary consideration.

*Figure 17 - Total User Day Breakdown<sup>3</sup>*

	User Days	% of Total
Camping	17,000	4%
Hunting and Fishing	11,000	3%
Non-Motorized travel	67,000	17%
Unimproved Road Travel	272,000	70%
ATV	128,000	(47%)
Dirt Bike	68,000	(25%)
4X4	76,000	(28%)
Winter	23,000	6%
Total	389,000	

Source: Alpine Triangle Recreation Area Management Plan Environmental Assessment, 1998 Final Report of the Alpine Loop Backcountry Byway Customer Study, RPI Calculations

## CONSUMER EXPENDITURES AND IMPACT OF RECREATION SPENDING

The Forest Service collects and maintains forest user expenditure data through the National Visitor Use Monitoring (NVUM) program<sup>4</sup>. For the purposes of this report, forest users are considered analogous to individuals recreating in the Alpine Triangle. The NVUM data is presented per trip/per party for local and non-local day and overnight users. To simplify the information, analysts used weighted averages between day and overnight uses, average trip lengths, and average party size. The following figure shows average expenditures per user day for local and non-local users. Non-local users spend approximately \$15 more per day than locals.

<sup>3</sup> Figures were rounded to the nearest 1,000

<sup>4</sup> Data was collected between 2000 and 2003, all figures presented in this report have been updated to account for inflation.

Figure 18- Average Per Day Expenditures for Local and Non-Local Visitor

	Average	
	Non-Local	Local
Lodging	\$8.28	\$3.88
Restaurant/bar	\$9.34	\$4.66
Groceries	\$6.02	\$4.97
Gas/oil	\$8.58	\$5.77
Other Transportation	\$1.12	\$0.29
Activities	\$2.39	\$1.45
Admission/fees	\$2.06	\$1.52
Misc.	\$4.07	\$2.76
Total	\$41.86	\$25.30

Source: USFS Spending Profiles for National Forest Recreation Visitors by Activity, 2006

When divided by activity there are some important differences. Local expenditures are consistently lower and range from \$16-40, while non-local range from \$24-\$63. Additionally expenditures associated with winter activities are considerably higher than those that occur during the summer months. This makes intuitive sense because it is rare that winter recreationists camp, therefore more money is spent on lodging and food.

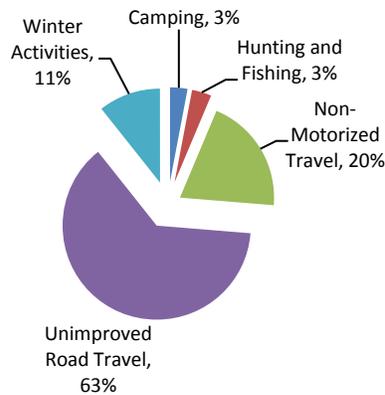
Figure 19- Detailed Per Day Expenditures by User Group.

	Camping		Hunting and Fishing		Non-Motorized Travel		Unimproved Road Travel		Winter Activities	
	Non-Local	Local	Non-Local	Local	Non-Local	Local	Non-Local	Local	Non-Local	Local
Lodging	\$2.06	\$2.00	\$6.61	\$2.33	\$11.62	\$2.40	\$5.68	\$3.41	\$15.42	\$9.25
Restaurant	\$4.12	\$2.60	\$7.77	\$3.50	\$11.41	\$3.12	\$8.06	\$4.89	\$15.34	\$9.21
Groceries	\$4.89	\$7.80	\$8.33	\$7.25	\$6.05	\$3.27	\$5.09	\$3.09	\$5.76	\$3.46
Gas/oil	\$5.91	\$4.84	\$11.58	\$8.26	\$6.32	\$3.98	\$8.54	\$5.24	\$10.55	\$6.51
Transportation	\$1.46	\$0.02	\$0.29	\$0.06	\$2.03	\$0.28	\$0.25	\$0.15	\$1.55	\$0.92
Activities	\$1.24	\$0.38	\$1.83	\$0.90	\$1.46	\$1.12	\$0.95	\$0.58	\$6.48	\$4.27
Fees	\$1.59	\$1.83	\$1.57	\$1.18	\$1.19	\$1.01	\$1.19	\$0.72	\$4.76	\$2.84
Misc.	\$3.30	\$2.61	\$5.52	\$4.68	\$3.84	\$1.36	\$3.57	\$2.16	\$4.11	\$3.00
Total	\$24.57	\$22.08	\$43.50	\$28.16	\$43.91	\$16.53	\$33.32	\$20.25	\$63.97	\$39.47

Source: USFS Spending Profiles for National Forest Recreation Visitors by Activity, 2006

Multiplying the user day estimates from the BLM EA by the average expenditures by activity yields the total economic spending associated with Alpine Triangle users. The economic spending associated with the 389,000 user days is \$13.7 million. The majority of this spending is a direct result of users who primarily recreate on the unimproved roads.

Figure 20- Recreational Expenditures by Type



Source: RPI Calculations

Important Note: According to the, *Economic Contribution of Off-Highway Vehicle Recreation in Colorado*, prepared by the Colorado Off Highway Vehicle coalition and, *The Economic Impacts of Hunting, Fishing and Wildlife Watching in Colorado*, prepared for the Department of Wildlife, the per day expenditures for hunters, fishermen and OHV users are significantly higher than those calculated by the USFS. The reports state that hunters and fishermen spend an average of \$200 per day, and OHV users spend on average \$262 for day trips and \$761 for overnight trips. However, upon further analysis these numbers need to be subdivided to establish actual, per diem, local, expenditures. Forrest service figures only include expenditures occurring within 50 miles of the recreation site and do not include long range transportation, lodging, and food costs as do the DOW and Off Highway reports. Also, the hunting and fishing figures in the DOW report include the purchase of sporting goods, boating costs, and guiding costs which are not in the forest service numbers – these costs compose 46% of the per day expenditures. When the comparables are properly aligned the hunting and fishing figure becomes \$76, which is a credible number (although it still includes all expenditures in the state, not limited to local expenditures) – it simply represents a greater level of expenditure and it would be appropriate to substitute it for the USFS numbers used in our calculations. The OHV report figures are presented per household and for a trips of three days – when these numbers are adjusted, the day trip expenditure for OHV’s is lowered to \$51 and the overnight figure becomes \$104. Again these are higher than the forest service numbers but are not geographically limited and include repair costs, guided tour costs, and gasoline costs associated with long range towing. Nonetheless, we find them to be entirely credible and appropriate for substitution in our calculations.

The \$13.7 million in spending represents 24% of the area’s tourism related sales, and 11% of the areas total sales. It is important to frame this contribution in the context of how the Alpine

Triangle compares to other area recreational opportunities. Using CDOT traffic statistics analysts were able to estimate the number of user days associated with individuals who recreationally drive the San Juan Skyway, which then were combined with D&SNGRR ridership data and multiplied by the expenditure data. Combined, the San Juan Skyway and the D&SNGRR contribute around half a million less than the Alpine Triangle, to the tri-county economy. This analysis suggests that half of the tourism industry is driven by the San Juan Skyway, the train, and the alpine triangle.

*Figure 21-Alpine Triangle Economic Contribution*

Gross County Sales	\$ 121,239,333
Tourism % of Total Regional Economy <sup>5</sup>	48%
Gross Tri-County Sales Tourism Sales	\$ 58,554,920
Non-Local Alpine Triangle Expend	\$ 12,543,491
Local Alpine Loop Expenditures	\$ 1,281,968
Expend from Train/San Juan Skyway	\$ 13,314,625
% Of tri-county tourism sales attributable to AT	24%
% of total Sales attributable to AT	11%

Source: RPI Calculations

In total, recreation in the Alpine triangle accounts for 24% of tourism spending in the tri-county area. The majority of this spending originates from individuals participating in unimproved road travel, which accounts for 15% of all tourism spending in the three counties. This is followed by non-motorized travel, winter activities, camping, and hunting/fishing.

#### Summary of Findings

- Annually the BLM estimates that over 600,000 people visit and recreate in the Alpine Triangle
- The majority of Alpine Triangle users are primarily in the area because of the access presented by the backcountry road system
- 90% of user days occurring in the triangle are a result of non-local participation.
- Recreation in the Alpine Triangle is responsible for over \$13 million in spending and accounts for 24% of all tourist spending the three counties

<sup>5</sup> Based on employment estimates by the SDO tourism accounts for 48% of the total local economy, this is slightly less than the 56% presented in the base analysis that examines economic drivers and does not include non-basic activity.

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## *SECTION THREE. UNDERSTANDING THE PROPOSED CHANGE - WHAT IS A NATIONAL CONSERVATION AREA?*

### ORIGIN OF THE NATIONAL CONSERVATION AREA

The Bureau of Land Management's National Landscape Conservation System (NLCS), under which National Conservation Areas are categorized, was officially created in June of 2000 and in March of 2009 the System was made a permanent system under law. Currently the system includes over 886 federally recognized areas including 16 national monuments, 16 national conservation areas, 60 wild and scenic rivers, more than 200 wilderness areas, over 5,300 miles of national scenic and historic trails, 591 wilderness study areas and other areas designated for conservation, including a cooperative management and protection area, a forest reserve, and outstanding natural areas.

The stated mission of the National Landscape Conservation System is to "conserve, protect, and restore these nationally significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations."

The statutory language governing the Landscape Conservation System is brief and is re-printed in its entirety below:

269	270
TITLE II Bureau of Land Authorization	(1) Each area that is designated as—
MANAGEMENT	(A) a national monument;
AUTHORIZATIONS	(B) a national conservation area;
Subtitle A—National Landscape	(C) a wilderness study area;
Conservation System	(D) a national scenic trail or national his-
SEC. 2001. DEFINITIONS.	toric trail designated as a component of the Na-
In this subtitle:	tional Trails System;
(1) SECRETARY.—The term "Secretary" means	(E) a component of the National Wild and
the Secretary of the Interior.	Scenic Rivers System; or
(2) SYSTEM.—The term "system" means the	(F) a component of the National Wilder-
National Landscape Conservation System estab-	ness Preservation System.
lished by section 2002(a).	(2) Any area designated by Congress to be ad-
SEC. 2002. ESTABLISHMENT OF THE NATIONAL LANDSCAPE	ministered for conservation purposes, including—
CONSERVATION SYSTEM.	(A) the Steens Mountain Cooperative Man-
(a) ESTABLISHMENT.—In order to conserve, protect,	agement and Protection Area;
and restore nationally significant landscapes that have	(B) the Headwaters Forest Reserve;
outstanding cultural, ecological, and scientific values for	(C) the Yaquina Head Outstanding Nat-
the benefit of current and future generations, there is es-	ural Area;
tablished in the Bureau of Land Management the Na-	(D) public land within the California

<p>tional Landscape Conservation System.</p> <p>(b) COMPONENTS.—The system shall include each of the following areas administered by the Bureau of Land Management:</p> <p style="text-align: center;">271</p> <p>(c) MANAGEMENT.—The Secretary shall manage the system—</p> <p>(1) in accordance with any applicable law (including regulations) relating to any component of the system included under subsection (b); and</p> <p>(2) in a manner that protects the values for which the components of the system were designated.</p> <p>(d) EFFECT.—</p> <p>(1) IN GENERAL.—Nothing in this subtitle enhances, diminishes, or modifies any law or proclamation (including regulations relating to the law or proclamation) under which the components of the system described in subsection (b) were established or are managed, including—</p> <p>(A) the Alaska National Interest Lands Conservation Act (16 U.S.C. 3101 et seq.);</p> <p>(B) the Wilderness Act (16 U.S.C. 1131 et seq.);</p> <p>(C) the Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.);</p> <p>(D) the National Trails System Act (16 U.S.C. 1241 et seq.); and</p> <p>(E) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.).</p>	<p>Desert Conservation Area administered by the Bureau of Land Management for conservation purposes; and</p> <p>(E) any additional area designated by Congress for inclusion in the system.</p> <p style="text-align: center;">272</p> <p>(2) FISH AND WILDLIFE.—Nothing in this subtitle shall be construed as affecting the authority, jurisdiction, or responsibility of the several States to manage, control, or regulate fish and resident wildlife under State law or regulations, including the regulation of hunting, fishing, trapping and recreational shooting on public land managed by the Bureau of Land Management. Nothing in this subtitle shall be construed as limiting access for hunting, fishing, trapping, or recreational shooting.</p> <p><b>SEC. 2003. AUTHORIZATION OF APPROPRIATIONS.</b></p> <p>There are authorized to be appropriated such sums as are necessary to carry out this subtitle.</p>
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In summary, establishment of National Lands Conservation System allows for the appropriation of the funds necessary to carry out the system duties. Ostensibly these appropriations will come from one source and some of the authority to act has been centralized in the Secretary of the Interior who can make various proclamations and executive decisions regarding management practices in NLCS sites.

Basic facts concerning the existing sixteen existing National Conservation Areas (NCA) are listed in the following table.

## EXISTING NCA

Figure 22 – Existing NCA Details

State	Name	BLM Acres	Other Fed Acres	Non- Fed Acres	Total Acres	Law/EO	Date
Alaska	Steese	1,208,624	-	14,114	1,222,738	PL 96-487	12/2/1980
Arizona	Gila Box Riparian	21,767	-	1,720	23,487	PL 101-628	11/28/1990
Arizona	Las Cienegas	41,972	-	5,307	47,279	PL 106-538	12/6/2000
Arizona	San Pedro Riparian	55,495	-	2,505	58,000	PL 100-487	11/18/1988
California	King Range	56,167	-	6,320	62,487	PL 91-476, PL 94-579	10/21/1970
Colorado	Dominguez-Escalante	212,074	-	0	209,610	PL 111-11	3/30/2009
Colorado	Gunnison Gorge	62,844	-	2,225	65,069	PL 106-76	10/21/1999
Colorado	McInnis Canyons	122,929	-	1,236	124,165	PL 106-353	10/24/2000
Idaho	Snake River Birds of Prey	469,074	17,567	114,377	601,018	PL 103-64	8/4/1993
Nevada	Black Rock Desert High Rock Canyon Emigrant Trails	799,165	-	16,320	815,485	PL 106-554, PL 107-63	12/21/2000
Nevada	Red Rock Canyon	197,382	2,688	26,888	226,958	PL 101-621, PL 11/16/1990	
Nevada	Sloan Canyon	48,438	-	81	48,519	PL 107-282	11/6/2002
New Mexico	El Malpais	227,100	2,500	34,705	264,305	PL 100-225	12/31/1987
New Mexico	Fort Stanton-Snowy River Cave	24,977	-	2,981	27,958	PL 111-11	3/30/2009
Utah	Beaver Dam Wash	68,280	-	9,625	77,905	PL 111-11	3/30/2009
Utah	Red Cliffs	44,825	-	-	44,725	PL 111-11	3/30/2009
<b>NLCS Totals:</b>	<b>4,112,798</b>	<b>284,176</b>	<b>4,403,783</b>				

## EXAMPLE NCA GUIDELINES

Below are summaries of existing that in our opinion are most similar, in terms of acreage and use, to the proposed NCA in the Alpine Triangle. Basic provisions concerning uses and locations are also included to better understand trends. It will be noticed that from the oldest listed (King Range California) to the most recent – there is a trend from permitting mineral entry to a prohibition of mineral entry. Another trend is that many of the areas retained use of existing or traditional roads for road vehicles but that cross-country vehicle travel is not a typical use permitted in these areas.

Hunting and fishing rights have been preserved in all areas as is grazing and timber harvesting. In most of the areas existing wildernesses were maintained, although in a few, the wilderness areas were “released” when the overarching area was designated as a National Conservation Area.

<b>NCA Name</b>	<b>King Range</b>
<b>Established</b>	Oct. 21, 1970
<b>Public Law</b>	91-476
<b>Area (acres)</b>	60,000
<b>State</b>	California
<b>Summary Description</b>	Coastal/inland area with lower elevation mountains, beaches, trails and unimproved roads. Multiple use area. Values include shoreline, wildlife, and geologic assets including minerals.
<b>Nearby Town</b>	Petrolia (400)
<b>County</b>	Humboldt
<b>Statutory Uses</b>	"(I)ncluding but not limited to ... scenic enjoyment, hunting, fishing, hiking, riding, camping, picnicking, boating and swimming, all uses of water resources, watershed management, production of timber and other forest producers, grazing and other agricultural uses, fish and wildlife management, mining, preservation of ecological balance, scientific study, occupancy and access."
<b>Motorized Vehicles</b>	Allowed on designated roads, not specifically addressed in law
<b>Hunting/Fishing</b>	Allowed
<b>Timber</b>	Expressed Use
<b>Minerals/Mining</b>	Prospecting and patents are subject to "reasonable regulation" as the Secretary may issue.
<b>Wilderness</b>	Wilderness in Area
<b>Livestock/Grazing</b>	Yes, expressed use

<b>National</b>	<b>Steese</b>
<b>Established</b>	Dec. 2, 1980
<b>Public Law</b>	96-487
<b>Area (acres)</b>	1,220,000
<b>State</b>	Alaska
<b>Summary Description</b>	Relatively remote mountains, forests, tundra, backcountry roads, trails, rivers, and wildlife. Managed for multiple uses.
<b>Nearby Town</b>	Fox (400)
<b>County</b>	Fairbanks North Star Borough
<b>Statutory Uses</b>	None stated
<b>Motorized Vehicles</b>	Many areas open to cross country travel in vehicles weighing less than 1500 pounds – some roads also open. Snowmobile use in winter allowed in most areas
<b>Hunting/Fishing</b>	Allowed
<b>Timber</b>	No provision
<b>Minerals/Mining</b>	Withdrawn from location, entry and patent; leasing and sale continued. Secretary may classify lands as open to entry, location and patent. All valid claims subject to "reasonable regulations ... to assure that mining will, to the maximum extent practicable, be consistent with the scenic, scientific, cultural and other resources ..." Patents for minerals only.
<b>Wilderness</b>	Wild and Scenic River in area
<b>Livestock/Grazing</b>	No provision.

National	El Malpais
Established	Dec. 31, 1987
Public Law	100-225
Area (acres)	262,690
State	New Mexico
Summary Description	High semi desert including arches, lava flows, low elevation mountains, sandstone formations, archeological/cultural resources. Shares border with El Malpais National Monument
Nearby Town	Grants (8000+)
County	Cibola
Statutory Uses	"(P)rotect for the benefit and enjoyment of future generations (this) area containing the La Ventana Natural Arch and the other unique and nationally important ... resources of the public lands surrounding Grants Lava Flows ..."
Motorized Vehicles	Allowed on existing roads, not specifically addressed in law
Hunting/Fishing	Allowed
Timber	Commercial sale of dead or green wood prohibited.
Minerals/Mining	All lands withdrawn from all forms of entry, appropriation or disposal under the public land laws; from location, entry and patent under the mining laws; and from disposition under all laws pertaining to mineral and geothermal leasing. Also includes provision for exchanges of mineral interests.
Wilderness	Wilderness and Study Area in-area
Livestock/Grazing	Permitted to continue where historically practiced "pursuant to applicable Federal law,... and subject to such reasonable regulations, policies and practices as the Secretary deems necessary."

National	Red Rock Canyon
Established	Nov. 16, 1990
Public Law	101-621
Area (acres)	195,780
State	Nevada
Summary Description	Canyons, large sandstone cliffs/mountains, scientific, endangered species, rock climbing, riparian, and scenic values.
Nearby Town	Las Vegas
County	Clark County
Statutory Uses	"The Secretary shall only allow such uses of the conservation area as he finds will further the purposes for which the conservation area is established"; nothing shall preclude the Secretary from taking measures to prevent devastating fire or infestation of insects or disease within the NCA; hunting permitted in accordance with Nevada state law, except zones established for public safety, administration or public enjoyment.
Motorized Vehicles	Limited to designated roads and trails.
Hunting/fishing	Allowed
Timber	No provision
Minerals/Mining	All lands withdrawn from all forms of entry, appropriation or disposal under the public land laws; from location, entry and patent under the mining laws; and from disposition under all laws pertaining to mineral and geothermal leasing.
Wilderness	Wilderness Study Areas
Livestock/Grazing	No provision.

National	Gunnison Gorge
Established	Oct. 21, 1999
Public Law	106-76
Area (acres)	57,725
State	Colorado
Summary Description	Includes adobe badlands rugged pinon-juniper covered slopes to the spectacular double canyon of the Gunnison Gorge and Gunnison River
Nearby Town	Montrose
County	Delta/Montrose
Statutory Uses	Motorized vehicles (see below); hunting, trapping and fishing in accordance with Colorado law, except zones established for public safety, administration or public enjoyment.
Motorized Vehicles	"In addition to the use of motorized vehicles on established roadways, ... (they are also) allowed to the extent the use is compatible with off-highway vehicle designations as described in the management plan in effect on the date of enactment."
Hunting/fishing	Allowed
Timber	No provision
Minerals/Mining	All lands withdrawn from all forms of entry, appropriation or disposal under the public land laws; from location, entry and patent under the mining laws; and from disposition under all laws pertaining to mineral and geothermal leasing.
Wilderness	Wilderness designated within NCA; Wilderness Study Area released.
Livestock/Grazing	No provision.

National	McInnis Canyons
Established	Oct. 24, 2000
Public Law	106-353
Area (acres)	122,300
State	Colo./Utah
Summary Description	Rugged canyons, sandstone formations and arches, Colorado river, paleontological and archeological resources in a semi-arid high plateau.
Nearby Town	Fruita
County	Mesa
Statutory Uses	"(O)nly such uses ... (that) will further the purposes for which the Conservation Area is established," including livestock grazing; and hunting, trapping and fishing in accordance with Colorado and Utah law, except zones established for public safety, administration, or public enjoyment.
Motorized Vehicles	Limited to designated roads, trails, and OHV areas.
Hunting/fishing	Allowed
Timber	No provision
Minerals/Mining	All lands withdrawn from all forms of entry, appropriation or disposal under the public land laws; from location, entry and patent under the mining laws; and from disposition under all laws pertaining to mineral and geothermal leasing.
Wilderness	Wilderness within NCA.
Livestock/Grazing	"(T)he Secretary shall issue and administer any grazing leases or permits in the Conservation Area...in accordance with BLM policy

National	Dominguez-Escalante
Established	3/30/2009
Public Law	106-353
Area (acres)	212,074
State	Colorado
Summary Description	Sonoran desert along the Gunnison River and Douglas fir-aspen forests higher on the plateau,
Nearby Town	Whitewater/Grand Junction, Delta
County	Mesa, Delta, Montrose
Statutory Uses	The designating legislation for these areas allows for continued grazing, protects private property rights and access to inholdings, allows for continued invasive species control and fire prevention actions, and protects existing water rights.
Motorized Vehicles	Allowed on designated roads and trails
Hunting/fishing	Allowed
Timber	No provision
Minerals/Mining	Withdrawal- Subject to valid existing rights, all Federal land within the Conservation Area and the Wilderness and all land and interests in land acquired by the United States within the Conservation Area or the Wilderness is withdrawn from—(1) all forms of entry, appropriation, or disposal under the public land laws; (2) location, entry, and patent under the mining laws; and (3) operation of the mineral leasing, mineral materials, and geothermal leasing laws.
Wilderness	In area, Gunnison river is not included
Livestock/Grazing	Permitted, including in wilderness areas

Many of the recent NCA's give the Secretary of the Interior significant discretionary regulatory powers. The following table outlines the basic trends concerning NCA designation

*Figure 23- Allowable Use Trends*

USE	Trend
Motorized Vehicles	Generally allowed on existing roads – some road closures
Hunting/fishing	Always allowed
Timber	Usually allowed
Minerals/Mining	Generally not allowed
Wilderness	Usually retained
Livestock/Grazing	Almost always allowed

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## *SECTION FOUR. KNOWN IMPACTS OF PUBLIC LAND USE DESIGNATION CHANGES*

### REVIEW OF EXISTING STUDIES

Public land use designation changes can have multiple tier impacts including environmental, physical, and economic. These impacts are dependent on the magnitude and scale of the change. For example, is previously private land become public land? Or is BLM land becoming a National Park? Understanding designation changes is a potentially complex endeavor. It is tempting to describe changes simply in terms of the intensity of use or impact on the natural environment – but this would be a misleading approach. Because, for example, when an area is placed on the National Parks register, many types of relatively intense uses including mining, hunting, and timbering, are stopped altogether while the intensity of recreational visitation and the number of roads and vehicle trips often increase substantially.

In this report we are primarily concerned with the economic impact of changing land use management authority and designation originating the BLM'S statutory powers emanating from the Federal Land Policy Management Act (and other clustered Acts, e.g. NEPA) to that of a National Conservation Area. Our research suggests that the material effects of this name change, put simply, are not striking – excepting a general trend prohibiting mineral entry. Our research indicates that more funding resources may, or may not, be available to regional managers of NCA's. More staff and material resources, including more intense maintenance and law enforcement schedules may, or may not, accompany a designation change. Major roadway or vehicle restrictions are not common. Minor roadway closures do occur. Major environmental management changes are also not common. Nonetheless, this section considers categories of potential impacts typically associated with land use changes.

### IMPACT OF OPEN SPACE

Open space is one of the pre-imminent characteristics of public lands in the American West – whether those open spaces are used exclusively for recreation or industry or both does not change this fact. Open spaces, scenic and geologic resources in addition to habitat for flora and fauna are commonly sited as primary reasons to change from one status of management to another. Often the management changes are from a less restrictive status to a more restrictive status.

There is much literature regarding the qualitative and quantitative impacts of open space. And when these values are monetized they are typically broken into the

following categories: fiscal impact values, market/enhancement values, values of natural systems, use/nonuse values, production values, and open space activities. Although each of those categories are considered briefly below – they are not necessarily directly applicable to the questions under consideration in this report because there is currently a state of open space in the Alpine Triangle – it is not expected that designation or non-designation would radically alter this condition. That is, designation change is not expected to change the existing open space characteristics from the current baseline condition. Although there are approximately 2325 claim sites in the Triangle, with a rough total acreage of 21,000 or (perhaps as much as 11% of the total area acreage) full development and conversion of those sites to either mining or residential applications cannot be said to remove the condition of open space although it is possible that these uses might have a measureable impact. The extent of open space value deterioration due to mining or residential development is a highly variegated and complex question that would require a level of inquiry outside the scope of this report. The categories below provide an initial framework for better understanding of how open spaces are considered in a value context.

*Fiscal Impact Analysis* – primarily concerned with the costs and revenues to government agencies providing services to various land uses. Evidence suggests that in most circumstances – open space produces more revenue than it costs to serve. This may or may not be the case with regard to the alpine triangle. Further study would be required to better understand the road service and EMS costs incurred by the triangle versus the revenues from PILT and the direct and secondary impacts of tourism.

*Market/enhancement values:* refers to the enhancement value to local real estate of open space. This is intuitively true as every real estate buyer has experienced or observed real estate price inflation in direct relationship to amenities – that is, homes that are in good neighborhoods, close to schools, view, water, etc. have enhanced value due to this proximity. Research, not surprisingly finds that these enhancement values also apply directly to open space parcels. It should be noted that the recorded value enhancement is typically somewhere between 10-30% with rapidly decreasing affects related to distance from amenity – with all effects typically vanishing within a half mile or less.

*Natural System Values:* Valuation of land based on natural system integrity. For example, an intact, pristine watershed may be much cheaper to buy and maintain in that state – as opposed to spending money on water purification/treatment facilities. Without doubt there are natural system values located in the Alpine Triangle (fisheries, watershed, etc), however monetizing these is complicated and requires comprehensive inventories of existing assets and alternatives analysis. Also the question remains as to whether existing management by the BLM is adequate or if

only NCA or some other land management designation statuses would be necessary to protect these values. Possibly a topic for future study.

*Use/nonuse value:* difficult and somewhat controversial valuation system. Refers to peoples' willingness to pay for difficult to monetize commodities – e.g. lack of crowding, beauty, etc. For example, hunters will pay premiums to hunt common game (such as deer) in exotic or pristine locations (such as Alaska). Again, despite its complexity, and although RPI agrees (in part) with the legitimacy of this valuation system, and further acknowledge that it may have some applicability to the designation argument (e.g. how much are “nature” users willing to pay for the absence of mining activity versus the economic benefit of that activity?) – generating accurate information requires extensive customized on-site surveying and is beyond the scope of this report.

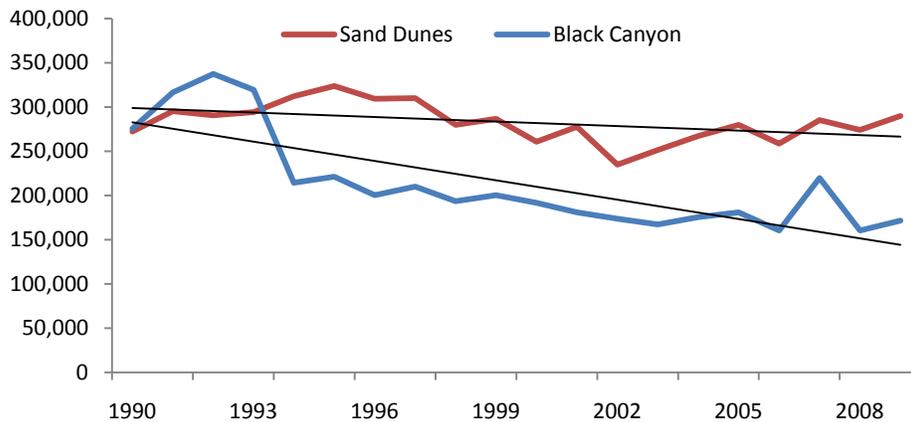
*Production values:* refers directly to the production values of natural resources including agriculture, grasslands/grazing, timber, and minerals – these values are considered as a part of this analysis in following sections

*Open Space Activity:* Considering recreational activities taking place on open spaces including hiking, hunting, fishing, biking, skiing, wildlife viewing, 4wheeling, etc. These values are considered in the context of their economic contribution to the local economy in following sections.

## LAND USE DESIGNATION AND VISITATION

Historic/trend visitation data in National Conservation areas is scarce – primarily because access to the areas is typically unregulated – that is, there is no official entrance boot or fees such as there are with National Parks and some National Monuments. Although RPI was unable to find any research directly dealing with reliable historic visitorship and National Conservation Area designations we were able extrapolate some data from other studies including wilderness, national park, and national monument sites. Unfortunately, National Parks, for which there is extensive data, exist in a category unto themselves due to the establishment of the National Park brand, public recognition, effective geographic dispersal, historical significance, media attention, and their exceptional quality. But even a National Park designation does not necessarily guarantee increased visitorship. The Black Canyon of the Gunnison and the Great Sand Dunes National Monuments were converted from National Monument Status in 1999 and 2000 respectively – and both experienced a generally downward visitor trend after that designation change.

Figure 24- Sand Dunes National & Black Canyon National Park Visitor Days



Incidentally, a report prepared by the Colorado University Extension Office in 2001 attempted to project future visitorship and attendant economic impacts of the conversion of the Black Canyon from National Monument to National Park status. The researchers projected a permanent (approximately) 20% increase in visitorship – when in actuality, in retrospect, there has been a nearly 20% decline over the last ten years. The reasons for this decline are unknown.

In an analysis undertaken in 2010 by the Wyoming Wilderness Association looked at one cast to analyze the “designation effect” that is, how does a land use designation change visitation patters were examined. The findings of this short analysis on the Cloudpeak wilderness in the Bighorn National Forest (Wyoming) concluded that vistorship to the area declined slightly after its change from basic National Forest status to Wilderness in 1984 – it was furthermore projected in this study that visitorship would continue on a modest decline.

Another paper entitled *“Does Wilderness Designation Lead to Increased Recreational Use?”* concluded that the wilderness designation probably does not lead to increased use. The study considered before and after visitation patterns in the Rattlesnake National Recreation Area and Wilderness (Montana). The study looked at whether a wilderness designation in the Recreation area increased use. During the time sample study period visitorship actually declined, although the demographics of the visitors remained essentially the same with the single exception of a higher percentage of young people. The group size declined as did the number of motorized users. Other data indicated there may be some modest designation effect because the number of visitors who indicated it was their first time to the area increased five percent over those visitors surveyed prior to the designation. .

An April 2007 economic development Report prepared by Colorado State University Cooperative Extension Office looked at the impacts of varying levels of restriction the Little Snake Resource Management Area (Colorado). Four planning alternatives were

considered and projected through two decades. The baseline projections represented visitation under the current plan. Alternative B (low restriction) would expand motorized uses, Alternative C (mid restrictive) would result in more strict environmentally oriented management and some closures of OHV opportunities although some would stay in place. Under Alternative D (highly restrictive) – the greatest environmentally protective and regulatory restrictions would be put in place – these restrictions would primarily result in decreased motorized use opportunities.

The report estimated that overall visitation would increase by about 10% over the next two decades under baseline conditions and the low restriction alternatives. If the high restriction alternative was chosen total visitation could be expected to decline by 23% the first decade and by 28% by decade two. The Middle restriction would result in significant motorized user decline but negligible decrease in overall use as it was assumed that non-motorized users would fill the gap. It should be noted however that the economic impact of the middle and high restriction regimes was pronounced as motorized users were estimated to spend approximately 44% more than non-motorized users per day.

*Figure 25 – Effect of Management Restrictions on Visitation*

	Base Line	Low Restrict	Mid Restrict	High Restrict	Change from Baseline to Middle Restriction	Change from Baseline to High Restriction
Decade 1						
Motor	28,897	28,897	21,673	5,575	-25%	-81%
Non-Motor	7,224	7,224	14,448	22,300	100%	209%
Total	36,121	36,121	36,121	27,875	0%	-23%
Decade 2						
Motor	31,787	31,787	24,273	5,699	-24%	-82%
Non-Motor	7,947	7,947	16,182	22,794	104%	187%
Total	39,734	39,734	40,455	28,493	2%	-28%
Total Growth %	10%					

Although the results of this study are interesting they are not directly applicable because they do not specifically address a land use designation change per say – rather they describe the effects of differing management plans. Nonetheless, they do give an important indication on how a restriction on motor vehicles affects both motor and non-motor enthusiasts. It is reasonable to conclude that moderate changes in motorized use could result in visitation changes ranging from 0-10% over a twenty year period.

Finally, an analysis conducted in 2002 of McCinnis Canyons National Recreation Area indicated a moderate uptick in trailhead, camping, and boat launches, compared to baseline, after the designation in 2000. But, this data has yet to be updated and a single year of data (that is post designation), is insufficient to indicate a trend.

In conclusion – despite extensive searching, there is little evidence to support that a land use management/category/name change results in significant visitation increase or declines. There is some evidence to support that restrictive management or designations may decrease the number of motorized users – it is possible that non-motorized users may fill the gap between the two, up to a point. It is difficult, if not impossible, given the existing data, to assume or justify a variation in visitation exceeding 10% either plus or minus – unless very restrictive motor vehicle regulations were enforced along with extensive road closures. 10% is likely a liberal estimate.

## CASE STUDY

The Sonoran Institute, a conservation oriented not for profit organization, conducted extensive research on the role of public land and the economies of western communities. Specifically, they published two reports: *Public Lands Conservation and Economic Well Being* and *Prosperity in the 21<sup>st</sup> Century West*. In these two reports they conducted an exhaustive analysis of all 413 counties in all 11 western states. Although generally concluding that Wilderness Area, national parks, national monuments and other protected land designations have a stimulating role in local economies they found that not all areas are affected in the same way. Three of the top factors impacting the ability of an area to capitalize on protected lands are access to metropolitan areas via road and air service as is the educational attainment of the workforce and healthy stream of in-migration.

Utilizing this data, the Institute conducted another research project entitled “*The National Landscape Conservation System’s Contribution to Healthy Local Economies*” wherein they analyzed 9 of the 16 (15 at the time of the reports writing) National Conservation Areas. An abbreviation of their general findings is as follows:

- 1) Counties that currently have diverse economies with a history of attracting and retaining high paying jobs, have good access to transportation infrastructure, and educated workforces – continue to thrive after designation.
- 2) Counties with boom-bust cycles, that lack transportation access to metro areas, and rely primarily on a single industry continue to perform poorly after NCA designation.

Within the framework of their analysis San Juan and Hinsdale counties are categorized as rural without airport while Ouray and Gunnison are characterized as non-metro with airport. In the Sonoran report growth in non-metro counties with airports after designation was on average considered good with 101% (average) income growth over the 22 year period (1980-2002).

However, all of the existing Colorado counties (Delta, Mesa, and Montrose) possessing NCA’s - while making respectable increases, lagged well behind metro county growth.

Nearly all of the rural county’s examined in the Sonoran Reports experienced poor growth (relative to the other counties) – despite having a National Conservation Landscape System property in close proximity.

RPI conducted the same analysis on three Counties in Colorado with NCA’s Mesa, Montrose, and Delta. The Gunnison Gorge NCA was designated in 1999 and the the Mcinnis canyons was also designated that year. The empirical results follow:

*Figure 26 - Economic Indicators of Colorado NCA’s*

Montrose County Colorado - Gunnison Gorge NCA 1999									
	% Change						% Change 1990-2000 vs. 2000-2008		
	1980	1990	2000	2008	1980-2000	1990-2000	2000-2008	Local	State
<b>Gunnison Gorge NCA 1999</b>									
Personal income (millions)	185	349	770	1,227	317%	121%	59%	-61%	-85%
Population	24,524	24,507	33,600	40,484	37%	37%	20%	-17%	-28%
Per capita personal income	7,533	14,242	22,921	30,318	204%	61%	32%	-29%	-35%
Total employment	12,031	13,552	20,042	24,409	67%	48%	22%	-26%	-31%
<b>Delta County Colorado - Gunnison Gorge NCA 1999</b>									
Personal income (millions)	164	266	598	922	264%	125%	54%	-70%	-85%
Population	21,467	21,053	27,916	30,834	30%	33%	10%	-22%	-28%
Per capita personal income	7,652	12,636	21,407	29,909	180%	69%	40%	-30%	-35%
Total employment	8,956	8,728	13,002	16,305	45%	49%	25%	-24%	-31%
<b>Mesa County Colorado - McInnis Canyons NCA 1999</b>									
Personal income (millions)	800	1,427	3,004	5,203	276%	111%	73%	-37%	-85%
Population	82,796	93,757	117,488	141,905	42%	25%	21%	-5%	-28%
Per capita personal income	9,658	15,217	25,565	36,665	165%	68%	43%	-25%	-35%
Total employment	43,710	49,479	70,123	91,728	60%	42%	31%	-11%	-31%

While all of the counties experienced considerably less robust growth in personal income and employment in the period after NCA designation (2000-2008), the state as a whole experienced considerably less robust growth and it would be erroneous to attribute the downturn to the NCA. Alternately, because the decreased growth is, in most categories, not as acute as found in the state as a whole, it may be that these counties fared better than the state as a whole due to the presence of the NCA – however, this too is probably an erroneous assumption – the data do not suggest a correlation or causation. An exceptionally complex analysis would need to be conducted to support causal relationships and more complete data sets would be necessary to establish correlational relationships.

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## SECTION FIVE. ESTIMATED POTENTIAL IMPACTS OF THE PROPOSED NCA

As determined in the first section of this report, NCA designation in the Alpine triangle would most likely impact the traditional, and tourism and is unlikely to dramatically impact industries associated with the regional center, household, indirect basic and non-basic sectors

Because the research conducted in the course of this analysis failed to reveal that an NCA designation would have significant impacts on visitor numbers or real property values the final composite analysis here suggests that these numbers be presented in a plus or minus spectrum. Given the available evidence it seems prudent to assign no more than a 10% increase or decline.

The single most dramatic potential impact economically is contingent on two things. First, that the area be designated as an NCA in which mineral entry is prohibited and second, that mineral entry operations return to near boom year status.

The implications of all of these scenario's including their impacts to local government revenues are explored in the following sections.

### NATURAL RESOURCES

In all but 2 of the 16 national conservation areas mineral entry has been withdrawn. The two NCA's that allowed mining were designated in 1970 and 1980. All consequent conservation areas have withdrawn those rights. A notable exception is the Canyon's of the Ancients , a National Monument in Montezuma County, does allow for existing activities and leased properties to continue with operation although does not allow any new operations that do not further conservation values as stated in the act.

Mining does not currently play a large role in the regional economy of the tri-county area, however if a mining boom were to occur, the prohibition of mining in the alpine triangle could dramatically effect local employment – that is in terms of forfeited employment if the NCA prohibited mineral entry. The following is based on an analogy of past boom years. In past boom years in the triangle each mining claim generates an average of .09 jobs. If mining is prohibited in the alpine triangle the potential job loss associated with the 2,325 mining claims totals more than 200. Again, this loss would only occur if 1) mining returned to its highest boom in the last three decades, and 2) if the NCA designation prohibited mineral entry. Currently there are approximately 17 jobs associated with mining in the tri-county area – if an NCA is designated it is unknown whether these woud increase or decline. If an NCA is designated prohibiting mineral entry – it is very likely these jobs would end.

*Figure 27 – Potential Mining Employment Impacts*

	Boom years (1984,1987,1988-1990)	Bust Years (1992-1994)
San Juan County Mining Jobs	270	22
San Juan County Jobs/Claim	0.09	0.01
Estimated Mining Claims in AT	2,325	2,325
Total Potential Jobs	203	16

Source: BEA, RPI Calculations

## TOURISM

If visitation patterns are altered plus or minus 10% by a NCA designation, the area could lose or gain 130 jobs. Because of the relatively small size of the combined county economies, the addition or loss of 130 jobs would substantially impact local employment, and this potential change equates to 3% of total employment in the area. Again, the available assimilated evidence does not point clearly to either gains or losses in visitation and the 10% change number is considered prudent.

### SPENDING

A 10% increase or decrease in visitation would directly impact total visitor spending. It is estimated that alpine triangle visitors spend more than \$12.5 million.<sup>6</sup> And a 10% change totals \$1.2 million. In 2009 the three counties had a total of \$121 million in gross sales, 48% of which is attributable to tourism. Therefore a 10% change in spending from alpine triangle visitors would have a 2% impact on tourism spending in the area, and a 1% impact on total spending.

### SALES TAX

A 10% change in spending would alter sales tax revenue streams for each of the three counties. Between 2007-2009 the three counties collected a combined total average \$1.6 million in sales taxes. 48% is attributed to tourism, and 24% of the tourism share is attributed to the alpine triangle, for a total of \$192,000. A 10% change in visitation could increase or decrease local revenues by \$19,000, which equates to a 1% change in total collections.

### PROPERTY TAX

If property values in the three counties experience an increase or decrease in value due to a designation change, property tax collections would mirror those changes. Therefore property tax collections in the three counties could increase or decrease by over \$1.5 million.

*Figure 28- Potential Impacts to Tourism, Spending, Sales Tax, and Property Taxes*

	Existing Conditions	+/-10%	Total Including 10% Decrease	Total Including + 1-% Increase
Tourism Jobs	1,304	130	1,174	1,434
Alpine Triangle Visitor Spending	\$12,543,491 <sup>6</sup>	\$1,254,349	\$11,289,141	\$13,797,840
Alpine Triangle Sales Tax	\$192,548	\$19,255	\$173,293	\$211,803
Assessed Property Values	\$302,361,630	\$30,236,163	\$272,125,467	\$332,597,793
Property Tax Collections (2009)				
San Juan	\$2,385,647	\$238,565	\$2,147,082	\$2,624,212
Ouray	\$10,678,704	\$1,067,870	\$9,610,834	\$11,746,574
Hinsdale	\$2,601,944	\$260,194	\$2,341,750	\$2,862,138
Total	\$15,666,295	\$1,566,630	\$14,099,666	\$17,232,925

<sup>6</sup> This analysis assumes that spending by local users would not change, therefore only visitor spending is considered for potential impacts.

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