Gunnison County, Colorado

Development Impact Analysis:

Gunnison-Crested Butte Corridor Comprehensive Plan, Land Use Alternatives

November 2004

Prepared by:

RPI Consulting Inc.

TABLE OF CONTENTS

INTRODUCTION & METHODOLOGY

This complementary report to the 2004 Gunnison County Gunnison-Crested Butte Corridor Comprehensive Plan Land Use Alternatives Element, evaluates the costs to Gunnison County of providing services and facilities for each of the three alternatives developed in the Plan. These land use alternatives represent three different development patterns to accommodate the 4000 additional residential units projected for the unincorporated County by 2025.

The analysis contained in this report evaluates the differential costs for County departments generated by the Low, Medium, and High Density alternatives in the 2004 Gunnison County Gunnison-Crested Butte Corridor Comprehensive Plan Land Use Alternatives Element. The services and facilities that vary with the density are called out specifically in the Dynamic Analyses for the Sheriff's Department and for the Road and Bridge Department. Using CommunityViz GIS software, RPI analysts generated a model for estimating the vehicle miles traveled implied by each of the 3 land use alternatives.

Development impact reports enable Towns and Counties to make *full cost accounting* of the impacts of new growth and development on local economies, public infrastructure, fiscal resources, revenues, land use/physical attributes, and some environmental and social resources. This development impact report analyzes growth within Gunnison County over the next twenty years.

Development impact reports are a useful tool for local governments and citizens alike because they allow communities to engage the following issues:

1. Calculate the incremental costs of growth.

   Understanding the costs of growth at its fundamental level is the most flexible way to calculate the true costs both now and in the future. This report contains the building blocks with which to understand and track future growth in your community. Once the costs generated by a single residence or commercial / industrial land use are known, simple arithmetic can be used to determine the cost of any number of units. Within this report costs are be broken down into residential /non-residential units, population, and vehicle trips. Each is thoroughly explained in the appropriate section of this report.

2. Link land uses to fiscal realities

   One of local governments' most powerful tools is the ability to exert influence over land uses. Because of the variable costs associated with different types of land use, governments can, given quality information, perform cost/benefit analysis of proposed uses. Cost benefit analysis is equally important when considering comprehensive planning, zoning and/or rezoning of land.

   We know that certain types of land use are more intense than others and consequently we expect them to have greater impacts. For example, the average large grocery store generates far more vehicle trips, public safety calls, and solid waste than any single family home. Clearly, this is a high intensity land use. On the other hand, large grocery stores can produce significant amounts of tax revenue, perhaps offsetting their costs. If our criterion is simple fiscal contributions, a grocery store may come out far ahead of single-family homes in a cost-benefit analysis. Of course, the financial "bottom line" is not always the single determinate in community decisions concerning land use.

However, in many ways, development impact reports help us to quantify some quality of life issues.

Many people would agree that traffic jams, high crime rates, or not having enough clean drinking water represent serious quality of life issues. Unfortunately, many of these conditions arise when Counties or Towns grow faster than public, and often even private, services and infrastructure can service them. Consequently, services and infrastructure tend to degrade, quickly creating backlogs, which are difficult to rebound from.

This analysis quantifies the cost of sprawling rural development presented by the low density alternative in the 2004 Gunnison Land Use Alternatives Element versus more the more compact proposed development of the medium and high density land use alternatives.

Frequently, planning and zoning takes place using only experience and intuition. While these are certainly important components of quality planning, RPI believes that comprehensive and accurate information is a critical element that is often missing. Ultimately, community involvement, and sound judgment combined with accurate, objective information will yield the best results for long-range County and Town planning.

3. Establish baseline information

In order to chart a course for the future, a County or Town must know where it is right now. A useful component of this analysis is the establishment of current Level of Service (LOS) information for local government services and infrastructure. Typically, service levels are established on a per capita basis. For example, parks may be related in terms of acres per capita or library items as volumes per capita. While as numbers these may seem somewhat abstract and dry, they serve two important functions. First, they are an absolute, quantitative description of the service a typical citizen receives from any public good. Clearly, a library with 100 books serving a population of 10,000 is providing poor service to the community. Alternately, a library that holds 10,000 books for every citizen provides a tremendous level of service. Likewise with parks and open spaces, or fire protection.

LOS = Level of Service

This report not only reveals existing conditions in the community now, but also makes comparisons to other localities and/or national standards - providing some context both of where it is now and where it may go in the future.

4. Lay the groundwork for fees and services

RPI's analysis and numbers are meticulously generated from the most current and accurate information available. When the cost of growth is realized, local government may want to take steps to mitigate some of the impacts through fees and taxes. Because RPI is demonstrating the *incremental* costs of growth, not all of the per unit cost numbers can, or should, be converted into fees and taxes. To do so requires an additional step that involves identifying: who is going to bear the tax burden, for what, how much is being contributed by other mechanisms, and for how long. However, given the establishment of the base numbers found in this report, this step is a relatively simple one for many departments and services. Please be aware, that road and street

costs are an exception to this rule and often require significant additional work and analysis.

IMPORTANT CONCEPTS TO UNDERSTAND

It is imperative that two simple concepts be thoroughly understood prior to examining the results of this report.

1. Level of Service (LOS)

   The idea of level of service will recur throughout this report. A simple analogy serves to illustrate the concept. Suppose that you entered a restaurant with a small kitchen, two tables, and two waiters; you sit at one of the tables and begin dinner. You would expect, given the ratio of waiters to tables, that the service be good. Now consider that you enter the same restaurant a week later, with the same kitchen and the same two waiters, to discover that they have added one hundred additional tables and that the restaurant is packed with people. Certainly, after having been seated, you would expect a significantly decreased level of service from the two waiters. Of course, the same happens with provision of government services and infrastructure. If new growth is not accounted for in police, streets, fire, health, sewer and a host of other services while population is being added, we should expect to see a decrease in our overall level of service. Meaning, that perhaps we are stuck in traffic more often, our parks are more crowded, we must wait weeks to see a doctor, or that our water use is limited to certain times of day.

   Level of service also allows the community to see where it stands in relation to other communities or even against national standards. It is a measuring stick from which the community can decide to increase or decrease its existing service. For example, your community has police service that is higher than the national standard, but your park system does not equal that of other, similar sized communities. You may decide to de-emphasize funding priorities for law enforcement and instead focus on growing a park system, while imposing a fee structure that ensures that new growth and development will not degrade the law enforcement that you currently have.

2. Projections vs. Forecasting

   Projections and forecasts are often mistaken for the same, however this is inaccurate, and a distinction between the two is particularly important when considering development impact analysis.

   The Rural Planning Institute typically uses projections in its methodology. Projections are essentially an if-then statement about the future. If variable x grew at ten percent over the last ten years *and* the next ten years are relatively similar *then* variable x will continue to grow at 10 percent. Strictly speaking, projections are never wrong because they simply make the assumption that a trend observed over time will continue into the future. In fact, projections are often extremely accurate, particularly over 5-15 year periods. Because projections are based on historical trends, they take into account the typical ups and downs over time. For example, unemployment observed over the last ten years would have been high in the late eighties and early nineties, and quite small in the late nineties – a typical business cycle. An average taken between 1985 and 2000 would reflect this and the consequent projection into the next fifteen years would reasonably predict the same.

Forecasts represent a significantly different concept. They are a judgmental statement that represents a best guess about future conditions. Forecasts typically utilize a wide array of disparate variables and then combine them with the forecaster's expertise and experience to generate a "prediction" of future conditions. In certain situations, forecasts can certainly be useful; however, they are inappropriate for fiscal forecasting. Furthermore, forecasting methodologies may vary widely, making it difficult for third parties to understand how results are achieved. Virtually all of RPI's numbers are predicated on projections. In some cases the projections are modified.

METHODOLOGY

The methodology used by RPI Consulting to conduct development impact analysis consists of the following five steps:

1. Demand unit measurement and projection
2. Determining the proportionate share
3. Determining the current Level of Service (LOS)
4. Calculating the cost of maintaining the current Level of Service (LOS) given the projected demand units
    - For the Road and Bridge and Sheriff's Departments, *Dynamic Analyses* calculate the differential cost of serving the Low, Medium, and High density land use alternatives.
5. Revenue comparisons and fiscal summary

This basic approach applies to each department or special district included in this analysis. Following is a more detailed explanation of each step.

DEMAND UNIT PROJECTION

Demand units are the units of growth generating additional demand for public facilities and services. Demand units differ for departments and/or special districts, depending on the nature of the service and facilities provided. For example, housing units are used for calculating increased demand on schools. School districts will usually experience marked increases in the number of students when there are increases in housing units. Similarly, increased demand for library services, materials, and facilities is related to the overall population. More people translate into more library users, so population is a demand unit for calculating additional costs on the library. Non-residential demand units are typically defined in terms of square footage, but there are some minor exceptions.

Gunnison County's alternative analysis involves 1) selecting appropriate demand units, 2) measuring the current number of demand units, and 3) projecting the demand units generated by the projected development in 2025.

PROPORTIONATE SHARE

RPI development impact analyses assign the cost of development to specific land uses. This requires a determination of what proportions the residential and non-residential portions of the projected growth will cost various departments, districts, and subtraction of costs that are not directly related to the development. For example, a Sheriff's office responds to calls

in specific places, some of which are residential and others that are commercial or institutional. Accurate projection of the increased demand generated by a development with mixed commercial and residential development first requires a known proportion of how the department or special district's resources are directed to these different land uses, as well as to areas unrelated to land use (e.g. highways). Establishing these numbers generates the proportionate share.

CALCULATING THE LEVEL OF SERVICE

Level of service (LOS) calculations are dependent on having the current demand units for a department or special district and the proportionate share. The level of service (LOS) is defined as the amount of resources (employees, dollars, sq. ft., library items, etc.) per demand unit, and is expressed both in terms of day-to-day operations and maintenance and in terms of capital facilities (buildings, equipment, library circulation items, etc.). After the proportionate share has been applied to the resources, LOS can be expressed as a cost per demand unit. This is the fundamental measure of the incremental cost of growth.

If a department or district is planning major upgrades to their service levels (for example, if the Gunnison County Sheriff were planning to triple the size of the jail) Level of Service can be expressed in terms of target Level of service by a certain year.

The incremental cost of growth, that is, the cost per demand unit, is multiplied by the projected 4000 additional residential units in 2025 to obtain projected cost of maintaining the current level of service or target level of service.

DYNAMIC ANALYSIS OF LOW, MEDIUM, AND HIGH DENSITY ALTERNATIVES

RPI developed a model using CommunityViz GIS software to calculate the amount of driving on County Roads that will be generated by the Low, Medium, and High density alternatives. Traffic engineering and planning professionals have long known that costs of building, maintaining, and patrolling roads increases with the amount of driving occurring on a jurisdiction's roads. The units that most accurately measure the amount of driving are *vehicle miles traveled* (1 average daily vehicle mile traveled = 1 vehicle traveling for 1 mile each day). In addition to calculating the future vehicle miles traveled (VMT) using the CommunityViz model, RPI also calculated the current VMT.

Using the incremental costs discussed above allowed the calculation of cost per vehicle mile traveled to maintain current LOS for the Road & Bridge and Sheriffs departments. This incremental cost per vehicle mile traveled was then applied to the vehicle miles travel differences between the low, medium, and high density land use alternatives in the Gunnison County Gunnison-Crested Butte Corridor comprehensive plan.

For a detailed description of the methodology used to conduct the dynamic analysis of the land use alternatives, see **Appendix.**

REVENUE PROJECTIONS AND FISCAL SUMMARY

In the final step, revenues are projected and compared to the costs. Revenue projections are specific to the type of revenue and methodologies are explained throughout. In order to isolate the revenues generated specifically by residential units and their occupants, RPI used

an incremental revenue projection that estimates the revenues generated by a typical residential unit expected over the next 20 years. Having projected the per unit revenues, projecting total revenues for 4000 residential units is a mater of arithmetic. At this stage becomes evident whether the development will pay its way to maintain the current or target level of service or if the LOS will decline short of additional funding

Please do not hesitate to call Rural Planning Institute for clarification or with questions concerning any element of this project. (970) 382-9153

EXECUTIVE SUMMARY & FINDINGS

PURPOSE

The research summarized in this report serves 2 functions:

1. To estimate the current dollar cost per increment of development to maintain existing public service levels. This sets a benchmark for understanding the link between land use, the demand for public services and facilities, and the costs to the County.

2. Evaluates the differential costs of maintaining current service levels for the Low, Medium, and High density alternatives developed in the Gunnison – Crested Butte Corridor Comprehensive Plan.

SUMMARY

Gunnison County, like many high growth jurisdictions in Colorado, is vulnerable to experience some degree of service degradation due to rapid population increases. The possibility becomes particularly clear upon evaluating the fiscal impacts of residential development in the unincorporated County.

Figures 1 & 2 details general fund department-by-department costs to maintain the current service levels, per residential unit – both for ongoing annual operations and one time capital facilities.

Figure 1. Incremental Costs for General Fund Departments - Residential

Department	Additional Staff Needed per 1000 Residential Units	Annual Operations Costs Per 1000 Residential Units	Capital Facilities Cost per 1,000 Residential Units (one time cost)
Administration	4.5	$ 367,900	$ 61,500
Sheriff	2.1	$ 190,800	$ 188,900
Jail	1.1	$ 49,500	$ 211,500
Health	1.1	$ 65,200	$ 30,500
Misc. Services and Facilities	0.9	$ 58,700	$ 191,800
Total	9.7	$ 732,100	$ 684,200

The Gunnison – Crested Butte Corridor Comprehensive Plan explores three different land use alternatives (depicted in **figure 3**) based on the Growth Challenge, a geographically based community input exercise.

Figure 2. Incremental Costs for General Fund Departments – Non-Residential

Department	Additional Staff Needed Per 100k Sq. Ft. Non-Residential Floor Area	Annual Operations Costs Per 100k Sq. Ft. Non-Residential Floor Area	Capital Facilities Cost Per 100k Sq. Ft. Non-Residential Floor Area (one time cost)
Administration	0.1	$ 9,200	$ 1,500
Sheriff	0.2	$ 16,300	$ 16,100
Jail	0.1	$ 300	$ 1,300
Total	0.4	$ 25,800	$ 18,900

The Low, Medium, and High density alternatives produce differential costs for the Road and Bridge and Sheriff's department's contingent on the amount of driving projected to occur under each growth alternative. Increased driving means more maintenance and improvements for the Road and Bridge department and more traffic patrol for the Sheriff's department.

Other departments, like administration, health services, and the jail are centralized and land use patterns do not affect demand for services in a tangible way.

Upon comparing the projected revenues to the projected costs the possibility of the degradation of existing service levels in the face of new growth becomes clear. The incremental costs represent the cost of maintaining the current level of service and a deficit is not necessarily a projection of a negative balance in the county budget, but rather it represents a proportionate degradation from current service levels.

Figure 3. Dynamic Analysis Fiscal Impacts

		Operations Costs For Projected 4,000 Residential Units	Annual Revenues Projected from 4000 Residential Units	Annual Balance	Capital Facilities (One-Time Cost During Buildout)
General Fund *Dynamic Analysis*	Low Density	$ 2,386,800	$ 2,235,320	$ (151,480)	$ 419,100
	Medium Density	$ 2,352,000	$ 2,235,320	$ (116,680)	$ 384,100
	High Density	$ 2,349,300	$ 2,235,320	$ (113,980)	$ 381,300
Road & Bridge *Dynamic Analysis*	Low Density	$ 3,111,700	$ 827,300	$ (2,284,400)	$ 22,483,700
	Medium Density	$ 966,100	$ 827,300	$ (138,800)	$ 6,980,800
	High Density	$ 796,600	$ 827,300	$ 30,700	$ 5,755,800
Human Services	Non-Spatial Analysis	$ 928,800	$ 1,285,600	$ 356,800	$ 115,600

Large capital facilities costs signal the need for developing additional revenue sources. Impact fees are probably the most appropriate and easily accessible revenue source for funding capital facilities improvements made necessary by future development.

The large lot development pattern explored in the low density alternative would add significantly to both the operations and capital facilities costs of providing county services and facilities for the projected 4000 units in the unincorporated portions of the Gunnison-Crested Butte corridor. In fact, low density operations costs are expected to be $2.3 million more annually than the high density alternative. Low density alternative capital improvement

costs will be nearly $17 million more than the high density alternative. These differences are entirely attributed to increased driving (vehicle miles traveled) associated with each alternative.

FINDINGS BY DEPARTMENT

Road & Bridge

- Providing Roads is among the most expensive duties of the County. Currently it costs $24 per year, per average daily vehicle mile traveled, on County Roads to provide road maintenance and $173 (one time cost) in capital improvements per additional vehicle mile traveled associated with future development.
- The large lot, dispersed, decentralized rural development pattern represented in the low density alternative results in a significant amount of driving on County Roads beyond what the more compact, medium and low density alternatives would generate. This additional driving translates directly into increased costs. Both the operations costs and the capital facilities costs were nearly 4 times greater for the low density alternative than for the high density alternative.
- There is nearly a projected $17 million dollar difference in capital facilities improvements costs between the High and Low density alternative for accommodating the projected 4,000 residential units.
- Gunnison County road and bridge would benefit greatly by a property tax mill levy to off-set the instabilities of State revenue.
- Impact fees re-direct some of the fiscal burden of developing new capital facilities away from the taxpayers at large and more directly towards the development generating the need for the expanded capital facilities.

Administration

- On average, it costs about $81,000 annually per administration employee to provide services to the public.
- Maintaining current administration service levels will cost $1.5 million annually when Gunnison County adds 4000 additional units.
- In order to accommodate the 18+ additional employees needed the County will need an additional $246,000 worth of administration space. Failure to provide adequate space could make it impossible for the County to keep up with the staffing needed to accommodate new development since the availability of work space can be *the* limiting factor dictating whether or not the County hires additional administration employees.
- Administrations costs are the same for the Low, Medium, and High Density alternatives.

Law Enforcement

- The current Level of Service (LOS) provided by the Sheriffs office is 2.1 officers/support staff per 1,000 residents and .2 officers/support staff per

100,000 sq. ft. of non-residential floor area. Traffic enforcement level of service is about $.40 per average daily vehicle mile traveled on County Roads.

- 33% of the demand for law enforcement is related to traffic enforcement.
- Due to the varying daily vehicle miles traveled associated with the 3 Land Use Alternatives, providing law enforcement for the 4000 units under the low density alternative will cost $37,800 per year more in operational expenses than under high density. This cost is roughly equivalent to ½ of a Sheriff Department's employee.
- The low density alternative will cost $37,500 more (capital -one-time cost) than the high density alternative.

Jail

- The current operations level of service is $50 per resident per year to maintain the Jail.
- According to the Preliminary Design Study for the Gunnison County Justice Center Expansion the target level of service for the jail is 5.7 beds per 1,000 residential units, for a one time cost of over $211,000 per 1000 residential units.
- Dynamic Analysis is not necessary for the Jail because it is a centralized facility that generally does not detain a significant number of traffic offenders.
- The projected 4,000 residential units in the unincorporated County will require another 4.3 jail staff people and will cost about $200,000 annually.
- Maintaining the target level of service for Jail facilities will require $846,000 in capital expansion.

County Health

- Because the health department serves County Residents, 100% of the demand for health services is driven by residential land uses.
- The County health department's Level of Service for health services is 1.1 employees per 1,000 residents at a cost of nearly $65,200 per year.
- The County health department's facilities Level of Service is $30,500 per 1000 residential units
- 4,000 additional residential units projected in the Gunnison-Crested Butte Corridor Comprehensive Plan Land Use Alternatives will create the need for 4-5 additional staff members, at a cost of about $261,000 per year, and an additional $122,000 worth of facility space.

Miscellaneous Services and Facilities

- The mean extension service expenditures 2002-2004 divided by the number of residential units yields an annual operations cost of $58,700 per 1000 residential units
- 100% of the demand for general fund miscellaneous services and facilities can be attributed to residential land uses

- Over $¾ million dollars worth of space for miscellaneous County facilities is necessary to maintain the current level of service for the projected 4,000 residential units in the unincorporated Gunnison - Crested Butte corridor.
- Almost 4 new employees will be needed to serve the projected 4000 units.

Human Services

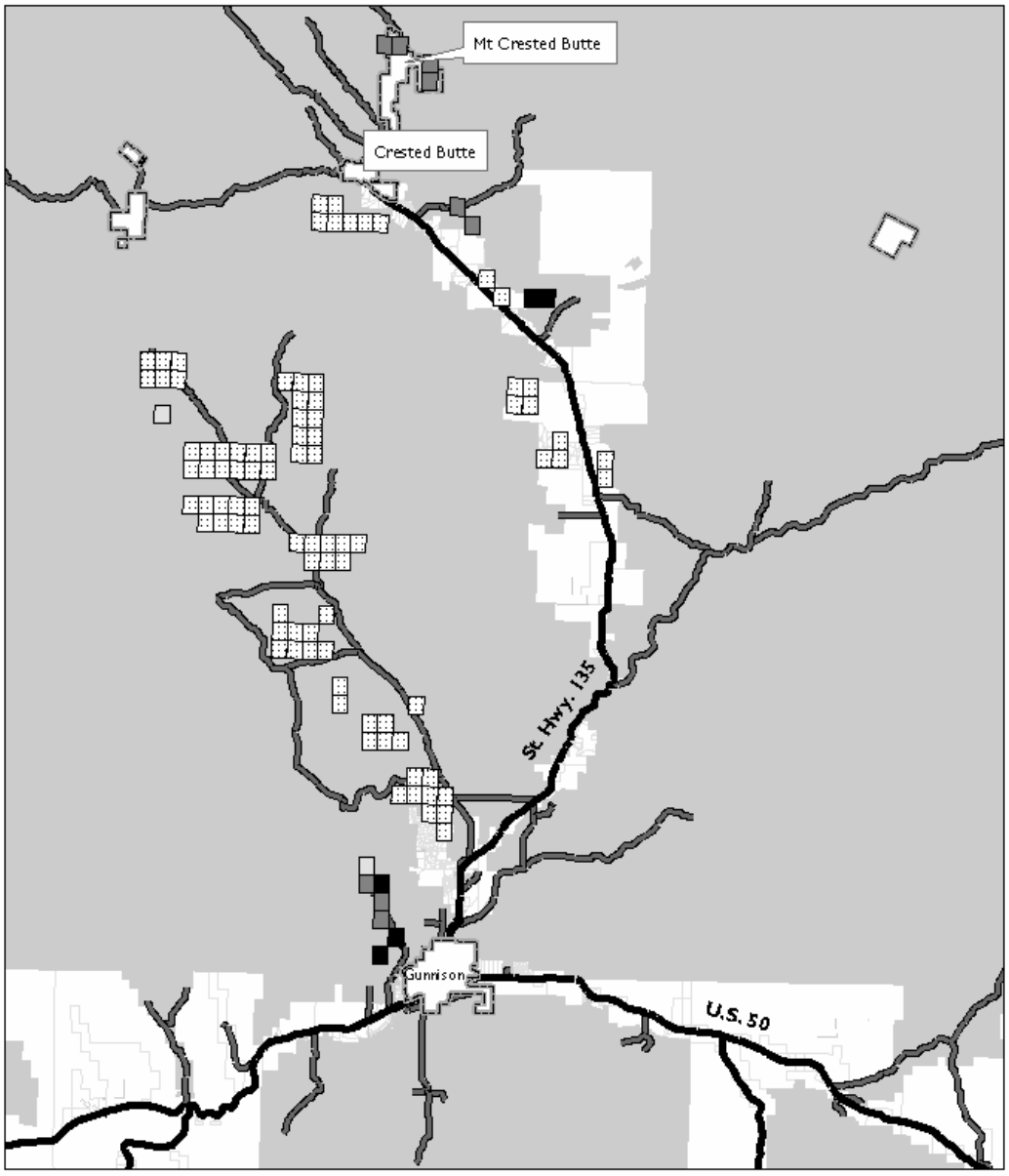
- Because Human Services are highly reliant on State and Federal funding, it follows that the department should conduct an in depth study of the future of this funding and plan accordingly.
- Due in large part to the property tax mill levy, future development of 4,000 residential units will actually result in a surplus that looks to be adequate to cover all of the operations costs in addition to the $115,000 capital facilities improvements.

Conclusions

- Current tap and monthly fee revenues appear to be adequately covering production and facility expansion costs
- The high density alternative will have the least impact on the City Water service as it places the fewest future units within the City's service area.
- The medium density alternative will have the greatest impact on the City Water service as it places the greatest number of units within the City's service area.

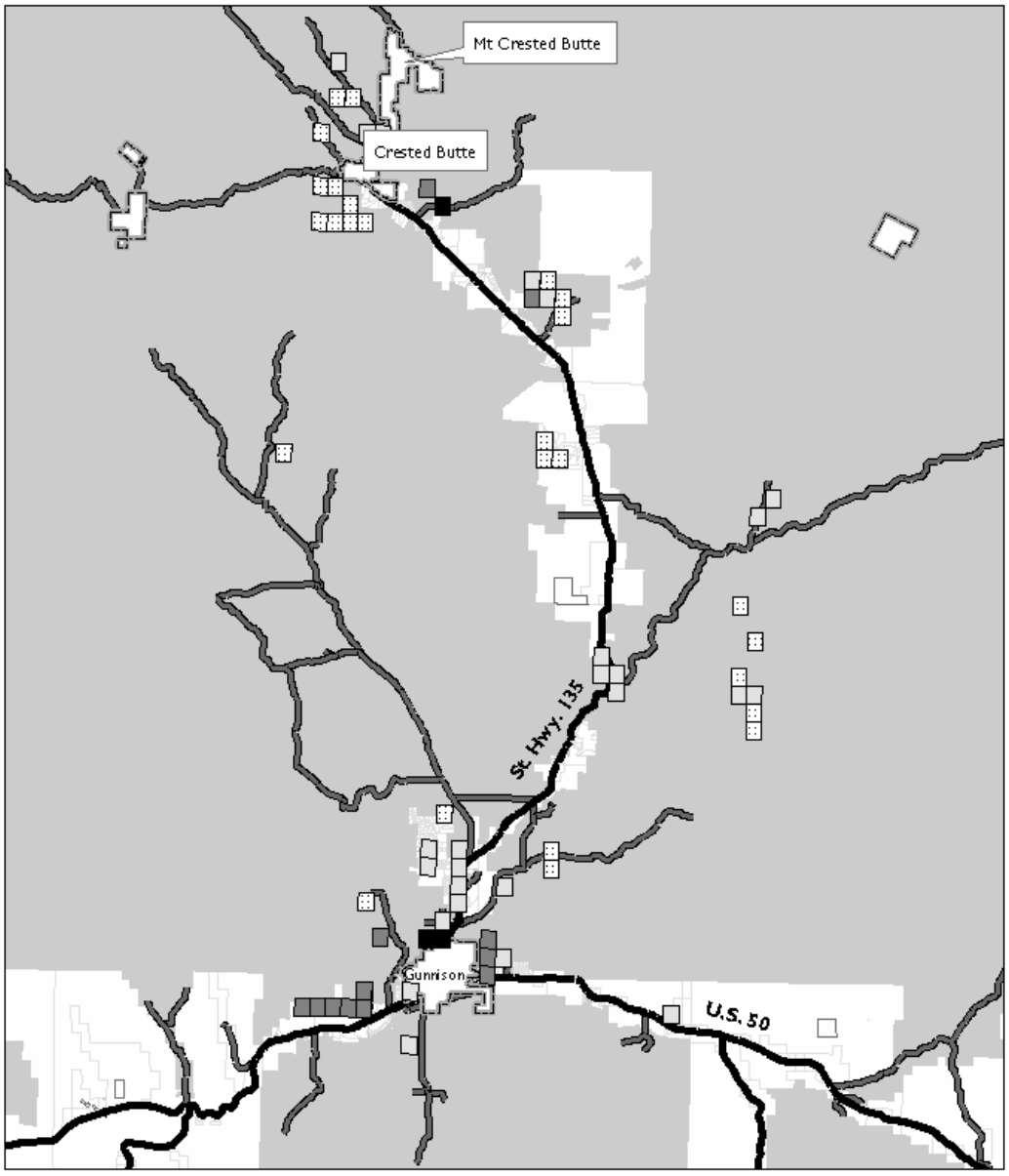
The following pages graphically layout the low, medium, and high density alternatives.

Gunnison-Crested Butte Corridor Comprehensive Plan
Low Density Land Use Alternative Alternative



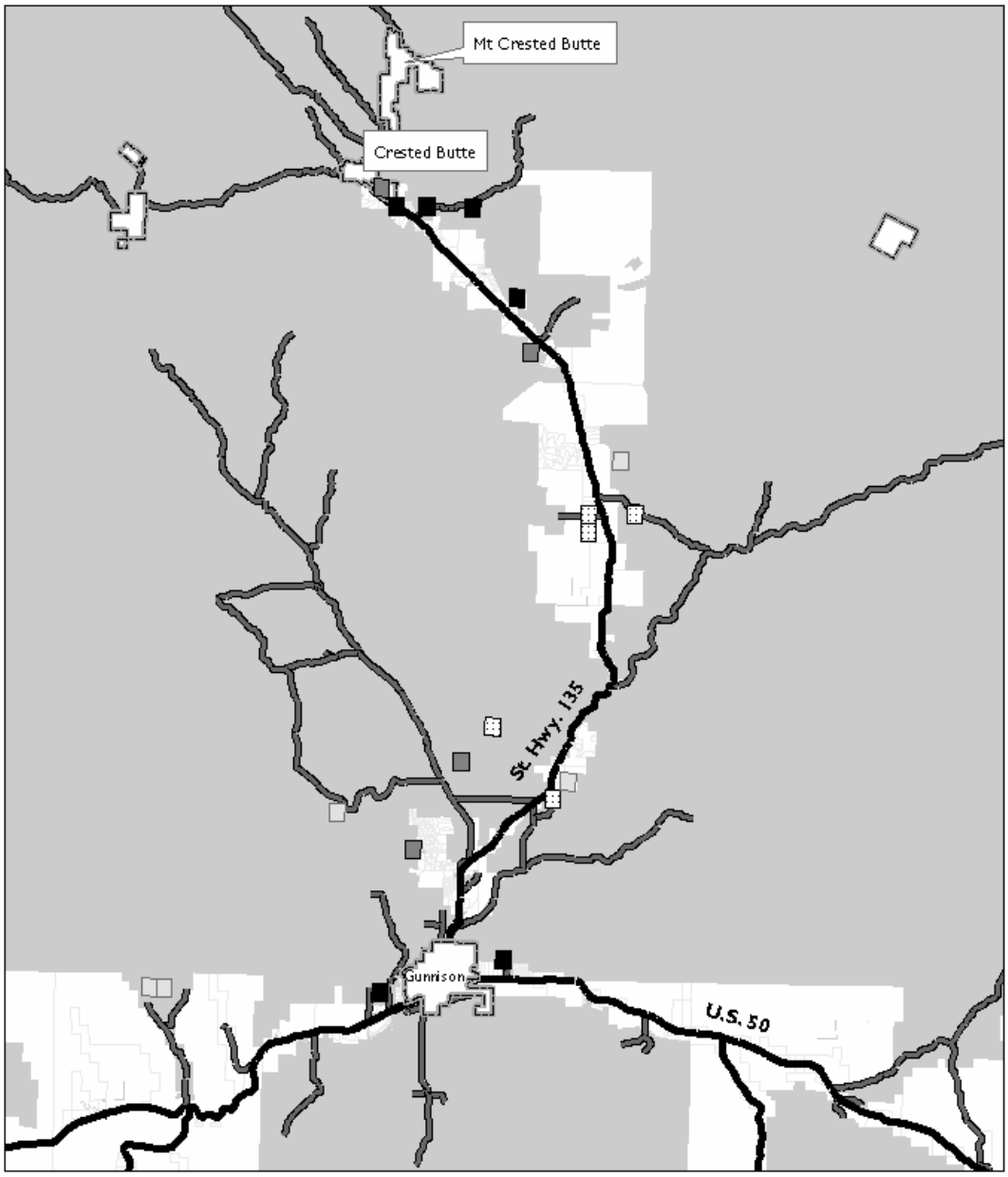
Notes: Each Cell = 160 acres. The cells lying in the white areas (highway access parcels) were not included in the calculation of Vehicle Miles Traveled on County Road

Gunnison-Crested Butte Corridor Comprehensive Plan
Medium Density Land Use Alternative Alternative



Notes: Each Cell = 160 acres. The cells lying in the white areas (highway access parcels) were not included in the calculation of Vehicle Miles Traveled on County Road

Gunnison-Crested Butte Corridor Comprehensive Plan
High Density Land Use Alternative Alternative



Notes: Each Cell = 160 acres. The cells lying in the white areas (highway access parcels) were not included in the calculation of Vehicle Miles Traveled on County Road

EXISTING CONDITIONS AND PROJECTED GROWTH

Because some County services are provided to incorporated and unincorporated areas in the County while others are provided primarily in the unincorporated areas, it is necessary to determine demand units for both. Data sources are listed in the right column of **Figure 4**. Population projections for the entire County were obtained directly from the CO department of Local Affairs Demography Section website.[1]

GUNNISON COUNTY DEMAND UNIT TRENDS AND PROJECTIONS

Figure 4. Gunnison County demand units 2002: Base Year

	Demand Units Base Year 2002	Source
Residential Units (Entire County)	9,664	CO Demography Section
Residential Units (Unincorporated County)	4,940	CO Demography Section
Population (Entire County)	13,999	CO Demography Section
Population (Unincorporated County)	6,233	CO Demography Section
Non-Residential Sq. Ft. (Unincorporated County)	2,440,535	Assessor Database
Non-Residential Sq. Ft.(Entire County)	6,931,908	Assessor Database
Gunnison County % Seasonal Housing Units	34%	U.S. Census
Housing Vacancy	4%	U.S. Census
Average Owner Occupied HH Size Gunnison Co	2.3	U.S. Census
Entire Gunnison County Jobs	9,321	CO Demography Section
Gunnison County Registered Vehicles/Housing Unit	1.9	CO Dept. Of Local Affairs
Total VMT on Gunnison County Roads	161,977	RPI GIS Model (See Appendix X)
Residential VMT	154,112	RPI GIS Model (See Appendix X)
Non Residential VMT	7,865	RPI GIS Model (See Appendix X)

[1] http://www.dola.state.co.us/demog/index.htm

Figure 5. Projected Gunnison County demand units resulting from 4,000 additional residential units in Unincorporated County

	Land Use Alternatives Projected Growth	Source
Residential Units (Unincorporated County)	8,940	Gunnison County Comprehensive Plan Land Use Element
Population (Unincorporated County)	15,433	Gunnison County Comprehensive Plan Land Use Element
Total VMT on Gunnison County Roads (Low Density Alternative)	129,700	RPI GIS Model (See Appendix X)
Total VMT on Gunnison County Roads (Medium Density Alternative)	40,300	RPI GIS Model (See Appendix X)
Total VMT on Gunnison County Roads (High Density Alternative)	33,200	RPI GIS Model (See Appendix X)

Population

Gunnison County gained over 3,000 people between 1990 and the 2002 for a total of 13,999 people in 2002.

Housing Units

The housing stock in Gunnison County (commonly called housing units) increased by nearly 2,400 housing units between 1990-2002. RPI assumes that the county will maintain its current ratio of 2.3 residents per housing unit.

Vehicle Miles Traveled

Vehicle miles traveled are the most accurate units for measuring the amount of driving occurring on County Roads. RPI developed a model to calculate current vehicle miles traveled and projected vehicle miles traveled for the low, medium, and high density land use alternatives using CommunityViz GIS software. For a full description of the methodology used to calculate and project vehicle miles traveled for the Land Use Alternatives, see **Appendix**.

Gunnison County Non-Residential Square Footage

The two basic development categories are residential and non-residential. Non-residential development consists of all of the improvements in the County other than residential units. This includes commercial structures, office space, warehouses, government/institutional – everything *but* housing.

Gunnison County Assessor "CAMA" level data allowed RPI to inventory all of the non-residential structures in Gunnison County. The detailed CAMA database attributes allowed

RPI analysts to sort the buildings by use (merchandising, office, warehouse, industrial, government, etc.) and to add the square footages by use type.

Because the 2004 Gunnison County Gunnison-Crested Butte Corridor Comprehensive Plan Land Use Alternatives Element emphasizes only residential development in the Unincorporated County, the main purpose of calculating the non-residential square footage was to account for its share of the current level of service. This ensures that the cost of providing services and facilities for residential development is not over-estimated.

ROAD AND BRIDGE - *DYNAMIC ANALYSIS*

THE AMOUNT OF DRIVING AND THE COST OF PROVIDING COUNTY ROADS

The County Roads system is the most directly affected by development patterns. The Gunnison County Gunnison-Crested Butte Corridor Comprehensive Plan proposes three land use alternatives for accommodating 4,000 residential units in the unincorporated County: low density (large lot rural development), medium density (exurban development), and high density (compact, urban development).

Increased traffic is one of the most noticeable effects of growth. New land uses nearly always cause new traffic. When someone builds a home on a vacant residential lot, additional traffic is generated by that homes residents, whether they are full or part-time. Almost all types of commercial and institutional land uses will produce traffic where none existed before. Incremental increases in land uses in turn leads to an incremental increases in traffic.

Increased traffic is a result of increased driving. The most accurate way to measure the amount of driving occurring is to measure the Vehicle Miles Traveled. The more vehicle miles traveled a roads system has to support, the more it will cost to maintain the current level of service.

Vehicle Miles Traveled (VMT) are the ultimate source of demand for road operations, maintenance, and capital improvements. While some natural forces contribute to road maintenance (water and erosion damage, etc.), driving is the prime reason for road degradation over time. Similarly, intersections and stretches of roads that were once safe become unsafe with the addition of more vehicles. The County may choose to make the intersections safe again by improving it with turn lanes, shoulders, stoplights, or other capital improvements. If a two-lane road begins to back-up severely because of the buildout of development along it, it may be necessary up-grade it to 4-lanes, a very costly, but sometimes crucial capital improvement.

MEASURING VEHICLE MILES TRAVELED FOR LAND USE ALTERNATIVES - *DYNAMIC ANALYSIS*

To what degree does the cost of providing County Roads vary with each of the land use alternatives: Low, Medium, and High Density Alternatives?

Analytical Steps and Methodology

In order to project costs, RPI first calculated the current cost per Vehicle Mile Traveled on County Roads. This number represents the current level of service for county roads. The following steps are necessary:

1. Calculate the current vehicle miles traveled on County Roads.
2. Isolate the current cost of providing maintenance and capital improvement of County Roads.
3. Divide the costs by the vehicle miles traveled to get current level of service

4. Calculate the vehicle miles traveled on County Roads generated by each of the Land Use Alternatives in the Gunnison-Crested Butte Corridor Comprehensive Plan (low, medium, and high density alternatives accommodating 4,000 residential units).
5. Multiply the costs by the vehicle miles traveled in the low, medium, and high density alternative land use patterns accommodating the 4,000 projected residential units to determine the differential costs of accommodating each alternative.

COMMUNITYVIZ MODEL

RPI developed a dynamic model using CommunityViz and Arc Map Geographic Information Systems Software that estimates vehicle miles traveled for existing and projected development based on where it is located in the County. The model operates on the following assumptions and relationships:

Isolating Areas of Development Served by County Roads

Two geographic factors limit impacts on County Roads:

1. Vehicle miles traveled occurring in municipalities will ultimately be paid for by municipal tax payers.
2. Development on properties adjacent to State highways without easy access to County roads will also have little direct impact on County Roads.

The map at the end of this chapter depicts the "Parcels Using County Roads" that are assumed to use County Roads as their main access.

Calculating Vehicle Miles Traveled Based on Existing Land Uses

Assumption 1: Average Daily Vehicle Miles Traveled for a particular land use on a particular property is equal to the average daily trips associated with that land use multiplied by the distance along County Roads that traffic from that land use must travel to get to State highways or to a municipal streets system. The underlying assumption is that nearly all traffic on County Road parcels is headed to or coming from a State Highway or a municipal street system.

Assumption 2: According to the Institute of Transportation Engineers Trip Generation Manual (6th Edition), a single family residence produces 9.6 average daily vehicle trips. RPI assumes that this estimate, based largely on urban traffic studies holds true in Gunnison County. There is no conclusive evidence to suggest that trip generation rates decrease in rural areas, in fact, recent studies in nearby Montrose County suggest the opposite, that is, that rural residential properties actually produce more than 9.6 average daily trips. Non-residential trip generation figures from the Trip Generation Manual are assumed to hold true for Gunnison County as well.

Based on these assumptions RPI developed a CommunityViz Model that locates the approximate access point on county roads for and measures the distance from that point to the nearest State highway or municipal streets system.

The Geo-database supporting the CommunityViz model includes detail on the land uses occurring on each parcel in the county from the Assessor Database. This database includes

parcel by parcel information on type of use (single or multi-family residential, retail, warehouse, etc.), sq. ft. of primary structures, year built, etc.

The CommunityViz model calculates the average daily trips for each parcel by applying the land use details of each property (number of residential units, sq. ft. of commercial floor area) to the Trip Generation Manual average daily trip rates. It then multiplies the trip generation by the distance traveled on country roads to get to a State highway or Municipal streets system to get the *Vehicle Miles Traveled*.

Calculating Vehicle Miles Traveled for Low, Medium, and High Density Alternatives

The functionality of the CommunityViz model was further extended to calculate the vehicle miles traveled for the 4,000 residential units according to their layout in the low, medium, and high density alternatives. [2]

The calculations were executed in the same manner as the calculation of the existing vehicle miles traveled. The land use alternatives are mapped in 160 acre 'cell' units. Each 160 acre cell, represented by varying densities in each of the Future Land Use alternatives, has a set number of units attributed to it. This number of units was applied to the Trip Generation Manual average daily trip rates (9.6 daily for a single family residence) to calculate the average daily trip for each cell. The model then calculated the distance vehicles would need to travel along County roads to get to the nearest highway or municipal streets system.[7] The product of these two quantities is the vehicle miles traveled for each cell.

Model Results

Figure 6. Vehicle Miles Traveled: Current and Land Use Alternatives

Current Vehicle Miles Traveled on County Roads	161,980
Low Density Alternative Vehicle Miles Traveled on County Roads	129,660
Medium Density Alternative Vehicle Miles Traveled on County Roads	40,260
High Density Alternative Vehicle Miles Traveled on County Roads	33,190

These results are consistent with heuristic reasoning. If a residence is further along a county road from the arterial access that ties this residence in with the rest of the transportation system, motorists driving to and from the residence to conduct their daily lives are simply going to drive more miles. We have no reason to believe that rural dwellers drive less than the well established averages in the Trip Generation Manual - because they live far out on County roads, they simply have a longer trip to the arterial system (the Highways).

[2] With some relatively simple commands Community VIZ was able to 'stack' the distances of road segments and each population cell (growth alternatives) or parcel (existing conditions) was commanded to 'get' the 'distance to highway or municipal streets system' value from the center of nearest county road segment. Municipal and highway access parcels were excluded from the analysis.

The low-density alternative includes many development parcels deep into the side valleys of the unincorporated portions of the Gunnision-Crested Butte corridor. This development pattern results in more traffic producing residences far out on County Roads, resulting in the accumulation of all of those relatively long trips to get to the highway (or to a municipal streets system). The medium and high density alternatives focus more development adjacent to the existing municipalities (some of which would likely be annexed). In addition, the medium and high density alternatives tend to cluster development in the unincorporated areas around existing developed areas, which tend to be closer to the highway, much of which would directly accesses the highway avoiding county roads altogether.

ROADS OPERATIONS AND MAINTENANCE LEVEL OF SERVICE

Maintaining County Roads is costly at nearly $4 million annually. Dividing this by the total vehicle miles traveled in the County yields a cost per average daily vehicle mile traveled of $24.

Figure 7. Existing LOS Operations & Maintenance Cost per VMT

		Operations and Maintenance (Annual Cost)
Per Average Daily Vehicle Mile Traveled	$	24

ROAD CAPITAL FACILITIES LEVEL OF SERVICE

Estimating the cost of maintaining the current level of service for road capital facilities requires a multifaceted approach.

Fleet and Shop Facilities

Expanding the equipment fleet and maintaining an adequately sized and equipped shop are crucial elements of keeping a Road and Bridge department's capacity in line with the demand.

Figure 8. Road and Bridge Equipment and Shop Level of Service

Value of Equipment Used by Rd and Bridge	$	2,657,236
Value of Rd & Bridge Shop	$	142,165
Total	$	2,799,401
Value of Facilities and Equipment per Vehicle Mile Traveled	$	17

The value of road and bridge equipment was isolated from the total value of public works equipment using the data and methods demonstrated in the **Appendix** *Derivation of Value of Road and Bridge Equipment.* This value was then divided by the total current vehicle miles traveled on County roads summarized above.

Incremental Paving

By analyzing the County Road GIS layer, RPI determined that there are about 100 miles of paved roads currently in the County. Probably the most common capacity related road improvements rural counties provide is to pave gravel roads. As the unincorporated county continues to grow and develop, the Vehicle Miles Traveled will increase and the County will need to incrementally pave County roads.

The current level of service for paved county roads is .6 miles of county Roads per 1,000 Vehicle miles traveled. Local contractors estimate the cost of providing base rock, gravel and asphalt for a standard county road will be about $250,000 per mile in the Gunnison- Crested Butte corridor[3]. Therefore the cost to maintain the current level of service for incremental paving is $151 per average daily Vehicle Mile Traveled.

Figure 9. Incremental Paving Level of Service

Miles of Paved County Roads		98
Miles of Paved County Roads per 1,000 Vehicle Miles Traveled		0.61
Cost per Mile to Pave Gravel Roads	$	250,000
Cost of Incremental Paving per Average Daily Vehicle Mile Traveled	$	151

Plan-Based Target Level of Service

The Upper Gunnison Valley Transportation Plan (1999, Charlier Associates) specifies widening and intersection improvements along Gothic Road. Generally the capacity horizon for such road improvements is 20 years. Using projections for traffic on Gothic Road developed from County traffic count data. RPI determined that there will be a 54% increase in traffic between 2004 and 2025, which is the comprehensive plan horizon. If traffic throughout the County increases at the same rate as it is projected on this major arterial road, there will be almost 250,000 VMT in the County in 2025. At this point, the proposed improvements to Gothic Road are likely to be at capacity, so RPI divided the cost of the improvements by the future VMT when the improvements meet capacity to obtain the target level of service.

Figure 10. Plan Based Improvements Target Level of Service

Plan-Based Improvements	$	1,254,000
Cost per Average Daily Vehicle Miles Traveled	$	5.00

Total Capital Facilities Level of Service

Adding all of these components of the cost of maintaining current and target levels of service for County Roads capital facilities yields a total one time cost of $173 per vehicle mile traveled.

[3] Asphalt estimate provided by United Companies and gravel and base work quoted by JCI Construction and Spelone Contracting. Estimators in these companies cautioned that these were 'ballpark' estimates and that trucking distance and degree of prep work could drastically impact the price per mile.

Figure 11. Roads Capital Facilities Level of Service

	Capital Facilities (One-Time Cost)
Per Average Daily Vehicle Mile Traveled	$ 173

FUTURE COST OF MAINTAINING ROADS LEVEL OF SERVICE

The Gunnison County Gunnison-Crested Butte Corridor Comprehensive Plan low density (large lot rural development), medium density (exurban development), and high density (compact, urban development) Land Use alternatives all result in different total Vehicle Miles Traveled for the projected 4,000 residential units (see previous sections). This means that each alternative will bear Roads costs in proportion to the differences in Vehicle Miles Traveled.

Figure 12. Cost of Maintaining Level of Service for Projected 4000 Residential Units

		Operations and Maintenance (Annual Cost)	**Capital Facilities** (One-Time Cost During Buildout)
Low Density Alternative	$	3,111,700	$ 22,483,700
Medium Density Alternative	$	966,100	$ 6,980,800
High Density Alternative	$	796,600	$ 5,755,800
Difference Between High and Low Density Alternatives	$	2,315,100	$ 16,727,900

ROAD AND BRIDGE REVENUE PROJECTIONS

Having projected the cost of maintaining operations and maintenance 2000 level of service in 2025 and estimated the cost of the priority road improvements, we are now ready to project the revenues and compare the costs to the revenues in the fiscal summary.

Figure 13. Revenue Projections from 4,000 Additional Residential Units in Gunnison-Crested Butte Corridor

Source	Revenue from 4,000 Additional Residential Units in Gunnison-Crested Butte Corridor
Taxes	$ 118,493
Inter Governmental	$ 574,626
Service Charges	$ 30,757
Miscellaneous	$ 4,962
Transfers	$ 98,501
Total	$ 827,342

Line item projection methodology was used to estimate the revenues produced by 4,000 residential units in the unincorporated County for the Road and Bridge fund. See Appendix Figure X for details on the line item revenue projections.

The Highway Users Tax Fund revenue required a special projection (State allocated gas tax) which accounts for nearly $2 out of every $3 worth of Road and Bridge revenue. HUTF revenues are collected by the State as gas tax and reallocated back to the County. The most reliable way to project HUTF revenues is to use the increase in allocations that the CDOT Finance Department projects over the next 20 years for local government.

By the time the 4,000 units are projected to be built in the unincorporated portions of the Gunnison-Crested Butte corridor the statewide allocations of HUTF revenue will have increased 40% (see **Appendix** *HUTF Revenue Allocations from the CDOT Budget to County Governments*). This is the rate by which the current HUTF revenues were increased to obtain a reliable HUTF projection.

ROAD AND BRIDGE FISCAL SUMMARY

Operation and Maintenance

The Road and Bridge revenues are projected to fall short of covering operations and maintenance level of service for both the medium and low density alternatives (due to their relatively higher Vehicle Miles Traveled). The high density alternative, on the other hand should yield an annual surplus. The low density alternative is nearly 4 times more costly for roads operations and maintenance than the high density alternative and over 3 times more expensive than the medium density alternative. The consequences of this extra expense become clear when the costs are compared to the revenues.

Figure 14. Road and Bridge Fiscal Summary

	Total Annual Operations Costs (projected additional 4000 Units)	**Annual Revenues**	**Balance**
Low Density Alternative	$ 3,111,700	$ 827,300	$2,284,400
Medium Density Alternative	$ 966,100	$ 827,300	$ 138,800
High Density Alternative	$ 796,600	$ 827,300	$ (30,700)
Difference Between High and Low Density Alternatives	$ 2,315,100		$2,315,100

Capital Improvements

There is a projected $17 million difference in capital facilities improvements costs between the High and Low density alternative for accommodating the projected 4,000 residential units.

Figure 15. Roads Capital Facilities Improvements Costs

	Capital Facilities (One-Time Cost During Buildout)
Low Density Alternative	$ 22,483,700
Medium Density Alternative	$ 6,980,800
High Density Alternative	$ 5,755,800
Difference Between High and Low Density Alternatives	$ 16,727,900

Clearly, the operations and maintenance budget will be consumed for operations and maintenance functions, so maintaining capital improvements service levels will be a major challenge for the County.

CONCLUSIONS, CONSIDERATIONS, & RECOMMENDATIONS

Integrate Fiscal Considerations for Roads into Land Use Planning

This study has estimated the fiscal impacts of three alternative land use patterns on the road and bridge department. It becomes clear that the large lot, dispersed, decentralized rural development pattern represented in the low density alternative results in a significant amount of driving on County Roads beyond what the more compact, medium and low density alternatives would generate. This additional driving translates directly into increased costs. Both the operations costs and the capital facilities costs were nearly four times greater for the low density alternative than for the high density alternative.

The roads department is one of the most expensive departments in the County and had the most direct connection to the land use patterns in the County that the Roads system serves. In this sense, land use planning and fiscal planning are very closely related.

Ask Voters to for a Road and Bridge Mill Levy

The Gunnison County road and bridge mill levy is non-existent. This lack of local revenue (other than specific ownership tax) makes for several difficult challenges for the Gunnison Road and Bridge department, particularly when State allocations begin to fluctuate widely and unpredictably.

Paying for Capital Improvements Using Impact Fees

Impact fees re-direct some of the fiscal burden needed for new development away from the taxpayers at large and more directly towards the development generating the need for the expanded capital facilities. Impact fees do not require a public vote.

While impact fees can serve an important role in financing public infrastructure, they are subject to several limitations and restrictions. Case law dictates that governments or districts can only use impact fees for building capital facilities capacity made necessary by *new* development and that can be shown to benefit that development. They may not be used for existing deficiencies or operations.

Funds from impact fees must be 'earmarked' for defined capital improvements. Impact fees are also generally subject to legal standards including: demonstration of need, rational nexus, and rough proportionality. Until recently there was no specific enabling legislation in Colorado for impact fees, but Colorado SB 15 specifically authorizes that statutory Counties have the authority to impose impact fees. All of the limitations and restrictions can be addressed in a rigorous impact fee support study.

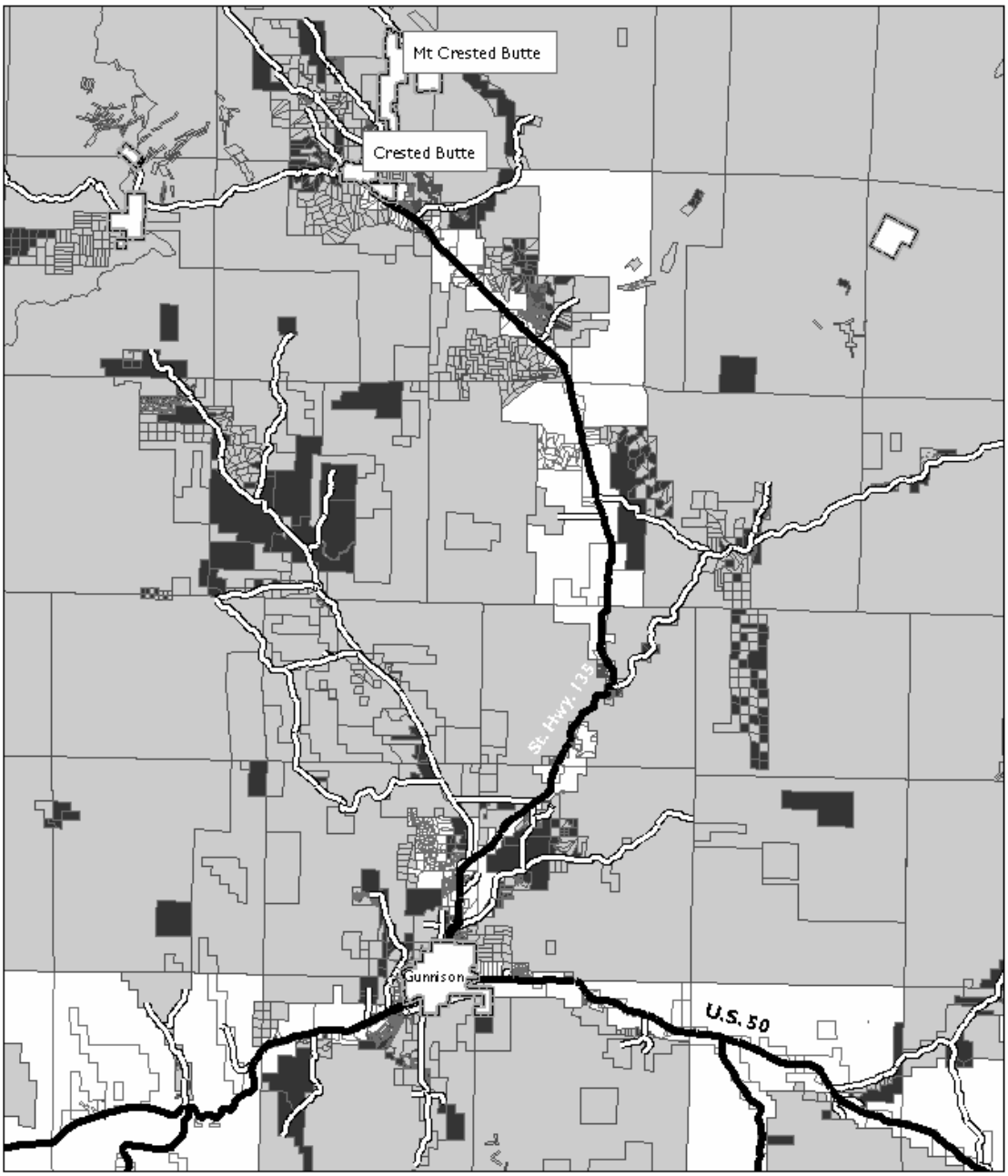
In the context of the road and bridge department's current and projected fiscal situation, an impact fee would be inadequate to cover projected costs. Because impact fee revenue can be used only to pay for capacity related capital improvements (paving gravel roads, creating extra lanes, reducing curve radii, intersection improvements, etc.) the operations and

maintenance shortfalls projected above must be covered with other funds. Furthermore, impact fees cannot be used to pay for backlog - only for maintaining service levels given the impacts of new development.

Create a Road Utility

While this is virtually unprecedented for a County, it may be worth looking into the legal issues surrounding the conversion of the road system into a utility that would be treated much the same as a water or sewer system with an initial fee for capital improvements and then periodic service fees for operations and maintenance. This was implemented in Fort Collins, challenged in the State Supreme Court, upheld, and subsequently dropped by the City Council for political reasons.

County Road Access Areas in Gunnison County
(Showing the Gunnison-Crested Butte Corridor)



Note: This map depicts the areas of Gunnison County that use (or will use) County Rds for access (County Rd. Access Parcels). Vehicle Miles Traveled were calculated from Developed parcels in the County Rd. accesss areas.

COUNTY GENERAL FUND DEPARTMENTS

The County budget is separated into 25 separate funds, the largest of which is the General Fund. General Fund expenditures are organized into over 30 separate, but often related, County functions. RPI analysts sorted these functions into 5 broader, but functionally distinct categories:

1. **Administration**, which includes the following:
    - County Manager/Commissioner's Office
    - Finance
    - Planning and Building
    - County Clerk
    - Assessor
    - Treasurer
    - Coroner
    - D.A.
2. **Sheriff Law Enforcement**
3. **Health Services**
4. **Jail**
5. **Other Miscellaneous General Fund Services and Facilities** includes several unrelated, difficult to classify general fund functions:
    - Extension Services
    - Fairgrounds
    - Veterans
    - Contributions
    - Historic Preservation
    - Seniors

Classifying the general fund expenditures into these categories provides a framework from which to establish levels of service as they relate to demand units (e.g. housing units, population, non-residential sq. ft., etc.). Such classifications allow RPI analysts to project the cost *to the entire general fund* of maintaining service levels based on new demand units. Cost estimates for the entire general fund can then be compared to the total projected general fund revenue. This total general fund fiscal analysis is crucial because revenues have sub-classifications, which do not relate line by line to the expenditures.

In this section we will estimate the cost of the projected growth through2025 on all general fund departments (or functions) of the Gunnison County Government: Administration, Sheriff, Jail, County Health, Extension Service, and Fairgrounds. Cost estimates include both operations/maintenance costs and capital facilities costs.[4]

[4] Health, Extension Service, and Jail do not include capital facilities costs estimates. Originally, the County did not request analysis of those departments, but it was necessary to estimate the annual operations cost or all County general fund departments in order to properly compare costs to revenues in the general fund fiscal summary.

ADMINISTRATION

INTRODUCTION

Incremental growth has impacts on County administration that are less obvious than those on other departments and districts, nonetheless impacts on administration are just as real and can affect the quality and efficiency of County services in significant ways. For the purposes of this analysis, the County Administration consists of many departments including:

- County Manager and Commissioner's Office
- Finance
- Planning and Building
- County Clerk
- Assessor
- Treasurer
- Coroner
- D.A.
- County Attorney
- Personnel
- Facilities Maintenance

County administration is the headquarters for all County operations, and drops in service levels from the headquarters will ultimately affect the entire County.

Undoubtedly, more people and business activity create more demand for County administrative services. This increased demand translates into more staff, facilities, and equipment. The key to maintaining a quality administration service level is for the County to increase administration resources in proportion to the growth in population and business activity. Essentially, this means the County must increase its administration staff, facilities and resources that the public, and elected and appointed officials need in order to function properly. Failure to maintain this proportionate increase will degrade the service levels for the entire County.

METHODOLOGY

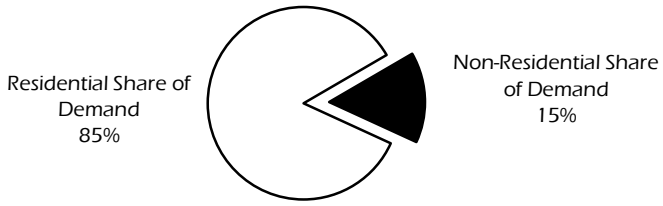
The first step is to determine in what proportion the County's administrative resources are expended on the residential and non-residential sectors respectively (proportionate share). Residential population and non-residential square footage are divided into the existing operational expenditures and the value of building space to yield the existing Level of Service (LOS) per demand unit. 4,000 residential units (Land Use Alternatives growth horizon) can then be multiplied by the cost of maintaining the existing level of service to calculate the cost of providing administrative services to these units. Since administrative services are centralized in Gunnison, they not assumed to vary between the land use alternatives and so do not warrant a *dynamic analysis*.

PROPORTIONATE SHARE

In essence, the breakdown between residentially driven demand for administration and non-residentially driven demand is the amount demand for County Administration that each of these development types generates. Residential development creates more capacity for additional population, and more people means more demand on the administration while non-residential development generates activity and commerce, which ultimately influences the demand for Administrative Services.

Throughout this report, the breakdown between residential and non-residential demand is referred to as the *Proportionate Share*. To calculate proportionate share for administration RPI analyzes administration department by department and uses several ratios to estimate the proportion of residential vs. non-residential demand.[5] See **Appendix** *Detailed Administration Proportionate Share* for data and calculations.

Figure 16. Administration Proportionate Share



OPERATIONS LEVEL OF SERVICE

Currently, Gunnison County administration requires 52 FTEs (full-time equivalent employees at 40 hours per week). Administration employees applied to the proportionate share above yields a level of service of 4.5 administration FTEs per 1,000 residents in the County and .1 FTEs per 100,000 sq. ft. non-residential development. Because most of the County's administrative responsibilities extend into the municipalities, the population and non-residential sq. ft. used in the above calculation includes the entire County.

Figure 17. Administration Operations Current LOS

	Administration Staff	Operations and Maintenance (Annual Cost)
Per Residential 1,000 Residential Units	4.5	$ 367,900
Per 100,000 s.f. Non-Residential Floor Area	0.1	$ 9,200

The cost of staffing one administration employee is about $81,000 annually. This is an across the board average for the County Administration and includes overhead, insurance, benefits, buildings and grounds maintenance, etc.. This means that every 1,000 residents cost the general fund almost $370,000 and each 100,000 sq. ft. of non-residential development costs the Administration $9,200 per year.

[5] Value of residential to non-residential property; number of residential to non-residential building permits, ratio of residents to employees

CAPITAL FACILITIES LEVEL OF SERVICE

RPI's analysis of a facilities inventory conducted by the County Manager's office and the list of employees kept by the Finance department revealed that Administration departments currently occupy nearly $600,000 worth of building space.

Figure 18. Current Gunnison County Administration Capital Facilities Level of Service

	Capital Facilities (One-Time Cost)
Per Residential 1,000 Residential Units	$ 61,500
Per 100,000 s.f. Non-Residential Floor Area	$ 1,500

Cost of Maintaining the Current Level of Service for Administration in 2025

The projected 4000 units in the Land Use Alternative section of the Gunnison-Crested Butte Comprehensive Plan will create a need for 18+ full time equivalent administration employees at a cost of nearly $1.5 million annually.

In order to maintain that Level of Service (LOS) the County will need another $246,000+ worth of administration space.

Figure 19. Costs of Maintaining Current LOS for Administration

	Administration Employees Needed	Annual Operations Cost (all growth alternatives)	Capital Facilities One Time Cost (all growth alternatives)
Projected 4,000 Housing Units	18.2	$ 1,471,653	$ 246,000

Because administration services are centrally located and not affected by development patterns in a tangible manner, no Dynamic Analysis is necessary for administrative services. The cost is the same for the Low, Medium, and High Density alternatives.

CONCLUSIONS

- On average, it costs about $81,000 annually per administration employee to provide administrative services to the public.
- The cost of staffing the 18+ administration employees needed to maintain the current Level of Service given the projected 4,000 residential units will cost about $1.5 million annually.
- In order to accommodate the 18+ additional employees needed the County will need an additional $246,000 worth of administration space. Failure to provide adequate space could make it impossible for the County to keep up with the staffing needed to accommodate new development since the availability of work space can be *the* limiting factor dictating whether or not the County hires additional administration employees.
- The cost is the same for the Low, Medium, and High Density alternatives.

LAW ENFORCEMENT - *DYNAMIC ANALYSIS*

INTRODUCTION

The Gunnison County Sheriff's department, like other County departments, must increase its resources as the County grows. This increase in demand for law enforcement is driven by three trends: 1) growth in resident population, 2) growth in commercial and government/institutional activity accompanied by increased population, 3) increased traffic. Failure to increase law enforcement as the unincorporated County grows will result in a drop in the level of service. This could translate into lower patrolling intensities, less traffic enforcement, truncated crime prevention programs, and possibly lower response times as the County develops in its more remote areas.

Dynamic Analysis: Because 1/3 of the Sheriff's department resources are dedicated to traffic related law enforcement. The Low, Medium, and High Density Land Use Alternatives outlined in the Gunnison-Crested Butte Corridor Comprehensive plan all have different levels of traffic and driving associated with them. Therefore, the Sheriff's department warrants a dynamic analysis to evaluate the different levels of demand for law enforcement associated with each land use alternative.

PROPORTIONATE SHARE

Traffic

The Sheriff's department estimates that about 1/3 of the departments law enforcement duties are dedicated to traffic enforcement. The traffic estimated to be generated by existing Land Uses in the unincorporated County will be about 95% generated by residential land uses and the rest is non-residential traffic (see **Appendix** *Traffic in Unincorporated Gunnison County*).

Crime

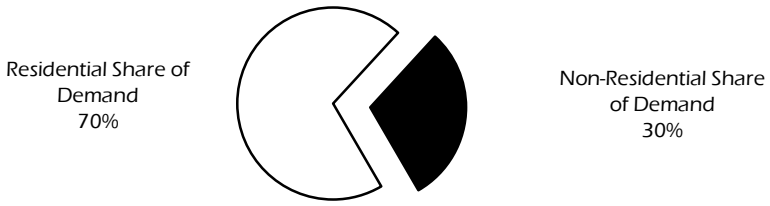
RPI calculated the residential/non-residential proportionate share for the Sheriff's law enforcement function using a chart of actual offenses as categorized by the Sheriff's records office. The manner in which these offenses are categorized allowed RPI analysts to ascertain what proportion of the actual offenses were related to the residential and non-residential sectors respectively (see **Appendix** for a detailed description of the establishment of the Sheriff's Department proportionate share).

Figure 20. Traffic and Crime Residential Vs. Non-Residential Demand for Law Enforcement

Proportionate Share Calculations	
Traffic	**33%**
Residential Traffic	32%
Non-Residential Traffic	2%
Crime	**67%**
Residential Crime	39%
Non-Residential Crime	28%

Adding together the residential and non-residential components yields the conclusion that 70% of the demand for Gunnison County Law Enforcement is driven by activity related to residential development while 30% is driven by activity related to non-residential development.

Figure 21. Gunnison County Sheriff Proportionate Share



Operations Current Level of Service

Currently, the Sheriff's law enforcement consists of a combined staff of 15 full-time equivalent officers and support staff. Given the residential proportionate share above (70%) and the 2000 population, this translates into 2.1 Officers and Support Staff per 1,000 residents. The non-residential proportionate share (5%) together with the 2000 non-residential sq. ft. in Gunnison County yields a current level of service for the non-residential sector of .2 officers per 100,000 sq. ft. of non-residential floor area. The cost per officer includes law enforcement administration staff, overhead, and dispatch services. Note: operating costs includes vehicles.

Figure 22. Gunnison County Law Enforcement 2000 Operations Level of Service

	Officers, Administration and Support Staff	Operations and Maintenance (Annual Cost)	
Per Residential 1,000 Residential Units	2.1	$	190,800
Per 100,000 Sq. Ft. Non-Residential Floor Area	0.2	$	16,300

Capital Facilities Current Level of Service

Providing office space and other necessary space for the Sheriff's Department will require an additional $189,000 per 1000 residential units and $16,000 per 100,000 sq. ft. of non-residential floor area. This calculation is based on the percentage share of the Courthouse occupied by the Sheriff's department and the inventory of county buildings and values summarized in **Appendix**.

Figure 23. Gunnison County Law Enforcement Capital Facility Costs

	Capital Facilities (One-Time Cost)	
Per Residential 1,000 Residential Units	$	188,900
Per 100,000 Sq. Ft. Non-Residential Floor Area	$	16,100

Dynamic Analysis: Cost of Maintaining Current Level of Service for Low, Medium, and High Density Land Use Alternatives

Maintaining the current Level of Service for the projected 4,000 residential units required a two-tiered analysis:

1. Analysis of the cost of maintaining the Level of Service for non-traffic related crime associated with the projected 4000 residential units.
2. Analysis of the cost of maintaining the Level of Service for traffic enforcement given the higher levels of traffic associated with the low and medium density land use alternatives.

Maintaining the level of service for non-traffic crime law enforcement (39% of total demand: see proportionate share section above) for the projected 4,000 units will require 3.3 additional officers/support staff and will cost $295,000 per year for operations and another one time cost of about $292,000 for facilities space.

The traffic related demand for law enforcement varies with the amount of driving occurring under each of the three land use alternatives: Low Density, Medium Density, and High Density.

Figure 24. Vehicle Miles Traveled on County Roads for Each Land Use Alternative

Low Density Alternative Daily Vehicle Miles Traveled	129,655
Medium Density Alternative Daily Vehicle Miles Traveled	40,256
High Density Alternative Daily Vehicle Miles Traveled	33,191

This analysis assumes that the demand for law enforcement will increase with the amount of driving occurring on County Roads. Currently, traffic enforcement costs the Sheriff's office about $0.40 per average daily vehicle mile traveled on County roads. Given the vehicle miles traveled associated with each land use alternative, and the fixed cost of providing law enforcement for non-traffic related crime, it will cost between $410,000 and $372,000 per year for operations. Capital facilities one time costs at buildout of the 4000 units will be similar.

Figure 25. Maintaining Current Gunnison County Law Enforcement LOS

	Traffic Operations Cost (Annual Cost)		Traffic Capital Facilities Cost (One Time Cost)	
Low Density Alternative	$	409,600	$	405,600
Medium Density Alternative	$	374,600	$	370,800
High Density Alternative	$	371,800	$	368,100

CONCLUSIONS

- The current Level of Service (LOS) the Sheriff's department currently provides is 2.1 officers and support staff per 1,000 residents and .2 officers and support staff per 100,000 sq. ft. of non-residential floor area. Traffic enforcement level of service is about $.40 per average daily vehicle mile traveled on County Roads.
- 33% of the demand for law enforcement is related to traffic enforcement.
- Due to the varying daily vehicle miles traveled associated with the three land use alternatives, providing law enforcement for the 4000 units under the low density alternative will cost $37,800 per year more than under the high density alternative for operations. This is roughly equivalent to ½ of a Sheriff Department's employee.
- The low density alternative will cost $37,500 more (one-time cost) than the high density alternative.

COUNTY JAIL

INTRODUCTION

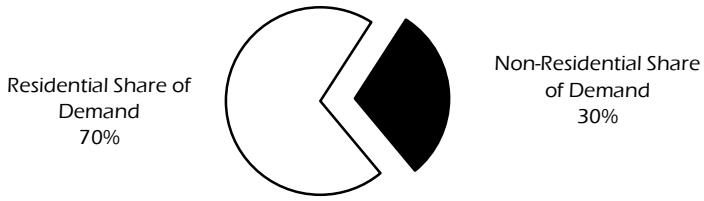
Gunnison County is preparing to initiate a 4.8 million dollar expansion of the Jail to serve current and future inmate population growth. Increased inmate population is a clear function of increased crime. The Sheriff's proportionate share analysis demonstrates that crime is largely driven by increases in population and commercial and other non-residential activity. This section evaluates the current cost of providing and staffing an adequate jail in Gunnison County and the projected cost to serve the 4000 units projected in the Land Use Alternatives section in the Gunnison-Crested Butte Corridor Comprehensive Plan.

With the exception of DUI's and other severe offenses, traffic violations rarely lead to jail-time. Furthermore, the jail is more of a centralized facility than a county-wide service that would be affected by development patterns. Therefore the Jail, unlike the Sheriff's department, does not warrant a *Dynamic Analysis*.

PROPORTIONATE SHARE

The jail detains criminals, so the demand for jails is driven proportionate to the residential and nonresidential demand for crime-related law enforcement demand (70% and 30% respectively).

Figure 26. Jail Proportionate Share



OPERATIONS AND MAINTENANCE LEVEL OF SERVICE

The 2000 operations budget divided by the 2002 Gunnison County population yields the current operations level of service at $50 per resident per year to maintain the Jail. A new facility could affect this level of service.

Figure 27. Jail Operations and Maintenance

	Staff Needed (Full-Time-Equivalent)	Operations and Maintenance (Annual Cost)
Per Residential 1000 Residential Units	1.1	$ 49,500
Per 100,000 sq. ft. of Non-Residential Floor Area	0.1	$ 300

CAPITAL IMPROVEMENTS LEVEL OF SERVICE

Gunnison County is moving towards building a $4.8 million justice center expansion for the Jail. Gunnison County recently conducted a preliminary design study for the Gunnison County Justice Center expansion (April 2004, Archetype Design Group). This report calls for 50 inmate beds by the year 2020. The Demography section projects 20,051 people in Gunnison County in 2020, so the target level of service is 5.7 beds per 1,000 residential units. Given the $52,000+ cost of accommodating a single inmate bed the cost of serving 1,000 residential units quickly adds up to over $211,000.

Figure 28. Capital Facilities Target Level of Service

	Capital Facilities (One-Time Cost)	
Per Residential 1000 Residential Units	$	211,500
Per 100k Sq. Ft. of Non-Residential Floor Area	$	1,300

COST OF MAINTAINING THE CURRENT LEVEL OF SERVICE FOR THE JAIL

Given the costs listed above, the projected 4,000 residential units in the unincorporated County will require another 4.3 jail staff people and will cost about $200,000 annually. Maintaining the target level of service for Jail facilities will require $846,000 worth of inmate beds.

Figure 29. County Jail, Future Costs

	Staff Needed (Full-Time-Equivalent)	**Operations and Maintenance** (Annual Cost)	**Capital Facilities** (One-Time Cost)
Projected 4,000 Housing Units	4.3	$ 198,000	$ 846,000

CONCLUSIONS

- The current operations level of service is $50 per resident per year to maintain the Jail.
- According to the *Preliminary Design Study for the Gunnison County Justice Center Expansion* the target level of service for the jail is 5.7 beds per 1,000 residential units, for a one time cost of over $211,000 per 1000 residential units.
- *Dynamic Analysis* is not necessary for the Jail because it is a centralized facility that generally does not detain a significant of traffic offenders.
- The projected 4,000 residential units in the unincorporated County will require another 4.3 jail staff people and will cost about $200,000 annually.
- Maintaining the target level of service for Jail facilities will require $846,000 in capital expansions.

GUNNISON COUNTY HEALTH

INTRODUCTION

The Health department, like the Jail, is not a central part of this analysis, but it is contained within the General Fund in the County budgeting system and so any fiscal trends within the health budget ultimately affect the entire general fund. Thus, RPI chose to include the Health Department annual operations and maintenance in this analysis. County Health is a centralized service and is unlikely to be affected by development patterns in the Gunnison-Crested Butte corridor and so does not require a *Dynamic Analysis*.

PROPORTIONATE SHARE

Because Health services are for residents, the entire cost is attributed to the residential sector and thus a proportionate share calculation is unnecessary. Thus, the Health Department requires a simple average costing methodology in which we calculate the level of service per housing unit.

OPERATIONS AND MAINTENANCE LEVEL OF SERVICE

Because recent years have wrought substantial cuts in Federal and State funding for Health Services,[6] it was necessary to use the most recent year's staffing and budget and population estimates to establish the level of service LOS). If RPI used the 2000 budget and population, it would reflect a higher LOS than currently exists.

On average, each of the 10-11 staff members of the Health Department costs just over $61,000/year for salary, supplies, and other overhead. Given the 2002 housing units in Gunnison County (including municipalities) and the current staff, the County health department's Level of Service for health services is 1.1 employees per 1,000 residents at a cost of nearly $65,200 per year.

Figure 30. Health Department Operations and Maintenance Level of Service 2002

	Health Staff	Operations and Maintenance (Annual Cost)
Per Residential 1,000 Residential Units	1.1	$ 65,200

CAPITAL FACILITIES LEVEL OF SERVICE

Dividing the health department's share of the O'Leary building by the 1000's of units in Gunnison yields the current value of County Health facilities per 1,000 residential units in the base year 2002 ($30,500 per 1000 residential units). Failure to provide this additional space will result in a decline in the current level of service.

[6] HCBS money, Colo. Action for Healthy People, Injury Prevention, Personal Care fund.

Figure 31. Health Department Capital Costs

	Capital Facilities (One-Time Cost)
Per Residential 1,000 Residential Units	$ 30,500

COST OF MAINTAINING CURRENT LEVEL OF SERVICE

The additional 4,000 residential units projected in the Gunnison-Crested Butte Corridor Comprehensive Plan Land Use Alternatives will create the need for 4-5 additional staff members, at a cost of about $261,000 per year, and an additional $122,000 worth of facility space. Compared to other departments, the capital facilities costs are far less than in other departments (Sheriff:$190,000/1000 units, Jail: $210,000/1000 units). This probably reflects both a low use frequency among residents and a department able to serve a large number of people in a relatively small area.

Figure 32. Health Department Costs 2025

	Health Staff	Operations and Maintenance (Annual Cost)	Capital Facilities (One-Time Cost)
Per Residential 1,000 Residential Units	4.3	$ 260,800	$ 122,000

CONCLUSIONS

- Because the health department serves County Residents, 100% of the demand for health services is driven by residential land uses.
- The County health department's Level of Service for health services is 1.1 employees per 1,000 residents at a cost of nearly $65,200 per year.
- The County health department's facilities Level of Service is $30,500 per 1000 residential units
- 4,000 additional residential units projected in the Gunnison-Crested Butte Corridor Comprehensive Plan Land Use Alternatives will create the need for 4-5 additional staff members, at a cost of about $261,000 per year, and an additional $122,000 worth of facility space.

MISCELLANEOUS GENERAL FUND SERVICES AND FACILITIES

INTRODUCTION

County General Fund Departments include several smaller departments that can be analyzed in aggregate:

- Fairgrounds
- Veterans
- Contributions
- Extension Services
- Historic Preservation
- Seniors

These services are generally centralized and so are not tangibly affected by land use patterns. Therefore this department did not warrant a *Dynamic Analysis*.

PROPORTIONATE SHARE

Since these services and amenities serve County residents, RPI employed average costing methodology assigning 100% of the demand to residential land uses.

OPERATIONS AND MAINTENANCE LEVEL OF SERVICE

RPI used standard methodology to analyze the Miscellaneous General Fund Services; first applying the proportionate share to the operations budget and then divided by the 1000's of residential units in the County in 2002 to obtain the current level of service.

The mean extension service expenditures 2002-2004 divided by the number of residential units yields an annual operations cost of $58,700 per 1000 residential units.

Figure 33. Miscellaneous General Fund Services and Facilities Operations and Maintenance Level of Service

	Staff	Operations and Maintenance (Annual Cost)	
Per Residential 1,000 Residential Units	0.9	$	58,700

CAPITAL FACILITIES LEVEL OF SERVICE

A large portion of the general fund miscellaneous capital facilities costs can be attributed to the cost of maintaining the current level of service for the fairgrounds facilities. Fairground facilities in many rural communities are underutilized. Fairgrounds capacity can be greatly increased with additional parking and through scheduling. Lighting also can greatly add to the capacity of the facilities to serve.

Figure 34. Miscellaneous General Fund Capital Facilities Level of Service

		Capital Facilities (One-Time Cost)
Per Residential 1,000	Residential Units	$ 191,800

COST OF MAINTAINING THE CURRENT LEVEL OF SERVICE

Over $¾ million dollars worth of space for miscellaneous County facilities is necessary to maintain the current level of service for the projected 4,000 residential units in the unincorporated Gunnison - Crested Butte corridor. The various 1-3 person county functions add up to a significant demand for staff: almost 4 new employees will be needed to serve the projected 4000 units.

Figure 35. 2025 Costs

		Staff	Operations and Maintenance (Annual Cost)	Capital Facilities (One-Time Cost)
Per Residential 1,000	Residential Units	3.7	$ 234,800	$ 767,200

CONCLUSIONS

- The mean extension service expenditures 2002-2004 divided by the number of residential units yields an annual operations cost of 58,700 per 1000 residential units
- 100% of the demand for general fund misc. services and facilities can be attributed to residential land uses
- Over $¾ million dollars worth of space for misc. County facilities is necessary to maintain the current level of service for the projected 4,000 residential units in the unincorporated Gunnison - Crested Butte corridor.
- Almost 4 new employees will be needed to serve the projected 4000 units.

GENERAL FUND DEPARTMENT REVENUE PROJECTIONS

INTRODUCTION

In addition to providing an analysis of the current level of service for each department, this study provides a cost benefit analysis of the 4,000 units projected in the Land Use Alternatives section of the Gunnison – Crested Butte Corridor Comprehensive Plan.

While the levels of service and the projected costs for general fund departments are useful figures by themselves, in order to understand what the costs mean in the context of the larger fiscal picture, general fund revenues must be taken into account. The various types of revenues all require unique methods to achieve the best possible revenue projections

Because the purpose of the fiscal analysis is to analyze the costs associated with a number of residential units, the revenues need to be evaluated on a 'per unit' basis as well.

PROPERTY TAX REVENUE

The County collects a general fund mill levy of 13.28 (or 1.328%). The most direct way to evaluate the property tax contributions of the development of 4000 residential units is to estimate the likely value of the structures. It is assumed, for the purposes of this analysis, that home values will be the same in the future relative to the value of the dollar as they are today. It may be that this relationship could change, but conservatively, no appreciation will be applied.

RPI queried the Assessor database for all newer structures (from 1991 to current) and found that the median value of an entire piece of property in the unincorporated County is $281,000 (built since 1991), while the median value of a newer structure was over $213,000. Multiplying this by the current assessment rate (7.96%) and the mill levy (1.328%) yields the annual general fund property tax revenue per residential unit of $298.[7]

Figure 36. Property Tax Revenue per Unit

Median Property Value	$	281,500
Median Structure Value	$	213,600
Assessment Rate		0.0796
Median Assessed Value	$	17,003
County General Fund Mill Levy		0.01328
Annual Revenue per Unit	$	226

It follows that the 4,000 typical newer units would produce almost $1 million annually for the general fund.

[7] Subject to a long trend decrease due to the state tax laws.

COUNTY SALES TAX

The 1% County Sales Tax projections are based on the taxable retail expenditures for full-time and part-time residents buying or building new homes in Gunnison County. Part-time and full-time residents have different annual retail expenditures due to duration of occupancy of the unit and income. See **Appendix** *Full-Time and Part-Time Resident Retail Expenditures* for detailed methods and calculations supporting the taxable retail expenditures.

The taxable retail estimates can be weighted according to the ratio of full-time to part-time residents in Gunnison County according to the 2000 Census in order to arrive at one weighted average retail expenditure per occupied housing unit.

Figure 37. Sales Tax Revenue per Unit

		Annual Household Expenditures on Taxable Retail	% of Occupied Housing Units (Census 2000)
Full Time Residential Unit	$	25,211	64%
Part Time Residential Unit	$	7,563	36%
Weighted Average Taxable Retail		18,900	
Annual Sales Tax Revenue per Unit	$	189	

Multiplying the nearly $19,000 in retail expenditures by the 1% sales tax rate yields an annual sales tax revenue per household of $189.

OTHER REVENUE SOURCES

Remaining revenue sources were projected to 2025 on a line by line basis according to the appropriate projections factors. See **Appendix** for a detailed table of these projections.

Line Item Projections

The line item projections were classified into the following:

- Misc. Taxes
- Permits
- Inter Governmental
- Service Charges
- Misc.
- Transfers

The methodology for projecting the revenue line items is described in detail in the **Appendix** and accompanying narrative.

Adding in the property and sales tax projections above to the line item projections yields the following revenue projections:

Figure. 38. General Fund Annual Revenue Projections for 4,000 Residential Units

Source	Revenue from Future and Existing Development		Revenue from Future Development Only
Taxes	558,497	$	1,154,043
Permits	217,258	$	44,288
Inter Governmental	808,900	$	256,686
Service Charges	1,391,697	$	359,067
Miscellaneous	458,105	$	127,205
Transfers	1,094,860	$	294,030
Total		$	2,235,320

Source: See Appendix *General Fund Line Item Revenue Projections*

GENERAL FUND COST/BENEFIT *DYNAMIC ANALYSIS*

Having projected the revenues to be generated by the projected 4,000 units in the Land Use Alternatives section of the Gunnison-Crested Butte Corridor Comprehensive Plan, it is now possible to compare the revenues to the costs (for both annual operations and capital facilities) in a final general fund fiscal summary. The general fund department projected operations costs (as previously calculated) and annual revenues are summarized in **figure 39.**

Figure 39. General Fund Annual Operations Costs & Revenues for Projected 4,000 Units

	Total Annual Operations Costs (projected additional 4000 Units)	Annual Revenues	Shortfall
Low Density Alternative	$ 2,574,800	$ 2,235,320	$ 339,480
Medium Density Alternative	$ 2,539,800	$ 2,235,320	$ 304,480
High Density Alternative	$ 2,537,000	$ 2,235,320	$ 301,680
Difference Between High and Low Density Alternatives	$ 37,800	$ -	$ 37,800

The annual general fund cost of maintaining the current level of service ranges from $2,537,000 to $2,574,800 for the low-density alternative. This leads to a shortfall of around $300,000 – $340,000.

The low density alternative is $37,800 more expensive per year than the high density alternative, entirely accounted for in the *Dynamic Analysis* of the Sheriff's Department traffic enforcement duties. This accounts for about 10% of the shortfall, so it is definitely worth noting this impact of land use patterns. Over time, decreasing the shortfall by 10% could add significantly to the ability to maintain service levels.

The capital facilities costs would add to the annual shortfall as the demand for them accumulated. The shortfalls demonstrated here would not likely result in actual budget shortfalls, but the lack of funding would lead to a proportionate decrease in the level of service.

Figure 40. General Fund Capital Facilities Cost for Projected 4,000 Residential Units

	Total Annual Capital Facilities Costs (projected additional 4000 Units)
Low Density Alternative	$ 419,100
Medium Density Alternative	$ 384,100
High Density Alternative	$ 381,300
Difference Between High and Low Density Alternatives	$ 37,800

This result not surprising because the growth alternatives in the Unincorporated County focus specifically on residential development. Because of Colorado's property tax structure and the relatively low rates in Gunnison County, residential property owners enjoy some of the

lowest property taxes in the entire country.[8] Coupled with this is the fact that residents tend to put the most strain on County services (see proportionate share study results throughout the report). The result is a chronic shortfall between the costs and revenues generated by residential units in Colorado.

Commercial development to a large degree subsidizes residential development in Colorado. This emphasizes the need for Counties to support healthy commercial development in the municipalities. If residential development and commerce falls out of balance, it could pose even more significant challenges to general fund departments.

The shortfalls and lack of funding for capital facilities also signals the need to develop sources of revenue for capital facilities. Impact fees are specifically suited for charging new development for its fair share of the costs (the incremental costs) of providing capital facilities for this new development.

CONCLUSIONS

The projected general fund revenues fall short of meeting the annual operations costs of maintaining the current level of service LOS for 4,000 residential units by over 10%. Without some other funding sources or a change in direction of the general trends, this should result in a slow decline in the level of service (LOS) for general fund departments. What can Gunnison County do to avoid this drop in the LOS? The most obvious approaches are raise revenues and avoid low density development in the Unincorporated County.

Paying for Capital Improvements Using Impact Fees

Impact fees re-direct some of the fiscal burden of developing new capital facilities away from the taxpayers at large and more directly towards the development generating the need for the expanded capital facilities. Impact fees do not require a public vote.

While impact fees can serve an important role in financing public infrastructure, they are subject to several limitations and restrictions. Case law dictates that governments or districts can use impact fees only for building capital facilities made necessary by new development and that can be shown to benefit that development. They may not be used for existing deficiencies or operations.

Funds from impact fees must be 'earmarked' for defined capital improvements. Impact fees are also subject to legal standards typically including: demonstration of need, rational nexus, and rough proportionality. The recently enacted SB 15 specifically authorizes that statutory Counties have the authority to impose impact fees.

All of the limitations and restrictions can be addressed in a rigorous impact fee support study.

Encourage Healthy Commercial Growth

Commercial development is not only critical for the economic health of the community; it forms the backbone of the revenue streams for County government. Due to the cost of

[8] The Gallagher Amendment results in a continually decreasing residential assessment rate, while Tabor constrains revenue collections.

providing transportation infrastructure and law enforcement for traffic producing land uses that are not close to existing municipalities, the best policy would be to encourage commercial development in the municipalities.

Adopt Policies to Encourage Higher Density Development Close to Municipalities

13% of the operations and maintenance shortfall for the General Fund could be avoided by adopting land use policies that concentrate development near existing municipalities and keeping more remote rural landscapes in tact. This development pattern is illustrated in the high density alternative.

GUNNISON COUNTY HUMAN SERVICES

INTRODUCTION

Human Services finances are kept separate from other County departments, so, fiscally speaking, it must be analyzed as if it were a separate department. The challenge for the Human Services department's is that its demand is directly linked to the growth in population, which is projected to keep growing quite steadily, while the majority of its funding comes from State programs for which the funding waxes and wanes (more waning of late) with the economic and political forces at play at the State scale.

PROPORTIONATE SHARE

Since Human Services are for residents, the entire cost is attributed to the residential sector.

OPERATIONS AND MAINTENANCE

Given the 2002 housing units and the current staff, the County Human Services department's Level of Service for Human Services is 1 employee per 1,000 residents at a cost of over $230,000 per year.

Figure 41. Human Services Department Operations and Maintenance Level of Service 2002

	Human Services Employees	Operations and Maintenance (Annual Cost)	
Per Residential 1,000 Residential Units	1.02	$	232,200

CAPITAL FACILITIES

Human services, like the health services department can serve a remarkable number of residents with a relatively small amount of office space. This space efficiency means that the cost of maintaining the level of service is relatively low.

Figure 42. Human Services Department Capital Facilities Level of Service 2002

	Capital Facilities (One-Time Cost)	
Per Residential 1,000 Residential Units	$	28,900

COST OF MAINTAINING THE CURRENT LEVEL OF SERVICE

Maintaining this level of service for the 4,000 residential units projected in the Gunnison-Crested Butte Corridor Comprehensive Plan will require 4 additional employees and additional annual budget expenditures of nearly $929,000.

Figure 43. Cost of Maintaining Current Level of Service for Projected 4,000 Housing Units

	Human Services Employees	Operations and Maintenance (Annual Cost)	Capital Facilities (One-Time Cost)
Per Residential 1,000 Residential Units	4.06	$ 928,800	$ 115,600

The additional facility space needed will be modest, with a cost of around $115,000 .

HUMAN SERVICE REVENUE PROJECTIONS

Having projected the cost of maintaining the operations and maintenance LOS, we can project the revenues and compare the costs to the revenues in the fiscal summary.

Figure 44. Human Services Revenues per Residential Unit

	Revenue Per Residential Unit
Property Tax	$ 97
Intergovernmental	$ 77
EBT Pass-Through	$ 147

Property Tax Revenue

The County collects a human service mill levy of 5.68 (or .568%). The most direct way to evaluate the property tax contributions of the development of 4000 residential units is to estimate the likely value of the structures. It is assumed, for the purposes of this analysis, that home values will be the same in the future relative to the value of the dollar as they are today. It may be that this relationship could change, but conservatively, no appreciation will be applied.

RPI queried the Assessor database for all newer structures (from 1991 to current) and found that the median value of an entire piece of property in the unincorporated County is $281,000 (built since 1991), while the median value of a newer structure was over $213,000. Multiplying this by the current assessment rate (7.96%) and the mill levy (.568%) yields the annual general fund property tax revenue per residential unit of $97. [9]

Figure 45. Property Tax Revenue per Unit

Median Property Value	$	281,500
Median Structure Value	$	213,600
Assessment Rate		0.0796
Median Assessed Value	$	17,003
County General Fund Mill Levy		0.00568
Annual Revenue per Unit	$	97

It follows the 4,000 typical newer units would produce almost $400,000 annually in property tax for the human services fund.

[9] Subject to a long trend of decrease due to the state tax laws.

All Revenues

The other revenue sources were assumed to increase with the residential population.

Figure 46. Projected Revenues

		Projected Revenue Future Growth Only
Property Tax	$	386,298
Intergovernmental	$	309,700
EBT Pass-Through	$	589,603
Total	$	1,285,600

HUMAN SERVICES FISCAL SUMMARY

Due in part to the substantial property tax revenues projected from values of newer residential units in Gunnison County applied to the 5.68 mill levy, and to a relatively efficient operating budget, the Human Services department appears to be in good fiscal condition to handle the additional projected growth.

Figure 47. Fiscal Summary of Operations for Human Services – Future Conditions

Human Services Annual Revenues at Build out of Projected 4000 Units	$ 1,285,600
Cost of Maintaining Current Level of Service for Human Services Operations	$ 928,800
Projected Annual Surplus	$ 356,800

The projected annual surplus is more than adequate to cover the cost of the additional capital facilities needs.

CITY OF GUNNISON WATER

INTRODUCTION

Although treated water service infrastructure is not provided by Gunnison County nor is it a component of Gunnison County's budget, this section analyzes existing City of Gunnison water flows and residential usage to that system. It considers what the demand needs on the City of Gunnison water system will be given the three development alternatives.

Water service is evaluated in terms of absolute capacity of capital facilities. In addition, the system is evaluated on its ability to provide service at peak demand levels on a daily basis.

Unfortunately, accurate historic records of water flows within the water service area were not forthcoming for this analysis. Consequently, estimated usage scenarios were developed based on peak and off peak seasons utilizing similar counties and standardized water use numbers developed by the American Water Works and Colorado Water System Engineers. Peak seasons would include the summer months when the largest numbers of tourists are in the area and the highest amounts of water are being used for irrigation purposes. Water flows in the so-called "off-peak" or "shoulder seasons" give us a reasonable estimate of simple domestic and commercial usage without tourist or irrigation influences. RPI typically projects water usages in terms of "peak and "off peak" usages but due to the primarily urban consumption of water within the district. The final category of use examined is the quantity of water allotted to each resident or (some) commercial usage for a flat rate every month. This analysis does not factor system leakage, which can be significant but often remains unknown.

All water production systems must be built for potential peak capacities, and this assumption is inherent in all of RPI's analysis.

METHODOLOGY

The first step in analyzing water flows is understanding flow data, the number of taps in the district, existing plant capacity, and water consumption by unit type (i.e. per capita, square footage, etc…).

Monthly usage tables are converted to average daily usages for both peak and off peak seasons. A working assumption of the analysis considers that much of the expanded use during the peak seasons includes treated water irrigation and additional consumption by tourists/seasonal residents. Conversely, off-season use represents a true average consumption by the year round domestic population.

Based on projected land uses and existing fee structures the consumption and revenue streams required and generated by new development over the next twenty years can be projected. Water use by land use type is converted by using standard tables from the American Water Works Association governing average consumption per unit.

Water plant treatment capacity is a function of actual quantity of water that the plant is capable of producing in a 24 hour period for extended periods of time (plants may be capable of meeting peak usages by operating around the clock for short periods of time).

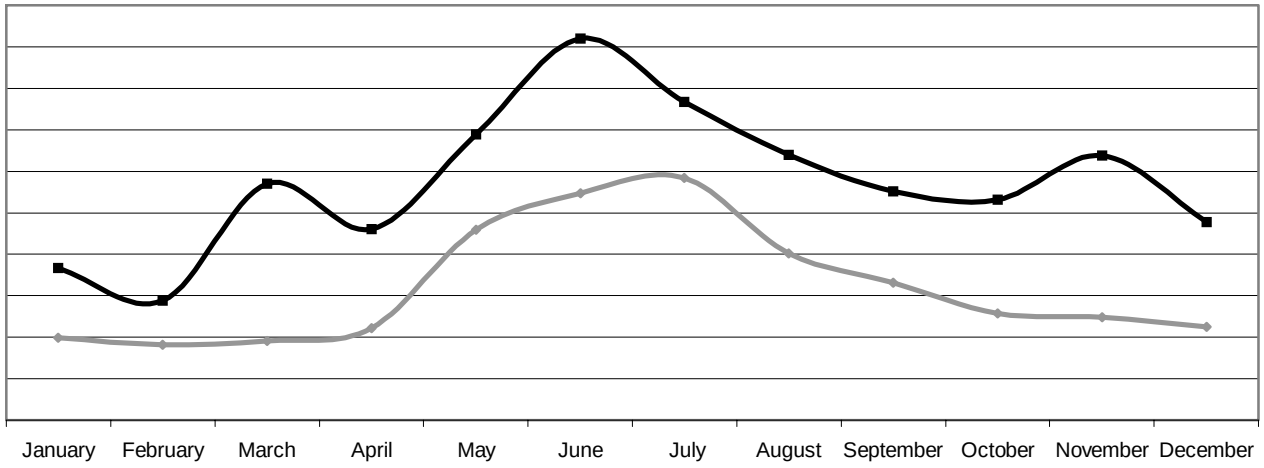
Water storage is an important component of water production and delivery. Supply reserves extend the possible outflows of the water plant on a daily basis. However, this analysis considers only the maximum daily capacity of the treatment facility.

Projected revenues and costs are based on the actual 2003 budget as supplied to RPI by the City of Gunnison Finance office. Revenues are separated by actual fee and other revenues. Costs are expressed per thousand gallons based on total water district expense and revenues.

WATER ANALYSIS

Figure 48 demonstrates typical estimated seasonal fluctuations. The significant increase of the summer months likely reflects irrigation and tourist uses.

Figure 48. 2000 Estimated Gunnison Water Flows (peak day – top line & average – bottom line)



The chart below reveals the total number of existing taps and the number of taps that would be added to the City's system under each alternative.

Figure 49. Estimated Existing Conditions & Density Alternatives

		Density Alternatives		
	Existing	**Low**	**Medium**	**High**
Residential taps	1300	1,948	2,827	1,120
Commercial taps	558	NA	NA	NA
Residential (daily)				
Mean Daily Use – per tap	438			
Mean Daily Total Daily Use – all taps	569,863	853,699	1,239,014	490,959
Use (average per tap, gallons)				
Monthly Water Sale Fee Revenues –Annual Total	$521,280	$561,024	$814,176	$ 322,560

Figure 50. Estimated Existing Conditions & Density Alternatives

The following chart documents existing water flows from the system and also notes the cost per thousand gallons of production to the facility and the cost per gallon in fee revenue realized. Clearly, the Gunnison enterprise funds are covering production costs with monthly fees.

	Existing (gpd)	% existing capacity utilized
Plant Capacity (daily gallons)[10]	3,240,00	28%
Estimated Annual Water Use		
Gallons	328,528,000	
Acre feet	1008	
Costs	**per 000' gallons**	
Residential	$ 1.27	
Fee Revenue		
Residential	$ 1.36	

Figure 51 details the total demands and capital revenues realized by the City of Gunnison's water fund.

Figure 51. Water Facility Impacts Alternative Land Use Scenarios

	New Housing Units in Gunnison Service District	New Demand on Gunnison Service District (gallons per day)	Existing Use (gallons per day)	Percent of Existing Water Plant Capacity	Tap Fee Revenue from New Units
Low Density Alternative	1,948	853,699	1,753,775	54%	$ 4,868,750
Medium Density Alternative	2,827	1,239,014	2,139,090	66%	$ 7,066,250
High Density Alternative	1,120	490,959	1,391,036	43%	$ 2,800,000

The City of Gunnison water plant currently operates well within capacity. However, the addition of new growth over the next twenty years will increase demand on the facility considerably and press the plant into a daily operating average production rate that is between 54% and 43% of the total capacity contingent on which land use alternative is selected.

	Additional Annual Acre Feet Required
Low Density Alternative	956
Medium Density Alternative	1388
High Density Alternative	550

[10] Note that these capacities do not take into consideration fire service requirements.

The high density alternative provides the lowest impact on the City of Gunnison's water enterprise fund. The medium density alternative places the most (of the three alternatives) units within the Gunnison three mile area, and hence, on the City's water system.

In any event, the Enterprise fund seems to be completely or mostly covering its operations and expansion costs through it tap fee and monthly fee revenues. However, if the plant were to rapidly expand its geographic service area trunk line and pressurizing systems might tip the fiscal balance and the existing tap fee may need to be reviewed.

Finally, another consideration that was not addressed in this report is the availability of water rights. Given that water use will increase between 550 to 1388 acre feet depending on which buildout of the alternatives, the town will want to verify that it has rights to this quantity of water or require a fee in lieu of rights dedication as these properties buildout.

CONCLUSIONS

- Current tap and monthly fee revenues appear to be adequately covering production and facility expansion costs
- The high density alternative will have the least impact on the City Water service as it places the fewest future units within the City's service area.
- The medium density alternative will have the greatest impact on the City Water service as it places the greatest number of units within the City's service area.

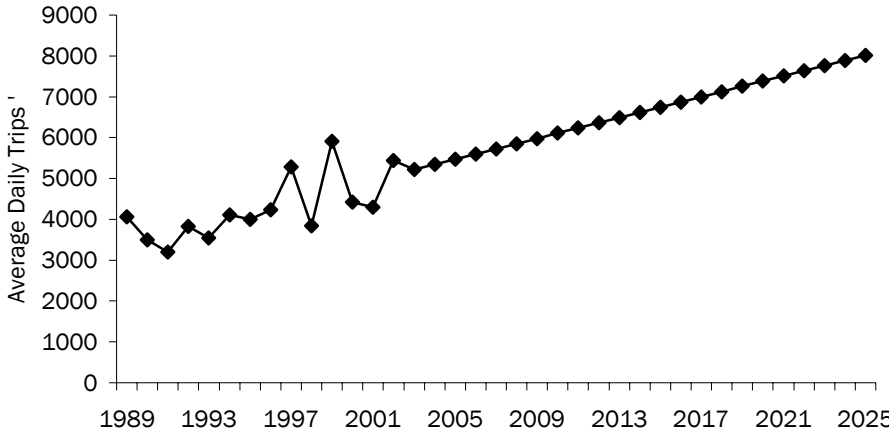
APPENDIX

Derivation of Value of Road and Bridge Equipment

	Expenditures	% of Total	Allocated Value of Equipment
Gunnison Co. Sewer District	$ 278,690	5%	$ 188,016
Gunnison Co. Water District	$ 546,582	11%	$ 368,747
Water/Sewer	$ 825,272	16%	$ 556,763
Solid Waste	$ 383,353	7%	$ 258,626
Road and Bridge	$ 3,938,734	77%	$ 2,657,236

Public works holds equipment and facilities that are valued at $3.5 million according to finance department records. When allocated to each of the departments served by public works according to expenditures, Road and Bridge is left with over $2.6 million worth of equipment and facilities.

Historic and Projected Traffic (2004-2025) on Gothic Rd.



Road and Bridge Line Item Revenue Projections

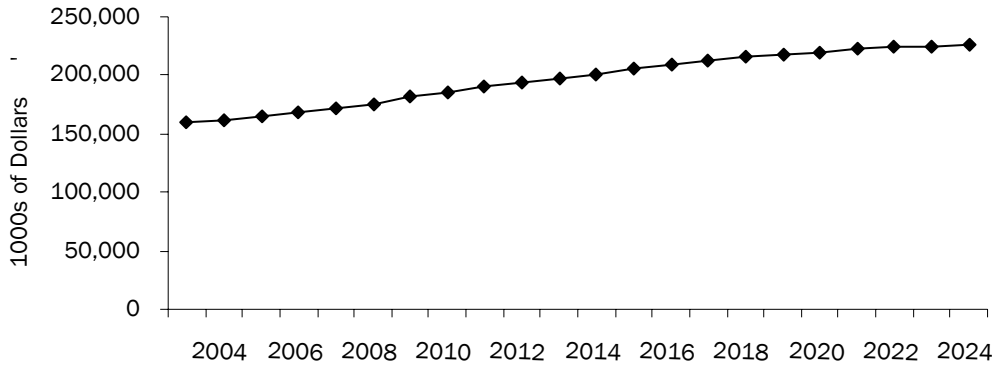
	Description	Multiplier Type	Future Growth Only Multiplier	Mean 2002-2004	Projected Revenue Future Growth Only
	SPECIFIC OWNERSHIP	# motor vehicles	81%	$ 146,340	$ 118,494
	FOREST SERVICE	Flat	0%	$ 314,280	$ 0
	MINERAL LEASING ACT	Flat	0%	$ 395,740	$ 0
Inter Governmental	PILT	property tax % increase	25%	$ 171,990	$ 43,571
	MOTOR VEHICLE REGISTRATION	# motor vehicles	81%	$ 42,600	$ 34,494
	HIGHWAY USER'S TAX	CDOT HUTF projection	41%	$ 2,172,600	$ 496,561
	MT. CRESTED BUTTE	population	41%	$ 43,340	$ 17,939
	FOREST SERVICE	population	41%	$ 17,240	$ 7,136
	DRIVEWAY PERMITS	housing units	41%	$ 3,500	$ 1,449
	REVIEW OF ROAD PLANS	housing units	41%	$ 1,050	$ 435
Service Charges	OTHER	housing units	41%	$ 5,630	$ 2,330
	RECLAMATION PERMITS	housing units	41%	$ 2,880	$ 1,192
	PHOTOCOPY SALES	housing units	41%	$ 670	$ 277
	EARNINGS ON INVESTMENTS	general fund % increase	25%	$ 14,860	$ 3,765
Misc	MARBLE BANK CONTRIBUTIONS	general fund % increase	25%	$ 3,190	$ 808
	REFUND OF EXPEND.-RETIREMENT	general fund % increase	25%	$ 530	$ 134
	OTHER REVENUE	general fund % increase	25%	$ 1,010	$ 256
	TRANSFER FROM SALES TAX	sales tax % increase	35%	$ 188,370	$ 65,717
	TRANSFER FROM SEWER	housing units	41%	$ 2,700	$ 1,118
Transfers	TRANSFER FROM WATER	housing units	41%	$ 11,840	$ 4,901
	TRANSFER FROM LANDFILL	housing units	41%	$ 28,250	$ 11,693
	TRANSFER FROM ISF-I	general fund % increase	25%	$ 59,500	$ 15,073

The above figure lists *some* of the revenue line item projections. More than 25 line items were projected based on an increase in 4000 residential units in the unincorporated Gunnison County methodology described below.

The method used to project revenue line items can best be described as a process of classification, grouping, and summing. Each line item was classified by the type of revenue (fee/fine, State, Federal, etc..), by projection factor (anything from population, to registered vehicles, to assessed valuation, % increase in revenues for other funds such as Rd. and Bridge, and Human Services).

The projection factor is simply an increase rate used to project the revenue likely to be produced by the projected 4000 units underlying the Land Use Alternatives section of the 2004 Comprehensive Plan.

HUTF Revenue Allocations from the CDOT Budget to County Governments



Source: CDOT Office of Finance

Administration Department Proportionate Share Calculations

Detailed Administration Proportionate Share						
	Effective FTEs	Ratio	Residential	Non-Residential	Res Jobs	Non-Res Jobs
Administration	4.5	residents to employees	75.6%	24.4%	3.4	1.1
Finance	4.6	residents to employees	75.6%	24.4%	3.5	1.1
Clerk & Recorder	7.5	Value of Residential Property: Value of Non-Residential Property	89.9%	10.1%	6.7	0.8
Treasurer	5.5	Value of Residential Property: Value of Non-Residential Property	89.9%	10.1%	4.9	0.6
Assessor	11.0	Value of Residential Property: Value of Non-Residential Property	89.9%	10.1%	9.9	1.1
Planning	7.5	# Residential Building Permits: to Value of Non-Residential Property	89.9%	10.1%	6.7	0.8
Coroner	0.3	all residential	100%		0.3	0.0
Attorney	3.7	residents to employees	75.6%	24.4%	2.8	0.9
Elections	0.7	all residential	100%	0%	0.7	0.0
Personell	0.3	residents to employees	76%	24%	0.2	0.1
Commissioners	3.0	residents to employees	76%	24%	2.3	0.7
Facilities Maintenance	3.2	residents to employees	76%	24%	2.4	0.8
Total	51.8				43.9	7.9
		Non-Residential Share of Demand	15%			
		Residential Share of Demand	85%			

The approach used to establish the proportionate share for the Sheriff's department can best be described as a process of sorting crimes committed in the past two years into residential vs. non-residential 'bins'. Once they are sorted, the proportionate share consists simply of the ratios of the totals of each bin. RPI analysts, after discussing the nature of the various crimes listed in the table above first sorted out the crimes that are entirely attributable to either the residential or non-residential sectors (residence vs. non-residence burglaries, child abuse, etc.). The crimes that could be attributable to both sectors were sorted according to 2 ratios for the unincorporated County calculated using primary input information contained in the main body of the report:

- Residential vehicle trips (93.1%) to non-residential vehicle trips (6.9%)
- Residential structures (62.5%) to non-residential structures (37.5%)

The ratio of residential to non-residential vehicle trips in the unincorporated county is a good representation of the amount of activity associated with each. This ratio was applied to crimes that were not necessarily associated with property. The ratio of non-residential to residential structures was applied to crimes that are related to property, such as trespassing and vandalism. RPI used the ratio of the totals as the proportionate share for the Sheriff's department.

Sheriff Proportionate Share

	Total Offenses	Residential or Non Residential Proportion
Aggravated Assault	1	residential
Burglary	1	non residential
Larceny	4	non residential
Motor Vehicle Theft	1	non residential
Other Assaults	5	residential
Vandalism	6	non residential
Weapons	4	non residential
Other Sex Offenses	2	residential
Drug Violations	4	residential
Other Family Offenses	9	residential
DUI	29	traffic
Liquor Law Violations	11	non residential
Disorderly Conduct	3	non residential
All Other Offenses	99	employees : residents
Runaways	2	residential
Murder/Manslaughter	1	residential
Assaults	8	residential
Burglary	14	non residential
Larceny/Theft	26	employees : residents
Motor Vehicle Theft	1	traffic

Source: 2003 Gunnison County Sheriff Crime Statistics from Colorado Bureau of Investigation http://cbi.state.co.us

Total Residential Crimes: 133

Total Non-Residential Crimes: 95

Where the table states that the offenses were residential or non-residential, 100% of the offenses were assigned accordingly. Where the ratio of employees : residents is cited, the crime stats were assigned respectively to non-residential and residential based on the 2002 population and employment statistics used throughout this report. Where the table assigns the crimes to 'traffic' the crimes are broken down into residential vs. non-residential respective to the ratio of residential to non-residential traffic.

Having determined the breakdown, the ratios are multiplied by the number of crimes and the residential and non-residential crimes were totaled to yield the results stated below the table.

Full-Time and Part-Time Resident Retail Expenditures

	Full Time Residence	Part Time Residence
Median Home Value	$281,500	$ 281,500
Down Payment (15%)	42,225	42,225
Mortgage Principal	$239,275	$ 239,275
Monthly Payment (7.5%, 30 yr. Mortgage)	$ 1,663	$ 1,663
Household Monthly Income	$ 5,543	$ 6,652
Household Annual Income	$ 66,520	$ 79,824
% Spent on Retail	38%	38%
Annual Retail Spending/ Full-Time Residence	$ 25,211	$ 30,253
Spending in Gunnison County	$ 25,211	$ 7,563

The core methodology underlying this estimate is based on estimating the income of the residents by the value of the residence. Because new homes are relatively expensive, we cannot assume that the occupants of relatively new homes will be represented by the area median income.

The primary differences between the full and part-time residence estimates lie in the assumed percentage that the housing payment constitutes relative to their entire household income. For locals we assume 30%, fairly typical desirable areas in Colorado and 25% for part-time residents, who clearly have higher incomes by virtue of the fact that they own a second residence. Using these percentages applied to the median home value, RPI obtained a necessary annual income.

The Bureau of Labor Statistics conducts the Consumer Expenditure Study annually which provides detailed average household expenditures. Generally, households spend 38% on taxable retail goods.

The part-time residence expenditures had to be tempered to account for part-time occupancy. Part-time units were assumed to be occupied 25% of the time as concluded in the NWCOG 2003 survey of second home owners. Thus total household retail expenditures were multiplied by 25% to obtain the taxable expenditures.

Budget Revenue Line Item Projections

The following chart lists *some* of the revenue line item projections. *The list below is abbreviated and is meant only to illustrate the methodology used for the line item projections*. More than 75 line items were projected based on an increase in 4000 residential units in the unincorporated Gunnison County methodology described below. Also, several columns are not shown here such as the '2002, '2003 actuals, and 2004 actuals or projected revenues, which were used to establish average revenues and identify trends.

The method used to project revenue line items can best be described as a process of classification, grouping, and summing. Each line item was classified by the type of revenue (fee/fine, State, Federal, etc..), by projection factor (anything from population, to registered vehicles, to assessed valuation, % increase in revenues for other funds such as Rd. and Bridge, and Human Services).

The projection factor is simply an increase rate used to project the revenue likely to be produced by the projected 4000 units underlying the Land Use Alternatives section of the 2004 Comprehensive Plan. Any fee or fine related to the Assessor's office or Treasurers office was projected to increase at the same rate as the assessed valuation of the County. Population growth rates were often applied to various line items, depending on the jurisdiction from which they originate. Other projection factors, applied in a similar manner include housing units, registered vehicles, and others.

Once each line was classified and projected according to its appropriate projection factor, RPI simply grouped and summed. The ultimate result is, for example, the projected permit revenue for the general fund, or the transfers expected into the general fund from other funds.

All of the projected future revenue relates only to the 4000 residential units projected in the Unincorporated County.

Excerpt from General Fund Line Item Budget Projections Spreadsheet

	Description	Multiplier Type	Future Growth Multiplier	Mean Revenue 2002-2004 Adjusted to 2002 dollars	Projected Revenue Future Growth Only
	GENERAL PROPERTY-CURRENT	Separate Analysis	Separate Analysis	Separate Analysis	Separate Analysis
Taxes	GENERAL PROPERTY-DELINQUENT	Separate Analysis	Separate Analysis	Separate Analysis	Separate Analysis
	SPECIFIC OWNERSHIP	# motor vehicles	81%	$ 292,760	$ 237,053
	INTEREST & PENALTIES	# motor vehicles	81%	$ 15,850	$ 12,834
	LIQUOR LICENSES	population	41%	$ 1,580	$ 654
	BUILDING PERMITS	assd value	33%	$ 136,770	$ 45,662
Permits	SEPTIC LIC/INSTALL PERMIT	assd value	33%	$ 33,280	$ 11,111
	SIGN PERMIT	population	41%	$ 1,340	$ 555
	DIVISION OF CRIMINAL JUSTICE	population	41%	$ 5,870	$ 2,430
	PILT	property tax % increase	33%	$ 130,850	$ 43,686
	WEED CONTROL PROGRAM	flat	0%	$ 47,020	$ -
	WEED MAPPING PROGRAM	population	41%	$ 8,820	$ 3,651
	TUBERCULOSIS GRANT	population	41%	$ 1,920	$ 795
	PHN-WIC	population	41%	$ 40,510	$ 16,767
Intergovt	HOMEMAKER GRANT	population	41%	$ 8,430	$ 3,489
	PREVENTION GRANT	population	41%	$ 6,680	$ 2,765
	JUVENILE DIVERSION	population	41%	$ 2,390	$ 989
	VETERAN'S OFFICE	population	41%	$ 370	$ 153
	VICTIM ASSISTANCE-MUNICIPALITIES	population	41%	$ 15,080	$ 6,242
	CIGARETTE TAX	sales tax % increase	135%	$ 5,810	$ 7,837
	SEVERANCE	population	41%	$ 4,880	$ 2,020
	CSFS GRANT	population	41%	$ 3,960	$ 1,639
	WOODSTOVE INSPECTIONS	assd value	33%	$ 240	$ 80
	BOARD OF ADJUSTMENT FEES	assd value	33%	$ 310	$ 103
	SHERIFF'S FEES	population	41%	$ 110,790	$ 45,857
Service Charges	TREASURER'S FEES	assd value	33%	$ 355,830	$ 118,799
	ASSESSOR'S FEES	assd value	33%	$ 12,980	$ 4,334
	LAND USE CHANGE FEES	assd value	33%	$ 31,530	$ 10,527
	ELECTIONS REIMBURSEMENTS	population	41%	$ 10,790	$ 4,466

	CLERK & RECORDER FEES	population	41%	$	372,690	$	154,259
	USEFUL PUBLIC SERVICE FEE	population	41%	$	43,850	$	18,150
	DUI FINES	VMT	25%	$	20,450	$	5,082
	SALE OF ASSETS	general fund exp % increase	38%	$	100	$	38
	EARNINGS ON INVESTMENTS	general fund exp % increase	38%	$	85,110	$	32,718
	RENT	general fund exp % increase	38%	$	59,110	$	22,723
Misc	RENT-MULTI PURPOSE BUILDING	general fund exp % increase	38%	$	10,280	$	3,952
	VENDING MACHINES-FAIRGROUNDS	general fund exp % increase	38%	$	2,160	$	830
	NURSE/FAMILY PARTNERSHIP DONATION	general fund exp % increase	38%	$	70	$	27
	GUNNISON DENTAL INITIATIVE	general fund exp % increase	38%	$	440	$	169
	ALLOCATE FROM ROAD & BRIDGE	future r&b rev/total revenue	24%	$	112,220	$	26,758
	ALLOCATE FROM SOCIAL SERVICES	future ss rev/total revenue	58%	$	93,190	$	53,718
	ALLOC. FROM CONSERVATION TRUST	flat	0%	$	40,100	$	-
	ALLOCATE FROM AIRPORT	population	41%	$	89,930	$	37,223
Transfers	ALLOCATE FROM SALES TAX	sales tax % increase	35%	$	275,550	$	96,132
	ALLOCATE FROM LODGING TAX	sales tax % increase	35%	$	4,230	$	1,476
	ALLOCATE FROM LIBRARY	property tax % increase	33%	$	39,370	$	13,144
	ALLOCATE FROM MOSQUITO DISTRICT	property tax % increase	33%	$	1,270	$	424
	ALLOCATE FROM COMPUTER USAGE	population	41%	$	35,200	$	14,570

Figure X. Administration Department Proportionate Share Calculations

Detailed Administration Proportionate Share

	Effective FTEs	Ratio	Residential	Non-Residential	Res Jobs	Non-Res Jobs
Administration	4.5	residents to employees	75.6%	24.4%	3.4	1.1
Finance	4.6	residents to employees	75.6%	24.4%	3.5	1.1
Clerk & Recorder	7.5	Value of Residential Property: Value of Non-Residential Property	89.9%	10.1%	6.7	0.8
Treasurer	5.5	Value of Residential Property: Value of Non-Residential Property	89.9%	10.1%	4.9	0.6
Assessor	11.0	Value of Residential Property: Value of Non-Residential Property	89.9%	10.1%	9.9	1.1
Planning	7.5	# Residential Building Permits: to Value of Non-Residential Property	89.9%	10.1%	6.7	0.8
Coroner	0.3	all residential	100%		0.3	0.0
Attorney	3.7	residents to employees	75.6%	24.4%	2.8	0.9
Elections	0.7	all residential	100%	0%	0.7	0.0
Personell	0.3	residents to employees	76%	24%	0.2	0.1
Commissioners	3.0	residents to employees	76%	24%	2.3	0.7
Facilities Maintenance	3.2	residents to employees	76%	24%	2.4	0.8
Total	51.8				43.9	7.9
		Non-Residential Share of Demand	15%			
		Residential Share of Demand	85%			

The approach used to establish the proportionate share for the Sheriff's department can best be described as a process of sorting crimes committed in the past two years into residential vs. non-residential 'bins'. Once they are sorted, the proportionate share consists simply of the ratios of the totals of each bin. RPI analysts, after discussing the nature of the various crimes listed in the table above first sorted out the crimes that are entirely attributable to either the residential or non-residential sectors (residence vs. non-residence burglaries, child abuse, etc.). The crimes that could be attributable to both sectors were sorted according to 2 ratios for the unincorporated County calculated using primary input information contained in the main body of the report:

- Residential vehicle trips (93.1%) to non-residential vehicle trips (6.9%)
- Residential structures (62.5%) to non-residential structures (37.5%)

The ratio of residential to non-residential vehicle trips in the unincorporated county is a good representation of the amount of activity associated with each. This ratio was applied to crimes that were not necessarily associated with property. The ratio of non-residential to residential structures was applied to crimes that are related to property, such as trespassing and vandalism. RPI used the ratio of the totals as the proportionate share for the Sheriff's department.