I-70 Mountain Corridor Land Use Technical Report

August 2010

With Corrections March 2011

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Revision and Errata List
I-70 Mountain Corridor PEIS Land Use Technical Report
March 2011

The following list represents revisions to the *I-70 Mountain Corridor PEIS Land Use Technical Report* (CDOT, August 2010).

Page	Item
Global	The phrase "United States Forest Service lands" is revised to "National Forest System lands managed by the United States Forest Service."
19	The area of Eagle County is revised from 1,688 to 1,694 miles to reflect the Eagle County GIS Department's estimates.
19	The text related to the description of land use and planning policies in Eagle County (line 7-10) has been revised to say, "Land uses in unincorporated areas include agriculture, commercial, industrial, large-lot rural residential, and subdivisions. Land uses within town are office, commercial, industrial, and residential."
19	The towns of Red Cliff and Basalt are added to the list of towns in Eagle County.
21	Clarifying language is added to the second bullet under Growth and Population in Table 3: Summary of Corridor County Master Plan Topics Related to the Corridor stating "Eagle County anticipates a continued high rate of population growth, although not as high as the growth rate experienced in the 1990s. The County seeks to balance that growth with economic success, quality of life, and environmental preservation."
22	Clarifying language has been added to the first line on the page stating, "Numerous Corridor communities have high numbers of second homes. In the 2000 United States Census, second homes composed 49 percent and 67 percent of Eagle and Summit County homes, respectively.
37	The first reference in **Section 8, References**, is revised to: "Valdez, Kris, AICP. 2009a. Planner for Eagle County Planning Department. Email to T. Hopper. August 19."
Appendix A	A new page is inserted at the beginning of Appendix A, with the following text. "Due to the range of zoning classifications used by each town and county, a uniform zoning map was created for the entire Corridor that illustrates residential, commercial, industrial, public, mixed use, open space, and other zoning categories. In areas without zoning, known land uses were used as guidance for zoning classifications. Zoning regulations were used to interpret zoning categories to achieve a comprehensive zoning map. These generalized categories were chosen to best represent the zoning for the entire Corridor and are described in Table A-1." Table A-1 is inserted as follows.

TABLE A-1. GENERALIZED ZONING CATEGORIES

Category	Description
Residential	
Residential Estate	1 unit per 20 acres or more
Rural	1 unit per 2 to 19 acres
Low Density	1 to 5 units per acre
Medium Density	6 to 10 units per acre
High Density	11 or more units per acre
Lodging	Hotels, motels, and resort lodging
Commercial	Service, retail, and office uses
Industrial	
Light Industrial	Light manufacturing
Heavy Industrial	Heavy manufacturing
Mining	Mining and related activities
Public Facilities Owned by the Town or County	Town hall, town/county offices, cemeteries, libraries, schools
Mixed Use	Mixed residential and commercial area, typically associated with a downtown
Open Space	Natural areas that have been set aside for passive recreation or preservation
Parks and Urban Spaces	Town/county parks
Agricultural	Active agricultural or very low-density residential in an agricultural setting
Resource	Conservation/preservation areas
Planned Unit Development	Planned development that has been approved by the town/county
Public Lands	
Bureau of Land Management	Federally owned and managed land
White River National Forest	Federally owned and managed national forest
Arapaho and Roosevelt National Forests	Federally owned and managed national forest
Pike/San Isabel National Forest	Federally owned and managed national forest
State Lands	State Land Board and Colorado Division of Wildlife Areas

Page	Item
Appendix A	The legend on Maps 11 through 13, which show Clear Creek County, is revised to state "Former BLM Lands" instead of "BLM Lands," as the BLM has transferred its land holdings in Clear Creek County to the County.
Appendix C, pg C-1	The figure and table reference errors are corrected as follows. First paragraph on page: "The locations of these permits are shown on **Figure C-1** through **Figure C-3**." Second paragraph on page: "Existing outfitter/guide permits are listed in **Table C-1** in association with permit use areas (trails, roads, and forest areas). These special use permits are listed in **Table C-1**, along with more specific information regarding the nature of the permitted land use."
Appendix C, pg C-3	The figure and table reference error is corrected as follows. First paragraph on page: "**Table C-2** includes additional descriptive information for the Holy Cross District special use permits shown on **Figure C-1**."
Appendix C, pg C-5	The figure and table reference errors are corrected as follows. First paragraph on page: "Existing outfitter/guide permits are listed in **Table C-3** in association with permit use areas and activity descriptions. **Figure C-2** illustrates the location of other existing special use permits in the vicinity of I-70." Second paragraph on page: "**Table C-4** includes additional descriptive information for the Dillon District special use permits shown on **Figure C-2**."
Appendix C, pg C-8	The figure and table reference errors are corrected as follows. First paragraph on page: "Special use permits (except outfitter/guide permits) within the Clear Creek District (ARNF) and in the vicinity of I-70 are shown on **Figure C-3**. Existing outfitter/guide permits are listed in **Table C-5** in association with permit use areas and activity descriptions." Second paragraph on page: "**Table C-6** includes additional descriptive information for the Clear Creek District special use permits shown on **Figure C-3**."
Appendix D, pg D-16	The figure and table reference error is corrected as follows. Paragraph above Table D-3: "**Table D-3** summarizes the key points associated with topics related to the I-70 Mountain Corridor."
Appendix D, pg D-52	The figure and table reference error is corrected as follows. Paragraph above Table D-4: "**Table D-4** summarizes the key points associated with topics related to the I-70 Mountain Corridor."
Appendix D, pg D-65	The figure and table reference error is corrected as follows. Paragraph above Table D-5: "**Table D-5** summarizes the key points associated with topics related to the I-70 Mountain Corridor."

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Section 1. Purpose of the Report

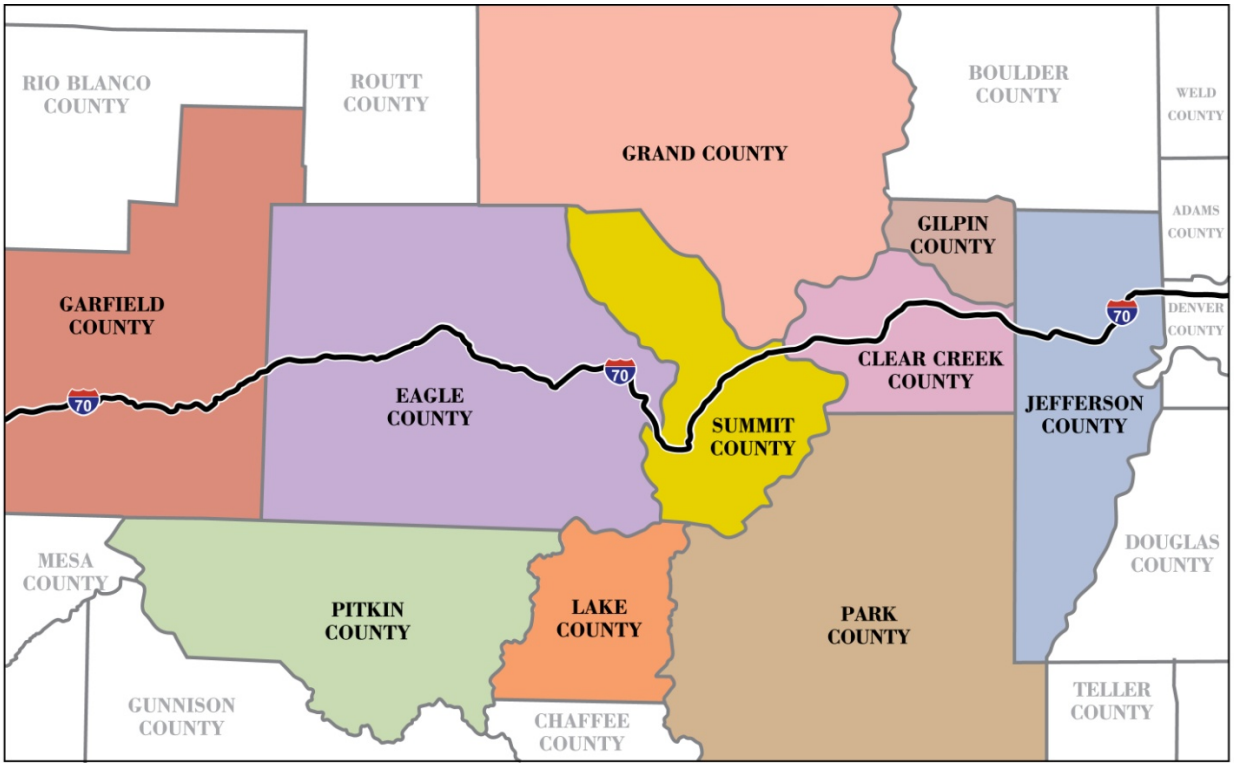
This *I-70 Mountain Corridor PEIS Land Use Technical Report* supports the information contained in **Chapter 3, Section 7** of the I-70 Mountain Corridor Programmatic Environmental Impact Statement (PEIS). This report describes:

- Methods used to identify land use and determine potential impacts of alternatives on land uses.
- Coordination with local, state, and federal agencies.
- Description of the existing land use in the Corridor Consequences of the Action Alternatives evaluated in the I-70 Mountain Corridor PEIS on land use.
- Considerations for land use for Tier 2 processes.
- Proposed mitigation strategies for land use.

Section 2. Background and Methodology

The study area for this Technical Report comprises the land in the counties immediately adjacent to the I-70 Mountain Corridor (Garfield, Eagle, Summit, Clear Creek, and Jefferson) for the direct impacts analysis. The indirect impacts analysis study area comprises nine counties surrounding the I-70 Mountain Corridor—Garfield, Eagle, Summit, Clear Creek, Lake, Park, Gilpin, Pitkin, and Grand. Jefferson County is excluded from the indirect impacts analysis because its growth trends are related primarily to the Denver metropolitan area rather than the I-70 Mountain Corridor, and the Action Alternatives minimally influence Jefferson County's growth. The Colorado Department of Transportation (CDOT) and Federal Highway Administration (the lead agencies) collected land use management information for federally managed lands in the Corridor, along with planning and zoning documents from Corridor counties and municipalities. Direct consultation with the Corridor counties, municipalities, and other land management agencies was conducted to verify assumptions and obtain accurate land use data. **Figure 1** below illustrates the five counties through which the I-70 highway runs, plus the additional five counties included in the indirect impacts analysis.

Figure 1. Ten County Study Area



The lead agencies analyzed three primary indicators to determine the direct and indirect impacts to land use. Both qualitative and quantitative analysis methods were used. The sections below detail the individual methodologies used for direct and indirect impact analysis:

- Right-of-way acquisition and I-70 highway expansion into currently developed lands
- Consistency with land use planning and zoning
- Induced growth (population and development)

2.1 Right-of-Way Acquisition and I-70 Highway Expansion into Currently Developed Lands

The lead agencies used geographic information systems map overlays of the alternatives on survey, zoning, and parcel data gathered from Corridor jurisdictions, and White River National Forest and Arapaho and Roosevelt National Forests management area prescription maps to determine direct impacts related to right-of-way acquisition and I-70 highway expansion into currently developed lands. Some parcels, especially in Clear Creek County, encroach on the existing right-of-way and could be affected by alternatives regardless of whether additional right-of-way is required.

2.2 Consistency with Land Use Planning and Zoning

The lead agencies assessed project compatibility with relevant local, regional, and federal land use planning documents. To determine planning trends in the Corridor, the lead agencies focused their review of planning documents on the following topics: growth and population, transit, the I-70 highway, regional coordination, environmental sustainability, and water resources.

Planning and zoning information was collected throughout the course of the study, and most recently in 2009, through direct coordination with all local and regional jurisdictions within the study area. Data

collected included master or comprehensive plans, zoning regulations, open space and recreation plans, and geographic information system data layers. The planning and zoning information was reviewed to help define, by community, current and future conditions and recent trends on planning topics related to the Corridor. This information helped form the basis for the land use analysis.

A uniform zoning map was created for the entire Corridor, illustrating residential, commercial, industrial, public, mixed use, open space, and other zoning categories. In areas without zoning, known land uses were used as guidance for zoning classifications. Zoning regulations were used to interpret zoning categories to develop the comprehensive zoning map (**Appendix A**, Land Use Maps).

Land use management information was also collected for federally managed lands in the Corridor throughout the course of the study, and most recently in 2009, through direct coordination with the United States Forest Service land managers and Bureau of Land Management planners. Data collected included resource management plans, environmental impact statements, applicable standards and guidelines for forest-wide and specific management prescription areas (land use categories) (**Appendix B**), existing special use permits (**Appendix C**), and geographic information system data layers.

2.3 Induced Growth: Population and Development

To analyze induced growth, the lead agencies gathered population estimates from the Colorado Department of Local Affairs for years 2000 and 2025, and estimated the amount of induced population and development growth occurring by 2025 as a result of the alternatives, beyond what is currently planned in surrounding communities. Indirect impacts occur when a transportation alternative induces or suppresses growth in population or development different than if no transportation action were implemented. The lead agencies conducted a separate evaluation on water availability, documented in the *I-70 Mountain Corridor Water Resources Technical Report* (CDOT, August 2010), evaluating the potential of water availability to influence future growth in the Corridor.

The data gathered for this analysis provided information on Corridor conditions as they existed in the year 2000, and provided projections for conditions as they would be in 2025, the original planning horizon for this study. As the study progressed, the lead agencies continued to evaluate new data and extended the planning horizon to 2035. However, the lead agencies determined that because Corridor socioeconomic conditions have been stable, 2010 United States Census data are not available, county planning horizons have not all been extended to 2035, and the programmatic nature of impact evaluation at the Tier 1 level focuses on trends and comparative differences among alternatives, the year 2000 and 2025 planning horizon provided a reasonable baseline for a comparative analysis of alternatives.

In 2009, the Department of Local Affairs developed population and employment forecasts for year 2035, and revised their initial estimates of population and employment for years 2000 and 2025. These updated estimates were used primarily to qualify and validate the original induced growth analysis. Evaluation of the updated estimates confirmed that the initial estimates are still valid for the purposes of the Tier 1 analysis.

The indirect impacts assessment includes 1) quantifying possible effects of capacity and mobility changes of alternatives on population growth and 2) evaluating the influence of the alternatives on the distribution of future development. The framework for estimating indirect impacts includes the following steps:

1. Organizing alternatives into mode designations that reflect similar levels of suppressed or induced growth. The following groups of alternatives were established for the assessment of indirect impacts:
    a. No Action Alternative
    b. Minimal Action Alternative

c. Transit Alternatives
d. Highway Alternatives
e. Combination Alternatives
f. Preferred Alternative

2. Estimating the change from 2025 Colorado Department of Local Affairs (Colorado demographic information source) populations due to the possible induced or suppressed travel demand associated with alternatives.
3. Estimating the change in 2025 development amounts and patterns from induced population growth associated with alternatives. The analysis of potential induced growth is related to the land use zoning for each county, and the potential for induced growth beyond the planned units and density in each plan. Population data for the indirect land use analysis was not updated to 2035 because 2035 projections are beyond land use planning horizons at the County level, and could result in a disconnect between future planning and growth inducement assumptions. As described in the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (CDOT, August 2010) Appendix A, the economic model population forecasts for 2035, which use the same Department of Labor Affairs data as the induced growth analysis, very closely parallel the Department of Labor Affairs updated population estimates in 2035.

2.3.1 Induced Population

This methodology was created to address concerns regarding the potential of alternatives to affect population growth in the Corridor area. The goal of the methodology is not to specifically quantify population growth by alternative, but rather to provide a scenario (based on past trends) of potential growth pressure by Corridor county by groups of alternatives (No Action, Minimal Action, Transit, Highway, Combination, and Preferred Alternative). The method is based on past trends in population growth and the I-70 highway traffic growth in the study area. Sources of data used in this analysis included:

- Colorado Department of Local Affairs initial estimates of year 2000 and year 2025 population by county (Colorado Department of Local Affairs, 2002).
- Colorado Department of Local Affairs and United States Census historic population data by county (1985 to 2001) (Colorado Department of Local Affairs, 2002).
- Colorado Department of Transportation average annual daily traffic (AADT) data, which provides the average number of vehicles per day, for various locations along the I-70 Mountain Corridor (1985 to 2001).
- Baseline 2025 AADT (from the travel demand model) for various locations along the I-70 highway. As discussed in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (CDOT August, 2010), the baseline travel demand in the Corridor is a projection of the number of persons who desire to use the Corridor, not considering roadway congestion.

The following assumptions were used in this analysis:

1. There are generally 40 weekends in the year that contribute to the I-70 highway congestion due to recreational trips. Twenty weekends are attributed to the winter season (November through March), and 20 weekends are attributed to the summer season (May through September) based on the travel demand model. The I-70 highway congestion is reduced during the rest of the year, with shorter periods of congestion and lower peak-hour volumes.
2. The future projected travel demand exceeds the capacity of the I-70 highway in these 40 weekends. The excess demand is partially spread to other times and days, but part of the demand

is unmet as some users will cancel their desired trip. Unmet demand occurs when travelers choose to not make a trip because of severe congestion conditions, long travel times, or other unsatisfactory conditions.

3. The concept of unmet demand recognizes that the number of trips taken along the Corridor is related to the conditions of travel. The measurement of unmet demand is based on the desire to take a trip using the I-70 highway based on current travel conditions in good weather. Improvements beyond those travel conditions potentially increase the desire to make a trip. In turn, this potentially results in increased demand and additional Corridor person trips.
4. Weekend recreation-oriented person trips are either decreased or increased from the Baseline number of 2025 person trips for each alternative based on the alternative's capacity to accommodate the projected travel demand. This is expressed in **Table 1** by the percent of increased or decreased person trips by alternative. Percentages are determined by the travel demand model. Recreation-oriented trips are a subset of the overall trips in the travel demand model. These recreation-oriented trips are more sensitive to growth inducement and suppression; therefore, the percentages presented in **Table 1** are higher than the percentages presented for the overall 2025 travel demand, which includes all trips. The percentage increase or decrease varies depending on Corridor location.

Table 1. Percent Increase/Decrease from Baseline in Person-Trips

Corridor Location	No Action	Minimal Action	Rail with Inter-Mountain Connection	Advanced Guideway System	Dual-Mode or Diesel Bus in Guideway	6-Lane Highway (55 or 65 mph) or Reversible/HOV/HOT Lanes	Combination 6-Lane Highway w/Rail and Inter-Mountain Connection	Combination 6-Lane Highway with Advanced Guideway System	Combination 6-Lane Highway w/ Dual-Mode or Diesel Bus in Guideway	Preferred Alternative
Glenwood Springs	-20%	-15%	5%	6%	1.5%	0%	10%	8%	7%	6% to 8%
Vail Pass			7%	8%	7.5%	1.5%	21%	20%	19%	8% to 20%
Eisenhower-Johnson Memorial Tunnels			12%	13%	12.5%	2.5%	29%	28%	27%	13% to 28%
Twin Tunnels			11%	12%	11%	4%	24%	22%	23%	12% to 22%
Genesee			14%	15%	14%	-1%	20%	19%	19%	15% to 19%

The Preferred Alternative is presented as a range because the adaptive management component allows it to be implemented based on future needs and associated triggers for further action. Chapter 2, Section 2.7 of the PEIS describes the triggers for implementing components of the Preferred Alternative.

Key to Abbreviations/Acronyms
AGS=Advanced Guideway System IMC=Intermountain Connection
HOT=High Occupancy Toll HOV=High Occupancy Vehicle mph = miles per hour

General Trend Analysis

Average annual daily traffic was estimated for each alternative for various locations along the I-70 highway, based on the 2025 Baseline AADT (from the travel demand model), percent variation from Baseline recreation person trips by alternative (see assumptions and **Table 1**), and a factor of 0.5 to account for 40 weeks of influence to recreational trips per year. **Table 2** below provides the AADT for each alternative at relevant locations for each county.

Table 2. Estimated Annual Average Daily Traffic (rounded)

AADT Location	2025 Baseline AADT (from model)	No Action	Minimal Action	Rail with Inter-Mountain Connection	Advanced Guideway System	Dual-Mode or Diesel Bus in Guideway	6-Lane Highway (55 or 65 mph) or Reversible/ HOV/HOT Lanes	Combination 6-Lane Highway with Rail and Inter-Mountain Connection	Combination 6-Lane Highway w/AGS	Combination 6-Lane Highway w/ Dual-Mode or Diesel Bus in Guideway	Preferred Alternative
Glenwood	23,000	20,500	21,500	23,500	24,000	23,000	23,000	24,000	24,000	24,000	24,000
Vail Pass	26,500	24,000	24,500	27,500	27,500	27,000	27,000	29,500	29,000	29,000	27,500 to 29,000
Eisenhower-Johnson Memorial Tunnels	39,500	35,500	36,500	42,000	42,000	42,000	40,000	45,500	45,000	45,000	42,000 to 45,000
Twin Tunnels	56,500	50,500	52,000	59,500	60,000	59,500	57,500	63,000	62,500	63,000	60,000 to 62,500
Genesee	88,000	79,000	81,500	94,000	94,500	94,000	87,500	97,000	96,500	96,500	94,500 to 96,500

The Preferred Alternative is presented as a range because the adaptive management component allows it to be implemented based on future needs and associated triggers for further action. Chapter 2, Section 2.7 of the PEIS describes the triggers for implementing components of the Preferred Alternative.

Key to Abbreviations/Acronyms
AGS=Advanced Guideway System IMC=Intermountain Connection
HOT=High Occupancy Toll HOV=High Occupancy Vehicle mph = miles per hour

The AADT results were charted on county curves to derive the associated (predicted) populations. The relationship of 1985 to 2001 population data and AADT was tested/found for each county using statistical regression analysis (available from Microsoft Excel). The best-fitting curve/line was selected for each county based on statistical tests to determine the best-fit and highest degree of correlation. The selected curve/line was projected into the future for each county.

These predicted populations were compared to Department of Local Affairs 2025 projections (Colorado Department of Local Affairs, 2002) to determine if the predicted populations are supportive of anticipated/planned growth; if they might have a suppressive effect on planned growth; or if they indicate increased pressure for growth beyond anticipated/planned growth. The difference between the predicted population and the Department of Local Affairs 2025 population was calculated by county. A difference in the range of 3,500 persons is considered within the methodology error margin. Differences greater than 3,500 persons are determined to be potentially relevant and are used to determine potential growth impacts and potential impacts on land use.

2.3.2 Induced Development

Estimates were made for the acres of induced development, beyond the planned urban and rural development. Estimates of induced development assume the following:

1. 2025 population and completion of planned development are directly related and occur at the same time.
2. Induced population growth will lead to developed acreage impacts by 2025 at the same ratio as 2000–2025 population/development trends.

These assumptions provide a theoretical worst-case scenario for land use impacts from induced growth. This scenario is thought to be worst-case because some Corridor planned development is likely to occur later than 2025 and Corridor counties indicate that Colorado Department of Local Affairs projections may be low, which would result in increased population densities relative to the calculated ratio.

As described in **Section 5** of this document, susceptibility to changes in population due to induced or suppressed travel demand would be limited to Eagle and Summit counties. The No Action and Minimal Action alternatives would suppress population growth, and would not result in any induced development. In coordination with Garfield, Eagle, and Summit county planners, county zoning classifications were categorized into urban and rural planned development, and the following assumptions were developed regarding the distribution of induced growth:

1. Transit alternatives are expected to concentrate induced growth in urban areas surrounding transit centers in areas of existing or planned urban development in Eagle County.
2. Highway alternatives are expected to distribute growth based on existing trends for urban/rural development in each county, resulting in increased densities in rural areas of Eagle County.
3. Combination alternatives are expected to distribute induced growth equally between urban and rural areas in both Eagle and Summit counties.
4. The Minimum Program of the Preferred Alternative would concentrate induced growth in urban areas surrounding transit centers in areas of existing or planned urban development in Eagle County. If the Maximum Program of the Preferred Alternative was fully implemented, it would induce growth in both urban and rural areas in Eagle and Summit counties.
5. The distribution of land development patterns associated with induced growth vary by alternative as described qualitatively above. To determine how much development could occur, growth impact factors were developed. These factors are a numeric reflection of the growth distribution scenarios. That is, the factors are a means of quantatively capturing the influence of alternatives upon induced growth and development patterns. Land use growth impact factors were developed in coordination with county planners based on assumptions for the distribution of induced growth, as follows:
    a. A Highway Alternative acreage impact factor of 1.0 assumes the Highway alternatives would continue to distribute growth based on historic trends. The factor of 1.0 also serves as the

baseline multiplier in the induced development formula, shown below, where 1.0 is a constant that perpetuates historic development patterns.

b. A Transit Alternative acreage impact factor of 0.1 assumes that the influence of Transit alternatives would concentrate growth in urban areas surrounding transit centers, within areas of existing or planned urban development, minimizing the acreage of additional development impact.

c. A Combination Alternative acreage impact factor of 0.5 assumes that the influence of Combination alternatives on land use would increase growth pressure equally between rural development and existing urban development; half of the growth would be additional acres of development, and half of the growth would be concentrated in already-developed areas.

The calculation of possible development impacts from induced growth is generally described in the following formula (separate calculations were performed for each county area):

acres of county planned land use		induced population prediction (alternative specific, described in Section 2.3.1)		land use growth impact factor (alternative specific)	=	acres indirectly impacted from possible induced development
2025 Colorado Department of Local Affairs population – 2000 Colorado Department of Local Affairs population	X		X			

Section 3. Description of Alternatives

This section summarizes the alternatives considered in the I-70 Mountain Corridor PEIS. A more complete description of these alternatives is available in **Chapter 2** of the PEIS and in the *I-70 Mountain Corridor PEIS Alternatives Screening and Development Technical Report* (CDOT, August 2010).

3.1 Minimal Action Alternative

The Minimal Action Alternative provides a range of local transportation improvements along the Corridor without providing major highway capacity widening or dedicated transit components. The Minimal Action Alternative includes elements of the Transportation System Management family and the Localized Highway Improvements family, including: transportation management, interchange modifications, curve safety modifications, and auxiliary lanes. These elements are also incorporated into the other Action Alternative Packages.

3.2 Transit Alternatives

Four Transit alternatives are considered in the PEIS as a reasonable range representing the Fixed Guideway and Rubber Tire Transit families:

- Rail with Intermountain Connection Alternative
- Advanced Guideway System Alternative
- Dual-Mode Bus in Guideway Alternative
- Diesel Bus in Guideway Alternative

3.2.1 Rail with Intermountain Connection

The Rail with Intermountain Connection Alternative would provide rail transit service between the Eagle County Regional Airport and C-470. Between Vail and C-470 the rail would be primarily at-grade running adjacent to the I-70 highway. The segment between Vail and the Eagle Count Airport would be constructed within the existing Union Pacific Railroad right-of-way. A new Vail Transportation Center, including new track, would be constructed between Vail and Minturn to complete the connection between the diesel and electric trains. This alternative also includes auxiliary lane improvements at eastbound Eisenhower-Johnson Memorial Tunnels to Herman Gulch and westbound Downieville to Empire and the other Minimal Action Alternative elements except for curve safety modifications at Dowd Canyon, buses in mixed traffic and other auxiliary lane improvements.

3.2.2 Advanced Guideway System

The Advanced Guideway System Alternative would provide transit service between the Eagle County Regional Airport and C-470 with a 24-foot-wide, 118 mile, fully elevated system. The Advanced Guideway System Alternative would use a new technology that provides higher speeds than the other Fixed Guideway Transit technologies studied for the PEIS. Any Advanced Guideway System would require additional research and review before it could be implemented in the Corridor. Although the Federal Transit Administration-researched urban magnetic levitation system is considered in the PEIS, the actual technology would be developed in a Tier 2 process. This alternative includes the same Minimal Action elements as described previously for the Rail with Intermountain Connection Alternative.

3.2.3 Dual-mode Bus in Guideway

This alternative includes a guideway located in the median of the I-70 highway with dual-mode buses providing transit service between the Eagle County Regional Airport and C-470. This guideway would be 24 feet wide with 3 foot high guiding barriers and would accommodate bidirectional travel. The barriers direct the movement of the bus and separate the guideway from general purpose traffic lanes. While traveling in the guideway, buses would use guidewheels to provide steering control, thus permitting a narrow guideway and providing safer operations. The buses use electric power in the guideway and diesel power when traveling outside the guideway in general purpose lanes. This alternative includes the same Minimal Action Alternative elements as described previously for the Rail with Intermountain Connection Alternative.

3.2.4 Diesel Bus in Guideway

This includes the components of the Dual-mode Bus in Guideway Alternative except that the buses use diesel power at all times.

3.3 Highway Alternatives

Three Highway alternatives are advanced for consideration in the PEIS as a reasonable range and representative of the Highway improvements, including Six-Lane Highway 55 mph, Six-Lane Highway 65 mph, and Reversible/HOV/HOT Lanes. The Highway alternatives considered both 55 and 65 mph design speeds to 1) establish corridor consistency and 2) address deficient areas within the Corridor. The 55 mph design speed establishes a consistent design speed throughout the Corridor, which currently does not exist. The 65 mph design speed further improves mobility and addresses safety deficiencies in key locations such as Dowd Canyon and the Twin Tunnels. Both the 55 mph and the 65 mph design speed options are augmented by curve safety improvements, but the 65 mph design speed constructs tunnels in two of the locations: Dowd Canyon and Floyd Hill/Hidden Valley.

3.3.1 Six-Lane Highway 55 mph Alternative

This alternative includes six-lane highway widening in two locations: Dowd Canyon and the Eisenhower-Johnson Memorial Tunnels to Floyd Hill. This alternative includes auxiliary lane improvements at eastbound Avon to Post Boulevard, both directions on the west side of Vail Pass, eastbound Frisco to Silverthorne and westbound Morrison to Chief Hosa, and the Minimal Action Alternative elements except for buses in mixed traffic and other auxiliary lane improvements.

3.3.2 Six-Lane Highway 65 mph Alternative

This alternative is similar to the Six-Lane Highway 55 mph Alternative; it includes the same six-lane widening and all of the Minimal Action Alternative elements except the curve safety modification at Dowd Canyon. The higher design speed of 65 mph alternatives requires the curve safety modifications near Floyd Hill and Fall River Road to be replaced with tunnels.

3.3.3 Reversible Lanes Alternative

This alternative is a reversible lane facility accommodating high occupancy vehicles and high occupancy toll lanes. It changes traffic flow directions as needed to accommodate peak traffic demands. It includes two additional reversible traffic lanes from the west side of the Eisenhower-Johnson Memorial Tunnels to just east of Floyd Hill. From the Eisenhower-Johnson Memorial Tunnels to US 6, two lanes are built with one lane continuing to US 6 and the other lane to the east side of Floyd Hill. This alternative includes one additional lane in each direction at Dowd Canyon. This alternative includes the same Minimal Action Alternative Elements as the Six-Lane Highway 55 mph Alternative.

3.4 Combination Alternatives

Twelve Combination alternatives, combining Highway and Transit alternatives are considered in the PEIS. Four of these alternatives involve the buildout of highway and transit components simultaneously. Eight alternatives include preservation options, the intent of which is to include, or not preclude, space for future modes in the I-70 Mountain Corridor. The Combination alternatives all include the Six-Lane Highway 55 mph Alternative for highway components.

Combination Rail and Intermountain Connection and Six-Lane Highway Alternative—This alternative includes the 55 mph six-lane highway widening between Floyd Hill and Eisenhower-Johnson Memorial Tunnels, the Rail and Intermountain Connection transit components, and most of the components of the Minimal Action Alternative. The exception is that only one of the Minimal Action auxiliary lane improvements (from Morrison to Chief Hosa westbound) is included.

Combination Advanced Guideway System and Six-Lane Highway Alternative—This alternative includes the 55 mph six-lane highway widening between Floyd Hill and Eisenhower-Johnson Memorial Tunnels and the Advanced Guideway System transit components. It includes the same Minimal Action Alternative elements as the Combination Rail and Intermountain Connection and Six-Lane Highway Alternative.

Combination Bus in Guideway (Dual-Mode) and Six-Lane Highway Alternative—This alternative the 55 mph six-lane highway widening between Floyd Hill and Eisenhower-Johnson Memorial Tunnels and the dual-mode bus in guideway transit components. It includes the same Minimal Action Alternative elements as the Combination Rail and Intermountain Connection and Six-Lane Highway Alternative.

Combination Bus in Guideway (Diesel) and Six-Lane Highway Alternative—This alternative includes the 55 mph six-lane highway widening between Floyd Hill and Eisenhower-Johnson Memorial Tunnels and the diesel bus in guideway transit components. It includes the same Minimal Action

Alternative elements as the Combination Rail and Intermountain Connection and Six-Lane Highway Alternative.

Combination Rail & Intermountain Connection and Preservation of Six-Lane Highway Alternative—This alternative includes the Rail and Intermountain Connection Alternative and preserves space to construct the Six-Lane Highway 55 mph at a later point.

Combination Advanced Guideway System and Preservation of Six-Lane Highway Alternative— This alternative includes the Advanced Guideway System and preserves space to construct the Six-Lane Highway 55 mph at a later point.

Combination Bus in Guideway (Dual-Mode) and Preservation of Six-Lane Highway Alternative— This alternative includes the Combination Bus in Guideway (Dual-Mode) Alterative and preserves space to construct the Six-Lane Highway 55 mph at a later point.

Combination Bus in Guideway (Diesel) and Preservation of Six-Lane Highway Alternative—This alternative includes the Bus in Guideway (Diesel) Alternative and preserves space to construct the Six-Lane Highway 55 mph at a later point.

Combination Preservation of Rail and Intermountain Connection and Six-Lane Highway Alternative—This alternative includes the Six-Lane 55 mph Highway Alternative and also preserves space to construct the Rail and Intermountain Connection at a later point.

Combination Preservation of Advanced Guideway System and Six-Lane Highway Alternative— This alternative includes the Six-Lane 55 mph Highway Alternative and also preserves space to construct the Advanced Guideway System at a later point.

Combination Preservation of Bus in Guideway (Dual-Mode) and Six-Lane Highway Alternative— This alternative includes the Six-Lane Highway Alternative and also preserves space to construct the Bus in Guideway (Dual-Mode) at a later point.

Combination Preservation of Bus in Guideway (Diesel) and Six-Lane Highway Alternative—This alternative includes the Six-Lane Highway Alternative and also preserves space to construct the Bus in Guideway (Diesel) at a later point.

3.5 Preferred Alternative—Minimum and Maximum Programs

The Preferred Alternative provides for a range of improvements. Both the Minimum and the Maximum Programs include the Advanced Guideway System Alternative. The primary variation between the Minimum and Maximum Programs is the extent of the highway widening between the Twin Tunnels and the Eisenhower-Johnson Memorial Tunnels. The Maximum Program includes six-lane widening between these points (the Twin Tunnels and the Eisenhower-Johnson Memorial Tunnels), depending on certain events and triggers and a recommended adaptive management strategy.

3.6 No Action Alternative

The No Action Alternative provides for ongoing highway maintenance and improvements with committed funding sources highly likely to be implemented by the 2035 planning horizon. The projected highway maintenance and improvements are committed whether or not any other improvements are constructed with the I-70 Mountain Corridor project. Specific improvements under the No Action Alternative include highway projects, park and ride facilities, tunnel enhancements, and general maintenance activities.

Section 4. Affected Environment

4.1 Federally Managed Lands

The Corridor traverses lands within the federal jurisdictions of the Colorado River Valley District (formerly the Glenwood Springs District) of the Bureau of Land Management, the White River National Forest, and the Arapaho and Roosevelt National Forests. Federal lands managed by the Bureau of Land Management and the United States Forest Service are governed by resource management plans.

4.1.1 Bureau of Land Management, Colorado River Valley District

The Bureau of Land Management manages 568,000 acres of public lands in the Colorado River Valley Resource Area (formerly the Glenwood Springs Resource Area). Within the Corridor, Bureau of Land Management lands are located primarily within Garfield and Eagle counties and make up approximately 25 percent of the lands bordering the I-70 highway in those counties. The Bureau of Land Management lands are interspersed among privately owned lands extending from Glenwood Springs to Vail. The Colorado River Valley District manages diverse natural resources and provides for various uses, including livestock grazing, firewood cutting, oil and gas development, big game hunting, rafting, and motorized and non-motorized recreation (Bureau of Land Management, 1988).

The *Record of Decision and Resource Management Plan for the Glenwood Springs Resource Area* (Bureau of Land Management, 1988) (Resource Management Plan) includes management direction for public lands in the Colorado River Valley Resource Area. Major directions in the Resource Management Plan include:

1. Maintaining or increasing existing wildlife populations
2. Stabilizing grazing operations
3. Protecting critical watersheds near Glenwood Springs
4. Protecting visual resources
5. Keeping most of the resource area open for mineral exploration and development, but restricting mineral development in some areas having other important and unique resource values
6. Harvesting timber at current levels
7. Ensuring the continued availability of outdoor recreational opportunities not readily available from other resources, reduce impacts of recreational use, and continue to manage the upper Colorado River for float boating use
8. Disposing of 15,500 acres of mostly small, isolated, and difficult to manage public lands
9. Designating 393,615 acres as open, 153,001 acres as limited, and 20,426 acres closed to motorized vehicle use

The Colorado River Valley District Field Office is in the process of updating the Resource Management Plan and published the first step in this process, the *Final Analysis of the Management Situation* (Bureau of Land Management, October 2007). The Bureau of Land Management decided to update the Resource Management Plan because of changed conditions since the completion of the 1988 Resource Management Plan. The updated Resource Management Plan will address issues regarding increasing demand for energy resources, and maintenance and protection of ecosystems supporting wildlife and plant life, while balancing demands for recreation. The completed Draft Resource Management Plan is scheduled to be available for public review in the winter of 2010/2011.

4.1.2 White River National Forest

White River National Forest lands are located along the I-70 highway through Glenwood Canyon and between the Wolcott area (in Eagle County) and the Continental Divide (at the Summit County/Clear Creek County line). The White River National Forest boundaries encompass lands within a total of nine counties, three of which are traversed by the I-70 Mountain Corridor: Garfield, Eagle, and Summit. The White River National Forest includes 3,547 square miles (United States Forest Service, 2002). The White River National Forest encompasses approximately 748 square miles within Garfield County, 930 square miles within Eagle County, and 484 square miles within Summit County.

The *Land and Resource Management Plan for the White River National Forest* (United States Forest Service, 2002) includes goals, objectives, standards, and guidelines and provides direction on how to manage different land areas (see **Appendix B** for a summary of standards and guidelines). These land areas are grouped into "management prescription areas" sharing related management emphasis. Within the White River National Forest, management prescriptions are grouped into eight categories with many sub-categories. Only the management prescription areas adjacent to the I-70 highway are defined below as documented in the *Land and Resource Management Plan for the White River National Forest*. See **Figure 2 and Figure 3** below for the location of White River National Forest designated management areas. *The eight general categories include numerous sub-categories denoted by decimal place numbers that follow the major category number as shown in the figure key.*

The I-70 highway lies in the White River National Forest utility corridor management area (category 8.32) from mileposts 182 to 200 and mileposts 208 to 213. In areas where the I-70 highway is not located in the utility corridor management area, Colorado Department of Transportation right-of-way surrounds the highway instead. Management area designations near the I-70 highway are identified in the discussion below of management areas. Note that Category 6 is not discussed because it does not exist in the Corridor.

Figure 2. Forest Management Areas in West Half of the Corridor

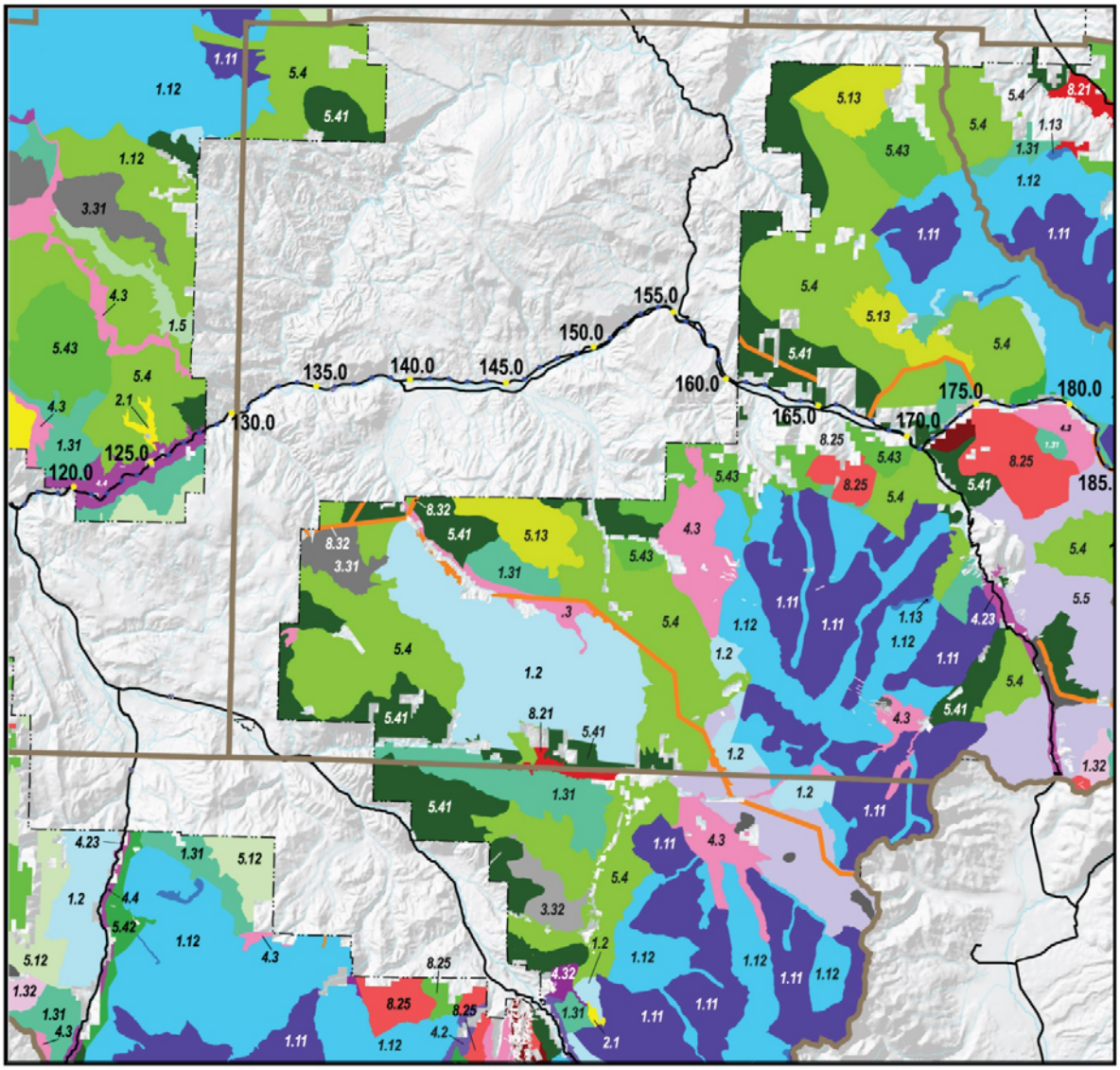
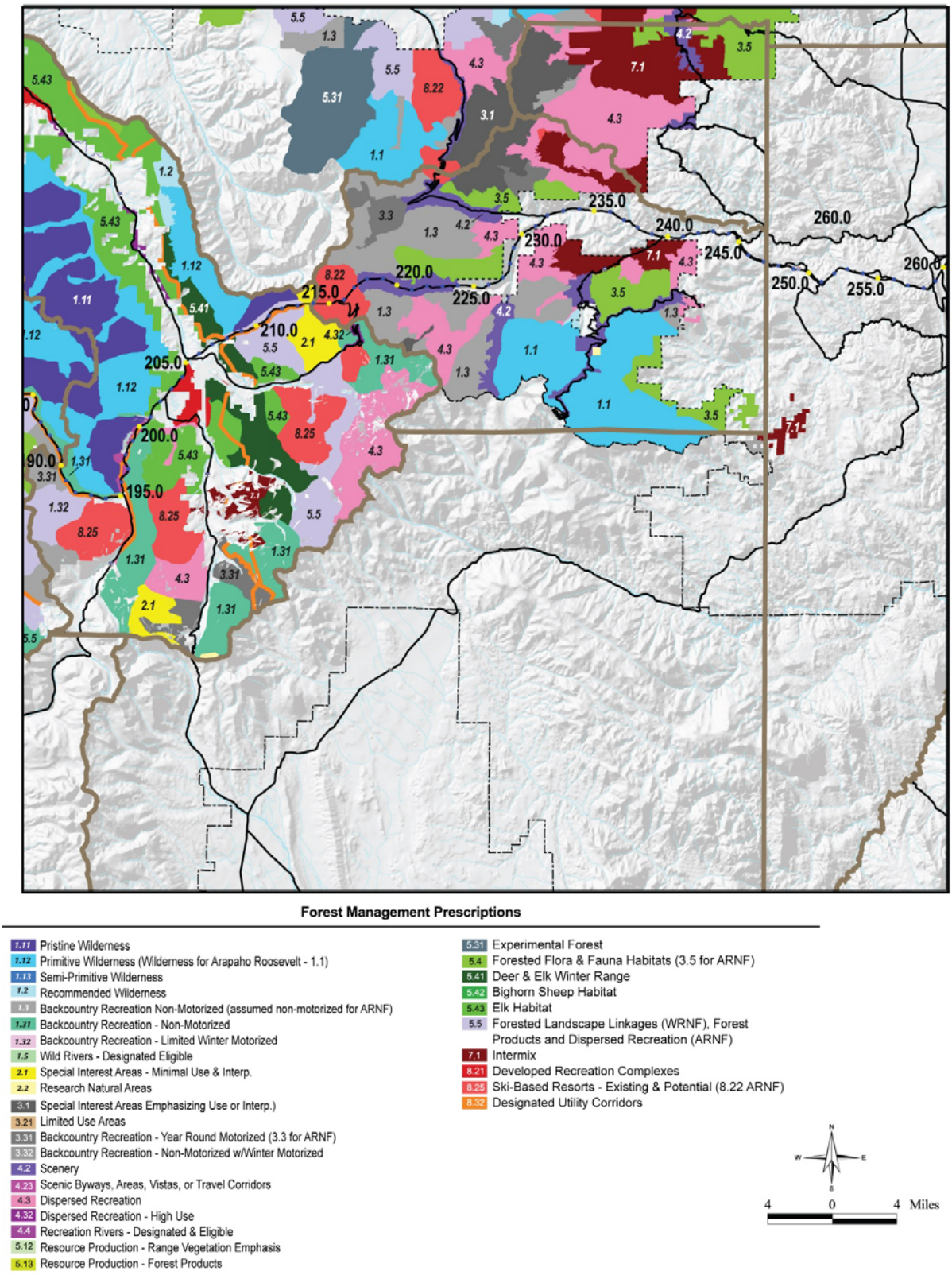


Figure 3. Forest Management Areas in the East Half of Corridor



Category 1, Wilderness Areas

Category 1 sub-categories include wilderness and seasonal or non-motorized backcountry recreation areas. Primitive wilderness land is located in the Eagles Nest Wilderness Area, north of the I-70 highway between east Vail and Copper Mountain. No roads, designated trails, or signs are present in these areas. The backcountry recreation – nonmotorized management prescription is designated along the north side of the I-70 highway through Vail Pass and the south side of the I-70 highway in Officers Gulch/Tenmile Canyon.

Category 2, Research Natural Areas

Category 2 sub-categories include special interest and research areas that are managed to protect or enhance areas with unusual or unique ecological, zoological, geological, scenic, historic, or prehistoric characteristics. Adjacent to the Corridor, this area is primarily located in Summit County west of the Eisenhower-Johnson Memorial Tunnels along the Continental Divide.

Category 3, Balance of Ecological Values with Human Occupancy

Category 3 sub-categories include the backcountry recreation areas – year-round motorized designation. Backcountry motorized recreation areas are managed to provide summer motorized recreation on roads and trails and winter motorized recreation throughout the area in a natural-appearing landscape. This land use category is present along the south side of the I-70 highway at the Summit/Eagle county border.

Category 4, Scenic Values and Recreation

Category 4 sub-categories include scenic areas, areas managed for dispersed recreation, and recreation rivers. Scenic areas are managed to protect or preserve the scenic values and recreation uses of designated scenic byways, scenic areas, vistas, and other heavily used scenic travel corridors. These management prescriptions exist in the Officer's Gulch/Tenmile Canyon area. Dispersed recreation areas are managed to provide undeveloped recreation opportunities in natural or natural-appearing landscapes. Dispersed recreation management lands within this category are located outside the town of Vail and Vail Pass, south of the I-70 highway.

Recreation rivers are managed to protect eligible and designated recreation river segments containing one or more outstandingly remarkable features, such as scenic, recreational, geologic, wildlife, or fisheries values. This management prescription occurs in Glenwood Canyon.

Category 5, Primarily Forested Ecosystems Managed to Meet a Variety of Ecological and Human Needs

Category 5 sub-categories fulfill a mix of ecological and human needs including wildlife and aquatic habitats, livestock forage, and forest products. These areas provide recreational opportunities, scenic quality, and various other goods and services. Deer and elk winter range management areas are designated west of Vail. Elk habitat management areas are designated in lands surrounding Silverthorne and Dillon. Areas managed for elk are characterized by low road densities and optimum forage and cover ratios.

Forested landscape linkages areas are managed for landscape-scale movement, migration, and dispersal of forest carnivores and other wide-ranging wildlife species. These designated lands surround the utility corridor designation along Straight Creek and Vail Pass.

Category 7, Intermixed Ownership Areas

Category 7 prescription areas protect natural resources, while allowing compatible multiple uses and maintaining cooperative relationships between private landowners and other governments. This management prescription area occurs in lands surrounding west Vail.

Category 8, Human Activities on Forest Lands (Developed Recreation Areas to Utility Corridors)

Category 8 prescription areas contain developed recreation areas providing an array of recreational opportunities and experiences in a forested environment. These recreation areas may include campgrounds, day-use areas, swimming beaches, visitor centers, marinas, boat launches, trailheads, scenic overlooks, winter sports sites, and ski areas. Category 8 management prescription areas occur in lands surrounding Frisco. Ski resorts are developed and operated by the private sector, providing opportunities for intensively managed outdoor recreation activities during all seasons of the year. Adjacent to the I-70 highway, ski resorts are designated at Copper Mountain, Vail, and Beaver Creek.

Areas with the designated utility corridor are used as major routes for highways, roads, and railroad rights-of-way; aerial and underground utility facilities for transmission of electricity; and major communication systems. Designated utility corridors include lands directly adjacent to the I-70 highway, between east Vail and Officers Gulch/Tenmile Canyon, and between Silverthorne and the Eisenhower-Johnson Memorial Tunnels.

4.1.3 Arapaho and Roosevelt National Forests

The jointly administered Arapaho and Roosevelt National Forests lands were established as federally owned public land in 1908 and 1897, respectively, and include nearly 1.3 million acres (United States Forest Service, 1997). The Arapaho and Roosevelt National Forests occupy portions of the foothills and most of the mountains along the Colorado Front Range—a total north-south distance of 95 miles. Five ranger districts, including the Clear Creek Ranger District located in the Corridor, administer the Arapaho and Roosevelt National Forests. The portion of Arapaho and Roosevelt National Forests lands located in the study area is in Clear Creek County between the Continental Divide and the Idaho Springs area. Existing Arapaho and Roosevelt National Forests lands encompass approximately 242 square miles within Clear Creek County.

The 1997 revision of the *Land and Resource Management Plan for the Arapaho and Roosevelt National Forests* (United States Forest Service, 1997) provides guidance for resource management activities (see **Appendix B** for a summary of standards and guidelines). The management prescription areas adjacent to the I-70 highway are defined below. Management categories 1, 2, 5, and 6 are not described because they are not present in the Corridor. See **Figure 3** for Arapaho and Roosevelt National Forests management areas. The existing I-70 highway footprint is encompassed by a right-of-way buffer through the Arapaho and Roosevelt National Forests.

Category 3

Category 3 includes the forested flora and fauna habitats lands management area located immediately northwest of Georgetown at milepost 227. Management emphasis for this area is on providing adequate amounts of quality habitat and protection for a wide variety of wildlife species and associated plant communities, and providing dispersed recreational opportunities outside critical periods for wildlife.

Category 4

Category 4 includes the scenery lands management area that extends from the Herman Gulch area east to Silver Plume. Forest direction for management of this area includes protecting the scenic quality; working with Colorado Department of Transportation to reduce impacts of the I-70 highway, emphasizing protection of soils, water quality, and wildlife habitat; increasing trailhead and day-use developed facilities, improving bicycling opportunities within the I-70 Mountain and US 6 corridors, and continuing to permit existing recreation residences.

Category 7

Category 7 includes intermix lands defined as public lands that are intermingled with private lands to such an extent that ecosystem management objectives for United States Forest Service lands must be tempered by private landowners' uses and objectives. Resource use is not planned on a sustainable basis but may occur in concert with surrounding private land values. Intermix lands are located in the vicinity of Idaho Springs.

Category 8

Category 8 includes ski-based resorts land management areas extending from the Continental Divide to Herman Gulch and consists of the Loveland Basin and Loveland Valley facilities. Forest management of this area includes continuing day-use developed alpine skiing and snowboarding opportunities and facilities, continuing to provide day-use dispersed recreation opportunities at Loveland Pass and Mine Dumps areas (including backcountry alpine and Nordic skiing and snowboarding), providing trails and other facilities and accommodating both winter and summer use at high levels.

4.1.4 Special Use Permits

The United States Forest Service permits uses such as utilities, transportation easements, and outfitters through "special use permits" under the Federal Lands Policy Management Act. Existing special use permits in the immediate vicinity of the Corridor were identified based on information provided by White River National Forest (Dillon and Holy Cross districts) and Arapaho and Roosevelt National Forests (Clear Creek district) Forest Service Realty Specialists. **Appendix C** lists special use permits identified in the Corridor area and location maps.

4.2 Non-Federal Lands

4.2.1 Land Use and Planning Policies

Non-federal lands along the Corridor include state-owned lands, private property, county open space, and urban and rural development. The existing I-70 highway right-of-way is most limited in Clear Creek County, where some private lands encroach upon the interstate right-of-way. Maps in **Appendix A** illustrate the land use along the Corridor for Garfield, Eagle, Summit, Clear Creek, and Jefferson counties**.** The figures use available aerial imagery from 2004–2007 and land use and zoning information from 2009.

Summaries of land use and population characteristics for each of the five counties in the I-70 Mountain Corridor are provided below.

Garfield County

Area:	2,970 square miles
Land use and ownership/ jurisdiction:	64 percent public land (Bureau of Land Management, White River National Forest, and Bureau of Reclamation) Of the remaining privately owned land: 88 percent agriculture 12 percent residential, commercial, and minor amounts of industrial
Population (per 2000 Census):	43,791 (45 percent in unincorporated areas, 20 percent in Glenwood Springs)
Description:	While the county retains part of its ranching and farming heritage, tourism has become important, with many bedroom communities arising to house resort workers.

Towns in county:	Glenwood Springs, Carbondale, Rifle, New Castle, and Silt

Eagle County

Area:	1,688 square miles
Land use and ownership/ jurisdiction:	More than 80 percent public land (White River National Forest, including Eagles Nest Wilderness Area, Bureau of Land Management land, and some state-owned lands). Land uses in unincorporated areas include agriculture, large-lot rural residential, and subdivisions. Land uses within towns are commercial and industrial. Remote areas are largely undeveloped outside this area. Development is located primarily along the I-70 highway.
Population (per 2000 Census):	41,659
Description:	One of the fastest growing regions in Colorado. Houses two resorts, Vail and Beaver Creek, as well as many other outdoor year-round recreational opportunities. Changing from its rural, agricultural heritage to a resort/recreation/tourism orientation.
Towns in county:	Gypsum, Eagle, Avon, Minturn, and Vail (and unincorporated residential areas of Wolcott, Edwards, and Eagle-Vail.)

Summit County

Area:	600 square miles
Land use and ownership/ jurisdiction:	75 percent public land (White River National Forest, including the Ptarmigan Wilderness Area, and some state-owned lands). Privately owned lands predominantly in a narrow band along the bottoms of valleys and adjacent to the I-70 highway, SH 6, and SH 9. Four major ski areas: Copper Mountain, Breckenridge, Keystone, and Arapahoe Basin. The county offers many other outdoor year-round recreational opportunities. Land uses in unincorporated areas include agriculture, large-lot rural residential, subdivisions, some mining-related. Land uses in established towns include commercial, mixed use, and mixed residential concentrated in Frisco, Silverthorne, Dillon, Breckenridge, and Blue River.
Population (per 2000 Census):	23,548
Description:	Historically an agricultural and ranching area, Summit County is transitioning into a recreation and tourism community with many second-home residences. Due to natural constraints and the predominance of federal land, incorporated towns house most of the county's population. Outside the towns, densities are considerably lower and eventually transition into a rural or undeveloped character. More remote areas of the basin are largely undeveloped.
Towns in county:	Silverthorne, Dillon, Frisco, and Breckenridge

Clear Creek County

Area:	396 square miles
Land use and ownership/ jurisdiction:	75 percent public land (a majority is Arapaho and Roosevelt National Forests, and a small portion is Pike and San Isabel National Forests and state-owned lands). In 1994, the Bureau of Land Management transferred more than 10,500 acres (16.4 square miles) of land to Clear Creek County, freeing up more area for the county to grow. Clear Creek County is located within the mountains and plains area of the Denver Regional Council of Governments. Development in the county is limited largely to incorporated towns and unincorporated areas near the Corridor. Steep slopes and federal jurisdiction are large inhibitors to development. Land uses include residential, commercial, industrial, public, and recreation areas. While growth has been modest to date, a substantial amount of private lands in the county could be subject to development pressures in the future.
Population (per 2000 Census):	9,322
Description:	Rich in mining heritage, Clear Creek County is best known for its mineral extraction history, the Loveland Ski Area, proximity to the gambling community, and 14,000-foot peaks.
Towns in county:	Silver Plume, Georgetown, Idaho Springs, Empire, Lawson, Downieville, and Dumont

4.3 Jefferson County Corridor Area

For the PEIS, Jefferson County has been assessed at a sub-county level, focusing on two Jefferson County planning areas traversed by the I-70 highway in the Corridor. This area, referred to as the Jefferson County Corridor Area, contains Jefferson County's Evergreen and Central Mountains community planning areas. Jefferson County is a member of the Denver Regional Council of Governments. The following is a summary of Jefferson County Corridor Area land use characteristics.

Area:	772 square miles (655 incorporated, 117 unincorporated)
Land use and ownership/ jurisdiction:	72 percent mountain areas (557 square miles); 28 percent plains areas (217 square miles); Pike National Forest, 22 percent (217 square miles); and Arapaho and Roosevelt National Forests, 0.5 percent (4 square miles). Within the study area, Evergreen and Genesee are the largest population centers close to the I-70 Mountain Corridor. These unincorporated areas have a variety of commercial, office, and industrial uses located near the I-70 highway and along major thoroughfares in the communities. The suburban character and low-density residential and numerous recreational opportunities serves as the main attraction to these areas.
Population for Corridor Area (per 2000 Census):	31,733 (Corridor area) 527,056 (entire county)

Description:	Located along the Front Range, Jefferson County is considered a gateway to the Rocky Mountains. Once an agricultural and mining area, Jefferson County is now a thriving suburban, business, industrial, and residential community within the greater Denver metropolitan area. The Central Mountains community planning area includes three canyons: Mount Vernon, Bear Creek, and Clear Creek. This area is home to many historical sites, structures, roads, trails, and railways. The Evergreen community planning area offers the convenience of numerous services and shopping in a rural mountain setting.
Towns in Corridor area:	Evergreen, El Rancho, Bergen Park, Kittredge, Marshdale, Genesee, Mount Vernon, Lookout Mountain, and Idledale (Golden is in the urban Denver metropolitan area)

County and community land use plans anticipate considerable growth based on existing growth trends and Colorado Department of Labor Affairs projections for population and employment growth (Colorado Department of Local Affairs, 2009). Many Corridor communities are approaching buildout (the point at which they can no longer accommodate new development under current planning policies), and some counties and communities initiated limitations on housing densities and dispersed development. Other factors—such as infrastructure limitations like water supply— also affect development patterns and density. Counties and communities in the Corridor have different strategies for addressing growth, with some strategies more stringent than others. **Table 3** summarizes recent trends on planning topics related to the Corridor. **Appendix D** provides detailed summaries of community and county land use plans in Garfield, Eagle, Summit, Clear Creek, and Jefferson counties.

Table 3. Summary of Corridor County Master Plan Topics Related to the Corridor

Topic	Summary
Growth and Population	Issues regarding population growth in the five counties reviewed vary. • Garfield County raises concerns over dispersed population and its pressures on the transportation system and the environment. • Eagle County anticipates a continued high rate of population growth and seeks to balance that growth with economic success, quality of life, and environmental preservation. • Summit County faces buildout in the near future (approximately 2030) and raises concerns over the effects of a high rate of second home ownership. • Clear Creek County anticipates that the county will be able to accommodate projected growth through 2030. • The Evergreen Area of Jefferson County plans to maintain the rural character of its community.
Transit	The five counties generally agree on the need for mass transit. • Counties are planning for multimodal transportation systems, with a focus on mass transit and the preservation of local character. • All counties are planning for transit to some extent, locally and/or regionally. • All counties, except Garfield, include the development of transit stations along the I-70 highway in their planning. Garfield County focuses on a regional public transit system and the need to ensure access by its residents.

Table 3. Summary of Corridor County Master Plan Topics Related to the Corridor

Topic	Summary
I-70 highway	Concerns about the I-70 highway in the five counties reviewed are as follows: • Eagle, Summit, and Clear Creek counties indicated their continued involvement in the I-70 Mountain Corridor PEIS process within planning documents. • All counties identified the I-70 highway as a major arterial route requiring planning attention. Summit, Clear Creek, and Jefferson counties raised concerns over congestion. • Clear Creek and Jefferson counties are concerned with the competing interests of through traffic on the I-70 highway with the need of residents to use the highway for local trips.
Regional Coordination	There has been an increasing discussion of regional coordination in transportation planning among county, state, and federal authorities.
Environmental Sustainability	More recent plans, such as those of Eagle, Summit, and Clear Creek counties, and some municipalities, are bringing in concepts of environmental sustainability. These concepts include encouragement of building to Leadership in Energy and Environmental Design standards and a focus on renewable energy sources.
Water Resources	County plans, while indicating sufficient water resources for current growth projections, also indicate a heightened awareness of water as a finite resource requiring conservation and careful planning.

Numerous Corridor communities currently have high numbers of second homes. This type of development is generally rural and dispersed. Eagle and Summit counties have experienced the greatest growth pressure from second-home ownership. In the 2000 United States Census, second homes composed 49 percent and 67 percent of Eagle and Summit County homes, respectively. Second home growth pressure has increased land values, made it difficult for local workers and residents to find affordable housing, and influenced commuting patterns from other counties. Both Eagle and Summit counties addressed this issue in their planning strategies, and the slumping housing market in recent years helped narrow the housing affordability gap for local workers. The *I-70 Mountain Corridor Social and Economic Value Technical Report* (CDOT, August 2010) provides detailed information on the number and economic effects of second homes in Corridor communities and counties.

4.3.1 Population and Growth

Although the induced growth analysis is based on initial Department of Local Affairs population estimates for years 2000 and 2025, as described in **Section 2.3** updated estimates are now available, including year 2035, and are used to characterize population and growth in the Corridor in this section (Colorado Department of Local Affairs, 2002 and 2009). The initial estimates, and a comparison of the initial estimates to the updated estimates, are described in the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (CDOT, August 2010) **Appendix A**.

The development of the I-70 highway has heavily influenced land use patterns in the Corridor, and a relationship between growth in traffic and population in the Corridor region suggests that future changes in travel demand could influence future growth and land use patterns and development. Population and traffic have increased in the Corridor since the initial construction of the I-70 highway. Clear Creek County has experienced steady, moderate growth in recent decades, and Garfield, Eagle, and Summit counties have experienced dramatic growth every year since 1970.

Counties contribute to the Department of Local Affairs' estimates by submitting information about building density, occupancy rates, and other relevant parameters. Because Eagle and Summit counties are

most susceptible to induced growth from the Action Alternatives, planners from Eagle and Summit counties were contacted by CDOT to determine the extent to which the counties incorporate the Department of Local Affairs' population estimates in planning efforts. Summit County reported to the Department of Local Affairs that it adjusts yearly permanent population projections annually to reflect estimates. A swing in any of the input variables (for example, occupancy rates, second home ownership, second home occupancy, affordable housing, and limitations due to build-out) could change the Department of Local Affairs' future estimates and could increase or decrease projections. However, Summit County will continue to use the Department of Local Affairs' estimates as they are produced (Roberts, 2009).

Eagle County uses the Department of Local Affairs' numbers for population projections and build-out analysis study. To derive build-out projections, Eagle County used the number of potential units and the growth percentages from the Department of Local Affairs, and then estimated population in Eagle County. The Eagle County build-out analysis relied on the Department of Local Affair's long-term projections for growth to establish a growth rate. This study assumed a 33 percent growth in population and residences would occur steadily between 2010 and 2050 (Eagle County, 2009). The build-out analysis examined only current development potential. The analysis did not take into account that developers and landowners often seek an "upzoning" of their property (increasing density). The analysis also could not anticipate specific proposals on land with general zoning (Aoki 2009a, 2009b).

Table 4 below shows the population estimates for years 2000, 2025, and 2035. In 2000, the population of the nine-county region was estimated to be 178,910. By 2035, the Department of Local Affairs projects the permanent population will reach almost 420,000, more than doubling the year 2000 population. **Table 4** also illustrates the average annual growth rates for each of the nine counties between 2000 and 2025 and between 2025 and 2035.

Table 4. Population Projections

County	Population Projections			Average Annual Growth Rate [2009 estimates]	
	2000	2025	2035	2000-2025	2025-2035
Clear Creek	9,386	12,667	14,843	1.2%	1.6%
Eagle	43,355	77,865	94,803	2.4%	2.0%
Garfield	44,263	105,087	133,272	3.5%	2.4%
Gilpin	4,776	7,015	8,146	1.5%	1.5%
Grand	12,885	22,409	27,260	2.2%	2.0%
Lake	7,906	15,770	19,742	2.8%	2.3%
Park	14,698	32,910	39,613	3.3%	1.9%
Pitkin	15,914	23,751	28,341	1.6%	1.8%
Summit	25,727	43,943	53,216	2.2%	1.9%
Nine-County Total	**178,910**	**341,417**	**419,236**	**2.6%**	**2.1%**

Source: Colorado Department of Local Affairs, 2009

** Represents an early forecast for Park County, which has been refined since 2002*

The average annual growth percentages show a slowing of growth after 2025, with the exception of Clear Creek and Pitkin counties. However, the increased growth rate after 2025 for Pitkin County is only two-tenths of a percent more than the pre-2025 growth rate. Clear Creek and Gilpin counties would have the lowest growth rates over the 35-year period. Garfield and Park counties are anticipated to have the highest growth rates from 2000 to 2025, but Park County is expected to fall behind Lake County after 2025.

Section 5. Environmental Consequences

5.1 Direct Impacts

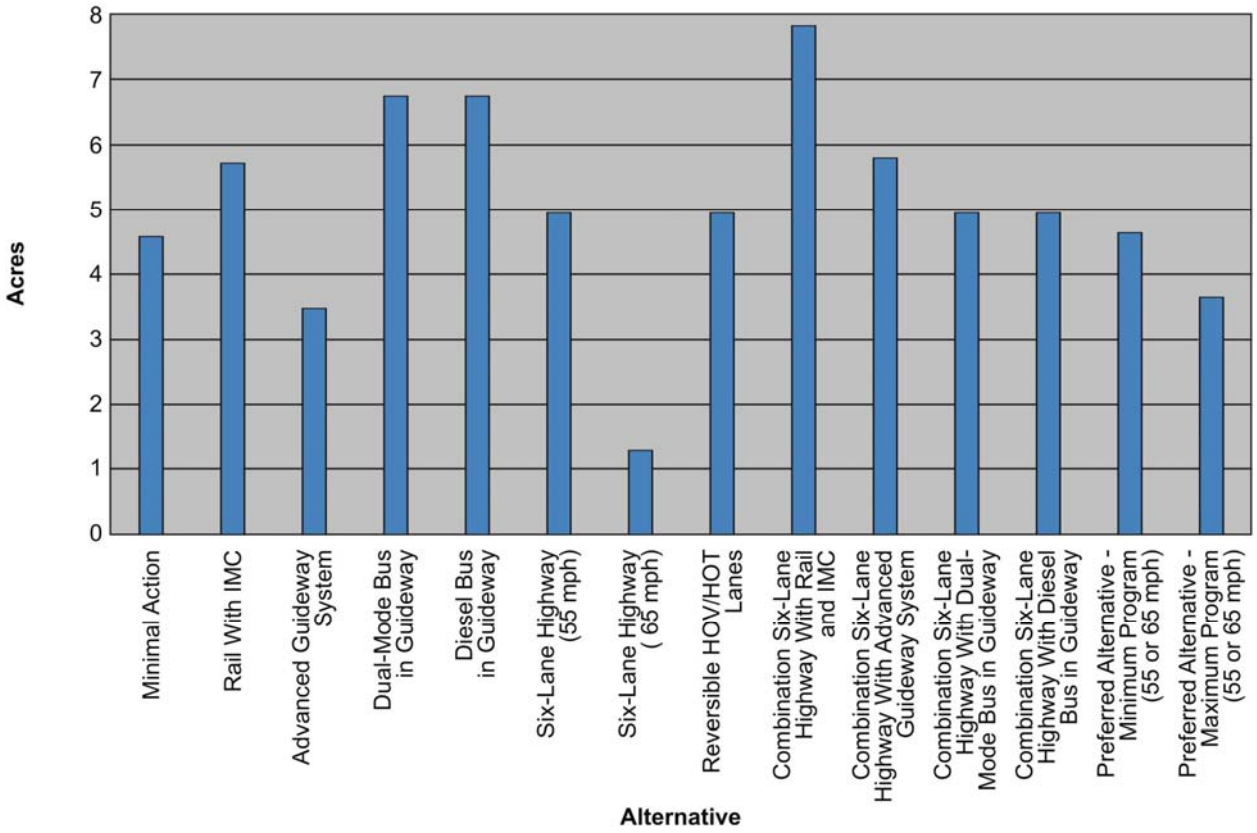
5.1.1 Federal Lands

No Bureau of Land Management lands would be impacted by the Action Alternatives. Of the 3 to 8 acres of United States Forest Service land impacted, the majority of impacts would occur on White River National Forest lands (see **Chart 1** and **Table 5**). This acreage is dispersed over many miles of the Corridor, with only small slivers of land being acquired throughout. The Advanced Guideway System Alternative would have the fewest and the Combination Six-Lane Highway with Rail and Intermountain Connection would have the greatest impacts on White River National Forest lands. The Preferred Alternative – 55 mph would impact approximately 5 acres of White River National Forest lands, falling in the middle range of Action Alternative impacts. The Preferred Alternative – 65 mph would impact approximately 3 acres of White River National Forest lands, falling at the lower end of the range of Action Alternative impacts. Five different White River National Forest management prescription areas would be affected: elk habitat, deer and elk winter range, forested flora and fauna habitats, backcountry recreation, and scenic travel corridors.

Under all Action Alternatives, the only impacts to Arapaho and Roosevelt National Forests lands would be less than half an acre of impact on the Loveland Ski Area from the third tunnel bore at the Eisenhower-Johnson Memorial Tunnels. Lands authorized under special use permits are impacted when facilities such as access roads and utilities are disturbed.

On Arapaho and Roosevelt National Forests lands, all Action Alternatives, except the Minimal Action Alternative, would affect the ski-based resort management area prescription in the vicinity of the Loveland Ski Area along the north side of the I-70 highway. According to the United States Forest Service, “under the terms of the Loveland Resort permit, the use is Non-exclusive [meaning that] the Forest Service reserves the right to use or allow others to use any part of the permit area (ski resort) including roads, for any purpose provided. However, others may only use part of the permit area provided that the use does not materially interfere with the holder’s authorized use. The final determination of conflicting uses is reserved to the Forest Service” (S. Ludwig, United States Forest Service coordinator for the I-70 Mountain Corridor PEIS personal communication).

Chart 1. Summary of United States Forest Lands within Project Footprint by Alternative



Key to Abbreviations/Acronyms
AGS=Advanced Guideway System IMC=Intermountain Connection
HOT=High Occupancy Toll HOV=High Occupancy Vehicle mph = miles per hour

Direct impacts to lands authorized under a special use permit may include disturbances to access roads, utilities, river recreational access, and other facilities (see **Appendix C** for an inventory of United States Forest Service special use permits within one mile of the I-70 highway). Outfitter/guide permits may also be affected indirectly due to possible access issues during construction. Tier 2 processes will identify specific direct and indirect impacts on United States Forest Service special use permits. Permits in place during design and construction phases may differ from those identified in the PEIS due to permit expiration or other changes. Tier 2 processes will provide additional permit information to designers so that alternative footprints and construction activities may avoid and minimize impacts.

Table 5. United States Forest Service Management Area Prescription Impacts

I-70 PEIS US Forest Service Management Area Prescription Impacts		Range of Options												
		No Action	Minimal Action	Rail with IMC	AGS	Dual-Mode/ Diesel Bus in Guideway	Six- Lane Highway 55 mph	Six-Lane Highway 65 mph	Reversible/ HOV/ HOT Lanes	Six-Lane Highway with Rail and IMC	Six-Lane Highway with AGS	Six-Lane Highway with Dual-Mode Bus/ Diesel in Guideway	Preferred Alternative Minimum to Maximum Program	
													55 mph	65 mph
WRNF	Backcountry Recreation – Non-Motorized	NA	0.21	0.39	0.24	0.00	0.21	0.21	0.21	0.50	0.34	0.21	0.34	0.34
WRNF	Deer & Elk Winter Range	NA	0.07	0.21	0.09	0.07	0.07	0.00	0.07	0.43	0.07	0.07	0.07	0.09
WRNF	Elk Habitat	NA	1.45	0.76	1.46	2.42	1.45	0.04	1.45	1.45	2.20	2.42	2.20	1.45
WRNF	Forested Flora & Fauna Habitats	NA	2.15	1.39	0.64	2.16	2.15	0.00	2.15	3.02	2.17	2.16	2.17	0.64
WRNF	Scenic Byways, Areas, Vistas, or Travel Corridors	NA	0.66	2.00	0.66	1.72	0.66	0.66	0.66	2.00	0.66	1.72	0.66	0.66
WRNF	WRNF Total Acres	NA	4.59	5.35	3.10	6.37	4.59	0.92	4.59	7.45	5.43	6.58	5.43	3.20
ARNF	Ski-Based Resorts	NA	0.37	0.37	0.37	0.37	0.37	0.36	0.37	0.37	0.37	0.37	0.37	0.37
ARNF	ARNF Total Acres	NA	0.37	0.37	0.37	0.37	0.37	0.36	0.37	0.37	0.37	0.37	0.37	0.37
	Total Acres	NA	**4.95**	**5.72**	**3.47**	**6.74**	**4.95**	**1.28**	**4.95**	**7.82**	**5.80**	**6.95**	**5.80**	**3.57**

Key to Abbreviations/Acronyms

AGS=Advanced Guideway System
ARNF = Arapaho and Roosevelt National Forest
HOT=High Occupancy Toll
HOV=High Occupancy Vehicle
IMC=Intermountain Connection
mph = miles per hour
WRNF = White River National Forest

5.1.2 Non-Federal Lands

The Action Alternatives directly impact properties due to right-of-way acquisition and the I-70 highway expansion into currently developed lands. In general, the Minimal Action Alternative would acquire the fewest properties, and the Combination alternatives would have the greatest right-of-way needs. The Transit-only and Highway-only alternatives would fall in the middle range. The Preferred Alternative would initially acquire few properties under the Minimum Program, similar to the Minimal Action Alternative, because it would not include some of the interchange improvements in Clear Creek County that the other alternatives include; as the Maximum Program is implemented, property impacts would increase and become similar to the Combination alternatives.

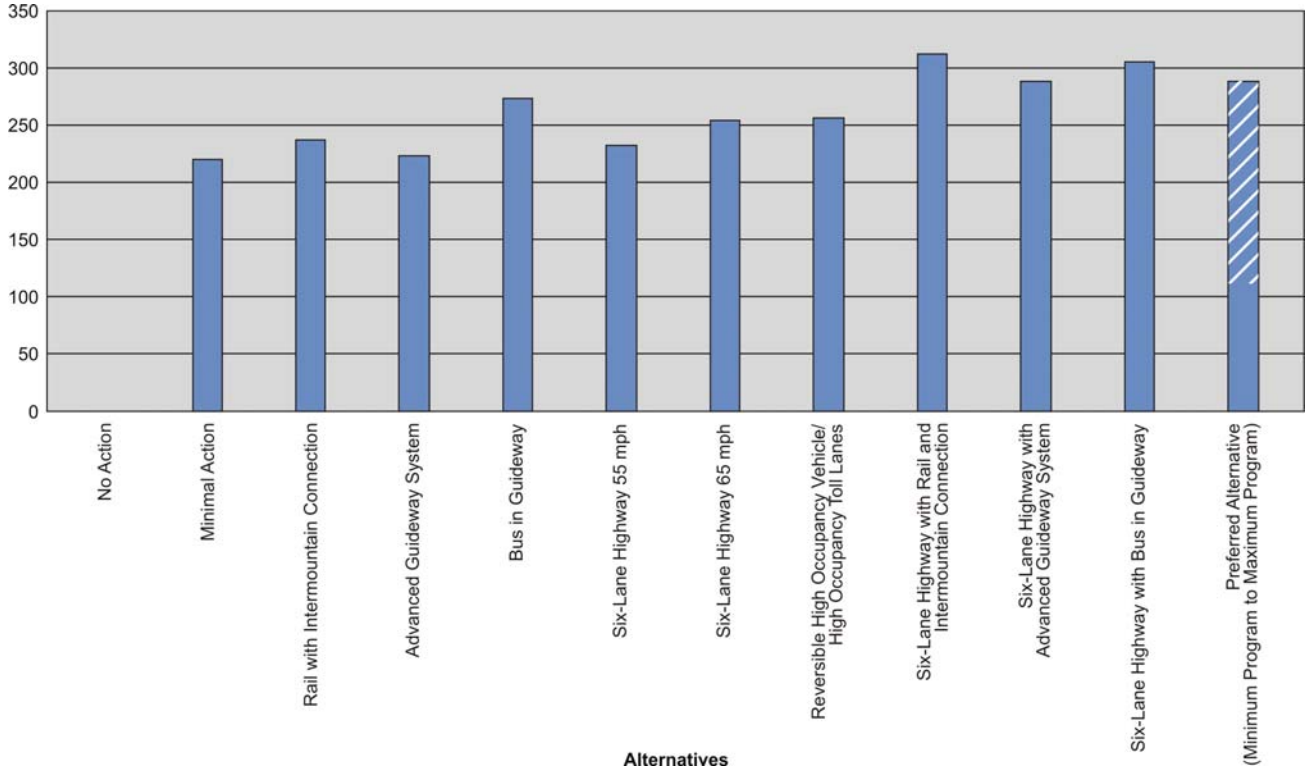
The No Action Alternative would not directly impact existing land use in the Corridor counties. A preliminary analysis of the conceptual Action Alternative footprints indicates that between 120 and 310 parcels would fall within the footprints (see **Table 6** and **Table 7**). The Action Alternative footprints include 1) the limits of proposed improvements, 2) 15-foot construction zones on either side of the improvement limits, and 3) an additional 15-foot sensitivity zone beyond either side of the construction zone. Because these footprints include a sensitivity zone, they are much larger than the required right-of-way. Between 30 and 80 parcels would fall within the conceptual construction zone footprints of the Action Alternatives; no properties would be affected in Garfield or Jefferson Counties under any of the Action Alternatives. These lower numbers are more representative of the right-of-way and construction easements potentially required. Further, many properties would be only partially acquired, with small slivers of land that front the I-70 highway acquired, and the remainder of the parcels would be left intact with their current owners. Tier 2 processes will refine the design of alternatives and analyze specific properties affected.

The vast majority of impacted properties (between half and three-quarters) would be located in Clear Creek County, where the existing highway right-of-way is most limited, and would result largely from interchange improvements. Other privately-owned, impacted properties are mostly located in Eagle County, generally in unincorporated areas, and do not include buildings or other improvements. Direct impacts to buildings or other improvements are anticipated to occur only in Clear Creek County.

Of the impacted properties in Clear Creek County, the majority would be in Idaho Springs and unincorporated portions of the county, with impacts also occurring in Dumont/Downieville/Lawson under the Combination alternatives. Most of the Action Alternatives would use an elevated structure to minimize impacts in Idaho Springs, except the Minimal Action, Rail with Intermountain Connection, and Advanced Guideway System alternatives, which have narrower footprints. The Preferred Alternative would have the lowest to highest range of impacts. The Minimum Program would impact the fewest properties because it would not include improvements to interchanges in Silver Plume or Idaho Springs, or the Fall River Road curve safety improvements, which would impact a large number of parcels. If the Maximum Program were fully implemented, it would have similar effects to the Combination alternatives.

Interchange improvements are only conceptually defined at this Tier 1 level, and design refinement of interchanges or other components during Tier 2 may substantially reduce property impacts. **Chart 2** summarizes the approximate numbers of properties that fall within the alternative footprints, and **Table 5** and **Table 6** provide the number of impacted parcels that fall within the alternative footprints by location and land use type.

Chart 2. Summary of Properties within Project Footprint by Alternative



Key to Abbreviations/Acronyms

AGS = Advanced Guideway System	HOV = High Occupancy Vehicle
HOT = High Occupancy Toll	IMC = Intermountain Connection

5.1.3 Compatibility with Land Use Plans

The lead agencies evaluated the proposed Action Alternatives for compatibility with relevant county and municipality master plans (described in **Appendix D**). Plans show Corridor wide support of the development of a regional transit system, along with local transportation planning to support such a system, an emphasis on cooperative regional planning, and a focus on sustainability.

Table 6. Parcel Impacts by Location

I-70 PEIS Alternative Impacts Prior to Mitigation			Alternatives												
			No Action	Minimal Action	Rail with IMC	AGS	Dual-Mode/ Diesel Bus in Guideway	Six-Lane Highway 55 mph	Six-Lane Highway 65 mph	Reversible/ HOV/ HOT Lanes	Six-Lane Highway with Rail and IMC	Six-Lane Highway with AGS	Six-Lane Highway with Dual-Mode Bus/ Diesel in Guideway	Preferred Alternative Minimum to Maximum Program	
														55 mph	65 mph
Non-Federal Lands – Impacts By Location	Number of Parcels Affected by Project Alternatives	Glenwood Springs	NA	9	9	9	9	9	9	9	9	9	9	9	9
		Garfield County Total	NA	9	9	9	9	9	9	9	9	9	9	9	9
		Eagle	NA	9	9	9	9	9	9	9	9	9	9	9	9
		Avon	NA	10	10	10	10	10	10	10	10	10	10	10	10
		Eagle-Vail	NA	10	0	0	10	10	10	10	10	10	10	10	10
		Minturn	NA	0	0	0	0	0	0	0	0	0	0	0	0
		Vail	NA	7	15	8	4	7	7	7	20	13	12	13	13
		Unincorporated Eagle County	NA	26	27	32	43	26	27	26	28	31	43	31	37
		Eagle County Total	NA	62	61	59	76	62	63	62	77	73	84	73	69
		Silverthorne	NA	5	5	5	5	5	5	5	5	5	5	5	5
		Unincorporated Summit County	NA	3	3	3	3	3	3	3	3	3	3	3	3
		Summit County Total	NA	8	8	8	8	8	8	8	8	8	8	8	8
		Silver Plume	NA	0	4	0	3	3	3	3	3	3	3	0 to 3	0 to 3
		Georgetown	NA	1	1	1	1	1	1	1	1	1	1	1	1
		Dumont Downieville Lawson	NA	0	1	0	13	0	17	17	19	19	19	0 to 19	0 to 19
		Idaho Springs	NA	108	113	112	132	115	115	114	132	132	132	5 to 132	5 to 132
		Unincorporated Clear Creek County	NA	29	37	32	29	31	35	39	55	40	40	22 to 40	21 to 39
		Clear Creek County Total	NA	138	156	145	178	150	171	174	210	195	195	28 to 195	27 to 194
		Unincorporated Jefferson County	NA	3	3	2	2	3	3	3	9	3	8	3	3
		Jefferson County Total	NA	3	3	2	2	3	3	3	9	3	8	3	3
		Total	NA	**220**	**237**	**223**	**273**	**232**	**254**	**256**	**313**	**288**	**304**	**121 to 288**	**116 to 283**

Some of the values for the Preferred Alternative are presented as a range because the adaptive management component allows it to be implemented based on future needs and associated triggers for further action. Chapter 2, Section 2.7 of the I-70 Mountain Corridor PEIS describes the triggers for implementing components of the Preferred Alternative.

Key to Abbreviations/Acronyms
AGS=Advanced Guideway System HOT=High Occupancy Toll HOV=High Occupancy Vehicle
IMC=Intermountain Connection mph = miles per hour

Table 7. Parcel Impacts by Land Use Type

I-70 PEIS Alternative Impacts By Land Use Type Prior to Mitigation			Alternatives												
			No Action	Minimal Action	Rail with IMC	AGS	Dual-Mode/ Diesel Bus in Guideway	Six-Lane Highway 55 mph	Six-Lane Highway 65 mph	Reversible/ HOV/ HOT Lanes	Six-Lane Highway with Rail and IMC	Six-Lane Highway with AGS	Six-Lane Highway with Dual-Mode Bus/ Diesel in Guideway	Preferred Alternative Minimum to Maximum Program	
														55 mph	65 mph
Non-Federal Lands – Impacts By Land Use Type	Number of Parcels Affected by Project Alternative	Residential Estate	NA	4	4	6	10	4	4	4	4	6	10	5 to 6	5 to 6
		Rural Residential	NA	12	13	12	25	12	30	30	32	31	31	8 to 31	12 to 35
		Low Density Residential	NA	0	0	0	0	0	0	0	0	0	0	0	0
		Medium Density Residential	NA	8	18	9	9	11	11	11	22	16	15	13 to 16	13 to 16
		High Density Residential	NA	5	6	5	20	10	10	9	21	21	21	1 to 21	1 to 21
		Planned Unit Development	NA	22	23	22	23	22	24	24	25	24	26	16 to 24	16 to 24
		Lodging	NA	0	0	0	0	0	0	0	0	0	0	0	0
		Commercial	NA	125	115	115	134	127	127	127	135	135	135	47 to 135	33 to 121
		Light Industrial	NA	1	2	1	1	1	1	1	1	1	1	1	1
		Heavy Industrial	NA	1	1	1	1	1	1	1	1	1	1	1	1
		Mining	NA	14	19	18	14	16	17	21	28	22	22	9 to 22	9 to 22
		Public facilities owned by the Town or County	NA	4	6	6	4	4	3	4	4	4	5	4 to 6	5 to 7
		Mixed Use	NA	0	0	0	0	0	0	0	0	0	0	0	0
		Open Space	NA	2	6	2	2	2	2	2	9	2	2	2	2
		Parks and Urban Spaces	NA	14	14	14	14	14	14	14	14	14	14	0 to 14	0 to 14
		Agricultural	NA	4	4	6	10	4	4	4	8	7	14	7	7
		Resource	NA	2	2	2	3	2	2	2	4	2	5	2	1
		State Lands	NA	2	3	3	3	2	4	2	4	2	3	2	7
		None	NA	0	1	1	0	0	0	0	0	0	0	0 to 1	0 to 1
		Total	NA	**220**	**237**	**223**	**273**	**232**	**254**	**256**	**312**	**288**	**305**	**121 to 288**	**116 to 283**

Some of the values for the Preferred Alternative are presented as a range because the adaptive management component allows it to be implemented based on future needs and associated triggers for further action. Chapter 2, Section 2.7 of the I-70 Mountain Corridor PEIS describes the triggers for implementing components of the Preferred Alternative.

Key to Abbreviations/Acronyms
AGS=Advanced Guideway System HOT=High Occupancy Toll HOV=High Occupancy Vehicle
IMC=Intermountain Connection mph = miles per hour

5.2 Indirect Impacts

Indirect impacts may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. The induced growth analysis evaluates the influence that the mobility and capacity provided under the Action Alternatives would have on population growth and the distribution of future development.

Action Alternatives are intended to meet existing and projected transportation needs along the Corridor and are not intended to induce additional growth. However, numerous government and private entities, including the United States Environmental Protection Agency (2001, 2002a), expressed concern that potential induced Corridor growth might result in improved transportation access, bringing more recreational users into the Corridor, stimulating the Corridor economy and population growth, and causing adverse environmental impacts on land use.

In a letter to CDOT, the Environmental Protection Agency (2002b) states the following generally accepted assumptions regarding highway improvements and growth:

> *"New highway construction that improves traffic flow and eliminates congestion[,] increases access and contributes to induced residential, commercial, and industrial growth. In many situations, this growth may be inevitable. However, increased rates of growth, whatever the cause, contribute to indirect effects to the same resources directly affected by a project and should be evaluated."*

Recent information indicates that highway-induced growth is not a "given," and that socioeconomic conditions, land use patterns, and other factors also influence growth and create the potential to limit the amount of induced growth from highway projects. The Environmental Protection Agency recommends that the I-70 PEIS follow the Oregon DOT guidance as the most recent and best resource for analysis of indirect impacts on land use. The Oregon Department of Transportation (ODOT) makes the following related statements:

> *"The fact that in the past, in some places, for some type and scale of projects, highways have had impacts on land use, does not provide a basis for assessing the effects of a specific project today . . . so much transportation and land development has occurred that it is difficult to make a clear determination of what is causing what: Is land use responding to the highway network, or are current highway improvements a response to transportation problems that are a result of development and settlement patterns?"* (ODOT 2001)

Socioeconomic conditions and land use patterns are unique to the Corridor and do not follow the more commonly studied pattern of urban development. The Environmental Protection Agency (2002b) states that "Because of the nature of recreation travel in the Corridor, induced travel demand associated with additional transportation capacity will cause environmental and socioeconomic impacts." This induced growth evaluation examines trends and indicators influencing growth in the Corridor in light of the potential for highway improvements to induce additional growth. First the evaluation estimated induced population growth by alternative. Second, induced acres and patterns of development were estimated.

5.2.1 Induced Population Growth

Table 8 presents predicted growth suppression/inducement associated with each alternative by county. Possible suppression of population growth would be associated with the No Action and Minimal Action alternatives for all Corridor counties, except Clear Creek County. However, such suppression is considered unlikely in the resort counties (Eagle, Pitkin, and Summit) and in Garfield County based on existing growth and development trends. Clear Creek County had little past growth in comparison to the historic increase in the I-70 highway traffic. In contrast, a predicted increase in growth pressure for Eagle

County would be associated with the Transit and Combination alternatives, and to a lesser extent the Highway alternatives. Predicted increased growth pressure for Summit County would be associated with the Combination alternatives. Population growth for these counties has been the most sensitive to the I-70 highway traffic in the past. Park and greater Jefferson counties were not included in the growth predictions because growth in these counties would be heavily influenced by the Denver metropolitan area and by transportation routes other than the I-70 Mountain Corridor.

Table 8. Growth and Population Predictions

County	2025 Colorado Department of Local Affairs Population	Colorado Department of Local Affairs 2000-2025 % Change	Alternatives					
			No Action	Min-imal Action	Transit	Highway	Combination	Preferred Alternative
Clear Creek	17,060	82.4%	Less Susceptible					
Eagle	76,161	77.2%	Predicted Suppression (65,000 - 70,000 total population)		Predicted Increase (90,000 total population)	Predicted Increase (86,000 total population)	Predicted Increase (112,000 total population)	Predicted Increase (90,000 to 112,000 total population)
Garfield	80,879	82.9%	Predicted Suppression (54,000 - 60,000 total population)		Less Susceptible			
Gilpin[a]	11,175	134.0%	Predicted Suppression (6,000 - 6,500 total population)		Less Susceptible			
Grand	25,598	100.2%	Predicted Suppression (15,000 total population)		Less Susceptible			
Lake	18,458	135.9%	Predicted Suppression (14,000 total population)		Less Susceptible			
Pitkin	23,719	49.7%	Predicted Suppression (20,000 total population)		Less Susceptible			
Summit	42,720	67.1%	Predicted Suppression (35,000 total population)		Less Susceptible		Predicted Increase (54,000 total population)	No Increase to Predicted Increase (42,720 to 54,000 total population)

The Preferred Alternative is presented as a range because the adaptive management component allows it to be implemented based on future needs and associated triggers for further action. Chapter 2, Section 2.7 of the PEIS describes the triggers for implementing components of the Preferred Alternative.

Key to Abbreviations/Acronyms
AGS=Advanced Guideway System HOT=High Occupancy Toll HOV=High Occupancy Vehicle
IMC=Intermountain Connection mph = miles per hour

5.2.2 Induced Development

The induced population growth that would result from the Action Alternatives in Eagle and Summit counties would also induce additional development in those counties. Estimates were made of the amount and distribution of induced development, beyond the planned urban and rural development, following the methodology described in **Section 2** of this document.

Table 9 provides worst-case estimates of the induced acreage of development that could result from the Action Alternatives. Because Eagle and Summit counties are the only counties with predicted induced population growth, these are the only counties affected by possible induced development. Transit alternatives could induce development of an additional 3,000 acres, while Highway alternatives could induce development of more than 21,000 acres in Eagle County. Highway alternatives are assumed to follow existing development trends—additional rural development acreage—while Transit alternatives are assumed to concentrate growth in existing urban areas. Combination alternatives could induce development of an additional 38,000 and 5,000 acres in Eagle and Summit counties, respectively; with development pressures distributed across both urban and rural areas.

Table 9. Possible Worst-Case Acreage of Induced Development

County	Alternatives					
	No Action	Minimal Action	Transit	Highway	Combination	Preferred Alternative *
Eagle County	0	0	3,248	21,654	37,894	3,248 to 37,894
Summit County	0	0	0	0	5,191	0 to 5,191
Total	0	0	3,248	21,654	43,085	3,248 to 43,085

The Preferred Alternative is presented as a range because the adaptive management component allows it to be implemented based on future needs and associated triggers for further action. Chapter 2, Section 2.7 of the PEIS describes the triggers for implementing components of the Preferred Alternative.

Key to Abbreviations/Acronyms
AGS=Advanced Guideway System HOT=High Occupancy Toll
HOV=High Occupancy Vehicle IMC=Intermountain Connection mph = miles per hour

Distribution of Development

Planned Corridor growth without improvements to the I-70 highway is anticipated to affect around 275,000 acres of currently undeveloped land. The Action Alternatives could add an additional 3 percent to 18 percent of developed land to this planned Corridor growth, except under the No Action and Minimal Action Alternatives, which could suppress growth in all counties except Clear Creek County. The effect of this development over time (and to 2050) is likely to vary substantially, depending on a number of factors, such as the availability of water, the quality of the water, the health of the recreation resources (dependent on economic conditions, climate change, mountain pine beetle ecological changes and others), and the overall economic health and character of the local jurisdictions.

Susceptibility to changes in population due to travel demand would be limited primarily to Eagle and Summit counties, while Clear Creek County would experience minimal induced growth. Growth in Garfield County is susceptible to changes in Eagle County because of the number of residents commuting to Eagle County for employment. Discussions with county planners led to agreement that induced growth would likely follow these patterns of development:

- Transit-only alternatives would concentrate induced growth in urban areas surrounding transit centers in areas of existing or planned urban development in Eagle County, including Eagle, Avon, and Vail.
- Highway-only alternatives would distribute growth based on existing trends for urban/rural development in each county, resulting in more acres of developed land in rural areas, primarily in Eagle County.
- Combination alternatives would distribute growth equally between the above transit and highway distribution scenarios, resulting in increased pressure in both urban and rural areas in Eagle and Summit counties.
- The Minimum Program of the Preferred Alternative would induce growth in a manner similar to the Transit-only alternatives and would concentrate growth in urban areas surrounding transit centers in Eagle County. If the Maximum Program of the Preferred Alternative was fully implemented, it would induce growth in a manner more similar to the Combination Alternatives, growth pressures occur in both urban and rural areas in Eagle and Summit counties. Impacts associated with the Preferred Alternative could range between the two programs. The adaptive management component of the Preferred Alternative allows for Corridor improvements to respond and adapt to Corridor land use changes and long-term growth needs if and when Corridor communities are able to accommodate that growth sustainably.
- In Eagle County, the induced growth projected for the Action Alternatives could increase growth pressures and lead to related socioeconomic effects, such as increased property values and increased pressure for the provision of community services. For example, Highway and Combination alternatives are expected to allow some amount of dispersed growth in rural areas and might require increased local planning efforts to address issues related to urban sprawl. Development as a result of increased population is anticipated to result in the greatest conflicts with rural areas of the Corridor. All estimates of induced growth are conservative, projecting one possible future land use scenario that may not be sustainable. A discussion of the environmental consequences of induced growth is provided in the *I-70 Mountain Corridor PEIS Cumulative Impacts Technical Report* (CDOT, August 2010).

Development Constraints

Although **Table** provides an indication of possible increased development acreage, the likelihood of induced development acreage would be limited by community policies, land use planning, and ordinances; public lands; geographic issues; and water availability.

Corridor communities have created zoning and land use plans, established open space areas, and passed ordinances to protect natural amenities, limiting available land for development. The number of federal and state protected lands, such as national forests and parks, in the Corridor also limits development. Other growth constraints include existing zoning restrictions and development plans and policies regulating build-out conditions.

- The geography in the Corridor area is predominantly characterized by steep terrain, geologic hazards, associated access problems, and natural barriers such as lakes, wetlands, and streams. Communities are generally located in stream valleys. These factors limit the amount of developable land use in the Corridor.
- Water resources likely influence future land development patterns in the Corridor. The *I-70 Mountain Corridor Water Resources Technical Report* (CDOT, August 2010) provides an overview of water resources in the Corridor. The study found that water resources and associated water infrastructure likely influence future land development patterns; that water supply shortages are projected in some areas of the Corridor based on planned development by 2025; and that

management measures are not currently in place for Corridor communities to effectively deal with water and growth issues. Many communities in the Corridor indicate they have sufficient water supply for currently planned development according to community and county plans. However, none of the communities indicate they have an abundant supply for additional development beyond planned development. While the Action Alternatives do not affect water supply, they impact water quality and future growth.

Public Policy Regarding Development

Corridor counties and communities have created land use policy initiatives that include plans to limit development, contain growth within community boundaries, and protect quality of life and environmental resources. The land use policies for the Corridor counties, summarized in **Appendix D**, include goals such as directing future growth to major transportation corridors, controlling sprawl, preserving community character, and protecting environmentally and visually sensitive areas. County and community planning organizations as well as elected officials and their constituents will be the ultimate decision-makers on future land use and development. Review of current master plans indicates emerging planning efforts in the Corridor for regional growth management and resource sustainability.

Induced growth beyond planned growth is not consistent with existing county and community land use plans and policies. Transit-only alternatives would be more compatible with planning policies that encourage future development in and around existing communities and allow rural areas to remain less developed. In contrast, Highway-only and Combination alternatives would be less compatible with such planning policies and encourage more dispersed and rural development. The adaptive management component of the Preferred Alternative would allow it to be implemented in coordination with Corridor communities over time, and is more compatible with Corridor planning policies.

5.2.3 Indirect Impacts to Federal Lands

Federal lands may also be affected indirectly, including impacts on designated management areas and associated environmental resources. Indirect impacts on United States Forest Service special use permits and lands might include access road interference, noise impacts, or visual impacts related to designated land uses and classifications. United States Forest Service management guidelines have been considered in the evaluation of impacts and discussion of avoidance and mitigation for environmental resources. Indirect impacts on recreation resources are addressed in the *I-70 Mountain Corridor Recreation Resources Technical Report* (CDOT, August 2010).

5.3 Construction Impacts

Construction workers would need housing in the Corridor during the construction timeframe. For construction occurring east of the Eisenhower-Johnson Memorial Tunnels, workers would be expected to commute from the Denver metropolitan area, alleviating the need for worker housing in Clear Creek County. For construction occurring west of the Eisenhower-Johnson Memorial Tunnels, additional housing would be needed to accommodate the influx of workers. Communities have voiced concern about the future use of worker housing once construction is complete.

5.4 Impacts in 2050

The Action Alternatives would influence Corridor land use, based on the degree to which they would accommodate or suppress the demand for travel on the I-70 highway. Both the No Action Alternative, which would suppress up to 9 million trips per year by 2050, and the Minimal Action Alternative would decrease the demand for growth in Corridor communities and would possibly increase demand in other areas of the state experiencing less growth and visitation. The other Action Alternatives would accommodate increased travel demand and could increase demand for growth in Corridor communities.

However, by 2050, the effects of the Action Alternatives would likely be balanced or even directed by other growth-limiting factors, such as water availability and community controls on growth and land use planning. The Preferred Alternative's adaptive management component allows the lead agencies to calibrate Tier 2 improvements to best respond and adapt to land use changes and long-term growth needs if and when Corridor communities are able to accommodate that growth sustainably. The *I-70 Mountain Corridor Cumulative Impacts Technical Report* (CDOT, August 2010) provides additional analysis of the alternatives in relation to past and current trends and other reasonably foreseeable future actions and events.

Section 6. Tier 2 Considerations

The lead agencies will conduct further analysis of changes that affect the functionality of parcels near the I-70 highway, such as changes in access, visibility, and noise levels, during future project-specific Tier 2 processes. The lead agencies will refine the 15-foot construction zone and 15-foot sensitivity zone where constraints may exist. The analysis will include coordination with individual communities and agencies to determine functional impacts to businesses, homeowners, and other property owners and to determine appropriate mitigation. Regarding forest lands, Tier 2 processes will provide a more definitive determination of impacts on special use permits and will work to avoid and minimize these impacts. Tier 2 processes will also analyze impacts to existing construction housing built during construction of the original I-70 highway (including potential environmental justice impacts), the future use of new workforce housing once construction is complete, and long-term housing needs for operations and maintenance staff.

The lead agencies convened a Community Values Issue Task Force to study mitigation strategies for impacts related to community values. The task force recommended that Tier 2 processes effectively coordinate projects with local communities and their land use plans. The lead agencies will consider those approaches, including: use of United States Forest Service definitions in land use planning; incorporation of at least one local jurisdiction representative with a land use planning background on the Project Leadership Team; identification of an I-70 Mountain Corridor Context Sensitive Solutions manager and agency staff liaisons who serve across the entire Corridor, to provide continuity in process; and providing communities with possible alignments as early as possible, allowing them to make timely land use decisions. The Colorado Department of Transportation will fund the I-70 Mountain Corridor Context Sensitive Solutions program during Tier 2 processes. For more information on the I-70 Mountain Corridor Context Sensitive Solutions, see the **Introduction** and **Appendix A** to the *PEIS*.

The lead agencies will develop specific and more detailed mitigation strategies and measures, and develop best management practices specific to each project during Tier 2 processes. The lead agencies will also adhere to any new laws and regulations that may be in place when Tier 2 processes are underway.

Section 7. Mitigation Strategies

The phased approach of the Preferred Alternative provides ongoing opportunities to avoid and minimize impacts to adjacent land use, establish effective mitigation, employ the I-70 Mountain Corridor Context Sensitive Solutions, and implement future phases of the alternative as Corridor communities are ready and able to accommodate those changes. Primary mitigation strategies to avoid or reduce direct effects to adjacent properties include design refinement, particularly at interchanges, and physical measures such as the use of retaining walls or elevated structures.

To mitigate impacts that cannot be avoided, the lead agencies will conform to the requirements set forth in the Uniform Relocation Assistance and Real Property Acquisition Policies Act (1970, as amended in 1987), referred to as the "Uniform Act," to provide a consistent policy for fair and equitable treatment of displaced persons. The lead agencies will provide affected individuals with compensation and assistance with finding suitable sites for relocation. Regarding workforce housing, the lead agencies will consider coordinating with local jurisdictions and federal housing authorities to create and implement a Workforce Plan addressing workforce housing needs and permanent housing strategies.

The lead agencies will follow United States Forest Service standards and guidelines for the protection of federal lands, provided by White River National Forest and Arapaho and Roosevelt National Forests resource specialists (see **Appendix B** for a list of these standards and guidelines categorized by forest and resource). Any deviations from these standards must be analyzed and documented in a forest plan amendment; deviations from guidelines require explanation of reasons for the deviations, but not a forest plan amendment. Tier 2 processes will include conceptual mitigation plans for impacts on United States Forest Service special use permits (see **Appendix C**), including measures such as maintaining access to permitted areas and uses during construction, relocating permitted structures and utility easements, and minimizing interruptions to service during construction.

The Colorado Department of Transportation will consider an approach to promote and assist communities in the adoption of more comprehensive, regional growth management plans that can be applied to Tier 2 processes. The recommendations for this approach include exploring the possibility of creating grants for communities that lack the resources to develop a growth plan; working with local councils of government and the Colorado Department of Labor Affairs to assist with funding; and promoting the consideration of open space as community separators, or view sheds distinguishing communities, including studies led by the United States Forest Service and Bureau of Land Management. While the lead agencies will consider this type of policy approach, efforts to control growth are greatly dependent on local planning and community political direction.

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Four appendices support the Land Use Technical Report:

- Appendix A provides land use maps of the Corridor, based on the most recent land use data obtained in 2009.
- Appendix B provides the land management standards and guidelines for the White River National Forest and the Arapaho and Roosevelt National Forests, which are the currently used (2010) standards and guidelines for the forests. The standards and guidelines are summarized from the following plans and associated amendments:
  - *White River National Forest Land and Resource Management Plan – 2002 Revision* and the following two amendments relevant to the I-70 Mountain Corridor:
    - Forest Plan Amendment 1, March 2005
    - Forest Plan Amendment 2, January 2006
  - *Arapaho and Roosevelt National Forests and Pawnee National Grasslands 1997 Revision of the Land and Resource Management Plan* and the following five amendments relevant to the I-70 Mountain Corridor:
    - Forest Plan Amendment 4, June 2004
    - Forest Plan Amendment 5, July 2005
    - Forest Plan Amendment 7, September 2005
    - Forest Plan Amendment 8, November 2005
    - Forest Plan Amendment 9, October 2006
- Appendix C provides a list of White River National Forest and Arapaho and Roosevelt National Forests special use permits existing in the Corridor in 2009.
- Appendix D summarizes Corridor county and community planning documents, as they existed in 2009, on topics related to the I-70 Mountain Corridor

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Appendix A. I-70 Mountain Corridor Land Use Maps

A. I-70 Mountain Corridor Land Use Maps

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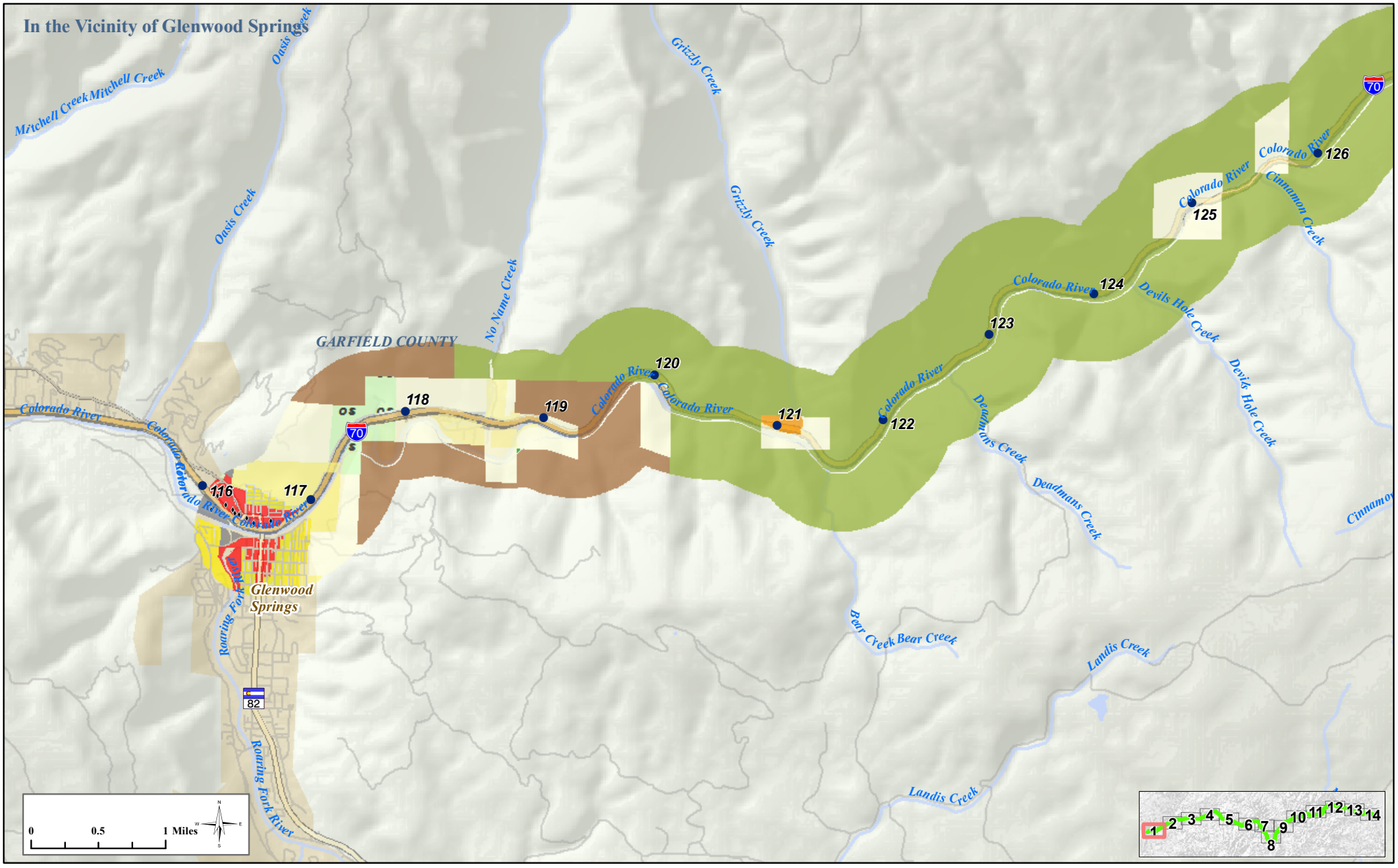

Legend

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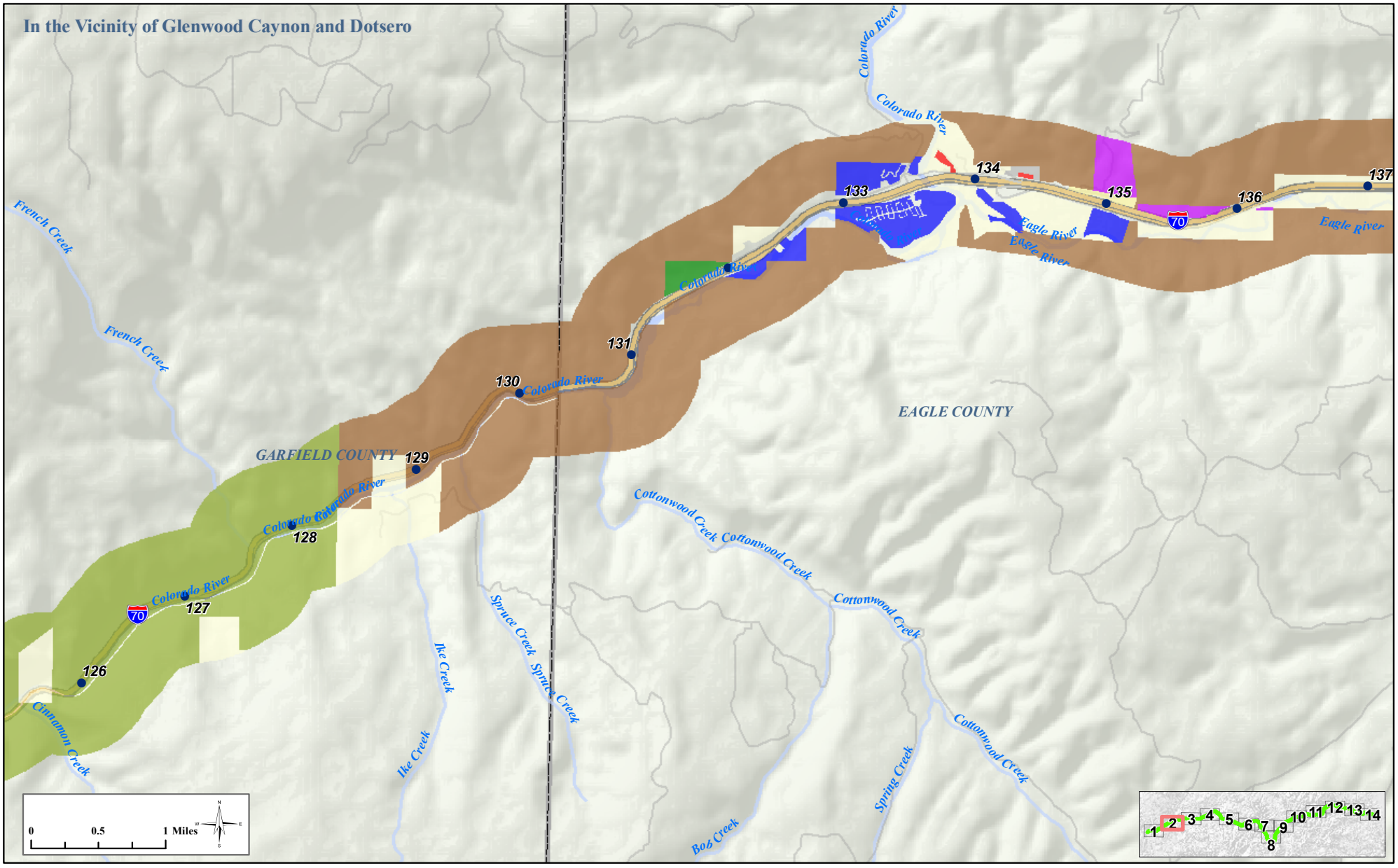

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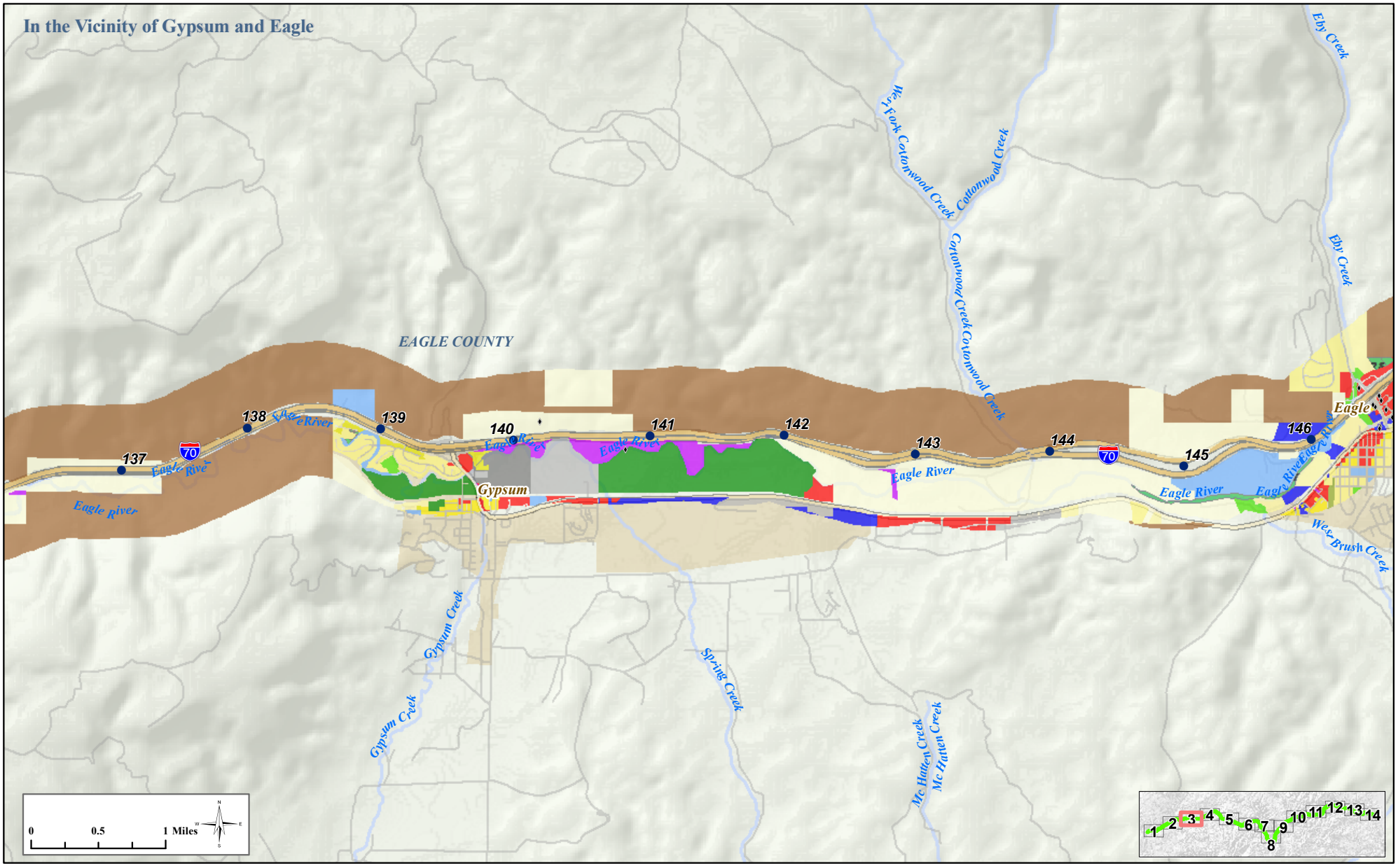

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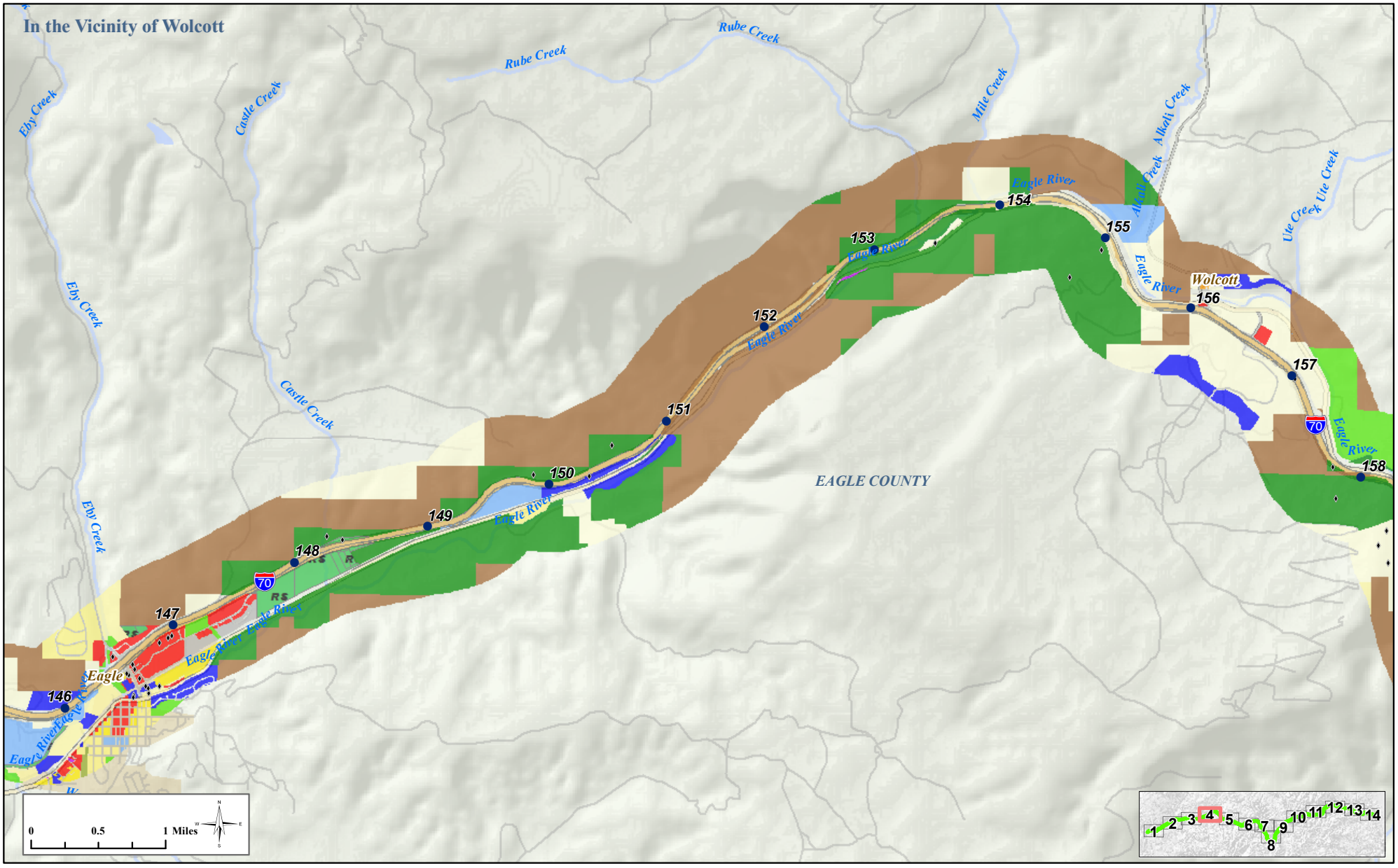

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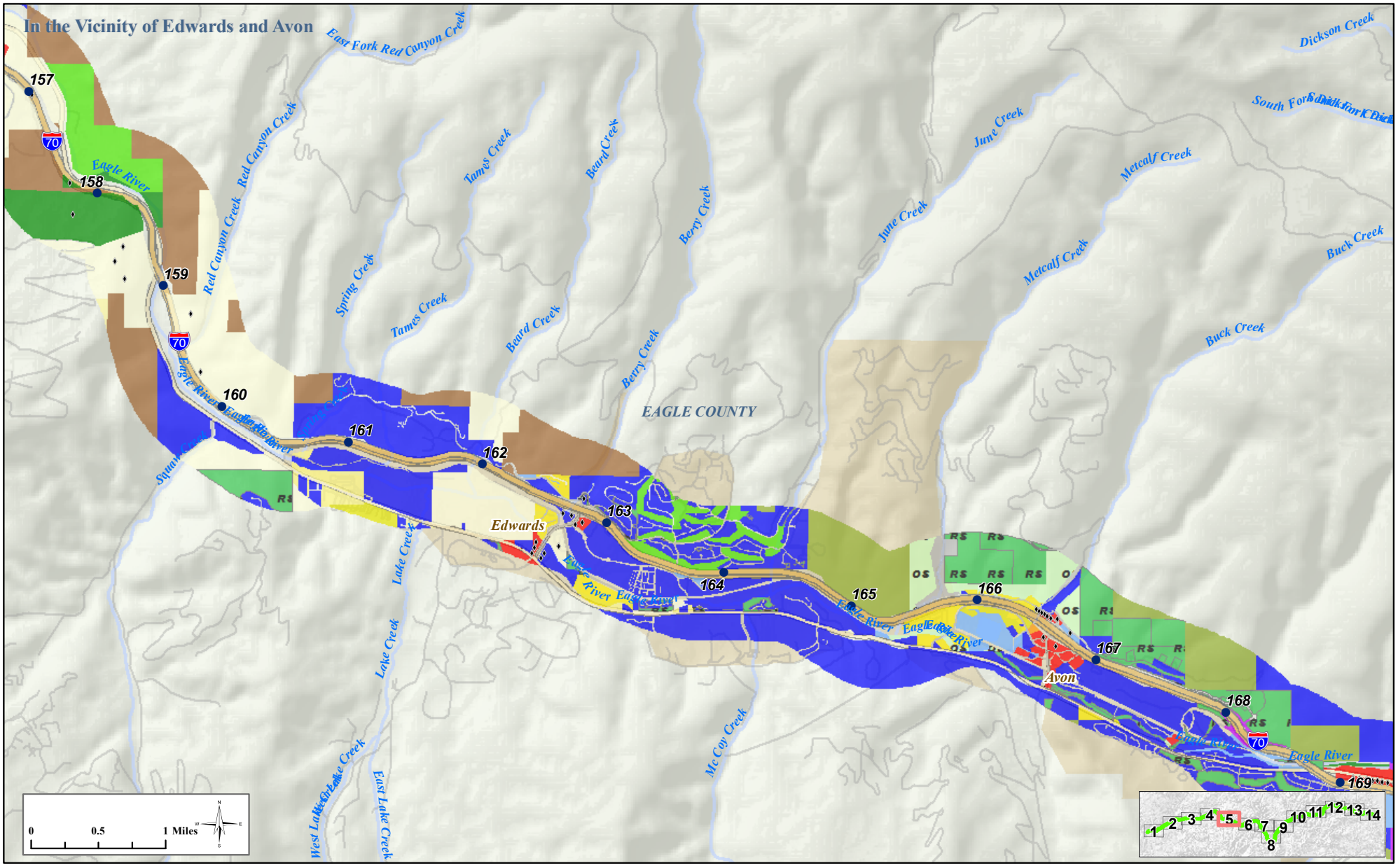

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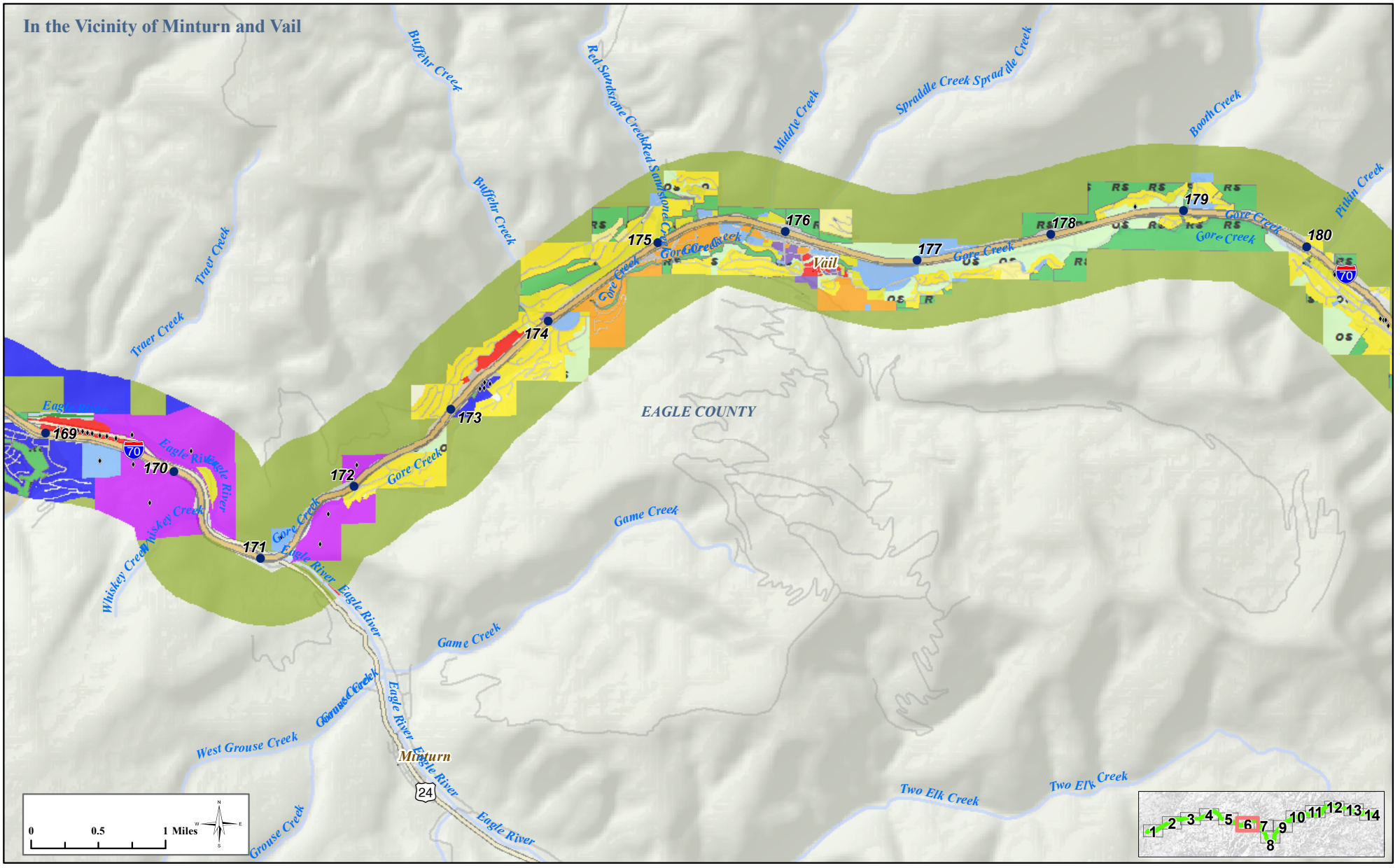

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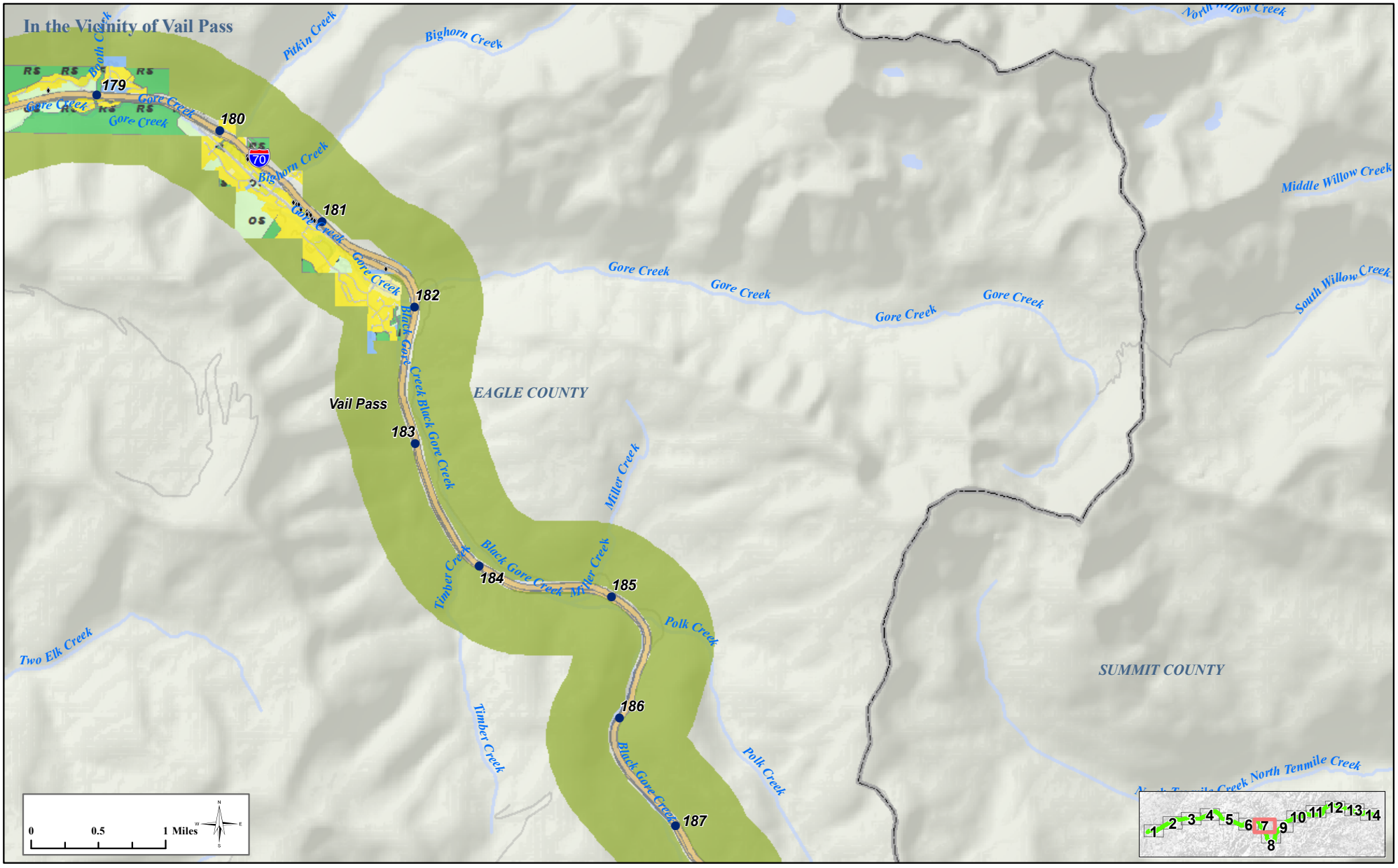

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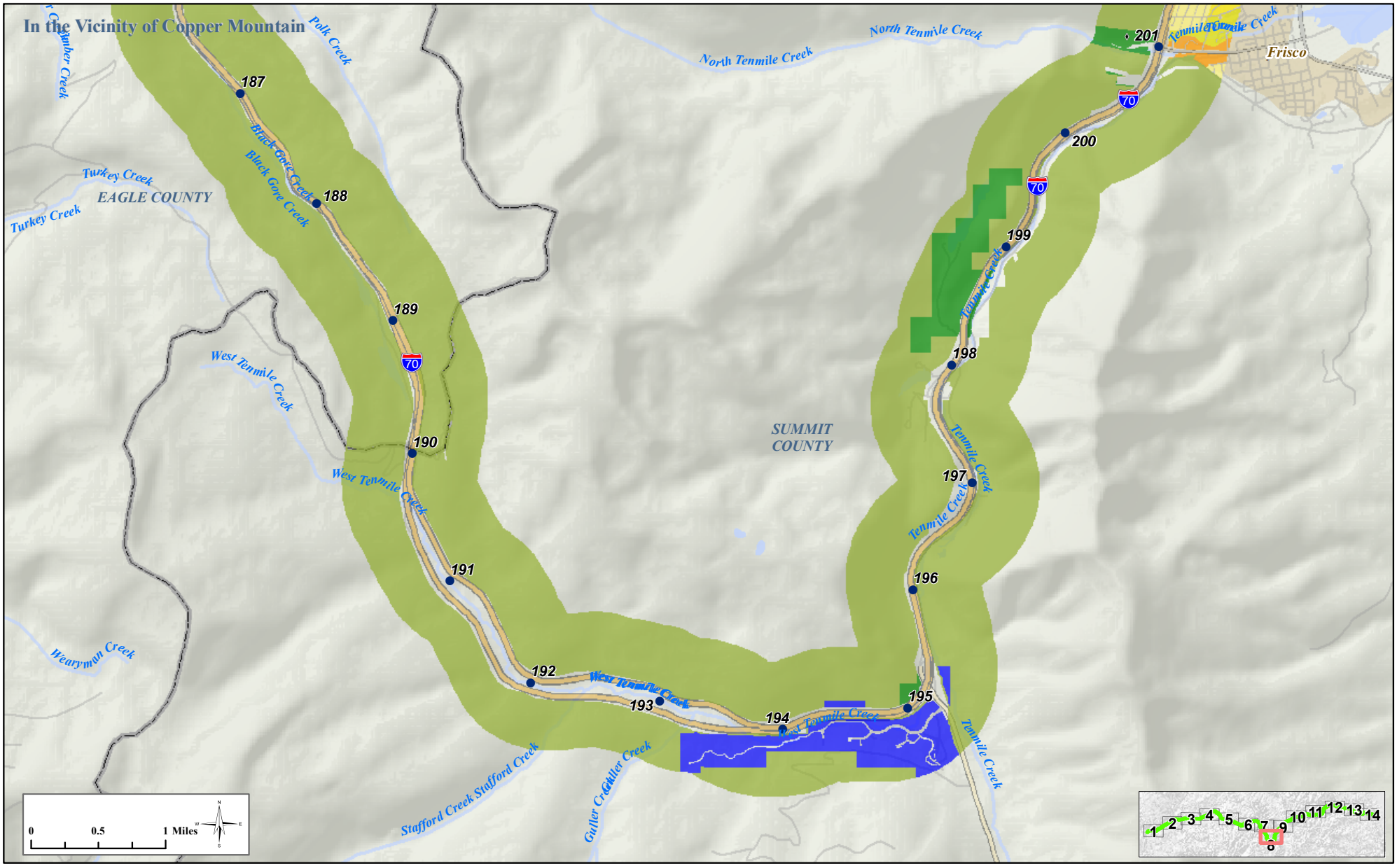

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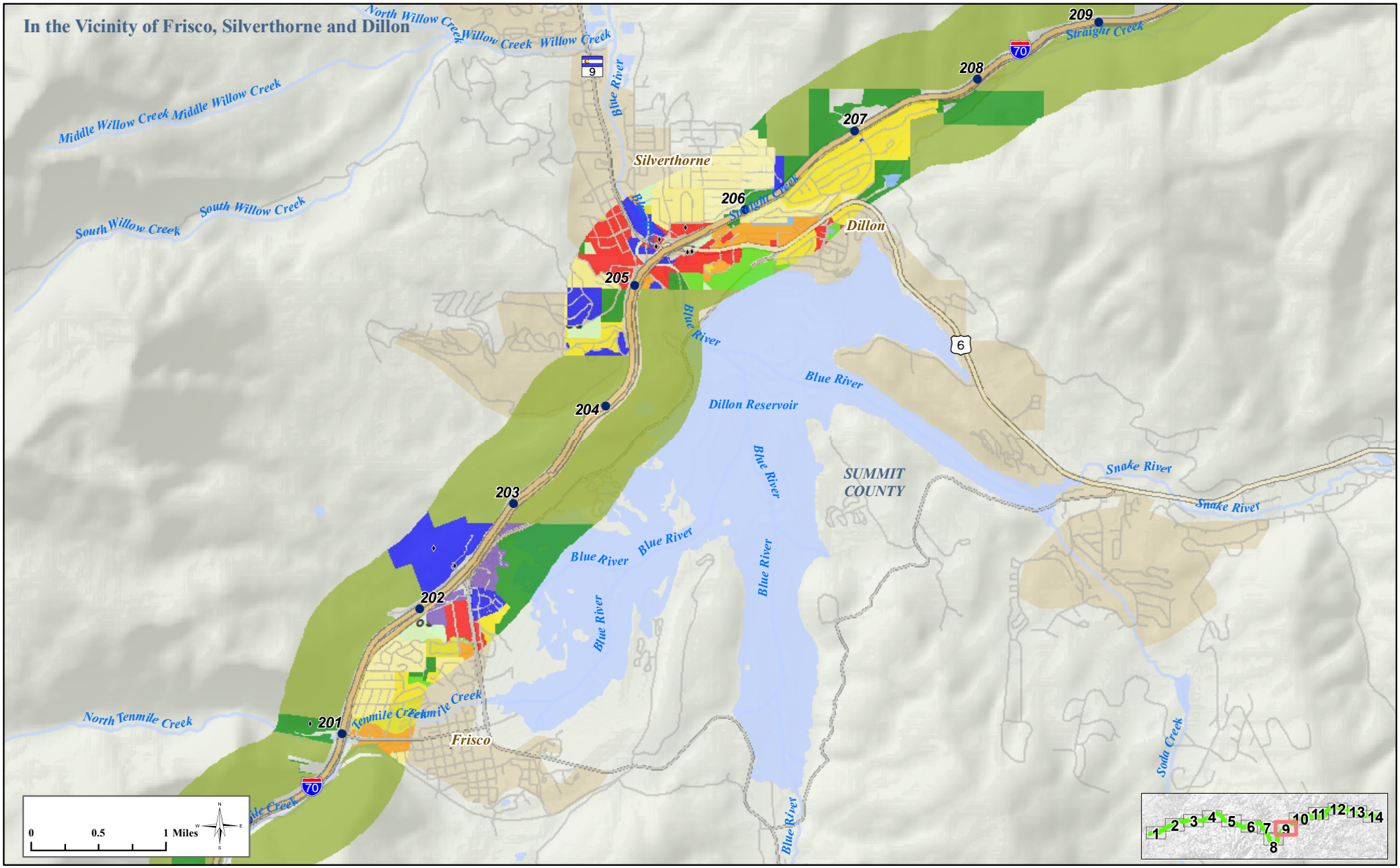

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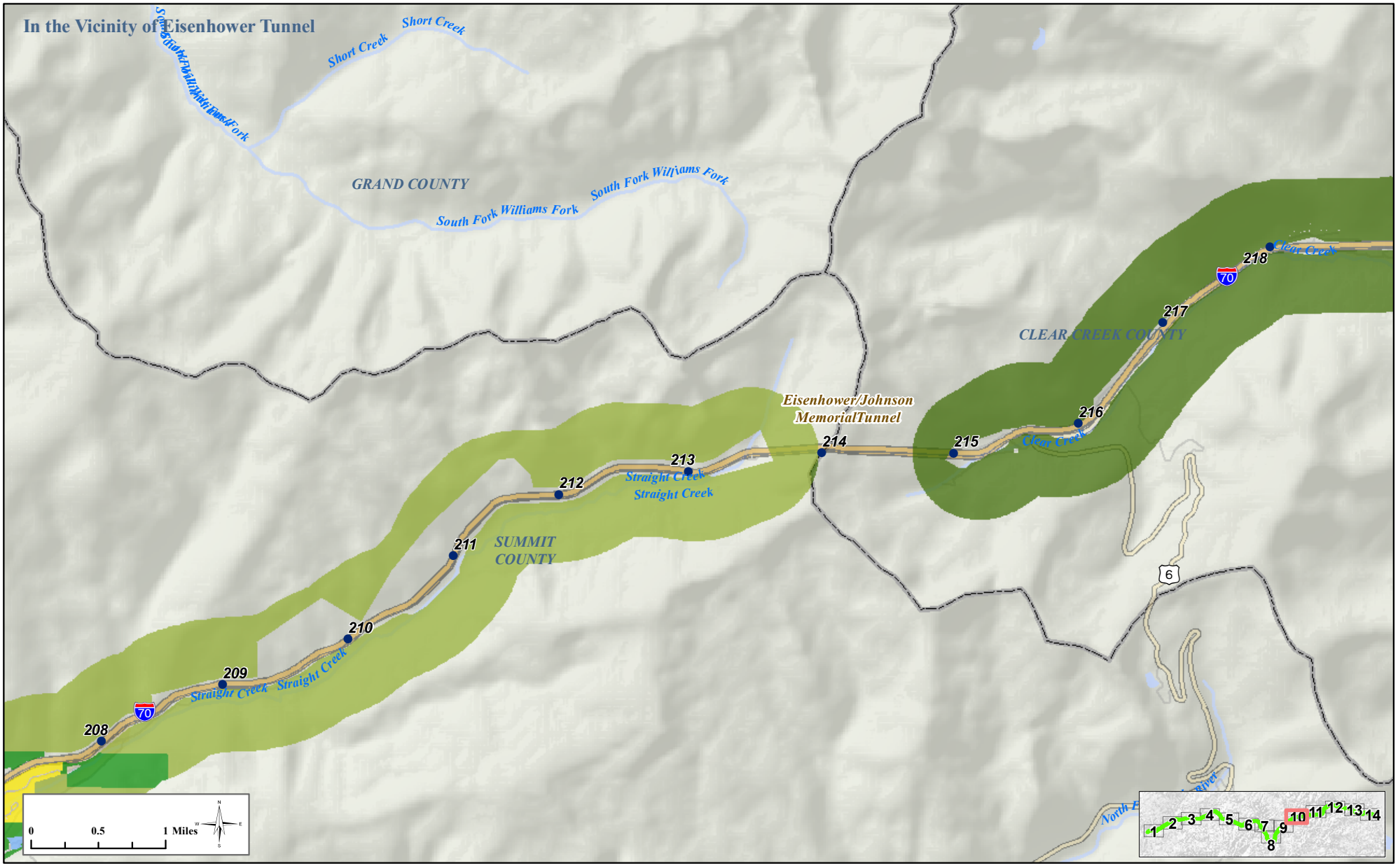

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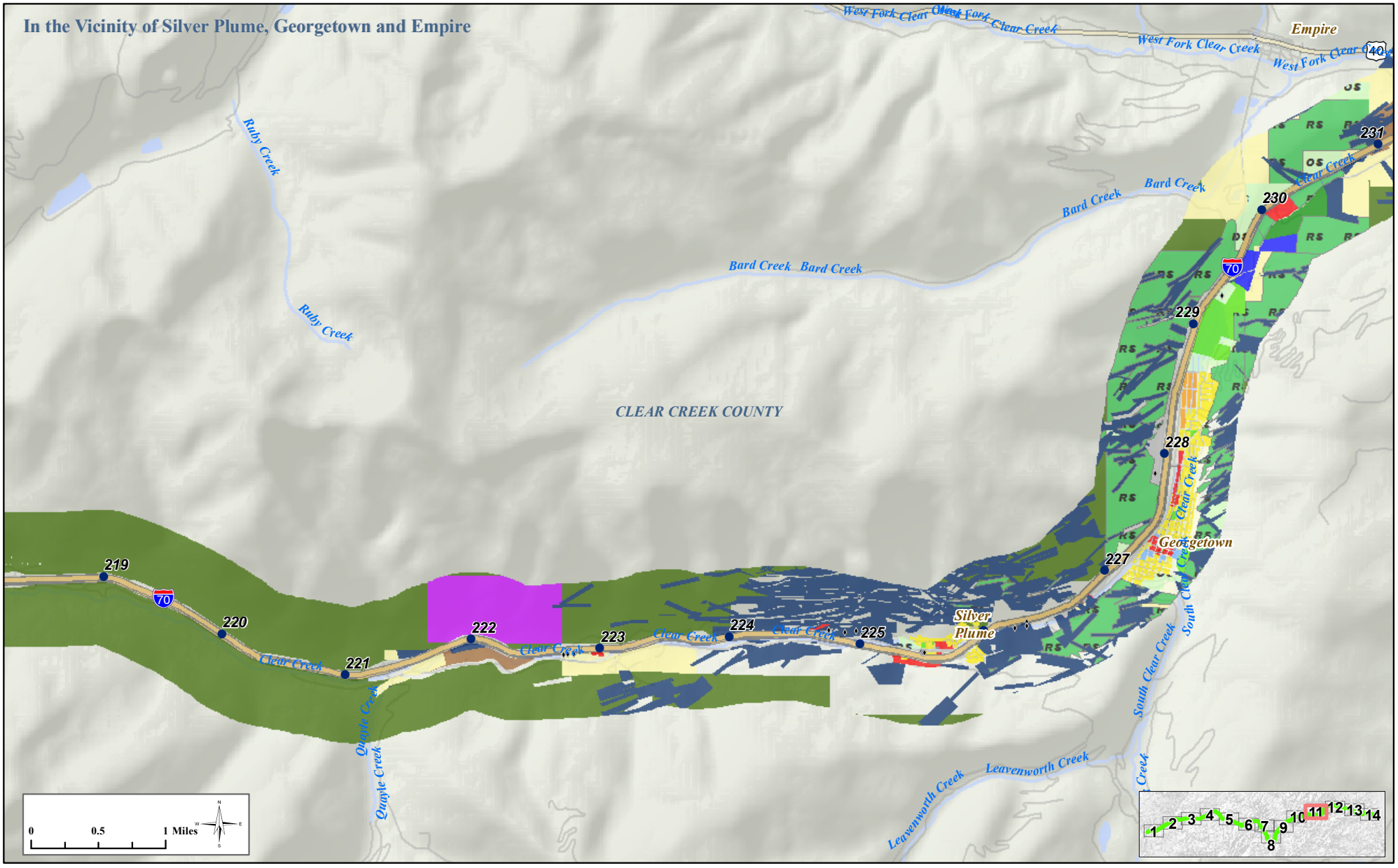

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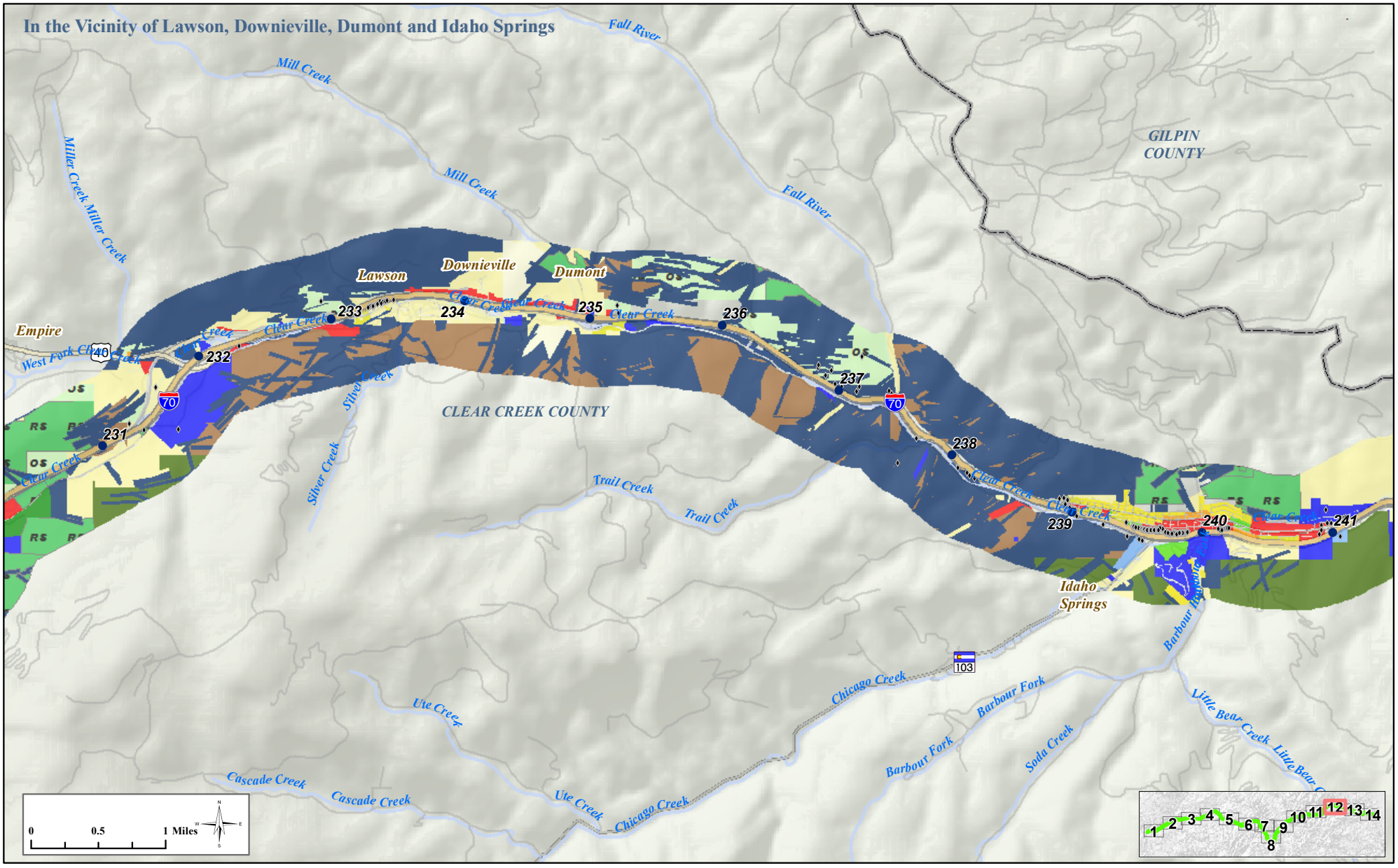

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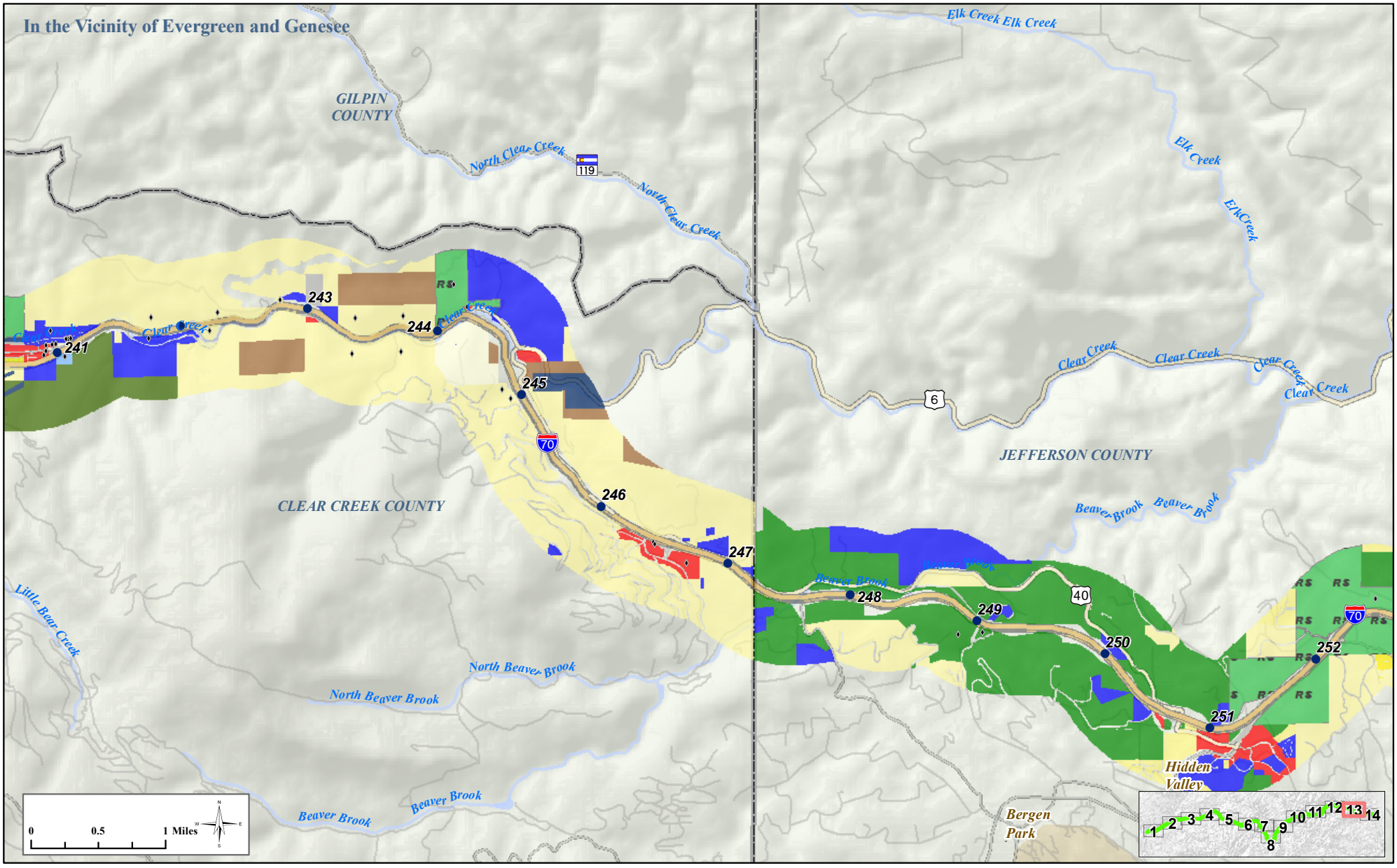

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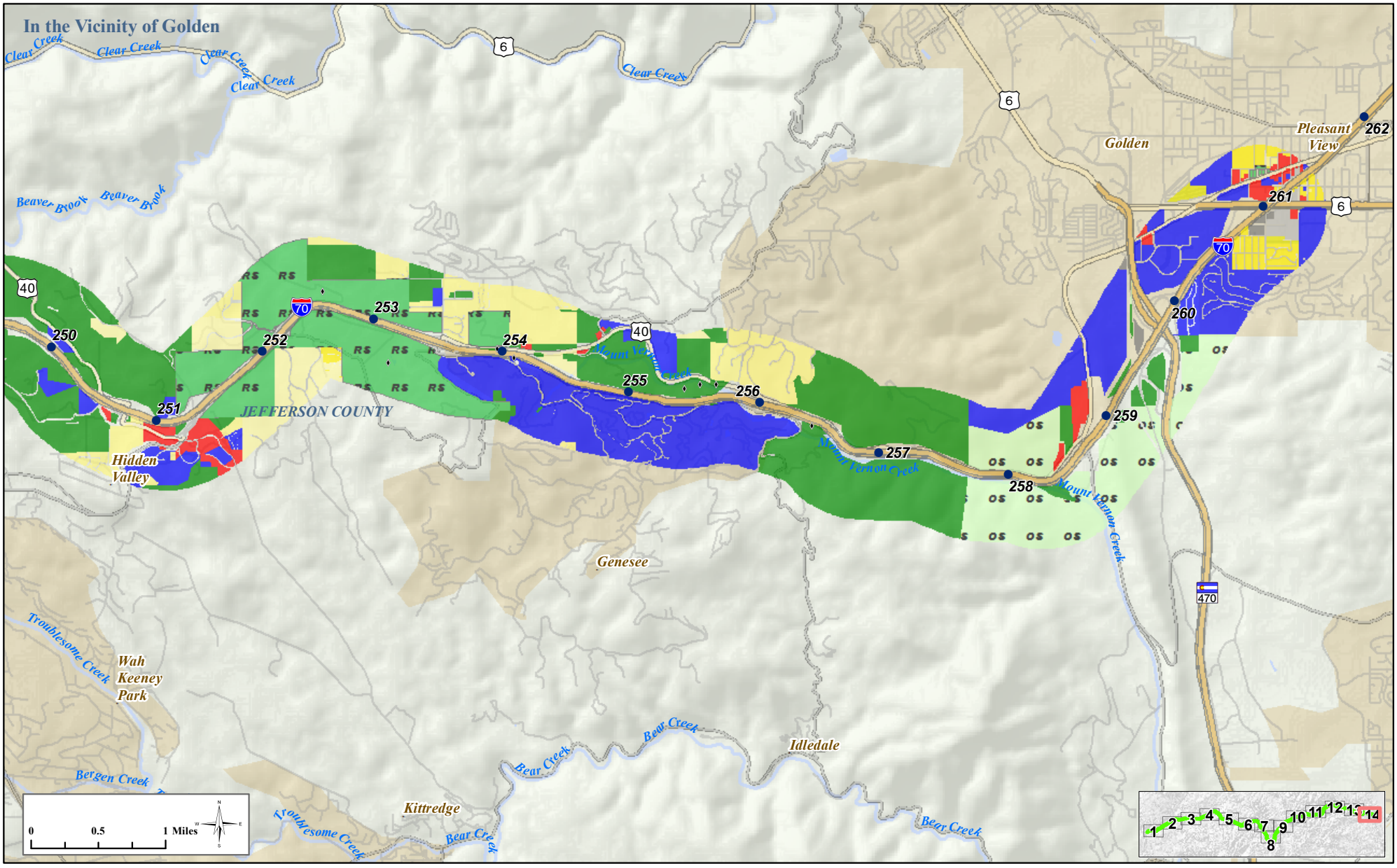

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Appendix B. United States Forest Service Land Management Standards and Guidelines

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Appendix B. United States Forest Service Land Management Standards and Guidelines

Tier 1 alternative designs include United States Forest Service land management avoidance measures: limit roads and other disturbed sites to the minimum feasible number, width, and total length consistent with the purpose of specific operations, local topography, and climate; construct roads to minimize sediment discharge into streams, lakes, and wetlands; and reclaim roads and other disturbed sites when use ends, as needed, to prevent resource damage.

These standards and guidelines for the protection or management of different forest resources apply to all areas of the forest. Standards are used to assure that individual projects are in compliance with the forest plan. They should limit project-related activities, not compel or require them. Deviations from standards must be analyzed and documented in a forest plan amendment.

A guideline is a preferred or advisable course of action or level of attainment. Guidelines are designed to achieve desired conditions (goals). Deviation from a guideline and the reasons for doing so are recorded in a project-level National Environmental Policy Act (NEPA) document; a forest plan amendment is not required.

B.1 White River National Forest Standards and Guidelines

The *White River National Forest Land and Resource Management Plan – 2002 Revision* (United States Forest Service, 2002) provides standards and guidelines for land management activities in the White River National Forest. A standard is defined as a course of action that must be followed, or a level of attainment that must be reached, to achieve forest goals. Adherence to standards is mandatory. Standards are used to assure that individual projects are in compliance with the forest plan. They should limit project-related activities, not compel or require them. Deviations from standards must be analyzed and documented in a forest plan amendment. Standards are developed when:

- Applicable laws or policies do not exist, or clarification is needed of existing laws or policies.
- They are critical to the achievement of objectives.
- Unacceptable impacts may occur if a standard is not in place.

A guideline is a preferred or advisable course of action or level of attainment. Guidelines are designed to achieve desired conditions (goals). Deviation from a guideline and the reasons for doing so are recorded in a project-level National Environmental Policy Act (NEPA) document; a forest plan amendment is not required. Guidelines are developed when:

- They contribute to the achievement of goals.
- They are needed to respond to variable site conditions.
- They are needed to respond to variable overall conditions.
- Professional expertise is needed.

When forest-wide standards and guidelines conflict with management area standards and guidelines, those that are more stringent or restrictive are applied.

Standards and guidelines are implemented slightly differently for species of viability concern. See the directions on page 2-18 (Wildlife Section, Proposed, Threatened, Endangered, Sensitive Species and Species of Viability Concern heading) of the *White River National Forest Land and Resource Management Plan – 2002 Revision* for details.

B.1.1 Air Resources

Standards

1. Meet state and federal air quality standards and comply with local, state, and federal air quality regulations and requirements either through original project design or through mitigation for such activities as prescribed fire, ski area development or expansion, mining, and oil and gas exploration and production.

2. Perform conformity determinations or apply appropriate mitigation to zero out pollutants in order to maintain conformity with the State Implementation Plan for proposed activities that will contribute to air pollutants to Environmental Protection Agency (EPA) designated non-attainment and maintenance areas.

Guidelines

1. For water bodies in both Class 1 and Class 2 wilderness areas for which the acid neutralizing capacity (ANC) is greater than 25 micro-equivalents per liter, the limit of acceptable change (LAC) from human-caused air pollution is no more than 10 percent change in ANC. For those extremely sensitive water bodies in which the ANC is less than 25 micro-equivalents per liter, the LAC is no greater than one micro-equivalent per liter.

B.1.2 Caves

Guidelines

1. Manage natural surface drainage and vegetation that may affect known caves or cave resources to protect cave micro-environments.

2. Management activities that may affect known caves will be designed to protect cave ecosystems.

B.1.3 Paleontological Resources

Standards

1. Sensitive paleontological information will not be subject to Freedom of Information Act disclosure.

Guidelines

1. Identify areas of potential paleontological resources in Classes 3, 4, and 5 of the Fossil Yield Potential Classification for the presence or absence of management-relevant paleontological resources. If resources are identified, protect from disturbance or mitigate disturbances to conserve scientific, educational, interpretive, and legacy values.

B.1.4 Soils

Standards

5. Manage land treatments to maintain or improve soil quality, limiting the sum of detrimental soil impacts on no more than 15 percent of an activity area.

Guidelines

1. Conduct an onsite slope stability exam in areas identified as potentially unstable. Potentially unstable land is described as having a “high” or “very high” instability ranking or classified as “unstable” or “marginally unstable.” Limit intensive ground-disturbing activities on unstable slopes identified during examinations.

2. Where there is potential for toxic contamination of soil from ground-disturbing activities, develop a contingency plan to prevent or rehabilitate soil contamination.

4. To minimize soil impacts, the following practices should be followed for vegetation management activities:

- Use practices other than brush rake piling and crushing by heavy equipment to dispose

of slash,

- Limit heavy equipment such as feller-bunchers to 3 round trip passes on designated skid trails,
- Utilize low p.s.i. (less than 7 p.s.i.) tracked equipment when available.

B.1.5 Water and Riparian Resources

Standards

1. In each stream currently supporting a self-sustaining fish population, ensure that projects maintain sufficient habitat, including flow, for all life history stages of native and desired non-native aquatic species. In streams where reproduction does not occur but supports a recreational fishery, sufficient habitat will be maintained to ensure recreational values.

4. Naturally occurring debris shall not be removed from stream channels unless it is a threat to life, property, important resource values, or is otherwise covered by legal agreement. Removal in designated wilderness must consider wilderness values.

Guidelines

1. When projects are implemented that can affect large woody debris, retain natural and beneficial volumes of this material for fish habitat, for stream energy dissipation, and as sources of organic matter for the stream ecosystem.

2. Keep vehicles and equipment out of streams, lakes, and wetlands except to cross at designated points, build crossings, do restoration work, or where protected by one foot of snowpack or frozen soil.

B.1.6 Biological

Alpine

Standards

1. Prohibit new structural facilities in alpine wetlands, streams, and riparian areas except when needed to reduce existing resource impacts.

Guidelines

1.Campfires are prohibited above treeline to protect fragile alpine soils and vegetation. Barbeques and grill which are operated to cause no impacts to soils and vegetation may be permitted in appropriate places and facilities by permit..

2. Minimize new roads, trails, and livestock driveways in alpine ecosystems.

3. Minimize soil excavation and disturbance in alpine ecosystems.

4. Minimize the size and number of structures in alpine ecosystems.

Biodiversity

Standards

1. Use genetically local (at the ecological subsection level) native plant species for revegetation efforts when technically and economically feasible. Use seed mixtures and mulch that are noxious weed-free. To prevent soil erosion, non-persistent, non-native annuals or sterile perennial species may be used while native perennials are becoming established.

Guidelines

1. Favor native and desirable non-native plant and animal species over undesirable exotic species during management plan implementation activities. Within designated wilderness, use genetically local native species preferentially.

4. Base priorities for conserving potential or existing late-successional stands on values for maintaining biotic diversity, and evaluate factors of size, adjacency between late-successional stands, and degree of habitat variation between such late-successional stands and intervening vegetation. Also consider the following:

- Conserve older, unmanipulated stands over younger, manipulated stands;
- Favor stands with limited access by humans or livestock; and

B.1.7 Wildlife

General

Standards

1. Seasonal restrictions will be applied to reduce disturbance in key wildlife habitats.

2. Restrict actions within 500 feet of cave and mine bat roosts to those that will not negatively alter the vegetative and structural characteristics of roosts or impede the movement of bats. When closing mines or caves in the course of establishing resource protection, or in response to safety concerns, minimize disturbance to resident or seasonal bat or other cave-dependent species endemic to the cave or mine and maintain microclimate conditions important to those species. Where bat concentrations are located outside of caves or mines, human disturbance will be managed to protect those populations.

3. Restrict the release of the location of bat roosts to administrative purposes only in order to minimize disturbance to roosting bats.

4. Retain all snags and trees known to be used consistently as bat roosts.

5. Protect known active and inactive raptor nest areas. The extent of the protection will be based on proposed management activities, human activities existing before nest establishment, species, topography, vegetation cover and other factors. A no-disturbance buffer around active nest sites will be required from nest-site selection to fledging (generally March through July). Exceptions may occur when individuals are adapted to human activity.

6. In riparian areas, vegetation cover will be managed to provide suitable wildlife habitat along a minimum of 80 percent of the length of riparian zones within the project area. New corridor interruptions will be spaced to minimize interruptions to habitat connectivity.

7. Vegetation treatments and new roads and trails will not reduce the elk habitat effectiveness index below 0.45 by Data Analysis Unit (DAU), or further reduce effective habitat in DAUs that are already at or below 0.40 on National Forest System lands.

8. Discourage land use practices and development that adversely alter the character of peregrine falcon hunting habitat or prey base within ten (10) miles of the nest site and the immediate habitats within one (1) mile of the nesting cliff.

9. Human activities will be restricted within one-half (½) mile of occupied peregrine falcon areas between March 15 and July 31 for nest sites, or July 1 to September 15 for hack sites. Protection distance may vary depending on local topography, potential for disturbance, and location of important habitat components.

Guidelines **1.** Structures such as fences, major highways, bridge upgrades or replacements, and canals should be designed and built taking wildlife movement into consideration.

Proposed, Threatened, Endangered, Sensitive Species, and Species of Viability Concern

Note: For lists of federally listed threatened and endangered species and Forest Service Region 2 sensitive species, and White River National Forest species of viability concern, see Appendix EE.

The following direction applies to implementation of standards and guidelines for all species of viability concern on the White River National Forest. Specifically, this applies to the Forest Plan sections on: proposed, threatened, endangered and sensitive species, species of viability concern – aquatic, species of viability concern – plants, and species of viability concern – terrestrial. It also applies to lynx direction found in management area 8.25 – ski areas existing and potential. Within 8.25, lynx direction can be found under the heading *Threatened Species – lynx,* Guidelines #1 and #2.

The direction found in the standards and guidelines in these sections is intended to ensure the viability of all species of concern. Specifically:

Standards All standards must be met.

Guidelines The intent of guidelines must be met. Many guidelines have two components, a quantitative part (distance, %, etc), and a statement of intent. If the quantitative part cannot be met, it must be documented in the appropriate NEPA document. The NEPA document must show how the intent of the guideline is met, or how progress is made towards the conditions described in the guidelines.

Proposed, Threatened, and Endangered Species and Sensitive Species

Standards **1.** Review the forest plan as necessary to determine consistency with new information concerning proposed, threatened, and endangered species (PTES) species. Where appropriate, the plan will be amended to incorporate direction resulting from new information, such as new species listed as PTES; new recovery plans, conservation agreements or conservation strategies; newly described habitats or occurrences for PTES species; newly designated critical habitats; or regional documents that contain new management direction for PTES species.

2. Restrict activities to avoid disturbing proposed, threatened, or endangered species during breeding, young rearing, or at other times critical to survival. Exceptions may occur when individuals are adapted to human activity, or the activities are not considered a threat.

3. Activities will be managed to avoid disturbance to sensitive species that would result in a trend toward federal listing or loss of viability. The protection will vary depending on the species, potential for disturbance, topography, location of important habitat components, and other pertinent factors. Special attention will be given during breeding, young rearing, and other times that are critical to survival of both flora and fauna.

Canada Lynx

Note: Standards and guidelines in the “Canada Lynx” section apply only to lands within the lynx habitat matrix. Lynx analysis unit (LAU) boundaries will not be adjusted for individual projects. Forestwide LAU changes will only be completed in coordination and concurrence with the US Fish and Wildlife Service.

Standards

1. Projects that have the potential to affect lynx or lynx habitat must include a broad scale assessment that addresses the ecological conditions for the area. (See strategies 1d.1 and 1d.2 for content to be addressed in the assessment.) In the absence of guidance developed from such an assessment, limit disturbance within each lynx analysis unit (LAU) as follows: if more than 30 percent of lynx habitat within an LAU is currently in unsuitable condition, no further reduction of suitable conditions shall occur as a result of vegetation management by federal agencies.

2. Within a LAU, maintain denning habitat in patches larger than 5 acres, comprising at least 10 percent of lynx habitat. Where less than 10 percent denning habitat is currently present within a LAU, defer management actions in stands that have the highest potential for developing denning habitat structure in the future.

9. Where over-snow access is required for activities such as non-recreation special use permits, oil and gas exploration and development, access to private in-holdings, or timber sales, restrict use to routes designated by the Forest Service.

10. Close newly constructed roads built for project specific activities such as mineral exploration and development or timber sales to public motorized access during project activities. Upon project completion, reclaim or obliterate these roads if not needed for other objectives as documented in the appropriate NEPA document.

Guidelines

1. Within key landscape linkage areas maintain or improve conditions that allow for lynx movement.

5. In order to provide snowshoe hare habitat, roadside brushing should be minimized while providing for public safety on low speed and low volume roads.

6. New trails and roads should be located away from forested stringers.

7. Provide for effective closure in the initial design of new temporary roads, if continued use of the road is not needed to meet overall resource management objectives.

8. Roads should not be built on ridgetops, saddles, and other areas identified as important for lynx habitat connectivity.

11. Use field verification to document denning habitat suitability, quantity, quality, and juxtaposition with other important habitat components, such as water and foraging habitats; design projects to avoid impacts at times suitable sites may be occupied as natal or maternity dens.

Bald Eagle

Standards

1. If a winter roost or nest site is discovered, write a management plan to ensure that the necessary habitat components are maintained.

2. Human activities should be prohibited within 250 yards of bald eagle winter roosting areas between November 15 and March 1. Human activities should be prohibited within 400 yards of an active nest between February 1 and August 15.

Mexican Spotted Owl

Standards

4. If any nests are discovered, limit the amount of human disturbance around the nest through such measures as special area closures, seasonal restrictions, or re-routing of

trails.

Uncompaghre Fritillary Butterfly

Standards **1.** Before any ground disturbing activity (such as trail building), or livestock driveways or bedding grounds are allowed in potential Uncompagre fritillary butterfly habitat, a survey shall be conducted to determine the existence of the species. Potential habitat and survey protocols are found in the Recovery Plan. Avoid actions that would negatively impact the species know habitat or populations.

Species of Viability Concern, Aquatic

Colorado River Cutthroat Trout

Standards **1.** For management activities that have the potential to impact occupied cutthroat trout habitat, tributaries of occupied cutthroat trout habitat, or identified reintroduction areas, maintain or enhance existing cutthroat trout habitat. At minimum and where necessary:

- Reduce sediment from existing roads and trails.
- Maintain pool depths.
- Maintain riparian vegetation.
- Retain large woody debris in streams.

2. When implementing management activities in 6th field Hydrologic Unit Codes (sub-watersheds) containing cutthroat trout identified as recovery populations in the Colorado River Cutthroat Recovery Plan, maintain or reduce existing net density of roads (open or closed) to restore or prevent alteration of the hydrologic function of the sub-watershed. Temporary roads must be decommissioned upon project completion.

Guidelines **1.** Restrict construction of new roads within 350 feet of occupied cutthroat streams or within 150 feet from the edge of the current or historic floodplain, whichever is greater, to maintain hydrologic function and limit road-related stream sediment.

2. Reroute roads adjacent to cutthroat trout streams and their tributaries, when possible, to reduce direct impacts to cutthroat habitat, or to improve hydrologic function.

Boreal Toad and Leopard Frog

Standards **1.** Allow no loss or reduction in habitat quality of occupied or known historic boreal toad or leopard frog habitat.

2. Maintain adequate vegetation cover around occupied boreal toad or leopard frog breeding ponds when implementing management activities to minimize avian predation on newly metamorphosed frogs and toads.

3. Use only chemical herbicides shown to have no effect on boreal toads or leopard frogs, or use other vegetation management techniques, within 300 feet of occupied or known historic boreal toad sites.

Guidelines **2.** Restrict construction of new roads and trails within 300 feet of occupied or known historic boreal toad and leopard frog breeding sites to prevent direct mortality and disturbance of adjacent vegetation during construction and trail use.

4. Where roads or trails are located within 300 feet of occupied or historical boreal toad or leopard frog breeding sites, consider reclaiming, redirecting, or redesigning trails and user

traffic to minimize direct mortality and disturbance of adjacent vegetation.

Species of Viability Concern, Plant

Standards

1. Survey for the following plant species of viability concern in the identified areas before any activities that might impact them:

- Harrington penstemon in sagebrush areas in the Eagle and Frying Pan River drainages;
- De Beque phacelia in the Wasatch Geologic Formation;
- Sun-loving meadowrue in the Parachute Creek Geologic Formation;
- Leadville milk-vetch; Sea pink; Rockcress draba; Tundra buttercup, and Colorado tansy aster in suitable alpine areas;
- Altai cottongrass, Kotzebue grass-of-Parnasus, and Porter feathergrass in suitable riparian and wetland areas.

Avoid disturbances that would significantly affect species viability or trend the species towards federal listing.

Species Requiring More Baseline Inventory and Evaluation to Determine Status

Standards

4. Conduct surveys for the following butterfly species needing more baseline inventory and evaluation before implementation of projects that may result in not maintaining a viable population in occupied habitat: theano alpine, dark blue, white-veined arctic, indra swallowtail, and two-banded checkered skipper. Prohibit actions that may result in the extirpation of the species in an area that is occupied. Actions that may be restricted include but are not limited to: Recreation use and development outside of established routes.

- Livestock grazing
- Vegetation treatments
- Butterfly collecting
- Road and trail construction

B.1.8 Disturbance Processes

Noxious Weeds

Standards

1. For all proposed projects or activities, determine the risk of noxious weed introduction or spread and implement appropriate prevention and mitigation measures.

2. Manage noxious weeds and other undesirable exotic species of plants according to the Integrated Weed Management Principles.

3. Use only certified noxious weed-free hay, straw, seed, or mulch for feed or revegetation projects on National Forest System lands.

4. Include provisions that are necessary to prevent the spread of and to control the introduction of noxious weeds in contracts and permits for use of National Forest System lands and resources.

Guidelines

2. Priorities for controlling noxious weeds are:

- Preventing the introduction of new invaders

- Conducting early treatment of new infestations
- Containing and controlling established infestations.

4. Implement the White River National Forest's Noxious Weed Implementation Guide.

B.1.9 Social

American Indian Rights & Interests

Standard

1. Protect important cultural areas for current and future tribal use by recognizing the cultural landscape and geographic diversity left by Ute ancestors and acknowledging intellectual property rights.

Guidelines

1. Consult with American Indian people when projects have the potential to affect cultural rights and practices to help ensure the protection, preservation, and use of areas that are culturally important to tribes.

2. When possible, avoid physically affecting the integrity of traditional cultural properties including forest products collecting places.

Heritage Resources

Standards

1. Conduct all land management activities in such a manner as to comply with all applicable federal, state and local regulations. Many heritage resources values can be protected effectively through application of the provisions of these regulations:

- National Historic Preservation Act of 1966 (PL 89-665, as amended)
- Native American Grave Protection and Repatriation Act (NAGPRA) (PL 101-601)
- American Indian Religious Freedom Act of 1978 (PL 96-341)
- Religious Freedom Restoration Act of 1993 (PL 103-141).

2. Leave human remains undisturbed unless there is an urgent reason for their disinterment. In case of accidental disturbance of historic graves, or reinterment, follow the appropriate tribal policies, state policies and forest policies. Forest policies are contained in the *Burial Policy for the White River National Forest*, as well as the Southern Ute Indian Tribe's *Burial Policy for the Protection of Burial Sites, Human Remains and Funerary Objects*.

Guidelines

1. Protect heritage resources from damage by project activities or vandalism through project design, specified protection measures, monitoring and coordination.

Scenery Management

Guidelines

1. Management activities should be designed and implemented to achieve, at minimum, the level of scenic integrity shown on the scenic integrity objective map. See the scenery section in Chapter 3 of the FEIS for definitions of scenic integrity levels.

2. Rehabilitate all existing projects and areas that do not meet the scenic integrity objectives. Set priorities for rehabilitation considering the following:

a. Relative importance of the area and the amount of deviation from the scenic integrity objectives;

b. "Foreground" of high public use areas has highest priority;

c. Length of time it will take natural processes to reduce the visual impacts so that

they meet the scenic integrity objective(s);

d. Length of time it will take rehabilitation measures to meet the scenic integrity objectives; and

e. Benefits to other resource management objectives to accomplish rehabilitation.

3. Plan, design, and locate vegetation manipulation on a scale that retains the color and texture of the landscape character, borrowing directional emphasis of form and line from natural features.

4. Choose facility and structure design, scale, color of materials, location, and orientation to meet the scenic integrity objective on the Scenic Integrity Objective Map.

5. Facilities, structures, and towers with exteriors consisting of galvanized metal or other reflective surfaces will be treated or painted dark non-reflective colors that blend with the forest background to meet an average neutral value of 4.5 or less as measured on the Munsell neutral scale.

B.1.10 Administrative

Travel System Infrastructure

Standards

2. Close and rehabilitate temporary roads when no longer needed for project purposes.

3. Designated or new travelways are open to appropriate motorized or mechanized use unless a documented decision shows that:

- Motorized use conflicts with forest plan objectives;
- Motorized use is incompatible with the recreation opportunity spectrum classification;
- Travelways are in areas closed to motorized or mechanized use;
- Travelways are not designated routes;
- Motorized use creates user conflicts that result in unsafe conditions unrelated to weather conditions;
- Physical characteristics of travelway(s) preclude any form of motorized use;
- Travelways do not serve an existing or identified future public need;
- A seasonal restriction has been issued.

4. On lands that are snow-free, prohibit motorized and mechanized travel outside of designated travelways. Exemptions are only allowed by an order signed by the Forest Supervisor or Regional Forester for:

- Administrative, emergency, law enforcement, or land management needs; or
- Special use permits and contracts.

Guidelines

1. Consider seasonal restrictions for travelways if:

- Use causes unacceptable damage to soil and water resources due to weather or seasonal conditions;
- Use causes unacceptable wildlife conflict or habitat degradation;
- Use results in unsafe conditions due to weather conditions;
- The area accessed has a seasonal need for protection or non-use; or

- It is necessary to resolve conflicts between users.

6. Emphasize public safety in the development and use of the travel system.

7. Design roads to minimize visual and environmental impacts where possible.

Roadless Areas

Guidelines

1. Management activities in inventoried roadless areas should emphasize long-term maintenance of roadless characteristics and:

- habitat improvement for threatened, endangered, proposed, or sensitive species; or
- maintenance and restoration of ecosystem composition and structure, such as reducing the risk of uncharacteristic wildfire effects or threat of insect or disease epidemics.

B.2 White River National Forest Management Area Standards and Guidelines

B.2.1 Forested Flora and Fauna Habitats (5.4)

Theme

These areas are primarily forested ecosystems intermingled with grassland and shrub communities, and are managed to provide a mix of ecological and human needs. These needs include wildlife and aquatic habitats, livestock forage, and forest products. These areas also provide for recreational opportunities, scenic quality, and a variety of other miscellaneous goods and services.

Management Area Description

Ecological conditions for forested and non-forested ecosystems are maintained and restored, while emphasizing selected biological structures and compositions considering the area's historical range of variability (HRV). The structures and compositions are a result of past and present natural forces such as fire, insects, disease, and human management activities.

Visitors can expect to see other people and evidence of human activities including silvicultural treatments and domestic livestock. Visitors may expect to see managed but natural-appearing stands of trees with cut or burned areas showing soil disturbance, snags, tree stumps, slash, landings, or skid trails. Visitors can find dispersed recreation opportunities including both motorized and non-motorized, although they may also find that access is restricted, at times, through the use of seasonal or year-long road closures. Human use is often high during fall hunting seasons.

Desired Condition

These areas provide for a variety of forest and non-forest plant communities and successional stages, over the long term, through a combination of human manipulation and natural processes. Management activities are influenced by biological processes found in the area, and strive to replicate local natural vegetation patterns and patch size (HRV). Vegetation management is designed to simulate natural disturbances, thus silvicultural treatments may be larger than 40 acres in size. Vegetation composition and structure exist in a range of successional stages to meet wildlife and aquatic habitat, livestock forage, and forest product objectives. Timber harvest rotation ages will pattern historical ranges of variability. Management activities will provide adequate late-successional structure components in forested stands and will maintain fire-dependent ecosystems over the long term.

A full range of silvicultural prescriptions may be employed that includes timber harvest and prescribed fire management, in which both focus on long-term desired conditions. In areas where timber harvest is

planned, rotation periods may be longer and entries less frequent than traditional approaches. Habitat for sensitive species will be protected and maintained, and may be enhanced where opportunities exist. Management activities provide for healthy aquatic ecosystems. Stabilization or restoration concepts are applied to areas of the forest in which natural disturbance or past management has reduced desired resource conditions. Range improvements are designed to be compatible with wildlife and aquatic life.

Insects and disease generally are accepted unless they threaten ecosystems that are providing important habitat components. Recreation management activities are compatible with other resource values. The area has a road and trail system. Some roads are closed seasonally; others are closed after timber harvest is complete. Temporary roads are preferable to permanent roads for the removal of forest products. For information on HRV see the Introduction to Category 5 on page 3-52.

The recreation opportunity spectrum (ROS) for this management area is semi-primitive motorized in the summer and semi-primitive non-motorized or semi-primitive motorized in the winter. Scenery is managed to provide a range of scenic integrity objectives from low to moderate.

Standards and Guidelines

Infrastructure

Guidelines

1. New roads and trails needed to implement management in the area should be low-standard, single-purpose roads.

2. Travelways open to motorized travel will not exceed an average travelway density of two miles per square mile.

Roadless

Guideline

1. Minimize road construction in inventoried roadless areas, emphasizing temporary roads over permanent roads. Roads will only be constructed when necessary to meet management area objectives and only after other options have been examined for feasibility.

Wildlife

Guideline

1. Protect, enhance, and restore habitat for native fishes.

B.2.2 Forested Landscape Linkages (5.5)

Theme

These areas are managed as key landscape linkages. They provide areas for landscape-scale movement, migration, and dispersal of forest carnivores and other wide-ranging wildlife species. These areas provide safe travel connections between large blocks of forested landscapes across the forest. They provide security from intensive recreational and other human disturbances.

Management Area Description

These areas are intended to provide landscape-level linkages between forested landscapes across the White River National Forest. They are generally found in areas of conifer cover types adjacent to natural or human-created constrictions of forested ecosystems. They may provide secure movement zones to connect portions of the forest that have land allocations providing a high level of habitat protection or security, such as designated wilderness. They may also be designed to provide movement pathways through areas with adjacent high human development or disturbances.

There is light or minimal impact from human use in these areas. Natural processes generally predominate; however, vegetation may be managed to enhance denning or foraging habitat characteristics for target species, such as lynx, marten, or wolverine. Recreation huts or other developed recreation sites may be present, but are not common. Habitat management activities will be based on the best scientific information available.

Desired Condition

The maintenance of dense, undisturbed, closed-canopy conifer stands that provide security habitats for landscape-scale forest carnivore movement, migration, and dispersal between forested landscapes is emphasized.

Lynx key linkage areas will be managed to provide elements of habitat security in conifer forests. The desired vegetation condition is generally dense, interconnected blocks of late successional conifer cover types (primarily spruce and fir species) intermixed with patches of seedling to pole-sized trees (mainly lodgepole pine). The dense conifers provide lynx hiding and denning cover. The early seral forest vegetation provides habitat for the snowshoe hare, an important prey species for the lynx.

Wolverine areas will be managed to provide habitat security from human disturbances, especially during spring maternity periods. Vegetation in these areas is mainly large, dense, interconnected, late-successional spruce-fir stands.

Management of these areas will provide benefits for carnivores, as well as for other wildlife species with large home ranges. These areas are not designed to provide all denning, foraging, maternity, or reproductive areas necessary for lynx, marten, wolverine, or other wide-ranging species survival, but rather to provide secure habitats in which these species can safely move across and between forested landscapes where natural or human-created constrictions have been identified.

Natural biological processes and conditions influence vegetation composition and structure. Prescribed fire is used where appropriate to create or renew desirable habitat conditions and may be used to mimic natural disturbance regimes. The maintenance and protection of security habitats is emphasized in all management activities.

Vegetation may be managed to provide foraging habitat characteristics for wildlife species requiring these forested landscape connections. The landscape is primarily natural-appearing.

Roads and trails exist to provide resource management and recreational access. Road densities and motorized and mechanized uses are managed at or below current levels to reduce disturbances. These areas provide mostly non-motorized, backcountry recreation opportunities. Motorized portions may include some seasonal travel restrictions. Dispersed recreation may be regulated in the area to maintain use at or below current levels and patterns. Existing huts and developed recreation sites are managed within current site capacities. For information on HRV see the Introduction to Category 5 on page 3-52.

The recreation opportunity spectrum (ROS) for this management area is primitive, semi-primitive non-motorized, or semi-primitive motorized year-round. Scenery is managed to provide a range of scenic integrity objectives from moderate to very high.

Standards and Guidelines

Biodiversity

Guideline **1.** Management activities replicate biological processes found in the area and strive to replicate natural vegetation patterns and patch size.

Infrastructure

Standards **1.** Designated travelways are open to motorized and mechanized travel when such use is compatible with the area objectives.

Guideline **1.** Roads needed to implement management in the area should be low-standard, single-purpose roads and should be closed or decommissioned following management activities.

2. Development of new recreation facilities and expansion of existing facilities will be discouraged.

3. Open motorized and mechanized travelway density will not increase.

Inventoried Roadless

Guideline **1.** Management activities in inventoried roadless areas should emphasize long-term maintenance of roadless characteristics and: habitat improvement for threatened, endangered, proposed, or sensitive species; or maintenance and restoration of ecosystem composition and structure such as reducing the risk of uncharacteristic wildfire effects or threat of insect or disease epidemics.

Wildlife

Standard **1.** Habitat management goals are developed in coordination with the U.S. Fish and Wildlife Service and owners of intermingled and adjacent private lands to minimize resource conflicts on and off National Forest System lands.

B.2.3 Developed Recreation Complexes (8.21)

Theme

These areas contain developed recreation sites that provide an array of recreational opportunities and experiences in a forested environment. These types of areas also include the surrounding terrain, resulting in an attractive setting for the developments.

Areas are managed to provide a variety of recreation opportunities in multiple-site, highly developed recreation complexes.

Management Area Description

Areas such as campgrounds, day-use areas, swimming beaches, visitor centers, marinas, boat launches, trailheads, scenic overlooks, interpretive sites, groups of recreation residences, winter sports sites, Nordic centers, and resorts may be present. As such, major site modifications and facility installations are expected. These areas may appear singly or in combination at recreational complexes, although this management area is not applied to individual campgrounds.

These areas may include both private and public facilities located on National Forest System lands. Roads, trails, and sometimes highways are often clearly evident. Roads and recreation sites may be paved. Trails are generally highly maintained and may be surfaced. There may be evidence of bare and compacted soil, erosion, litter, or other associated disturbances outside of designated use areas and travelways.

Recreation opportunities occur in an intensively managed, highly regulated environment modified to accommodate a high level of interaction among users. There are few, if any, opportunities for solitude. On-site regulation and control are obvious, but harmonize with the natural setting to the extent possible. Multiple information stations and kiosks provide visitors with area information. Directional and regulatory signs are widely used to identify requirements for use of the area. Entrance stations may be present.

Desired Condition

Recreation facilities are developed and maintained to provide a variety of high quality recreational experiences in a primarily natural setting. The level of development is commensurate with demand and visitor expectations. Vegetation communities are maintained or improved to provide an eye-pleasing appearance for visitors, complement the recreation values, and provide varied structural stages and plant communities. The areas will provide access and parking to sites, natural attractions, water features, or areas that provide desired recreation opportunities such as camping, hiking, bicycling, skiing, snowmobiling, fishing, and scenic driving.

The health, sustainability, and appearance of communities are emphasized because of their desirability for recreational use. This includes manipulating vegetation to accommodate both existing and new facilities. Control of insect and disease populations is featured. Riparian communities and aquatic ecosystems are managed to provide safe recreation access and prevent unacceptable resource damage. Opportunities are available for viewing birds. Many areas offer opportunities for recreational fishing. For information on HRV see the Introduction to Category 8 on page 3-80.

The recreation opportunity spectrum (ROS) for this management area is roaded natural or rural in the summer and semi-primitive non-motorized, semi-primitive motorized, roaded natural, or rural in the winter. Scenery is managed to provide a range of scenic integrity objectives from low to moderate.

Standards and Guidelines

Infrastructure

Guidelines **3.** Provide dust abatement and maintenance on roads and camping spurs to enhance or maintain the safety and quality of the recreational experience.

Scenery Management

Guideline **1.** Facilities may dominate, but must harmonize and blend with the adjacent landscape.

B.2.4 Ski Areas – Existing and Potential (8.25)

Theme

Ski areas are developed and operated by the private sector to provide opportunities for intensively managed outdoor recreation activities during all seasons of the year. This management area also includes areas with potential for future development.

Management Area Description

Ski areas provide winter sports activities and other intensively managed outdoor recreation opportunities for large numbers of national and international visitors in highly developed settings. In some areas, use in the summer may be as intensive as in the winter.

This management area includes existing resorts that have already been permitted and developed, as well as additional suitable terrain into which development is planned for the future.

Desired Condition

Management areas are characterized by a vegetational mosaic that includes natural and man-made grassy openings intermixed with forested or partially forested areas and rocky outcroppings. Forested areas are managed as sustainable cover with a variety of species and age classes in patterns typical of the natural landscape character of the area. Vegetation is managed to avoid catastrophic changes that could result from windthrow, insects, disease, or fire. Disturbed areas are revegetated to protect scenery and minimize erosion.

Protection of scenic values is emphasized through application of basic landscape aesthetics and design principles, integrated with forest management and development objectives. Reasonable efforts are made to limit the visibility of structures, ski lifts, roads, utilities, buildings, signs, and other man-made facilities by locating them behind landform features or by screening them behind existing vegetation. Facilities are architecturally designed to blend and harmonize with the national forest setting as seen from key viewpoints. Facilities that no longer serve a useful purpose are removed.

Recreational uses are intensively managed during the summer and winter seasons. Appropriate facilities are those that are directly related to the operation and support of skiing activities. Facilities may be intensively used throughout the year to satisfy a variety of seasonal recreational demands. Encounters between individuals and human sounds may be frequent, but vary by time of day and season.

Contacts with Forest Service personnel may be common, generally for the purpose of providing information and monitoring compliance with the terms and conditions of the special use permits. Opportunities for solitude are limited.

Transportation systems provide convenient access to National Forest System lands in key portal locations with adequate public parking, base facilities, and community infrastructure. Base areas that serve as entrance portals are designed as gateways to public lands. They are architecturally designed to blend with the forest setting and contain convenient facilities and services that provide for the needs of forest visitors.

Mountain roads and trails, constructed by the permit holder to serve a variety of uses, are subject to seasonal closure. Motorized equipment may be used in constructing, maintaining, and operating facilities and managing public use, where appropriate. Directional, regulatory, and informational signs are common. They are consistent with the resort sign plan and they foster safe use, identify routes, and provide visitor information.

A Master Development Plan (MDP) is part of each ski area's special use permit. The MDPs are prepared by the permit holder and accepted by the Forest Service. They describe the improvements and facilities that are authorized at each resort and are the guiding document used to describe the expected future condition for the resort. These plans encompass all the area authorized for use by the special use permit including areas that are, at present, undeveloped. Areas allocated are managed to avoid deterioration of site conditions that may detract from planned uses. For information on HRV see the Introduction to Category 8 on page 3-80.

The recreation opportunity spectrum (ROS) for this management area is rural year-round. Scenery is managed to provide a range of scenic integrity objectives from very low to low.

Standards and Guidelines

Infrastructure

Standard

1. Permanent outdoor advertising is not a needed public service and is not allowed.

Guidelines

1. Facilities are designed with an architectural theme intended to blend facilities with the natural environment.

2. Vegetation is retained to screen facilities from key viewpoints.

3. Roads are designed to minimize visual and resource impacts. They are constructed and maintained with good alignments and grades that minimize erosion.

4. Motorized travel is prohibited, except when authorized by special use permit or for administrative or emergency purposes.

Soils

Standards

1. Effective ground cover (mulch) upon completion of ground disturbing activities will meet minimum levels of the pre-treatment habitat type (Hess and Wasser, 1982) as shown in **Table 1**.

Table 1. Effective Ground Cover by Habitat Type

Habitat Type (group)	Minimum Ground Cover %
Aspen	95
Lodgepole Pine	90
Spruce-Fir	95

Mitigation measures will be determined on a case-by-case basis in the alpine component to protect against erosion.

Guideline

1. Ground cover, as a combination of revegetation and mulch applications, should meet the requirements in **Table 2**, one and two years following completion of ground disturbing activities.

Table 2. Effective Ground Cover by Erosion Hazard Class

Erosion Hazard Class	Year 1 Minimum Effective Ground Cover %	Year 2 Minimum Effective Ground Cover %
Low	20-30	30-40
Moderate	30-45	40-60
High	45-60	60-75
Very High/Severe	60-90	75-90

Recreation

Guidelines

1. Resource management activities should minimize impacts to recreational resources within existing permitted sites and areas planned for future development.

2. Uses and activities are considered appropriate on National Forest System lands if they enhance natural resource-based recreation opportunities. Facilities are considered appropriate if the preponderance of revenues generated from those facilities is by skiers and snowboarders during the winter season.

Water and Aquatic Resources

Standards **2.** Snowmaking and other water depletions will be conducted in a manner that conserves stream pattern, geometry, substrate composition, and aquatic habitat in affected perennial streams.

Threatened Species - Lynx

Note: See page 2-18 for an explanation of how this direction will be implemented.

Standard **1.** When developing large winter recreation facilities, design new trails, roads and lift termini to protect lynx diurnal security habitats in and around proposed developments or expansions.

B.3 Arapaho and Roosevelt National Forests and Pawnee National Grasslands Land Resource Management Plan – 1997 Revision

The *Arapaho and Roosevelt National Forests and Pawnee National Grasslands Land and Resource Management Plan – 1997 Revision* (United States Forest Service, 1997) provides goals, standards, and guidelines for land management activities in the Arapaho and Roosevelt National Forests.

B.3.1 Section Two - Operational Goals, Standards and Guidelines

Conformance with Other Direction

Additional direction is contained in the *Forest Service Manual* and the *Forest Service Handbook*. A partial listing of some of the direction is contained in Appendix A, Environmental Analysis and Data, and Appendix B, Transportation Analysis and Data, to this *Forest Plan*. If new changes are made in the Forest Service directives system that conflict with the standards and guidelines of this *Forest Plan*, the *Forest Plan* will be amended.

The ARNF-PNG will continue to manage for multiple uses, meet all legal requirements to protect the environment and insure healthy ecosystems consistent with Congressional and public intent. Soil, air, and water resources will be protected. Threatened and endangered species and their habitat will be evaluated and managed according to the Endangered Species Act. Habitat will be maintained or improved for designated management indicator species. Water and soil resources will be managed to meet the requirements of the Clean Air and Clean Water Acts. These basic management tenets are written in law and in Forest Service policy, and are part of the everyday work of Forests and Grassland employees.

Operational Goals, Standards and Guidelines

Standards (ST) and guidelines (GL) are grouped according to the outline below (Please note Goals (GO) will be addressed during Tier 2 analysis).

B.3.2 Part 1: Physical Resources

Air

2. (ST) Conduct all land-management activities in such a manner as to comply with all applicable federal, state, and local air-quality standards and regulations.

Water Resources

Hydrologic function	**4.** (ST) Manage land treatments to conserve site moisture and to protect long-term stream health from damage by increased runoff.
	5. (ST) Manage land treatments to maintain enough organic ground cover in each land unit to prevent harmful increased runoff.
Riparian areas and wetlands	**7.** (ST) In the water influence zone next to perennial and intermittent streams, lakes, and wetlands, allow only those land treatments that maintain or improve long-term stream health.
	8. (ST) In watersheds containing aquatic TES species, allow activities and uses within 300 feet or the top of the inner gorge (whichever is greatest), of perennial and intermittent streams, wetlands, and lakes (over 1 acre) only if onsite analysis shows that long-term hydrologic function, channel stability, and stream health will be maintained or improved.
	9. (ST) Design and construct all stream crossings and other instream structures to pass normal flows, withstand expected flood flows, and allow free movement of resident aquatic life.
	10. (ST) Conduct actions so that stream pattern, geometry, and habitats are maintained or improved toward robust stream health.
	11. (ST) Do not degrade ground cover, soil structure, water budgets, and drainage patterns in wetlands.
Erosion and sediment	**15.** (ST) Limit roads and other disturbed sites to the minimum feasible number, width, and total length consistent with the purpose of specific operations, local topography, and climate.
	16. (ST) Construct roads and other disturbed sites to minimize sediment discharge into streams lakes, and wetlands.
	17. (ST) Stabilize and maintain roads, trails, and disturbed sites during and after construction to control erosion.
	18. (ST) Reclaim roads and other disturbed sites when use ends, as needed, to prevent resource damage.
Soil productivity	**19.** (ST) Manage land treatments to limit the sum of severely burned and detrimentally compacted, puddled, and displaced land to no more than 15 percent of any land unit (*FSH* 2509.18). If a soil is compressed more than 15 percent or if the soil pore space is decreased more than 15 percent as compared to a soil of similar texture then the soil is detrimentally compacted.
Watershed conservation practices—water purity	**20.** (ST) Maintain or improve long-term levels of organic matter and nutrients on all lands.
	21. (ST) Place new sources of chemical and pathogenic pollutants where such pollutants will not reach surface or ground water.

22. (ST) Apply runoff controls to disconnect new pollutant sources from surface and ground water.

23. (ST) Apply chemicals using methods which minimize risk of entry to surface and ground water.

24. (GL) Where there is the potential for toxic contamination of soil from ground disturbing activities (for example oil or gas drilling, mineral exploration), a contingency plan to prevent or rehabilitate soil contamination should be developed.

Mineral and Energy Resources

Paleontological resources

30. (ST) Sensitive paleontological information will not be subject to *Freedom of Information Act* disclosure.

31. (ST) Protect from disturbance or mitigate disturbances of known paleontological resources to conserve scientific, educational, interpretive, and legacy values.

32. (ST) Mitigate areas of potential paleontological resources in Classes 3, 4, and 5 of the Fossil Yield Potential Classification to identify presence or absence of management-relevant paleontological resources. If resources are identified, mitigate to Standard 1.

33. (ST) Survey and post land boundaries where paleontological sites have sensitivity rankings of 3, 4, or 5.

B.3.3 Part 2: Biological Resources

Biodiversity

Landscape linkages

40. (GL) Protect landscape linkage areas (patterned matrix, corridors, stepping stones, etc.) which facilitate multidirectional movement of species between important habitats such as late-successional forests, high-elevation tundra, meadows and forests, lower-elevation forests, shrublands and prairies.

Special habitats

41. (GL) Protect communities of special concern such as: talus slopes, caves, springs, seeps, wetlands, aquatic habitats, riparian habitats, shortgrass prairies, late-successional forests and alpine tundra (including the ecotone and sufficient buffer areas).

Structure

43. (GL) When managing vegetation, maintain edge contrasts and edge-to-interior ratios which mimic edge conditions that would result from natural disturbance regimes (fire, insect and disease infestations).

Endangered, threatened and sensitive species

49. (ST) Where newly discovered threatened, endangered, proposed, or sensitive species habitat is identified, conduct an analysis to determine if any adjustments in the *Forest Plan* are needed.

50. (ST) Manage activities to avoid disturbance to sensitive species which would result in a trend toward federal listing or loss of population viability. The protection will vary depending on the species, potential for disturbance, topography, location of important habitat components and other pertinent factors. Special attention will be given during breeding, young rearing, and other times which are critical to survival of both flora and fauna.

51. (ST) Close areas to activities to avoid disturbing threatened, endangered, and proposed species during breeding, young rearing, or at other times critical to survival. Exceptions may occur when individuals are adapted to human activity, or the activities are not considered a threat.

Conservation of genotypes

54. (ST) Use genetically local (at the sub-section level), native plant species for revegetation efforts where technically and economically feasible. Seed mixtures should be weed free. To prevent soil erosion, use non-native annuals or sterile perennial species while native perennials are becoming established.

Silviculture/ timber

62. (ST) When trees are to be harvested on other than suitable lands, exceptions to the five-year restocking standard are appropriate as documented in project decisions when the harvest meets one of the following criteria:

a. For permanent openings that serve specific management direction

b. Where provided for in specific management practices and prescriptions

c. Where it is desirable to delay the onset of regeneration of crown closure to meet specific desired conditions and management objectives

64. (ST) Utilization standards for live and dead trees are shown in **Table 3**.

Table 3. Timber Utilization Standards

Type of Product	Minimum Diameter at Breast Height (Inches)	Top Diameter (Inches)	Minimum Length (Feet)	Percent Net of Gross
Live Trees				
Coniferous Sawtimber	7	6	8	33 1/3
Aspen Sawtimber	8	6	8	50
Products Other Than Sawtimber	5	4	6.5	50
Dead Trees				
Sawtimber	8	7	16	33.3
Products Other Than Sawtimber	5	4	6.5	50

Wildlife

93. (GL) Management Indicator Species. Providing for viability of native and desired non-native vertebrate animal populations is a management tenet that transcends management area and functional activity boundaries. To aid this goal, management indicator species have been identified to represent communities on the Forests and Grassland. Monitoring of these species will be done throughout the life of the *Plan*. For monitoring requirements see the *Forest Plan* Chapter 4 and Appendix G.

Arapaho and Roosevelt National Forests Management Indicator Communities and Indicator Species. (See *Forest Plan* Appendix G, Section One for detailed information on these species.):

- Existing and Potential Old Growth Forest:
  - Northern three-toed woodpecker
  - Flammulated owl
  - Pygmy nuthatch

- Interior Forest:
  - Black bear
  - Golden-crowned kinglet
- Young to Mature Forest Structural Stages:
  - Elk
  - Mule deer
  - Hairy woodpecker
- Openings Within/Adjacent to Forest:
  - Elk
  - Mule deer
  - Bighorn sheep
  - Mountain bluebird
- Aspen Forest:
  - Warbling vireo
- Montane Riparian Areas and Wetlands:
  - Wilson's warbler
  - Northern leopard frog
  - Boreal toad
- Montane Aquatic Environments:
  - Greenback cutthroat trout
  - Colorado River cutthroat trout
  - Brook Trout
  - Brown Trout
  - Rainbow Trout

Arapaho and Roosevelt National Forests Special Habitat Community and Indicator Species:

- Caves/Mines:
  - Townsend's big-eared bat

Pawnee National Grassland Management Indicator Communities and Species:

- Shortgrass Prairie:
  - Ferruginous hawk
  - Mountain plover
- Midgrass Prairie:
  - Ferruginous hawk
  - Lark bunting
- Prairie Dog Towns:
  - Prairie dog
  - Western burrowing owl

- Prairie Riparian Areas and Wetlands:
  - Northern leopard frog
- Prairie Aquatic Environments:
  - Plains topminnow
  - Plains killifish

Pawnee National Grassland Special Habitat Community and Indicator Species:

- Prairie Woodlands:
  - Mule deer
  - Brown thrasher

Federal and State Endangered or Threatened Species Known to Occur on National Forest System Lands that may be Affected by Land and Resource Management (species not already selected for management indicator communities):

- American peregrine falcon
- bald eagle
- wolverine
- river otter
- lynx
- wood frog

Terrestrial

96. (ST) Restrict seasonal use of travelways (under Forest Service jurisdiction) to reduce disturbance in sensitive big game areas such as birthing areas and winter ranges. This does not imply that all birthing areas and winter ranges are considered equally important, and not all will be considered "susceptible."

97. (ST) Structures, such as fences, roads, and canals, will be designed and built so that they do not create unreasonable or unnecessary movement barriers or hazards for wildlife.

98. (ST) Do not compromise wildlife habitat values when developing watchable wildlife opportunities for the public.

99. (ST) In riparian areas, cover that provides wildlife travel corridors will be maintained along the entire length of riparian zones on at least one side of the drainage. New corridor interruptions affecting both sides of the drainage will be of minimum width needed and no more than 60 feet.

100. (ST) Manage human disturbance at caves and abandoned mines where bat populations exist. When closing mines or caves for safety or protection reasons, reduce disturbance to residing bat populations and provide bat access.

101. (ST) Protect known raptor nest areas. Base the extent of protection on proposed management activities, human activities existing before nest establishment, species, topography, vegetative cover, and other factors. A no-disturbance buffer around active nest sites will be required from nest-site selection to fledgling (generally March through

July). Exceptions may occur when individuals are adapted to human activity.

102. (ST) Restrict new developments, including new facilities, roads and trails, and concentrations of humans, within a one-mile sight distance of bighorn sheep lambing and mountain goat kidding areas if they would adversely impact lambing or kidding. Restrictions on activities are usually required from May 1 to July 15.

103. (GL) Maintain the function of key or unique habitats such as primary feeding areas, winter ranges, riparian habitat, breeding areas, birthing areas, rearing areas, migration corridors, animal concentration areas, wooded draws, and riparian areas. Human disturbance should be minimized during periods critical for wildlife.

104. (GL) In riparian areas where cover that would provide wildlife travel corridors does not presently exist due to past human activities, such areas should be managed to provide corridors in the future along the entire length of riparian zones, on at least one side of the drainage. Corridor interruptions affecting both sides of the drainage should be of minimum width needed and no more than 60 feet in length. Interruptions affecting one side of a drainage should be no greater than 300 feet (parallel to the drainage).

106. (GL) Exclude human activity in key elk-calving areas during a minimum period of May 15 to June 15 and in key winter range of elk and deer for a minimum period of December 1 through March 30 with the exception of through routes.

107. (GL) Avoid disconnecting or severing intact areas of effective habitat with new open roads and trails. Favor seasonal use during noncritical times for wildlife when this cannot be avoided.

108. (GL) When developing new open roads and trails, do not reduce contiguous areas of effective habitat to less than 250 acres or further reduce effective habitat of 20 to 250 acres in size, except where access is required by law. See the *habitat effectiveness map* enclosed with this document.

109. (GL) Additional open roads and trails should not reduce effective habitat below 50 percent by geographic area, or further reduce effective habitat in geographic areas that are already at or below 50 percent on NFS lands. See geographic area direction in Chapter Three.

Aquatic

112. (GL) Provide natural and beneficial quantities of large woody debris to support high quality aquatic habitats over the short and long term.

113. (GL) Rehabilitate aquatic habitats where past management activities have adversely affected their ability to support fish populations.

114. (GL) Maintain sediment in streams below levels which reduce reproductive success when compared to natural conditions or cause decline in biomass or community diversity of macroinvertebrates.

115. (GL) To prevent conditions toxic to fish, human-caused disturbances should not result in suspended sediment peaks above 250 mg/l in any stream reach for over one hour duration in any stream reach, nor more than 500 mg/l at any point in time.

Late successional forests

118. (GL) Retain all existing Douglas-fir and ponderosa pine old growth and increase amounts in the future.

119. (GL) Retain some connectivity of existing forested corridors within identified map areas, and between old-growth sites that are not planned for harvest, or manage for future forested corridors where connectivity is potential but absent.

120. (GL) Maintain or increase habitat effectiveness within identified old growth areas and all old growth sites that are not planned for harvest.

121. (GL) Within existing ponderosa pine and Douglas-fir old-growth stands that are known or discovered, either exclude vegetation treatments or reduce fire hazards using prescribed fire or mechanical means if sites are at risk from fire (for example removal of encroaching Douglas-fir regeneration in ponderosa pine old growth sites).

122. (GL) Allow through vegetation protection, or encourage through vegetation treatments the development of future Douglas-fir and ponderosa pine old growth conditions within identified old-growth areas.

B.3.4 Part 3: Disturbance Processes

Undesirable Species

129. (ST) Control undesirable non-native and noxious plants throughout the Forests, with priority given to new species (new to Colorado or the ARNF-PNG), and to wilderness areas.

130. (ST) Use only certified "noxious weed-free" hay or straw for feed or revegetation projects anywhere on the ARNF-PNG.

131. (ST) For all proposed projects or activities, determine the risk of noxious weed introduction or spread, and implement appropriate mitigation measures.

132. (GL) Develop a noxious-weed and pest-management program that addresses awareness, prevention, inventory, planning, treatment, monitoring, reporting and management objectives.

Priorities for controlling noxious weeds are:

a. new invaders
b. new areas
c. spreading or expanding infestations
d. existing infestations

B.3.5 Part 4: Managing for Recreational Users

139. (GL) Manage vegetation in high-use recreational areas to provide for public safety and to improve forest health, as needed to maintain or improve the desired recreational settings(s).

Dispersed Recreation

Opportunities

142. (ST) Make facilities provided at trailheads consistent with the recreational setting and provide for parking, trail information, and appropriate sanitation facilities.

Management

145. (GL) If use exceeds the area's capacity for a given recreation opportunity spectrum (ROS) class, employ the following management actions, in order of priority, to address the impacts or effects on the recreational setting:

a. inform the public and restore or rehabilitate the site

b. regulate use

c. restrict the number of users

d. close the site

Developed Recreation

Development

149. (ST) Make facilities provided at trailheads consistent with the recreational setting and provide for parking, trailhead panels for trail information, and appropriate sanitation facilities.

150. (ST) At all new or reconstructed developed recreational sites, provide a range of universally-accessible opportunities within the limits of the site characteristics.

151. (GL) Provide readily available off-site and on-site information on recreational opportunities for developed sites.

Scenery Management

154. (ST) Prohibit management activities that are inconsistent with the visual-quality objective unless a decision is made to change the visual-quality objective. A decision to change the visual-quality objective will be documented in a project-level NEPA decision document.

155. (ST) The scenic classes, which are a measure of the relative importance or value of landscapes to people, are usually accepted as the base for visual-quality objectives unless special documented circumstances warrant a change.

156. (ST) A visual quality objective of Retention will be met within the foreground for all National Scenic and Recreation Trails.

157. (GL) Design and implement management activities to meet the adopted visual quality objective for the area as shown on the VQO Map enclosed with this document.

158. (GL) Rehabilitate all existing facilities and areas that do not meet the scenic-condition objectives specified for each management area. Set priorities for rehabilitation considering the following:

a. relative importance of the area and the amount of deviation from the scenic-condition objectives; "foreground" of high public-use areas has highest priority

b. length of time it will take natural processes to reduce the visual impacts so that they meet the scenic condition objective

c. length of time it will take rehabilitation measures to meet the scenic condition objectives

d. benefits to other resource-management objectives to accomplish rehabilitation

B.3.6 Part 5: Administration

Special Uses

168. (ST) Require burial of electrical utility lines of 33 kilovolts or less and telephone lines unless one or more of the following applies:

a. Visual quality objectives of the area can be met using an overhead line.

b. Burial is not feasible due to geological hazard or unfavorable geologic conditions.

c. Greater long-term site disturbance would result.

d. It is not technically feasible.

173. (GL) Do not authorize conflicting uses or activities within transportation and utility corridors.

174. (GL) Consolidate occupancy of transportation and/or utility corridors and sites wherever possible and compatible.

Infrastructure

Travelways

175. (ST) Protect or enhance trails to be retained as part of the designated travelway system during other resource projects, but relocate, reconstruct, or otherwise keep functional and maintain the ROS experience of those disrupted by other management activities. Give special consideration to nationally-designated trails.

181. (GL) Post past and probable flood heights near facilities in inventoried 100-year floodplains to provide visible warnings to the public about possible periodic flooding.

1. Not applicable.

2. Choose facility and structure design, scale, color of materials, location, and orientation to meet the scenic integrity objective on the Scenic Integrity Objective Map.

3. Facilities, structures, and towers with exteriors consisting of galvanized metal or other reflective surfaces will be treated or painted dark non-reflective colors that blend with the forest background to meet an average neutral value of 4.5 or less as measured on the Munsell neutral scale.

4. Rehabilitate areas classified as “unacceptable alteration” in the existing scenic integrity inventory to the scenic integrity objective on the Scenic Integrity Objective Map.

B.4 References

United States Forest Service. 1997. *Arapaho and Roosevelt National Forests and Pawnee National Grasslands Land and Resource Management Plan – 1997 Revision.*

----. 2002. *White River National Forest Land and Resource Management Plan – 2002 Revision.*

----. 2004. *Arapaho and Roosevelt National Forests and Pawnee National Grasslands, Forest Plan Amendment 4.* June.

----. 2005. *White River National Forest, Forest Plan Amendment 1.* March.

----. 2005. *Arapaho and Roosevelt National Forests and Pawnee National Grasslands, Forest Plan Amendment 5.* July.

----. 2005. *Arapaho and Roosevelt National Forests and Pawnee National Grasslands, Forest Plan Amendment 7.* September.

----. 2005. *Arapaho and Roosevelt National Forests and Pawnee National Grasslands, Forest Plan Amendment 8.* November.

----. 2006. *White River National Forest, Forest Plan Amendment 2.* January.

----. 2006. *Arapaho and Roosevelt National Forests and Pawnee National Grasslands, Forest Plan Amendment 9.* October.

Appendix C. United States Forest Service Special Use Permits

C. United States Forest Service Special Use Permits

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Appendix C. United States Forest Service Special Use Permits

The United States Forest Service permits certain forest land uses (compatible with their land classifications) for the following generalized categories: communications, developed recreation (downhill ski resorts), electric and gas utilities, water conveyance and storage, transportation easements, recreational residences and camps, data measurement stations, and outfitters. These forest uses are permitted through "special use permits" under the Federal Lands Policy Management Act. Existing special use permits in the immediate vicinity of the Corridor were identified based on information provided by the White River National Forest (Dillon and Holy Cross districts) and the Arapaho and Roosevelt National Forests (Clear Creek district) Forest Service Realty Specialists. The locations of these permits are shown on **Figure C-1** through **Figure C-3**. Because outfitting/guide special use permits generally require annual renewal and are not point location-specific (they may include general areas designated for use such as trailheads or large forest areas), these permits are not shown on the figures.

C.1 White River National Forest

C.1.1 Holy Cross District

Special use permits (except for outfitter/guide permits) within the Holy Cross District and in the vicinity of I-70 are shown on **Figure C-1**. Existing outfitter/guide permits are listed in **Table C-1** in association with permit use areas (trails, roads, and forest areas). These special use permits are listed in **Table C-1**, along with more specific information regarding the nature of the permitted land use.

Table C-1. Outfitter/Guide Special Use Permits – Holy Cross District

Permit Owner	Associated Trails/Trailheads/Roads	Associated Forest Areas
Beaver Creek Club	Trails in Eagles Nest & Holy Cross Wilderness Areas	Land surrounding Beaver Creek Resort
C Bar T Trail Ranch	Not available	Vail Pass area
Colorado Mountain College	Not available	Vail Pass area
Gore Range Natural Science School	Trails and roads in Holy Cross Ranger District	Not available
H&H Ranches, Inc. (Piney River Ranch)	Red Sandstone Road, Lost Lake Road	Piney River area
Meet the Wilderness	W&E Grouse Creek, Cross Creek, East Homestake Creek, Sopris Creek & Paradise Lakes, Beaver Creek, Piney River, Booth Creek, Camp Hale, Roof Rock, Homestake Road	Sopris, Dillon, & South Park Ranger Districts
Nova Guides, Inc.	Tigiwon Road, Lost Lake, Red and White Mountain, June Creek, Muddy Pass	Camp Hale and Vail Pass area
Paragon Guides	Routes to Huts	WRNF
Sonnenaip Resort of Vail	Most trails, Two Elk, Grouse Creek, June Creek, Berry Creek, Buffehr Creek, Middle Creek, Moniger Road, Red Sandstone Road	Eagles Nest and Holy Cross Wilderness Areas
Specialty Sports Ventures, LLC (Gore Creek Fly Fishermen)	Gore Creek, Booth Creek, Pitkin Creek, Bighorn Creek, Cross Creek, West Cross Creek	Piney area

Table C-1. Outfitter/Guide Special Use Permits – Holy Cross District

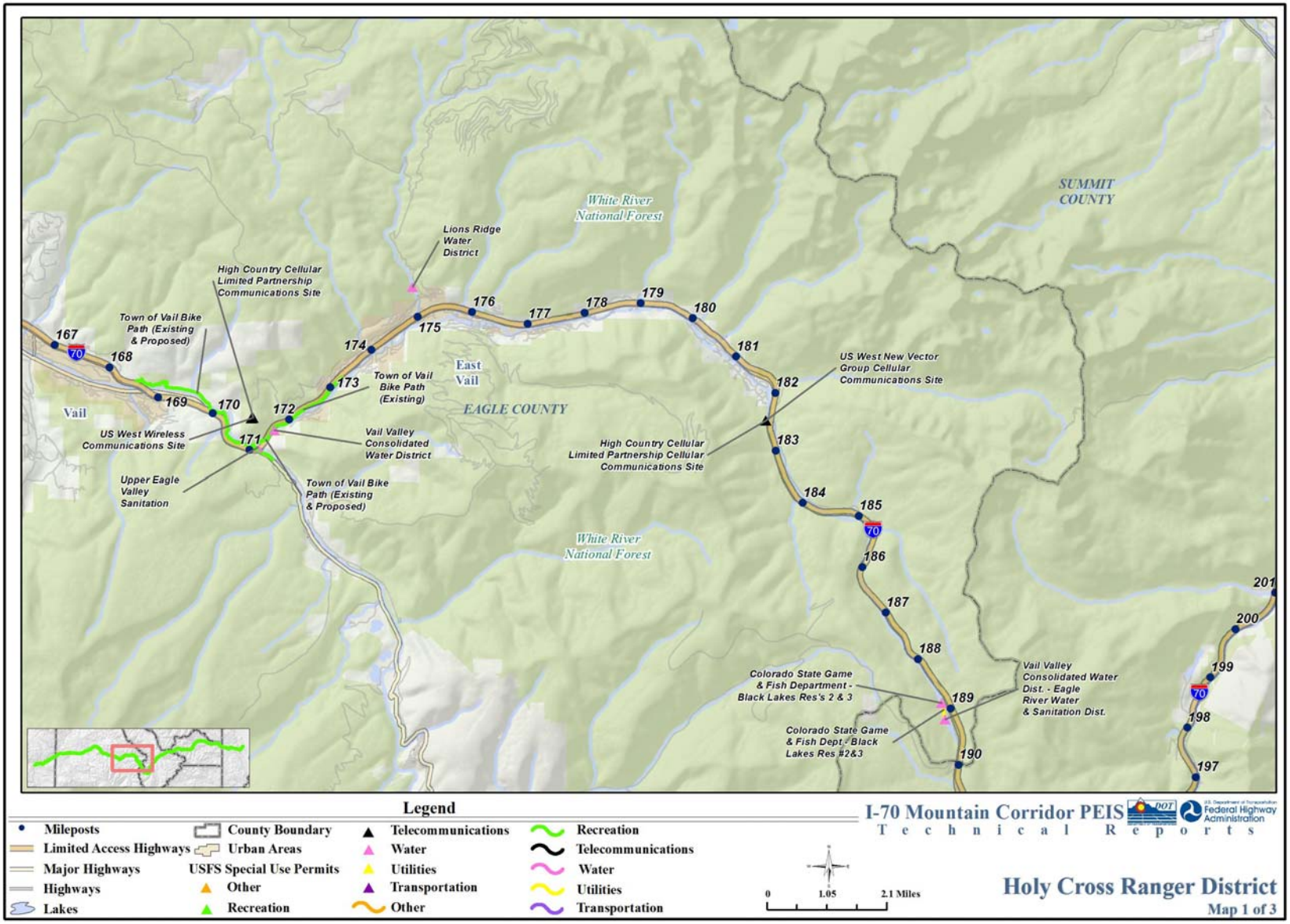
Permit Owner	Associated Trails/Trailheads/Roads	Associated Forest Areas
Spraddle Creek Ranch, Inc.	Not available	Spraddle Creek area and Middle Creek area
Tackle the Rockies	Trails	Eagles Nest and Holy Cross Wilderness Areas
Trail Wise Guides	Trails	Holy Cross Ranger District, excluding Camp Hale area
Vail and Beaver Creek Ski School	Trails, Spraddle Creek Road, trail to Bald Mountain, Middle Creek Trail, Lost Lake Road, Red Sandstone Road, Middle Creek Road, Mill Creek Road, Commando Run to Bowman's Short Cut, Shrine Pass Road, Meadow Mountain Trail, Whiskey Creek Trail, McCoy Park, No Name Road	Eagles Nest and Holy Cross Wilderness Areas, Camp Hale area, Tennessee Pass area, Ski Copper Ski Area
Vail Fishing Guides (Specialty Sports Ventures)	Gore Creek, Booth Creek, Pitkin Creek, Bighorn Creek, Cross Creek, West Cross Creek	Not available
Vail Nature Center	All service roads and trails	Holy Cross Ranger District (excluding Camp Hale/Tennessee Pass, Homestake Reservoir area)
Vail Rock and Ice Guides	East Vail frozen waterfalls	Not available
Vail Snow Cat Skiing, Inc.	Not available	Vail Pass, Wilder Gulch, Ptarmigan Hill, Machine Gun Ridge
Walk the Wilderness	Gore Creek, South Game Creek, Missouri Lake, Pitkin, Piney Falls, Bighorn, Cross Creek, Beaver Creek Mountain, Deluge, Stone Creek, Two Elk South, Beaver Lake, Meadow Mountain, 7 Sisters, Notch Mountain, Booth, Lake Constatine, East Grouse, Whitney, Vail Mountain hiking trails	Not available
Western Waters	Piney River (1885), Homestake Creek, Sandstone Creek, Black Lakes, Gore Creek	Not available
Highline Sports & Entertainment (Vail Ultra 100)	Muddy Pass Road, Moniger Road, Red and White Road, Red Sandstone Road, June Creek, Berry Creek roads	Not available
University of New Hampshire	Deluge Lake Trail, Fall Creek Trail	Not available
Vail Recreation District 1	Davos Road to radio towers	Not available
Vail Recreation District 6	Vail Ski Area mountain	Not available
Vail Valley Tourism & Convention Bureau	Eagle River: Dowd Chute, Holy Cross Ranger District office parking lot	Not available

Table C-2 includes additional descriptive information for the Holy Cross District special use permits shown on **Figure C-1**.

Table C-2. Mapped Special Use Permits – Holy Cross District

Permit Owner (West to East)	Permit Type	General Permit Description
Berry Creek Metropolitan District	Water and Sewer	9.78 acres/0.4 mile, golf driving range, sprinkler system, gas tank, pump pad, underground power, abandoned log cabin, 2,200 ft. of the Howard-Winslow ditch for irrigation
Town of Vail – Bike Path	Recreation	Easement for trail use, Dowd bike path
High Country Cellular Limited Partnership (Cellular One)	Communication	Lower Dowd Communications Site, 800 sq. ft. building, 80 ft. tower, security fence, propane tank
US West Wireless, LLC	Communication	Lower Dowd Communications Site, expires December 2023
Voice Stream PCS II	Communication	New permit
Upper Eagle Valley Sanitation	Water and Sewer	Buried sewage transmission lines, lift station at Minturn interchange
Vail Valley Consolidated Water District (Eagle River Water and Sanitation)	Water and Sewer	1.44 acres, 16 in. treated water supply pipeline serving Vail Valley and Eagle-Vail area
Lions Ridge Water District (Eagle River Water and Sanitation District)	Water and Sewer	Water storage tank and water lines, 0.87 acre/0.32 mile
Group Cellular Site (US West New Vector Group, High Country Cellular Limited Partnership (Cellular One))	Communication	0.5 acre, access road, 2 small buildings, 2 propane tanks, 1 pole for antennas, buried electric utility and phone line buried under access road
Colorado State Game and Fish Department	Water and Sewer	Black Lakes Reservoir No. 2 and No. 3 and area of structures, permit since 1955
Vail Valley Consolidated Water District (Eagle River Water & Sanitation District)	Water and Sewer	Black Lake No. 1 enlargement, Dam/Reservoir, 22 acres, expires 2011

Figure C-1. Special Use Permits (Except For Outfitter/Guide Permits) within the Holy Cross District of the White River National Forest



C.1.2 Dillon District

Special use permits (except for outfitter/guide permits) within the Dillon District, and in the vicinity of I-70 are shown on **Figure C-2**. Existing outfitter/guide permits are listed in **Table C-3** in association with permit use areas and activity descriptions. **Figure C-2** illustrates the location of other existing special use permits in the vicinity of I-70.

Table C-3. Outfitter/Guide Special Use Permits – Dillon District

Permit Owner	Associated Trails/Trailheads/Forest Areas	Associated Activities
Chinook Winds	Not available	Not available
Bar T Outfitters	NWNW section 26, T24N, R16E	Not available
DAL Outfitters	NWNW section 26, T24N, R16E	Horseback rides, hunting
Maverick Sports	Peninsula (Frisco Round-up), Gold Run Rush and Gibson Hill, Eisenhower Hill, Keystone Resort, Pennsylvania	Mountain bike races
Vail Snow-cat Tours	T6S, R79W, sections 16, 17, 18, 19, 20, 21, 31, 32	Snowmobiling
Nova Guides	Camp Hale, Tigiwon, Tigiwon Lodge, Black Lakes, Gore Creek, Eagle River, Lost Lake, Camp Hale Lake, Homestake Lake Homestake Creek, Gravel Pit Lakes, Sylvan Lake, Whitney Lake, Resolution Roads, Pearl Creek, East Fork Eagle River Road, McAllister Road, Mill Creek, Red and White Mountain, Moniger Pass, Buffehr Creek, June Creek, Muddy Pass, Red Sandstone Road, Tigiwon Road, No Name Gulch, Hornsilver Mountain, Wearymain, Turkey Creek/Shrine Pass, Ranch Creek	Not available
Colorado Mountain College	Not available	Not available
Vail Rock and Ice Guides	Not available	Rock and ice climbing

Table C-4 includes additional descriptive information for the Dillon District special use permits shown on **Figure C-2**.

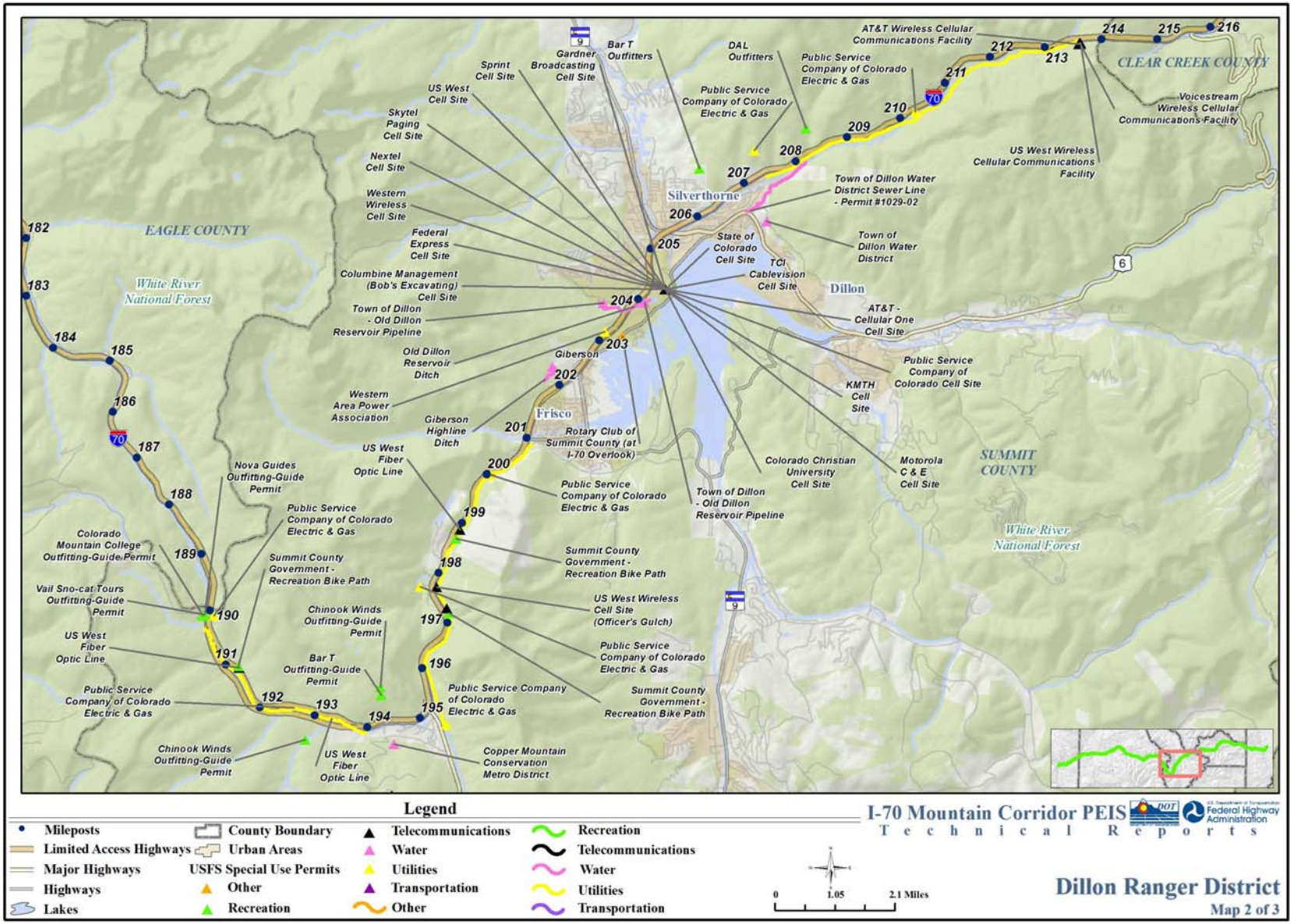
Table C-4. Mapped Special Use Permits – Dillon District

Permit Owner	Permit Type	General Permit Location and/or Description
Communications Facility (Voicestream Wireless, US West Wireless LLC, AT&T Wireless, Sprint)	Communications	West Eisenhower Tunnel
Group Cell Site (TCI Cablevision, Western Wireless, US West, Nextel, AT&T/Cellular One, Sprint, State of Colorado, Public Service, Motorola C&E, Columbine Management (Bob's Excavating), Colorado Christian University, Gardner Broadcasting, KMTH, Federal Express, Skytel Paging)	Communications	Lake Hill Cell Site
US West Wireless, LLC	Communications	Officers Gulch Cell Site
Group Cell Site (AT&T Wireless Services, Nextel Communications, Telecommunications Services, Western Wireless PCS II Corp., Copper Mountain, Inc., Tower Asset Sub, Inc., AirTouch Communications)	Communications	Copper Mountain Communications Site
US West	Communications	Fiber-optic lines, in bike path

Table C-4. Mapped Special Use Permits – Dillon District

Permit Owner	Permit Type	General Permit Location and/or Description
Public Service Company of Colorado	Electric	Dillon Substation distribution circuit
Public Service Company of Colorado	Electric	Tenmile distribution master permit, 4-25 kV transmission line
Public Service Company of Colorado	Electric	519.26 acres, 345 kV and 115 kV lines
Public Service Company of Colorado	Electric	4-25 kV transmission line, Snake River/Straight Ck. Distribution Master Permit
Public Service of Colorado	Electric and Gas	Gas lines
Western Area Power Association (WAPA) / Summit Trust	Electric	2.04 acres/0.67 mile, overhead 7.2 KV transmission line
Town of Dillon (East Dillon Water District)	Water utilities	County Road 5, pipeline, storage tank
Giberson	Water utilities	2045 feet of Giberson Highline Ditch starting at Meadow Creek
Copper Mountain Consolidated Metro District	Water utilities	0.25 acres/0.23 miles, water pipeline, 250,000-gallon water tank
Town of Dillon Water District	Water utilities	Old Dillon Reservoir pipeline, Dillon ditch, pipe under I-70
Town of Dillon	Sewer line	0.26 acre/0.15 mile, sewer line for Wildernest Subdivision
Intrawest US Resorts, Inc.	Recreation	Copper Mountain Resort, 7,343 acres
Summit County Government	Recreation	Bike path
Rotary Club of Summit County	Recreation	I-70 overlook, between Silverthorne and Frisco
Natural Resources Conservation Service	Monitoring	Hydrometeorological data collecting stations, SNOTEL facilities (dispersed locations, not shown on map)
Xcel Energy/Public Service Company of Colorado	Electric	Distribution line (to be built) from existing overhead lines in Straight Creek.

Figure C-2. Special Use Permits (Except For Outfitter/Guide Permits) within the Dillon District of the White River National Forest



C.2 Arapaho and Roosevelt National Forests – Clear Creek District

Special use permits (except outfitter/guide permits) within the Clear Creek District and in the vicinity of I-70 are shown on **Figure C-3**. Existing outfitter/guide permits are listed in **Table C-5** in association with permit use areas and activity descriptions.

Table C-5. Outfitter/Guide Special Use Permits – Clear Creek District

Permit Owner	Associated Trails/Trailheads/Forest Areas	Associated Activities
City of Lakewood	USFS trails	Hiking, snowshoeing, cross-country skiing
Evergreen Park and Recreation District	USFS trails	Hiking, snowshoeing
Timberline Llamas, Inc.	Loveland Basin - Herman Gulch and Butler Gulch	Llama pack trips
DBA MT FUN	Clear Creek Ranger District	Ski touring, mountaineering, snowshoeing, snow cat tours, hiking, mountain boarding, mountain biking
Trailhead Wilderness School	Clear Creek Ranger District	Backpacking trips for “at risk” youth
Turner’s Guide Service	Clear Creek Ranger District	Hunting - mountain lion, bighorn sheep, goat, elk, deer
Wilderness Expeditions	Clear Creek Ranger District	Backpacking and rappelling trips
City of Englewood (Malley Senior Center)	Clear Creek Ranger District (USFS roads)	Hiking

Table C-6 includes additional descriptive information for the Clear Creek District special use permits shown on **Figure C-3**.

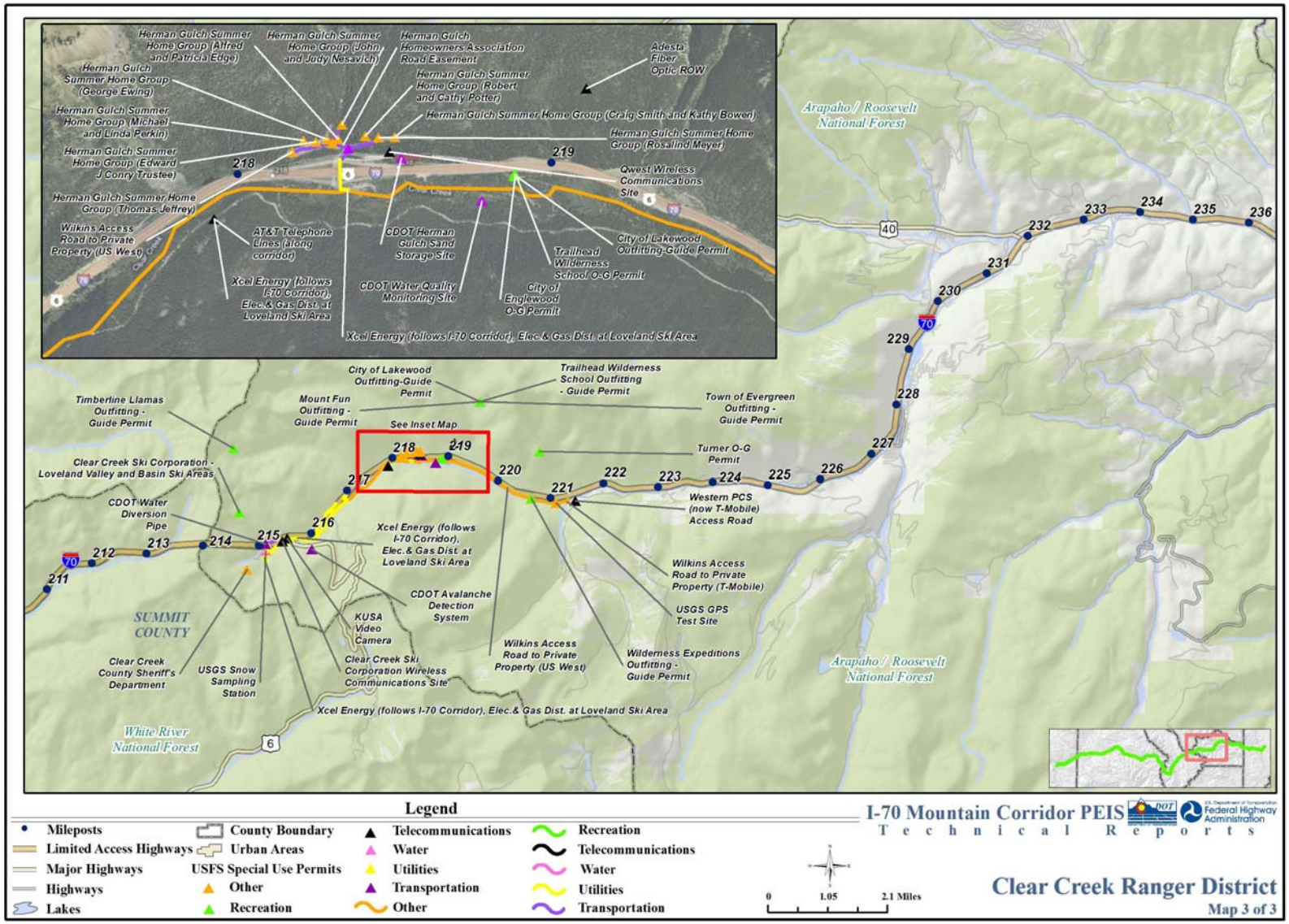
Table C-6. Mapped Special Use Permits – Clear Creek District

Permit Owner	Permit Type	General Permit Description
Clear Creek County Sheriff’s Department	Communications	Radio repeater for emergency services
USGS	Monitoring	6 snow sampling stations; 0.12 acre
Clear Creek Skiing Corporation	Communications	Loveland Wireless Telecommunications Site
KUSA-TV	Communications	Video camera on metal pole at Eisenhower Tunnel and Loveland Ski Area; includes access via a service road
CDOT	Monitoring	Avalanche detection system - 4 sensors
QWEST Wireless	Communication	Herman Gulch communication facility; 0.5 acre
Wilkins Access Road (T-Mobile, US West, Western PCS II Corporation)	Communication	Access road; 0.014 acre
USGS	Monitoring	GPS test site; 0.1 acre

Table C-6. Mapped Special Use Permits – Clear Creek District

Permit Owner	Permit Type	General Permit Description
Clear Creek Skiing Corporation	Recreation	Loveland Ski Area; 1,320 acres
Clear Creek Skiing Corporation	Resort	Loveland Ski Area; 2,300 acres for facilities, roads, parking, trails
CDOT	Water	Metal pipe for water diversion at east portal Straight Creek Tunnel; 350 feet
Herman Gulch Homeowners Association	Residences	Access road easement;
Excel Energy (Public Service Company of Colorado)	Electric	Operate and maintain 25 kV electric distribution lines
Excel Energy (Public Service Company of Colorado)	Gas	Right-of-way for gas pipeline - Loveland Ski Area; 1.1 acre/0.92 mile
Wilkins Access Road (AT&T, Mountain States Telephone and Telegraph, US West Communications)	Communications	Aerial and buried cable
CDOT	Monitoring	Water quality monitoring
CDOT	Storage	Sand storage site at Herman Gulch
Wilkins	Residence	Access road
Xcel Energy/Public Service Company of Colorado	Electric	Distribution line from an existing overhead power line to the I-70 ROW. Milepost 218 to milepost 219.

Figure C-3. Special Use Permits (Except for Outfitter/Guide Permits) within the Clear Creek District of the Araphao and Roosevelt National Forests



Appendix D. Summary of I-70 Mountain Corridor Land Use Plans

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Appendix D. Summary of I-70 Mountain Corridor Land Use Plans

D.1 Introduction

This appendix summarizes key information identified in the review of land use planning documents. Counties addressed in the *I-70 Mountain Corridor Programmatic Environmental Impact Statement* (PEIS) are those traversed by the I-70 alignment: Garfield, Eagle, Summit, Clear Creek, and Jefferson. The evaluation of the land use plans, which includes the updated county plans, as well as the addition of local planning document reviews, focuses on county and municipal planning trends to determine their compatibility with the implementation of the Preferred Alternative.

Planning and zoning information was collected through letters, phone calls, and meetings with local planners. Data collected included master or comprehensive plans, zoning regulations, open space and recreation plans, and GIS data layers.

The plans were then reviewed to help define, by community, current and future conditions, including community priorities, values, quality of life, growth policies, and constraints. This information helped form the basis for the land use analysis.

Coordination with Corridor and state agencies and community organizations was an integral part of the land use study. The PEIS describes broad-scale involvement in **Chapter 6, Public and Agency Involvement**.

The review of each plan focuses on the following topics: growth and population, transit, I-70 Corridor, regional coordination, environmental sustainability, and water resources. **Table D-1** indicates the specific plans reviewed, and the topics covered by those plans.

Table D-1. Planning Documents Reviewed

County/Municipality	Planning Documents	Topics Considered					
		Growth	Transit	I-70	Reg. Coord.[1]	Env. Sust.	Water Res.
Garfield County	Garfield County Comprehensive Plan (2000)	x	x	x	T		x
	Request for Qualifications, Garfield County	x			x	x	
	Sustaining Diversity: Garfield County Comprehensive Plan 2030, July 2010 **Draft**	x	x		x	x	x
Glenwood Springs	Glenwood Springs Comprehensive Plan 1998						
New Castle	Town of New Castle Comprehensive Plan 2009	x	x	x	G, LU, T	x	x
Rifle	Rifle Comprehensive Plan 2006	x	x	x[2]	LU		x
Eagle County	Eagle County Comprehensive Plan 2006 Sustainable Communities 2010 (Eagle County Government Fall 2008) (Draft)	x	x	x	LU, W	x	x
Dotsero (unincorporated)	Two community meetings have been held and one meeting is planned to create a new Dotsero Area Community Plan.						

Table D-1. Planning Documents Reviewed

County/Municipality	Planning Documents	Topics Considered					
		Growth	Transit	I-70	Reg. Coord.[1]	Env. Sust.	Water Res.
Gypsum	Gypsum Foundation Plan 1999 Eagle River Area Plan Public Open House 2008 (to update Foundation Plan) Town of Gypsum 3-Mile Annexation Plan 2007 Update	x	x	x	T		x
Eagle	Eagle Area Community Plan, November 2008	x	x	x	T	x	x
Wolcott (unincorporated)	Wolcott Area Community Plan 2009	x	x	x	G, LU, W	x	x
Edwards (unincorporated)	Edwards Area Community Plan Vision Report, January 2003	x	x	x	T, W	x	x
Avon	Town of Avon Comprehensive Plan, February 2006, Revised March 2008 Avon Transit Strategic Planning Update – March 10, 2009 Town of Avon Comprehensive Transportation Plan, October 2009		x	x	LU, T	x	x
Minturn	Town of Minturn, 2009 Community Plan Draft Executive Summary, March 2009 Goals and Objectives Open House Synopsis, February 2009	x[3]	x		LU, T	x	x
Vail	Town of Vail Land Use Plan, adopted November 18, 1986, updated January 28, 2009 Town of Vail Environmental Programs on website: http://www.vailgov.com/subpage.asp?dept_id=113	x	x	x[2]		x	
Summit County	Summit County Comprehensive Plan 2003 (Housing Update, 2009) Matrix of Issues: Summit Leadership Forum 2008 – Year 2030 Forecast for Summit County	x	x	x	T	x	x
Frisco	Town of Frisco Master Plan 2004 (undated)	x	x	x	T	x	x
Silverthorne	Silverthorne Comprehensive Plan 2008	x	x	x	T	x	x
Clear Creek County	Clear Creek County Master Plan 2030 (2004) Clear Creek County Non-Motorized Corridor (map included in the Clear Creek County Master Plan, Map 4.3) Clear Creek County Greenway Plan 2005 Clear Creek County Board of County Commissioners Goals & Objectives 2008–2009	x	x	x	T, LU	x	x
Georgetown	Town of Georgetown Comprehensive Plan 2000	x		x			x
Idaho Springs (Pop 1,755 in 2007)	Idaho Springs Comprehensive Plan 2008	x	x	x	T	x	x

Table D-1. Planning Documents Reviewed

County/Municipality	Planning Documents	Topics Considered					
		Growth	Transit	I-70	Reg. Coord.[1]	Env. Sust.	Water Res.
Jefferson County	Jefferson County – The Central Mountains Community Plan, 1994	x	x	x[2]	T, AQ		x
Evergreen	Jefferson County – Evergreen Area Community Plan 2005	x	x	x			x
Golden	City of Golden Comprehensive Plan, August 6, 2003		x	x[2]	T, W, AQ, N	x	

[1] T = Transportation, LU = Land Use, W = Water, AQ = Air Quality, N = Noise, G = General

[2] Limited mention of I-70 with respect to interchanges or ROW
[3] Limited discussion about growth and population

Note: In the subsections that follow, excerpts have been taken directly from the identified plans. Each excerpt indicates where the text is found in the respective plan, and the excerpt has been indented to distinguish it from the text of this Technical Report.

D.2 Garfield County

The following land use plans were identified and reviewed for Garfield County:

- ***Garfield County Comprehensive Plan 2000*** – The Garfield County Comprehensive Plan 2000 is the most current plan and supersedes the Garfield County Comprehensive Plan 1994 (revised 1997). The plan is long term in nature and provides a foundation for decisions and policies that guide and direct the physical, social, economic, and spatial development for the unincorporated portions of Garfield County. The county began updating its comprehensive plan in September 2009 to provide a vision for how the county will evolve over the next 20 years to 2030. The draft plan was released for public review in July 2010, and the final plan is expected to be finished in November 2010.
- ***Sustaining Diversity: Garfield County Comprehensive Plan 2030, July 2010 Draft*** – Garfield County kicked off its update process in September 2009 and it is expected to be completed by November 2010. The Comprehensive Plan is being developed through an interactive community effort has been made available at on the County website at http://www.garfieldcomprehensiveplan2030.com/File_Drawer.html. Although some key points from this draft comprehensive plan have been included in the update summary, the document has not been subject to a full plan review since it is not yet finalized or formally adopted.

D. Summary of I-70 Mountain Corridor Land Use Plans

Table D-2 summarizes the key points associated with topics related to the I-70 Mountain Corridor.

Table D-2. Garfield County Summary Table

Topic	Summary

Growth and Population	• Dispersed development is a concern for roadway demand and environmental impacts.
	• The County will expand to 55,598 through 2016 (from 43,791 at the 2000 Census).
	• Rifle is at the center of a re-emerging energy exploration and extraction industry that began slowly in 2000 and rapidly accelerated through 2006.
	• Currently, many Rifle residents travel east up the valley for employment. However, as the energy industry matures in the area and the prospects for longer-term employment increase, more subcontractor crews may tend to move to nearby communities and set up residence.
	Focus on managing growth through development decisions to:
	  • Maintain small town character
	  • Preserve cultural resources
	  • Preserve natural resources
	  • Balance present and future needs
	• Promote social and economic diversity

Transit	Focus on local and regional public transit system, including a park and ride system in Rifle. For the size and date of Glenwood Springs Comprehensive plan, it has an extensive focus on transit development, including consideration of coordination with a regional transit system. The city of Glenwood Springs plans to develop a walkable city with reduced dependence on the automobile.
I-70	I-70 Glenwood Canyon improvements will improve travel times between Garfield and Eagle County. Impacts of this not were yet assessed at the time of the plan.
Regional Coordination	Garfield County plans to participate in regional and statewide transportation planning to ensure access by Garfield residents. Glenwood Springs mentions regional coordination with a regional transit system in the development of year-round, city-wide transit.
Environmental Sustainability	• There is no specific planning around environmental sustainability issues. • Garfield County's draft comprehensive plan does address renewable energy, encouraging exploration of renewable resources, and use of renewable energy technologies within POAs and HOAs. • Glenwood Springs' plan suggests recycling as a way to extend the life of landfill and create local economic opportunities. The plan also mentions the need for conservation of natural resources for the protection of the local economy as well as the local quality of life. Actions to consider include development of water and energy conservation plans.
Water Resources	Garfield County is planning for protection of water resources and requirement for mitigation plans by developers. Water resources briefly quantified in the Glenwood Springs Comprehensive Plan, suggested water conservation plan.

Statements about Growth and Population

Section II, **4.0 DEMOGRAPHICS**, **4.1 Population Trends** of the *Garfield County Comprehensive Plan* quotes the following statements about growth and population:

> The population of Garfield County has increased at a moderate rate since the 1980 Census. As shown on Table 4, the population of the County increased slightly more than 33 percent between 1980 and 1990, reaching a total of 29,974 residents. The 1991 population was estimated at 30,668. The State Demographer's Office estimated the 1992 population for the county at 31,455, and the 1993 population at 32,187. This translates to an annual growth rate of 2.9 percent since 1980. Except for the 1982-1984 decline in oil shale extraction, the slope of the growth rate curve for the County, during the last ten years, was generally uniform.
>
> Of particular concern is the demand that dispersed development places on inadequate roadways, road improvement and maintenance, emergency services, environmental impacts associated with Individual Sewer Disposal Systems (ISDS) and loss of wildlife habitat and the risk of wildfire losses due to development in the "Urban/Wildland Interface."
>
> A precise estimate of housing needs is difficult to quantify due to the inability to predict energy costs, tourism demand and local government regulations that all affect regional demand and production of housing. However, the Garfield County Housing Research Report, prepared in September of 1990 by the Garfield County Housing Authority, does provide several important conclusions regarding future housing needs in the County.
>
> - First, Garfield, Pitkin and Eagle Counties have shown significant growth in a period of relative economic lag for Colorado as a state. In Garfield County, county-wide employment levels have returned to the levels achieved at the time of the energy boom and, with growth in the two adjacent counties, the current residential base shows no excess capacity.

Statements about the Development of Transit

Section III, **3.0 TRANSPORTATION**, **GOALS** of the *Garfield County Comprehensive Plan* quotes the following statements about the development of transit:

> Ensure that the County transportation system is safe, functional, appropriately designed to handle existing and future traffic levels and includes options for the use of modes other than the single-occupant automobile.
>
> Determine appropriate nodes and collector points for public transportation.
>
> A bus system extended beyond Glenwood Springs should be supported.
>
> Explore rail/bus combination within Study Area I.
>
> Work cooperatively with City of Rifle to develop a Park and Ride facility.
>
> Support public transit services to seniors, youth, and minorities.

The *Garfield County Comprehensive Plan* also quotes the following statement in **Section III**, under **OBJECTIVES:**

> 3.1 To encourage the development of a regional public transit system that respects the interaction between emerging land use patterns and travel behavior in the Valley.

The following points are quoted in **Section III**, under **POLICIES**:

> 3.1 Staff will foster a cooperative relationship with cities, counties and transit providers in addressing regional transportation issues.

3.7 In cooperation with local governments, the Colorado Department of Transportation and private transportation providers, Garfield County will pursue the development of a County-wide Transit Program to include the following components:

A. Fixed-based transit service;
B. Park-and-Ride Program;
C. Potential rail service.

Statements about I-70

Section II, 6.0 TRANSPORTATION, 6.10 Transportation Improvements of the *Garfield County Comprehensive Plan* quotes the following statements about I-70:

> I-70. The Glenwood Canyon improvements currently being completed represent the most important improvements impacting Garfield County. Once finished, travel time will be reduced between Eagle and Garfield Counties. The precise impacts of these improvements are not certain, but some additional work-related trips may be generated by the improved roadway and possible development on either side of the canyon.

Statements about Regional Coordination

Section III, 3.0 TRANSPORTATION, **POLICIES** of the *Garfield County Comprehensive Plan* quotes the following about regional coordination:

3.4 Garfield County will participate and cooperate with regional and statewide transportation planning to ensure access to all available modes for County residents.

Statements about Water Resources

The *Garfield County Comprehensive Plan* provides no specific discussion of water quantity or quality as a limitation on growth. Discussions center on protection of the resource and requirements for mitigation plans by developers.

D.2.1 Town of Glenwood Springs

The following land use plan was identified and reviewed for the Town of Glenwood Springs:

- *Town of Glenwood Springs Comprehensive Plan.* This Comprehensive Plan was adopted in 1998.

Growth and Population

Growth should be distinguished from development. The term growth implies the uncontrolled, inefficient extension of already over-burdened community systems which detracts from the whole of the community; while development could be characterized as the efficient use of community resources to add components or improvements to systems which help attain community goals. In this sense, then, development is superior to growth because it is efficient, managed, addresses the needs of the community, and helps achieve community goals. Local decision-making could be pro-development and anti-growth.

With a focus on redevelopment of the land within a well-defined urban area, set within rural surroundings, and supported through inter-governmental agreements with the County, the City can maintain its character, preserve its cultural and natural resources, direct development to achieve balance and diversity and address its transportation needs, without contributing to the recent patterns of sprawling development which is devastating the landscape of the surrounding rural area.

Statements about Transportation Impacts to Natural Resources and Community Values

The following comments are not specifically related to transportation impacts, but generally relate to the protection of natural resources in the city:

Policies to Consider

The city should encourage the conservation of natural resources.

> The natural environmental qualities of the Glenwood Springs area should be conserved to protect the regional and local economy, and the local quality of life.

The city should minimize wastes transmitted to the environment.

> Water, air, noise and light pollution should be reduced to maintain the local quality of life. Solid waste should be minimized.

The city should protect its scenic vistas, rivers, steep hillsides and ridges.

> The visual quality of the community is an important element of the local and regional hospitality industry, as well as the local quality of life. This quality should be protected and enhanced.

The city should provide adequate public recreation facilities within the city.

> Active and passive open lands must be provided to balance developed areas and to provide citizens with access to natural environment.

Key Actions to Consider

Implement a water conservation plan, to conserve natural resources. Develop an energy conservation plan, to conserve natural resources.

Continue the implementation of the River Management Plan, to protect the rivers.

Develop a Parks and Recreation Master Plan, to provide adequate parks and open lands.

Implement zoning requirements, to protect scenic vistas, river corridors, steep hillsides and ridge lines.

Develop noise and lighting requirements, to prevent excessive pollution. Implement sign regulations, to preserve views of and from the city.

Develop landscaping requirements, to protect and enhance the urban forest. Develop a solid waste management plan, to conserve the City's landfill facility.

Develop an Open Space Preservation strategy, to preserve open lands within and around the perimeter of the Urban Development Boundary.

Statements about the Development of Transit

The city should maintain a distinct urban edge.

In order to prevent suburban sprawl, a well-defined edge to the City is needed to distinguish between rural and urban areas.

Key Actions to Consider

Develop a Long Range Transportation Plan, to reduce traffic congestion, use resources efficiently and provide access to community facilities for all residents.

Examine the use of the Railroad Corridor, to most effectively accomodate the movement of people and goods through the community.

Complete the "Alternate Route", including the 27th and 8th Street connections to Hwy. 82, and a new bridge in South Glenwood Springs connecting to Highway 82.

Participate in regional transit funding, to assure adequate finances for a transit service which connects the entire region and reduces auto dependency.

Institute year-round, city-wide transit when warranted, to provide a local system coordinated with a regional transit system to reduce auto dependency.

Complete the River Trail system, to provide safe alternative walking and biking facilities for local residents and visitors.

Improve the Grand Avenue Pedestrian Bridge at each end, to encourage more walkers to use the bridge and separate walkers from car traffic.

Establish Design Standards which encourage pedestrianism, to encourage people to walk instead of drive.

Adopt zoning regulations which encourage transit-oriented development, to encourage mixed-use development so that citizens don't have to drive from function to function.

Implement transit-user amenities, to encourage more users of transit and connections between alternative modes of transportation.

Regional Coordination

Institute year-round, city-wide transit when warranted, to provide a local system coordinated with a regional transit system to reduce auto dependency.

Statements about Environmental Sustainability

Landfill Capacity and Recycling

Landfill Capacity. Projected life of the current city-owned landfill should be extended and replacement costs included in tipping fees.

Recycling. Each ton of solid waste diverted from the landfill extends the life of the landfill, as well as creating local economic opportunities.

Key Actions to Consider

Implement a water conservation plan, to conserve natural resources.

Develop an energy conservation plan, to conserve natural resources.

Water Sources Quantified

Glenwood Springs currently owns Grizzly Creek/No Name water rights in the amount of 12.9 MGD.

Peak daily usage in 1995 was about 7.0 MGD.

Peak water treatment capacity is currently 8.65 MGD.

Key Actions to Consider

Implement a water conservation plan, to conserve natural resources.

D.2.2 Town of New Castle

The following land use plan was identified and reviewed for the Town of New Castle:

- *Town of New Castle Comprehensive Plan 200.* This Comprehensive Plan was adopted May 27, 2009.

Statements about Growth and Population

On pages 17-20, the **Population & Demographics** section of the *New Castle Comprehensive Plan* quotes the following statements about growth and population:

> At the end of 2008 and continuing into 2009, the US and world economies entered a severe economic recession. This economic downturn has fundamentally stopped new development activity in New Castle. Village Homes, the major developer in Castle Valley Ranch, filed for bankruptcy and halted construction on all of its projects. Very few building permits have been issued in New Castle from the third quarter of 2008 to the middle of 2009. No one really knows when the recession will end, but predictions are that it will continue through 2010. The recession has curtailed growth activity in New Castle and Garfield County. It is probable that in 12 to 24 months growth activity will return to Western Colorado. The reader should understand that the information contained in this document is based upon conditions that were occurring up to the economic downturn. Population projections and other data have been modified to account for a slow growth period. The values, principles, goals and policies contained in this document remain valid because they are basic to the community and transcend economic conditions.
>
> New Castle's population for the period 2000-2007 increased an average of 241 persons per year with an average annual growth rate of 9.24%. This growth rate made New Castle one of the fastest-growing towns in Colorado. In the past 25 years, much of New Castle's population increase has been fueled by a down- valley migration from the communities of Aspen, Snowmass, Basalt and Carbondale where the cost of housing has historically been higher. More recently, natural gas drilling activities and renewed interest in oil shale development have placed a demand on available housing units west of New Castle, thereby driving up the cost of housing in Silt, Rifle and Parachute.
>
> Population growth projections for Garfield County are expected to remain robust through the year 2035 as the energy industry expands in response to demands for natural gas and other fuels. Growth pressures on New Castle are expected to continue in the same timeframe. It is, therefore, important for New Castle to determine how the community desires to grow and plan for staffing, infrastructure, facilities, service delivery, environmental protection and quality of life.
>
> 2007 New Castle population was estimated at 3,669 with an average household size of 2.66 residents per unit. In 2007, 93% of the population was white with the balance made up largely of Hispanic, African-American and smaller percentages of other races.
>
> New Castle median household income was $63,966 compared to the Garfield County median household income of $52,189. The Town and County median household incomes were higher than the $50,841 statewide average.
>
> The 2000 census documented 75.6% of the housing in New Castle as owner-occupied and 24.4% as rental. Single-family detached dwellings represent 82% of the housing stock and 18% are multifamily units. There were 51 mobile homes identified in the 2000 census housing unit count. The number of multifamily units has increased since the 2000 Census with the addition of 153 condominium units in River Park PUD, 67 units in duplex structures in Castle Ridge and an additional 57 units in triplex structures in Castle Valley Ranch (total 277 additional multifamily units).
>
> 52% of the respondents to the comprehensive plan community survey acknowledged affordable housing as an essential need. However, there were mixed results about how to address affordable housing. A majority of respondents said that the developers should provide affordable housing in their projects. Alternatives such as increased density, multifamily units, apartments, manufactured housing and mobile homes were not preferred options.

> Lack of affordable housing is a persistent and growing problem in and around New Castle. In Garfield County, the median purchase price of new single-family homes in 2005 was $270,000. If affordable housing were defined as housing that demands 30% or less of household income, an affordable unit in New Castle in 2005 would cost $190,000 (based on median 2005 household income of $55,000.year). Between 1999 and 2005, housing prices increased an average of 48% in Garfield County while wages increased an average of 18%. Despite recent fluctuations in the economy and lower housing prices, the gap between income and housing prices is likely to continue in the future.

On page 19, the **Economy** section of the *New Castle Comprehensive Plan* quotes the following statements about growth and population:

> Historically, Garfield County's economy has been supported by agriculture and mining. Increasing land values driven by resort area development in adjacent Eagle and Pitkin Counties has caused many ranches to be sold for development. The marginal returns from agricultural operations compared to the substantial short-term gains from real estate development have convinced many of the long-term ranching families to sell. The majority of New Castle residents find employment outside of the community in Glenwood Springs, the Roaring Fork Valley, the Eagle Valley and the Rifle area. Employment outside New Castle causes substantial traffic impacts at the I-70 interchange in the peak morning and evening commuting hours. The three highest categories of New Castle employment are management/professional (28.6%), sales/office occupations (28.4%) and construction/extraction/maintenance (23.2%) (2000 US Bureau of Census).

Statements about the Development of Transit

On page 57, **4. Transportation** section of the *New Castle Comprehensive Plan* quotes the following statements about transit, under **Guiding Principle**:

> New Castle strives to be an accessible community for all forms of motorized and non-motorized transportation. A high level of connectivity is to be achieved by using traditional grid/alley street designs, looped streets, effective trail systems, sidewalks and other methods to provide easy access to town neighborhoods, commercial areas and employment centers. The transportation systems existing in New Castle consist of interstate, railroad, state highways, county roads, city streets, community trails/sidewalks and Roaring Fork Transit Authority public transit. Not all of these systems integrate with each other. For example, there are approximately 27 daily train trips through New Castle, but there is no rail public transit. I-70 bisects New Castle, but there is a single interchange that provides no non-motorized access north or south of the Colorado River. Main Street through New Castle is a four-lane state highway under the jurisdiction of the Colorado Department of Transportation (CDOT) with a focus on unimpeded traffic movement instead of pedestrian-oriented Main Street character. County roads feeding traffic to the I-70 interchange and the municipal street grid result in increasing traffic volumes without commensurate improvements to the municipal street system to accommodate increased traffic.
>
> New Castle must work with CDOT and Garfield County to maintain an integrated roadway network in which creative designs provide for access alternatives, appropriate roadway expansion and multimodal transit systems that will meet both municipal needs as well as the needs of growth areas outside town. An overall transit master plan should be developed with involvement of all parties to ensure that future transportation systems improve mobility, assure safety, serve all forms of transportation, are tied to future growth in and out of town, and minimize congestion or conflicts.

Statements about I-70

On page 24, the **Transportation** section of the *New Castle Comprehensive Plan* quotes the following statements about I-70, under **1. Exit 105 I-70 Interchange**:

> The stacking and queuing at the I-70 interchange is a problem during peak morning and evening hours. Evening traffic queues can extend down the length of the off-ramp from the access bridge intersection. This vehicle stacking is likely to become more severe as New Castle population increases without substantial intersection improvements or an additional interstate interchange. The overpass is hazardous to pedestrians crossing over the interstate and Colorado River because there are no sidewalks on the bridge. This is a significant deterrent to non-motorized access to shopping, downtown and other services north of the interstate.
>
> RECOMMENDATION: Investigate potential for a second highway interchange that will relieve pressure on Exit 105. Pursue improvements to the existing interstate bridge that will increase traffic and pedestrian capacity. Investigate additional mass transit opportunities between New Castle and up-valley locations that could reduce reliance on single occupant vehicles for commuting and other purposes.

The *New Castle Comprehensive Plan* also quotes the following statement on page 57, in **4. Transportation**, under **Goal T-1**:

> **Goal T-1: New Castle will plan for and maintain a high quality interconnected community transportation system that supports all forms of transportation including public transit, biking and walking, that reduces dependence on the individual automobile and that is designed to meet specific community needs.**
>
> Policy T-1B: New Castle will work with CDOT to improve the Exit 105 interchange to meet the current and long-range traffic needs.
>
> Policy T-1C: New Castle will work with CDOT, Garfield County and future developers to plan, design, finance and construct a second New Castle I-70 interchange near County Road 240 and Highway 6 & 24.

The following points are quoted on pages 78-79 of the *New Castle Comprehensive Plan* in **Plan Implementation**, under **Transportation**:

- Initiate planning for a new east New Castle I-70 interchange.
- Continue developing plans and funding opportunities with CDOT for mitigating traffic congestion at the existing New Castle I-70 interchange.

Statements about Regional Coordination

On page 74, the **14. Intergovernmental Coordination & Cooperation** section of the *New Castle Comprehensive Plan* quotes the following statements about regional coordination, under **Guiding Principle** and **Goal IGC-1**:

> Good intergovernmental communication, coordination and cooperation are critical to effective relationships between agencies. The best services are provided to the taxpayer by governments that understand each other, minimize duplication of services and coordinate infrastructure design requirements. Land-use decisions in the future growth areas outside of municipalities mush consider the comprehensive plan goals and policies of the governmental agencies to ensure that land-use types are compatible, road designs are functional, utilities can be extended and future growth can occur in a logical and coordinated manner. Good relationships between local governments start with regular clear communication and well-defined intergovernmental agreements (IGA's) that detail the respective roles and obligations of each agency.

Goal IGC-1: New Castle will develop and maintain strong working relationships with surrounding governmental entities that are based upon clear communications and good cooperation to ensure the greatest benefits to the public.

Policy IGC-1A: New Castle will work with Garfield County to develop an expanded and updated intergovernmental agreement pertaining to new growth, infrastructure and demands placed on each entity by development.

Policy IGC-1B: A New Castle-Garfield County IGA will support coordinated regional planning that is the best interests of county residents (municipal & unincorporated) to ensure that costs of new development are not borne by existing residents.

Policy IGC-1C: New Castle will develop an intergovernmental agreement with the RE-2 School District to support coordinated planning efforts related to new growth to ensure new school facilities are properly located, expanded facility space is available when the demand exists and that access to school sites minimizes the use of automobiles.

Policy IGC-1D: New Castle and CDOT will develop an intergovernmental agreement that addresses coordinated highway access permitting, maintenance/design/construction on Highway 6 & 24, traffic calming in the historic core and pedestrian access/safety.

Policy IGC-1E: New Castle will work with other agencies including, but not limited to, BLM, Division of Wildlife, Colorado River Conservation District and other local governments to maintain regular and open communications and coordinated planning.

The *New Castle Comprehensive Plan* also quotes the following statement on pages 78-79 in **Plan Implementation**, under **Intergovernmental Coordination**:

- Revise the existing New Castle/Garfield County Intergovernmental Agreement to establish and implement a joint staff, agency and Planning Commission review process for locations outside of New Castle with the Joint Planning Area.
- Work with Garfield County and the Town of Silt to ensure effective coordination of their respective comprehensive plans within the Joint Planning Area.
- Establish design standard requirements for new development approved outside the municipal boundary and within the New Castle Urban Growth Boundary and Joint Planning Area, to ensure development there complies with all the municipal design requirements.
- Develop joint planning agreements with Garfield County, CDOT, RE-2 School District, Bureau of Land Management, US Forest Service, Union Pacific Railroad and other agencies and jurisdictions as appropriate.
- Work with Garfield County and other agencies on beautification strategies and projects.

Statements about Environmental Sustainability

On page 65, the **8. Natural Environment** section of the *New Castle Comprehensive Plan* quotes the following statements about environmental sustainability, under **Guiding Principle**:

New Castle is dedicated to preserving the natural environment while recognizing that the urban development inherent in the growth of the Town will have impacts on that environment. New Castle will strive to identify and preserve critical environmental resources and will work closely with County, State and Federal governments and government agencies to identify those resources and to implement enhancement and preservation strategies. New Castle will support energy conservation and will reduce energy use and environmental impacts associated with Town activities whenever possible. New Castle will support activities and programs aimed at preserving specific environmental values, including wildlife habitat, clean air and water, a dark

night sky, low noise levels, health native vegetation, access to scenic resources and sunshine and reduction in usage of toxic or harmful chemicals and other materials. In addition to these natural environment protections, development is to be kept out of areas of natural hazards, sensitive habitat, floodplains, critical viewsheds and other inappropriate locations.

The *New Castle Comprehensive Plan* also quotes the following statement on page 67 in **8. Natural Environment**, under **Goal EN-7**:

Goal EN-7: New Castle will promote renewable energy, resource conservation and environmental sustainability.

Policy EN-7A: The Town will adopt "green building" guidelines aimed at minimizing resource use and waste and maximizing use of renewable energy sources.

Policy EN-7B: Town operations will be audited to identify potential areas of conservation and to discover opportunities for demonstrating renewable energy technologies.

Policy EN-7C: The Town will investigate opportunities to make building codes support energy conservation and efficiency, including use of sustainable materials.

Policy EN-7D: The Town will work closely with citizen groups, government agencies and private organizations to develop and implement strategies aimed at reducing overall Town energy use and increasing use of sustainable materials, practices and energy sources.

Statements about Water Resources

On pages 65-66, the **8. Natural Environment** section of the *New Castle Comprehensive Plan* quotes the following statements about water resources, under **Goal EN-2**:

Goal EN-2: Preserve or improve water quality.

Policy EN-2A: The Town will identify current water quality parameters in natural waterways and adopt policies and regulations aimed at raising or maintaining those parameters.

Policy EN-2B: The Town will work closely with the Colorado River Water Conservation District, the Colorado Water Quality Control Division, and other water management agencies to support wise use of water and maintenance and improvement of water quality, the latter through control of urban and construction-related runoff.

Policy EN-2C: The Town will encourage installation of xeric landscaping through incentives and disincentives, and provide advice and support for water-wise landscaping, use of native plants and low-volume irrigation methods. New Castle will encourage water conservation on private property and apply water conserving irrigation and management practices to parks and properties owned or managed by the Town.

Policy EN-2D: The Town will establish a water management committee to investigate and recommend appropriate policies and practices associated with the water conservation and water quality.

Policy EN-2E: New Castle will work with Garfield County and the Colorado Department of Public Health and Environment (CDPHE) to prevent the proliferation of individual septic systems (ISDS) and small-scale wastewater treatment plants. In support of this policy new, construction within the Urban Growth Boundary (UGB) and/or within 1,000 feet of an existing municipal sewer line shall connect to central sewer. Failed septic systems within the UGB shall not be replaced if they are within 1,000 feet of a central sewer line and shall connect thereto.

D.2.3 City of Rifle

The following land use plans were identified and reviewed for the City of Rifle:

- *Rifle Comprehensive Plan 2006*

Statements about Growth and Population

On page 8, the *Rifle Comprehensive Plan* quotes the following regarding growth and population:

> Rifle is well positioned to accommodate new residential growth and jobs in the Upper Colorado River Valley. As home prices continue to rise in the Upper Roaring Fork Valley and gas and oil exploration operations continue to expand, Rifle is positioned to offer an ideal community in which to live, work and play. Rifle is undergoing a renaissance and is ideally situated, both geographically and economically to see significant new development.

On page 20, the *Rifle Comprehensive Plan* further quotes:

> Recurring evidence of financial instability associated with singular extractive economies and economic booms is another chapter of Western mining. In late 1981 and early 1892, tremors of doubt began to filter through the boomtown euphoria. On Sunday, May 2nd, 1982, Exxon, the major oil shale industry in the region, announced the closing of the project and operations near Rifle. Within the following months, construction ceased and numerous businesspeople and residents quietly vacated the town. By the end of 1982, over 200 businesses had gone under in Rifle alone, and many ranchers, under default rules, received most of their property back.
>
> Although the oil shale bust was a tragedy, it was not as detrimental to the extent it could have been. Since the mining industry was directly responsible for urban growth, conservative leaders and the community of Rifle demanded that energy enterprises "pay their own way" by financing portions of this growth. Agreements between the City of Rifle and oil shale industries included the establishment of a trust fund for capital improvements, modernization of utility infrastructure, and upgrade of the road system. Several new municipal facilities were constructed and enhancements were made during the boom era, which included the City Hall, the Rifle Bypass, the library and park lands. Rifle's economy has stabilized after 25 years; however, many resident workers must commute up valley for employment. Now the City is seeking greater economic development, while recognizing the importance of an economically diverse job market.

On page 22, the *Rifle Comprehensive Plan* quotes the following:

> The larger region of Garfield County has undergone constant population and household growth since 1980, and continues to place high demands on the residential market. During this period, the County population grew at a rate of 758 persons per year from 22,514 to 36,634. Forecasts indicate that the County will expand to 55,598 through 2016, although the pace of growth will begin to plateau.
>
> The population of the more defined Rifle-Silt-New Castle trade area is expected to increase at a more active rate than other areas within the County. Since 1970, the population of this area has grown from 33.9% of the County residents to represent 43.6% of Garfield County. The City of Rifle currently occupies the highest concentration of population at 6,784 within the three-community-area.

On page 23, the *Rifle Comprehensive Plan* quotes the following statements:

> Rifle is at the center of a reemerging energy exploration and extraction industry. The Roan Plateau, located a few miles northwest Rifle and 3,500 feet above the Colorado River Valley, contains large amounts of natural gas and undiscovered oil. Planning for the economically

recoverable energy sources for uses such as heat, energy and power can lead to an economically sustainable plan. With technological breakthroughs in deeper drilling and fracturing, and federal tax credits to explore new technology, the tighter sands formations underlying central Garfield County became feasible to exploit. Beginning in the middle 1990's and intensifying in the late 1990's, drilling in the I-70 corridor accelerated. The transfer of the Navel Oil Shale Reserve and leasing of portions of that property began in 1999 and continued into this century. Other leasing of BLM lands in the area accelerated as well.

91% of all BLM public lands within Colorado are leased or are available for leasing. What began as a handful or two of drillings rigs operating in central Garfield County in 2000 has evolved to an estimated 50 rigs operating in the County at present, and a 100 well per year pace has now accelerated to a 800-900 well per year pace in five years.

Industry sources agree that as the energy industry matures in the area, and the prospects for longer-term employment increase, more subcontractor crews may tend to move to proximate communities and set up residence.

Statements about the Development of Transit

On page 28, the *Rifle Comprehensive Plan* quotes the following statement about transit:

> Many area residents commute to work beyond the City up valley and to Grand Junction. No public transit is currently available which connects Rifle to other destinations within the Colorado River valley.

Also, under **Affordable Housing Policy #1 – Actions**, the Comprehensive Plan quotes:

> Support housing proposals that are well situated relative to employment in Rifle, and shopping, child care, schools, transit, social, and recreational amenities.

Statements about I-70

On page 27, the *Rifle Comprehensive Plan* quotes the following about I-70, under **Interstate 70**:

> The I-70 corridor that passes south of Rifle provides the most important transportation link for commuters and visitors. Although three interchanges have been constructed near the City, the intersection at Highway 13 receives the majority of use and serves commuters and tourists. Although I-70 serves as the primary east-west route, U.S. Highway 6/24 continues to serve as a major east west local arterial.

Statements about Regional Coordination

On page 39, the *Rifle Comprehensive Plan* quotes the following statement about regional coordination, under **Regional Planning Cooperation**:

> Rifle has an established intergovernmental agreement (IGA) with Garfield County. It was adopted by the City on May 7th, 2001 and represents a good start with the County in regards to joint design review. The IGA has fostered an environment of trust and mutual respect and forms the foundation of the strong working relationship the City maintains with the County.
>
> New IGA joint planning arrangements have been formulated over the last five years. With new waves of development anticipated for Rifle and Garfield County, it is time to embellish the joint design review capabilities afforded by the County IGA. With a more robust IGA, the City intends to provide more predictability to the county, property owners and the development community as to which areas will urbanize first and which areas will remain rural. This revised IGA will be essential in coordinating short and long-term planning efforts by guiding growth in a deliberate and rational pattern.

Statements about Water Resources

On page 26, the *Rifle Comprehensive Plan* quotes the following about water resources:

> The city of Rifle currently has adequate raw water rights to support a community of approximately 25,000 (7.5 MGD) people. It is Rifle's policy to continue to acquire additional water rights as development continues.

D.3 Eagle County

The following land use plans were identified and reviewed for Eagle County:

- ***Eagle County Comprehensive Plan 2006*** – The *Eagle County Comprehensive Plan 2006* supersedes the *1996 County Master Plan*. The *Comprehensive Plan 2006* represents the vision and goal of the people of Eagle County. Relevant provision of the plan should be used to guide all decisions regarding land use, the environment, the economy, transportation, and housing.
- ***Sustainable Communities 2010 (Eagle County Government Fall 2008) (Draft)*** – Eagle County Commissioners and staff have begun a comprehensive initiative called *Sustainable Communities 2010*. This effort will provide local decision-makers quantifiable "quality of life" data and information, along with suggested tools, to assist in decision-making when developing public policy toward sustainable communities throughout Eagle County.

Table D-3 summarizes the key points associated with topics related to the I-70 Mountain Corridor.

Table D-3. Eagle County Summary Table

Topic	Summary
Growth and Population	• Eagle County experienced rapid population growth in most towns and even higher rates in unincorporated areas between 1990 and 2000. • The population growth rate for Eagle County is forecast to remain above 2.6 percent at least until 2015 and then decline somewhat after that, reaching a total population of 88,000 by 2030. These growth rates are stronger than national trends but below the population growth rates of 6 percent that occurred locally during the 1990s. • Eagle County supports and encourages a diversity of economic development, a reasonable level of growth, but only where there is an appropriate balance among population growth, economic success, quality of life, and environmental preservation in Eagle County.
Transit	• Focus is on a multimodal transportation system, including mass transportation systems. • Fixed guideway transit systems would be compatible with Eagle County's development. Most of the county's population is located in linear fashion along valley floors, and easily accessed transit stops could be developed along existing rail lines or new rail lines. • Fixed guideway transit systems can help create denser and more distinctive town centers, preserve open space buffers, promote the use of mass transit, reduce the use of personal vehicles and congestion, reduce the need for more parking and roads, and improve air quality. • A countywide commuter rail system should remain an important priority. • The Town of Gypsum is planning ahead for fixed guideway transit in the I-70 Corridor, stating that the Town should plan and reserve land for transit stations. • One of the primary goals stated in the *Wolcott Area Community Plan* was Transit Oriented Design. Development in Wolcott will promote a sustainable future by encouraging the use of mass transit and personal modes of transportation other than the automobile.

Table D-3. Eagle County Summary Table

Topic	Summary
I-70	• Eagle County plans to continue to be involved in the I-70 PEIS process and to work with CDOT in transportation planning from the County's perspective. • The County's Transportation Collaborative works with the I-70 Coalition in regard to land use and potential transit stations along the I-70 Corridor.
Regional Coordination	• The need for collaboration on water issues pertaining to growth was noted. • Transportation Collaborative includes representatives valley-wide from the county, towns, and special interest groups focused on regional collaboration and responsiveness to state and federal authorities on transportation issues. • The *Eagle Area Community Plan* states that the town and county will work to develop a regional consensus for multimodal improvements to the regional transportation system by facilitating collaboration with developers, the Eagle County Transit Authority, and the State of Colorado. • One of the main policies of the Community oriented design goal found in the *Wolcott Area Community Plan* was to promote a comprehensive approach to transportation design. There is a need to coordinate planning with local, State, and Federal transportation agencies and departments to provide consistency with existing access and travel management plans.
Environmental Sustainability	• Focus is on reducing overall energy consumption for future operations and developments. • Environmental sustainability and protection of the environment is also a focus to manage population growth and maintain the water supply. • In November 2006, Vail's first hybrid bus was put into service on the in-town route. • In 2005, the Town of Vail (TOV) Green Action Program was formed to identify and take action on environmental opportunities. • LEED green building certification is encouraged for all new building in the *Edwards Area Community Plan*.
Water Resources	• Concerns were raised regarding the ability of streams and aquifers within Eagle County to adequately support future local demands for water, which include the need to keep water in natural channels for recreation and the maintenance of aquatic and riparian ecosystems. • Eagle County plans to support efforts to provide better information regarding water supply, optimum stream flows, and future demand, and to work with other governing entities to develop coordinated policies regarding the same.

Statements about Growth and Population

The following was quoted from the *Eagle County Master Plan Update, Research Summary 2003* (incorporated by *Comprehensive Plan 2006*):

> Growth has been occurring at a very high rate in Eagle County since the inception of Vail and the development of the ski industry. Between 1990 and 2000 Eagle County ranked fourth highest in Colorado and 10th highest in the nation in terms of growth. The unincorporated areas have been growing at a faster rate than the incorporated areas.
>
> All towns except Minturn and Red Cliff were growing at a steady to high rate. Avon grew at the highest rate (209%), followed by Basalt and Gypsum.

Section 2.4.1 of the *Eagle County Comprehensive Pla*n quotes the following in regard to growth and population:

> As it currently stands, the population growth rate for Eagle County is forecast to remain above 2.6% at least until 2015 and then decline somewhat after that, reaching a total population of 88,000 people by 2030. These growth rates are quite strong compared to national trends, but remain considerably below the population growth rates of 6% that occurred locally during the 1990's. It was felt by the Committee (and accepted by the Eagle County Planning Commission) that second homes and retiree homes would continue to be strong economic drivers, and strong determinants of future land use decisions. The number of service level jobs would continue to grow, but so would land values, and workers would find it increasingly difficult to find housing within the county. Consequently, the number of workers forecast to commute into the county each day is shown to increase from 1000 in 2005 to 33,000 in 2030.

Growth and population are addressed in the *Eagle County Comprehensive Plan* in **Section 3.2.3, Growth,** as follows:

> Given the limited amount of private land, the possibility exists of a time when development patterns along the County's major travel routes become essentially fixed in place. A "fixed in place" development pattern does not mean that the economy would stop growing, as there is always re-development (the county is already seeing this), and there are always gains to be made through economic diversification. In a place that "sells" recreational experiences, pristine natural beauty and healthy, outdoor oriented lifestyles, there is a balancing act that must occur between growth and the need to preserve the physical and social characteristics that support a desired quality of life.
>
> Sustainability, maintenance, preservation, continuation, conservation, safeguarding, keeping, or upholding are all catch phrases used to explain the concept of balance for long-term benefit. Just like treading water or keeping the weight off after a diet, balance is not an effortless state. It is a process that allows growth and expansion in some areas while acknowledging the need for waning and contraction in others.
>
> A main objective of this Comprehensive Plan is to support and encourage the diversity of Eagle County's economic development and to accommodate a reasonable level of growth, but only if that growth can be provided with necessary facilities and services in a fiscally responsible manner, and only if that growth is consistent with the character of Eagle County, causes minimum impact on environmental and wildlife resources, and is compatible with adjacent land uses. This plan is intended to provide the most current ideas, policies, actions and guidelines that can be used to find an appropriate balance between population growth, economic success, quality of life and environmental preservation in Eagle County.

Growth and population are also addressed in the *Eagle County Comprehensive Plan* under **Policies:**

b. Population growth, economic trends, and changing environmental conditions should be actively monitored, and the resulting data should be appropriately used in the decision making process.

c. Growth should be managed toward future sustainability - a healthy balance between economic success, quality of life and the preservation of the environment.

d. There are thresholds that should be considered relative to the amount and form of growth that can be reasonably sustained in Eagle County

Statements about the Development of Transit

Transportation planning is addressed in the *Eagle County Comprehensive Plan* in **Section 3.5.2, Efficient Transportation,** under **Multi-Modal Transportation,** as follows:

> A multi-modal transportation approach would solve many of the problems that currently exist on local roads. Nearly 18 percent of Eagle County's workers commute from areas outside the County, a number that is expected to rise significantly in coming years. Many will travel the I-70 corridor from their homes in Garfield County. Others will use Highway 24 to access the county from Leadville. Traffic that moves through the county on Interstate 70 is expected to increase, and the county itself will continue to grow, placing more and more traffic on local streets and highways. All of this has potential social, economic, and environmental impacts.
>
> The existing bus transportation services offered in Eagle County include the Eagle County Regional Transportation Authority, Roaring Fork Regional Transportation Authority, Town of Avon Transit System, and the Town of Vail Transit System. Eagle County Regional Transportation Authority and Roaring Fork Transportation Authority both offer extensive regional service. The town transit systems serve locals and visitors within town boundaries and act as feeders to the regional systems. The search is on-going to find suitable locations for pubic transit facilities, transit hubs and park- and-ride locations.
>
> The growth in population and jobs that is anticipated over the next twenty years will place additional demands on local transportation providers. Growing numbers of workers, both within and outside the county, will rely on mass transit. Eagle County Transportation Authority and Roaring Fork Transportation Authority should anticipate the need to expand their personnel and bus fleets, and build new facilities to continue their mission as regional mass transit providers. New technologies should be considered to meet growing passenger needs, including automated fare collection and automated passenger counting. In addition, and as technology, time and budgets allow diesel buses should be replaced with cleaner burning vehicles such as hybrid electric buses or even hydrogen-powered vehicles, to meet increasingly stringent EPA regulations and a longstanding community commitment to clean air.
>
> The Eagle County Regional Airport offers another transportation option in Eagle County. There were over 190,000 enplanements in 2004, and service was provided by a number of major airlines. Investment in improvements to service at the Eagle County Airport should continue to be a focus. All other modes of transportation should be connected to the airport to allow full multi-modal access.

Transportation planning is also addressed in the *Eagle County Comprehensive Plan* in **Section 3.5.2, Efficient Transportation,** under **Policies**:

a. Developed areas in Eagle County should be served by multiple modes of transportation.

b. Pedestrian paths should be safe, well-designed, well maintained and appropriately networked within and between communities.

c. Residential neighborhoods should include an appropriate mix of community services and community centered retail spaces that can be accessed by alternative modes of transportation.

d. Bike paths should be safe, well designed, well maintained and appropriately connected within and between communities.

e. To preserve mountain character, county roads should be adequate and safe for their intended use, but not over-designed.

f. Only those alternatives for improvements to I-70 that best serve the needs and desires of the people of Eagle County should be supported.

g. Eagle County should be adequately and efficiently served by mass transportation systems and facilities.

h. Eagle County's Regional Airport should continue to be the airport of choice for western-slope mountain and resort communities.

Statements about I-70

Section 3.5.2 of the *Eagle County Comprehensive Plan* quotes the following in regard to I-70:

> The I-70 Programmatic Environmental Impact Study (I-70 PEIS) has been initiated by the Colorado Department of Transportation to identify a preferred alternative that would increase capacity and reduce bottlenecks along the I-70 Corridor from C-470 in Denver to Glenwood Springs. One alternative would be to widen the highway in a variety of locations. While much of this highway work would occur in Counties east of Vail Pass (Summit, Clear Creek), the benefits and disadvantages of increased interstate capacity could be widely felt in Eagle County. Local businesses, for example, could benefit from increased traffic. However, local roads and parking lots could become more congested, air pollution more pronounced and recreational amenities and facilities could become so crowded as to lessen the quality of the related experiences. Improved access to the Front Range might accelerate population growth and urbanization, and diminish the area's quality of life.

More information regarding I-70 is found in the *Eagle County Comprehensive Plan* under **Section 3.5.6, Policies and Recommended Implementation Strategies for Infrastructure & Services**:

a. Developed areas in Eagle County should be served by multiple modes of transportation

f. Only those alternatives for improvements to I-70 that best serve the needs and desires of the people of Eagle County should be supported.

- Identify and prioritize the social, economic, and environmental impacts of I-70 improvements to Eagle County
- Continue to participate in the I-70 Programmatic Environmental Impact Statement (PEIS) and subsequent studies, and to work with Colorado Department of Transportation and Federal Highway Administration to select I-70 transportation alternatives that provide the greatest benefit to Eagle County

g. Eagle County should be adequately and efficiently served by mass transportation systems and facilities

Statements about Regional Coordination

Regional coordination is addressed in the *Eagle County Comprehensive Plan* under **Section 3.6.7, Policies and Recommended Implementation Strategies for Water Resources** as follows:

e. Collaborative efforts on regional land and water use planning efforts to address future growth, water supply, and stream flow protection should be encouraged.

The following is also quoted in **Section 3.6.2, Water Quantity,** under **Water Use**:

> In the arid west, water quantity is one of the most important considerations for growth. Western states all compete for a limited water supply. Where ample water and water rights exist, communities, agriculture, and more recently, recreation have flourished. While water rights and out-of-basin diversions to the Front Range have been issues in Eagle County for many years, there are now questions regarding the ability of Eagle County streams and aquifers to adequately support future local demands for water, which include the need to keep water in natural channels for recreation and for the maintenance of aquatic and riparian ecosystems.

Page 35 of the *Sustainable Communities 2010 Eagle County Government* (Fall 2008) under **Transportation Collaborative** quotes the following in regard to regional coordination:

> The Transportation Collaborative is a forward thinking group of valley wide representatives from the County, the Towns and special interest groups that are working together to identify current and future transportation issues as well as propose and implement solutions. By enhancing the dialogue, we can work together locally to be better prepared when responding to the Federal and State authorities on transportation issues.
>
> The discussion to date has included:
>
> - Transportation implications of existing and future land use approvals.
> - Transportation improvements that need to be accomplished in order to maintain an "adequate" level of service for our residents and visitors.
> - Ramifications and relationships to the overall transportation system relative to public transit, bus systems, potential rail systems, airport expansion, etc.
> - Determine where the money comes from to address the transportation system deficiencies.
> - Determine who the players are and what partnerships should be formed.
> - Determine financing options.
>
> Programs and projects the Collaborative has achieved or is currently working towards outcomes include:
>
> - Review of existing transportation reports, plans and data to determine the current level of service and existing deficiencies.
> - Completion of the Eagle/Gypsum/Eagle County financial analysis for transportation improvements in the down valley region.
> - Investigation and discussion of transportation infrastructure financing opportunities.
> - Assisting the I-70 Coalition regarding a study of land use patterns and potential transit station locations along the I-70 corridor.
>
> The Transportation Collaborative is an excellent example of communication and collaboration among the community leaders working in unison to identify transportation issues and find solutions.

Statements about Environmental Sustainability

Environmental sustainability is addressed in the *Eagle County Comprehensive Plan* in **Section 3.9.5, Energy Efficiency** as follows:

> The focus on planning a more sustainable future requires that Eagle County consider available energy sources and consumption patterns. Currently, the County relies heavily upon fossil fuels to power homes and vehicles. Not only are these a finite resource that will continue to rise in cost, but the combustion of such energy sources releases green house gases and particulates that degrade air quality. Two approaches will lead to a more sustainable use of energy: 1) reducing overall energy consumption and 2) shifting to renewable energy sources.
>
> According to the EPA, half of the energy consumed by an average household in the US is attributed to home heating and the other half to the driving of personal vehicles. Land use, housing and transportation planning, site planning and neighborhood and building design have profound effects on energy efficiency and energy-related air emissions. The development of energy efficient, livable, transit-oriented communities would therefore present one logical approach to help reduce the consumption of energy. The opportunities to utilize this approach in

Eagle County are becoming further limited as the area approaches "build out". Energy efficiency should be evaluated with all new development and re-development.

As gasoline prices continue to increase so too will the incentive for governments and private businesses to find alternate sources of energy for transportation. Eagle County should set a lead example for the community in this regard by taking advantage of new technologies as they are developed and proven to be reliable.

This plan provides an opportunity to work towards building a community that is socially, environmentally and fiscally responsible and sustainable. The planning framework contained herein responds to the increased recognition of the area's unique quality of life attributes and of the significant economic, environmental, and social costs associated with growth related issues such as urban sprawl, traffic congestion, water and air pollution, loss of local resident housing, loss of neighborhoods and social contact, energy consumption and waste, and the loss of areas of high environmental sensitivity. Eagle County Government should set the example, and should pursue an active role in working towards a more sustainable and energy efficient future by utilizing new technologies, and by adopting appropriate standards, regulations and controls.

Environmental sustainability is also addressed in the *Eagle County Comprehensive Plan* in **Section 3.9.5, Energy Efficiency,** under **Policies**:

d. Energy efficiency and the reduction of overall energy consumption should be a primary goal for future operations and developments in Eagle County.

The following points are taken from the *Sustainable Communities 2010 Eagle County Government*:

3) Environmental Management System

2025 Goals:

- Electricity: 50% reduction in use.
- 50% electricity provided from local renewable systems.
- Biomass projects, geothermal, and/or solar thermal offset 30% heating needs.
- Natural gas: 30% reduction.
- Fuel: 50% overall mpg average increase
- Fuel: 30% of fuel is from alternative sources (CNG, biofuels, electricity, etc.)
- Reduce water consumption by 50%.
- Solid waste: 5 lbs. per capita or less
- Recycling: 50% diversion rate.

Statements about Water Resources

The *Eagle County Comprehensive Plan* quotes the following about water resources in **Section 3.6.2, Water Quantity,** under **Policies**:

a. The long-term viability of both ground and surface water sources should be protected.

b. Minimum in-stream flows should be maintained and efforts to establish optimum in-stream flow standards in Eagle County should be supported.

c. Water conservation efforts by all water users in Eagle County should be implemented.

d. New water diversions and water storage projects should result in positive impacts to Eagle County's economy and environmental quality.

e. Collaborative efforts on regional land and water use planning efforts to address future growth, water supply, and stream flow protection should be encouraged.

In **Section 3.6.2, Water Quantity,** under **Water Use** the *Eagle County Comprehensive Plan* quotes the following about water resources:

> In the arid west, water quantity is one of the most important considerations for growth. Western states all compete for a limited water supply. Where ample water and water rights exist, communities, agriculture, and more recently, recreation have flourished. While water rights and out-of-basin diversions to the Front Range have been issues in Eagle County for many years, there are now questions regarding the ability of Eagle County streams and aquifers to adequately support future local demands for water, which include the need to keep water in natural channels for recreation and for the maintenance of aquatic and riparian ecosystems.

Under **Water Rights**, the *Eagle County Comprehensive Plan* quotes the following:

> An adequate supply of water is essential for the people of Eagle County, and both ground and surface water sources should be protected. Additional out-of-basin diversions should be discouraged, and proposals for new development should include proof of adequate water for all proposed uses. Water providers should be held accountable to assure the use of the most current data regarding the amount of water that is physically available for domestic use in the County. Water conservation measures should be encouraged for agricultural uses and should be required for all new residential and commercial developments. Improved conservation in all existing developments is important as well, and the County should work with Town governments, water providers and homeowners associations to improve related policies, guidelines and/or regulations.

Under **Existing Water Storage Facilities**, the *Eagle County Comprehensive Plan* quotes the following about water resources:

> Future growth will bring increased demands for water in Eagle County, and the pressure to construct additional storage for augmentation will increase. Positive impacts from additional storage include increased recreational opportunities, and the ability to maintain minimum stream flows and aquatic environments downstream from the reservoir during low flow periods. Negative impacts include the flooding of stream and river ecosystems and wildlife habitat, and the reduction of spring runoff volumes, which flush accumulated sediments and contaminants from stream channels, and which support rafting and kayaking, a growing sector of the local economy.
>
> New water storage projects in Eagle County should promote the most beneficial and efficient use of water resources, and Eagle County Government should oppose water diversions that adversely affect Eagle County's population, economy, or environmental quality. Storage projects should be located in areas where the project causes the least possible damage to wetlands and wildlife habitat. Future water demands, the creation or loss of recreation opportunities, and impacts on stream water quality and aquatic habitats throughout the region should all be carefully evaluated in the planning process.
>
> Both agricultural and domestic uses create significant depletions in the stream channel between the point where the water is diverted and the point where it is returned. The Eagle River Watershed Council is currently involved in the Edwards Eagle River Project, a program intended to improve the 1.5-mile section of the Eagle River between the domestic diversion point in Edwards and the sewage treatment facility at Squaw Creek. This river section currently suffers from low flows, shallow gradients and cross sections, accumulated sediments and disturbed riverbanks.
>
> The relationships between water use, water diversions, return flows and river impacts should continue to be carefully considered in all future water use and delivery system plans.

> Eagle County Government needs to support efforts to provide better information regarding water supply, optimum stream flows, and future demand, and should work with other governing entities to develop coordinated policies regarding the same. Additional biological monitoring is needed to determine the relationship between water quantity, water quality and the health of the region's streams and rivers.

In **Section 3.6.3 Water Quality**, under **Existing and Potential Water Quality Issues**, the *Eagle County Comprehensive Plan* states the following:

> Since the construction of I-70 over Vail Pass, sediments from traction sanding have significantly impacted fish habitat in Black Gore Creek. Efforts have recently been undertaken by CDOT to try to capture this sand before it leaves the road right of way. Once in the waterway, sand migrates downstream each year, and it is feared that sand could begin to effect water quality in Gore Creek, a Gold Medal fishery. A study conducted by the United States Geologic Survey titled *Gore Creek Watershed, Colorado—Assessment of Historical and Current Water Quantity, Water Quality, and Aquatic Ecology, 1968-98*, discussed the potential impacts from sand, and indicated certain other water quality and stream biota impacts from development on that once pristine mountain stream.

D.3.1 Town of Gypsum

The following plans were identified and reviewed for the Town of Gypsum:

- *Gypsum Foundation Plan 1999*
- Eagle River Area Plan Public Open House 2008 (to update Foundation Plan)
- *Town of Gypsum 3-Mile Annexation Plan 2007 Update*

Statements about Growth and Population

In the *Gypsum Foundation Plan*, under **Growth Management on page 23**, the following statements were made regarding growth and population:

> **Goal 1:** Direct growth into appropriate areas and arrangements, diverting development away from prime agricultural lands, riparian corridors, steep slopes, highly visible hilltop areas, critical wildlife habitat, and geologic hazards.
>
> **Goal 2:** Manage the type, scale and density, location, and timing of growth so that community infrastructure, facilities and service expansions can accommodate new developments without compromising quality of service goals.

In the *Town of Gypsum 3-Mile Annexation Plan 2007 Update*, page 1 quotes the following regarding growth and population:

> The unprecedented growth rate of the community over the last few years has rendered some of the Foundation Plan and the existing 3-Mile Plan obsolete, even though the plans are only a few years old. As a result of this growth rate and several specific annexation requests, it has become necessary to update the Town's current 3-Mile Plan. Over the last 5 years, Gypsum's population has grown approximately 18%. This rapid growth is directly attributable to the expansion of the tourism and recreational industries, the general desirability of a mountain lifestyle, a strong second home market, and new technology that allows many people to work at home, wherever that may be. The high level of construction activity in the valley has created additional jobs in the development and the construction industries. As more people find ways to make the valley their permanent home, retail and service industry businesses spring up to serve the rapidly growing permanent population of the valley. Excessive competition for developable land in the upper valley market has elevated land prices so high that the average income family/person has

been forced to look down valley for housing. The first wave of the Gypsum population boom filled up the core area of town.

Page 2 of the *Town of Gypsum 3-Mile Annexation Plan 2007 Update* also quotes the following:

The key items that are actively being addressed are:

- Obtaining new supplies of raw water as they become available, developing reservoir storage capacity, and expanding water treatment and delivery system capacity.
- Ensuring that sewer plant capacity is increased incrementally ahead of development in order to meet established state standards.
- Increasing the capacity of the existing transportation network to accommodate planned growth and developing alternate routes and other traffic mitigation measures to take pressure off of areas where congestion is occurring or anticipated.
- Identifying and evaluating the effect of potential growth areas located outside of Town that will have an impact on town facilities and infrastructure. (e.g. Cottonwood Pass Road traffic, Dotsero residential development, and airport expansion).

Statements about the Development of Transit

Page 24 of the *Gypsum Foundation Plan*, under **Community Facilities & Services,** quotes the following regarding transit:

Goal: Construct and maintain high quality community infrastructure including water supply and sewage disposal systems, an effective transportation network that includes transit systems, pedestrian and bicycle trails, and parks and recreational facilities.

Page 26 of the *Gypsum Foundation Plan*, under **Transportation Network,** quotes the following:

a. Transportation network planning and land use planning decisions will be mutually supportive and shall include provisions that facilitate pedestrian and bicycle travel, and transit operation.

g. Locate and build trails so that they interconnect between existing and planned recreational facilities and parks, public open space areas, schools, commercial centers, the Eagle County Regional Airport, residential subdivisions (existing and planned), future potential transit stations, and existing and planned public land access points, the Town of Eagle, and the Dotsero area.

Page 52 of the *Gypsum Foundation Plan*, under **Transit Center Designation,** quotes the following:

Over the past few years several things have happened that indicate that this corridor will eventually be converted for fixed guideway transit use. Shortly after a merger, Union Pacific (UP) gained control of the rail corridor and announced that they intended to abandon it. The freight trains that were using the corridor were to be re-routed to other rail corridors.

UP's announcement of their intent to abandon created several interesting reactions. Several Counties and Towns banded together with the Colorado State Parks Department and Great Outdoors Colorado to promote development of the "Heart of the Rockies Trail," a trail that would be constructed within the rail corridor and would stretch from Dotsero to the Royal Gorge. Almost $5,000,000 was proffered toward this trail project. The Colorado Department of Transportation (CDOT) threw their hat in the ring by offering to purchase the corridor with the goal of preserving it as a multi-use transportation corridor.

Several studies have been funded, both private and public, and opinions voiced regarding what form of transportation would be most appropriate within the corridor. However, most people close to the issue believe that some form of fixed guideway system and a recreational trail will be developed within the corridor some time in the foreseeable future.

Thus, it behooves the Town to plan for and reserve land for transit stations. The Transit center designation is intended to accomplish this task. Areas included in this designation shall be reserved for future use by fixed guideway (train, monorail, etc.) transit stations and related facilities. Two locations have been designated for such use, and both are located along the existing railroad corridor.

The old railroad yard located adjacent to Railroad Avenue will be reserved for a pedestrian oriented transit station. This transit facility will be a place that people will walk to rather than driving to. The area is too small to accommodate a park and ride lot, but a drive-thru drop off area should be considered. A transit station in this area is expected to rejuvenate the Railroad Avenue business district and stimulate interest in residential redevelopment of the adjacent neighborhood.

The Nottingham Gravel Pit will be reserved for a major inter-modal transit and transportation center. Three different modes of travel are expected to come within close proximity of each other at this property. The proposed I-70 interchange will bisect the property. The existing rail corridor runs along the south side of the pit. The airport is nearby.

This site is large enough to accommodate a full-blown transportation center similar to the Vail transportation center. Such a transportation center would connect air travelers to the fixed guideway transit system. It is readily accessible by car from either Highway 6 or I-70 (once the new interchange is built). The site can also accommodate large numbers of cars in a park and ride situation, and thus it will be attractive as a regional transportation/transit facility.

Page 56 of the *Gypsum Foundation Plan*, under **Transit Systems,** quotes the following:

The Town will work together with the Eagle County Regional Transportation Authority (ECRTA) to meet the transit needs of the community. At some point in the future it would be appropriate to develop an in-Town shuttle or circulator service. The shuttle service would bring people to the existing ECRTA bus stop. It would also bring people to the transit/transportation centers that are anticipated to develop within Town in the future. The circulator could be used as an internal means of transport for people who can't drive or prefer not to drive. Land developers will be asked to consider providing convenient bus stop areas within new subdivisions.

The Town will be proactive in supporting and implementing a fixed guideway transit system. Such a system must provide service to the core of Town and the airport area. The system should be planned and implemented so that it connects with other existing and planned transit networks, with connections made in as seamless a manner as possible. Systems designed that require multiple transfers from one transit mode to another (more than 2) should not be supported.

Any transit system specified for development within the rail corridor must be complimentary to and allow construction of the planned Heart of the Rockies Trail. Ideally this means that an elevated transit system should be installed.

Statements about I-70

Page 26 of the *Gypsum Foundation Plan*, under **Transportation Network,** quotes the following:

> **b.** Ensure that major transportation corridors are attractively landscaped and designed to promote safe and efficient movement of people and goods in vehicles.
>
> **e.** Promote the development of a new connection to I-70 to better serve the airport and the uses that are expected to develop in the surrounding area (see 1999 Felsberg, Holt & Ulevig I-70 Interchange Study).

Statements about Regional Coordination

Page 26 of the *Gypsum Foundation Plan*, under **Transportation Network,** quotes the following:

> **d.** Integrate the Town's transportation systems with the nearby county, state and federal systems and leverage state and federal funds while forming partnerships to resolve regional problems.

Page 35 of the *Gypsum Foundation Plan* also quotes the following:

> Encourage transit system development within the corridor. Preserve potential locations for and participate in the development of a major regional-serving transit center at or near the airport and a small pedestrian-oriented transit center in the original downtown area along Railroad Avenue.

Page 37 of the *Gypsum Foundation Plan* quotes the following:

> Assist Eagle County with development of the ECO transit service center and the new road and bridge maintenance facility.

Statements about Water Resources

Page 58 of the *Gypsum Foundation Plan*, under **Raw Water Supply,** quotes the following:

> Gypsum's water supply is one of the Council's highest priorities both in terms of actual supply and the quality of water that reaches each faucet throughout Town. The Town has done well regarding securing sufficient water rights and facilities to meet the Town's current and projected water usage demands. However, the Town must continue to be proactive and vigilant in order to protect our future position in the competitive Colorado water market. As we grow we must also plan and budget for raw water supply purposes in order to meet the Town's water system goals.

Needs and implementation strategies for maintaining adequate supplies are set out in this section.

D.3.2 Eagle Area

The following plan was identified and reviewed for the area around the Town of Eagle:

- *Eagle Area Community Plan*, November 2008

Statements about Growth and Population

In regard to growth and population, the *Eagle Area Community Plan* quotes the following on page 10:

> The pattern of existing development has been shaped by the natural constraints of the land, including the Eagle River, Brush Creek and surrounding topography. In addition, Interstate 70, U.S. Highway 6, the railroad and the historic grid street pattern have guided growth and development over the years. Finally, land ownership has had a major effect on land uses as 74 percent of land in the Eagle Planning Area is owned by the Bureau of Land Management or the U.S. Forest Service.

Based on the county's projected growth rate of 3.4%, Eagle can be expected to experience additional growth pressure. With a focus on infill, redevelopment, and undeveloped land within the growth boundaries, this growth can be accommodated in a manner which supports the vision of this plan. The potential for development in the Interstate 70 Influence Character Area and the undeveloped land within the Growth Boundary indicate that there is potential for outward growth in the community. In addition, infill will continue to occur as the supply of land grows more and more restricted and land values rise. To address this anticipated growth, higher density development patterns and mixed-use development will be encouraged. This approach to growth management will require investment in infrastructure and services.

Statements about the Development of Transit

The following information regarding transit is provided on page 11 of the *Eagle Area Community Plan*, under **Mobility and Transportation:**

The proposed land use approach will enhance the mobility of people and goods. A range of mobility options is important to the livability, quality of the environment, and economic well-being of the Eagle Planning Area. The intent is to consider transportation as a basis in all land use decisions so that a system of roadways, rail, transit corridors, bicycle paths and sidewalks link regional and neighborhood destinations to residential areas.

This will be accomplished through the creation of convenient, efficient, affordable, interconnected mobility options, as well as the gradual change in land use patterns that will support alternative transportation modes including, walking, biking, and transit.

Other information is found in Chapter 3 of the *Eagle Area Community Plan* on page 26, as follows:

Policies	Recommended Strategies
2.4) The scale, location, type, intensity, and timing of new development and redevelopment will be controlled through the implementation of growth management tools.	Utilize the ECO toolbox for growth management (See ECO Plan Policy 3.2.6.c.) with specific emphasis on impact fees, design standards, clustering/conservation oriented communities, transit-oriented development, concurrent development, conservation easements, ridgeline/steep slope restrictions, intergovernmental agreements and transfer of development rights. Monitor the effectiveness of the various tools to assess the impacts • of growth and modify the toolbox as needed. Amend the existing design standards to create a transition between the CBD and adjacent residential.
1.1) The Town and County will work to integrate local multi-modal improvements into the transportation system.	Develop a plan with the county to determine and address the public transportation needs of the Eagle Planning Area, and implement necessary strategies from ECO Policy 3.5.6.g. Facilitate collaboration with developers, the Eagle County Transit • Authority and the State of Colorado. Expand regional transit service and ride share/van pool programs. Support commuter rail service. Plan transit improvements around a future transit hub to be located along the railroad in a central location. (See the Future Land Use Map for proposed location). Connect pedestrian paths to transit hub from both sides of river. Secure future freight rail as an energy saving measure.

Statements about I-70

The *Eagle Area Community Plan* identifies the influence I-70 has had on shaping growth of the town and the pressure that I-70 may have on its population growth. I-70 is also mentioned with respect to interchange and other planned improvements.

On page 4, the *Eagle Area Community Plan* states:

> The Interstate 70 Influence Character Area, and the undeveloped and un-platted land within the Growth Boundary, will be the major new growth areas.

Also, on page 10, the *Eagle Area Community Plan* states:

> In addition, Interstate 70, U.S. Highway 6, the railroad and the historic grid street pattern have guided growth and development over the years.
>
> The potential for development in the Interstate 70 Influence Character Area and the undeveloped land within the Growth Boundary indicate that there is potential for outward growth in the community.

Statements about Regional Coordination

The *Eagle Area Community Plan* refers to regional coordination on page 42, under **Transportation, Facilitate a Regional Approach,** as follows:

> Transportation has regional implications and should therefore be approached from a regional perspective. The Town and County will work to develop a regional consensus for multi-modal improvements to the regional transportation system by facilitating collaboration with developers, the Eagle County Transit Authority and the State of Colorado.
>
> Regional transit service, park-and-rides and rideshare/vanpool programs should be expanded including more parking as necessary at Park-and-Rides. The Eagle County Transit Authority currently provides routes between Dotsero, Gypsum, Eagle County Airport, Eagle, Avon, and Vail. Statistics from winter 2007 show that 4 percent of ECO Transit ridership occurred in Eagle at about 105 boardings per day. Potential expansions might include additional stops (currently three in the Town of Eagle), additional support infrastructure such as bus shelters and signage, and/or a town shuttle system to compliment and tie into the regional bus system.
>
> The Future Land Use Map illustrates the proposed location of a regional transit center, strategically located to incorporate a potential passenger rail line. The Eagle County Comprehensive Plan states that a county-wide commuter rail system should remain an important priority. In addition, a direct regional passenger rail system between Denver and Glenwood Springs via Summit County, Vail and Eagle such as the Rocky Mountain Rail Coalition and the I-70 Coalition is supported. In the short-term, this transit center will service the regional bus system with the intent of expanding if commuter rail is implemented. Main arterial roads will be improved to effectively accommodate transit, bicycles, pedestrians, and other mobility options. New development will connect to these networks.
>
> In view of increased fuel costs (rail consumes a third of the energy of trucks), it would be wise to provide for accommodations of rail freight service to industrial areas near the existing rail line via spurs.

Statements about Environmental Sustainability

Chapter 7: Natural, Scenic and Environmentally Sensitive Areas of the *Eagle Area Community Plan* quotes the following statements regarding environmental sustainability on pages 52-53:

> Sustainability is measured from a social, environmental, and economic perspective. The Report of the Brundtland Commission, "Our Common Future," published in 1987, defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The Town of Eagle will work towards environmental sustainability through the following:
>
> 1) Use natural resources efficiently.
> 2) Improve and maintain air quality.
> 3) Maintain and enhance water quality and quantity.
> 4) Protect critical environmentally sensitive or hazardous areas.

Also, the following statement is made on page 57 of the *Eagle Area Community Plan*:

> *NS [Natural Scenic] Goal 1:* Eagle will be an environmentally enriched community built around conscientious lifestyles and responsible building and transportation practices.

Statements about Water Resources

Chapter 7: Natural, Scenic and Environmentally Sensitive Areas of the *Eagle Area Community Plan* quotes the following regarding water resources on pages 52-53:

> 3) Maintain and enhance water quality and quantity.
>
> The Town continues to support policies and action items from the Eagle River Watershed Plan, particularly with regard to protection of riparian vegetation, instream flows, revegetation of riparian habitat and sedimentation control. In addition, future efforts will include the development of a water budget and implementation of water conservation tools.
>
> The Town will address local impacts on water quality and quantity through public education. Public education can make residents aware that small, household level pollution sources can have significant effects on water quality at a local and regional scale. Education may include brochures, ads, fact sheets and toolkits such as those published by the Colorado Water Protection Project or the Environmental Protection Agency. Polluted runoff adversely affects water quality by depleting the oxygen needed for fish and wildlife to thrive. Risks contributing to runoff pollution include pet waste, use and storage of pesticides and fertilizers, and disposal of hazardous waste.

D.3.3 Town of Wolcott

The following land use plan was identified and reviewed for the Town of Wolcott:

- *Wolcott Area Community Plan 2009.* This Community Plan was adopted June 2009.

Statements about Growth and Population

In the **Introduction** on page 5, the **TRENDS OF PLANNING SIGNIFICANCE** section of the *Wolcott Area Community Plan* quotes the following statements about growth and population:

> There are many local, regional and even state and national trends and directions which will affect future decisions within the Wolcott area planning boundary. Locally, there is a need for housing, for natural resource and environmental preservation, for economic diversification, for infrastructure improvements and for expanded childcare and senior care services. As incorporated towns struggle financially, there are issues regarding the appropriateness of retail and commercial development on unincorporated lands in Eagle County. On a larger scale there are resource shortages, which increasingly drive the need for energy efficient, walkable, transit oriented communities. And there are water shortage concerns in the west, which may eventually

result in a reservoir on Highway 131. Specific to Wolcott, the topics of changing demographics, growth, housing and quality of life seem especially relevant.

The *Wolcott Area Community Plan* also quotes the following on pages 5-6, under **A CHANGING POPULATION**:

> The demographic make up of the residential population in Eagle County is changing. While there are still many long time locals, a tribute to the beauty of the area and the life style it provides, the proportion of the population that has more recently arrived is growing quickly. The 2000 census found that 41 percent of those living in Eagle County had been in the county less than five years. This is to be expected in an area that is growing so rapidly.
>
> It is safe to assume that the majority of people who move to Eagle County do so to enjoy the amenities and lifestyles of mountain living. Many come from urban areas, however, and bring expectations for services and conveniences that are different than those of long-time locals. A growing portion of Eagle County's population, for example, may expect services and response times similar to those found in larger towns and cities. They may be more accepting of higher density urban/suburban living environments, and more willing to utilize mass transit systems to get around. They may also have a preference for shopping at large regional malls and shopping centers. Unfortunately, while they cherish the immediate connection to beauty and nature provided by mountain living, many newer residents may not fully understand the sensitive nature of the natural environments and ecosystems that are so important to the lifestyle they now enjoy.
>
> This plan envisions Wolcott as a place where service needs are adequately met within the context of mountain living. It promotes Wolcott as a place where the preservation of open space, views and the quality of the natural environment is given a high priority, and where compact development can be used to provide a vibrant, functional development footprint. Wolcott should also be a place where experiences that foster increased awareness and understanding of local history and the natural environment are readily available.
>
> Another demographic trend in Eagle County is an aging population. As locals retire in place, and as additional retirees take up residency, new demands will be created, and new programs and support services will be necessary. Wolcott provides a desirable elevation and climate, and future development in the Wolcott area should both recognize and work to accommodate this demographic shift.

The following points are quoted on page 6, under **GROWTH PRESSURE**:

> Since the arrival of the ski industry in Eagle County in the 1960's, the I-70 corridor through the Eagle River Valley has been witness to a level of growth and development that few could have anticipated. Vail's quick rise to popularity as one of the best ski resorts in the world resulted in homes and businesses rapidly filling the Gore Creek Valley, and development spilled west. The Town of Avon was incorporated in 1974, and in 1979 ground was broken at Beaver Creek, soon to become the second world class ski area in the County. The popularity of outdoor recreation, combined with easy access, favorable tax laws, and a wonderful climate set the stage for explosive growth in Eagle County that continues today. Growth activity has moved steadily west. The Town of Avon now boasts a population of 8,000, and the unincorporated area of Edwards has grown to become the largest community center in the County, with over 10,000 residents. Ten miles west of Wolcott is the once sleepy agricultural community of Eagle, where growths rates have hit double-digit figures since the late 1990s. Even further west, the Town of Gypsum is expanding rapidly, with a new Costco center and a number of new residential and mixed use developments. The Colorado State Demographer projects continued strong growth rates in Eagle County, bolstered by a wealthy "baby boomer" age cohort that will increasingly

target desirable places like Eagle County to purchase second homes or to retire (please note discussion on growth in Part II of the 2006 Eagle County Comprehensive Plan). Centrally located on the I-70 corridor, Wolcott stands in the crosshairs of the County's growth phenomenon.

The *Wolcott Area Community Plan* quotes the following on page 6, under **HOUSING**:

Growth in a place like Eagle County can create issues related to workforce housing. Modern resort economies generate many service level jobs, but the free market in a highly desirable place like Eagle County favors the development of more profitable second homes over the construction of affordable units. Through the years, this has created a situation where there are now many more jobs than there are housing units that workers can afford to rent or buy.

A study conducted by an Advisory Services Panel of the Urban Land Institute in 2006 concluded that 3,500 new affordable units were needed in at that time in Eagle County. The more recent housing needs assessment conducted by the Eagle County Housing Department in 2008 confirms this conclusion.

Over the foreseeable future, the disparity between jobs and affordable housing in the County is expected to worsen considerably. Resort communities are very expensive places to live, and local businesses find it difficult to attract and keep good employees.

In the event that a new residential community is found to be a viable option, Wolcott's valley floor could provide a unique opportunity to play some catch up, easing the regional workforce housing dilemma. In that event, and consistent with provisions of the Eagle County Housing Guidelines, this Plan envisions Wolcott as a local's community, where a variety of housing sizes and types will be available for purchase or rent to local workers.

Statements about the Development of Transit

On pages 24-25, the **8. ACCESS AND CIRCULATION** section of the *Wolcott Area Community Plan* quotes the following statements about transit:

GOAL 8.1 (Transit Oriented Design)—Development in Wolcott promotes a sustainable future by encouraging the use of mass transit and personal modes of transportation other than the automobile.

POLICY 8.1.1—Require compact and/or clustered development to promote walking, biking and the use of public transportation systems.

POLICY 8.1.2—Require efficient connectivity between all destinations by a multi-purpose sidewalk, trail and street system.

POLICY 8.1.3—Require that adequate parking be provided within walking distance of all destinations

POLICY 8.1.4—Strongly encourage the development and operation of regional and local feeder public transportation systems that are appropriately designed and easily accessible to all residents and visitors.

POLICY 8.1.5—Provide an appropriate location for the Eagle Valley Regional Trail to and through the Wolcott area. Require efficient connection to the Regional Trail system by all development.

GOAL 8.2 (Community Oriented Design)—Transportation systems and facilities are designed to accommodate local needs, enhance the quality of life of local residents and minimize negative impacts to the quality of natural resources and the environment

POLICY 8.2.1—Promote a comprehensive approach to transportation design. Coordinate planning with local, State, and Federal transportation agencies and departments to provide consistency with existing access and travel management plans

POLICY 8.2.2—Require road, transit and pedestrian access systems in Wolcott to be designed to anticipate future needs and traffic volumes. Guide development to assure operation at Level of Service (LOS) C or better at all road intersections

POLICY 8.2.3—Require a safe interface between pedestrian, bike and vehicular modes of transportation

POLICY 8.2.4—Site and design roads, parking areas and trails to enhance sense of place and community character

POLICY 8.2.5—Strongly encourage clustering in rural areas to reduce the extent of transportation related Infrastructure

POLICY 8.2.6—Adequately address impacts to visual quality, wildlife, water quality and sensitive lands when planning trails, bridges, roads and parking lots

The **VF 2. NATURAL AND CULTURAL RESOURCES** section of the *Wolcott Area Community Plan* quotes the following statements on page 39, under **VF 2.3 AIR QUALITY**:

Ensure that development on the valley floor minimizes impacts to the quality of the local air shed by incorporating the following strategies:

A. EMISSIONS FROM VEHICLES, HOMES AND BUSINESSES

5) Apply transit oriented development design criteria, requiring facilities for local and regional mass transit systems and full multi-modal connectivity to all community destinations.

The **VF 4. COMMUNITY CHARACTER AND DESIGN** section of the *Wolcott Area Community Plan* also quotes the following statements about transit on pages 46 and 48, under **VF4.2 DESIGN AND LAYOUT**:

Ensure an efficient, functional and attractive layout and positioning of amenities on the valley floor by incorporating the following strategies:

A. COMPACT FORM

IN ALL INSTANCES, THE FOLLOWING APPLIES:

1) Promote a compact transit oriented development form.

D. ACCESS, MOBILITY AND CONNECTIVITY

IN ALL INSTANCES, THE FOLLOWING APPLIES:

1) Incorporate Transit Oriented Design (TOD) characteristics. Provide adequate road, path, parking, and public transit systems to serve all destinations on the Valley Floor.

2) Set aside adequate space in appropriate locations for bus and rail transit facilities.

Statements about I-70

On page 28, **The Valley Floor Character Area, INVENTORY AND ANALYSIS** section of the *Wolcott Area Community Plan* quotes the following statements about I-70, under **PHYSICAL EXTENT**:

> The Valley Floor Character Area covers approximately 1,660 acres (see map) and captures the entire Eagle River corridor, the I-70 platform and Wolcott interchange, the flat pasturelands between I-70 and the river corridor and the developed areas around the Wolcott Yacht Club (commonly referred to as the "Hamlet"). The Eagle Springs Golf Course property and a portion of the hillside above and south of the I-70 interchange are also included.

The following points are quoted in **The Valley Floor Character Area, INVENTORY AND ANALYSIS** section on pages 28-29, under **ACCESS, INFRASTRUCTURE AND SERVICE**:

> Interstate 70 provides high capacity vehicular access to Wolcott from points east and west via a full diamond interchange. The area is also served by US Highway 6, which parallels the Eagle River, and State Highway131, which originates at the Wolcott Hamlet and travels north to State Bridge and then on to Routt County and Steamboat Springs. US Highway 6 is connected to the I-70 interchange by a short "spur road" that crosses the valley floor in a north south alignment. Bellyache Ridge Road and Shooting Clay Road (a private drive) provide access to the hillside south of the interchange.

The *Wolcott Area Community Plan* quotes the following on pages 28-29, under **SIGNIFICANT PLANNING FACTORS FOR THE VALLEY FLOOR CHARACTER AREA**:

1. The Valley Floor is visible to thousands of travelers every day.
2. Present day road alignments and current and anticipated traffic volumes moving through the Valley Floor area are not conducive to safe, pedestrian-oriented development.
4. Adequate power, communication services and access are available in the Wolcott Rural Center. The area is within the boundaries of the Eagle River Water and Sanitation District, but no domestic facilities have been constructed. At the writing of this plan, regional transit services are available only at the I-70 intersection. Also at the writing of this plan the area is not adequately served by fire and life safety services, which must respond from the communities of Edwards or Eagle.
5. This plan provides guidance for two distinctly different development scenarios, which might occur on the Wolcott Valley Floor:
    a. The preservation of the existing Rural Center at the intersection of US Highway 6 and State Highway 131 would continue to provide tangible public benefit to the people of Wolcott and the residents of Eagle County. Factors supporting this outcome include:
        - The rural character and open meadows and pastures currently found on the Valley Floor in Wolcott are increasingly rare along the Interstate 70 corridor in Eagle County.
6. Interstate 70 provides great highway access to the area but also impacts the Valley Floor with noise and traffic. Development should be considerate of interstate impacts.
7. Development of any nature on the Valley Floor should be transit oriented, with bus service facilities appropriately located, and should anticipate connection to future rail service facilities across the river (north) from the Hamlet.
12. A road alignment that would extend the Spur Road across the Eagle River north of the I-70 interchange to connect the Spur Road directly to Highway 131 north of the Hamlet (through the Vines at Vail property) is not viable at this time.

On pages 35-36, the **VF 2. NATURAL AND CULTURAL RESOURCES** section of the *Wolcott Area Community Plan* quotes the following statements about I-70, under **VF 2.1 VISUAL QUALITY**:

> Ensure that proposed development and land uses on the valley floor will be visually compatible with the natural setting by incorporating the following strategies:
>
> **A. VISUALLY INTEGRATED LAND USE**
>
> IN ALL INSTANCES, THE FOLLOWING APPLIES:
>
> 1) Minimize grading, and avoid large cut and fill sections or other topographic adjustments that do not transition smoothly to existing contours.
>
> 2) Require compact development and establish clear development boundaries on the Valley Floor to minimize visual impacts.
>
> 3) Strategically position buildings, roads, trails, parks and landscaped areas to create a community form that is visually compatible with and complimentary of the natural landscape when viewed from surrounding areas.
>
> 8) Encourage parking plans that minimize impacts to the visual quality of the area.
>
> 11) Use photo simulation and similar graphic analysis tools during application review to demonstrate how the various key visual components of development (architecture, massing, scale, parking, open space, landscaping, etc.) will work together to create an attractive and visually integrated community form.
>
> IN THE EVENT OF A RESIDENTIAL COMMUNITY, THE FOLLOWING SHOULD ALSO APPLY:
>
> 13) Require a comprehensive Traffic and Parking Plan for development that minimizes negative impacts to the visual quality of the natural and built environment.

The following points are quoted in the **VF 4. COMMUNITY CHARACTER AND DESIGN** section on pages 45-46, under **VF4.1 CHARACTER AND SENSE OF PLACE**:

> Work to make Wolcott a special place in Eagle County by incorporating the following strategies:
>
> **A. PLACE MAKING**
>
> IN ALL INSTANCES, THE FOLLOWING APPLIES:
>
> IN THE EVENT OF A RESIDENTIAL COMMUNITY, THE FOLLOWING SHOULD ALSO APPLY:
>
> 7) Design and position new development to minimize negative impacts from traffic on I-70 and other roads.
>
> **B. SMALL TOWN CHARACTER**
>
> IN ALL INSTANCES, THE FOLLOWING APPLIES:
>
> 6) Preclude truck stop operations, and work to discourage interstate transport truck parking at the I-70 interchange.

The *Wolcott Area Community Plan* quotes the following on pages 46, and 51-53 in the **VF 4. COMMUNITY CHARACTER AND DESIGN** section, under **VF4.2 DESIGN AND LAYOUT**:

> Ensure an efficient, functional and attractive layout and positioning of amenities on the valley floor by incorporating the following strategies:
>
> **F. APPROPRIATE SITING OF USES, VALLEYFLOOR**
>
> IN ALL INSTANCES, THE FOLLOWING APPLIES:
>
> IN THE EVENT OF A RESIDENTIAL COMMUNITY, THE FOLLOWING SHOULD ALSO APPLY:
>
> 5) Site public transit stations, including a possible rail service transit station, within walking distance of all developed areas
>
> **G. APPROPRIATE SITING OF USES, INTERSTATE INTERCHANGE**
>
> 1) Some level of commercial and retail development with limited attendant residential uses may be determined appropriate in immediate proximity to the I-70 interchange, even in the absence of plans for a larger residential community. The flowing criteria should apply to the siting of commercial and retail uses in the I-70 interchange area:
>
> - Reference strategies VF1.1.c.3), VF3.1.a.4) and VF3.1.a.5), improvements should be located with consideration for the possibility that US Highway 6 and the Spur Road would be re-aligned and that roundabouts would be installed at the bottom of the interchange ramps. Service and utility lines should be placed with similar consideration.
> - Ensure that adequate space is provided at the interchange for a regional transit station
> - Position residential units associated with on-site employment needs to minimize impacts from noise and traffic.
>
> 2) Other strategies and criteria related to layout, design and character provided by this Plan should be incorporated, as determined applicable.

The following points are quoted on pages 54-56, under **VALLEY FLOOR FUTURE LAND USE MAPS (FLUMS)**:

> **RESIDENTIAL COMMUNITY FOOTPRINT**
>
> A small area south of the I-70 interchange is included in this footprint, and would be a location where transit and/or commuter services would be logically placed.
>
> Residential densities within a new Wolcott community would be determined as a function of design, with an emphasis on creating an affordable, transit oriented community. Consist with the intent of this Plan, the highest densities should be located within and around a compact mixed use Village Center.
>
> **CHARACTER PRESERVATION**
>
> It is acknowledged that some level of commercial activity and the development of a regional transit stop may be determined appropriate in immediate proximity to the I-70 interchange. It has been determined that a truck stop facility would not be appropriate for the Wolcott area.
>
> **SOUTHERN HILLSIDE (CONSTRAINED AREA)**

Located above and south of I-70 east and west of the Wolcott interchange, this is steeper terrain, some of which is located within an identified landslide complex.

COMMUNITY BUFFER ZONE

These are lands designated to provide a break between communities along the I-70 corridor.

RAIL CORRIDOR DESIGNATION

This is the narrow corridor of land that contains rail amenities owned, operated and maintained by the Union Pacific Railroad. Anticipated uses include freight and passenger rail operations and related maintenance activities. Portions of a future rail transit station may be constructed on lands with this designation in proximity to the Wolcott Rural Center.

Statements about Regional Coordination

On page 17, the **I. PLANNING AND ADMINISTRATION** section of the *Wolcott Area Community Plan* quotes the following statements about regional coordination:

GOAL 1.2 (Regional Considerations)—Development in Wolcott reflects consideration of county-wide attributes, constraints, needs, and impacts.

POLICY 1.2.1—Promote collaboration between affected Eagle County departments, agencies, municipalities and service districts in the planning and development of Wolcott.

The *Wolcott Area Community Plan* quotes the following on page 39 in the **VF 2. NATURAL AND CULTURAL RESOURCES** section, under **VF 2.2 WATER QUALITY AND QUANTITY**:

D. MONITORING AND COMPLIANCE

1) Support local water quality studies and monitoring efforts, and assure conformance with applicable provisions of NWCCOG Regional 208 Plan.

The following points are quoted in the **VF 2. NATURAL AND CULTURAL RESOURCES** section on page 41, under **VF 2.4 SENSITIVE LANDS, HAZARDS AND HABITATS**:

C. MONITORING AND COMPLIANCE

1) Incorporate recommendations of the Colorado Division of Wildlife and other land and resource management agencies into development plans.

2) Support local and regional efforts by land management agencies to manage and monitor the condition of sensitive lands and habitats.

3) Utilize wildlife mitigation plans, design guidelines and written materials associated with public notices and lodging and real estate transactions to educate residents and visitors to Wolcott regarding the nature and care of sensitive lands and habitats.

Statements about Environmental Sustainability

On page 19, the **2. NATURAL RESOURCES AND ENVIRONMENTAL QUALITY** section of the *Wolcott Area Community Plan* quotes the following statements about environmental sustainability:

GOAL 2.7 (Energy and Resource Sustainability)—Development in the Wolcott Planning Area is energy and resource efficient, supporting a sustainable future

POLICY 2.7.1—Design streets, buildings and other public spaces to maximize efficient solar orientation

POLICY 2.7.2—Encourage the utilization of appropriately scaled renewable energy systems based on wind, solar, geothermal, hydroelectric and biomass sources

POLICY 2.7.3—Promote energy and resource efficient strategies in the design and construction of all residential, commercial, institutional and civic buildings

POLICY 2.7.4—Support development and designs that provide opportunities for small-scale food crop production

POLICY 2.7.5—Require measures to assure the efficient use of water

POLICY 2.7.6—Encourage and incorporate mass transit systems and the principles of transit oriented development

The *Wolcott Area Community Plan* quotes the following on page 34 in the **VF 1. ADMINISTRATION AND PROCESS** section, under **VF 1.1 COMPREHENSIVE PLANNING**:

Approach development on the valley floor in a comprehensive manner with a desired build-out scenario in mind, incorporating the following strategies:

C. VIABILITY AND SUSTAINABILITY

1) All development proposals should be accompanied by a detailed energy and environmental impact analysis, demonstrating the short and long term energy and environmental sustainability of the proposal.

The following points are quoted in the **VF 2. NATURAL AND CULTURAL RESOURCES** section on page 40, under **VF 2.4 SENSITIVE LANDS, HAZARDS AND HABITATS**:

Avoid hazard areas and impacts to sensitive lands and habitats on the Wolcott valley floor by incorporating the following strategies:

A. AVOIDANCE, PROTECTION AND PRESERVATION

1) Require the identification and mapping of natural hazards, habitats and ecosystems as part of any development proposal. Identify rare, endangered or unique plant species.

2) Utilize maps and input from the Colorado Division of Wildlife to identify lands critical to the well being of wildlife, including wildlife crossing areas.

3) Avoid alterations to natural landforms and disturbances to natural drainages, floodplains, riparian areas, wetlands, steep slopes, areas of significant geologic hazard and areas harboring unique or endangered vegetation.

4) Preclude development and manage or avoid human activity in critical wildlife habitats and movement corridors.

5) Prohibit the subdivision of the Eagle River corridor and related riparian and wetland areas into multiple private ownership tracks.

6) Prohibit the alteration of vegetation within the Eagle River corridor area. Provide adequate setback of structures from the river to avoid the manipulation of riverside vegetation for the purpose of wildfire mitigation.

7) Develop a comprehensive River Corridor Management Plan designed to balance public access and use of the river with the need to preserve and protect sensitive environments, habitats and ecosystems.

8) Require the management of the entire river corridor by a public or quasi-public management agency.

9) Assure long term monitoring and management of other sensitive lands identified within the Valley Floor character area by a qualified management entity.

10) Provide undeveloped buffers between sensitive lands and developed areas.

The *Wolcott Area Community Plan* quotes the following on pages 46-47 in the **VF 4. COMMUNITY CHARACTER AND DESIGN** section, under **VF4.2 DESIGN AND LAYOUT**:

Ensure an efficient, functional and attractive layout and positioning of amenities on the valley floor by incorporating the following strategies:

B. ENERGY EFFICIENT DESIGN

IN ALL INSTANCES, THE FOLLOWING APPLIES:

1) Orient travel routes, parking lots, buildings and public spaces to, maximize opportunities for solar gain and the use of efficient alternative energy sources.

2) Orient development to minimize cooling loads during the summer months.

3) Utilize a sustainable community index to insure an energy efficient community layout and design.

4) Incorporate elements of current LEED and other environmentally sensitive design guidelines to maximize energy efficiency in all structures.

5) Utilize innovative inspection and commissioning methods such as HERS (Home Energy Rating System) to test and insure high performance construction and operating systems.

Statements about Water Resources

On pages 38-39, the **VF 2. NATURAL AND CULTURAL RESOURCES** section of the *Wolcott Area Community Plan* quotes the following statements about water resources, under **VF 2.2 WATER QUALITY AND QUANTITY**:

Ensure that development on the valley floor avoids impacts to the quality and quantity of surface and ground water systems by incorporating the following strategies:

A. DOMESTIC WATER AND WASTEWATER SERVICE

IN ALL INSTANCES, THE FOLLOWING APPLIES:

1) Encourage the provision of high quality water and wastewater service to all developed areas on the Valley Floor.

2) Consolidate water and wastewater services under the management of a tax supported service district.

3) Ensure adequate water for fire suppression in developed areas.

IN THE EVENT OF A RESIDENTIAL COMMUNITY, THE FOLLOWING SHOULD ALSO APPLY:

4) Serve all developed areas with a centralized water and wastewater service system.

B. GROUND WATER PROTECTION AND ENHANCEMENT

1) Identify and map ground water aquifers and recharge areas prior to development.

2) Emphasize storm water drainage systems that maximize opportunities for the infiltration of surface run off.

3) Monitor and manage diversions of ground water to insure long-term health of local aquifers.

4) Install/position wells in the area to monitor ground water quantity and quality.

5) Recognize that shallow water tables may limit options for subsurface development on the valley floor.

C. SURFACE WATER PROTECTION ANDENHANCEMENT

IN ALL INSTANCES, THE FOLLOWING APPLIES:

1) Ensure that water utilization and wastewater disposal systems maintain or enhance stream flow dynamics and high quality water in the Eagle River.

2) Protect temperature regimes in the Eagle River by requiring energy recovery/heat exchange systems that work to cool effluent from wastewater treatment facilities.

3) Preserve and/or work to restore the integrity and function of natural drainages and drainage features.

4) Maintain wetlands and riparian areas in a natural and undisturbed condition.

5) Revegetate all disturbed areas with approved seed mixes in a manner and within a timeframe that best assures success. Require responsibility for the successful reclamation of disturbed areas for a period of two full growing seasons, or until such time that sufficient ground cover has been successfully established, upon completion of the project.

6) Encourage water conservation. Mandate water metering combined with an aggressively tiered water use rate structure in developed areas.

7) Establish landscaping standards that emphasize low water use (xeriscape) strategies.

8) Utilize raw water for surface irrigation. Incorporate latest technologies and best management practices to assure the efficient irrigation of agricultural lands, recreational fields and public parks.

9) Incorporate the recommended actions of the Eagle River Watershed Plan (1996, as amended) and the River Inventory and Assessment (2005, as amended) in development plans.

IN THE EVENT OF A RESIDENTIAL COMMUNITY, THE FOLLOWING SHOULD ALSO APPLY:

10) Require a comprehensive and fully integrated storm water management system that collects and treats storm water runoff originating from a new Residential Community.

D.3.4 Edwards Area

The following plan was identified and reviewed for the Edwards area:

- *Edwards Area Community Plan Vision Report*, January 2003

Statements about Growth and Population

On page 30, the *Edwards Area Community Plan Vision Report* quotes the following statements about growth and population, under **Steps For Managing Growth**:

> The Future Land Use Map alone does not guarantee the lower densities and limited growth envisioned by the Update Committee. First, the Edwards Area Community Plan is only advisory

as are all master plans in the State of Colorado. Second, there is zoning in place in parts of Edwards that does not support the vision of this master plan. Third, low density designation on the map does not suggest the kind or quality of development that the Edwards community wants. It may make it easier to determine where growth will go in Edwards, but it has very little control over the type of development that will occur in Edwards. For instance, affordable housing was widely supported by the 2002 Edwards Telephone Survey, but providing such housing will be more difficult with such low densities. Therefore, programs should be in place to guarantee any development is the type of development the community desires. Programs might include the following:

- Due to the fact that high land values drive the cost of development, four units per acre maximum density will have an effect on the affordability of units. Without requirements for affordable housing, there will likely be little incentive for private development of affordable units. Steps must be taken to ensure that there are units affordable to all socioeconomic levels of workers and their families. **Inclusionary Housing and Employment Linkage** programs would result in this overall mixing of housing units.
- There are areas of Edwards that are zoned at higher densities than would be supported by the vision set forth in this plan. Lake Creek has been identified as an area of rural character to preserve in this plan, yet zoning in portions of the valley allow densities of one unit per five acres and one unit per two acres. Down-zoning often results in the perception of a "takings". Therefore, if reconciliation between the plan and zoning are ever considered, programs such as **clustering** must be put in place that would allow the landowners to use creative methods of development.
- Character of development cannot be controlled by a Future Land Use Map. Items such as treatment of parking facilities, orientation of buildings, buffers, etc. can best be handled by design guidelines. There are often situations where even low density development can seem destructive to the community character. Density and bulk can be disguised by simple design solutions. Edwards could benefit from **design guidelines** by depicting in more detail the types of development and the character Edwards is promoting.
- If the scenic vistas and natural setting are indeed some of the most treasured components of the Edwards community, **ridgeline and hillside development guidelines** should also be considered. These can best be accomplished by becoming part of the Eagle County Land Use Regulations. This would require full public hearings by the Planning Commission and approval by the Board of County Commissioners.
- The community should be supported in any grassroots endeavor to incorporate which will increase community control.

Statements about the Development of Transit

On page 11, the *Edwards Area Community Plan Vision Report* quotes the following statements about transit, under **Transportation Element**:

> **4. Goal:** The Eagle County Transit Authority and other entities cooperate to increase utilization of mass transit opportunities, provide a more viable alternative to the automobile user, and improve services to the non-driving public.
>
> **Objective. 4.1 Mass transit program.** Support improvements to and expansion of public transportation service to the Edwards area.

Statements about I-70

The *Edwards Area Community Plan Vision Report* considers I-70 in the discussion of several sites in relation to preservation of the Town's characters, views, and wildlife.

Statements about Regional Coordination

On page 11, the *Edwards Area Community Plan Vision Report* quotes the following statements about regional coordination, under **Transportation Element**:

> **Objective. 3.1 Future Roads.** Plan future connector roads in a manner consistent with the adopted Edwards Access Control Plan.
>
> **Objective. 3.2 Consistency With Other Agency Plans**. All roadway or transit improvement plans, programs, and traffic studies should be coordinated with applicable state, regional, county, and municipal transportation agencies.

The following points are quoted on page 14, under **Environmental Quality Element**:

> **10. Goal:** Ecosystem management, multi-jurisdictional, multiple use and travel management issues within and adjacent to the Edwards Planning Area are a cooperative effort among all involved agencies and organizations. flooding, storm-water inundation, surface and groundwater pollution due to storm-water runoff is ensured in a manner compatible with the policies contained herein.
>
> **Objective. 10.2 Multiple Use and Travel Management.** Work cooperatively with the United States Forest Service, the Bureau of Land Management and landowners to define multiple use, access and travel management prescriptions for those public and private lands situated at the boundary of the White River National Forest.

Statements about Environmental Sustainability

On page 14, the *Edwards Area Community Plan Vision Report* quotes the following statements about environmental sustainability, under **Environmental Quality Element**:

> **Objective. 12.4 Energy Conservation & Alternative Production.** Improve and sustain ambient air quality by providing incentives for utilization of alternative fuels, energy conservation, and alternative machinery. Encourage each new development to utilize the Leadership in Energy and Environmental Design (LEED™) Green Building Rating System and use alternative energy sources.

Statements about Water Resources

On page 12, the *Edwards Area Community Plan Vision Report* quotes the following statements about water resources, under **Potable Water and Wastewater Element**:

> **6. Goal:** Adequate potable water and sanitary sewer service is available for most existing and proposed development. When either are not available, private systems are required to operate in such a manner as to protect the community and environment of Eagle County and the Edwards area.

D.3.5 Town of Avon

The following plans were identified and reviewed for the Town of Avon:

- *Town of Avon Comprehensive Plan*, February 2006, Revised March 2008
- *Avon Transit Strategic Planning Update*, March 10, 2009
- *Town of Avon Comprehensive Transportation Plan*, October 2009

Statements about Growth and Population

On page 11, the *Town of Avon Comprehensive Plan* notes the following regarding population:

> Population 2003: 6,727

Statements about the Development of Transit

On page 53, the *Town of Avon Comprehensive Plan* quotes the following statements about transit, under **IV. Goals and Policies**, **G. Transportation**:

> **Goal G.1:** Create an integrated transit system that minimizes dependence on automobile travel within the Town by making it easier and more inviting to use transit, walk, ride bicycles, and utilize other non-motorized vehicles.
>
> **Policy G.1.2:** Devise a public transit service plan that would replace the current one-way loop system with a two-way system that utilizes new road links. Compare annual service hours and productivity (passengers per vehicle-hour) estimates of the two alternative service plans.
>
> **Policy G.1.3:** Require that commercial, public, and other uses that generate significant traffic are served by transit and linked by pedestrian and bicycle paths to minimize their dependence on automobile travel.
>
> **Policy G.1.5:** Identify and participate in cost effective transit partnerships with local resorts and other governmental entities to include transit connections, buses, and other transportation services and facilities.
>
> **Policy G.1.18:** Support a transit system that maximizes ridership by providing frequent service even if higher subsidy levels are required.

On pages 3-32 and 3-35, the *Town of Avon Comprehensive Transportation Plan* quotes the following statements about transit, under **Chapter 3. Transit System, *3.2 Future Conditions***:

> **3.2.3 Alternatives**
>
> The Town of Avon Comprehensive Plan includes many goals and objectives to create an integrated transit system that minimizes dependence on automobile travel within the Town. Transit service that facilitates access to businesses, community services and nightlife is also vital to other place-making goals described in the Comprehensive Plan. Development of future transit alternatives considered the existing and future travel patterns, land use types, and the Town's general transportation policies and goals. Specific considerations for future transit alternatives are discussed below.
>
> **Planned Regional Rail Service**
>
> The Rocky Mountain Rail Authority has initiated a study that is evaluating the feasibility of high-speed rail service connecting the Denver Metropolitan Area and DIA to the mountains and resort communities in the I-70 corridor. Avon anticipates the inclusion of a multimodal transit facility on the east end of Town near Post Boulevard's intersection with the railroad tracks. Providing a high-speed rail station in Avon will increase number of people choosing transit over private auto travel and reduce residents' and visitors' dependence on private autos. To maximize the rail's effectiveness Avon Transit and ECO will need to provide frequent and convenient feeder bus service between the rail station and area destinations.

Statements about I-70

On page 38, the *Town of Avon Comprehensive Plan* quotes the following statements about I-70, under **IV. Goals and Policies**, **A. Regional Coordination**:

> **Policy A.1.5:** Work with Eagle County, adjacent municipalities, and other agencies to coordinate efforts to address regional issues related to such topics as the railroad corridor, I-70, Highway 6, affordable housing, trails, and the Eagle River.

The *Town of Avon Comprehensive Plan* also quotes the following on pages 97-98, under **Town District Planning Principles**, **Low Priority Districts**, **District 23: I-70 Gateway**:

> The interchange on I-70 at Avon Road is the main gateway to the Town. As such, this should reflect the character and quality of the community and create a sense of arrival. Currently, a lighted gateway sign is placed along the west bound off ramp to Avon.
>
> However, the gateway approach needs to be redesigned to enhance the overall image of the community including but not limited to lighting, road and right of way materials, enhanced view corridors, and signage. The emphasis should be on the creation of a positive entry experience that extends the character of the Town Center to Avon's front door.
>
> **Planning Principles:**
>
> - Enhance the intersections at the on/off ramps on Avon Road to include streetscape improvements and special landscape features.
> - Maintain the cottonwood trees that contribute to the gateway experience.
> - Improve the I-70 interchange for pedestrians and bikers.

On page 1-1, the *Town of Avon Comprehensive Transportation Plan* quotes the following statements about I-70, under **Chapter 1. Roadway System, *1.1 Existing Conditions***:

> **1.1.1 Roadways**
>
> The Town of Avon is situated along Interstate 70 between Vail and Edwards. US 6, which parallels the freeway, provides local access as well as secondary east-west regional connection within the Vail Valley. Avon Road provides primary access to the freeway, linking I-70 with US 6. Secondary interstate access is available at Post Boulevard, located east of Avon Road within the Village at Avon. Between I-70 and US 6, the Eagle River and the Union Pacific Railroad Tennessee Pass line (now inactive), constrain the ability to expand the existing roadway system. The existing roadway system within Avon is depicted on Figure 1.1. A field inventory was conducted to establish existing physical characteristics for primary roadways within the Town.
>
> **Primary Arterials**
>
> *I-70*—Providing primary east-west regional connection through Colorado, this four-lane freeway bisects the Town of Avon. Interchange accesses are provided at Avon Road and Post Boulevard. East of Avon, I-70 is posted at 65 miles per hour (MPH). To the west, the speed limit is posted 75 MPH.

On pages 2-7 and 2-8, the *Town of Avon Comprehensive Transportation Plan* quotes the following statements, under **Chapter 2. Bicycle And Pedestrian System, *2.2 Future Conditions***:

> **2.2.2 Local Bicycle/Pedestrian Connections**
>
> Other non-motorized improvements that should be incorporated include:
>
> - Pedestrian bridge over I-70 from the Buffalo Ridge apartments to the Village at Avon.

2.2.3 Potential Grade Separated Pedestrian Solutions

An evaluation was conducted for potential grade separated pedestrian crossings at selected locations within Avon. The evaluations were based on design criteria published by the American Association of State Highway and Transportation Officials (AASHTO). Alternative crossings for I-70, Avon Road, and the Union Pacific Rail Road (UPRR) were considered.

2.2.3.1 I-70 Pedestrian Crossing between Metcalf Road and West Beaver Creek Road

A pedestrian crossing of I-70 in the vicinity of Metcalf Road has been proposed to provide a more convenient connection from residential and commercial land uses north of I-70 to the Town core area. Currently, the closest pedestrian connection occurs at Avon Road. A new crossing could shorten pedestrian trips by as much as a mile (per one-way trip). Because of the grades along I-70 in this area, an underpass is considered to be more feasible than a bridge over the highway.

Statements about Regional Coordination

On page 38, the *Town of Avon Comprehensive Plan* quotes the following statements about regional coordination, under **IV. Goals and Policies**, **A. Regional Coordination**:

Goal A.1: Collaborate with Eagle County, adjacent municipalities, and other agencies to implement this plan and to ensure Avon's needs and goals are being met.

Policy A.1.1: Work with Eagle County, adjacent municipalities, and other agencies on cooperative planning efforts, including joint planning agreements to govern review and action on development applications within the Town's 3-mile planning area (from the town boundary).

Policy A.1.2: Refer development submittals (as deemed necessary by staff) to Eagle County, adjacent municipalities, and other agencies to ensure that regional issues are identified and considered as part of the public process.

Policy A.1.3: Review development submittals from Eagle County, adjacent municipalities, and other agencies to ensure that the town's issues are identified and considered as part of the public process.

Policy A.1.4: Participate in agreements with Eagle County, adjacent municipalities, and other agencies regarding funding of facilities and revenue sharing.

Policy A.1.5: Work with Eagle County, adjacent municipalities, and other agencies to coordinate efforts to address regional issues related to such topics as the railroad corridor, I-70, Highway 6, affordable housing, trails, and the Eagle River.

Statements about Environmental Sustainability

On page 57, the *Town of Avon Comprehensive Plan* quotes the following statements about environmental sustainability, under **IV. Goals and Policies**, **G. Transportation**:

Policy G.1.14: Enhance air quality by implementing an alternative fuel program for the Town's transit and fleet vehicles.

The *Town of Avon Comprehensive Plan* also quotes the following on page 61-62, under **IV. Goals and Policies**, **H. Environment**:

Goal H.4: Conserve environmental resources to ensure their most efficient use.

Policy H.4.1: Develop an energy and environmental resource plan to identify areas of potential conservation and best management practices for town operations.

Policy H.4.2: Support regional and local efforts for recycling and maintain support of regional recycling facilities.

Policy H.4.3: Require use of innovative and environmentally friendly appliances and building techniques including water conservation approaches for new and existing development.

Policy H.4.4: Conserve water through public education, supply management, and demand management techniques, requiring residential, commercial, and municipal landscaping to be compliant with the water conservation design guidelines.

Statements about Water Resources

On pages 60-61, the *Town of Avon Comprehensive Plan* quotes the following statements about water resources, under **IV. Goals and Policies**, **A. Regional Coordination**:

Goal H.3: Protect the health, safety, and welfare of the citizens by eliminating, reducing, or preventing air, water, light, and noise pollution.

Policy H.3.3: Protect water quality and quantity by following the Eagle River Watershed Plan's recommendations.

Refer to the *Eagle River Watershed Plan 1996* with regard to protection of water resources.

D.3.6 Town of Minturn

The following land use plan was identified and reviewed for the Town of Minturn:

- *Town of Minturn, 2009 Community Plan.* This Community Plan was adopted December 16, 2009.

Statements about Growth and Population

On page 18, the *Town of Minturn Community Plan* quotes the following statements about growth and population, under **Public Services and Facilities**:

The Public Services and Facilities Goals and Strategies against which future public and private development activities will be reviewed include the following.

Goal (PFG 1): Ensure that Public Facilities are Planned and Implemented to Support New Growth and Existing Population Centers

- (PFS 1.3) Ensure that impacts from new development on existing infrastructure are mitigated

Statements about the Development of Transit

On page 14, the *Town of Minturn Community Plan* quotes the following statements about transit, under **Land Use/Transportation**:

The Land Use/Transportation Goals and Strategies against which future public and private development activities will be reviewed include the following.

Goal (LUG 1): Enhance the Town's Status as a Walkable and Bikeable Community

- (LUS 1.1) Develop and comply with a future land use plan for the entire town (land use element of this Community Plan) which encourages a compatible mix of land uses promoting mass transit, the use of bicycles and increased walkability/accessibility

Statements about I-70

The *Town of Minturn Community Plan* provides no specific discussion about the I-70 Corridor.

Statements about Regional Coordination

On page 14, the *Town of Minturn Community Plan* quotes the following statements about regional coordination, under **Land Use/Transportation**:

> The Land Use/Transportation Goals and Strategies against which future public and private development activities will be reviewed include the following.
>
> **Goal (LUG 1): Enhance the Town's Status as a Walkable and Bikeable Community**
>
> - (LUS 1.4) Support and promote the expansion of public transit service to outlying communities

Statements about Environmental Sustainability

On page 13, the *Town of Minturn Community Plan* quotes the following statements about environmental sustainability, under **Sustainability and Green Building Practices**:

> As the community grows in the coming years, it will be important to integrate sustainable and green building practices into all public and private development projects. These measures will help minimize our impact on the natural environment and protect the natural resources, which are prized by the community and add to the unique character of the town.
>
> The Sustainability and Green Building Practices Goals and Strategies against which future public and private development activities will be reviewed include the following.
>
> **Goal (SGG 1): Encourage Green and Sustainable Practices Throughout the Community**
>
> - (SGS 1.1) Develop and incorporate green building guidelines that address energy and resource efficiency, indoor air quality and on-site energy generation
> - (SGS 1.2) Incorporate low impact development (LID) standards for site design into development requirements
> - (SGS 1.3) Promote and encourage increased opportunities for businesses, residents and town government to reduce waste
> - (SGS 1.4) Incorporate "Firewise" guidelines in building and site-planning practices
>
> **Goal (SGG 2): Develop and Practice Green and Sustainable Processes**
>
> - (SGS 2.1) Incorporate the concept of green infrastructure into the planning and design of improvements to town system

The *Town of Minturn Community Plan* also quotes the following on page 18, under **Public Services and Facilities**:

> The Public Services and Facilities Goals and Strategies against which future public and private development activities will be reviewed include the following.
>
> **Goal (PFG 1): Ensure that Public Facilities are Planned and Implemented to Support New Growth and Existing Population Centers**
>
> - (PFS 1.4) Incorporate the concept of green infrastructure into the planning and design of improvements to town systems
> - (PFS 1.8) Incorporate the future use of alternative energies into planning processes

The following points are quoted on page 20 of the *Town of Minturn Community Plan*, under **Natural Resources**:

> The Minturn community is fortunate to be surrounded by an abundance of natural beauty. The mountains and forests surrounding the town provide residents with a multitude of recreation opportunities and a clean source of drinking water. These resources are an integral part of what makes up the character of the Minturn community, and as such, special care should be taken to preserve them for future generations.
>
> The Natural Resources Goals and Strategies against which future public and private development activities will be reviewed include the following.
>
> **Goal (NRG 3): Preserve, Protect and Enhance Environmentally Sensitive Lands**
>
> - (NRS 3.1) Examine existing hillside development regulations for improvement
> - (NRS 3.2) Maintain historic wildlife migration corridors
> - (NRS 3.3) Support efforts to mitigate the impact of the mountain pine beetle infestation
> - (NRS 3.4) Incorporate "Firewise" guidelines in building and site planning practices
>
> **Goal (NRG 4): Preserve, Protect and Enhance Ridgelines and View Corridors**
>
> - (NRS 4.1) Develop methods to regulate development on ridgelines and preserve specific view corridors

Statements about Water Resources

On page 20, the *Town of Minturn Community Plan* quotes the following statements about water resources, under **Natural Resources**:

> In recent years the town has taken significant steps to improve the water quality of the Eagle River. By partnering with the State of Colorado and obtaining grants for the river cleanup, the river has been restored to a more natural state and fish habitat has greatly improved. Efforts should continue to be made to clean up the Eagle River, preserving its natural beauty. In addition, efforts should be continued to preserve the quality of and access to both the river and the national forests surrounding the town, enhancing their value to the community as the incredible natural resources, which they are.
>
> The Natural Resources Goals and Strategies against which future public and private development activities will be reviewed include the following.
>
> **Goal (NRG 1): Protect and Promote the Eagle River as a Community Asset**
>
> - (NRS 1.1) Support and fund ongoing river restoration efforts
> - (NRS 1.2) Improve and enhance public access to the Eagle River
> - (NRS 1.3) Strengthen development standards supporting habitat restoration and protection of the river
> - (NRS 1.4) Promote the Eagle River as a focal point of the community/gathering space

D.3.7 Town of Vail

The following plans were identified and reviewed for the Town of Vail:

- *Town of Vail Land Use Plan*, adopted November 18, 1986, updated January 28, 2009
- Town of Vail Environmental Programs on website: *http://www.vailgov.com/subpage.asp?dept_id=113*

Statements about Growth and Population

On page 4, the *Vail Land Use Plan* (2009) quotes the following statements about growth and population, under **CHAPTER II – LAND USE PLAN GOALS / POLICIES**:

> The goal statements which are reflected in the design of the proposed Plan are as follows:
>
> **1. General Growth / Development**
>
> 1.1. Vail should continue to grow in a controlled environment, maintaining a balance between residential, commercial and recreational uses to serve both the visitor and the permanent resident.
>
> 1.2. The quality of the environment including air, water and other natural resources should be protected as the Town grows.
>
> 1.3. The quality of development should be maintained and upgraded whenever possible.
>
> 1.4. The original theme of the old Village Core should be carried into new development in the Village Core through continued implementation of the Urban Design Guide Plan.
>
> 1.5. Commercial strip development of the Valley should be avoided.
>
> 1.6. Development proposals on the hillsides should be evaluated on a case by case basis. Limited development may be permitted for some low intensity uses in areas that are not highly visible from the Valley floor. New projects should be carefully controlled and developed with sensitivity to the environment.
>
> 1.7. New subdivisions should not be permitted in high geologic hazard areas.
>
> 1.8. Recreational and public facility development on National Forest lands may be permitted where no high hazards exist if:
>
> a. Community objectives are met as articulated in the Comprehensive Plan.
>
> b. The parcel is adjacent to the Town boundaries, with good access.
>
> c. The affected neighborhood can be involved in the decision-making process.
>
> 1.9. The existing condition and use of National Forest Land (USFS) which is exchanged, sold, or otherwise falls into private ownership should remain unchanged. A change in the existing condition and use may be considered if the change substantially complies with the Vail Comprehensive Plan and achieves a compelling public benefit which furthers the public interest, as determined by the Town Council.
>
> 1.10. Development of Town owned lands by the Town of Vail (other than parks and open space) may be permitted where no high hazards exist, if such development is for public use.
>
> 1.11. Town owned lands shall not be sold to a private entity, long term leased to a private entity or converted to a private use without a public hearing process.
>
> 1.12. Vail should accommodate most of the additional growth in existing developed areas (infill areas).
>
> 1.13. Vail recognizes its stream tract as being a desirable land feature as well as its potential for public use.

Growth and population are also addressed on page 23 of the *Vail Land Use Plan* under **CHAPTER VI – PROPOSED LAND USE**:

> **2. Key Goals**
>
> The most important goals culled from the public meetings were used to formulate the Trends Alternative. These key goals are as follows:

E. General Growth and Development:

1. Vail should continue to grown in a controlled environment, maintaining a balance between residential, commercial and recreational uses to serve both the visitor and the permanent resident.
2. The quality of the environment should be protected as the Town grows.
3. Recreational and public facility development on National Forest lands could be appropriate if:
   a. No high geologic hazards exist;
   b. Community objectives are being met with the proposal (as articulated in the Comprehensive Plan);
   c. The parcel has adequate access and is adjacent to Town boundaries; and
   d. The affected neighborhood could be involved in the decision-making process.
4. The existing condition and use of National Forest Land (USFS) which is exchanged, sold, or otherwise falls into private ownership should remain unchanged. A change in the existing condition and use may be considered if the change substantially complies with the Vail Comprehensive Plan and achieves a compelling public benefit which furthers the public interest, as determined by the Town Council. (Res. 2 (2003) §1) 5. Development may also be appropriate on Town-owned lands by the Town of Vail (other than park and open space) where:
   a. No high geologic hazards exist; and
   b. Such development is for public use.

Statements about the Development of Transit

The **Town of Vail website**, **Environmental Programs,** quotes the following statements about transit, under **PUBLIC TRANSPORTATION**:

> More than 1 million passengers a year rely on Vail's pollution-reducing transportation alternative, known as the largest free transit system in the U.S. This, along with an aggressive schedule of route expansions offered by the ECO regional system, creates opportunities to reduce, even eliminate vehicle dependency. In November 2006, Vail's first hybrid bus was put into service on the in-town route. Assuming the bus performs favorably, nine additional hybrids will be added over the next four years to bring a total of 10 in service by 2010. State and federal grants covered about 80 percent of the new bus, which was purchased for $508,300, almost twice the cost of the diesel buses.

Statements about I-70

The *Vail Land Use Plan* quotes the following statements about I-70:

> **3. Major Barriers (Page 7)**
>
> The I-70 right-of-way was designated on the Existing Land Use Map as an area that would not be available for future development. I-70 right-of-way maps were provided by the Town.
>
> **F. Interstate Right-of-Way (Page 12)**
>
> One of the most significant areas within the Town, is the Interstate 70 right-of-way. The right-of-way takes up an area of 505.5 acres or 15% of the land area, within the study area. This is the largest proportion in any one type of use.

Statements about Environmental Sustainability

The **Town of Vail website** quotes the following about environmental sustainability:

> In 2005, the Town of Vail formed the TOV Green Action Program to identify and take action on environmental opportunities. A foundation of Green Action is the Town's environmental policy which states its priorities and intentions as follows:
>
> The Town of Vail is committed to the stewardship and protection of our unique mountain environment. In consideration of both our local and global impacts and opportunities, our environmental vision is to demonstrate and promote:
>
> Renewable Energy,
> Resource Efficiency,
> Ecosystem Protection, and
> Community Awareness and Education

The *Vail Land Use Plan* also quotes the following on pages 5-6 in **Attachment F: Chamonix Master Plan**, under **2. PROCESS**:

> **F. Sustainability**
>
> Various construction methods and site design techniques were discussed for the site which conformed to "green" practices. Both traditional on-site building methods as well as the use of offsite, factory built construction were considered for the ultimate construction of the housing structures. Based on discussions with the Advisory Committee, offsite, factory built construction became the preferred method due to the energy efficiencies as well as lower construction costs inherent with this construction method. Site design standards which focused on solar orientation, limits to site disturbance, brown-field development, open space preservation, access to transit, and on-site storm water retention were integrated into the three schemes as providing the basis for certifiably sustainable construction practices.
>
> Certification of the project using a third-party certification program, such as the United States Green Building Council LEED certification process, was considered and was included in the cost estimates. The Advisory Committee determined that third party certification would create potential advantages in the future marketing of the development, would leverage the green techniques used in the development to encourage or require other private developments to seek the same standards, and foster community pride. As a part of the third party certification process, on-site storm water detention, which would minimize impacts from impermeable surfaces at the Chamonix site to the municipal storm water system, was incorporated in to the design.

D.4 Summit County

The following plans were identified and reviewed for Summit County:

- ***Summit County Comprehensive Plan 2003*** **(Housing update only in 2009) –** The Countywide Comprehensive Plan is intended to provide general policy guidance for decisions related to land use, growth, and a number of related issues in Summit County. The Plan applies to all unincorporated lands in the County and will be used by the Countywide Planning Commission, the four basin planning commissions, and the Board of County Commissioners (BOCC) as a guide for decisions that affect the physical development of the County.

  The update to the 2009 edition of the Plan focused on the housing element, that is, local resident housing and affordable workforce housing.

- ***Matrix of Issues: Summit Leadership Forum 2008 – Year 2030 Forecast for Summit County –*** In early 2008, the Summit Leadership Forum directed county and town planners to initiate a project that would provide a snapshot of what Summit County would look like in the year 2030. Planners from Breckenridge, Frisco, Silverthorne, Dillon, and Summit County, along with Blue River's mayor participated in a brainstorming session where scenarios were postulated for a variety of subjects. These subjects ranged from population to second homes to the economy. The results of the session were compiled and a document was then generated to provide the Leadership Forum the snapshot of 2030.

Table D-4 summarizes the key points associated with topics related to the I-70 Mountain Corridor.

Table D-4. Summit County Summary Table

Topic	Summary
Growth and Population	• Countywide buildout is anticipated to occur by 2030, with the permanent resident population growth averaging 2.2 percent to 2.9 percent annually. • Approximately 64 percent of the housing in Summit County is owned by second homeowners. Summit County aims to lower the ratio of second home to permanent home ownership to 60/40, or if second home trends continue, to maintain the ratio at no more than 70/30. • Lack of affordable housing for local residents is a significant concern for which the Comprehensive Plan (2009 revision) provides strategies to correct.
Transit	• Focus is on development of mass transit programs that are consistent with community values and the rural mountain character, including the promotion of mass transit solutions such as fixed guideways as a solution to I-70 traffic. • The Town of Frisco plans to incorporate future mass transit needs in land use planning and development along I-70.
I-70	• Summit County supports innovative methods of promoting alternative transportation including fixed guideways along I-70. • The Summit County Leadership Forum identified issues with I-70 such as congestion, lack of funding, and lack of a multimodal solution. • The Town of Silverthorne plans to remain an active participant in efforts by CDOT to address the I-70 transportation issues.
Regional Coordination	As part of its goal to develop an integrated transportation network, Summit County plans to cooperatively develop a regionwide, public transportation system that interlinks Eagle, Grand, Park, and Lake counties to the rest of Summit County.
Environmental Sustainability	• The Summit County Leadership Forum identified a number of issues the County would be facing as a result of climate change, including reduced water resources, increased reliance on summer tourism activities, an increase in storm hazards, and increased dust. The Forum recommended that each jurisdiction adopt plans to reduce its carbon footprint. • The Comprehensive Plan of the Town of Silverthorne encourages energy efficient building designs and sustainable construction practices. • The Town of Frisco addresses climate change issues, as well as encourages energy efficiency and resource conservation in its master plan.
Water Resources	• Summit County identifies the need to develop plans addressing community water facility infrastructure needs in its Comprehensive Plan. • The Summit County Leadership Forum found that there is sufficient water to reach County buildout but that water supplies are likely to become less reliable. Long-range plans to conserve water and firm up water supplies are recommended.

Statements about Growth and Population

On page 66, the *Summit County Comprehensive Plan* (2009) quotes the following statements about growth and population:

> **Population Growth:** From 2000 to 2007 the county grew approximately 20 percent in permanent residents (roughly 23,548 – 28,296), and growth is anticipated to continue. By 2020 the county permanent resident population is projected to be approximately 40,500, which would translate to an average percent increase in permanent residents of 2.2 – 2.9 percent per year.

On page 59, the *Summit County Comprehensive Plan* also quotes the following information:

> Growth Rates and Projected Build-Out: It is estimated that the realistic build-out for the county is approximately 37,600 units, which means that the county is approximately 75 percent built-out (including both the unincorporated areas and the incorporated towns). Although, it is important to acknowledge that build-out is not necessarily a fixed or static number. An analysis of growth rates over the past five years (2002 - 2007) reveals that, on average, the number of residential housing units built in the entire county has increased approximately 1.4 percent per year, with an average of 380 new housing units constructed each year. At the same rate of growth, there would be approximately 28,794 residential units in the county by the year 2010, 32,594 units by 2020, and 36,394 units by 2030. These represent respective build-out percentages of approximately 77 percent in 2010, 87 percent in 2020, and 97 percent in 2030.
>
> In consideration of the above, if realistic build-out is achieved, there would be no more than 37,600 housing units the county, with approximately 20,700 housing units in the unincorporated areas and approximately 16,900 units within the incorporated towns.
>
> Land Use Implications on Housing Supply: Approximately 86 percent of the county is protected as open space (i.e. lands under federal or state ownership or purchased for open space protection). Thus, less than 15 percent of the county's land area is within private ownership and available for the development of housing. The limited land supply contributes to the increased cost of land, which acts as a major impediment to the development of housing affordable to local residents and employees. With limited potential for future development on vacant lands in the county and pending build-out, future development efforts will likely be focused more on redevelopment of existing properties, upgrades and infill rather than the creation of new development projects in currently undeveloped areas of the county.
>
> Occupancy Rates and Second Homes: As of 2008, there were nearly as many housing units in the county (27,938) as there were permanent residents (28,611) (Source: State Demography Office - July 2007 population estimates). Thus, on the surface it would appear that there is a huge surplus of housing units (given than on average 2.44 people reside in one housing unit). However, because of the dynamics of the county's resort community, the accessibility to the county's housing supply is limited by factors such as: second homeownership and use for short-term rentals; and escalating housing costs in relation to local wage increases.
>
> It is estimated that approximately 64 percent of the housing in the county is owned by second homeowners. Some of these housing units are rented when not being utilized by the owner and some are not in the rental pool. However, the vast majority of rental units are only available as short-term rentals for visitors. Thus, nearly two thirds of the housing inventory is not available to permanent residents. As shown in Table 6 above, the ratio of permanently occupied housing units to vacant units (i.e. second homes) varies based on location within the county. As of 2008, the Town of Breckenridge contained the lowest percentage of permanently occupied homes (approximately 25%), while the Town of Silverthorne contains the highest percentage (approximately 67% permanently occupied homes).

> According to a 2006 NWCCOG study titled "Transitions in Mountain Communities: Resort Economics and Their Secondary Effects", of the counties that compose the Colorado Rural Resort Region (Eagle, Grand, Pitkin, Summit, Routt, Lake and Jackson), Summit County has the highest percentage of homes owned by second homeowners, followed closely by Grand County.
>
> Therefore, in the spirit of community social and economic sustainability or vitality, it is felt the county should strive to maintain, as well as increase, its permanent resident population base. Although not an exact science, a simple target would be to reduce the current ratio of 64 percent second homes / 36 percent permanently occupied homes, to a ratio of 60 percent second homes / 40 percent permanently occupied homes. However, if second home trends continue, at a minimum the county should try to maintain a ratio of no more than 70 percent second homes and 30 percent permanently occupied homes.
>
> In recognizing these targets, the county should continue to monitor the occupancy rates and attempt to increase the number of homes occupied by permanent residents. Such strategies to work toward this are outlined in the Local Resident Housing section of this Housing Element.

On page 64, the *Summit County Comprehensive Plan* (2009) quotes the following statements about growth and population, under **Local Resident/Affordable Workforce Housing**:

> The availability of affordable housing for local residents is a deepening concern and pressing issue in the entire community. A shortage of housing for the county's local workforce (the backbone to our community) is posing a very significant threat to the economic vitality, community sustainability, spirit and character of the place many of us call "home". Sustaining and creating an adequate supply of suitable and affordable housing options for local residents and employees is an enormous challenge, and of critical importance to recruiting and retaining working-class professionals, year-round service and seasonal resort workers. Regrettably, many challenges exist that continue to negatively affect the supply of affordable housing such as: a lack of land, continued or anticipated growth in permanent residents and jobs, escalating prices for market-rate homes, secondary effects of second homes, and the subsequent gap that is widening between the incomes of local residents and the overall cost of housing. Solutions and strategies to address these challenges, and to maintain or increase an adequate supply of local resident and affordable workforce housing in the county, are not straightforward or easy.

Statements about the Development of Transit

On page 49, the *Summit County Comprehensive Plan* quotes the following statements about transit:

> Planning for the different components of transportation has been in a piecemeal fashion in the County, usually focusing on one road project or recpath improvement at a time. The Summit Stage is in the process of updating its operating plan, which provides a comprehensive long range look at the Stage's future. However, the Stage is not the only transit provider in the County. CDOT has a six-year plan for road improvements. The County has a 20-year plan for road maintenance. Road improvements (e.g., widening) on County roads are the responsibility of developers or local homeowners. There currently is no plan that attempts to coordinate the various components of our transportation system or identify when levels of service dictate improvements. This Transportation Element recommends that such a plan should be undertaken.
>
> **Goal B. Promote and develop mass transit programs that are consistent with community values and the rural mountain character.**
>
> Policy/Action 1. Work to increase effectiveness of transit service for residents, employees, and visitors.

Policy/Action 2. Allow for the location of transit centers in appropriate locations to serve various forms of mass transit.

Policy/Action 3. Encourage improved coordination between different transit providers to more efficiently provide transit service and to, where appropriate, promote uniformity between services provided.

Policy/Action 4. Collaborate with the Summit School District to explore potential for use of school facilities (e.g., parking lots, maintenance, and buses during off-hour periods).

Policy/Action 5. Explore creative marketing techniques that make the use of mass transit appear more appealing to potential riders.

Policy/Action 6. Work with CDOT and other appropriate entities to develop long-term solutions to I-70 traffic, including the promotion of mass transit solutions such as fixed guideways.

On page v, the *Matrix of Issues: Summit Leadership Forum – Year 2030 Forecast for Summit County* makes the following statement about transit, under **Category: Transportation, Mass Transit / Public Transportation**:

- Additional taxes passed via referendum to fund Ridership / use of Summit Stage *and Breck FreeRide* continues to grow
- Summit Stage has developed better seamless connections or connectivity
- More people cognizant of using mass transit
- *Increased environmental awareness and high cost of gas will encourage this. A shift to transportation modes other than use of automobiles will be noticeable, at least with a growing number of residents.*
- Outlier communities institute (in conjunction with local jurisdiction) mass transit options to help allay commuting issues
- *Transit from Fairplay*

Statements about I-70

On page 50, the *Summit County Comprehensive Plan* quotes the following statements about I-70 under the **Transportation Element**:

Goal E. Aggressively promote alternatives to automobile usage.

Policy/Action 6. Support innovative methods of promoting alternative transportation (e.g., fixed guideways along I-70).

The *Matrix of Issues: Summit Leadership Forum – Year 2030 Forecast for Summit County* makes the following statements about I-70:

I-70

- I-70 Coalition reaches agreement on preferred alternative for I-70 improvements
- Overall sustainability issues associated with I-70 are not addressed
- Increased congestion on I-70 (more noticeably on weekdays)
- No multimodal/transit alternative implemented or provided
- Significant lack of funding (at state and federal levels) for maintenance or needed improvements on I-70
- I-70 or major arterials institute “toll” fee
- Increased carpooling and developed Park-N-Ride facilities

Statements about Regional Coordination

On page 48, the *Summit County Comprehensive Plan* quotes the following statements about regional coordination, under the **Transportation Element**:

> **Goal A. Develop an integrated and comprehensive transportation network that anticipates the future needs of residents, tourists, and businesses, and which promotes alternatives to automobile use.**
>
> Policy/Action 1. The County, towns, resorts, CDOT, and other appropriate parties should work cooperatively to create a countywide transportation plan that comprehensively address transportation issues in Summit County. At a minimum, the plan should address the following issues:
>
> 1.1 Roadway improvements and appropriate funding mechanisms.
>
> 1.2 Transit service and development of park and ride facilities.
>
> 1.3 An emphasis on increasing bike and pedestrian use and accommodating those uses in new and existing developments.
>
> 1.4 Parking strategies that provide adequate parking and facilitate vehicular and pedestrian safety.
>
> 1.5 Transportation demand management programs and other methods to reduce vehicle trips.
>
> 1.6 A general emphasis on promoting alternatives to reliance on automobile use.
>
> Policy/Action 2. Cooperatively develop a region-wide, public transportation system that interlinks Eagle, Grand, Park, and Lake Counties to the rest of Summit County.
>
> Policy/Action 3. Encourage CDOT to continue to develop strategies that minimize risks associated with transport of hazardous materials on area highways.
>
> Policy/Action 4. Work cooperatively with CDOT to conduct and evaluate traffic counts at appropriate intervals to determine if improvements are needed because of changing conditions.

Statements about Environmental Sustainability

On page 28, the *Summit County Comprehensive Plan* quotes the following statements about conservation of resources and protection of environmentally sensitive areas, under the **Environment Element**:

> *1. Environmentally Sensitive Areas*
>
> The County's natural setting is its greatest asset as it helps define and give character to the area. Part of our natural setting is comprised of environmentally sensitive areas. Environmentally sensitive areas are considered to be lands that contain physical environmental characteristics including but not limited to: wetlands, streams and riparian areas, floodplains, slopes 30 percent or greater, avalanche hazard areas and other geologic hazards, critical fish and wildlife habitat, and alpine tundra. These areas typically either present a constraint to development or are extremely susceptible to development impacts.
>
> There are many measurable and immeasurable benefits to the identification, conservation and protection of environmentally sensitive areas. Ramifications of the loss and degradation of environmentally sensitive areas include incremental reductions to the following:
>
> - Endangered/rare species and general wildlife habitat
> - Aesthetics and recreational opportunities

- Water supply to streams, reservoirs and well fields
- Water flow control and water quality/pollution control
- River bank stability
- Minimization of stormwater damages
- Health, safety and welfare of property owners (e.g. hazardous threats of fire, flooding, and avalanches)

Safeguarding environmentally sensitive areas is important because alteration may have negative impacts on aesthetics, property, environmental quality, or safety. Future development that occurs in the County needs to be designed and constructed to minimize impacts to these areas. This Plan promotes the avoidance of development in environmentally sensitive areas, with a desire to see natural features preserved and incorporated into new development projects.

On page viii-ix, the *Matrix of Issues: Summit Leadership Forum – Year 2030 Forecast for Summit County* makes the following statement about environmental sustainability, under **Category: Environmental Sustainability and Resources**, **Climate Change and Land Use**:

Existing Conditions

- Warming, probably throughout the year (though in some areas more in winter than summer and others more in summer that winter) appears inevitable over the next century (and has already been occurring in much of the West)
- Recognition and policy shift to address sustainability and carbon footprint (e.g., climate change and energy consumption)
- Warmer West impacting water availability
- Some resort have acquired more water rights to make snow
- Difficulty in predicting impacts or trends from climate change (i.e. what models to use)
- Growing concerns about hazards, like floods and droughts
- Models introduced: prospect of significant climate change undermines the basic notion of a "stable" base for many planning and regulatory regimes, particularly for water, habitat, and other climate-sensitive factors
- Precipitation trends are less certain than temperature trends (scenarios vary depending on the model one chooses and the time period examined)
- Reduced snow packs

2030 Forecast

All jurisdictions adopted plans to reduce carbon footprint

- Change frequency, duration and intensity of: snowfall, precipitation, wildfire, heat waves, drought, flooding, etc.
- Have experienced peak oil; alternative energy sources and technologies aggressively developed
- Lower elevation and more southern ski areas experience shorter winters and less annual snow pack (more northern flow or precipitation)
- Skiing as a sport in many coastal areas will lose popularity (not as many opportunities to learn)
- Reduced snow packs, increased evaporation, and the threat of overall reduced runoff
- Summit County, due to elevation, more reliable snow pack than lower elevation ski resorts; precipitation remains average
- Increased reliance in snow making at all resorts

- Increased reliance on more summer time tourism / visitors
- Increase in water temperatures – reduces population of aquatic species
- Long range community plans address risks (e.g., storm intensity and heat wave frequency)
- Concerns about growing hazards, like floods and droughts, will interact with both mitigation and adaptation
- More intense precipitation events (shorter, more intense episodes)
- New floodplain maps are produced by FEMA to expand floodplain areas in already developed areas (as a response to more flooding)
- Warming may create opportunities of agricultural expansion in County (lengthen growing season)

Statements about Water Resources

On pages 93-94, the *Summit County Comprehensive Plan* quotes the following statements about water resources, under the **Community and Public Facilities Element**:

> **Goal D: Development of community facilities and the extension of services should be carefully planned and coordinated with the Towns, special districts, and appropriate agencies.**
>
> Cooperation and Community Facilities
>
> Policy/Action 9. Continue to work cooperatively with the Northwest Colorado Council of Governments in determining water quality and quantity issues/needs.
>
> **Goal E: Develop basin or subbasin plans to address and incorporate unique or specific community and public facility infrastructure issues.**
>
> Basin Specific
>
> Policy/Action 1. Basin plans should encourage development in locations that minimize fiscal impacts on governmental service providers
>
> Policy/Action 2. Coordinate with utility providers to ensure their planning for facilities is consistent with basin and town plans.

On page ix, the *Matrix of Issues: Summit Leadership Forum – Year 2030 Forecast for Summit County* makes the following statement about water resources, under **Category: Environmental Sustainability and Resources**, **Water**:

> Existing Conditions
>
> - Lake Powell inflow from the Colorado River has been below average every year but one since 1999 (when Powell was last full). It is now below 50 percent capacity and dropping
> - Water rights (acquisition, augmentation, legalities) critical issue
> - Plans for more local reservoirs being explored or developed (e.g., Old Dillon Reservoir)
> - Water level of Lake Dillon continues to oscillate
> - Enough water or water rights currently available to reach build-out
> - Increased sensitivity to: water supply adequacy, drought planning, public response to shortage and restrictions, landscaping, etc.
>
> 2030 Forecast
>
> - Less reliable water supplies
> - Water in the West (beyond the 100th Meridian) the most critical issue facing growth and development or sustaining it

- Long range plans for greater firmer water supply developed
- Land use regulations that reduce water use further developed
- Price per acre foot of water to augment has increased significantly
- Additional reservoirs developed in County (e.g., Old Dillon Reservoir expanded and Tarn in Upper Blue Basin expanded to the south)
- More pronounced oscillation of Lake Dillon, more frequent draw-downs of reservoir to service Front Range communities to tap capacity
- More dust in the County as a result of draw-downs
- Reach zoned maximum potential / build-out (reinforced by available water rights)
- More pressures from California, Nevada and California for Colorado River water
- Lake Mead is almost sucked dry
- Shorter rafting / boating season
- Inability or against the law to water lawns
- Increased sediment loading in local streams and reservoirs as aftermath to major fire event.

D.4.1 Town of Frisco

The following land use plan was identified and reviewed for the Town of Frisco:

- *Town of Frisco Master Plan 2004*

Statements about Growth and Population

On page 6-1, the *Town of Frisco Master Plan* quotes the following statements about growth and population, under **Chapter 6: Growth Management**:

> The original Town of Frisco, which consisted of a number of 25' x 140' lots, has grown to include 1,100 acres. Providing separation from other communities and important open space areas are the surrounding White River National Forest and Denver Water Board properties. As stated in the 2003 Build-Out Calculations, approximately ninety-six percent of the Town's land area has been developed, leaving only 41 acres of undeveloped land. Approximately 21.2 acres of undeveloped land is zoned for residential uses and approximately 19.8 acres of undeveloped lands zoned for commercial uses.
>
> Strategically planning for Frisco's remaining growth provides an opportunity to achieve a sustainable balance between residential and commercial uses.

Statements about the Development of Transit

On page 10-2, the *Town of Frisco Master Plan* quotes the following statements about transit, under **Chapter 10: Transportation**:

> **Policy TS-1.5. Regional Coordination.** Promote interaction and coordination with other agencies to recognize Frisco's transportation needs including transit, commuter connections and improvements to key roadways such as Highway 9 and I-70.
>
> **Action TS-1.5.a.** Work with Copper Mountain to ensure adequate bus service between Frisco and Copper for employees and visitors.
>
> **Action TS-1.5.b.** Participate in regional transportation planning.
>
> **Action TS-1.5.c.** Incorporate future mass transit needs in land use planning and development along I-70.

Statements about I-70

On page 10-2, the *Town of Frisco Master Plan* quotes the following statements about I-70, under **Chapter 10: Transportation**:

> **Policy TS-1.5. Regional Coordination.** Promote interaction and coordination with other agencies to recognize Frisco's transportation needs including transit, commuter connections and improvements to key roadways such as Highway 9 and I-70.

Statements about Regional Coordination

On page 10-2, the *Town of Frisco Master Plan* quotes the following statements about regional coordination, under **Chapter 10: Transportation**:

> **Policy TS-1.5. Regional Coordination.** Promote interaction and coordination with other agencies to recognize Frisco's transportation needs including transit, commuter connections and improvements to key roadways such as Highway 9 and I-70.
>
> **Action TS-1.5.a.** Work with Copper Mountain to ensure adequate bus service between Frisco and Copper for employees and visitors.
>
> **Action TS-1.5.b.** Participate in regional transportation planning.
>
> **Action TS-1.5.c.** Incorporate future mass transit needs in land use planning and development along I-70.

Statements about Environmental Sustainability

On pages 5-1, and 5-4 through 5-6, the *Town of Frisco Master Plan* quotes the following statements about environmental sustainability, under **Chapter 5: Environmental Sustainability**:

> **Principle ENV-1.** Preserve Frisco's natural resources and environmental quality through promotion of sustainable development practices and compliance with environmental laws.
>
> **Policy ENV-1.11. Climate Change.** Recognize that climate change is a global environmental problem that affects mountain towns and the ski industry as a whole, and make local contributions towards resolving this issue.
>
> **Action ENV-1.11.a.** Address global climate change at the local level and align the Town with organizations such as the Rocky Mountain Climate Organization and Cities for Climate Protection.
>
> **Principle ENV-3:** Promote energy and resource conservation by incorporating the use of resource saving techniques into daily routines.
>
> **Policy ENV-3.1. Energy Conservation.** Encourage the use of recycled materials, renewable energy sources, and the use of green and energy efficient building practices.
>
> **Action ENV-3.1.a.** Explore and implement options for utilizing alternative energy sources for Town vehicles (i.e. bio-diesel).
>
> **Action ENV-3.1.b.** Adopt energy programs such as the Leadership in Energy and Environmental Design (LEED), and financial incentives to achieve a higher level of green building in new development and redevelopment projects.
>
> **Policy ENV-3.2. Recycling.** Support ongoing efforts to strengthen a waste reduction and management program, including making recycling more accessible to the community.

Action ENV-3.2.a. Require that new multi-family and commercial development projects provide recycling facilities, or address recycling as part of waste management for the project.

Policy ENV-3.3. Green Education. Educate residents on green practices to conserve water, energy, reuse materials more efficiently, reduce pollution, and protect indoor air quality.

Policy ENV-3.4. Town Government. Integrate green practices into the Town's standard procedures including: minimizing vehicle emissions, conserving water resources, promoting renewable energy sources, and using energy efficient building practices in Town projects.

Action ENV-3.4.a. Explore and implement options for utilizing sustainable and green building technologies for applicable Town projects.

Action ENV-3.4.b. Make as many of Frisco's special events zero waste events as possible.

Action ENV-3.4.c. Reduce the Town's energy consumption related to lighting by using the most energy efficient light bulbs on public properties, and work with CDOT to install energy efficient traffic signals along Summit Boulevard.

Action ENV-3.4.d. Explore and implement options for utilizing recycled water for cleaning along public streets and rights-of-way.

Statements about Water Resources

On pages 5-2 and 5-3, the *Town of Frisco Master Plan* quotes the following statements about water resources, under **Chapter 5: Environmental Sustainability**:

Policy ENV-1.5. Water Quality. Continue to protect and enhance ground and surface water quality.

Action ENV-1.5.a. Work with the appropriate stakeholders (CDOT, Copper Mountain, Climax, and the Clinton Reservoir Company) to maintain water quality and appropriate stream flows in Ten Mile Creek.

Action ENV-1.5.b. Review State and Town standards for water quality protection to ensure it provides adequate preservation of wetlands, lakes, and riparian areas.

Action ENV-1.5.c. Require adequate on-site storm detention/retention and treatment where appropriate, in conjunction with development to reduce runoff, reduce flood peaks, prevent stream scouring, flooding and water contamination.

Policy ENV-1.6. Water Conservation. Strive to reduce water consumption and manage water resources in a sustainable manner.

Action ENV-1.6.a. Inform the community (residents, businesses, etc.) about water conservation, energy conservation, more efficient (re-use) of materials, pollution reduction, and indoor air quality.

D.4.2 Town of Silverthorne

The following plan was identified and reviewed for the Town of Silverthorne:

- *Silverthorne Comprehensive Plan 2008*

Statements about Growth and Population

On page 4, the *Silverthorne Comprehensive Plan* quotes the following statements about growth and population, under **CHAPTER ONE – INTRODUCTION**:

The 2008 update to the Silverthorne Comprehensive Plan focuses on the Land Use Element and changes to the Town's Commercial Districts; revisions to the Three-Mile Area Plan Element to include a revised boundary based on recent annexations to the Town; the addition of an Economic Development Plan included as an appendix to the document; the addition of a section regarding I-70 transit; and the addition of current housing data.

On page 9, the *Silverthorne Comprehensive Plan* also quotes the following, under **CHAPTER THREE – PLANNING INFLUENCES, DEMOGRAPHICS**:

Population

Current Population: 4.065 (2008)

The incorporated area of the Town of Silverthorne is estimated to reach a population of nearly 4,225 by the year 2010. If areas that are adjacent to Silverthorne petition the Town, and be granted annexation, the population of the community could grow much larger than projected.

Statements about the Development of Transit

On page 8, the *Silverthorne Comprehensive Plan* quotes the following statements about transit, under **CHAPTER TWO – VISION STATEMENT**:

Transportation

A multi-modal local and regional road system that serves the capacity of residents and visitors, providing safe, convenient connections between origin and destination within an integrated network of highways, roads, sidewalks, paths and trails.

On page 26, the *Silverthorne Comprehensive Plan* also quotes the following, under **CHAPTER FOUR – LAND USE ELEMENT, INTRODUCTION**:

Silverthorne not only serves as a gateway to Summit County and the Lower Blue River Valley, but also provides access to a wealth of skiing, hunting, and fishing in Colorado. Interstate 70 (I-70) has had a significant influence on the Town, providing direct access to the Town from an interstate highway. I-70 also provides a direct link to the City of Denver, which is approximately 67 miles to the east. Silverthorne's close proximity to the Denver area was one of the primary factors that led to the development of the factory outlet stores in the late 1980s.

Although I-70 provides many opportunities to the Town of Silverthorne, it has also created constraints and challenges for the community. I-70 forms both a physical and visual separation between the northern and southern section of the community and contributes to traffic congestion. The Blue River, which runs through the center of Silverthorne, also creates a physical separation between the east and west portions of the Town, as does the State Highway (SH 9).

The following points are quoted in **CHAPTER FIVE – TRANSPORTATION ELEMENT** on pages 46 and 48, under **TRANSPORTATION ELEMENT GOALS AND POLICIES**:

Vision Statement: <u>Transportation</u>

"A multi-modal local and regional road system that serves the capacity of residents and visitors, providing safe, convenient connections between origin and destination within an integrated network of highways, roads, sidewalks, paths and trails."

Goal T 2

To support and help formulate a multi-modal, mass transit system that meets the transportation needs of the community for in-town, countywide and regional service.

Policy T 2.1

The Town shall work with public and private carriers to improve the transit system between Denver and Silverthorne.

Policy T 2.2

The Town shall encourage Summit Stage to improve the quality and design of the bus stops within Silverthorne to improve the image of the system and community.

Policy T 2.3

The Town shall require new developments to provide bus stops that are architecturally integrated into the project.

Policy T 2.4

Bus stops shall be located near public parking, work force centers, and residential neighborhoods wherever possible.

Policy T 2.5

The Town shall support development of a multi-modal transit hub in a feasible location or locations that could potentially accommodate future transportation systems.

Statements about I-70

On page 49, the *Silverthorne Comprehensive Plan* quotes the following statements about I-70 in **CHAPTER FIVE – TRANSPORTATION ELEMENT**, under **TRANSPORTATION ELEMENT GOALS AND POLICIES**:

Goal T 3

To develop a safe, convenient, and economical transportation system which does not disrupt urban social units, unique natural resources, or cohesive land use zones, and responds to the proposed future land use patterns established in the Plan.

Policy T 3.1

The Town shall work with CDOT capacity improvements along SH 9, US 6 and I-70.

Policy T 3.5

The Town will remain an active participant in efforts by CDOT to address the I-70 transportation issues. This shall include participation in the I-70 Corridor Coalition and similar groups as well as continuing efforts to influence CDOT on improvements chosen on the corridor and specifically at the Silverthorne Interchange area.

Statements about Regional Coordination

See **Statements about I-70** above.

Statements about Environmental Sustainability

On pages 39-40, the *Silverthorne Comprehensive Plan* quotes the following statements about environmental sustainability in **CHAPTER FOUR – LAND USE ELEMENT**, under **LAND USE GOALS AND POLICIES**:

Goal LU 5

To protect the environment, and improve it whenever and wherever possible.

Policy LU 5.12

The Town shall encourage energy efficient building designs and sustainable construction practices.

Statements about Water Resources

On pages 13-14, the *Silverthorne Comprehensive Plan* discusses the protection of water resources and specification of the need for water and sewer utilities to specific areas of development in **CHAPTER THREE – PLANNING INFLUENCES**, under **ENVIRONMENTAL CONDITIONS**:

Water Resources

Blue River

With headwaters that flow from Blue Lake, just below Quandary Peak in the Ten-mile Range; the Blue River runs northwest through the Town of Breckenridge, Dillon Reservoir, the Town of Silverthorne, and Green Mountain Reservoir, to the confluence of the Colorado River just southwest of the Town of Kremmling. About 600 to 700 square miles of the Blue River Basin is located above Green Mountain Reservoir while the total area of the basin encompasses 800 square miles.

The Blue River runs through the center of the Town of Silverthorne and is classified as a Gold Medal Fishing Stream, which means that it has a higher percentage of fish 14 inches or longer than most rivers. In order to protect the Blue River's Gold Medal Fishing Stream status through restoring fish habitat and to help manage recreational access to the river, a multi-agency organization called the Blue River Restoration Project was created which included participation from Trout Unlimited, the White River National Forest, Summit County, Town of Silverthorne, Colorado Division of Wildlife, Denver Water Board, Colorado River District, Middlepark Water Conservancy District and the Northwest Colorado Council of Governments. In 2000, through the efforts of the Blue River Restoration Project, which included funding help provided through a "Fishing is Fun" grant, the Town implemented the first of three restoration projects designed to improve the health of the Blue River. The 2000 project restored a 0.5 mile section of the river from SH 9 to 6th Street. In 2002, the National Forest Foundation awarded the collaborative efforts of the Blue River Restoration Project with grant funding to help restore a 0.5 mile section of the Blue River from Dillon Dam to just south of the I-70 bridge, additional funds for this project were accrued by fund raising efforts. In 2005, the third Blue River Restoration Project was completed. This restoration project was assisted by a Colorado State Division of Wildlife grant of $120,000 and $20,000 from fund raising efforts.

Dillon Reservoir and Dam

The Dillon Dam, located just south of Silverthorne, was completed on December 17, 1963, and the Dillon Reservoir was created. The Dillon Reservoir has a surface area of 3,000 acres and 252,000 acre-feet of storage. The reservoir has 24.5 miles of shoreline and is considered a centerpiece of Summit County. It has marinas located in Dillon and Frisco. There is year round activity at the reservoir including several regattas and a fireworks display on the Fourth of July.

Green Mountain Reservoir

The Green Mountain Dam was constructed on the Blue River between 1938 and 1943, creating Green Mountain Reservoir. The reservoir has a surface area of 2,000 acres and 156,000 acre-feet of storage. Green Mountain Reservoir is located twenty-five miles north of Silverthorne and just west of SH 9. Located at an elevation of 7,700 feet, Green Mountain Reservoir is warmer than Dillon Reservoir and is more oriented towards motorized water recreation including motor boating, water skiing, and jet skiing.

D.5 Clear Creek County

The following land use plans were identified and reviewed for Clear Creek County:

- ***Clear Creek County Master Plan 2030 (2004)***
- ***Clear Creek County Non-Motorized Corridor*** (map included in the Clear Creek County Master Plan, Map 4.3)
- ***Clear Creek County Greenway Plan 2005*** – The development of the Clear Creek Greenway was first identified in the adopted *1990 Clear Creek County Inter-county Non-Motorized Corridor Master Plan*. The Greenway then became the focal point of the *2003 Open Space Plan* and a major development recommendation of the *2030 Clear Creek County Master Plan*.

  The Greenway, as envisioned in these plans, will serve as the backbone of Clear Creek County. It links the communities together with a string of open spaces, parks, recreational facilities, and commercial recreational facilities along the creek.
- ***Clear Creek County Board of County Commissioners Goals & Objectives 2008–2009***

Table D-5 summarizes the key points associated with topics related to the I-70 Mountain Corridor.

Table D-5. Clear Creek County Summary Table

Topic	Summary
Growth and Population	Current capacity within Clear Creek County is anticipated to accommodate population growth projected through to 2030.
Transit	• Clear Creek County is considering local public transit as a goal. • The Master Plan discusses Transit Oriented Design in relation to transit nodes to accommodate buses and fixed guideway transportation, as well as park-n-ride lots. • Idaho Springs plans to locate Regional Transit Station(s) within the Idaho Springs original townsite.
I-70	• Much of the transportation demand in Clear Creek County comes from travel through Clear Creek on I-70. Residents use I-70 for local trips, and congestion on the highway is a major issue for the County. The local road system crossing the county needs further development. • Key goals for I-70 improvement developed by the Clear Creek County I-70 Task Force are part of the Master Plan. • The Town of Georgetown expresses concern in its Comprehensive Plan that the construction of additional travel lanes on I-70 could have a profound impact on the town's historic resources and quality of life. • The Idaho Springs Comprehensive Plan 2008 discusses the I-70 Collaborative Agreement, which it states allows advocates of an elevated rail alternative until the year 2025 to develop a feasible rail option along the Corridor.

Table D-5. Clear Creek County Summary Table

Topic	Summary
Regional Coordination	• Clear Creek County will continue its participation in the I-70 PEIS process. • Idaho Springs also states its plan to continue participation in developing a long-term solution for I-70. • The County will seek partnerships with other jurisdictions and the private sector to provide a regional approach to economic growth and sustainability, including provision of affordable housing.
Environmental Sustainability	• Clear Creek County plans to pursue a sustainable solution for I-70 and to maintain the environmental integrity of the I-70 Corridor by pursuing the mitigation of impacts. • Clear Creek County will encourage renewable energy development in the county in appropriate locations. • Idaho Springs promotes and supports LEED standards from the United States Green Building Council for both subdivision development and residential design.
Water Resources	The Master Plan anticipates that existing water supply facilities are sufficient to meet demand based on 2020 population projections.

Statements about Growth and Population

On pages 3-7 and 3-8, the *Clear Creek County Master Plan* quotes the following statements about growth and population in **CHAPTER 3. BASELINE CONDITIONS**, under **C. Land Ownership and Use**:

> **Development Capacity**
>
> In summary, there is capacity within existing municipalities and subdivisions to accommodate a population, which would more than double the current population in Clear Creek County (9,553 people) and would be able to accommodate the projected Year 2030 population of 14,735 (Colorado State Demographer). Table 3.6 identifies the source of the residential capacity in Clear Creek County and the potential yield in terms of units and population.

Statements about the Development of Transit

On page 4-16, the *Clear Creek County Master Plan* quotes the following statements about transit in **CHAPTER 4. CAPACITIES, CAPABILIITES, AND CONCEPTS FOR THE FUTURE**, under **B. Factors Affecting Development**:

> **Relationship to Region**
>
> The proximity of Clear Creek County to the Denver metropolitan area, as well as nearby recreation areas in central Colorado, makes the County susceptible to growth from commuters working outside of the County. Estimates from 2000 indicate that approximately half of working residents in Clear Creek County commute daily to the Denver metropolitan area. With average housing prices at approximately $200,000, this area is sure to see extensive growth in coming years. Clear Creek County is expected to reach approximately 15,430 persons by 2030, with as many as two-thirds of the workers commuting to work outside of the County.
>
> Along with the growing population comes the need to accommodate travelers' needs in a variety of ways. Also, there is a significant tourism market in the Denver area related to conferences, conventions and meetings. Transportation services are needed to link this population to destinations within Clear Creek County. Much of the regional and local

transportation demand is through Clear Creek County within the I-70 and US40 corridors. Due to physical constraints of the County, this will not change in the 2030 planning window.

This demand has resulted in periods of congestion on I-70, particularly on weekends and holidays. Congestion can also occur at anytime on I- 70 following a traffic accident or natural disaster, such as a snowstorm or rockslide. The majority of County residents who responded through survey, letters, email and/or public meetings and workshop attendance identified the I-70 congestion as the major issue facing Clear Creek County. Currently, local residents rely on I-70 for local trips because the system of collector roads, particularly frontage roads which also serve as collectors, are not complete enough. More interconnectivity and crossing of Clear Creek are needed to get local traffic off of I-70.

On page 4-28 of Chapter 4, the *Clear Creek County Master Plan* quotes the following, under **C. Accommodating Growth**:

"Transit-Oriented Design" and Mixed-Use at Clear Creek Gateways, states:

The concept of "Transit-Oriented Design" (TOD) was first introduced as a planning concept for Clear Creek County in the Silver Heritage Area Internal Transit Plan, which was prepared by LSC Transportation, dated April 30, 2002. As part of the master planning process, the community and County staff reconfirmed this planning concept as a key element of the Master Plan.

On page 4-29 of Chapter 4, the *Clear Creek County Master Plan* quotes the following statements, under **C. Accommodating Growth**:

Transportation Nodes (Identified on the Master Plan as Gateways)

A vital rule of thumb in transit planning is that the potential for transit ridership drops off dramatically with distance from the nearest transit stop. Research consistently shows that the proportion of persons willing to use transit drops dramatically beyond a one-quarter mile walking distance to the transit stop (7.5-minute walk at two mph). Therefore, it follows that the more trip origins and destinations that can be concentrated within approximately one-quarter mile of a major transit stop, the greater the potential for transit usage. Within the constraints of the real estate market and local housing preferences, there is a benefit in developing zoning classifications and transit services in tandem to ensure that the greatest density occurs within approximately one-quarter mile of a major transit stop. This will create a greater potential for transit use. Therefore, the greatest number of dwelling units, employment opportunities, and commercial centers are located near major transit stops, or nodes. These nodes, or gateways, occur at the municipalities of Idaho Springs and Georgetown; Floyd Hill, Dumont/Lawson, and the I-70/SH40 Interchange. Mixed-use development is identified at these gateways. These transit nodes should be planned to accommodate buses and fixed guide way transportation, as well as park-n-ride lots.

On page 4-32 of Chapter 4, the *Clear Creek County Master Plan* quotes the following, under **C. Accommodating Growth**:

Transportation

As stated earlier in *Factors Affecting Development*, one of the biggest issues facing Clear Creek County is the I-70 congestion. With I-70 use required for local trips, congestion is not only affecting regional traffic, but also local traffic. The planning concept is to separate regional traffic from local traffic and establish a better multi-model transportation system in Clear Creek County. Clear Creek County's vision for the future is built around the idea of Transit-Oriented Design, as discussed previously, to encourage multi-model transportation.

On the subject of traffic separation, the community felt that developing a hierarchy of interchanges that identifies different types of uses, could provide input to the Colorado Department of Transportation as they establish interchange design criteria for the future improvements to I-70. This could start to separate regional and local traffic. This hierarchy is identified on the Master Plan Map and discussed here. The different interchanges are as follows.

1. Gateways – As discussed previously, are transit nodes (i.e., bus stops, fixed guide way stops, park-n-ride), they provide access to existing Town Centers; provide access to new mixed-use areas; provide access to highway services; and are basically Clear Creek County's and the municipalities' front doors.
2. Regional Access - Interchanges with other highways carrying a lot of regional traffic. May have highway services.
3. Community Access – Provides direct access to neighborhoods. These neighborhoods are mostly residential in nature with some of them immediately adjacent to the interstate and others up to 10 or 12 miles off the interstate. May have highway services.
4. Local Access – Provides access to local destinations adjacent to the interstate. No highway services.

Finally, the community felt that improving the frontage road/collector system so that local traffic would not have to get onto I-70 would be the best way to minimize congestion impacts to local trips. This is discussed in the transportation portion of the actor Affecting Development section of this chapter.

The following information regarding transit is provided in the *Clear Creek County Board of County Commissioners, Goals & Objectives, 2008-2009*:

Goal #2: To promote the creation of a transportation system that enhances mobility while protecting our mountain environment:

Objective #1: Local Public Transit:

Strategy #1: Continue monitoring current process in order to develop a strategy.

Strategy #2: Continue support of the Volunteers of America and Seniors' Resource Center projects.

Strategy #3: Consider a local transit provider.

Objective #2: Continue participation in the PEIS, Gaming area EIS, I-70 Coalition, Rocky Mountain Rail Authority, and DRCOG, solution for I-70:

Strategy #1: Broaden outreach for a sustainable I-70 solution. Continue to advocate for an elevated, fixed guideway system through Clear Creek County.

Strategy #2: Maintain the environmental integrity of the corridor by pursuing the mitigation of impacts.

Strategy #3: If necessary, deploy legal challenge to the I-70 PEIS outcome.

Statements about I-70

On pages 4-16 and 4-17, the *Clear Creek County Master Plan* quotes the following statements about I-70 in **CHAPTER 4. CAPACITIES, CAPABILIITES, AND CONCEPTS FOR THE FUTURE**, under **B. Factors Affecting Development**:

Relationship to Region

Thought has to be given to how this collector road network is developed so that it does not become a shortcut for non-local traffic when I-70 becomes congested. This frontage or collector road system is also needed to help emergency services access incidents on I-70 as well as allowing access within the community when I- 70 is congested. In 2004, the Colorado Department of Transportation (CDOT) will be publishing a draft of the Programmatic Environmental Impact Statement (PEIS) for the I-70 Corridor which will address capacity and safety issues. In anticipation of a preferred alternative, the Clear Creek County I-70 Task Force (assembled to provide input into the PEIS process) has established a series of goals or key thoughts to be communicated to CDOT and make a part of the County's Master Plan. The preferred alternative should:

- Have a positive impact on Clear Creek County's economy.
- Recognize that increased residential growth postures may occur in corridor communities, requiring new mitigation and management strategies.
- Mitigate construction congestion, delays, and closures.
- Minimize expansion of the current I-70 footprint.
- Minimize the impact to Clear Creek County waterways from sand/sediment, minerals, magnesium chloride, and physical encroachment.
- Create less carbon monoxide, dust, PM-10, PM-2.5, and air toxins.
- Create less noise in Clear Creek County communities
- Limit the burden on County emergency resources
- Provide real incentives for peak hour travel demand spreading

On pages 6-2 and 6-3, the *Clear Creek County Master Plan* quotes the following in **CHAPTER 6. SIGNIFICANT AREAS**, under **B. Floyd Hill**:

Issues and opportunities

2. Promote development of approximately 40-acres of commercially zoned property on I-70 at Exit 247 as potential economic development for Clear Creek County.

4. Recognize that this area is the eastern gateway to Clear Creek County for westbound I-70 traffic.

Implementation Strategies

1. Work with the Colorado Department of Transportation as a part of the I-70 improvements and the future developer of the commercially zoned property to add the two missing ramps to the Exit 247 interchange.

On pages 6-5 and 6-6 of Chapter 6, the *Clear Creek County Master Plan* quotes the following statements, under **D. Clear Creek Valley (Twin Tunnels to Empire)**:

> **Implementation Strategies**
>
> 1. Improve local access along Clear Creek and I-70 by improving the frontage road system, including the following:
>
>   - extend frontage road east around the twin tunnels to Floyd Hill
>   - connection from Fall River Road across the creek to the Frontage Road
>   - access across Clear Creek at Dumont
>
> 2. Support the Clear Creek Greenway concept to improve multi-modal transportation.
>
> 3. Support transportation node development (identified on the Master Plan as gateways).
>
> 8. Develop a gateway (transit node) at Dumont. See Map 6.2. Support the concept of mixed-use development at these community gateways as a rural town center.

On page 6-7 of Chapter 6, the *Clear Creek County Master Plan* quotes the following, under **F. Junction Area (I-70/US40 Interchange Area)**:

> This area is seen as a unique opportunity to create a regional gateway where one does not currently exist. This gateway is seen as a multi-modal transit node, adjacent to mixed-use development and open space.

Statements about Regional Coordination

On page 1-7, the *Clear Creek County Master Plan* quotes the following statements about regional coordination in **CHAPTER 1. INTRODUCTION**, under **C. Foundations of the Master Plan**:

> **The planning process shall support a sustainable, balanced economy with equal access to housing opportunity and employment.**
>
> Clear Creek County will continue to encourage diverse, viable companies, industries and organizations that provide high-quality employment opportunities and benefit all citizens and businesses. The County will seek partnerships with other jurisdictions and the private sector to provide a regional approach to economic growth and sustainability, including provision of affordable housing.

The following information regarding regional coordination is provided in the *Clear Creek County Board of County Commissioners, Goals & Objectives, 2008–2009*:

> **Goal #2**: To promote the creation of a transportation system that enhances mobility while protecting our mountain environment:
>
> **Objective #2:** Continue participation in the PEIS, Gaming area EIS, I-70 Coalition, Rocky Mountain Rail Authority, and DRCOG, solution for I-70:
>
> **Strategy #1:** Broaden outreach for a sustainable I-70 solution. Continue to advocate for an elevated, fixed guideway system through Clear Creek County.

Statements about Environmental Sustainability

The following information regarding environmental sustainability is provided in the *Clear Creek County Board of County Commissioners, Goals & Objectives, 2008–2009*:

> **Objective #2:** Continue participation in the PEIS, Gaming area EIS, I-70 Coalition, Rocky Mountain Rail Authority, and DRCOG, solution for I-70:
>
> **Strategy #1:** Broaden outreach for a sustainable I-70 solution. Continue to advocate for an elevated, fixed guideway system through Clear Creek County.
>
> **Strategy #2:** Maintain the environmental integrity of the corridor by pursuing the mitigation of impacts.
>
> **Objective #6:** Encourage renewable energy development in the county in appropriate locations.

Statements about Water Resources

On pages 4-16 and 4-17, the *Clear Creek County Master Plan* quotes the following statements about water resources in **CHAPTER 4. CAPACITIES, CAPABILIITES, AND CONCEPTS FOR THE FUTURE**, under **B. Factors Affecting Development**:

- **Water and sewer availability** (The executive summary of the "Water and Sewer Availability Study of Clear Creek County", completed on June 8, 1998 by Richard P. Arber Associates has been reprinted here. This study provided recommendations based on 2020 population projections.)

  Scope

  The purpose of the Water and Sewer Availability Study was to inventory the existing water supply and wastewater treatment facilities within the study area and to determine the availability of those facilities to meet the populations projected for the year 2020. This study also evaluated the feasibility of combining existing service areas to meet these needs.

  Water Supply Recommendations

  The conclusions of the study were that the existing water supply facilities are generally capable of meeting the year 2020 population projections. The City of Idaho Springs should implement a program of reducing unaccounted for water to reduce peak day per capita demands from 968 gallons per capita per day to less than 600 gallons per capita per day. It is expected that this will be accomplished. The area presently served by the Central Clear Creek Sanitation District has individual wells. It may be feasible to serve the proposed year 2020 population in this service area with an area-wide water system from Empire or Idaho Springs. The proposed cost of this alternative is approximately $9,100 to $10,200 per tap, depending on the option selected. These costs do not include water rights, treatment or operations and maintenance. Any major development beyond projected resident population growth within incorporated or unincorporated Clear Creek County is likely to require water augmentation planning, unique to the specific project, which is beyond the scope of this report.

  Wastewater Treatment Recommendations

  The conclusions of the study were that each existing wastewater treatment system is individually capable of treating the wastewater anticipated for the year 2020 population. The City of Idaho Springs and the Town of Georgetown will both need to successfully complete infiltration and inflow correction programs to accomplish this in their respective service areas.

  The Central Clear Creek Sanitation District will need to either re-rate its treatment facility from 0.10 mgd to 0.16 mgd, or will need to expand the plant to meet the projected population

increase in its service area. The Central Clear Creek Sanitation District system could be extended to serve the Empire Junction area at a capital cost of approximately $8,700 per SFE.

Operations and Maintenance

The communities of Clear Creek County may want to evaluate intergovernmental arrangements that consider combining some operations and maintenance efforts at the four water treatment plants and the four wastewater treatment plants. There could be labor savings and cost savings from this arrangement as well as improvements in the level of service made possible by economies of scale.

Ability to Accommodate Growth

If the currently identified plans for the individual water and wastewater systems are implemented, the communities of Clear Creek County appear to be in a good position to accommodate the projected resident population growth in the area. In addition, growth beyond that projected could be accommodated through intergovernmental cooperation and a well thought out expansion plan.

Private Wells and ISDS

Due to the issue of well contamination identified in Chapter 3, greater distances between wells and leach fields are recommended in new developments. In older developments, consolidation of multiple systems into either existing or new community wastewater treatment facilities is recommended. Attention to maintenance of existing ISDS by property owners would improve the efficiency of these systems, as well as help to minimize contamination issues. The County should evaluate the feasibility of a program to inspect ISDS. Additionally, new development on existing lots that do not conform to the County's current zoning standards should address water quality and quantity and how existing wells may be adversely affected by a new well and ISDS.

D.5.1 Town of Georgetown

The following plan was identified and reviewed for the Town of Georgetown:

- *Town of Georgetown Comprehensive Plan 2000*

Statements about Growth and Population

On page 11, the *Town of Georgetown Comprehensive Plan* quotes the following statements about growth and population in the **Trends and Issues Summary** chapter, under **Land Use**, **Growth and Development**:

Issues: Growth and Development

- Development objectives for surrounding mountainsides.
- Zoning of lands between the town's patent and corporate boundaries.
- Expansion of second-home market and social integrity of neighborhoods.
- Adequate public services such as sewer, water (including water rights), streets, and police and fire protection.

Statements about I-70

On page 6, the *Town of Georgetown Comprehensive Plan* quotes the following statements about I-70 in the **Trends and Issues Summary** chapter, under **Region**, **I-70 Corridor**:

I-70, which travels along the western edge of Georgetown, is the principal east-west corridor through the state of Colorado and is the main route to a majority of Colorado's ski resorts. In 1995, I-70 carried 27,600 vehicles per day. It is projected I-70 will carry more than 43,100

vehicles per day by 2020. Increased traffic and congestion on I-70 is a major regional concern. As a result, the Colorado Department of Transportation is in the process of studying the feasibility of additional lanes and other transportation alternatives, such as a monorail. Just as the original construction of I-70 has had long-term impacts to the town, the construction of additional travel lanes could have a profound impact on the town's historic resources and quality of life.

Issues: I-70 Corridor

- Traffic noise.
- Visual impacts of roadway and lights.
- Impact of expanded roadway or monorail on town's character and historic resources.
- Erosion and flooding problems associated with drainage from I-70.
- Location of potential monorail station and parking lots.

Statements about Water Resources

On page 14, the *Town of Georgetown Comprehensive Plan* quotes the following statements about water resources in the **Trends and Issues Summary** chapter, under **Infrastructure and Public Facilities**, **Water and Sewer Service**:

> Georgetown's water system is generally in good condition, and has kept pace with development that has occurred in recent years. However, the sewer system is going to need major upgrades, including an entirely new wastewater treatment plant.

D.5.2 City of Idaho Springs

The following land use plan was identified and reviewed for the City of Idaho Springs:

- *City of Idaho Springs Comprehensive Plan 2008*

Statements about Growth and Population

On pages 9-10, the *City of Idaho Springs Comprehensive Plan* quotes the following statements about growth and population in **I. BACKGROUND**, under **POPULATION**:

> **2007 Population: 1,755** (see Table 1: Idaho Springs Population and Growth Rate in the plan)
>
> Growth projections for Idaho Springs vary considerably depending upon the source. Recent estimates project the City's growth capacity at anywhere from 3,000 to a high of 3,800. The City views these estimates to be more realistic due to recent annexations but perhaps overly optimistic in terms of timing. The City has adequate water supply and treatment capacity to meet these projected needs. The City also has adequate wastewater treatment capacity.

Statements about the Development of Transit

On page 46, the *City of Idaho Springs Comprehensive Plan* quotes the following statements about transit in **IV. GOALS & POLICIES**, under **Transportation**:

> **Goal T.1: Continue to participate in developing a long-term solution for Interstate 70**.
>
> **Policy T.1.4:** Work to locate Regional Transit Station(s) within the Idaho Springs original Townsite (i.e.: Argo Mill, south of Historic District, football field).

Statements about I-70

On page 11-12, the *City of Idaho Springs Comprehensive Plan* quotes the following statements about I-70 **I. BACKGROUND**, under **TRANSPORTATION & HISTORIC SETTING**:

> **Collaborative Agreement**
>
> Efforts by a coalition of communities along the I-70 corridor and the Colorado Department of Transportation (CDOT) and Federal Highway Administration have led to an agreement to allow some roadway congestion improvements along the I-70 corridor. That same agreement, signed by all parties in June of 2008, allows advocates of an elevated rail alternative until the year 2025 to develop a feasible rail option along the corridor.
>
> Key items in the Collaborative Agreement include:
>
> - CDOT and the State Historic Preservation Office (SHPO) will work with communities to develop a historic context or contexts for the I-70 corridor,
> - identification of historic buildings/engineering features and historic archeology,
> - determining the effects on historic properties of transportation facility construction,
> - finish construction on a frontage road at Idaho Springs and build bike paths, and
> - determination and resolution of the effect of transportation facility construction regarding visual, noise and economic impacts.
>
> The Collaborative Agreement meshes well with the Idaho Springs 1041 Regulations that protect Areas and Activities of State Interest. Both the agreement and the 1041 Regulations recognize the historic importance of the setting of Idaho Springs and seek to preserve the community within its' historic setting.
>
> Idaho Springs is located at the beginning of the Mt. Evans Scenic and Historic Byway and is easily accessible from the metro area. It is one of the closest getaways for the urban populations in Denver and Jefferson counties. As changes occur on I-70 in the future, it will be important to protect these historic and cultural resources and the City's service-based economy.
>
> The following three pages include illustrations from the work that has led up to the Collaborative Agreement. The first two illustrations show the Idaho Springs community in 1957 prior to the construction of I-70. Of particular interest is the width of the I-70 disturbance, loss of historic structures and the shift in the alignment of Clear Creek that occurred due to that construction. The third illustration is a simulation where the current alignment of I-70 is superimposed over an early 1900's view of Idaho Springs. The impact of I-70 on the historic fabric of the community can be clearly seen.

On pages 46-47, the *City of Idaho Springs Comprehensive Plan* also quotes the following about I-70 in **IV. GOALS & POLICIES**, under **Transportation**:

> **Goal T.1: <u>Continue to participate in developing a long-term solution for Interstate 70</u>.**
>
> **Policy T.1.1:** Work with all partners in developing a preferred alternative for the I-70 corridor as ratified in the Collaborative Agreement.
>
> **Policy T.1.2:** As part of any I-70 construction efforts, require that provisions of the Collaborative Agreement be used to enhance the operation and appearance of interchanges within the City Special Planning Area.
>
> **Policy T.1.3:** Work with regional partners and CDOT to establish effective public transportation alternatives in the I-70 corridor.

Policy T.1.4: Work to locate Regional Transit Station(s) within the Idaho Springs original Townsite (i.e.: Argo Mill, south of Historic District, football field).

Policy T.1.5: Require mitigation of noise, dust and visual pollution in any planning for I-70.

Policy T.1.6: Remain active in the NEPA and I-70 Stakeholder process as it relates to solutions for congestion on Interstate 70.

Goal T.2: Participate in long-term improvements on Colorado 314.

Policy T.2.4: If I-70 expansion occurs, require CDOT to develop an appropriate mitigation plan to reconfigure and improve County Road 314.

Goal T.3: Develop and maintain safe, attractive and efficient roadways.

Policy T.3.1: Develop gateway plans with CDOT for all I-70 interchanges.

Statements about Regional Coordination

On page 35, the *City of Idaho Springs Comprehensive Plan* also quotes the following about regional coordination in **II. THE CITY**, under **COOPERATION**:

> Implementation of the goals, policies and action steps found in this Comprehensive Plan must take into account how Idaho Springs may affect another jurisdiction or organization with the decisions it makes. Collaboration and cooperation between various governmental entities is very desirable and of mutual benefit to all the affected parties. Jurisdictions with which Idaho Springs develops, fosters and maintains positive relationships include:

- State of Colorado
- Colorado Department of Transportation
- Clear Creek County
- Clear Creek County Emergency Services
- Clear Creek County School District
- Clear Creek County Fire Authority and Evergreen Fire District
- Clear Creek Metropolitan Recreation District
- City of Central City
- City of Black Hawk
- Denver Regional Council of Governments
- Gilpin County
- Jefferson County
- U.S. Corp of Engineers
- U.S. Forest Service
- National Trust for Historic Preservation
- Federal Highway Administration

On page 38, the *City of Idaho Springs Comprehensive Plan* quotes the following about regional coordination in **IV. GOALS & POLICIES**, under **Community**:

> **Goal C.3: Cooperate with local and regional entities**.
>
> **Policy C.3.1:** Assist in the formation and operation of neighborhood organizations in Idaho Springs as appropriate.

Policy C.3.2: Actively participate in Denver Regional Council of Government programs and projects.

Policy C.3.3: Maintain positive working relationships with Clear Creek, Gilpin and Jefferson county governments.

Policy C.3.4: Foster and maintain positive working relationships with area municipalities.

Policy C.3.5: Work with special districts to provide cost-effective services to the residents of the community.

Policy C.3.6: Cooperate with the Historical Society of Idaho Springs to preserve, protect and renovate the historic assets of Idaho Springs.

Statements about Environmental Sustainability

On page 52, the *City of Idaho Springs Comprehensive Plan* quotes the following about environmental sustainability in **IV. GOALS & POLICIES**, under **Residential**:

Goal R.4: Support excellence in housing and subdivision design.

Policy R.4.1: Encourage defensible space design strategies as part of new development in areas subject to wild fire.

Policy R.4.2: Promote and support Leadership in Energy and Environmental Design (LEED) standards from the United States Green Building Council for both subdivision development and residential design.

The following points are quoted on page 46, under **Transportation**:

Goal T.1: Continue to participate in developing a long-term solution for Interstate 70.

Policy T.1.3: Work with regional partners and CDOT to establish effective public transportation alternatives in the I-70 corridor.

Policy T.1.4: Work to locate Regional Transit Station(s) within the Idaho Springs original Townsite (i.e.: Argo Mill, south of Historic District, football field).

Statements about Water Resources

On page 9, the *City of Idaho Springs Comprehensive Plan* quotes the following about water resources in **I. BACKGROUND**, under **POPULATION**:

The City has adequate water supply and treatment capacity to meet these projected needs. The City also has adequate wastewater treatment capacity.

On pages 20-21, the *City of Idaho Springs Comprehensive Plan* also quotes the following statements about water resources in **II. THE CITY**, under **FACILITIES & SERVICES**:

Water System

The City obtains raw water from two tributaries of Clear Creek: Chicago Creek and Soda Creek. Water rights owned by the City include both direct and storage rights sufficient to meet any reasonable growth forecasts. The City has sufficient rights to allow it to consider sales to extraterritorial users either from direct sales to users, wholesale to other providers, or through augmentation agreements.

The water treatment plant is located about 3 miles upstream on Chicago Creek. Plant capacities and capabilities have been upgraded and are adequate to address current needs, with normal operational and maintenance issues to be expected. A state-of-the-art membrane/ micro-

filtration treatment plant was put on-line in April of 2002 and an upgrade to low-pressure membrane replacements was completed in December, 2007. Distribution systems within the City will continue to require replacement of aging water mains and service lines, as well as examination and inventory of line capacities and conditions to assure adequate flow for water delivery, both for consumption and fire flow needs.

Any new development at the Twin Tunnels, Hidden Valley, Floyd Hill and other areas will mandate the design and expansion of distribution lines and the construction of pump stations and water storage facilities. Water supply and treatment will not be a constraint to development for the foreseeable future.

Wastewater System

The Wastewater Treatment Plant near the Twin Tunnels has seen improved operations in recent years and a program has been created to address ongoing maintenance needs.

Stormwater & Drainage

Due to its topography, the City is affected by significant drainage basins. Within the limited landmass of the city, homes, businesses and streets are often affected by storm drainage problems. A number of projects have been undertaken and more are being planned to address drainage issues across the community.

D.6 Jefferson County Corridor Area

For the PEIS, Jefferson County has been assessed at a sub-county level, focusing on two Jefferson County planning areas that are traversed by I-70 in the Corridor. This area, referred to as the Jefferson County Corridor Area, contains Jefferson County's Evergreen and Central Mountains community planning areas. Jefferson County is a member of DRCOG.

The following plan was identified and reviewed for the Jefferson County Corridor Area:

- ***Jefferson County – Evergreen Area Community Plan 2005*** – This plan supersedes the *Evergreen Community Area Plan* adopted in 1987. The plan is a guide for land use decisions made by staff, the Jefferson County Planning Commission, and the Board of County Commissioners. It represents the Evergreen Area community's desires for the quality, type, amount, and location of future development.

- ***Jefferson County - Central Mountains Community Plan*** was adopted in 1994. The plan provides guidance for land use decisions surrounding future development, creating the Mountain Site Design criteria as an evaluative tool.

Table D-6 summarizes the key points associated with topics related to the I-70 Mountain Corridor.

Table D-6. Jefferson County Summary Table

Topic	Summary
Growth and Population	• Annual growth rate of 2.7 percent from 1990 to 2000 in the Evergreen area. Planners are anticipating between 2 and 3 percent through to 2050. • The Evergreen community wants to maintain the same type of community that currently exists. Development should be of a design and on a scale appropriate for a rural community. • Central Mountains has been the fastest growing community in Jefferson County. • The Central Mountains Community Plan is concerned with balancing growth with preservation of the natural characteristics of the mountain environment.
Transit	• Focus is on a coordinated transportation system that integrates all travel modes, preserves the mountain character of the community, improves air and water quality, and reduces noise pollution. • If high-speed transit is developed along I-70 to connect the Denver metro area to the mountain communities, a stop should be located in this activity center, and the community should be involved in the location and design of any stations or parking. The Central Mountains plan contains strong support for the development of public transit in the area. Transportation planning should: • take visual impact into consideration. • keep pace with needs of the population • be coordinated with other areas and agencies
I-70	The plan mentions that the competing needs of local residents and travelers through the community should be resolved in a way that preserves the visual amenities and the integrity of the mountain community. One goal of the county is to designate I-70 as a scenic and historic corridor.
Regional Coordination	The Evergreen community supports future regional transit plans to develop a regional rapid transit network and increase available transit options. The Central Mountains plan supports coordination in the planning and provision of transportation between the Central Mountains Area community, Jefferson County R-1 Schools, RTD, fire districts, and state, federal and local transportation providers.
Environmental Sustainability	• No specific planning around environmental sustainability issues. • Strong focus on preserving natural and community resources, including visual, water, wildlife, air, and noise. • The Mountain Site Design Criteria are intended to assist and encourage landowners to recognize their role as land “stewards” by creating high quality developments which respect the environment, and encourage creative and flexible approaches to site design. Excellent site design will enhance both the quality of life of residents and will leave lasting impressions on those who visit.
Water Resources	• Drought around the time of writing the Evergreen Area Community Plan heightened awareness of water as a finite resource. • Focus on the need to protect and conserve water resources, and mitigate the impacts of development. Focus on: • Protecting the community’s groundwater supplies from significant depletion and contamination. • Ensure that water resources are not depleted by balancing the physical supply of water and water demand

Statements about Growth and Population

On page 4, the *Jefferson County—Evergreen Area Community Plan* quotes the following about growth and population, under **History**:

> Between 1990 and 2000 the annual percentage increase in population in the Evergreen area was 2.7%. The community projects population growth at 2% or a 3% annually, resulting in a range from 56,650 to 59,900 people in the Evergreen area in 2050.
>
> **Community Character**
>
> In planning for future land use in the Evergreen Study Area, citizens felt that future growth should respect the unique natural amenities characteristic of this area. An overriding concern was that the impacts associated with unmanaged growth and development would overburden public services, threaten key wildlife areas, blanket the meadows with buildings, and destroy cherished views. The issue of how much development this mountain community could sustain confronted the citizen group with hard choices.
>
> Many of the community's concerns centered on preserving the existing quality of the mountain area environment, including water, air, and wildlife habitat. Another major concern was the protection of the unique natural qualities of the study area and its role as a buffer between the urban area of the plains and the wilderness of the federal lands along the Continental Divide. In addition, there was a strong feeling that the character of smaller sub-areas such as Marshdale and Kittredge should be retained.
>
> For the future, the Plan calls for maintaining essentially the same type of community that exists. The population is expected to increase but not reach a population level that could be supported in the plains area of the county. The provision of basic services within the community is expected to continue. However, secondary commercial needs are expected to be provided outside of the Evergreen area.
>
> It is anticipated that a majority of the population in the Jefferson County—Evergreen Plan area will be located north of Downtown Evergreen. The majority of the commercial development will be located between Downtown Evergreen and I-70, along the Evergreen Parkway corridor. The areas south of Downtown Evergreen and on either side of the Jefferson County 73 (JC 73) corridor in south Evergreen are expected to remain lower density residential development and open land. This will help preserve the natural beauty of the area, provide for outdoor recreation activities, and allow for the continued presence of the area wildlife.

On page 5, the *Jefferson County—Evergreen Area Community Plan* quotes the following:

> Future growth should respect the unique characteristics of this area. New development and redevelopment should be of a scale and design appropriate for a rural community, should provide for a diversity of housing and services, and should be sensitive to issues such as availability of water, steep slopes, wildfire, visual resources, wildlife, historic structures, and transportation.

On Page 10, the *Central Mountains Community Plan* looks to the future of the three canyons: Clear Creek, Mt. Vernon and Bear Creek. The goals, policies, and solutions in the Plan address the need for a careful balance between growth and preservation of the natural characteristics of the mountain environment and the quality of life for all residents.

(Page 11)
With an average annual growth rate of 4% during the 1980s, the Central Mountains was the fastest growing mountain community in Jefferson County. There were 8,830 people living in the Central

Mountains in 1990, an increase of 48% from 5,971 residents in 1980. Population of the Central Mountains is expected to increase to 10,685 by 2000.

Public Services and Facilities (Page 38)
These elements in the community should be consistent, reliable and adequate for growth allowed by other policies in the Plan. At the same time, the unique character of each subarea should be understood and preserved. The levels of service provided should be in accord with each area's character. Service provision should not enable or mandate development beyond the levels dictated elsewhere in the Plan.

Goals

1. Ensure that adequate, consistent and reliable public services are provided to support the land use recommendations for the Central Mountains area.

Statements about the Development of Transit

On page 40, the *Jefferson County—Evergreen Area Community Plan* quotes the following about transit in **Retail, Office, Light Industrial, & Activity Centers**, under **Policies**, **III. El Rancho Activity Center**, **C. Services**:

Transportation

4. If high-speed transit is developed along I-70 to connect the Denver Metro Area to the mountain communities, a stop should be located in this activity center, and the community should be involved in the location and design of any stations or parking.

On page 50, the Jefferson County—Evergreen Area Community Plan also quotes the following statements in **Transportation**, under **Goals**:

1. Safeguard visual corridors, as identified in the Visual Resources section.
2. Preserve the mountain community character.
3. Provide local road links to ensure adequate and safe travel to the arterial road network.
4. Provide a safe and efficient transportation system with in and through the community.
5. Improve air and water quality, and decrease noise pollution.
6. Provide a coordinated transportation system that integrates all travel modes (motor vehicles, transit, bicycle, pedestrian).
7. Provide expanded transit opportunities, where feasible.

On page 51 of the *Central Mountains Plan,* public transportation should be encouraged as a viable alternative to private vehicle travel. It can reduce the number of vehicles using the roads and, in effect, extend the capacity of the roads for a longer period of time, as well as reduce the amount of air pollution. For these reasons, the following actions should be taken:
a. Public transit service should be expanded to serve the travel needs of the community's residents.
b. Additional Park 'n' Ride sites should be provided as demand increases.
c. Commuter rapid transit should be provided when the ridership demand exists, and feeder bus routes should be established to serve rapid transit stations.

On page 52, it is suggested that a comprehensive transportation study should be done for the Central Mountains Area of Jefferson County, which would identify specific transportation improvements and funding arrangements which may be necessary to accommodate the travel demands generated by the land use proposed. This study should be a cooperative effort of the municipalities, communities, state and Jefferson County and should consider the principal transportation facilities in the incorporated and unincorporated areas.
Examples of the strategies to be considered are:

• Expanded public transit service and facilities
• Expanded lanes
• Pedestrian, bicycle, equestrian paths

Upon completion of this transportation study, the Central Mountains Plan should be reviewed to determine the compatibility of the two documents and any inconsistencies resolved.

Statements about I-70

On page 50, the *Jefferson County—Evergreen Area Community Plan* also quotes the following about I-70 in **Transportation**:

> A limited road network funnels area residents onto State Highway 74 (SH 74), Evergreen Parkway, Jefferson County 73 (JC 73) and I-70. Additional traffic generated by future development could confront the county and the community with hard choices:
>
> 1. Expand local roads.
> 2. Accept greater congestion and increased travel times.
> 3. Adopt and create programs which foster home occupations, cottage industry and neighborhood commercial development.
> 4. Provide transportation mode alternatives, e.g., ride share programs, van, and public and/or private transit.
>
> The competing needs of local residents and travelers through the community should be resolved in a way that preserves the visual amenities and the integrity of the mountain community.

The *Central Mountains Plan* calls for the safeguard of scenic corridors and the mountain community character and to designate I-70, U.S. 6, State Highway 74 and State Highway 93 as scenic and historic corridors.

Statements about Regional Coordination

On page 52, the *Jefferson County—Evergreen Area Community Plan* quotes the following about regional coordination in **Transportation**, under **Policies**, **D. Multi-modal Transportation**:

5. The Evergreen community supports future regional transit plans to develop a regional rapid transit network and increase available transit options.

On page 52, the *Central Mountains Plan* states that

> **15.** Area community, Jefferson County R-1 Schools, RTD, fire districts, and state, federal and local transportation providers should be included in the planning and implementation of transportation improvements from the beginning of the process.
> **16.** The County, the state and the cities are encouraged to coordinate their work to achieve consistency of road surfaces, paved and unpaved, on roads that cross jurisdictional boundaries, and to develop compatible design standards, e.g., right-of way widths.
> **17.** Coordination among the County, the cities, the communities and public transportation providers should be instituted to plan and provide transportation improvements. This process would help to avoid the adverse impacts of increased traffic from new development on the road system in the neighboring communities and the Central Mountains Area, and to resolve transportation concerns raised by annexations and roads which cross jurisdictional boundaries.

Statements about Water Resources

On page 56, the *Jefferson County—Evergreen Area Community Plan* quotes the following about water resources in **Water Quality, Water Quantity, & Sanitation**:

> Proper planning and maintaining of water quality and quantity is essential. An adequate and safe supply of water preserves the health of the community's residents and its environment. The physical availability of water is a critical factor in developing the Evergreen area. In the years preceding and during this update of the Evergreen Area Community Plan, a drought in the area has increased the awareness that water is a finite resource and needs to be conserved.
>
> Many of the residents in the community are served by water and sanitation districts. Other residents depend on less certain ground water supplies drawn from individual wells and must dispose of wastewater through an individual sew age disposal system (ISDS). In many areas, severe limitations exist for ISDS installations because of steep slopes, depth of rock and coarse-textured soil. Improper treatment or disposal of effluent can result in ground water and surface water contamination.
>
> Land development affects both the quality and the quantity of both ground water and surface water. Because of this direct link, the adverse impacts of existing and future development on this necessary resource should be studied and mitigated.
>
> **Goals**
>
> 1. Balance water use with the physical supply of surface and ground water, water use, and ground water recharge, so that water resources are protected from long-term depletion.
> 2. Maintain, protect and/or improve ground water, surface water and stormwater quality and quantity as new development and redevelopment occurs.
> 3. Mitigate or eliminate existing water contamination sources.
> 4. Protect existing surface waters to maintain important natural ecosystems.
> 5. Provide opportunities for ground water to recharge naturally.

In the *Central Mountains Plan,* land development affects both the supply of and demand for water within an area and must be managed. Some residents in the community are served by water districts and water and sanitation districts. Some of these districts rely on surface water (streams) for their supply, while others rely on wells. Other residents depend on individual well and septic tank/leach field systems. Improper treatment or disposal of effluent can result in ground water and surface water contamination. Because of this correlation, the impacts of existing and future development on this sensitive resource should be studied and managed to ensure safe and adequate supplies of water. Regulations on minimum lot sizes and the keeping of livestock are needed to protect the integrity of this resource. Restrictions are necessary to protect the quality of both surface water and ground water in areas with steep slopes, poor soil profiles and/or drainage ways, gullies, etc. The community's groundwater supplies must be protected from significant depletion and contamination.

Goals

1. Ensure that water resources are not depleted by balancing the physical supply of water and water demand.
2. Maintain or improve water quality as new development occurs.
3. Identify existing water contamination sources and mitigate or eliminate them.
4. Protect existing surface waters to maintain important ecosystems.