Section 2: Baseline Inventory Update

2.1 INTRODUCTION

This section includes a summary of the analysis conducted as part of the master plan update. The analysis included a review of the current demographics for the Town and the surrounding Three Mile Planning Area. In addition, the existing land use inventory was updated and the build-out analysis was revised based on the updated existing land use inventory and some changes to the assumptions used in the 1999 build-out analysis. A brief discussion of the key findings of the 2005 Community Profile Survey is also incorporated. The information in this section is organized into the following categories:

1. **Demographics**
2. **Housing**
3. **Transportation**
4. **Existing Land Use**
5. **Parks, Recreation, and Open Space**
6. **Trails, Sidewalks, and Pathways, and**
7. **Sewer and Water**

Each of these categories includes a summary of the basic information and a comparison with similar data compiled during the preparation of the *1999 Basalt Master Plan*. Brief comments regarding what these numbers indicate are also included for each category.

2.2 DEMOGRAPHICS

BACKGROUND

Updated demographics for the Town of Basalt have been generated through a number of sources. Population information was developed by the Town's Planning Department based on building permits and other data gathered by the staff. Information regarding state and national trends was incorporated using data obtained from the State Demographer's Office, the Colorado Division of Local Affairs (DOLA), and the United States Census Bureau. Household size information was developed using information from DOLA for Eagle, Pitkin and Garfield Counties as well as the Town of Basalt. The responses to the 2005 Community Profile Survey, conducted in association with the master plan process, provided information on the make-up of area households as well as other topics. It should be noted that the 2005 Community Profile Survey was designed to allow the breakdown of the responses into three categories: those on the Assessor's Office list (property owners); those with a business license registered with the Town of Basalt (business owner); and those registered to vote within the Town (registered voters). Unless noted otherwise, the numbers provided in this document represent the responses of "registered voters," since this group is most inclusive and represents the broadest cross section of the community. The existing land use inventory and build-out analysis was updated using the Town's Geographic Information Systems (GIS) database, current aerial photographs and information from the Pitkin, Eagle and Garfield County planning departments.

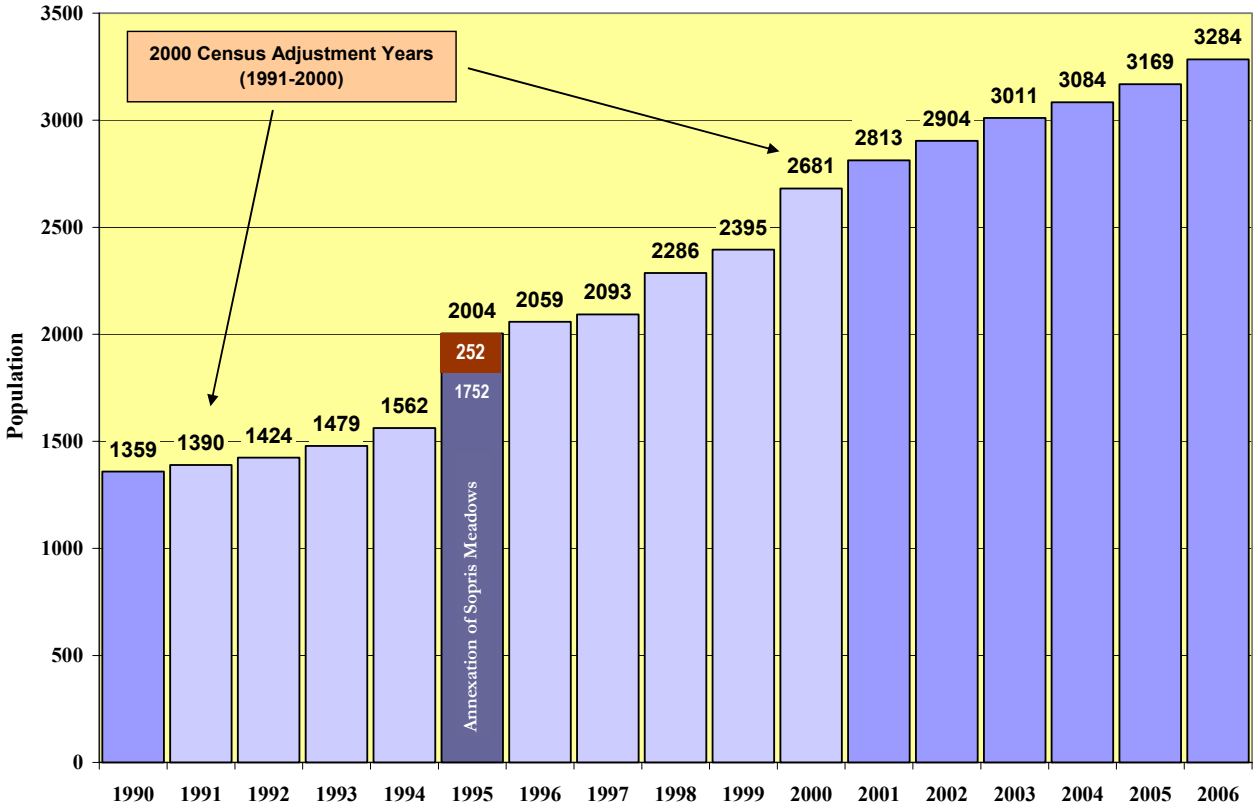
POPULATION GROWTH

The last decade has been a critical time for both Basalt and the entire mid-valley area. Growth in the area has created concern regarding the potential loss of the "small-town" feel and the agricultural lands and lifestyle that have been part of the Roaring Fork Valley for generations. Chart 2.2A illustrates population numbers of the Town of Basalt for each year since 1990. Review of this chart shows that the Town's population has grown by approximately 63.9% over the 11 years from 1995 to 2006. Two adjustments have been incorporated into the population numbers reflected in the Chart. In the mid 90s the Town annexed several existing subdivisions located in unincorporated Eagle County which contained an estimated population of 252 people. This adjustment shows up in the population estimate for 1995. The 2000 U.S. Census data resulted in an adjustment that added 150 persons to the Town's population estimate. In order to account for this increase without skewing the natural growth rate, the adjustment was made by adding 15 persons to the population for each of the 10 years since the 1990 Census (1991-2000). Chart 2.2A also shows that the Town experienced significant population growth in 1995 and 1999 even without the adjustments for annexation and census noted above.

The Town Planning Staff estimates the Town's population as of January 1, 2006 at 3,284, an overall increase of more than 22% since the adoption of the *1999 Basalt Master Plan*. The Goals and Objectives in the *1999 Basalt Master Plan* included an objective aimed at reducing the annual rate of population growth to something considerably less than the approximately 6% annual rate that had been occurring. Recommendations in the Future Land Use Section of the *1999 Basalt Master Plan* also advocated reducing the annual rate of growth to something closer to 3.2%. Table

2.2.1 indicates that the average annual rate of population growth since 2000 has been 3.4%, which is very close to the target rate contained in the *1999 Basalt Master Plan*. The 10-year average (1996-2005) is closer to 5%.

CHART 2.2A
Population Growth (Town of Basalt)



Source: Basalt Planning Staff & TG Malloy Consulting

Notes: 1) 2000 Census adjustment (150 person adjustment made by adding 15 persons to each of 10 years from 1991 to 2000).

2) Annexation of Sopris Meadows added 252 persons to the 1995 population estimate.

TABLE 2.2.1
Population Growth Rate (Town of Basalt)

Year	Growth Rate
1995	2.7%
1996	1.7%
1997	9.2%
1998	4.8%
1999	11.9%
5-Year Average (1995-1999)	**6.1%**
2000	4.9%
2001	3.2%
2002	3.7%
2003	2.4%
2004	2.8%
2005	3.6%
5-Year Average (2001-2005)	**3.1%**
6-Year Average (2000-2005)*	**3.4%**
10-Year Average (1996-2005)	**4.8%**

Source: Basalt Planning Staff

* Growth rate since 1999 Master Plan adoption.

TABLE 2.2.2
Population Growth Comparison

	1990 Population	1996 Population (est.)	Percent Change	2000 Population	2005 Population (est.)	Percent Change
Basalt*	1,359	1,807	**33%**	2,681	3,169	**18%**
Garfield County	29,974	36,499	**22%**	43,791	50,673	**16%**
Eagle County	21,928	30,525	**39%**	41,659	49,375	**19%**
Pitkin County	12,661	13,489	**7%**	14,872	16,420	**10%**
Colorado	3,294,473	3,822,676	**16%**	4,335,540	4,722,755	**9%**
United States	248,718,301	265,283,783	**7%**	275,562,673	296,410,404	**8%**

Source: US Census Bureau (for all numbers except Basalt). Basalt numbers provided by Basalt Planning Staff (see Chart 2.2A Basalt Population Growth)

**Numbers for Basalt population change from 1990 to 1996 do not include 252 persons who were annexed into Basalt in 1994-95.*

The growth rate comparisons in Table 3.2.9 from the *1999 Basalt Master Plan*, projected that the population of the Three Mile Planning Area would exceed 10,600 by 2004 if the population continued to grow at the then historic growth rate of 6%. Current 2004 estimates based on the existing development and build-out analysis conducted by TG Malloy Consulting and the Basalt Planning Department put the Three Mile Planning Area population at 9,005 or approximately a 2.6% annual growth rate.

TABLE 3.2.9 (FROM THE 1999 PLAN)
Growth Rate Comparison
(Three Mile Planning Area)

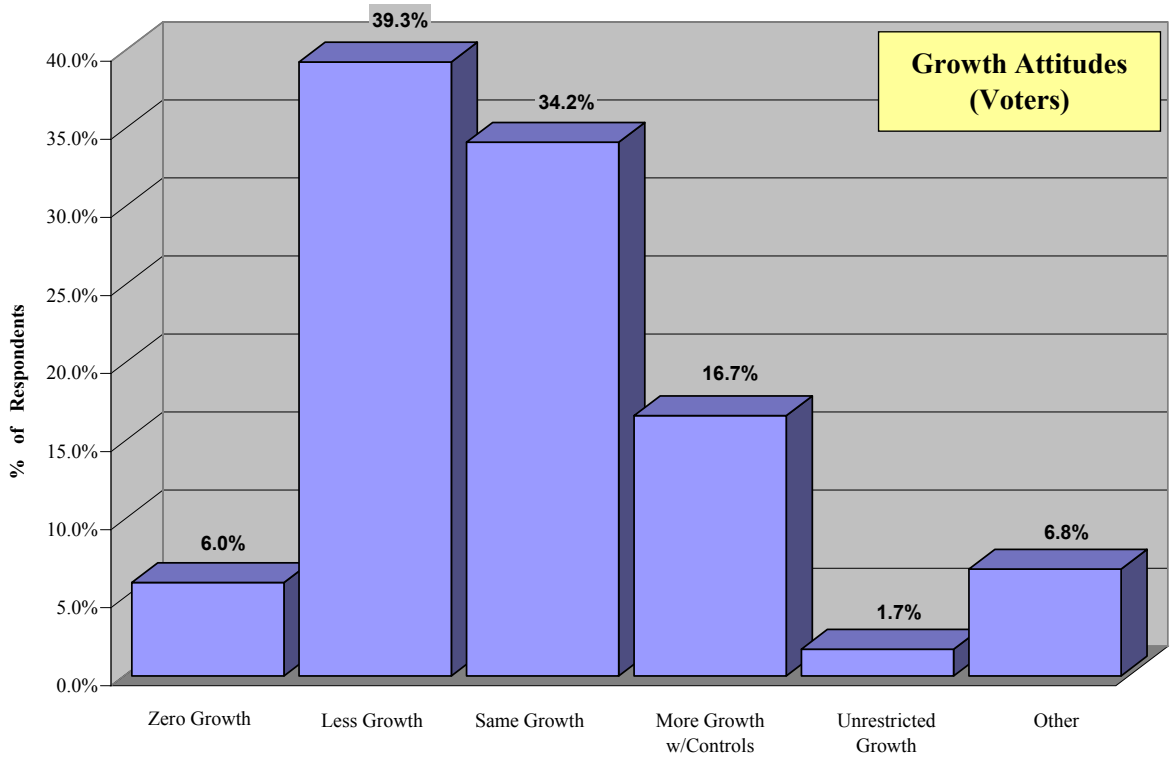
	1999	2000	2001	2002	2003	2004
Historic Growth	7,962	8,440	8,946	9,483	10,052	10,655
Moderate Estimated	7,962	8,217	8,480	8,751	9,031	9,320

Source: TG Malloy Consulting and Basalt Planning Staff from 1999 Basalt Master Plan
Historic Growth Rate: 6.0% (Based on recent growth within town limits).
Moderate Estimated Growth Rate: 3.2% (This is the rate of anticipated growth included in a recent Healthy Mountain Communities Study and used as the "planned growth" scenario in RFRHA's CIS/DEIS/CP study for the Denver & Rio Grande Western Railroad Right-of-Way).

Understanding people's attitudes toward growth is very helpful when considering growth policies in the master plan process. Chart 2.2B shows the results from the 2005 Community Profile Survey regarding growth attitudes. Of the registered voters responding to the Survey, 45% desired less growth or zero growth while 18% desired more growth or unrestricted growth and 34% felt that about the same rate of growth at present was appropriate.

Unlike the upper-valley, the Town of Basalt has no formal growth regulations. The survey results on growth show that it is an important issue to the community. In this instance, a large portion of the respondents feel that the existing growth rate is desirable, this would suggest that the Town has struck a good balance. To maintain this balance, it is ever more important that decision-makers and the Town fully consider the impacts and benefits of individual development projects to ensure the right-type of growth that is going to sustain the community for future generations.

CHART 2.2B
Growth Attitudes



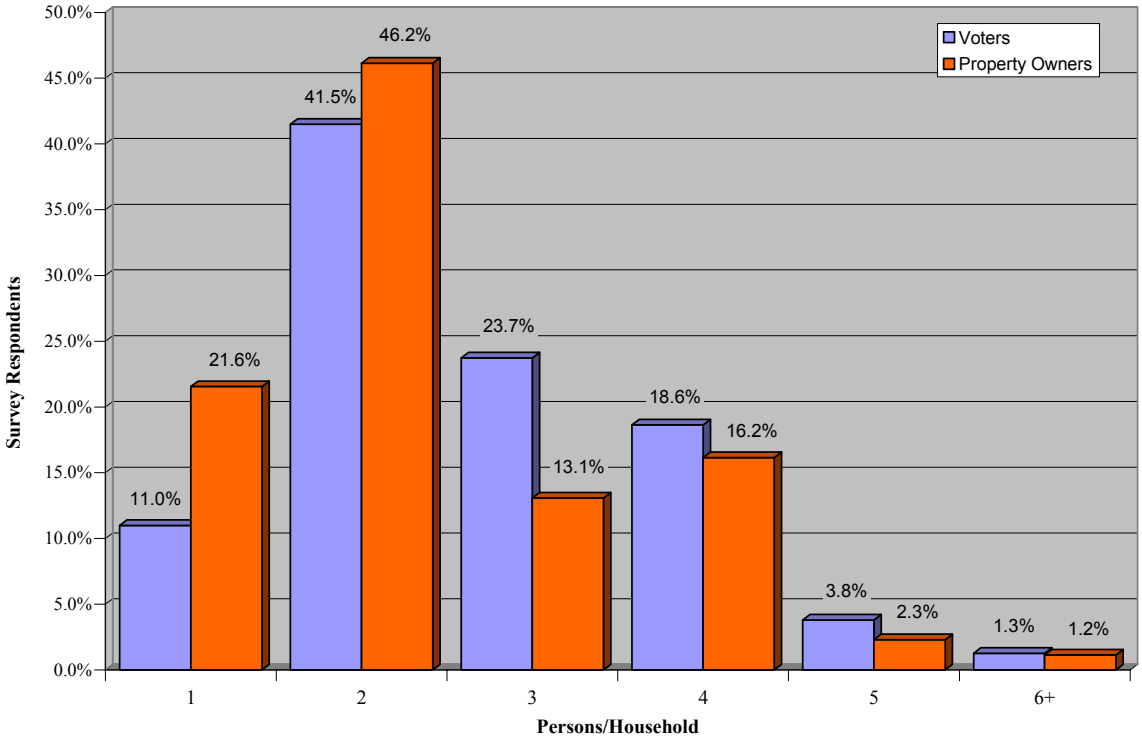
Source: 2005 Town of Basalt Community Survey; Prepared by Linda Venturoni; NWCCOG

HOUSEHOLD CHARACTERISTICS AND EMPLOYMENT

Information used to create Charts 2.2 C and 2.2 D was obtained from the 2005 survey. Household size has shifted since 1997 with an increase in the number of two-person households and a decrease in both single-person households and households with five people or more. The median household size is between two and three people. Another interesting statistic to note is that while Basalt still has a predominance of households made up of couples with children, the percentage of households with children decreased from 56.6% in 1997 to just over 42% in 2005, including single-parent households. Other survey data shows that 44.7% of people within the surveyed households are between the ages of 20 and 44 while the national average of persons in this age range hovers at just below 36%[1]. A higher than average percentage of young people in Basalt could result in an increase in the number of children in the years to come.

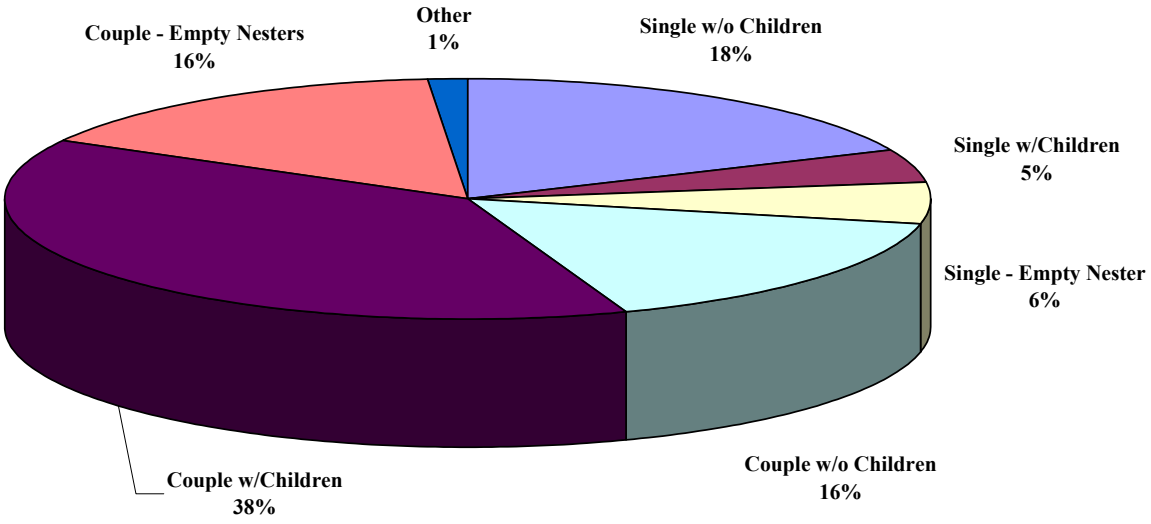
[1] *American Community Survey, 2003 Data Profile,* United States Census Bureau.

CHART 2.2C
Household Size



Source: 2005 Town of Basalt Community Profile Survey, Linda Venturoni; NWCCOG

CHART 2.2D
Household Characteristics



Source: 2005 Town of Basalt Community Survey; Prepared by Linda Venturoni; NWCCOG

RE-1 School District data (Table 2.2.3) provides important information for planning future land use for schools and community facilities. Since 1998, the School District has experienced a significant (13%) reduction in elementary school enrollment (first through fifth grades). All other enrollment has increased since 1998, including increases of approximately 13% for students in the middle and high school age brackets. Enrollment and percent of capacity for the three Basalt public school facilities for 1998 and 2006 are shown in Table 2.2.4a and 2.2.4b respectively. In November 2004, the RE-1 School District received approval from voters for an $86 million dollar bond issue to fund improvements for schools throughout the District.

TABLE 2.2.3
School Enrollment Basalt Attendance Area, RE-1 School District

Grade Level	1997 Enrollment	1998 Enrollment	2000 Enrollment	2003 Enrollment	2004 Enrollment
Pre-school	24	24	27	52	37
Kindergarten	123	127	107	101	104
1	135	130	120	99	106
2	119	126	113	99	105
3	129	116	123	100	103
4	100	124	126	116	102
5	97	93	116	123	104
6	121	92	98	107	116
7	110	112	95	118	120
8	101	109	114	101	120
9	96	110	113	96	115
10	100	102	98	121	107
11	72	97	88	94	86
12	66	61	82	85	109
Total	**1,393**	**1,423**	**1,420**	**1,412**	**1,434**

Source: District Office RE-1 Staff

TABLE 2.2.4 a
1998 Public Schools Capacities and Enrollment

School Facility	Enrollment	% Capacity
Basalt Elementary	647	80%
Basalt Middle School	406	65%
Basalt High School	370	79%

Source: District Office RE-1 Staff

TABLE 2.2.4 b
2006 Capacity and Enrollment

School Facility	Capacity	Enrollment	% Capacity
Basalt Elementary	612	568	93%
Basalt Middle School	460	449	97%
Basalt High School	535	477	89%

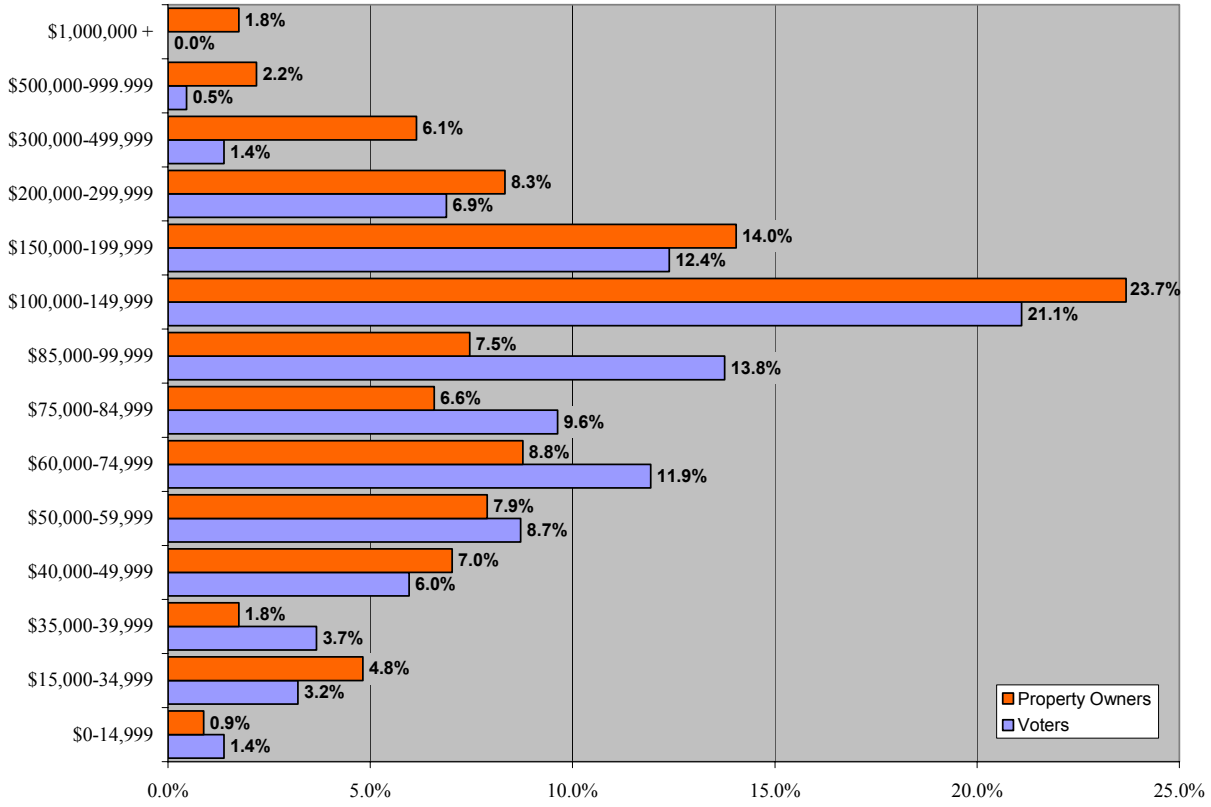
Source: District Office RE-1 Staff

The Community Survey conducted for the *1999 Basalt Master Plan* showed that 42.7% of Basalt residents work in Aspen. The 2005 Basalt Community Survey results illustrate that this trend is continuing. Approximately 41% of survey respondents (registered voters) indicated that they work in or near Aspen. Approximately 36% of Basalt's registered voters currently work in Basalt or El Jebel.

In 1999 the top five professions occupied by survey respondents were: Professional, Service, Construction, Sales, and Office Work. The top five occupations according to the 2005 Community Profile Survey were: Other, Professional, Construction, Personal Services (cleaning, massage, etc.), and Real Estate/Property Management.

Chart 2.2E shows the breakdown of household income for the Town of Basalt based on data from the 2005 Community Profile Survey. The Chart shows the income breakdown for voters and property owners. Median household income of Basalt residents has increased by more than 50% as shown on Table 2.2.5. Chart 2.2F illustrates trend data for Basalt's median income as compared to the National, Regional and State median income figures. The median income for residents of Basalt was higher in 1998 than the Nation, Region and State and increased at a significantly greater rate over the years between 1998 and 2003. This is most likely due to the migration of professionals who work in Aspen and have been moving to Basalt. These assumptions are supported by the results of the 2005 Community Profile Survey, which shows that 71.2% of registered respondents obtain their income from wages, salary and income earned outside of the Town of Basalt. Also of interest is the fact that 22.3% of respondents reported that their income included sources of non-wage earnings such as dividends, rents, interest, savings, sale of assets, etc.

CHART 2.2E
Household Income



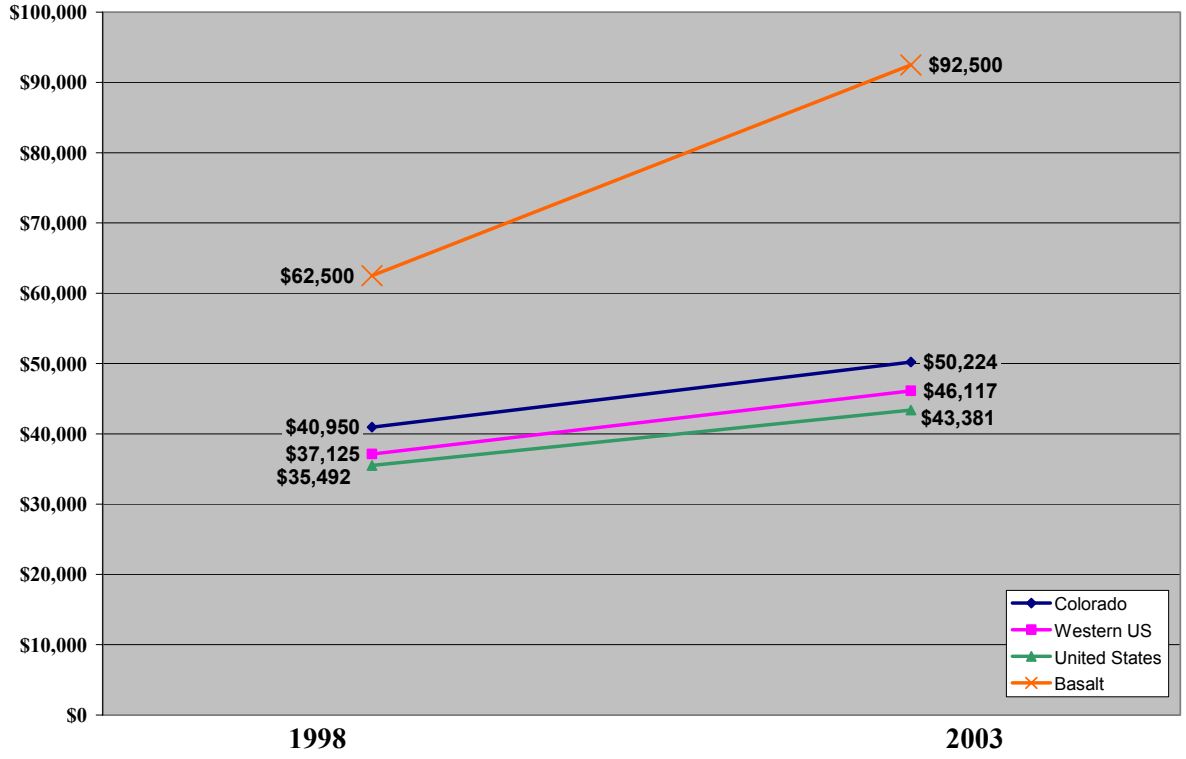
Source: 2005 Town of Basalt Community Survey, Linda Venturoni, NWCCOG.

TABLE 2.2.5
Median Household Income Comparison

Area	Median Income 1998	Median Income 2003	% Change
Basalt	$62,500	$92,500*	52.3%
Colorado	$40,950	$50,224	22.6%
Western US	$37,125	$46,117	24.2%
United States	$35,492	$43,381	22.2%

*Source: US Census Bureau (for all numbers except Basalt). *Basalt figures provided from 2005 Community Survey prepared by Linda Venturoni, NWCCOG*

CHART 2.2F
Median Household Income Trend



Source: US Census Bureau (for all numbers except Basalt). Basalt figures from 2005 Community Profile Survey, Linda Venturoni, NWCCOG.

The 2005 Community Profile Survey showed that 87.8% of respondents (registered voters) owned their own home. This is down slightly from 1998 when 88.4% of households owned the home in which they lived. Further, 65.5% of those who responded to the 2005 Community Profile Survey indicated they lived in single-family homes, compared to 59.1% in 1998. Approximately 33.6% of registered voters currently live in some form of multi-family dwelling (townhome, duplex, apartment or condominium) according to the 2005 Survey. There is also data regarding the cost of housing in Basalt for both 1998 and 2005. In 1998 36.7% of respondents were paying $900 or less in monthly housing while 12.7% were paying over $1,700. The 2005 Community Profile Survey shows that approximately 27% of registered voters pay $999 or less per month while 42.5% of registered voters are paying over $1,700 per month. This is a very significant increase in the cost of housing. However, as shown on Table 2.2.5, the median income of Basalt residents has increased by more than 52% since 1998. We would note that data from the Colorado Department of Labor and Employment (CDLE), which keeps data on wages by County, shows an increase of only 41.6% between 1996 and 2004 for Eagle County. The CDLE numbers reflect "average wages" for individuals as opposed "median income" for households. The higher numbers for Basalt may reflect the migration of professionals from Aspen, but it may be the result of other factors. It is also interesting to note that the nearly 12% of registered voters pay nothing for their monthly housing expense, according to the 2005 Community Profile Survey.

ISSUES AND OPPORTUNITIES

The statistics presented in this section reveal the rapid population growth that has been occurring in the Basalt area over the past decade. This growth has been apparent to the residents and visitors of the Basalt area since the late 1980s. The demographics information in this section suggests a number of issues and opportunities that should be explored and addressed in the coming years.

Issues and Concerns

- A common topic in Basalt and the Roaring Fork Valley is the relative change associated with dramatic population increases over a short period of time. Rapid rates of change (both physical and social) can be threatening to those who remember Basalt in the 1980s and 1990s. This was borne out in the 2005 Community Profile Survey, which showed that many residents believe that maintaining small-town character and preserving open space and protecting the environment were very important objectives for the Town.
- A key threat to the lifestyle, which many area residents have come to love, is the incremental change in values. Many of the new residents in the area come from urban areas in search of a better quality of life. Some of these new residents bring with them values and expectations based on their previous life experience. In addition, people's values change as they progress through the various stages of their lives. These changing demographics result in changing values and demand for different services. This concept is illustrated by the proliferation of large homes, golf courses, increased traffic, and demands for urban-level services and facilities.
- More people translate into increased vehicles, miles traveled, and traffic congestion, particularly during peak periods and at key intersections.
- Increasing rental rates and home sale prices force many area residents with low and moderate incomes out of the community. This is particularly true for historic rental property that is resold in a market experiencing significant appreciation. In addition, increasing property values restrict the ability to purchase a home to those in the higher income brackets. The higher prices discourage younger families who are just starting out. There is a need for housing opportunities related to area salaries, i.e., affordable housing units. This is particularly true for workers providing essential services such as police, fire protection, emergency medical, teachers and others.

Opportunities

- While not statistically expressed in the survey results, it is widely recognized that there has been a significant increase in the Hispanic/Latino segment of the population. This creates new cultural opportunities and provides new diversity for the valley. With this opportunity comes the challenge of understanding and accommodating a growing segment of the population. The fact that the 2005 Community Profile Survey failed to reach this segment of the community (which also happened with the 1998 Community Profile Survey) suggests that the Town must use non-traditional methods of seeking input from the Hispanic/Latino Community. One example of a success in reaching out to the Hispanic/Latino Community is Mountain Regional

Housing's work with the Pan and Fork Mobile Home Park residents to address the residents' future housing needs. Using funds from the Town, Mountain Regional Housing met with the homeowners on a one-to-one basis and conducted work sessions in Spanish, typically offering childcare during the work sessions. While this solution is costly and would not work in every case, it shows a commitment on the part of the Town to use alternative means and make the extra effort to understand and resolve issues facing the Hispanic/Latino Community.

- The results of the 2005 Community Profile Survey show a significant increase in household income (52% since 1998). This corroborates other data, which shows that Basalt is experiencing a significant migration of people from Aspen. These tend to be young professionals with good incomes. Because the newcomers are wealthier, they have brought additional financial resources to the Town, contributing in local fundraising efforts and supporting local restaurants, retail establishments and other businesses.

2.3 HOUSING

HOUSING INVENTORY

The housing inventory, which was conducted in 1998, has been updated based on current aerial photographs, building permit data, assessor data and data provided by the planning departments of the three adjacent counties. The housing inventory includes statistics for areas within the town boundaries and within the Three Mile Planning Area. Inventory results are summarized in Tables 2.3.1 and 2.3.1b and 2.3.2.

TABLE 2.3.1
2004 Housing Inventory by Neighborhood (In-Town)

In-Town	Single-Family	Duplex	Multi-Family	Mobile Home	ADU/EDU/Mixed Use Residential	Local
Midland Corridor-CBD	42	10	25	46	46	169
Hill District/East Sopris	152	18	42	5	16	233
Basalt West	80	0	146	0	9	235
Elk Run	218	56	142	0	2	418
Southside	42	20	6	0	16	84
Willits	95	0	141	0	13	249
In-Town Total	**629**	**104**	**502**	**51**	**102**	**1388**
Percent of Total	**45%**	**7%**	**36%**	**4%**	**7%**	**100%**

Source: Town of Basalt Planning Staff

TABLE 2.3.1 b
Housing Inventory by Area (3-Mile Area)

Area	Units 1999	Units 2004	New Units	% Change
Valley Floor in Eagle and Garfield Counties	1,182	1,198	16	1.35%
Missouri Heights and Hilltop in Eagle and Garfield Counties	351	584	233	66.38%
Pitkin County	413	454	41	9.93%
Out-of-Town Total	**1,946**	**2,236**	**290**	**14.90%**

Source: *Town of Basalt Planning Staff*

TABLE 2.3.2
Housing Type Breakdown (In-Town)

Housing Type	1998 Units/Percentage (Town Limits)	2004 Units/Percentage (Town Limits)
Single-Family	474/51%	629/45%
Duplex	42/5%	104/7%
Multi-Family	368/39%	502/36%
Mobile Home	51/5%	51/4%
ADU/EDU/Mixed Use Res.	N/A	102/7%
Total	**935/100%**	**1388/100%**

Source: *Town of Basalt Planning Staff.*

While Table 2.3.2 indicates that there has been a substantial increase in the number of housing units within the town limits since the *1999 Basalt Master Plan* was prepared, this increase may be due, in part, to the fact that the Town has developed a more accurate and complete count of the units in the ADU/EDU/Mixed Use Residential category than was included in the *1999 Basalt Master Plan*. However, even if we ignore the ADU/EDU Mixed Use category, there has been an increase of approximately 351 housing units in the Town since 1998. This represents a 37.5% increase in housing units over a five-year period. The greatest growth occurred in the multi-family sector (multi-family and duplex combined) which added 196 units. The single-family category added 155 units.

Within the town limits, duplex and multi-family units made up 44% of the housing stock in 1998. While there has been a significant increase in the number of multi-family and duplex units since that time, the percentage of the total housing stock that multi-family units comprise has remained about the same (43.7%). The increase in the number of multi-family units is consistent with values and policies contained in the *1999 Basalt Master Plan* which emphasize creating a balanced housing stock in terms of unit type and affordability.

Housing growth also occurred in the unincorporated portions of the Three Mile Planning Area which added 290 housing units or 14.9% since the *1999 Basalt Master Plan* was prepared. The vast majority of these new housing units are located in the Missouri Heights and Hilltop areas of Eagle County. Total housing growth in Basalt and the surrounding Three Mile Planning Area, since the *1999 Basalt Master Plan* was prepared, was 641 units or 22.2%.

AFFORDABILITY ANALYSIS UPDATE

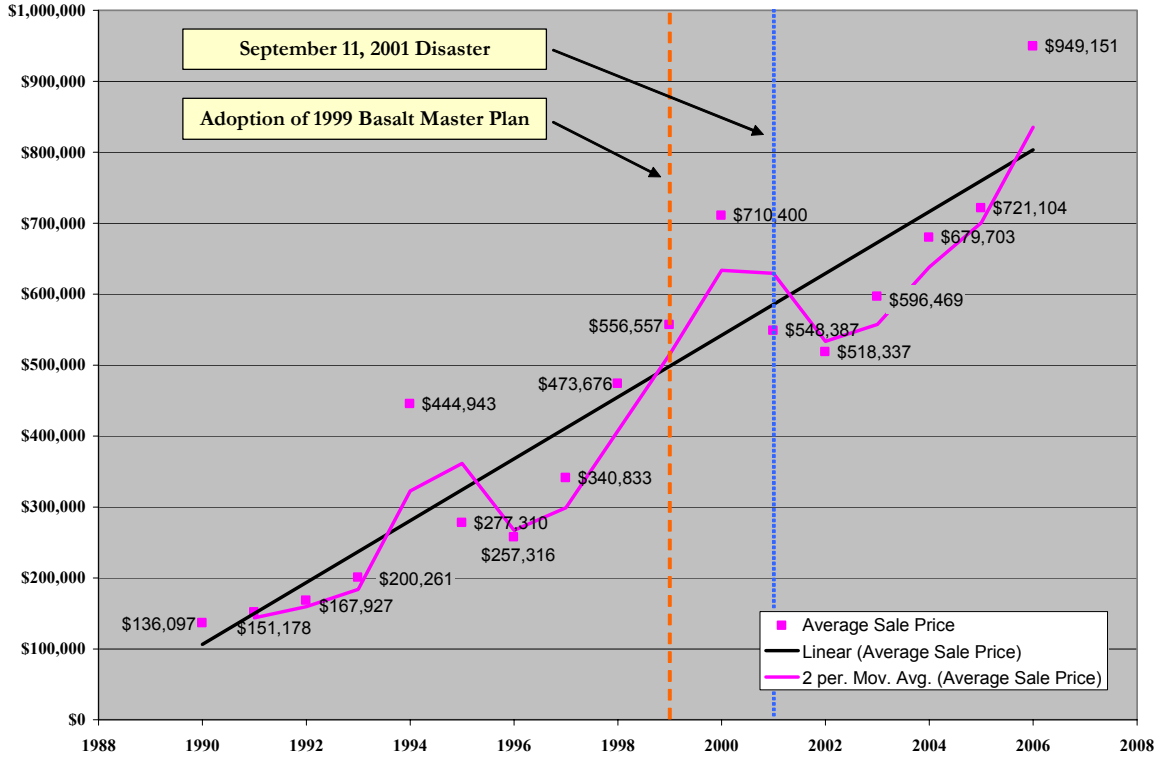
As part of the analysis for the *1999 Basalt Master Plan*, Rock Creek Studio analyzed housing costs and affordability in the Basalt area. This analysis has been updated based on current data. In order to allow comparison with the analysis included in the *1999 Basalt Master Plan*, we kept most of the assumptions the same. For example, household income was based on two incomes with each income based on the average wage data for 2004 obtained from the Colorado Department of Labor and Employment (CDLE). While this is optimistic, it comes closer to matching the "median household income" from the 2005 Basalt Community Profile Survey. Other assumptions include:

- Housing cost is 30% of gross income;
- Home buyer will provide a 10% down payment;
- Mortgage interest rate is 6.0%.

The interest rate is the only assumption that is different from the analysis conducted in 1996. The interest rate at that time was assumed to be 7.5%.

Single-family Home Sales Trend: Chart 2.3A illustrates regional homes sales data available from the "Multiple Listing Service" database. The affordability analysis conducted when the *1999 Basalt Master Plan* was being prepared was based on 1996 data since that is what was available when this portion of the master plan work was completed. In 1996, the average sales price for a single-family home was listed as $257,316. By the time the Basalt Master Plan was adopted (1999) that number had risen to $556,557 and by 2000 the average sale price had reached a peak of $710,400. However, the September 11, 2001 disaster resulted in a nationwide drop in real estate prices which was also felt in the Roaring Fork Valley as shown by the drop in average sales price between 2000 and 2001 (Chart 2.3A). The real estate market in the Basalt area had more than recovered by the time the single-family home sales statistics were prepared for the year 2006. Even with the drop in sales price that occurred after September 11, 2001, the average sales price for a single-family home in the Basalt area rose by more than 268% between 1996 and 2006 and by more than 70% in the 8 years between 1999 and 2006.

CHART 2.3A
Single-Family Home Sales Scatter Plot
(Basalt Zone*)



Source: Aspen Board of Realtors, Year End Summary for all years except 2005. 2005 data provided by Roaring Fork Real Estate.
* Basalt Zone includes Town of Basalt, Blue Lake, Dakota, Emma, Wingo Junction, Sopris Village & El Jebel.

Income Trend: At the time the *1999 Basalt Master Plan* was prepared, 1996 data for personal income and average sales price was used to evaluate the relationship between income and housing cost. In this update, we compared data from 2004 with the data from 1996, a span of 8 years. We also used average annual wage data for Eagle County from the CDLE, as was done in the previous analysis. We would note that the results from the 2005 Community Profile Survey show a "median household income" that is higher than the "average income" data used in the following analysis. The analysis below includes results for both the household income based on CDLE data and the median household income from the 2005 Community Survey.

Current data shows that while housing costs increased by over 164% between 1996 and 2004, wages for that same period only increased by 41.6%.[2] The 1996 average individual wage for Eagle County was $24,309, approximately 85% of the state average of $28,517. The average individual wage for Eagle County was $34,424 for the year 2004, also approximately 85% of the state average.

The Affordability Gap: Given the assumptions cited above (including household income of $68,848), the hypothetical two-income family could afford a monthly housing cost of approximately $1,721.20. This would support a mortgage of between $294,000 and $315,700 in today's lending market. This was roughly 43% to 46% of the average sale price of a home in the Basalt area in 2004. In 1996, Rock Creek Studio estimated that a two-income household could afford a home costing approximately $185,000. At that time, this was over 71% of the average sale price in the Basalt area. Therefore, the affordability gap has widened significantly in the 8 years since 1996. This same analysis can be done for the "median household income" identified in the 2005 Community Profile Survey ($92,500). With an annual household income of $92,500 a family could afford a home costing between $396,000 and $424,000 or approximately 54% to 58% of the average sale price of home in the Basalt area. The average sale price of a single-family home continued to rise dramatically in 2005 and 2006, with the 2006 price reaching $949,151. This is an increase of just under 40% since 2004.

ISSUES AND OPPORTUNITIES

Issues/Concerns

- There is a significant gap between average income and housing cost in the Basalt Area. Most Basalt workers cannot afford Basalt housing.
- Housing costs within the area increased by 164% between 1996 and 2004, while income increased by 41.6% over this same period.
- Displacement of working residents will occur without intervention.
- A majority of the affordable housing stock is comprised of mobile home units that are at risk of being lost due to the potential redevelopment of mobile home parks.
- Market trends toward single-family lots and larger homes continue to drive housing and land costs up. This is further exacerbated by the increase in second-home interest in the Basalt area.
- The escalation of land values due to the above factors and the intense resort economy of the Roaring Fork Valley affect the viability of all affordable housing options including manufactured homes, multi-family, and accessory dwelling units.
- Accessory dwelling units (ADUs) are no longer seen as one of the most viable tools for providing affordable housing (as was the case when the *1999 Basalt Master Plan* as adopted). Reasons include: homeowner associations often preclude them, tap fees are high, impacts on neighborhoods; new owners do not need the income, and ADUs often are not used for their intended purposes

[2] *Colorado Department of Labor and Employment, 2004 (average annual wage data for Eagle County).*

- Developers in the West Basalt Planning Area often seek approvals from Eagle County because affordable housing mitigation requirements are less stringent in the County.
- Area workers are used to traveling further down-valley for affordable housing. Recent economic activity along the I-70 corridor has resulted in the elimination of the "down-valley advantage" as housing prices in that area have seen exceptional increases.
- The 2005 Community Profile Survey showed that many of the non-local home owners who currently rent their properties plan on living in these homes in the future, resulting in a loss of rental opportunities.

Opportunities

- The Town has been very successful (some think too successful) in its efforts to encourage mixed use and small lot developments in recent years. This shows an acceptance in the community for the "Neotraditional" development pattern. This development pattern is consistent with the goals and objectives of this master plan.
- Community leaders have begun taking a more regional view of the affordable housing issue as evidenced by the fact that the mayors of several communities in the region began meeting to discuss affordable housing and develop solutions.
- At the time the *2007 Basalt Master Plan* was being prepared there seemed to be an acceptance that new annexations should not be approved unless it provides replacement housing for residents of the mobile home parks being lost to redevelopment.

2.4 TRANSPORTATION

TRANSPORTATION PLANS

The most significant change in regional transportation planning since the *1999 Basalt Master Plan* has been the decision by valley governments to move away from pursuing light rail for the immediate future to incorporating the Bus Rapid Transit (BRT) system. This is described in more detail later in the document.

The most significant change relative to transportation planning in Basalt proper is the adoption of the *Basalt Complete Street Design Manual* which includes the following statement of purpose:

"This manual is intended to provide a comprehensive toolkit for the creation of safe, pleasant, efficient, interesting and active mobility corridors in the Town of Basalt."

More information on the *Basalt Complete Street Design Manual* is included later in this section.

Another transportation planning milestone was the adoption of the *State Highway Access Control Plan for Highway 82* adopted by CDOT, Eagle County, and the Town of Basalt. This Plan was an action item in the *1999 Basalt Master Plan* and is described in more detail in this section.

TRANSPORTATION NETWORK IN THE BASALT PLANNING AREA

Figures 3a, 3b, and 3c show the essential elements of the transportation network in the Basalt Three Mile Planning Area. Figure 3a provides an overview of the entire study area while Figures 3b and 3c show the East Basalt and West Basalt Planning Areas in greater detail. In addition to the highway and street network, these maps show the location of bus stops, park and ride facilities, potential transit corridor alignment and alternative transit station locations.

TRANSIT SERVICE

Existing Conditions

There have been changes in the RFTA service since the *1999 Basalt Master Plan* was adopted, resulting in changes in ridership patterns in recent years. RFTA conducted boarding and alighting surveys in 1996 and 2004. The results of these surveys are shown on Table 2.4.1 below. Wherever there is a not applicable (NA) symbol in the table this indicates that the particular bus stop has been eliminated, added or relocated and there is no comparative data. This table shows that ridership has been generally increasing throughout the mid-valley and down-valley portions of the system, although to a lesser extent in the Basalt/El Jebel area. There has been a significant reduction in the number of "ons" and "offs" at the El Jebel Park and Ride, Aspen Junction, Basalt Park and Holland Hills stops.

The reduction in boardings and alightings at the Basalt Park stop is the likely result of the construction of the Basalt Park and Ride lot in East Basalt, giving riders another option for accessing the bus in East Basalt. The combined boardings and alightings at these two stops increased between 1996 and 2004. The reduction in boardings and alightings at the El Jebel Park and Ride is likely due to changes in bus routes and operations. Since 1996, the number of routes and frequency of bus service down-valley from El Jebel has increased. It is likely that riders who were previously driving between down-valley locations and the El Jebel Park and Ride to access the bus are now able to board the bus further down-valley, thereby decreasing the number of boardings and alightings at this park and ride facility.

TABLE 2.4.1
RFTA Valley Boarding & Alighting Survey
(Comparison of 1996 and 2004 Results)

Bus Stop Location	Ons 96/04	Offs 96/04	Total On & Off
Wal-Mart	48/133	50/124	98/257
CMC/154 Road	45/40	46/62	91/102
Cattle Creek Road	2/0	8/5	10/5
Aspen Glen	7/1	0/2	7/3
Diner	NA/15	NA/73	NA/88
Main St. & Hwy 133	27/207	147/207	174/414
Carbondale Pool	154/224	121/185	275/409
Cowen Center	45/145	4/20	49/165
Ranch at Roaring Fork	8/3	4/8	12/11
Catherine Store	10/7	8/16	18/23
J.W. Drive & Hwy 82	15/17	12/20	27/37
J.W. Drive & Badger	17/26	35/37	52/63
J.W. Drive & El Jebel Rd.	30/40	39/42	69/82
El Jebel Park and Ride	424/296	290/168	714/464
El Jebel Mall[1]	0/8	171/167	171/175
El Jebel City Market	42/63	0/9	42/72
Sagewood	18/46	14/43	32/89
Aspen Junction	104/81	113/79	217/160
Basalt Park	527/300	332/201	859/501
Basalt Park and Ride[2]	NA/192	NA/231	NA/423
Holland Hills	46/20	45/24	91/44
Wingo Junction	21/11	16/11	37/22
Lazy Glen	52/71	78/56	130/127
Old Snowmass	NA/23	NA/19	NA/42

Source: 2004 RFTA Boarding Survey

[1] Until 2005 El Jebel Mall was a drop-off only stop.

[2] Basalt Park and Ride lot did not exist in 1996.

In addition to the Boarding and Alighting Survey conducted by RFTA in 2004, Healthy Mountain Communities sponsored a study to examine local and regional travel patterns. The study, which was prepared by RRC and Associates and Charlier Associates, is referred to as the *"2004 Local and Regional Travel Patterns Study*." Data from this study related to the Basalt area is provided in Tables 2.4.2 through 2.4.7 below. A copy of the full report can be found on the Healthy Mountain Communities website (www.hmcnews.org).

TABLE 2.4.2

Basalt Residents Reasons For Not Riding Bus

	1998	2004
Have to make stops to/from way to work or during workday	39%	41%
The bus takes too much time	32%	44%
The bus stop is far from my house	18%	17%
The bus route does not serve my work location	31%	16%
Other reason	79%	35%

Source: 2004 Local and Regional Travel Patterns Study; Conducted by RRC Associates, Charlier Associates and Healthy Mountain Communities

Note: Responses total more than 100% because respondents could answer more than one reason for not riding the bus

TABLE 2.4.3

Rate Your Ability to Walk to the Nearest Bus Stop From Home

(Percent responding "agree" or "strongly agree")

Bus stop is in reasonable walking distance	**59%**
Walking environment is comfortable and pleasant	**58%**
Walking environment is safe	**53%**
Crosswalks and other street crossings are available	**52%**
Sidewalks are continuous	**44%**

Source: 2004 Local and Regional Travel Patterns Study; Conducted by RRC Associates, Charlier Associates and Healthy Mountain Communities

TABLE 2.4.4
Where Basalt Workers Live

Town	2004
Aspen	2%
Uninc. Pitkin County	9%
Basalt	25%
El Jebel	13%
Uninc. Eagle County	15%
Carbondale	9%
Glenwood Springs	6%
Rifle	3%
Uninc. Garfield County	13%
Eagle	0%
Gypsum	1%
Other Colorado	3%
Other State	1%

Source: 2004 Local and Regional Travel Patterns Study; Conducted by RRC Associates, Charlier Associates and Healthy Mountain Communities

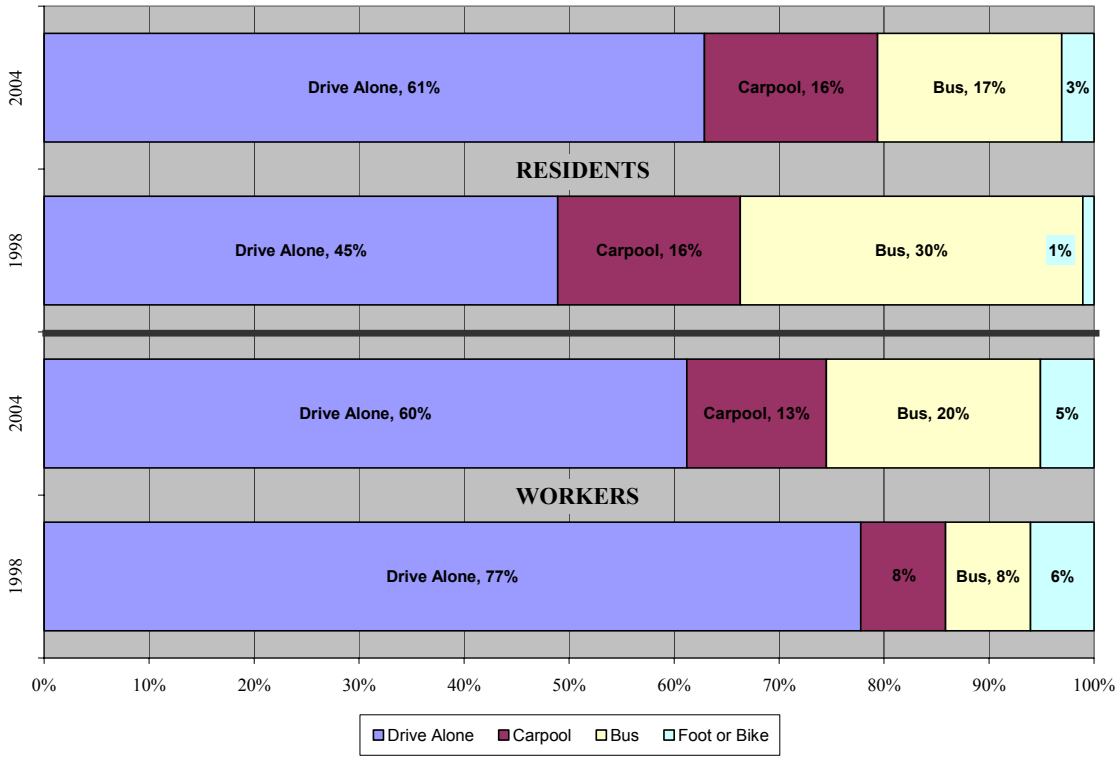
TABLE 2.4.5
Basalt Residents Average One-Way Commute Distance

1998	2004
17.7 miles	15.3 miles

Source: 2004 Local and Regional Travel Patterns Study; Conducted by RRC Associates, Charlier Associates and Healthy Mountain Communities

Perhaps the most revealing statistic from the 2004 Local and Regional Travel Patterns Study, as shown in Chart 2.4A, is that the percentage of Basalt residents (upper half of chart) who commute to work using the RFTA bus system went down by nearly half from 30% in 1998 to 17% in 2004, while the percentage of people who drive alone went up from 45% in 1998 to 61% in 2004. One potential reason for this is the completion of the project to improve Highway 82 to four lanes from Basalt to Brush Creek Road, making driving to Aspen more convenient again. Fortunately, this may be offset by the fact that the number of workers (lower half of chart) commuting to Basalt by bus and carpool has gone up significantly since 1998.

CHART 2.4A
Commute Mode Choice Basalt/El Jebel



Source: 2004 Local and Regional Travel Patterns Study; Conducted by RRC Associates, Charlier Associates and Healthy Mountain Communities.

MAJOR ROADWAY STUDIES AND IMPROVEMENTS SINCE THE 1999 BASALT MASTER PLAN

Major Studies

The most significant roadway studies and plans completed since the *1999 Basalt Master Plan* include: the *State Highway 82 Access Control Plan,* which was adopted in 2002 by CDOT, Eagle County, and the Town of Basalt; the *2004 Local and Regional Travel Patterns Study* conducted by RRC Associates, Charlier Associates and Healthy Mountain Communities; the *West Glenwood Springs to Aspen Corridor Investment Study (CIS)*, prepared for the Roaring Fork Transportation Authority and completed in 2003; the *Intermountain 2030 Regional Transportation Plan and The Statewide Transportation Improvement Plan (STIP),* both studies completed by the Colorado Department of Transportation; and the *Basalt Complete Street Design Manual,* adopted by the Town of Basalt in 2005.

State Highway 82 Access Control Plan: This study was undertaken by CDOT, Eagle County and the Town of Basalt to address concerns regarding intersection improvements, standards, safety and

access to Highway 82. The study covered the section of Highway 82 in Eagle County from the Garfield County line to Emma, including the West Basalt area, and was finalized in April of 2002. The Plan considered existing conditions, access points, traffic volume, traffic operations, transit, pedestrian issues, and accident history. The analysis also included projected future conditions associated with new developments. The Plan established recommendations and policies for various segments of the Highway and access points, including future traffic signals at two key locations; the intersection of North Willits Lane and Highway 82 and the Original Road/Highway 82 intersection. Other improvements and changes recommended ranged from closure of certain access points to additional turning lanes, construction of new roadways, and construction of pedestrian access improvements. The Plan was approved by all three of the participating jurisdictions and is currently being implemented as part of the overall management of the Highway 82 corridor, including individual development review applications and access permit requests located within Eagle County and the Town of Basalt.

2004 Local and Regional Travel Pattern Study: This study focused primarily on the region's transportation interconnectivity. The purpose of the study is to give local officials in the Roaring Fork and Colorado river valleys more detail on the how, why, and when residents and tourists are moving within the region, gauge progress toward achieving local and regional transportation goals, and inform future investments in transportation infrastructure. Significant results from the *2004 Local and Regional Travel Pattern Study* are found earlier in this document under Transit Service.

CIS (Corridor Investment Study): This document is a long-range planning tool created by the Roaring Fork Transportation Authority in conjunction with its member jurisdictions, CDOT, the Federal Transit Administration and the Federal Highway Administration. In 2003, the member jurisdictions of RFTA consisted of Pitkin County, City of Aspen, Town of Snowmass Village, Eagle County, Town of Basalt, Town of Carbondale, and the City of Glenwood Springs. Since 2005, New Castle has become a RFTA member. The goal of the CIS was to compare long-range transportation alternatives in the RFTA service area through the year 2025 and to provide useful information for long range decision making. The Town of Basalt and the City of Glenwood Springs passed resolutions (Town of Basalt Resolution No. 11, 2003) supporting Bus Rapid Transit (BRT) as the preferred alternative in the CIS. While other member jurisdictions did not pass specific resolutions, the RFTA Board, comprised of representatives of all of the member jurisdictions, passed a supporting resolution in 2003. The effect of the approval was to recognize BRT as the initial mass-transit solution for Roaring Fork Valley transportation needs while allowing the potential for a rail system to be revisited in the future.

BRT is a public transportation system that provides transit service through a combination of express bus routes on existing roadways, intelligent transportation systems technology, priority for transit vehicles, cleaner and quieter vehicles, rapid and convenient fare collection and integration with local land use policy.

The *1999 Basalt Master Plan* strongly emphasized Alternative C for the rail alignment (existing Highway 82 Corridor) and included recommendations for alternative rail station locations based on this alignment. The CIS approach of near-term bus to long-term rail requires that this master plan

update process reconsider planned transit station locations and land use policies to ensure that future land use and transportation infrastructure decisions reflect the current thinking regarding valley-wide transportation solutions.

Intermountain 2030 Regional Transportation Plan: This plan is used by the Intermountain Transportation Planning Region (ITPR), comprised of Pitkin, Eagle, Lake, Garfield and Summit Counties, to create a prioritized list of future transportation projects to be included in the *2030 Statewide Transportation Plan*. The State's Plan is then broken into Regional Engineering Plans (Basalt is in the Intermountain Transportation Planning Region/Engineering Region 3) and projects within the region are prioritized. The Regional Engineering Plans, commonly referred to as STIPs (see discussion below), are used to manage transportation improvements occurring over a five-year period, while the *ITPR 2030 Plan* looks ahead 25 years. Basalt has several projects included in the *ITPR 2030 Plan* (159 total projects in Plan): Midland Avenue Underpass (ranked 13), Highway 82 Pedestrian Overpass (ranked 16), Highway 82/Willits Lane Traffic Signal (ranked 17 but completed), Intersection Improvements and Bike/Pedestrian Underpass at Highway 82/Original Rd. (ranked 35), Structure #G-08-T Highway 82 Upper Bypass Bridge Replacement (ranked 43), and Highway 82 Improvements per Access Control Plan (ranked 78).

The STIP (Statewide Transportation Improvement Plan) is the State's transportation capital improvement program document that shows transportation projects which are expected to be funded over the next six years. These projects are selected by the Transportation Planning Regions (TPRs), the Metropolitan Planning Organizations (MPOs) and CDOT through joint meetings. Selected projects must initially be included in the long-range Regional and Statewide Transportation Plans before being moved to the STIP. The Town of Basalt has no project in the 2007-2009 STIP.

Basalt Complete Street Design Manual: This manual represents the next step in cultivating a small-town, pedestrian and bicycle-friendly transportation system in Basalt and was prepared by consultant, John Laatsch, a team of Town Staff and representatives of the Fire District. It seeks to create an overall transportation system which places the pedestrian environment as its highest priority while ensuring that all modes of transportation are properly addressed. The manual includes standards for vehicle lanes, parking, sidewalks, bike lanes, trails and landscaping for various types of roadways using a unique categorization approach which incorporates all modes of transportation including emergency service vehicles. The new categories, while continuing to account for functional issues, place increased emphasis on the character of the area served by the street when determining the design of street improvements. The *Basalt Complete Street Design Manual* is built on the outcome of previous planning efforts including the *1999 Basalt Master Plan*, river corridor planning activities, and the *Model Transit-Oriented Development Program for Small Rural Communities in the Roaring Fork Valley*. It was adopted by the Town Council in 2005.

Other Studies

2006 Traffic Infrastructure Evaluation: In the summer of 2006 the Town's Public Works staff, working with the Town's engineering consultant, Schmueser Gordon Meyer, analyzed the status of

the existing transportation infrastructure for East Basalt, specifically at locations that are most likely to be affected by proposed development on the south side of Highway 82. While the Southside was the focus of the traffic analysis, growth in traffic from all potential development currently anticipated was included in the analysis. The areas evaluated included the three signalized Highway 82 intersections closest to East Basalt, key intersections in the Southside Area, and several of the other primary intersections in East Basalt. This analysis examined three of the four development scenarios, which were based on applications under review, being submitted or anticipated at the time this analysis was prepared. While the status of those applications has changed, the analysis still provides useful information regarding the effect of the proposed development on infrastructure needs. The four scenarios are described below:

- **Scenario 1**: New development in this scenario included expected infill within the existing Town boundaries of East Basalt, development within the 1999 UGB for which recent applications had been submitted to the Town at the time the study was initiated, and the Roaring Fork Cub Phase II development application that was under review at that time.
- **Scenario 2**: In addition to the Scenario 1 growth, this scenario included other potential development within the 1999 UGB.
- **Scenario 3:** In addition to the Scenario 2 growth, this scenario included an application for development outside the 1999 UGB and some additional development planned by property owners within the 1999 UGB that was beyond what was contemplated in the Town's *1999 Basalt Master Plan*.
- **Scenario 4:** This scenario was developed in anticipation of the Town potentially becoming responsible for providing water service to Phase I of the Roaring Fork Club (RFC) sometime in the future. It added the RFC Phase I water demand to the Scenario 3 water demands. This scenario applied only to the water analysis. Traffic from Phase I of the Roaring Fork Club development was already included in the existing conditions, so no Scenario 4 was necessary for the traffic analysis.

A brief summary of the findings of this analysis is provided in the following paragraphs.

The performance of the traffic infrastructure was generally measured by the average delay that drivers experience at intersections, expressed as level of service. For existing traffic conditions, all of the analyzed intersections are generally performing satisfactorily. For Scenario 1 development, the length of delays at key intersections would increase moderately, but those delays are projected to remain at what is generally considered acceptable levels. For Scenario 2 development, delays would reach or approach unacceptable levels at certain intersections unless intersection improvements are made. The intersections most likely to be adversely affected are the Basalt Avenue/Highway 82 intersection, the Upper Willits Lane intersection with Highway 82, and the Cody Lane/Basalt Avenue intersection. The poor performance of the latter intersection results from its close proximity to the Basalt Avenue and Highway 82 intersection. For Scenario 3 development, intersection performance at these locations would deteriorate even further unless improvements are made.

The intersections in the Southside Area are projected to perform satisfactorily, even with new development that is possible in that area, with the exception of the intersection of Cody Lane and Basalt Avenue.

The traffic impacts of new development are expected to be felt primarily in the vicinity of Highway 82 and the streets that intersect it. There are a range of improvements that are being analyzed by the Town for improving the performance of these intersections. At one end of the scale, relatively simple changes in the timing of traffic signals might allow an intersection to handle more traffic. Or, it may be necessary to add more turning lanes at the intersection to accommodate more vehicles. At the other end of the spectrum, major improvements might be necessary to accommodate the traffic growth that comes with new development. Those might include solutions like an underpass beneath Highway 82, new roundabouts, additional slip lanes or a new intersection. Alternative transportation solutions that reduce the rate of traffic growth also deserve to be considered.

Improvement options such as those mentioned above need to be further evaluated to determine which are appropriate for mitigating the traffic impacts expected from new growth. The simplest solutions are being analyzed first, progressing to more complex and costly solutions as needed to provide the transportation system that the Town desires.

Major Improvements

The most significant roadway improvements affecting the Basalt area since the adoption of the *1999 Basalt Master Plan* include: the completion of four-laning of Highway 82 to the Buttermilk Area; the new traffic signal at North Willits Lane and Highway 82; and the Town's acquisition of Two Rivers Road and the initial improvements to that road.

Four-laning of Highway 82: In the fall of 2004, CDOT completed the four-laning of Highway 82, which eliminated the "Basalt worm hole." The four lane section significantly reduces travel time to Aspen. As a result, the Town of Basalt has experienced an increase in Aspen-employed professionals seeking housing in the mid-valley area, which is probably one of the factors driving up local housing costs. In addition, the four-laning project is likely to result in reductions in RFTA ridership and an increase in single-occupant-vehicle commuting. This is already occurring as indicated by the results in the *2004 Local and Regional Travel Patterns Study*.

Two Rivers Road: In 2003, the Town took over Two Rivers Road from CDOT and annexed the right-of-way. This was an important step to implementing many objectives of the *1999 Basalt Master Plan* relating to Two Rivers Road. First, it allowed construction of the pedestrian-friendly intersection of Midland Avenue and Two Rivers Road and the creation of diagonal parking along segments of Two Rivers Road. Second, it allows the Town to begin the process of implementing the "parkway concept" for Two Rivers Road between East and West Basalt. Initial steps of the "parkway concept" include installing speed humps and striping, and implementing speed and weight limits on the segment of Two Rivers Road between East Basalt and the intersection of

Highway 82. The Town has recently adopted the *Two Rivers Greenway Master Plan* to implement the "parkway concept" which is described in more detail later in this document.

North Willits Lane and Highway 82 Traffic Signal: In 2005, CDOT funded and constructed a traffic signal at the North Willits Lane and Highway 82 intersection as recommended in the *State Highway 82 Access Control Plan*. This significantly increased safety at this intersection and is an important addition to the Town's transportation system. This light provides important traffic control as commercial development continues in the area around the Willits Town Center.

ISSUES AND OPPORTUNITIES

Issues and Concerns

- The physical separation created by Highway 82 through the Three Mile Planning Area creates significant challenges for transportation, including alternative travel modes (bike/walk), vehicular, and transit. Providing safe pedestrian crossings on Highway 82 was a very desired Town improvement in the 2005 Community Profile Survey.
- As they exist now, bike paths, trails, and walkways are inadequate for a pedestrian-oriented community.
- The classification of Highway 82 as an expressway, and its impact on designs for future improvements to the Highway, is a key concern to the Town as it deals with the effects of this multi-lane highway on community character and quality of life.
- Increasing traffic volumes on Highway 82, major rural roadways, local streets, and at key intersections continues to stress the area's transportation infrastructure. Impacts of new developments are an additional concern.
- The downtown Midland Avenue Core is experiencing a shortage of parking. Approximately 60% of the parking is private. Allowing the general public to park in privately owned parking lots should be a general goal of the Town in future development review.
- Where transportation improvements are not entirely subject to the Town's jurisdiction, intergovernmental cooperation may be a necessary and complex step toward implementing needed improvements.
- Many of the transportation needs identified in this Plan are extremely expensive and competition for local resources, along with State and Federal dollars, is intense.
- Designs for current and future projects tend to be complex due to the numerous issues and frequent constraints such as topographical barriers and limited right-of-way and escalating construction costs.
- Travel between East and West Basalt is difficult, particularly pedestrian and bicycle travel, which can be dangerous. The new trail bridge, which will cross the Roaring Fork River near the intersection of Highway 82 and Two Rivers Road, will provide a link in the pedestrian and bicycle connection between East and West Basalt and represents a significant safety improvement.

- There is a need for bicycle parking in Town and rest areas for pedestrians.
- An important offshoot of the valley rail planning effort was increased communication and coordination between municipal and county elected officials and among local planners. This level of communication and coordination has not been duplicated in recent years, although at the time this master plan was being prepared, local mayors were meeting to discuss shared problems.

Opportunities

- Increased participation in regional planning with CDOT will help the Town benefit from additional technical support, grant and funding opportunities, and traffic mitigation improvements. Communicating to CDOT what the Town does not want is as important as identifying specific needs.
- The existing high usage of RFTA bus service and the relatively dense land use pattern of the Town of Basalt provide significant opportunities to provide and improve alternative commute mode facilities, including the provision of support facilities for biking and walking from outlying areas to transit stops.
- Regional transit planning efforts have facilitated the development of initial plans for local feeder routes as part of future rail or enhanced bus service within the Town. Use of these plans will improve future coordination between transit and land use planning.
- Changes in land use at key locations can create opportunities for the Town to undertake improvements in its transportation system.
- Master Plan recommendations for streets within the Town's Three Mile Planning Area ("Three Mile Street Plan") and the potential for its adoption by neighboring jurisdictions will provide great opportunities for future coordination on land use and technical design issues associated with regional transportation.
- CDOT has demonstrated more willingness to address Town concerns since the *1999 Basalt Master Plan* was adopted.

2.5 EXISTING LAND USE

HISTORIC DEVELOPMENT PATTERN

Until the mid 1990s the Town of Basalt had grown in a relatively typical manner for small rural communities, concentrically out from the historic downtown core. This trend changed when the Town annexed 355.9 acres of land including already approved and developed projects such as River Oaks, Aspen Junction, Sagewood, Pineridge, and Silverado along with the Sopris Meadows property. These developments were incorporated into the Town by annexing across public land as allowed in the State Statutes governing annexation (§ 31-12-104, C.R.S.). This created a town with two distinct areas separated by approximately one and a half miles of unincorporated land (see Figure 1). In 1996 the Town also conducted a serial annexation which included the Roaring Fork

Club property along with remaining portions of the Kittle and Waterman properties. These two annexation actions created a town that stretches along Highway 82 for nearly five and a half miles (including the unincorporated area between West Basalt and East Basalt). Since the *1999 Basalt Master Plan* was adopted, the Town acquired and annexed the Two Rivers Road right-of-way between East Basalt and Highway 82. This annexation did not include any existing developed lands other than the right-of-way. Figure 4 is a map that shows the pattern of annexations since 1974.

There have also been several more minor annexations since the *1999 Basalt Master Plan* was adopted which did not result in any changes to the Three Mile Planning Area boundary. These include the annexation of several small road right-of-way segments; Basalt Avenue, Cody Lane and Emma Road. The annexations were done partly as a result of the Town's efforts to build the roundabout at the entrance to East Basalt. The Town's efforts to purchase open space also resulted in the annexation of a portion of the Midland Addition property and a portion of the Storey property.

EXISTING CONDITIONS

Figures 5a, 5b, and 5c are maps that show the existing land uses in Basalt and the surrounding planning area. Figure 5a shows the pattern of existing land use for the Three Mile Planning Area, while Figures 5b and 5c show existing land use for the East Basalt and West Basalt Planning Areas respectively. Table 2.5.1 shows acreage by existing land use category for both the Town of Basalt and the Three Mile Planning Area. The right hand column of the table shows the combined acreage of the Town and the Three Mile Planning Area. The information in these exhibits was produced using a Geographic Information System (GIS) database. The information used to establish this database comes from a variety of sources including GIS information from the three counties, reviews of aerial photographs, and field verifications.

Similar maps and tables were included in the *1999 Basalt Master Plan*. However, for a variety of reasons, it is not productive to compare the current Existing Land Use Inventory with the inventory included in the *1999 Basalt Master Plan*. Thus, Table 2.5.1 includes only the numbers for the current Existing Land Use Inventory and no attempt has been made to make comparisons with the 1999 existing land use inventory.

A review of Table 2.5.1 shows that the Town of Basalt has relatively little land devoted to public open space within its boundaries. There is a total of 80.5 acres designated as Public Open Space in Town, which translates to approximately 6.4% of the total acreage within the Town. It should be noted that the public open space number for Basalt does not include the area of the elementary and middle school, which is used for recreation purposes. Nor is the Crown Mountain Park included in this number, since it is located outside of the town limits. While there is no fixed amount of land or percentage that is considered optimal for small towns, it could be said that open space contributes greatly in many important ways to the quality of life for the community.
The table also shows that with 25,401.5 acres devoted to public open space, this category makes up just over 59% of the acreage within the Three Mile Planning Area. This high percentage is due to the large areas owned by the United States Forest Service (USFS), Bureau of Land Management

(BLM) and State of Colorado Division of Wildlife (CDOW). While these public lands provide a wealth of recreational and scenic opportunities, they do not fully substitute for in-town open space, since these in-town lands serve a totally different purpose, including providing space for active recreational needs and providing safe open areas for seniors and children.

To help satisfy their desire for more parks, Basalt residents voted to approve an open space sales tax in November of 2006. The tax assessment became effective January 1, 2007.

TABLE 2.5.1
Existing Land Use Acreage

	Town Limits	Three-Mile Area	Combined
Residential			
Rural Residential	11.31	6231.97	6243.28
Residential Recreation	284.20	3.04	287.24
Single-Family Residential	209.96	423.73	633.69
Multi Family Residential	69.42	18.71	88.12
Mobile Home Park	5.52	109.61	115.12
Sub-Total	**580.40**	**6787.05**	**7367.45**
Commercial			
Mixed Use Commercial	23.77	40.38	64.15
Service	2.83	88.17	91.00
Professional Office	5.94	3.34	9.27
Retail	19.64	22.53	42.16
Light Industrial	25.56	26.83	52.38
Warehouse/Storage	14.14	13.66	27.80
Hotel/Lodging	4.10	11.55	15.65
Sub-Total	**95.97**	**206.45**	**302.42**
Public/Quasi-Public			
Government	5.09	12.94	18.03
Cemetery	0.00	6.12	6.12
Institutional/School	59.95	36.74	96.70
Utilities	2.11	113.80	115.91
Sub-Total	**67.16**	**169.60**	**236.76**
Open Space/Parks			
Public Open Space	80.46	25401.53	25481.99
Private Open Space	38.12	597.18	635.30
Sub-Total	**118.58**	**25998.71**	**26117.29**
Other			
Agricultural	25.36	7449.54	7474.89
Vacant	148.05	931.09	1079.15
No Access	0.00	379.09	379.09
Right of Way	227.66	679.42	907.07
Sub-Total	**401.07**	**9439.13**	**9840.20**
Grand Totals	**1263.17**	**42600.95**	**43864.12**

Source: Lex Ivey, GIS Consulatant

A majority of the existing commercial land areas within the Town of Basalt are used for light industrial and mixed-use commercial purposes. These two categories make up over 51% of the commercial mix. In addition, there is substantial commercial square footage in the approval process that is not yet constructed (see Section 2.7 Build-out Potential). Much of this unbuilt square footage is located within the Willits development.

The most telling number in the land use table for the Town of Basalt remains the amount of land devoted to Single-Family and Recreational (golf course) Residential use as compared to Multi-Family Residential use. Single-Family and Recreational Residential land constitutes over 85% of the residential category and over 39% of the entire Town. Land devoted to Single-Family Residential is 16.6% of the entire Town. Land devoted to Multi-Family Residential use constitutes only 12% of the residential category and 5.5% of the Town.

MAJOR LAND USE PATTERNS

The existing land use patterns within the Town create several distinct characteristics that influence future development decisions.

The original town site of Basalt was developed with a compact land use pattern utilizing small lots, a quasi-grid street system (modified in response to the hillside terrain and the Fryingpan River) and a central commercial core. This development pattern, typical of turn of the century rural communities, incorporates churches, small parks and schools within residential areas that surround the downtown commercial core. The old-town commercial core in East Basalt is a relatively compact area that includes both sides of Midland Avenue, from just beyond Homestead Avenue to the intersection with Two Rivers Road (Old Highway 82), including everything up to the Fryingpan River on the south side of Midland Avenue. Midland Avenue is a quaint commercial street with attractive brick structures, on-street parking, sidewalks, and street trees. There are also several places where the block is broken by alleys that provide pedestrian access to the hillside neighborhood behind Midland Avenue. The hillside is densely developed and provides the Town with much of its charm and character.

Since the *1999 Basalt Master Plan* was adopted, several significant new or substantially renovated buildings have been constructed in the old Town core. For the most part, the new structures respect or provide valuable contrast to the historic character of the existing architecture, and the structures have been compatible with the size and scale of the historic commercial core. As the Plan update was being prepared, there were also significant new mixed use commercial structures being approved and beginning construction along the Roaring Fork River. This trend is expected to continue. Commercial and mixed-use development has also continued in the Willits area of West Basalt where two additional structures have been built since 1999 and considerable approved and unbuilt mixed use commercial square footage remains to be built. All of this recent development is generally consistent with the recommended land use pattern shown on the Future Land Use Plan in the *1999 Basalt Master Plan*.

Portions of the commercial area between Midland Avenue and the Fryingpan River, known as Basalt Center, are totally different in character from the Midland Avenue street front. This area has been described as, "…a sea of asphalt within which several commercial buildings are floating." There is very little landscaping in this area and the arrangement of the structures is random, creating irregular vehicular circulation patterns. In addition, there are few sidewalks or other amenities, which make this area undesirable and somewhat unsafe for pedestrians. While not as aesthetically appealing as the Midland Avenue frontage, many of the Community's needs are provided by the shops located in this area. The Basalt Center area has been identified as a candidate for redevelopment in past studies. However, the owners of the anchor parcels in the Basalt Center have no immediate plans for redevelopment and there are ample areas for mixed use development available elsewhere in Basalt.

The second distinct land use pattern that exists in the Town is the commercial/light industrial area located on the south side of Highway 82 in East Basalt. This area is characterized by large commercial lots, wide streets, lots with large commercial buildings, parking on the street side of structures and little or no landscaping. This part of Town is highly auto-oriented and exhibits a very different character than the original town site.

Southside PUD, located along South Side Drive, consists of single-family residential lots, some duplexes and accessory dwelling unit (ADU) options, a multi-family block, two parks, and a home occupation/neighborhood commercial element. The project was approved in 1996 and is designed with many of the traditional town planning principles including a grid street pattern with alleys and smaller lots (7,000 $\pm$ square feet average). The Southside PUD is very close to the new high school, but is isolated from the downtown commercial core by Highway 82 and the commercial/light industrial area that lies immediately south of the highway. At the time this update was being written, there were a number of annexation and development proposals for this area that had been submitted to the Town.

There is also a second major light industrial/business park located off of Willits Lane that is known as the Basalt Industrial Park. This area is fairly similar in character to the commercial/light industrial area south of Highway 82 in East Basalt. It has a broad mix of land uses including a lumberyard, furniture store, bakery, martial arts studio, and numerous other commercial and light industrial uses.

A third distinct land use pattern is characterized by the strip commercial area located on the south side of Highway 82 near the intersection of El Jebel Road. This area contains the City Market (the largest grocery store in the community), a movie theater complex and several other retail and service commercial shops. This is typical suburban-style commercial development with bland structures and large parking areas located on the front (street side) of the building. The primary purpose of this type of development is to provide convenient, auto-oriented, retail sales and service uses. This development offers no indigenous character and is highly inconvenient for pedestrians.

Another distinct land use pattern is the Willits/Sopris Meadows Development. The commercial space in the Willits project is intended to include office, service, hotel, residential and retail sales uses. This development was designed utilizing the principles of "neo-traditional town planning." The plans for this project show development in a grid pattern with on-street parking with relatively large structures on small lots that could be aggregated to allow larger lots. The structures can be up to three stories in height. The approvals include a set of design guidelines intended to help create small-town character within the project. The commercial area is also planned to include a significant number of residential units. Since the *1999 Basalt Master Plan* was adopted, the developers of the Willits project have seen a growing demand for high-end condominium units on the upper floors of the commercial buildings in the project. This has led them to seek an amendment to the current approvals to allow more residential development to the existing approved square footage. The residential portions of Willits have included single-family homes and townhouses which have been very popular with young families.

The last distinct development pattern is the mobile home parks that have been established both within the town limits and in the unincorporated areas surrounding the Town. Most of the mobile home parks exhibit common characteristics of this development type; very small, narrow parcels which are leased to the trailer owners. Some of the mobile home parks have central open spaces with some amenities. Perhaps the most significant fact about the mobile home parks is that they account for a majority of the affordable housing stock in this portion of the valley.

The land uses in the unincorporated areas surrounding the Town also contain a variety of development patterns, although most of this land is either public open space, agriculture or rural residential in nature. There are also a number of small-lot subdivisions in the surrounding area, many of which have been in place for decades

2.6 ENVIRONMENT

INTRODUCTION

The Three Mile Planning Area is surrounded by nature and the environment plays a critical role in the lives of the residents. Mountains, rivers, wetlands, floodplains, and wildlife habitat are part of everyday life. The 2005 Community Profile Survey shows that 41.6% of the residents of Basalt live here because of the scenery and 59.1% support the Town purchasing more riverfront property for parks and conservation. Furthermore, 91% of Basalt residents feel that the scenic and visual quality of Basalt is important or very important to them.

Due to the importance of the environment to the residents and the numerous environmental factors affecting the Three Mile Planning Area, the environment must be addressed in the future planning of the area. This section focuses on rivers and riparian areas, floodplains and wildlife habitat. Geographic Information Systems (GIS) mapping is included in the map section of this plan and additional discussion of the issues is included in the build-out analysis and the future land use planning sections of this plan.

RIVERS AND RIPARIAN AREAS

The Town of Basalt considers the rivers that run through the Town among its most valuable resources. This sentiment was expressed throughout the 1999 master planning process and the 2005 Community Profile Survey showed that 92.7% of residents feel water quality is important or very important in the Town of Basalt. The desire expressed in the *1999 Basalt Master Plan* was to see the rivers become more a part of the Town, accessible to all. In the years since the *1999 Basalt Master Plan* was adopted several actions have been taken to achieve this desire. A summary of recent planning efforts is provided in the following paragraphs.

The *1999 Basalt Master Plan* included a recommendation to prepare a River Master Plan and the Town undertook that process in 2000. In 2002, the Town adopted the *Roaring Fork River Stewardship Master Plan* (*River Stewardship Plan*), which used the guiding principles of public involvement, protection of property from flood damage, enhancement of aquatic and riparian wildlife habitat, and public education to address the concern of public safety and protection of the rivers. The *River Stewardship Plan* outlined several capital improvements to protect the public from flood events, including redeveloping riverfront areas within the floodplain for public parks, restore and enhance the riparian and wetland areas, and create standards for redevelopment within the floodplain and floodway. More information on the *River Stewardship Plan* and a more complete listing of studies to analyze the Roaring Fork River can be found under the "Floodplains and River Stability" portion of this master plan.

Management of the river corridor through the Town must incorporate a balance between riparian and flood protection requirements and development needs. To preserve and protect the riparian ecosystem, the Town of Basalt adopted the Rivers, Wetlands and Environmentally Sensitive Areas Ordinance in 1999. This ordinance prohibits development within 50 feet, measured horizontally, from the identifiable high water line on each side of the Roaring Fork River, the Fryingpan River, and any other river or stream that has water in it on a year-round basis. This is a minimum setback requirement and greater setbacks may be required in certain cases.

In 2005, the Town of Basalt opened Old Pond Park located on the property formerly known as the Levinson property and purchased a portion of the Midland Addition property for river park purposes. Old Pond Park provides access to the Roaring Fork River, provides a fishing pond for residents and a soft-surface trail system for residents to experience a natural riparian environment. A portion of the Midland Addition property will be developed in the future as a river front park and both of these parks will meet objectives of the *River Stewardship Plan*.

FLOODPLAINS AND RIVER STABILITY

Below is a summary of studies associated with the floodplain. All of these studies have continuously moved towards the common goal of understanding and ultimately stabilizing the Roaring Fork River through Town.

Roaring Fork and Fryingpan Rivers, Multi-Objective Planning Project; Completed by BRW, June 1999. This study compiled existing data on the Roaring Fork and Fryingpan Rivers into one Geographic Information System (GIS) database with the intent of organizing, managing, analyzing and presenting spatial information that could be used to support decision-making on river management issues. Historic photographs were used to identify locations of channel instability on the Roaring Fork River. In addition, results of a sediment transport evaluation were included. The GIS database includes separate data layers depicting stream gauge locations, major diversions and other key structures along the river.

Evaluation of the Roaring Fork River, Reach II; Completed by McLaughlin Water Engineers, May 2000. This study focused on Reach II of the Roaring Fork River, extending from the upper Highway 82 bypass bridge to the lower Highway 82 bypass bridge and identifies the characteristics of this section of the river. This summary document recommends the development of interim floodplain regulations to regulate development along this reach of the river until a master plan could be developed and implemented.

Bed-Material Entrainment Potential, Roaring Fork River at Basalt, Colorado; Completed by the USGS in 2002. The transport and deposition of sediment (gravel, cobbles and boulders) on the Roaring Fork River is believed to be a key factor in predicting flood hazards and managing the floodplain along the stretch of the river located in the Town of Basalt. The report addresses potential flood-conveyance problems and hazards to life and property associated with bed-material movement. The study was used in subsequent plans and preliminary designs for stabilizing the river.

Roaring Fork River Stewardship Master Plan; Completed by Matrix Design Group, March 2002. (Adopted by the Planning Commission and Town Council in March, 2002). This document articulates the Town's goals and visions for managing and improving the river. It discusses aspects of the Town's relationship with the river including social and cultural opportunities, recreational access and use, riparian habitat, fishery health, development, and public infrastructure. The Plan provides the guiding principles by which the Town intends to manage the river corridor to minimize the hazards associated with it and make it more of an amenity. The *River Stewardship Plan* outlined several capital improvements necessary to protect the public from flood hazards. The recommended improvements include relocating residents out of the floodway, reconstructing the Upper-Bypass Bridge to provide a clear span of the Roaring Fork River, reconstruction of the Emma Bridge to widen the span over the Roaring Fork River, reinforcement of the existing levee to meet FEMA standards, and bank stabilization and reconstruction of the Roaring Fork River channel. Development of the Plan was guided by the River Stewardship Roundtable, a task force made up of local business owners, property owners, interested citizens and technical consultants.

Erosion Zone Mapping for the Town of Basalt; Completed by Matrix Design Group, December 2002. Floodplain mapping typically assumes that a river channel location is fixed and doesn't change during a flood event. However, the Roaring Fork River through Basalt has a history of channel instability and channel migration. This study evaluated the potential for lateral channel migration during flooding to develop a "prudent line" for the purposes of warning property owners of channel bank erosion hazards associated with flooding. The study used both historic photographs

of the river and scientific/mathematical principles to identify areas along the river susceptible to bank erosion.

USACE Ecosystem Restoration Project (Section 206); Completed by the BioEngineering Group, Draft 2003. The purpose of this project was to develop a plan for restoring the stability of the Roaring Fork River through the Town of Basalt and improving aquatic and riparian habitat. This plan provides a framework for integrating habitat restoration into the river channel and bank improvements that would be made to stabilize the river and to restore "overbank areas" to enhance their role in future flood damage mitigation. In addition to ecosystem enhancement, the restoration improvements recommended in this project will also increase access to the Town's riverfront for pedestrians, fishermen and boaters. If implemented, the recommendations of this project will contribute to the achievement of the *River Stewardship Plan* goal of restoring and preserving the natural values associated with the river.

Upper Bypass Preliminary Design; Completed by McLaughlin Rincon, January 2004. These preliminary design plans focus on river channel and bank improvements in the area of the Upper Highway 82 Bypass Bridge. The purpose of these improvements is to reduce the risk of failure or overtopping of the berm upstream of the bridge. This berm protects the Southside from flooding during high water events. The plans call for construction of a "FEMA-Compliant" levee on the south side of the river upstream from the bridge and flow-training debris walls on the upstream side of the bridge to block larger debris in front of the bridge and direct flows through the bridge in a more efficient manner in order to reduce scouring and other damage to the bridge supports. The plans also call for construction of streambed and bank stabilizing structures upstream and downstream of the bridge, relocation of irrigation diversion structures, and re-establishment of the boat ramp at Fisherman's park. These improvements would allow floodplain boundaries to be amended, removing properties in the Southside Area from the regulated floodplain (as mapped by FEMA).

Roaring For River Stabilization Preliminary Design of Reach II; Completed by McLaughlin Rincon, Draft 2005. This is the first attempt to assemble a specific engineered design that meets the identified goals in the *River Stewardship Plan* and considers the updated river analysis and identified river instability issues. This project resulted in recommendations for a comprehensive set of river improvements aimed at accomplishing a defined protection strategy designed to protect properties based on a designated development line and stabilizing the river banks throughout the corridor. The recommended improvements incorporate a wide range of projects including replacement of the existing pedestrian bridge (old Emma Road Bridge) with a clear span structure, construction of FEMA-compliant levees, installation of bank stabilization structures and numerous other measures. The cost of these improvements was estimated at approximately $17 million. This plan is not yet adopted by the Town and a peer review of this plan is currently being completed.

FLOODPLAIN REGULATIONS

The Town of Basalt, Eagle, Pitkin, and Garfield Counties all regulate the type and extent of development that can occur within the 100-year floodplain. In 2000, the Town of Basalt adopted

changes to its Zoning Code to prohibit development that would result in any rise in the floodplain elevations within Reach II of the Roaring Fork River and to ensure that development would not impede the implementation of the *River Stewardship Plan*. Reach II is that portion of the Roaring Fork River that lies between the Highway 82 Upper and Lower Bypass Bridges.

Developments in the floodway within town limits include Myers & Company Architectural Metals and significant portions of the Basalt Business Center (South, West and East). Portions of the Pan and Fork Mobile Home Park and River Oaks subdivision are also in the floodway. Other areas within the 100-year floodplain, but not the floodway, include Ute Center, and portions of Southside Phases II and IV. The developments in the floodway were approved and developed prior to several events which created major changes in the flood pattern of the Roaring Fork River and the way the Town deals with development in flood hazard areas. These events include the construction of the Highway 82 Bypass (this significantly altered the River flow and its flood patterns); new floodplain mapping, which identified the severity of the flood problem; and the adoption of the Town's current zero-rise ordinance, which prohibits any development that would result in an increase in the floodplain elevations in Reach II.

The Roaring Fork Mobile Home Park lies entirely within the floodway. Although it is surrounded by the Town, this property is not located within the town boundaries. It straddles the county line between unincorporated Eagle County (includes the homes closest to the river) and Pitkin County. Pitkin County has jurisdiction over the major portion of the park and manages the land use permitting process.

STEEP SLOPES

Figure 6 shows areas having slopes greater than 30% in grade. This information is taken from United States Geologic Survey Digital Elevation Models (DEM) data, which has been incorporated into the GIS database for the study area. This information is adequate for planning purposes but should not be relied upon for site-specific analysis. The 30% grade criterion was selected because it corresponds to the threshold above which development requires greater scrutiny and mitigation. A primary concern with respect to development on steep slopes is the potential for increased erosion that, in turn, contributes to increased sediment loading in the rivers and changes in channel depth and movement.

The area of steep slopes affects approximately 3,300 acres of privately owned vacant and agricultural land. The development potential of these lands is reduced significantly by virtue of the slopes' constraints.

The Basalt Land Use Code requires special review approval for development on slopes of 30% or more. Additionally, the code requires builders to exclude property with 30% or greater slopes when calculating the allowed Floor Area Ratio (FAR) on a parcel unless special review is obtained.

LIFE ZONES AND WILDLIFE HABITAT

The life zone concept is designed to define various zones of ecosystems, based primarily on altitudinal change. By being able to characterize ecosystems, and in a broader fashion, life zones, we gain an understanding of the vegetation patterns, topography, and climate that determine a certain mix of species that are key in making up wildlife habitat. Basalt lies mainly in the foothills life zone (in Colorado, about 5,500-8,000 feet). The foothills life zone has the greatest species diversity of all the life zones in Colorado because it represents a transitional region between grasslands and the higher elevation tree-dominated montane life zone (roughly 8,000-9,500 feet). The Roaring Fork River Valley is dominated by nine diverse vegetation types distributed across multiple elevation gradients, and comprised of wetland, riparian, and upland species. The lower valley includes sagebrush shrublands, agricultural, pinyon-juniper, cottonwood riparian, and mixed sagebrush shrublands (including Gambel's oak, serviceberry, and mountain mahogany). Higher in the valley, the primary vegetation types are dominated by willows, spruce-fir, lodgepole, aspen and alpine communities (Spackman *et al,* 1997).

It is important to maintain indigenous life zones and zones of ecosystems in order to provide habitat for the wide range of wildlife that inhabit the area or migrate through the area. It is important to recognize that Basalt's natural environment or life zone differs from that of Aspen and Glenwood Springs. The resulting habitat in this life zone supports a wide range of birds and mammals. Therefore, in order to sustain the wildlife in Basalt's life zone, the community must preserve the habitat of this lifezone.

As development has occurred in the western slope area, wildlife habitat has been encroached upon and destroyed with increasing frequency. Among the greater concerns that the Colorado Division of Wildlife **(**CDOW) is dealing with in this region is the fragmentation of habitat caused by the proliferation of roads in the backcountry. The issue of how to manage roads on pubic lands has been a controversial topic in the review of the most recent version of the White River National Forest Land and Resource Management Plan. Figures 7 through 9 depict the wildlife habitat within the Three Mile Planning Area. This information was obtained from the CDOW's Wildlife Resource Information System (WRIS) database. For the purposes of this analysis, we have limited discussion to the elk, mule deer, eagle, and blue heron habitats. Elk and mule deer are considered "indicator species." This term is based on the concept that the habitat of certain species provides a general indication of the health of a wide variety of ecosystems.

Elk Habitat

The following are descriptions of the elk habitat categories that are depicted on Figure 7 and which form the basis of the wildlife habitat recommendations in this plan.

Winter Concentration Area: The part of the winter range of a species where the densities are at least 200% greater than the surrounding winter range density during the same period used to define winter range in the average five winters out of ten.

These habitat areas are located in the southern portion of the Three Mile Planning Area. There are three large areas of Winter Concentration habitat. One of these is along the south-facing slopes on the east side of Snowmass Creek Road. Another is located on the south-facing slopes of hills along East and West Sopris Creek Road, and the third is the top of the plateau near the Crown to the northeast of Mt. Sopris. This habitat includes much of the flat land across the river from the Crown Mountain Park.

Severe Winter Range: The part of the range of a species where 90% of the individuals are located when the annual snowpack is at its maximum and/or temperatures are at a minimum in the two worst winters out of ten.

The severe winter range habitat within the Three Mile Planning Area is located in two large areas, both of which are on the north side of the study area. The first area is the south-facing slopes around the base of Basalt Mountain, including Missouri Heights. This area also extends up the Fryingpan River beyond the edge of the Three Mile Planning Area. The second area comprises the south-facing slopes along Highway 82 beginning roughly at the Roaring Fork Club and going east beyond the Three Mile Planning Area. All of Missouri Heights (the portion within the Three Mile Planning Area) is mapped as severe winter range. The Aspen Junction subdivision is also identified as being within this habitat, as is a portion of the Roaring Fork Club property. This habitat area comes down nearly to Two Rivers Road along the stretch west of East Basalt to Highway 82. There is actually a small portion of the Town of Basalt identified within this habitat on the CDOW mapping.

Production Area: The part of the overall range of elk occupied by females from May 15th to June 15th for calving.

The production habitat is shown on Figure 7. There are two areas of production habitat within the Three Mile Planning Area. One of these is on the upper portion of the south-facing slopes of Basalt Mountain. This area is located entirely within United States Forest Service lands. The second area is very small and is located on the upper slopes above East Sopris Creek Road. This habitat area extends into a subdivision known as Tract 36, which is located in unincorporated Pitkin County.

Migration Corridors: A specific mappable site through which large numbers of animals migrate and loss of which would change migration routes.

There are three migration corridors mapped within the Three Mile Planning Area. The most significant of these is the crossing of Highway 82 between the Basalt State Wildlife Area and the BLM land located east of Sopris Creek Road. This is within the area identified in the 1996 Three Mile Plan as being retained as open space buffer between East Basalt and West Basalt. This is an extremely important piece of open space, which was purchased by Pitkin County Open Space and Trails and now referred to as the Emma Open Space. There are also migration corridors along both and East and West Sopris Creek Roads and Old Snowmass Road.

Mule Deer Habitat

The basic function and criteria for the various mule deer habitat types is the same as those described above for elk with the exception that the CDOW does not map "production" habitat for mule deer. In general, the mule deer habitat overlaps the elk habitat and covers similar territory. The mapped mule deer habitat is depicted on Figure 8. One difference in the habitat mapping between mule deer and elk is that there are several mule deer highway crossings along Highway 82 within the Three Mile Planning Area where there is only one Highway 82 crossing (also a migration corridor) mapped for elk. There are five highway crossings for mule deer identified within the Three Mile Planning Area. One of these is in the area of the Snowmass Creek Road intersection. A second corridor is in the area of the Roaring Fork Club. The third area is in the same location as the elk corridor just east of Sopris Creek Road. The fourth is actually a crossing of Old Highway 82 at Arnold's Island. The last location is in the area of the Waldorf School, roughly one quarter mile east of Catherine Store Road.

Bald Eagle Habitat

Bald eagles are known to live and hunt along the Roaring Fork and Fryingpan Rivers within the Three Mile Planning Area. Figure 9 shows the CDOW mapping for bald eagles. There are no nesting sites mapped within the study area. The only bald eagle habitat mapped within the study area is "winter range". The CDOW defines "winter range" as "those areas where bald eagles have been observed between November 15 and April 1." The CDOW's WRIS database does not include any recommendations for management of winter range. However, they do point out that maintenance of mature cottonwoods along major riparian zones is essential for bald eagles.

Great Blue Heron Habitat

There is one great blue heron nesting area identified within the Three Mile Planning Area. The nesting area is located along the south side of the Roaring Fork River just east of the Garfield/Eagle County border. The nesting site appears to be located on privately owned land. The CDOW defines a nesting area or rookery as places where "groups of individual trees containing nest platforms and a buffer zone extending around a known active or inactive nest site. Nest platforms are usually located in dominant trees associated with riparian habitats." The CDOW recommends that human activity be restricted at active sites between March 1st and July 1st.

Wildlife and Wildlife Area Changes since the adoption of the *1999 Basalt Master Plan*

Basalt residents have the pleasure of being surrounded by significant and diverse wildlife habitat. Deer, elk, big horn sheep, eagles, turkeys, river otters, mountain lions and bears call this area home. The Basalt State Wildlife Area, owned and managed by the CDOW, is approximately 4,800 acres, located directly north of the town limits and is home to many of these species. There are two sub-areas within the Basalt State Wildlife Area: Lake Christine and Toner Creek.

Lake Christine is located immediately adjacent to Town, off of Two Rivers Road and includes a lake and shooting range. Currently, the CDOW is improving Lake Christine by constructing an

emergency spillway on the west end, reconstructing the dam and outlet feature and dredging the lake 12 to 15 feet. These improvements are being constructed for safety and to allow fish to be stocked in the Lake. The shooting range is also being improved to address safety, noise and accessibility issues. The improvements will not enlarge the shooting range, but make it a better facility. The improvements will include handicapped facilities that will give participants of the Annual Disabled American Veterans Event and disabled local residents easier and better access to the shooting range.

The Toner Creek area is located up the Fryingpan River from Basalt and is home to a managed herd of Big Horn Sheep, which is the Colorado State Animal. The CDOW conducts annual monitoring and data collection regarding the herd and also conducts annual weed control in this area.

Over the last several years, the CDOW has been undertaking a project to fence their lands to create a visual line to show where wildlife areas begin. Fencing with access gates for the public has been installed along CDOW lands and residents of Basalt, whose homes border CDOW lands, are affected by this. As in all State Wildlife Areas, dogs and mountain bikes are prohibited. Wildlife lands are used to house, protect and manage wildlife and dogs and mountain bikes are not considered by CDOW to be compatible with wildlife habitat areas.

One of the biggest changes since the *1999 Basalt Master Plan* is the introduction of the CDOW Habitat Stamp. In 2005, the Colorado State Legislature passed a law requiring users of CDOW lands to pay an annual $10 fee (or lifetime $200 fee) for access onto the lands. People who obtain a hunting and/or fishing license will be assessed the annual fee at the time of purchase of their license. All others who use CDOW lands for recreation are required to purchase the stamp wherever hunting and fishing licenses are sold. The fees are collected and used by the CDOW to protect habitat for wildlife. For the first five years, 60% of the fees will go towards big game habitat and corridor protection.

Another change affecting Basalt residents is the Town's adoption of Ordinance No. 8, Series of 2001. This is typically referred to as the Wildlife Ordinance and was designed to minimize the number of conflicts between humans and wildlife in Basalt. The Ordinance requires every residence, business, construction site and special event to provide wildlife proof refuse containers and also to maintain and keep them secure and enclosed to prevent animals from eating the refuse. The Wildlife Ordinance also prohibits people from feeding local wildlife and birds.

Fencing

In addition to increased fragmentation of habitat due to more roads in the backcountry, increased fencing around property in the backcountry is also contributing to habitat fragmentation. This problem can be reduced through the implementation and enforcement of fencing regulations. The Town's ESA Ordinance as included in the Zoning Code establishes criteria for the height and type of fencing allowed. It should be noted that parcels assessed as being agricultural, according to the Assessor's Office, may be exempted from these fencing requirements. Migratory animals must be

able to move from their wintering grounds to higher summer country unimpeded, or at least with a minimum of disruption to their normal migratory routes. For these reasons, the Town takes road development and fencing plans into consideration in its development review process.

WILDFIRE RISK

Figure 10 shows wildfire risk for the Basalt area. In 2003, Eagle County Government worked with Town Governments, special districts, Colorado State Forest Service and United States Forest Service to create detailed wildfire risk mapping for Eagle County. That information supported Eagle County's adoption of Wildfire Regulations that are effective in the unincorporated Eagle County areas of Basalt's Three Mile Planning Area. The mapping can also be used more broadly to evaluate suitability of an area for development based on potential wildfire hazards. The Basalt and Rural Fire District provided the Planning Staff with mapping information for the Pitkin County portion of Basalt and its immediate adjacent areas. The Town of Basalt does not have specific wildfire regulations and relies on referral comments from the Basalt and Rural Fire District to determine the appropriate planning and mitigation response to wildfire risk.

ISSUES AND OPPORTUNITIES

Issues and Concerns

- The current floodplain information shows significant portions of East Basalt area as being encumbered by the 100-year floodplain or floodway. This has raised many issues regarding the development and redevelopment of these areas that have been difficult for the Town to resolve. Some of these issues include: how to obtain the funding for the improvements; affect the river improvements might have on natural/mature vegetation; how to get the attention of the Army Corp of Engineers and CDOT; and how to address the existing mobile home parks.
- There are significant areas of privately owned lands within the Three Mile Planning Area that are encumbered by steep slopes. Development on these lands could result in problems such as erosion, foundation failure, individual septic system failure, and negative scenic impacts.
- Traffic increase on Highway 82 and Two Rivers Road experienced since 1999 has created additional challenges for the elk and mule deer seeking to migrate through this area.
- Even with the ESA regulations in place at the time the *1999 Basalt Master Plan* was adopted, Basalt has lost a number of old-growth cottonwoods and mature evergreens, primarily because of safety concerns related to the older trees and because many of these trees were on private property where developed occurred.
- Existing and proposed regional trails are often through environmentally sensitive areas and this can lead to conflicts.

Opportunities

- Multi-jurisdictional efforts to purchase and place the majority of the elk and mule deer migration corridor in the Emma area in open space and conservation easements was advocated by the *1999 Basalt Master Plan* and approximately 58 acres were preserved when they were acquired with Pitkin County Open Space and Trails fund in June of 2000. This could lead to additional protection of the corridor in the future.
- Obtaining park and open space areas along the river was also advocated in the *1999 Basalt Master Plan* and several parcels have been acquired since that time. This remains a priority and it is hoped that these past successes will lead to future preservation and park development along the riverfront.
- The GIS database developed for the *2007 Basalt Master Plan* provides a useful tool for educating landowners, developers and members of the public regarding environmental conditions and the importance of careful planning.

2.7 BUILD-OUT POTENTIAL UPDATE

PURPOSE

The *1999 Basalt Master Plan* includes a build-out analysis that provides an understanding of what might occur in the Town of Basalt and the surrounding area. This analysis formed the basis for evaluating the future land use scenarios that were examined to establish the future land use strategy for the Town. As part of this update, the build-out analysis of the *1999 Basalt Master Plan* was revised for current conditions. The build-out analysis in this document includes estimates as to the development potential of the lands within the Basalt town boundary, the 1999 Growth Boundary, and Three Mile Planning Area. For purposes of this analysis, the 1999 UGB and the Urban Services Area (USA) are utilized along with the land uses shown on the *1999 Basalt Master Plan*. Figure A is a map showing the study area and identifying the areas into which the build-out analysis is divided. The USA boundary is shown as a purple dashed line on Figure A, while the UGB is shown as with a dark pink dashed line. It is important to note that the Urban Services Area (USA) was eliminated from the future land use strategy for the Town a result of this master plan update process. The reasons for eliminating the USA are discussed in greater detail in the Future Land Use Section of this document.

The area within the Basalt town limits is depicted by an orange color on Figure A. The 1999 UGB (includes USA) is shown in pink and the remainder of the Three Mile Planning Area, referred to as the "Rural Area" is highlighted in green. For easy reference, the tables showing the build-out numbers are highlighted using the same colors as found on the map.

The build-out analysis for the area within the existing town boundary includes an estimate of the approved and infill development potential within the town boundaries as well as the development

potential for those lands which have a future land use designation on the Town's 1999 Future Land Use Map (FLUM). This last estimate was done in order to provide an understanding of what the total development potential would be if the *1999 Basalt Master Plan* were fully implemented. The analysis includes an estimate of the development potential of lands within the UGB and the USA based on how they are designated on the 1999 FLUM. The build-out analysis for the Three Mile Planning Area includes an estimate of the undeveloped lots within approved subdivisions as well as an estimate of the development potential of vacant and agricultural lands. The development potential of the vacant and agricultural lands was established by multiplying the vacant and agricultural land acreage by a density factor derived from discussions with the planning departments for the three county jurisdictions that cover the Three Mile Planning Area.

A more detailed description of the assumptions and methodology utilized in this analysis is provided in the following paragraphs. The end result of this analysis is a summary of the potential additional dwelling units and population, commercial square footage and mixed use square footage that occur under the current policies of the Town of Basalt and the adjacent jurisdictions of Eagle, Pitkin and Garfield Counties.

CHANGING ASSUMPTIONS

In the years since the *1999 Basalt Master Plan* was adopted there have been a number of changes in the factors that affect the build-out analysis contained in this document. These changes include obvious things that would be expected such as a reduction in the amount of vacant and agricultural land due to development. This is an important factor to track since it is one way to quantify actual development activity. However, there are a number of other factors that have influenced the current build-out analysis and estimates of future growth in dwelling units and population as well as commercial square footage. These factors are listed as follows:

- Reduction in average household size from 2.82 persons/household to 2.56 persons/household;
- Changes to density assumptions used to determine the number of dwelling units per acre for vacant and agricultural land in rural areas (County);
- Increase in floor area ratio from 0.5 to 0.9 for mixed use commercial projects;
- Increased floor area ratio for light industrial projects from 0.25 to 0.5 and change to light industrial zoning to allow 15% of the square footage to be used for residential purposes assuming units are 750 square feet in size.

Average Household Size: The reduction in household size is based on data kept by the Colorado Department of Local Affairs, Demographer's Office (DOLA). The state demographer's office keeps population data for all municipalities and counties in Colorado and tracks other statistics including the average household size for each municipality and county. The household size assumption used in this build-out analysis is based on an average of the household size for the Town of Basalt as well as Eagle, Garfield and Pitkin Counties. This results in an average household size of 2.56 persons. The 2.82 person household size used in the *1999 Basalt Master Plan*

analysis was based on a Household Economic Survey conducted in 1985. At that time, the Town had been utilizing this number for conducting its own population estimates for a number of years. Household size is an important number because it is used to estimate population based on the number of dwelling units for areas where no other estimates are available, such as the Three Mile Planning Area around Basalt which covers small portions of three counties (see Figure 1).

Residential Density Factor: When the *1999 Basalt Master Plan* was prepared, the analysis for the build-out potential for vacant and agricultural lands within the unincorporated portions of the Three Mile Planning Area was calculated by taking the gross acreage of vacant and agricultural land and deducting the lands encumbered by slopes greater than 30% and floodplain. This was done because all three adjacent counties regulate development on steep slopes and within floodplain areas, though to differing degrees. The net acreage was then multiplied by the zone density for each zone district. When the build-out analysis was prepared during this master plan update, this issue was discussed with the planning departments of all three surrounding counties and the end result was a calculation in which the entire gross acreage was used but the density factor was changed to adjust for environmental limitations and other factors that affect actual development density.

The density factor used varies depending upon within which county the vacant or agricultural land is located. In Garfield County, a density factor of 1 Dwelling Unit/5 Acres was used to determine build-out potential. This number is based on the recommended density in the Garfield County Comprehensive Plan and data from actual development projects approved in recent years. For the portion of the Three Mile Planning Area located in Pitkin County, the density factor was half of the zoned density for each zone district. This factor was recommended by the staff of the Pitkin County Community Development Department based on data they have compiled for projects approved in recent years. The density factor for Eagle County was based on the density for each zone district contained in the Eagle County Land Use Code. The Eagle County planning staff felt this was the most reliable estimate based their experience in this portion of Eagle County.

Mixed-Use Commercial Floor Area Ratio: Since the *1999 Basalt Master Plan* was adopted the Town has seen a fair amount of development activity in the mixed-use commercial sector. Based on their experience with recent mixed-use projects, the Planning Department Staff decided to increase this floor area ratio for the purposes of estimating the build-out potential for future developments.

Changes to Light Industrial Assumptions: The Town of Basalt has seen several light industrial projects that have incorporated live/work space in recent years. This is a good way for the Town to encourage affordable housing in close proximity to job-generating uses. The *1999 Basalt Master Plan* did not account for any residential units in association with industrial development since this had not occurred at the time that plan was being prepared. To account for this, the build-out analysis has been modified to incorporate residential units when estimating build-out potential for industrially zoned land, of which there is a significant amount on the south side of Highway 82.

Based on the assumptions described above, the results of the build-out analysis for *1999 Basalt Master Plan* for the study area are provided in the following tables and charts.

TABLE 2.7.1

Existing Dwelling Unit and Residential Build-Out Analysis

Area	1999 Units (from 1999 Master Plan)	2005 Units (Using 1999 Assumptions)	2005 Units (Using 2005 Assumptions)
In Town (Orange on map)			
Existing Units	935	1388	1388
Planned Infill and Approved Development	898	593	593
Future Land Use (1999 Master Plan)	51	59	98
Total	**1884**	**2040**	**2079**
Urban Growth Boundary (Pink on Map)			
Existing Units	961	1069	1069
Planned and Approved Development (subdivision infill)	37	11	11
Future Land Use (1999 Master Plan)	507 - 902	517 - 909	684 - 1077
Total	**1505 - 1900**	**1597 - 1989**	**1764 - 2157**
Rural (Green on Map)			
Existing Units	985	1167	1167
Planned and Approved Development (subdivision infill)	311	245	245
Potential Infill on Agricultural and Vacant Lands	675	494	384
Total	**1971**	**1906**	**1796**
TOTAL BUILD-OUT	**5,360 - 5,755**	**5,543 - 5,935**	**5,639 - 6,032**

Source of data: Town of Basalt Planning Staff

Note: Future residential land use determined by multiplying acreages for each of the residential categories by the planned densities shown below.

1999 Assumptions:
Planned Density:
Low Density Residential - 3 to 5.9 DU/AC
Medium Density Residential - 6 to 11.9 DU/AC
High Density Residential - 12 to 20 DU/AC

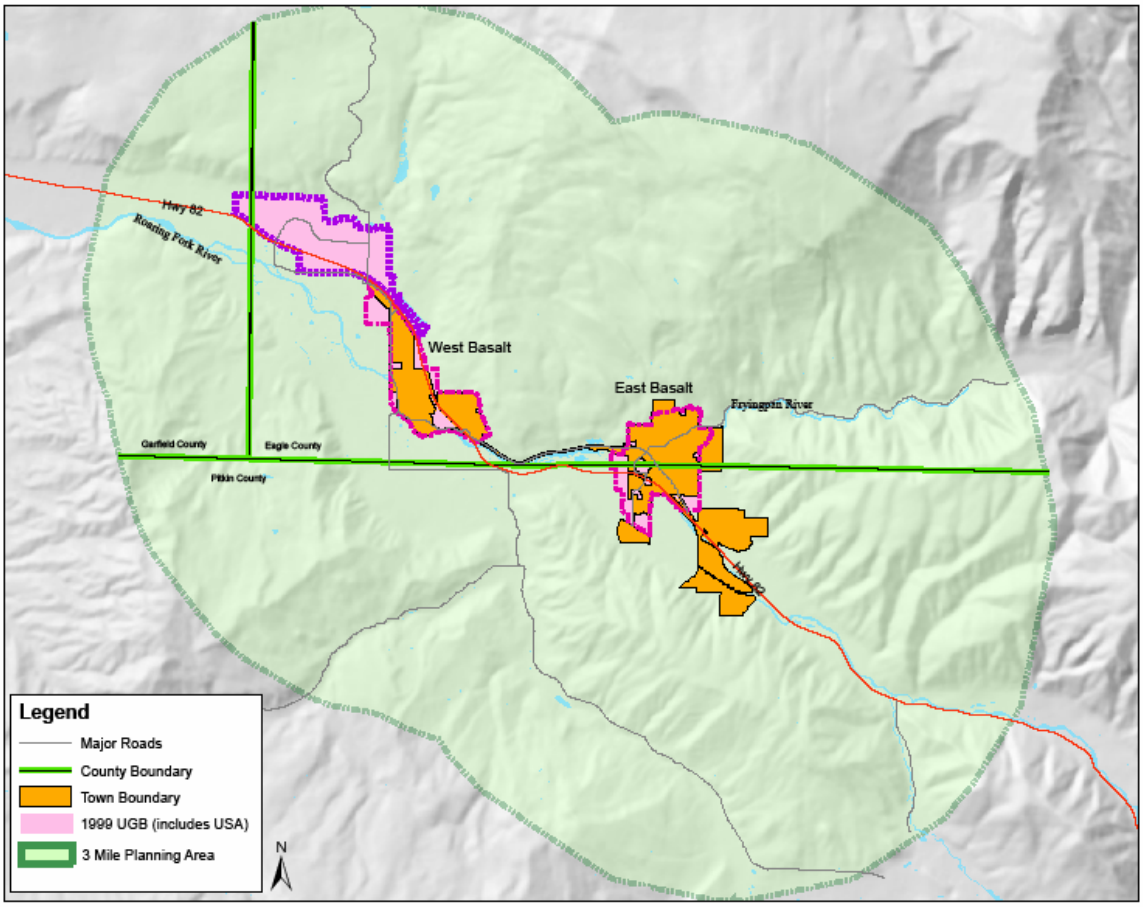
Mixed Use Commerical based on 0.5 FAR, assuming 33% of square footage is utilized for residential use and units are 1200 square feet.
Light industrial is assumed to have no residential and a FAR of 0.25.

Mixed Use Residential based on 0.5 FAR, assuming 67% of square footage is utilized for residential use.
Infill on Agricultural and Vacant Lands assumed underlying zoning as densities and excluded areas on slopes 30% or greater.

2005 Assumptions:
Planned Density:
Low Density Residential - 3 to 5.9 DU/AC
Medium Density Residential - 6 to 11.9 DU/AC
High Density Residential - 12 to 20 DU/AC

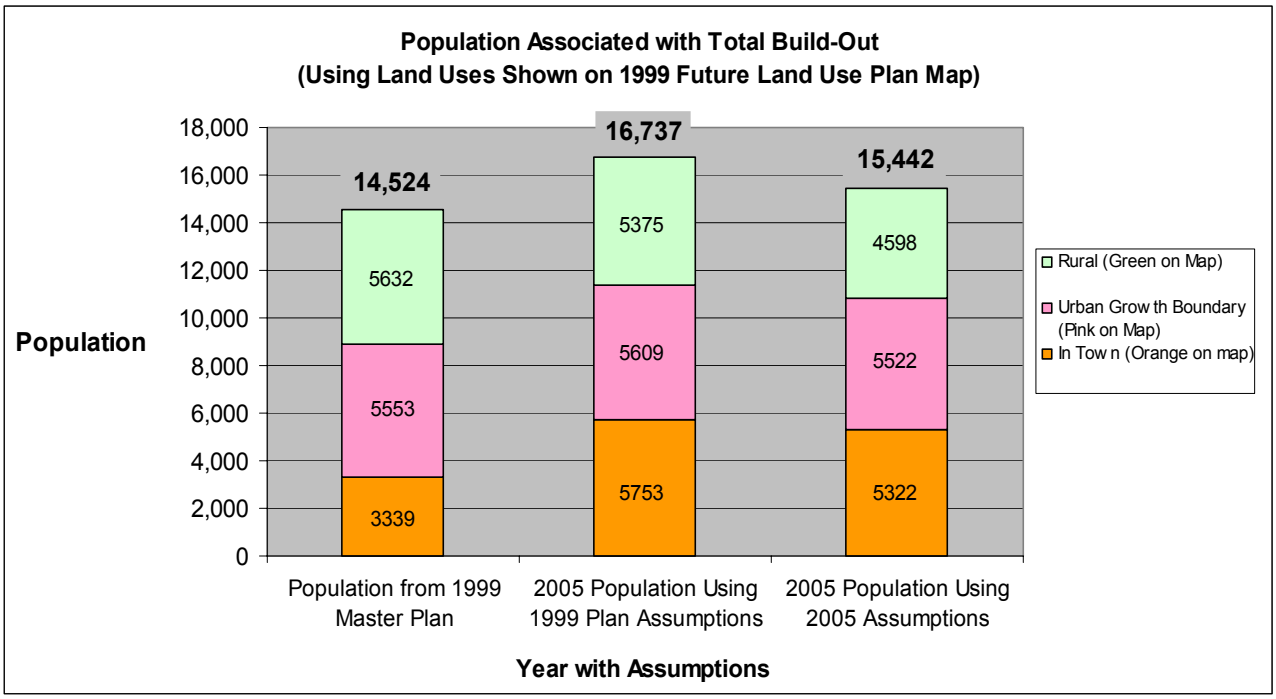
Mixed Use Commerical based on 0.9 FAR, assuming 33% of square footage is utilized for residential use and units are 1200 square feet.
Light industrial based on 0.5 FAR, assuming 15% of square footage is utilized for residential use and units are 750 square feet.
Mixed Use Residential based on 0.5 FAR, assuming 67% of square footage is utilized for residential use.
Infill on Agricultural and Vacant Lands assumed more realistic densities. Town of Basalt Staff used Counties' Staff determination of most realistic projected densities.

FIGURE A
Build-Out Area Map



Source: Denise Tomaskovic, Basalt Planning Department Staff.

CHART 2.7A



Note: *See Table* ***Existing Dwelling Unit and Build-Out Analysis*** *for the difference between 1999 and 2005 assumptions with respect to land use and densities. In addition to the land use and density assumptions, the population assumptions were as follows: 1999 assumed a 2.82 person per household size and 2005 assumed a 2.56 person per household size.*

Table 2.7.1 and Chart 2.7A show the estimated build-out of residential units and the resulting population growth based on the assumptions used in the build-out analysis in the *1999 Basalt Master Plan* and the current assumptions described in the "Changing Assumptions" discussion above. The changes to the assumptions affect only the Future Land Use category in the town limits and UGB portions of the study area and the Potential Infill category in the Rural Area. The dwelling unit numbers in this table include units that would be part of mixed use commercial or light industrial projects based on the assumptions described in the notes under the table. The most important data in Table 2.7.1 is in the column labeled "2005 Units – Using 2005 Assumptions," since this is most accurate based on current research. ***It is important to remember that the numbers in Table 2.7.1 and Chart 2.7A represent a hypothetical build-out which may not occur for many years, if ever. The total build-out numbers are not intended to represent the development that is likely to occur within the life of this master plan!***

Review of Table 2.7.1 provides us with several important numbers. First, approximately 743 new dwelling units have been constructed in the entire Three Mile Planning Area since 1999. This is an increase of nearly 26% over that 5-year period. This number can be compared to what was anticipated in the *1999 Basalt Master Plan*. The *1999 Basalt Master Plan* includes a dwelling unit

absorption analysis for the entire Three Mile Planning Area, which showed the number of units and population anticipated under an "historic" growth rate and a "moderate" growth rate. The expectation was that actual development would fall somewhere between those two rates, which is exactly what happened. The "historic" growth rate was 6.0% per annum and would have resulted in 952 units over the 5 years between 1999 and 2004. The "moderate" growth rate was 3.2% per annum and would have resulted in 480 new dwelling units over the same period. The actual number of units constructed (743 dwelling units) is slightly more than the average of these two estimates. Therefore, the growth projections in the *1999 Basalt Master Plan* appear to have been on target based on current data.

Another important number that can be derived from Table 2.7.1 is the total number of potential infill dwelling units and dwellings units that have been approved but have not yet been built. This number can be compared to the anticipated dwelling unit absorption for the next 5 years based on an updated "historic growth rate" and "moderate growth rate," as was done in 1999. ***The total number of potential infill and approved, unbuilt dwelling units in the Three Mile Planning Area is approximately 849***. Table 2.7.2 below shows the dwelling unit absorption for the entire Three Mile Planning Area through 2011.

TABLE 2.7.2
DWELLING UNIT ABSORPTION (2007-2011)
(ENTIRE THREE MILE PLANNING AREA)

	2007		2008		2009		2010		2011		Total	
	New Pop.	New Units	New Pop.	New Units	New Pop.	New Units	New Pop.	New Units	New Pop.	New Units	New Pop.	New Units
6-Year Growth	317	124	327	128	338	132	350	137	362	141	1694	662
Moderate Growth	297	116	307	120	316	123	327	127	337	131	1,584	617

Source: TG Malloy Consulting, LLC
Notes: 1) 6-Year Average Growth Rate: 3.4% (Average annual growth rate for Basalt between 2000 and 2005).
2) Moderate Growth Rate: 3.2% (Healthy Mountain Communities and Rate used in Valley Rail Study as "planned growth").
3) New units based on 2.56 average household size (this number was derived by averaging household size for the Town of Basalt (2.51) and the three surrounding counties (2.61).

The current number of potential infill and approved, unbuilt dwelling units (849) exceeds the projected dwelling unit absorption based on recent growth trends as shown on Table 2.7.2. Adding the number of dwelling units that could be built on the vacant land within the UGB and USA boundaries under the Future Land Use Plan contained in the *1999 Basalt Master Plan*, (782 - assuming the low end of the range shown for the UGB on Table 2.7.1) to the potential infill and approved dwelling units results in a total of 1,631 dwelling units. This represents nearly two and one half (2½) times the number of units needed to accommodate the anticipated growth during the life of this master plan. ***This suggests that the potential exists for a healthy relationship between housing demand and supply given the land use strategy contained in the 1999 Basalt Master Plan.***

This would also suggest that there is no need, from a supply and demand standpoint, to expand the UGB to accommodate housing demand within the life of the current master plan. However, there are several other factors which must be considered. While there is ample potential, in terms of the housing units that could be developed within the existing UGB, realizing this potential depends on the individual land owner's willingness to develop and their timing for doing so.

TABLE 2.7.3
Future Commercial and Industrial Square Footage Analysis

Area	Estimated Future Square Footage
In Town (Orange on map)	
Planned Infill and Approved Development	623,465
Future Land Use (1999 Master Plan)	222,318
Total	**845,783**
Urban Growth Boundary (Pink on Map)	
Future Land Use (1999 Master Plan)	790,762
Total	**790,762**
TOTAL BUILD-OUT	**1,636,545**

Source of data: Town of Basalt Planning Staff

Note: Future Commercial and Industrial Land Use determined by multiplying acreages for each of the commercial and industrial categories by the planned densities shown below.

2005 Assumptions:
Planned Density:
Mixed Use Commerical based on 0.9 FAR, assuming 67% of square footage is utilized for commercial use.

Light industrial based on 0.5 FAR, assuming 85% of square footage is utilized for industrial use.

Mixed Use Residential based on 0.5 FAR, assuming 33% of square footage is utilized for commercial use.

Table 2.7.3 shows the amount of additional commercial and industrial square footage that could be accommodated under the future land use strategy contained in the *1999 Basalt Master Plan*. The total potential floor area is over 1.6 million square feet. This does not include the square footage of mixed use commercial and light industrial buildings that would be utilized for residential dwelling units. Approximately half of the potential square footage would be located within the existing Basalt town limits, while the other half would be located within the UGB/USA. A significant portion of this floor area (623,465sf) represents infill development or projects that are already approved. The area designated on the Future Land Use Map for light industrial use on the south side of Highway 82 would constitute a large portion of the total square footage shown on Table 2.7.3.

IMPACT OF ROARING FORK RIVER STABILIZATION IMPROVEMENTS

The *1999 Basalt Master Plan* identifies the Roaring Fork River floodplain as an important issue for the Town and recommends the establishment of a riverfront park and open space system to take

better advantage of the river and to discourage development within the floodplain. Figure 6, Development Constraints, generally depicts the area encumbered by the 100-year floodplain. This area incorporates land on both sides of Highway 82, including much of the area between Highway 82 and the river channel from the Highway 82 Upper Bypass Bridge on the east to the sewage treatment plant on the west.

The Town has since done a great deal of planning and engineering work related to the river corridor and in 2002 adopted the *River Stewardship Plan*, to help guide future planning associated with the river corridor. The *River Stewardship Plan* is considered part of the Town's Master Plan. The fundamental issue is that the historic natural river corridor through East Basalt is much wider than the space that the river is "allowed" to occupy. As the Town has developed, the river has been severely confined and encroached upon by development and infrastructure. As a result, residential and commercial areas are threatened by the 100-year flood.

The Town commissioned the Roaring Fork River Stabilization project, which was conducted by McLaughlin Rincon, Ltd. The purpose of this engineering study was to create a specific comprehensive design for a set of river improvements intended to provide long-term stabilization of the river corridor segment through East Basalt. The total cost of the improvements was estimated at $17,000,000.00. At the time of this master plan update, the Town was still working on the best strategy to address the floodplain issue in East Basalt.

The 100-year floodplain affects areas identified for future development on the Future Land Use Plan in the *1999 Basalt Master Plan*, including areas incorporated in the build-out analysis as summarized in Tables 2.7.1 and 2.7.3 above. In order to better understand the impact of the 100-year floodplain and river stabilization improvements on future development in East Basalt, the build-out analysis was modified to show the potential development with and without the river stabilization improvements. The results of this analysis are summarized in Tables 2.7.4 and 2.7.5 below.

TABLE 2.7.4

Floodway Impact Analysis
Future Commercial/Industrial Square Footage and Residential
(Using 2005 Assumptions)

Area	Comm./Ind. Square Footage In Floodway	% of Total Future Comm./Ind. Square Footage[1]	Dwelling Units In Floodway	% of Total Future Dwelling Units[2]
In Town (Orange on Map)				
Planned Infill and Approved Development	83,355	9.9%	7	1.0%
Future Land Use (1999 Master Plan)	28,802	3.4%	15	2.2%
Subtotal	112,157	13.3%	22	3.2%
Urban Growth Boundary (Pink on Map)				
Future Land Use (1999 Master Plan)	134,263	17.0%	103 - 147	9.5-13.5%
TOTAL	246,420	15.1%[3]	125 - 169	7.0 - 9.5%[3]

Source of data: Town of Basalt Planning Staff

1) The percent total is by area. For example, 83,355 sf is 9.9% of the total future commenrcial square footage that would be located In-Town under the build-out projections. Similarly, 134,263sf is 17% of the total future commercial/industrial square footage that would be located in the UGB (outside of Town limit) under the build-out projections.

2) The percent is by area. For exmple, 7 dwelling units is 1% of the total future dwelling units that would be located In-Town under the build-out projections. Similarly, 103 dwelling units is 9.5% of the total future dwelling units that would be located in the UGB (outside Town limit) under the build-out projection.

3) Percent is for total of In-Town plus UGB.

TABLE 2.7.5
Floodway Impact Analysis
Total Future In-Town and UGB Comm. & Ind. Square Footage & Residential Within Floodway
Breakdown by North and South of Highway 82
(Using 2005 Assumptions)

Type of Development	North	South	Total
Residential Units	99 - 143	26	**125 - 169**
Commercial/Industrial Square Footage	105,958	140,462	**246,420**

Source of data: Town of Basalt Planning Staff

Table 2.7.4 shows the future commercial/industrial square footage located within the floodway and the percentage of the total commercial/industrial square footage for the In-Town area and the UGB. In addition, Table 2.7.4 shows the number of future dwelling units from the build-out analysis located within the floodway and the percentage of the total future dwelling units by area. The future commercial/industrial square footage located within the floodway is approximately 246,420 square feet, which represents approximately 15% of total future commercial and industrial square footage. While this is not an insignificant number, it is relatively small when you consider the cost of the river stabilization improvements necessary to recoup this square footage. Similarly, there are only 125 to 169 of the future dwelling units located within the floodway. This is only 7 – 9.5% of the total future units based on the updated build-out analysis.

Table 2.7.5 provides a breakdown of the impact of the floodway on the future development potential for the north and south sides of Highway 82. The vast majority of the affected residential dwelling units are located on the north side of the Highway. This is due to the fact that there are significant areas designated for high-density and medium-density residential use on both sides of the river on the 1999 Future Land Use Map. A majority of the affected commercial and industrial square footage is located on the south side of Highway 82 and most of that square footage is designated for light industrial use on the 1999 Future Land Use Map. Nearly all of the future commercial square footage on the north side of Highway 82 is designated for mixed-use commercial/residential use.

2.8 PARKS/RECREATION/OPEN SPACE

BACKGROUND

The inventory of park, recreation and open space facilities, which was included in the *1999 Basalt Master Plan*, has been updated for current conditions. Table 2.8.1 is a revised list of parks in the Town and the immediate surrounding unincorporated areas. The table also includes a summary of parks and recreation facilities that have been developed in each park. The existing parks are also identified on the Parks and Trails Maps (Figures 11a, 11b, 11c, 11d, and 11e). The number on the map corresponds to the number on Table 2.8.1 below.

TABLE 2.8.1
PARKS IN BASALT AND SURROUNDING AREA

MAP #	NAME	ACRES	EXISTING & PROPOSED USES
Town-Owned Parks and Open Space (Non-Riverfront)			
1	Arbaney Park	6	Pool, Active Recreation, Picnic, Gazebo, Kilns
2	Basalt Highlands Open Space	25	Open Space, Trail
3	Cliff's Hillside Park	0.5	Playground Area
4	Lions Park/Town Hall	3	Library, Caboose, Picnic
5	Skate Park	0.3	Skateboard Facilities
6	Sopris Meadows Recreation Park	12.9	Soccer field and Lake
7	Sopris Meadows Linear Park	6.9	Playgrounds and Landscaped Park
8	Southside Park	1.6	Soccer Field 12U
9	Swinging Bridge Park	0.1	Landscaped Park
10	Triangle Park	0.3	Landscaped Park
11	Wilds Dedication	3.6	Open Space, Trail
12	Wildwood Park	1.3	Playground and Picnic
13	Lucksinger Park	1.3	Trail to Homestead Dr.
	Total	**62.8**	
Riverfront Town-Owned Parks and Open Space			
14	Confluence	1.21	Nature, Fishing
15	Gillman Park	0.25	Boat Ramp, Fishing Access, Picnic
16	Midland Addition Riverfront Park	3	Unimproved Future Family Park
17	Midland Avenue Bridge Plaza	0.12	Public Plaza and Kayak Access
18	Old Pond Park	4.14	Nature, Parks, Trails, Picnic
19	Parcel "A"	0.26	Unimproved Nature
20	River Preserve	10.5	Unimproved Nature, Trail, Picnic
21	Sopris Meadows River Park	3.97	Unimproved Nature, Fishing Access
	Total	**23.45**	
Other-Committed Parks, Open Space Areas			
22	Riverwalk Easement	0.4	River Front Park and Nature Trail
23	Willits Town Center Pocket Parks	0.08	Pocket Parks
24	Swinging Bridge Easement	0.04	Frying Pan River Crossing
25	Ute Center River Easement	0.78	Fishing Access, Nature Trail, Pocket Park
26	Valley Pines Park (Privately Owned)	0.54	Public Tennis Courts, Cabana, Picnic
27	Residences at Roaring Fork Easement & Dedication	1.12	Future Plaza, Riverfront access
28	Foreign Accents	0.02	Future Pocket Park
29	Southside IV Dedication	0.06	Unimproved Open Sapce
30	PerformingArts/Park	0.74	Future Performing Arts Facility, Park
	Total	**3.78**	
Other-Intergovernmental in Three Mile Planning Area			
31	Middle School Courts	0.25	Tennis & Basketball Courts
32	Crown Mountain Park Owned by Eagle County (formerly known as Mt. Sopris Tree Farm)	128	Soccer & Baseball Fileds, Playground, Tennis Courts, Trail, Open Space
33	Lake Christine at Basalt State Wildlife Area	12	Fishing, Picnic, Nature
34	Fisherman's Park Owned by Pitkin County	5.67	River Access, Fishing
35	Basale Community Track	0.96	Running, Walking, Jogging
	Total	**146.88**	
Total Basalt Area Parks Acreage		**236.91**	

Source: Basalt Town Staff

The 2005 Community Profile Survey indicates that 46.8% of registered voters rated parks as being very important to their quality of life, while 36.1% of registered voters rated the quality of the current parks as being high. In the follow-up 2005 small-town character survey, open space and parks are identified as important to residents when defining small-town character. Of those that felt open space and parks are important, 46% believe creating more open space and 26% believe creating additional parks is a way to preserve small-town character.

The most important improvements to the Town's park inventory were an outgrowth of the planning and engineering activities for the Roaring Fork River to promote the River as a key park area and to construct improvements to provide better flood mitigation. The planning tools have been the *1999 Basalt Master Plan* and the *2002 Roaring Fork River Stewardship Master Plan (River Stewardship Plan).* The *1999 Basalt Master Plan* identified the areas adjacent to the Roaring Fork River as riverfront park. Additional sub-area planning activities for the river areas were part of the recommendations of the *1999 Basalt Master Plan.* The Town then undertook the *River Stewardship Plan* which also identified the areas next to the Roaring Fork River as riverfront parks and to provide areas needed to carry floodwaters. Both of these planning documents provide the Town with guidance on the future of the riverfront areas.

The Town entered into an agreement and purchased a portion of the property formerly referred to as the Levinson property and part of what is now known as Old Pond Park in 2000. On November 6, 2001, the citizens of the Town of Basalt approved a ballot question authorizing the issuance of general obligation bonds of the Town (Open Space Bonds) for the purposes of acquiring and protecting land. The lands are to be used for open space and river front parks; to ensure water quality; to preserve wildlife habitat; to provide flood control; and to implement the Town's *2002 River Stewardship Plan.*

The ballot language stated that the portions of these properties with river frontage and the areas needed for floodwater safety would be developed as parkland by the Town and the remainder of the property could be resold for development with proceeds to replenish the Open Space Bond Fund. This was included to assist the Town in meeting multiple goals of the *1999 Basalt Master Plan* and the *2002 River Stewardship Plan* with regards to parks and future land use.

With the Open Space Bond Funds (and in some cases with additional Town funds or tax credits to the property owners), the Town purchased additional acreage. The portions of these properties that will remain parks are listed in Table 2.8.1 as Old Pond Park, Confluence Park, Parcel "A" Storey, and Midland Addition, respectively. These properties are shown on Figures 11a and 11b.

Other properties added to the riverfront park inventory since 1999 include Gillman Park (obtained by a dedication from Mid Valley Metro District), and Lot H of the Basalt Riverfront Park (gifted to the Town for a tax credit). In addition, the Town acquired significant river and adjacent riparian areas when it took over the Two Rivers Road right-of-way from CDOT. The Two Rivers Road right-of-way property line extends to the center-line of the Roaring Fork River and increased the amount of Town-owned riparian areas.

RECREATION PROGRAMS

The Basalt Recreation Program has undergone some major changes since 1999 including new programs. The Basalt Recreation Department believes that "teaching kids today…sports for a lifetime" is a focus to build upon. The current goals of the Recreation Department are maintaining quality in the programs being offered, creating more programs, increasing the use of the internet for education and awareness of programs in the community, being more active in programs at the Basalt Pool, and hosting more recreation-based special events.

The Basalt Recreation Department provides recreation programs for youth, coordinates recreation for adults and provides information on recreation in the Roaring Fork Valley. Recreation programs such as basketball, volleyball, cross-country skiing, bowling, archery, downhill skiing and hiking are offered through the Basalt Recreation Department. Additional programs such as soccer, little league, art classes, kayaking and water aerobics are offered through other recreation programs with the Basalt Recreation Department assisting in coordination. The Department uses and coordinates facilities and programs with the Crown Mountain Recreation District, RE-1 School District, Colorado Mountain College and some private facilities to meet the needs of the Town and mid-valley residents. The Crown Mountain Recreation District is a special taxing district which was formed in 2002. The District is currently constructing new recreation facilities at Crown Mountain Park in El Jebel.

The 2005 Community Profile Survey, conducted by the Northwest Colorado Council of Governments (NWCCOG), asked survey respondents questions about recreation. 42.2% of the registered voters who responded stated that recreational opportunities were very important to them and 39.1% gave the recreation department a rating of high to very high.

As the recreation needs of Basalt resident's change, so have the Basalt Recreation Department's programs. Currently, the program focuses on providing recreational programs for school-age children. The programs currently being offered are basketball, volleyball, soccer, t-ball, baseball, softball, cross-country skiing, bowling, open gym basketball, archery, art classes, drama camp, film camp, babysitter training, downhill skiing and hiking. The Recreation Department also coordinates sports camps as a way for area children to improve their skills in specific sports. These camps include basketball, baseball, soccer, volleyball and softball. The camps often run in the summer season.

The Recreation Department has many funding partners helping to provide programs to Basalt youth including Aspen Elks Lodge, Mid Valley Metro District, The Thrift Shop, and the Colorado 500. One of the goals of the Recreation Department is to maintain existing partnerships and create relationships with others including RE-1 School District, Little League, citizens, Inter-departments, and the Crown Mountain Parks and Recreation District.

ISSUES AND OPPORTUNITIES

Issues and Concerns

- Land purchases are becoming increasingly expensive.
- Recreation goals often conflict with other community and agency goals. For example, CDOW's goal of protecting wildlife conflicts with the community's goal of accessing recreational opportunities on public land.
- While the Crown Mountain Park will take care of many short and long term recreation needs, the planning, development and funding are not under the Town's direct control.
- While the RE-1 School District does provide some of the needed ball fields, tennis courts, and other recreation facilities the timing, design, and construction of these is under the purview of the School District. The Town has an agreement with the School District for the mutual use of facilities but the issue of use and timing of the installation of these facilities is not controlled by the Town. For example, in the summer of 2006 the School District closed all of its facilities and they were not available for recreational use over the summer months. This was one of the factors that lead Town Staff to conclude that Basalt should not rely on other jurisdictions to supply recreational facilities for its residents.
- Existing ball field areas could be lost to future development, such as the soccer field in Blue Lake, which is located on land owned by the School District and potentially a site for a future elementary school. Similarly, the Floyd Crawford Ball Field appears safe from development at present but it is not in public ownership and there is no formal commitment to keep it for recreational use.
- Coordination of planning, improved communication, and proactive efforts toward joint venture capital projects are needed between the Town and public land management agencies including the Forest Service, BLM, and CDOW in order to address increasingly complex and inter-related issues and concerns.
- Developers often seek to satisfy park and open space requirements with small pocket parks or other limited use areas that provide aesthetic value for their development rather than meet Town-wide recreational needs. Frequently, developers attempt to utilize these same areas for storm water detention further limiting their value for park or recreational use. These small parcels can be costly for the Town to maintain.
- Recreational facilities that serve Town-wide recreation demand are needed. These include facilities for volleyball, basketball, tennis, team-oriented field sports, Nordic skiing, and ice skating, among others.

Opportunities

- Several properties along the Roaring Fork and Fryingpan Rivers are either in the development review process or plans for development or redevelopment are being prepared for them. This

provides the Town the opportunity to discuss the dedication of riverfront land as part of the development review process.

- Crown Mountain Park presents an immense opportunity for satisfying not only some of the recreational needs of the mid-valley, but also the preservation of vistas, open space, wildlife habitat, and other conservation values.
- There are a number of organizations and local groups that the Town can partner with to help satisfy the park and recreation needs of area residents, including the Roaring Fork Conservancy, the School District, the Forest Service, CDOW, BLM, and the Pitkin County Open Space and Trails Board.

2.9 TRAILS, SIDEWALKS AND PATHWAYS

BACKGROUND

There are several entities focused on developing and maintaining trails in the Basalt and mid-valley area. The Town of Basalt works within the Town boundaries to create an integrated and safe pedestrian system using trails and sidewalks. Within the Three Mile Planning Area, the Mid Valley Trails Committee, Crown Mountain Recreation District, Pitkin County Open Space and Trails Board and the Roaring Fork Transportation Authority (RFTA) use dedicated sales tax monies to develop and maintain trails in this portion of the Roaring Fork Valley. The Mid Valley Trails Committee is a subgroup of Eagle County whose focus is directed towards trails advocacy and construction in the Eagle County portion of the Roaring Fork Valley. The Crown Mountain Recreation District was formed in 2002 and has the authority to build and maintain trails within the District. The Crown Mountain Recreation District uses almost the same boundaries as the Basalt Regional Library District and the Basalt and Rural Fire District. Pitkin County Open Space and Trails is a branch of Pitkin County government focused on trail construction and maintenance of trails throughout Pitkin County. RFTA owns the Rio Grande Railroad Corridor and is committed to building a trail from Glenwood Springs to Aspen along the historic rail right-of-way.

The 2005 Community Profile Survey results show that 82.8% of Basalt registered voters believe trails are important to this community, while only 45.9% gave the existing trail system a rating of good or very good. When the Town completed a follow-up survey on small-town character in 2005, 43% of the respondents, who feel transportation is important to preserving small-town character, believe that creating a pedestrian-friendly community is an important way to preserve small-town character. Similarly, 13% of those respondents feel that bike paths are an important part of preserving small-town character.

EXISTING TRAIL PLANS

Below is a summary of some of the more significant trail planning activities in the mid-valley that were incorporated into the Town's trail planning efforts.

- ***Basalt Three Mile Plan (1996):*** This document includes a Trails Plan Map and general trail policies relating to the Trails Plan goal;
- ***Eagle County Trails Plan (2001):*** The 2001 Plan focuses primarily on trails in the Eagle River and Gore Creek Valleys. The general trail alignments and implementation priorities included in this Eagle County plan are, for the most part, still valid for the Three Mile Planning Area;
- ***Crown Mountain Amended Planned Unit Development (PUD) Approval:*** This Planned Unit Development Amendment is the extension of the 1998 Mount Sopris Tree Farm Community Plan. The PUD Amendment outlines the active, passive and recreational trails that are included as part of the property. In 2002, the Crown Mountain Recreation District was formed to manage recreation on the Tree Farm and in the Eagle County portion of the Roaring Fork Valley. Their authority also includes building and maintaining trails within the district.
- ***Roaring Fork Transportation Authority (RFTA) Comprehensive Plan for the Rio Grande Railroad Corridor:*** RFRHA finalized and adopted the Comprehensive Plan for the Rio Grande Railroad Corridor in December, 1999. On June 25, 2001, the RFTA Board assumed all the rights and liabilities of RFRHA, including the Comprehensive Plan for the Rail Corridor. In June 2006, the RFTA Board adopted an updated Comprehensive Plan for the Rail Corridor. As of June 1, 2007, RFTA has completed paving of the trail on the Corridor from Emma up-valley to Carbondale. In 2007, the trail will be completed from 23rd Street in Glenwood Springs up-valley to Country Road 154 (CMC Spring Valley Turnoff). Contingent upon funding, the remaining portion of the trail between County Road 154 and Carbondale is scheduled for completion in 2009. To allow RFTA to meet its goal of trail completion by 2010, sections of the trail can be built on the rail bed when there are geographical constraints, such as pinch points and wetlands that would increase the cost of constructing the trail off of the rail bed by at least 30%. RFTA has salvaged the rail and ties from Woody Creek to Glenwood Springs to assist in financing the trail since the rails in existence were not heavy enough to support high speed commuter rail. The RFTA Rio Grande Trail Plan provides, as a long term vision, that the trail will be completed within the rail corridor, but allow for simultaneous use by a future mass transit system.
- ***Mid Valley Trails Committee Master Plan:*** The Mid Valley Trails Committee (MVTC) has prepared a master plan to outline future trail projects in the Eagle County portion of the Roaring Fork Valley. This plan was completed and has been approved by Eagle County.

TRAILS MAP

Figures 11d and 11e depict the major existing and proposed trails, pathways, and sidewalk connections in the Three Mile Planning Area. Trails shown include urban-scale sidewalks, bike paths, and some of the rural trail connections to public lands such as BLM. Trails that are currently under study, including some key connections to Basalt Mountain, are also identified. The map also shows schools, parks and public land areas to indicate some of the major activity areas that need to be served by trails. RFTA stops and public restrooms are also identified.

EXISTING TRAILS AND CONNECTIONS

Regional Trails

Regional trails that provide connections from Basalt to the rest of the region, and trails that provide connections between East and West Basalt are shown on Figures 11a-e. These trails include:

A. The Basalt/Old Snowmass Trail;
B. The Rio Grande Trail;
C. The Emma Trail; and
D. The Willits Lane Trail.

Note: the letters above correspond to the letters shown for trails included on the Trails maps.

One of the best-known trails is the Basalt/Old Snowmass Trail, an asphalt trail that provides trail access from Old Snowmass to Basalt. The Basalt/Old Snowmass Trail was constructed through the efforts of the Pitkin County Open Space and Trails Board and is very popular.

The major portion of the Willits Lane Trail is completed. The Town will be completing the Willits Lane Master Plan to determine its ultimate cross-section including the optimum location of the trail and any sidewalk connections.

The Rio Grande Trail is built from Woody Creek to Carbondale and will eventually connect to Glenwood Springs along the Rio Grande Railroad right-of-way. The Mid Valley Trails Committee built a connector trail along Hooks Lane to connect the Willits Lane Trail to the Rio Grande Trail with parking on Hooks Spur Lane. As part of the project, a restroom will be built at the parking area. A portion of the trail between Hooks Lane and the Catherine Store Bridge is subject to seasonal closures to protect wildlife.

The Emma Trail begins near the post office and goes to the Emma area without crossing the Roaring Fork River. At the time this master plan was being prepared the Town was making major improvements to the Emma Trail with a trail extension and installation of a pedestrian and bicycle bridge over the Roaring Fork River linking with the Willits Trail in the vicinity of the Willits Lane and Highway 82 intersection. This is a very important trail segment because it will complete the trail connection between East and West Basalt, providing a safe and convenient off-road bicycle and pedestrian route.

Three existing underpasses in the West Basalt area provide access to and from both sides of Highway 82. The underpasses (Emma, East Willits, and El Jebel) provide key connections to future trail loops including the Willits Lane Trail, the Emma Trail, and the proposed Two Rivers Road Trail. In East Basalt there is also an underpass (primarily for golf carts) connecting the north and south sides of the Roaring Fork Club. Near the east end of the Roaring Fork Club is a pedestrian and bicycle bridge over Highway 82 for the Rio Grande Trail.

Planning for trails in the Fryingpan Valley is difficult due to topographical and property ownership constraints. The "Old Coach Road" is being studied for trail feasibility by the Mid Valley Trails Committee.

Other Trail Connections

Other significant trail segments provide important connections within the Town or within the unincorporated areas of the Three Mile Planning Area. The Swinging Bridge Trail was identified in the 1998 Community Profile Survey as one of the most popular and widely used trails. In 2000, the cable suspension bridge was rebuilt after being damaged when a tree collapsed on it. This unique combination of easements, cable suspension bridge, public open space, and Town right-of-way connects downtown to the elementary and middle school campuses and many residential neighborhoods. Other important, existing trail segments include the following trails which are shown on Figures 11d and 11e using the lettering below:

E. Arbaney Park and the Town Pool connections
F. The Berm Trail – connects Arbaney Park to the Old Snowmass Trail
G. "Gas Line Trail" and the Wilds Trails
H. Homestead Drive sidewalks
I. Midland Avenue to Hill District Connections
J. Ponderosa Pine River Trail (previously called the River Preserve Trail)
K. Connection between Willits Trail and East Valley Road
L. Southside/High School Trail
M. Old Orchard/Movie Land Trail
N. Blue Lake Open Space Trails
O. J.W. Drive Trail
P. Roaring Fork Club Nordic Trail System (winter only)
Q. Riverwalk/Swinging Bridge Trails
R. Old Pond Park to Lake Christine via Spring Creek Bridge
S. Crown Mountain Park Trail System
T. Valley Pines Internal Trail System
U. Pine Ridge Open Space Trail
V. Arbaney-Kittle Trail
W. Basalt Highlands Open Space Trail System
X. Ute Center River Trail
Y. Gillman Trail
Z. East Valley Road Trail

Several other key trail segments, while not existing at this time, are committed for construction in accordance with recent development approvals or Town Plans. Some of these trails include:

- Additional trail links within the Sopris Meadows Development;
- Additional sidewalks between the Basalt Avenue roundabout, the post office, and proposed library;
- Mid Valley Wellness Internal Trail system; and the
- Ponderosa Pine River Trail (previously called the River Preserve Trail) located east of the Basalt Avenue roundabout and south of the Roaring Fork River.

ISSUES AND OPPORTUNITIES

Issues and Concerns

- Trail and sidewalk construction will require significant funds in terms of planning, engineering, and construction. Some trails require expensive construction such as retaining walls and cribbing.
- There are more trails, pathways, and sidewalks needed than there are available resources.
- There are often legal issues associated with trail construction (e.g. acquisition of easements, obtaining rights to build a trail over a ditch easement, etc.). Resolving these issues can require staff and attorney time, leading to significant expenditure of funds.
- The goal of providing a pleasant and safe pedestrian/bicycle experience can conflict with other goals, such as protecting riparian habitat or slowing vehicle travel.
- The trail system crosses jurisdictional lines. This creates problems in terms of purchase/ownership, construction cost, maintenance, management and other factors associated with construction, maintenance and operation of a trail system.
- Informal trails often have contested or no legal easement or right-of-way and are vulnerable when properties redevelop or to other pressures to restrict historic access.

Opportunities

- The survey responses advocating bicycle paths and pathways indicate that there is significant community support for these improvements.
- The Mid Valley Trails Committee is a group that can be used to focus attention on needed trails.
- Crown Mountain Park will continually develop as a key destination and hub for future trail development. Future development proposals between the Rio Grande Railroad Right-of-Way and the Crown Mountain Park need to be examined to see if trail connections can be made between the Crown Mountain Park and the Rio Grande Trail.

- Several properties located along the Roaring Fork and Fryingpan Rivers are candidates for development or redevelopment and the Town could obtain significant improvements in the trail systems as part of the development of these properties.

2.10 WATER AND SEWER

INTRODUCTION

Monitoring the capacity of the water supply and wastewater treatment systems is an important function of the Master Plan. When the *1999 Basalt Master Plan* was being prepared there were a number of critical issues related to these systems including the need for a significant expansion to the Basalt Sanitation District's wastewater treatment plant. Since 1999, the Town of Basalt increased water supply with two new wells and the construction of a filtration plant to treat water from Basalt Springs. The Basalt Sanitation District doubled their capacity with an expansion project and Mid Valley Metro District built a new wastewater treatment facility.

TOWN OF BASALT WATER

The Town's water system provides service to the area within East Basalt while Mid Valley Metro District meets the demand for water and sewer in West Basalt. The Town of Basalt water supply boundary is generally the same as the East Basalt town boundary with the exception of a few out-of-town taps that continue to be served. While Phase I of the Roaring Fork Club is included within the water supply boundary, it is currently not served by Town water. At the time the *1999 Basalt Master Plan* was prepared, the water sources for this system were the Lucksinger and Basalt Springs, along with wells located at the Basalt Elementary and Middle School campuses. Since that time, the Town of Basalt has drilled two new wells. One is located on Midland Spur near the Basalt Library and the other is located on the Town's Public Works Facility site on Fiou Lane. Lucksinger Spring is not currently used by the Town of Basalt during the peak demand months of summer.

In the summer of 2006 the Town's Public Works staff, working with the Town's engineering consultant, Schmueser Gordon Meyer, analyzed the status of the existing water infrastructure for East Basalt where the Town provides water service. This analysis examined four development scenarios which were based on applications under review, being submitted or anticipated at the time this analysis was prepared. The first three scenarios are the same as those used in the transportation analysis described earlier (page 39 in Section 2.4) with the fourth being a new scenario. The fourth scenario was developed in anticipation of the Town potentially becoming responsible for providing water service to Phase I of the Roaring Fork Club (RFC) sometime in the future. It adds the RFC Phase I water demand to the Scenario 3 water demands. This scenario applies only to the water analysis.

The study evaluated four components of the Town's water infrastructure; water source, water storage, water distribution, and water rights. The findings of this analysis are incorporated in the following paragraphs.

Water Source - The Town has a reliable water supply capacity of 1.61 million gallons per day (MGD) and a backup capacity of 0.72 MGD giving the Town a total capacity of 2.33 MGD. Reliable water supply capacity is defined as the amount of water that can be produced with the largest individual source out of service. The maximum daily use of the water system in 2005 was 1.04 MGD and Town data shows that the maximum daily use is approximately double the average daily use. On an average day, the Town's water users are using approximately 0.52 MGD. The maximum daily use typically occurs in the summer months when irrigation demand is the highest.

Table 2.10.1 shows that 2,300 EQRs can be reliably supplied with the Town's current system. An EQR is a measure of the water typically used by a single-family residence. For the purposes of this water supply planning, it is based on an average of 3.5 persons per residence and a peak-day water use of 200 gallons per person per day. Commercial and institutional water use is also expressed in EQRs where 1 EQR is equivalent to a peak-day use of 700 gallons per day. Currently, the Town estimates that 2,064 users are served by the municipal water system. The water use on the maximum day in 2005 represented about 65% of our reliable system capacity. It appears that more than half of this use is by commercial, industrial and institutional users. The Town is currently conducting additional analysis to understand, in more detail, the breakout of user types and the different demands each of those place on the system.

TABLE 2.10.1
2005 Basalt Domestic Water Production Capacity

Source	Production MGD (million gallons per day)	Potential EQRs that Can Be Served (Peak)
Basalt Springs	0.50	714
Well #9	0.72	1,029
Well #11	0.36	514
Well #13	0.57	814
School Well	0.18	257
Total	**2.33**	**3,328**
Total Reliable Capacity	**1.61**	**2,300**

Source: Town of Basalt Staff and Schmueser Gordon Meyer Engineering Consultants.

The adequacy of the Town's sources of raw water continues to be driven by the per-capita peak day demand for the Town, currently estimated at 200 gpc/d (gallons per capita per day). This is a reduction from the 500 gpc/d estimate contained in the *1999 Basalt Master Plan*. Some of this reduction is believed to be due to the implementation of a water conservation program in the Town. The program includes limitations on when residents may use treated water for irrigation purposes and prohibitions on the washing of pavement surfaces and vehicles on the property.

The Town has also increased water rates to discourage wasteful use of water and requires new subdivision developments to construct and use separate raw water irrigation systems (e.g.

Southside PUD). The Town also requires new developments and remodels to install low-flow toilets and water saving shower heads. However, it is also believed that the 500gpc/d number used in 1999 included commercial and industrial water demand, which caused the number to be higher. Further analysis should be done to determine the source of the difference between the 1999 and 2005 water demand estimates. One possible action would be to establish a method, perhaps through the Town's water billing procedure, by which residential water use could be tracked independently of commercial and industrial use. This would provide the Town with better data for analyzing the domestic water capacity needs associated with future residential growth.

Future development will create more demand on the water system and needs to be factored into any future water system planning. This master plan analyzes future land use and development scenarios and this information was used to analyze the increased demand on the water system. Given the annual growth rate the Town has been experiencing and assuming no changes in the consumption behavior of area residents, the capacity of the current reliable raw water supply will be exceeded sometime around the year 2014. However, assumptions can change on a yearly basis due to user behavior, drought conditions, well production and capacity, and water rate structure. Continued annual review of the water system is recommended. Planning for additional water supply capacity needs to begin three to five years in advance of the expected need for the water.

The water infrastructure analysis conducted in the summer of 2006 showed that the Town's water sources are generally sufficient to serve existing development as well as that which is anticipated through Scenarios 1 and 2. For development under Scenario 3 and beyond, an additional water source or sources will likely be necessary. It is expected to take three to five years to bring a new water source on line, so advance planning is needed if development is anticipated to proceed to this level. It is recommended that a preferred site for the new source (presuming it may be another well) be determined and preserved so it will be protected until needed.

Water Storage - Water storage is as important to the Town as water production. The current system includes a total of 1.26 million gallons (MG) of storage located at two tank fields, one on Piñon Drive (north of Town) storing 0.26 million gallons and one holding 1.0 million gallons near "B" Mountain just east of Elk Run. Additional water storage is recommended to satisfactorily serve the Town's existing customers, and it will be essential for meeting the needs of new development anticipated under any of the development scenarios discussed previously.

Planning and permitting has begun for a new one million gallon storage tank on the south side of Basalt, the same size as the existing tank north of the cemetery. It is recommended that the Town diligently proceed with site selection, permitting and financial planning for this new tank, and that a portion of its cost be the responsibility of new development which will benefit from it. Two potential sites have been identified behind the High School. One site is on BLM Land and the other is on private land. Both locations would require an access road crossing private land. At the time of this update, the Town was seeking permits for its preferred site on the BLM property.

Water Distribution - The Town's water distribution system links the water sources and storage to water system customers. The system is generally designed as a looped system to provide reliable

service and to ensure the capability to deliver the required volume of water at periods of peak demand, including fire flows. A recent analysis of the water distribution system by Schmueser Gordon Meyer indicated that with the addition of a new water storage tank on the south side of Town, the distribution system is generally capable of meeting projected peak flow requirements. A few deficiencies were noted and recommended for upgrading. It was recommended that continued looping of the water system be implemented in areas where the distribution system is expanded to serve new development.

Water Rights - The Town owns decreed water rights and has an approved augmentation plan that allows the Town to divert up to 1,234 gpm (1.78 MGD), but not more than 650 acre-feet per year from its four existing developed wells, which include the RE-1 School District Well and Basalt Municipal Well Nos. 9, 11 and 13. The Town's Basalt Springs and Pipeline water rights allow the diversion of up to 3,546 gpm (5.1 MGD), although these springs only produce approximately 250 gpm (0.36 MGD). In addition, the Town owns a water right from Lucksinger Spring that is decreed for a diversion of 1,346 gpm (1.9 MGD), although this water right is not always physically or legally available during the irrigation season due to higher priority diversions by the CDOW and other downstream users.

The Town's water diversion rights associated with its four existing wells, Basalt Springs, and Lucksinger Springs are believed to be sufficient to support the growth anticipated in the East Basalt area during the next 9 years. However, the Town should continue to implement its policy of acquiring the water rights associated with property annexed into the Town to assure the ongoing ability to provide legally sufficient sources of water to its customers. The Town should also begin the process of amending its augmentation plan to provide water for future growth.

BASALT SANITATION DISTRICT

The Basalt Sanitation District is a Special District formed to provide sewer service to residents of East Basalt and other areas and is a separate entity from the Town government. The Basalt Sanitation District's service area covers approximately 942 acres including all of the Town's water service area, Lazy Glen, and other minor developments.

The Basalt Sanitation District operates a sewage treatment system with a current capacity of 800,000 gallons per day (Table 2.10.2). A major expansion in 2000 doubled the District's capacity and the District does not plan to expand its facilities in the near future.

TABLE 2.10.2
2004 Sanitation District Plant Capacities

Parameters	Basalt Sanitation District	Mid Valley Metro District
Capacity (gpd)	800,000	500,000
Average Use (gpd)	372,000	330,000
Percentage of Capacity Based on Average	46.5%	66.0%
Peak Observed (gpd)	418,000	445,000
Percentage of Capacity Based on Peak	52.3%	89%

Source: Basalt Sanitation District and Mid Valley Metro District

MID VALLEY METRO DISTRICT WATER AND SEWER SYSTEMS

The Mid Valley Metro District (MVMD) is a Special District created with the authority for providing water, sewer and recreation programs within portions of the mid-valley area. The District boundaries extend from Garfield County to just north of the Pitkin County line and contain approximately 2,000 acres. The Mid Valley Metro District provides water and sewer services to the area within West Basalt.

It is important to note that the El Jebel area containing the mobile home park and much of the commercial activity is outside of the MVMD's boundaries and is served by a private water and sewer system operated by the Crawford family.

Water System

The Mid Valley Metro District's water system is served by five existing wells and supporting storage capacity in three locations in the El Jebel area. The wells have a combined capacity of 1,355 gallons per minute. The District currently serves approximately 1,515 EQRs and maintains approximately 1,310,000 gallons of storage capacity. The District has also implemented aggressive policies regarding new development and the use of raw water irrigation systems for irrigation to reduce the demand on the District's treated water supply. Newer development, such as Willits, Valley Pines, Dakota and Cerise Ranch, have constructed separate raw water irrigation systems that are currently operational.

For its planning the Mid Valley Metro District use a different EQR standard than is used for the Town of Basalt water system. The Metro District defines an EQR as the equivalent of one residential unit demanding an average of approximately 350 gallons of water per day. With the

District's wells providing 1,355 gallon per minute capacity, approximately 2,229 EQRs can be supplied based on this EQR standard.

Wastewater Treatment System

In October 2003, the District successfully completed its Wastewater Treatment Facility (WWTF) Expansion. The previous plant consisted of a 0.325 million gallons per day aerated lagoon facility. The newly expanded facility consists of a 0.5 million gallons per day activated sludge mechanical facility, with the capability for a future expansion to 1.0 million gallon per day capacity. Since the new facility's start-up, the WWTF has been very successful in discharging a high quality effluent to the Roaring Fork River, ensuring that water quality standards are adhered to both now and in the future.

Currently, the facility is discharging at about 0.33 million gallons per day, or about 72% of capacity. The District has already started planning for the expansion and will have it completed before the District reaches 95% of capacity.

The District is currently undertaking an analysis of its future water and sewer infrastructure needs which should be completed in the summer of 2007. As part of this study the District is analyzing the need for additional water storage for fire fighting, the need for additional sanitary sewer lift stations, and the need for increased capacity for the wastewater treatment facility."

COMBINED SYSTEM CAPACITY SUMMARY

Table 2.10.3 provides a summary of the current status of the water and sewer system facilities that serve the Town of Basalt and nearby areas. This table shows there is currently excess capacity in both the water supply and sewage treatment system facilities. However, when compared with the projections shown in the Build-Out Section of this document, the excess capacity is clearly not adequate to handle all of the potential growth that could occur within the Three Mile Planning Area. In fact, even the currently-approved residential units would present a challenge for some aspects of the system.

TABLE 2.10.3
Combined System Capacity (EQRs)

Parameters	Town of Basalt Water	Basalt Sanitation District Sewer	Mid Valley Metro District Water	Mid Valley Metro District Sewer
System Capacity (EQRs)	2,300	2,666	2,229	2,083
EQRs Served	1,485	1,471	1,515	1,724
EQRs Currently Available	815	1,195	714	395
Future EQRs Committed	364 (staff est.)	364 (staff est.)	122	122
Combined EQRs Served & Committed	1,849	1,835	1,637	1,846
Excess or Deficit Capacity (EQRs)	451	831	592	237
Expansion Plans	0	0	0	*

Source: Town of Basalt Staff, Basalt Sanitation District and Mid Valley Metro District
Note: EQRs are a unit of service equivalent to the use by one single-family residence
* Mid Valley Metro District plans to begin expansion of WWTF when flows to plant reach 400,000 gpd which is 80% of plant capacity

ISSUES AND OPPORTUNITIES

Issues and Concerns

- The current rate of growth is resulting in continued demand for system improvements. The most immediate need is for a new one million gallon water storage tank to serve existing users and, in particular, anticipated growth on the south side of East Basalt. Anew source of water (a well, increased development of springs, or surface water diversion) will be needed in the latter stages of East Basalt development anticipated within this master plan's UGB. The development of a new water source, including amending the Town's augmentation plan, will take three to five years so planning needs to begin well in advance of the need for the water.
- Increasing reliance on well water for the Town's water system may lower the quality of drinking water that the Town has historically enjoyed.
- More than 400 dwelling units within the Three Mile Planning Area are currently served by individual sewage disposal systems (ISDS). Key areas of concentration for ISDS systems include Holland Hills, the Fryingpan River Valley, Missouri Heights, Emma, and Highway 82 between El Jebel and Catherine Store. Many of these systems have been in place for more than 20 years and are a concern as the systems begin to reach their generally accepted life

expectancy of 20 to 25 years. System failures are becoming more frequent and replacement costs and engineering feasibility questions are being raised.

- The Lazy Glen Subdivision is served by a private sewage treatment system although it is included in the Basalt Sanitation District's service area for taxation purposes. The system has, in the past, experienced a number of significant problems including flooding from the Roaring Fork River. Since then, the height of the dike surrounding the lagoon has been raised and other precautions taken. The current sewage treatment system is regulated and authorized by the Colorado Department of Public Health and Environment which requires a re-licensing process. The Basalt Sanitation District would be compelled by law to provide service to the Lazy Glen Subdivision if a line was constructed by others. This improvement, in addition to being extremely costly and for which no current funding is in place, could open the door to increased development in an area ill-suited to higher levels of density.

Opportunities

- New plant expansions can incorporate new technologies that will increase efficiency and improve water quality with cleaner discharges to local rivers.
- The Town's efforts to increase the use of raw water irrigation and other strategies for conservation can be expanded to help reduce the per-capita water consumption.
- New policies on replacement of failing septic systems, updated service area boundaries, and new or improved technologies such as STEPP systems and composting toilets could allow for the phasing out of old septic systems, helping to reduce water quality concerns.
- New development proposals for areas not currently served by water treatment providers offer the Town opportunities to make much-needed improvements.

SECTION 2.11 EMERGENCY SERVICES (Basalt & Rural Fire Protection District)

BACKGROUND

The Basalt & Rural Fire Protection District (BRFPD) provides fire and emergency medical service to an area encompassing approximately 500 square miles. The BRFPD boundaries extend eastward as far as Hagerman Pass encompassing Old Snowmass and Capitol Creek Road. The District's boundaries also encompass Missouri Heights to the north and the area along Sopris Creek Road at the base of Mount Sopris to the west. The Town of Basalt is included in this jurisdiction and accounts for a majority of the developed urban area.

The level of service provided by the BRFPD is determined by standards found in documents published by the National Fire Protection Association, Rand Corporation and the Insurance Services Organization (ISO). The standards stipulate that fire stations be located based on the response capabilities of the two main types of fire apparatus, fire engines and appropriately sized

ladder trucks. At this time, the areas contained within the Basalt UGB are adequately served by two station locations meeting the criteria of having a "first due engine company" within one and a half miles of their respective response area.

In 1995 and 2001, the District underwent master plan reviews involving outside consultants to evaluate future growth and its attendant impacts within its service area. In 1996, the voters of the District approved a bond issue that allowed the fire department to build a new headquarters station and to purchase four new fire engines. In 2002, the voters approved a mill levy increase to fund additional EMS services and to create a capital reserve fund to finance future purchases of fire apparatus.

ISSUES AND OPPORTUNITIES

Issues and Concerns

- ***Emergency Access and Aerial Apparatus:*** The Town of Basalt's projected growth will significantly increase demands for emergency services. The BRFPD will need to upgrade its fire and life/safety capabilities in order to provide responsible service in response to planned growth. Emergency access to buildings is a key component of the BRFPD's emergency response capability. Nationally recognized standards require an aerial ladder truck of appropriate size and capability to be located within two and a half miles of its respective response area. The current ladder truck is located at the Basalt Fire Station on School Street. This vehicle can respond to the vast majority of the buildings requiring aerial service within the District. However, there are buildings being constructed that, due to their height, setback, streetscapes, upper floor building step-backs, landscaping, or a combination of these features, will render the BRFPD's present aerial ladder truck ineffective for major fire incidents. In order to support the growth outlined in the *2007 Basalt Master Plan*, and the desire to maintain a pedestrian-friendly character, the BRFPD will require a larger aerial ladder truck. This vehicle will need to have a minimum ladder reach of 100 feet with specified engineering capabilities of strength and a tight turning radius. The BRFPD believes that new development should bear the majority of the financial burden for the acquisition of appropriate fire apparatus and other fire appliances to accommodate the emergency response shortcomings they create.

- ***Live/Work Development:*** The *2007 Basalt Master Plan* describes how the Town has seen a fair amount of mixed-use commercial development activity. Specifically, it has seen several light industrial projects that have incorporated live/work spaces. The *2007 Basalt Master Plan* encourages the development of affordable housing in close proximity to job generating uses. Mixed-use development poses a significant challenge for fire and building officials in determining compliance with the present fire code. The International Code Commission (ICC) that publishes the International Family of Codes referred to by the BRFPD have recognized this trend and is trying to meet the demand by adding a live/work section in the 2009 edition of the Codes. However, the national vision for live/work differs from the mixed industrial residential approach the Town is encouraging. The ICC proposal only allows for more benign uses such as artist's studios, coffee shops, and chiropractic offices with employees working

within a residence. The concept of mixed-use live/work developments that include industrial uses raises concerns regarding the potential for hazardous materials and pollutants that may be produced by the industrial use. It is the responsibility of building and fire officials to ensure that these potentially hazardous products are adequately contained, vented and exhausted so as to not pose a health threat and/or physical hazard to residents within and adjacent to mixed-use developments with industrial uses. In addition, procedures and equipment for hazardous material response will need to be planned for and provided to ensure adequate fire and life safety for these developments.

- ***Water Storage and Adequate flow for fire protection:*** Section 2.10 of this master plan indicates that additional water storage is recommended for both the Town of Basalt Water and Mid Valley Metro District to serve the Town's existing customers and to meet the needs of new development. This has been a matter of record for many years and has comments regarding this issue have been included in the referral comments of various development projects that have been processed in the Town and within the Mid Valley Metro District portion of Eagle County.

  The fire code, adopted by the Town of Basalt, relies on a table that determines the rate and duration of flow based on building size and construction type. Based on the adopted standards, the fire flow requirements have been calculated at approximately 960,000 gallons. There are areas in the Southside neighborhood of Basalt where the fire flow capacity is currently deficient. The Town is in the process of pursuing the necessary permits to add a million gallons of storage. This additional storage should address the fire flow deficiencies for the Southside Area. Currently, the Mid Valley Metro District appears to have the flow capability to serve the fire fighting needs of all premises within its service area. Mid Valley Metro District is currently completing an analysis of its storage capacity.

- ***Employee Housing:*** The BRFPD is staffed by 50 volunteers who are supported by paid staff. The BRFPD is committed to maintaining itself as a volunteer agency. The value that a volunteer agency provides to its constituents cannot be overemphasized. Currently, one of the main goals of the BRFPD is to obtain affordable housing to aid its efforts to recruit and retain the staff necessary to provide the fire fighting and other emergency response needs of a growing community.

Opportunities

- The effects of a disaster can be devastating to a community; not only by the terrible disruption to lives its people but by the economic hardships caused by significant tax revenue loss that can ultimately affect other essential services. Emergency services provide the front-line defense against such catastrophes. The BRFPD remains an equal partner in fire prevention, disaster mitigation, and unparalleled emergency medical services.

- New development provides the opportunity to bring nationally-recognized fire and life safety

building practices into the design of the community, which should not be overlooked. Citizens and visitors alike would benefit from a safer community afforded by adherence to modern codes and responsible growth.

- The Insurance Services Office (ISO) provides a guideline for municipalities to classify their fire defenses and physical conditions of existing buildings and infrastructure. Their Fire Suppression Rating Schedule (FSRS) is designed to assist in an objective review of those features of available public fire suppression that have a significant influence on minimizing damage once a fire has occurred. The grades obtained under this schedule are then used in establishing base rates for fire insurance costs incurred by individual homeowners and businesses within the Town of Basalt.

- Whenever a community considers its fire defense, it must scrutinize the past and present and make predictions or forecasts for the future. The imminent development of the Town of Basalt provides the opportunity to minimize rising insurance costs by making smart choices in planning for fire-safe building practices including necessary fire apparatus access and appliances. The cost of providing fire-fighting and other first response services for new development in a growing community should be paid for by the new development and should not create a burden on the businesses and citizens of the community.