Final Report

City of Rifle

Community Case Study

Final Report

May 1, 2008

City of Rifle

A Case Study of Community Renewal, Growth and Change in Northwest Colorado

Prepared for

City of Rifle
202 Railroad Avenue
Rifle, Colorado 81650

Prepared by

BBC Research & Consulting
3773 Cherry Creek N. Drive, Suite 850
Denver, Colorado 80209-3868
303.321.2547 fax 303.399.0448
www.bbcresearch.com
bbc@bbcresearch.com

BBC
Research &
Consulting

Table of Contents

EXECUTIVE SUMMARY

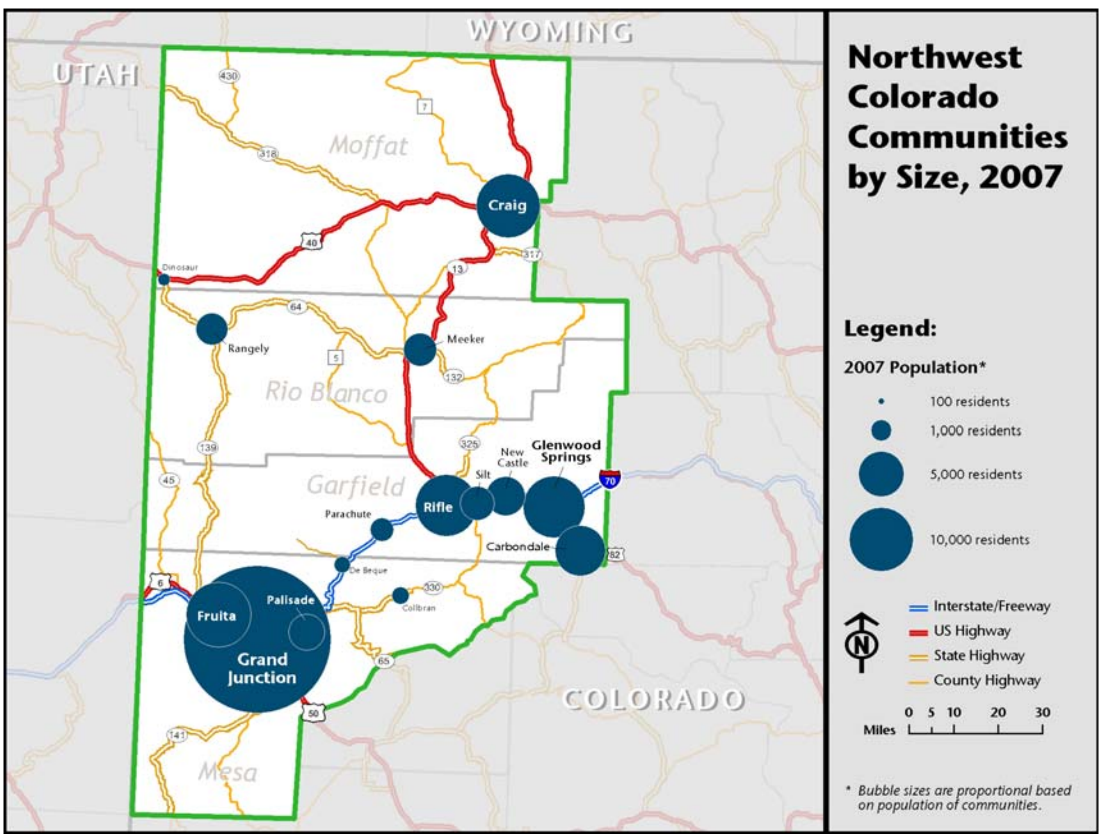
EXECUTIVE SUMMARY
Rifle: A Case Study of Community Change

The city of Rifle (City), a rapidly growing community of nearly 10,000 residents in Garfield County Colorado, sponsored an analysis of the community's recent development experience and future growth prospects in the Fall of 2007. The Rifle study is a companion piece to a larger socioeconomic study of northwest Colorado economic growth. The following is a summary of the Rifle case study.

Rifle Today

As shown in Exhibit ES-1, Rifle lies about 25 miles west of Glenwood Springs and about 60 miles northeast of Grand Junction in a sparsely populated region of high plateaus and dramatic mountain landscapes. Rifle sits strategically at the juncture of Interstate 70 (I-70), the region's main east-west corridor, and State Highway 13 (SH-13), which is one of only two north/south highway corridors in all of northwestern Colorado.

Exhibit ES-1.
Northwest Colorado Communities by Size, 2007[1]



Source: Colorado Department of Local Affairs' and BBC Research & Consulting, 2007.

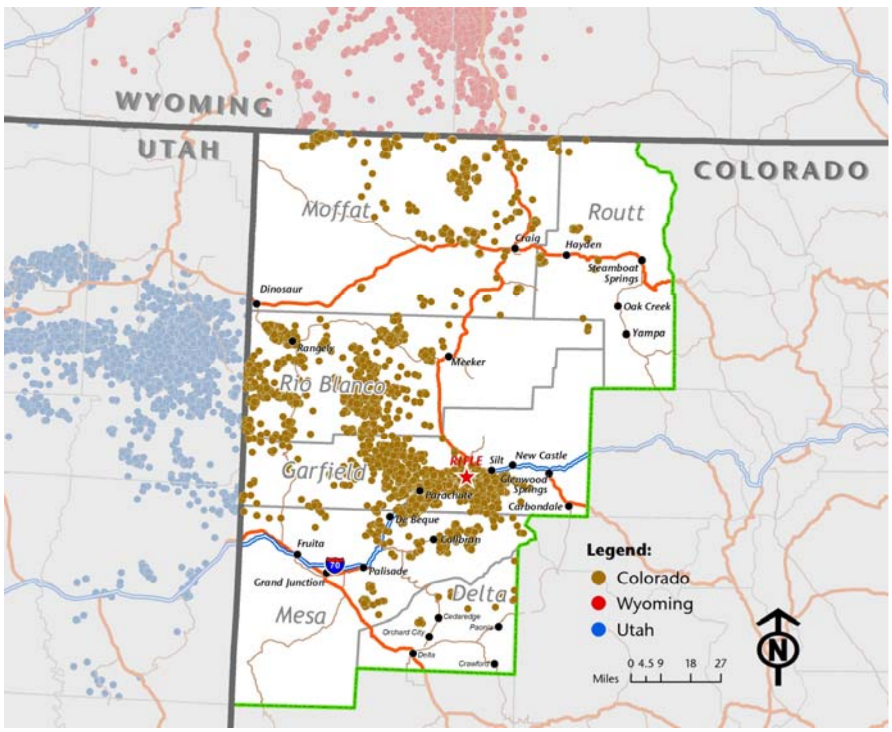
[1] Unless otherwise specified, growth projections and energy employment data are from a companion report: *Northwest Colorado Socioeconomic Analysis and Forecasts,* BBC Research & Consulting; prepared for the Associated Governments of Northwest Colorado (AGNC), March 2008.

Although traditionally a railroad supply hub, retiree center and residential alternative for persons working in Glenwood Springs and nearby resorts, the city's current economy is increasingly dominated by an expanding regional natural gas industry. Currently, there are approximately 100 drilling rigs active in the four county area surrounding Rifle and regional drilling and gas production supports about 15,000 regional jobs. The number of gas wells drilled in the study area has increased rapidly in recent years. Drilling activity has migrated north and east to where Rifle is now near the center of the natural gas activity. According to the Colorado Oil and Gas Conservation Commission (COGCC), about 1,000 gas wells were drilled in Garfield County in 2007, and production has grown nearly 200 percent since 2003.

Exhibit ES-2 shows the location of completed wells in the northwest Colorado region from 2000 through 2007.

Exhibit ES-2.
Well Completions, Northwest Colorado, 2000 to 2007

Source:
Colorado Oil and Gas Conservation Commission and BBC Research & Consulting.



The natural gas industry's recent emergence is not Rifle's first experience with resource-based economies. In the early 1980's, Rifle was at the center of a short-lived economic expansion based on oil shale development. The oil shale industry failed to materialize as anticipated and its demise left the community in social and financial disarray. The oil shale experience has left some skeptical about the viability of the current natural gas-based development, and sharply aware of resource industry risks.

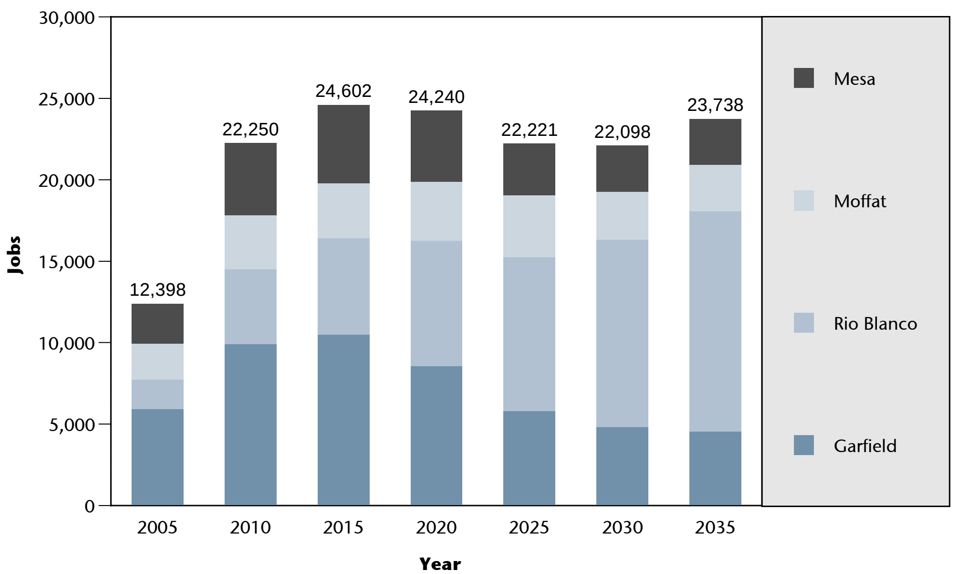
Gas drilling and development activity in the past few years has contributed to a rise in local housing costs; strained road, water and sewer systems; and produced an acute shortage of labor and supplies in the area. At the same time, Rifle residents have benefited from rising home values and sales tax receipts, and expanded economic opportunities. In response to growth pressures, the community has emerged with new planning systems, an expanded water and sewer system, a voter supported tax for new parks and recreation facilities as well as aggressive plans to accommodate future development in a responsible manner.

Rifle Tomorrow

Anticipated growth. The Piceance Basin, which lies north and west of the City, is one of the most promising gas plays in the United States. Recent studies have suggested that about 50,000 gas wells are likely to be drilled in this region over a 29-year period. Regional drilling activity is expected to rise rapidly for another 7 to 8 years before stabilizing in a range of about 1,500 to 1,800 new wells per year. Based on historic production, each of these wells is expected to produce for 20 to 30 years.

Natural gas development will create "basic" jobs in the energy sector and related gas field services. Spending by these basic employees will support additional indirect jobs in retail, government and local services. Exhibit ES-3 shows anticipated regional growth in direct and secondary energy-related jobs by location of job. Employment in this category will nearly double between 2008 and 2015.

Exhibit ES-3.
Projected Direct and Secondary Natural Gas-Related Employment in Northwest Colorado, 2007 to 2035



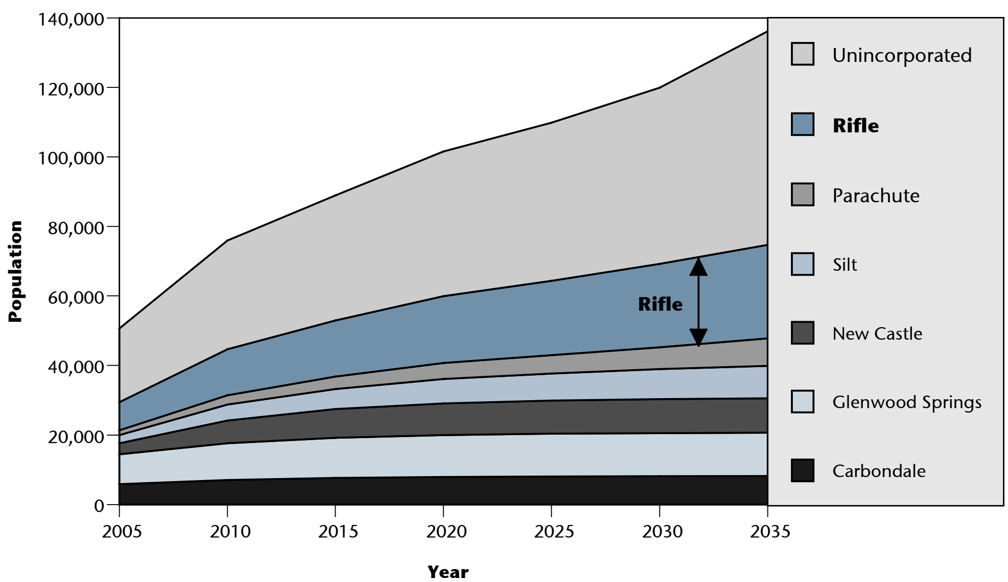
Note: Includes direct and secondary (multiplier effect) employment.

Source: Northwest Colorado Socioeconomic Projection model, BBC Research & Consulting, 2008.

Although most gas employment will likely be in Rio Blanco County, a large portion of natural gas associated workers will live in Rifle, as the community is well positioned along State Highway 13, near energy jobs in both Rio Blanco and Garfield counties, and offers the most developed municipal and commercial services between Glenwood Springs and Grand Junction. Indirect jobs that are stimulated by the natural gas industry in services and retail will likely be dispersed throughout the region with many positions occurring in Grand Junction and Glenwood Springs, as well as Rifle and Craig.

Exhibit ES-4 shows population projections for local communities and the unincorporated area of Garfield County through 2035. Rifle is projected to become the largest city in Garfield County, home to nearly 27,000 residents by 2035.

Exhibit ES-4.
Projected Garfield County Population Growth by Sub-region, 2005–2035



Source: BBC Research and Consulting, 2008.

Commercial oil shale. Oil shale development remains the largest wildcard in northwest Colorado's future. The timing, magnitude, technology and economics of oil shale are uncertain. If oil shale develops a commercially viable technology, its employment and population will layer on top of natural gas associated development in the study area.

The *Northwest Colorado Socioeconomic Analysis* suggests that commercial oil shale production is most likely a 10 to 15 years away from active production. Research and experimentations will bring around 800 direct employees to northwest Colorado by 2010. If commercial production is proven feasible, employment is expected to grow rapidly, reaching 1,000 workers in 2025 and 9,350 in 2035. Oil shale employment will be concentrated in Rio Blanco County, although many support industries and workers are likely to locate in Rifle because of State Highway 13 accessibility and proximity to I-70.

Before 2025, the natural gas sector will spur the bulk of this employment growth. In 2030, the oil shale sector will employ about as many residents as the natural gas sector, and by 2035 it will overtake natural gas as the dominant sector of energy development in the region.

In sum, the oil shale industry is projected to add nearly 25,000 employed residents to the regional population by 2035. Population distributions will depend largely on company engagement in worker housing solutions, but Rifle remains the logical site for a large share of oil shale-related growth.

Challenges and Opportunities

Over the years, many Colorado municipalities have faced periods of rapid growth and have generally accommodated growth related service demands and infrastructure with the standard array of local taxes, fees and service charges allowed them under Colorado law. Rifle has managed well thus far, as it has made the necessary investments in commercial development that promise a substantial tax base, and the community has the scale necessary to support a wide array of community services.

The Rifle community has responded aggressively to the challenges presented by rapid growth and has invested heavily in its permitting and planning systems and the physical infrastructure need to accommodate future growth. In January 2008, the City committed to a $23.0 million expansion of the City's sewerage system—the most immediate barrier to accommodating future development. With this commitment came new fees and charges including new system development fees that were increased 105 percent. Currently, the City has bonded for $4.2 million in road improvements and raised sales taxes to build needed recreation and park facilities. The City is also evaluating the feasibility of constructing a new water treatment plant at an estimated cost of $25 to $30 million.

Preparing for growth requires raising capital investment monies and completing infrastructure long in advance of population growth, and long in advance of the associated sales and property tax revenues. This revenue lag time puts the City in a position of considerable risk and increases the costs to new homeowners.

Similarly, although completed gas wells will eventually produce high assessed valuations and related property taxes, municipalities are not the direct beneficiaries of these property tax revenues. The State of Colorado distributes a share of Federal royalty revenues and state severance taxes to affected counties and municipalities based on the location of energy workers, which is somewhat beneficial to Rifle. However, the amounts of this redistribution are uncertain; subject to state-level political and legislative action; and have fluctuated widely over the years. The formulae for redistribution are being revised again in 2008. In additional, Colorado has a large grant program that is available for energy-impacted communities and has been instrumental in addressing some front-end capital needs, but these funds by necessity must cover a broad area and many jurisdictions, towns and districts.

Looking forward, the City faces substantial challenges in dealing with the needs of rapid population and urban growth:

- **Construction costs.** The costs of home building and road construction have risen sharply in Rifle in recent years. Prices on construction materials have been driven up by strong demand from the energy sector. According to City staff responsible for construction contracts, the prices of asphalt and concrete have risen by 30 percent in the past two years (2006-07). Currently, Rifle is constructing a new public safety facility at over $250 per square foot—a large increase from the $125 to $150 per square foot cost of a building constructed by Garfield County in 2005.

- **Housing prices.** Housing prices in Garfield County have risen rapidly to the point that Rifle's role as a low cost alternative for commuting resort workers is no longer a important factor in the local marketplace. In fact, the surge of energy workers and related service jobs, most of which pay higher wages than resort jobs and do not require a lengthy and increasingly expensive commute, has largely replaced the resort service market. One of the ramifications of Garfield County's rapid growth has been the reduction of housing options for resort workers, resultant "push-back" pressure to develop more housing within the resorts, and at least for the time being, significant shortages of workers for seasonal and construction demands in Eagle and Pitkin counties due largely to affordable housing shortages.

- **Overcrowding.** Another housing issue has been the use of some units as illegal hot-bunk houses where a large number of industry employees rent the same house and stagger their work schedules so that they can sleep in shifts. Such overcrowding leads to poorly maintained properties and overcrowded streets and driveways. Some local motels have turned into long-term accommodations and it is estimated that energy workers use 80 percent of local hotel room-nights, which restricts the local tourism and hunting markets.

- **Topographic limitations.** The city of Rifle incorporates areas with challenging topographic features that make road design and utility provision difficult. The presence of I-70 and the Colorado River splits the community and also makes integration of infrastructure systems complicated and expensive. In certain areas that are otherwise logical for development, the City's future growth is limited by the presence of public lands.

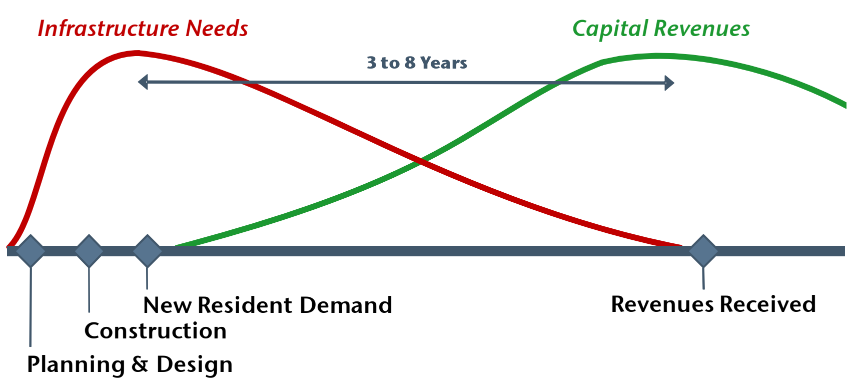
- **Economic "crowding out".** Rifle's economy has improved and diversified since the bust of the mid-1980s with support from retirees, hunting and fishing, and tourism, as well as construction and highway-based services. Although the natural gas industry has created a wealth of new employment opportunities, it also competes with some of the traditional businesses for labor and materials and raises the cost of doing business in Rifle. Increasingly, Rifle is reliant on a single industry and subject to any economic fluctuations that affect those businesses.

- **Funding imbalances.** Under current funding systems, there is no guarantee that revenue will flow to need. Resource based property taxes, which generally accrue to counties not municipalities, are one example; sales taxes are a second, and state distributions of resource-based taxes are a third instance where revenue does not necessarily follow demand for services. If growth occurs as projected, Rifle will be under considerable pressure to accommodate regional traffic, provide for housing and maintain public services, but there is no similar certainty about associated revenue necessary to support this accommodation.

- **Investment timing.** In order to serve residents, infrastructure and services must be implemented and functioning prior to residents' arrival; thus, expensive investments in roads, schools, parks, recreation, jails and administrative space, along with the personnel to operate these facilities, must be acquired before severance tax distributions, sales taxes and property taxes accrue. As shown below, Often, meeting this schedule implies that planning, design and land acquisition has to commence many years before growth occurs.

**Exhibit ES-5.
Public Investment
Timing Issue**

Source:
BBC Research & Consulting



- **Commodity risk.** The lead-time requirement for investments highlights the problem of risk, particularly when dealing with the traditionally volatile resource extraction industry. Rifle is forced to assume risk in providing services and infrastructure—betting on future revenues to repay those bonds and expenditures. When growth occurs as expected, this strategy works well, when it does not, it leaves the community in a crisis—an experience that many residents still remember from the last oil shale boom. The aforementioned tendency for the natural gas industry to crowd out other economic supports compounds this risk equation.

Rifle is in the first decade of what is likely to be a lengthy period of challenges, risks and opportunities. As a focal point of one of the largest "gas plays" in North America—as well as potential oil shale production further in the future—economic activity is rapidly expanding. However, the City is challenged by the pace, location and nature of these growth pressures. Rifle's government is confronted with many risks—ranging from the uncertainties of national energy markets, and the possibility of changes in State revenue allocations, to the potential implications of failure to keep up with planning and the infrastructure upgrades needed to serve fast growing demands. Only with proactive efforts, regional commitment to solving difficult challenges and ongoing technical and financial support from state and federal sources, does Rifle have the potential to capitalize on this extraordinary period, maintain economic diversity and develop a high quality, sustainable community.

SECTION I.
Rifle Today

SECTION I.
Rifle Today

This case study is a companion piece to a larger socioeconomic modeling effort undertaken for the Colorado Department of Local Affairs (DOLA) and the Associated Governments of Northern Colorado (AGNC). This analysis was sponsored by the city of Rifle, Colorado (City). The larger socioeconomic effort created a detailed regional socioeconomic model that translates projected increases in basic economic activity—most notably gas extraction and oil shale development—into overall regional employment growth, community development projections, housing demand and regional fiscal impacts.

This analysis offers context to those projections and provides a closer look at the challenges and opportunities presented to the Rifle community.

Strategic Location

As noted in Exhibit I-1 below, the city of Rifle sits at the juncture of Interstate 70 (I-70) and State Highway 13 (SH-13), which is one of only two north/south access routes in all of northwestern Colorado. The City is about 25 miles west of Glenwood Springs and about 60 miles northeast of Grand Junction in a sparsely populated region of high plateaus, valley ranges and arid mountain landscapes.

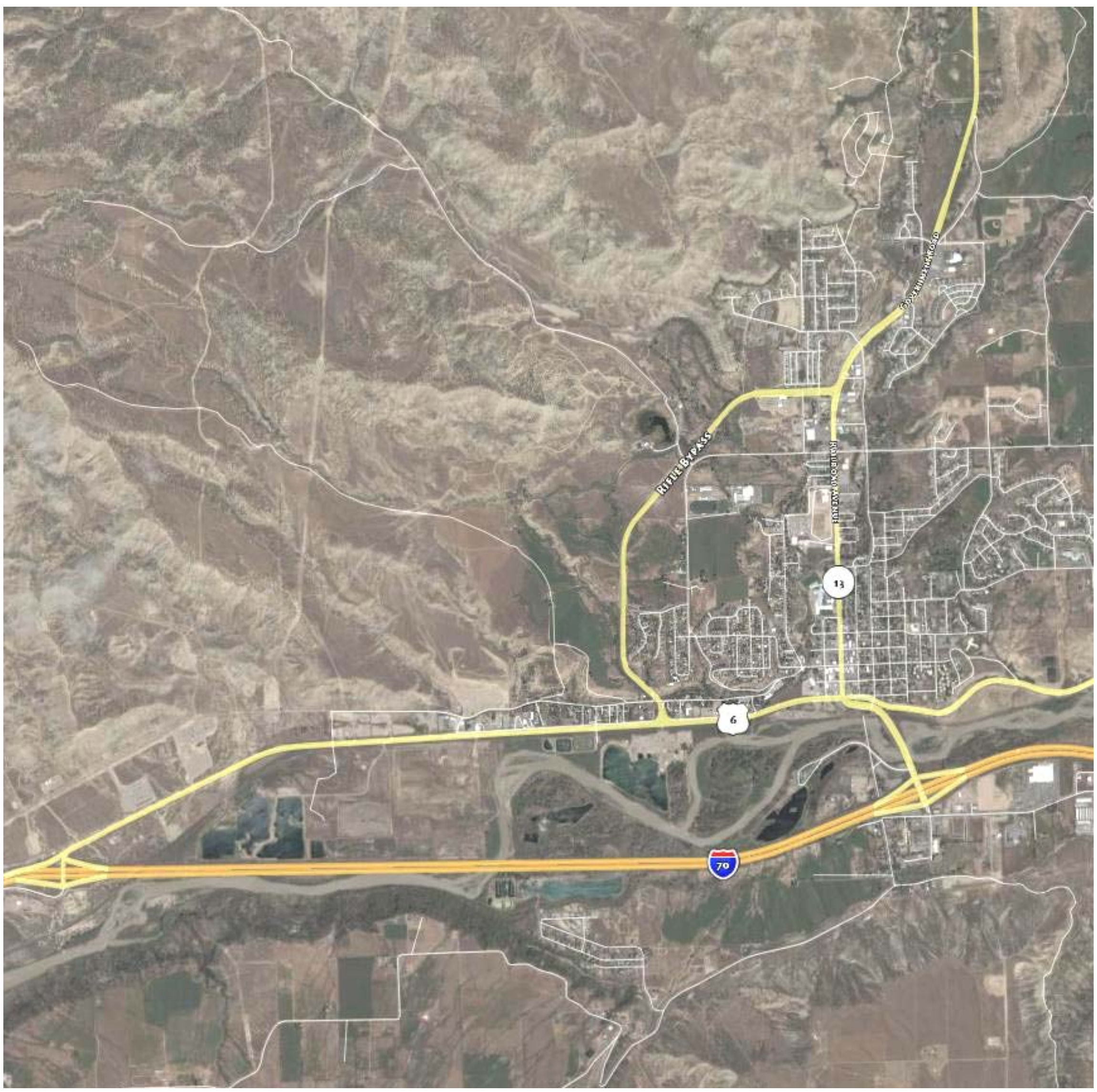
Exhibit I-1.
City of Rifle and the Northwestern Colorado Region

Source: BBC Research and Consulting.

Interstate 70 follows the Colorado River the entire distance between Glenwood Springs and Grand Junction. The Roan Plateau—a topic of considerable public debate about natural gas development and resource preservation—lies just northwest of Rifle, as does most of the federal land considered as high-value oil shale property.

Exhibit I-2 shows the city of Rifle and its immediate environs. Railroad Avenue is the City's traditional main thoroughfare. The Rifle Bypass was built in the early 1980's in part with Federal Royalty proceeds to mitigate the traffic problems associated with north/south travel through the City. Traffic congestion along Railroad Avenue—the City's core north/south arterial street—remains one of the City's most intractable problems.

Exhibit I-2.
Rifle and Environs



Source: Google Maps 2008 and BBC Research and Consulting.

The Colorado River and I-70 are also challenging barriers to an effective community transportation network, and they effectively limit the City's ability to expand in a logical, coherent manner. The Colorado River presents a difficult problem for Rifle, where the combination of highway corridor, river, wetlands and limited bridgework tends to shape local development patterns and restrict the easy movement of residents.

Exhibit I-3 shows the city of Rifle and the highway/river interface. The breadth of the Colorado River Basin and the adjacent railroad right-of-way, and thus the associated expense of new railroad, river and wetland crossings, is notable.

Exhibit I-3.
The City of Rifle

Source: Google Maps 2008 and BBC Research and Consulting.

Presently, the area south of I-70—which is within city limits—is expanding as the community's main retail, industrial and commercial center. Other retail concentrations are along Railroad Avenue at the City's historic core and to the north near the intersection with the Rifle Bypass. Traffic congestion on Railroad Avenue/SH-13 between Rifle center and the southern commercial district is a growing problem because this route represents the only river crossing between Rifle's major residential concentration north of the river, and the commercial center on the south bank of the river.

Rifle's Recent History

The city of Rifle was founded in 1882 when Abram Maxfield built a homestead on Rifle Creek. A community emerged as other settlers moved into the area and the Denver and Rio Grande Railroad was extended to the Rifle area in 1899. In 1905, the City was incorporated and named "Rifle" after the Rifle Creek, which had first drawn Mr. Maxfield to the area.

Farming and ranching remained the major industries in Rifle for most of the 1900s, but energy extraction promised to be a major industry from the beginning. Coal mines were opened in the region early on, and the federal government created the Naval Oil Shale Reserve in 1916. Vanadium mines were opened in Rifle in the 1920s, shut down during the Great Depression, and re-opened during World War II.

Agriculture supply to energy boomtown: 1960-1982. In the 1960s and 1970s, Rifle owed its modest prosperity to: the increasing importance of I-70; its location at the major east/west and north/south intersections; the associated need for highway services; and a small supply business associated with the local agricultural community. Rifle's fortune suddenly changed during the first national energy crisis and the rapid growth of a local industry tied to experimentation with oil shale extraction and refinement. Again, Rifle's key location at the crossroads of the region's primary highways, as well as its proximity to the active oil shale test sites, put Rifle, the town of Parachute and the unincorporated community of Battlement Mesa at center stage in the emerging oil shale industry. Many of the industry developers and contractors had offices in Rifle, and subsequently the community grew rapidly with new homes, subdivisions and commercial development.

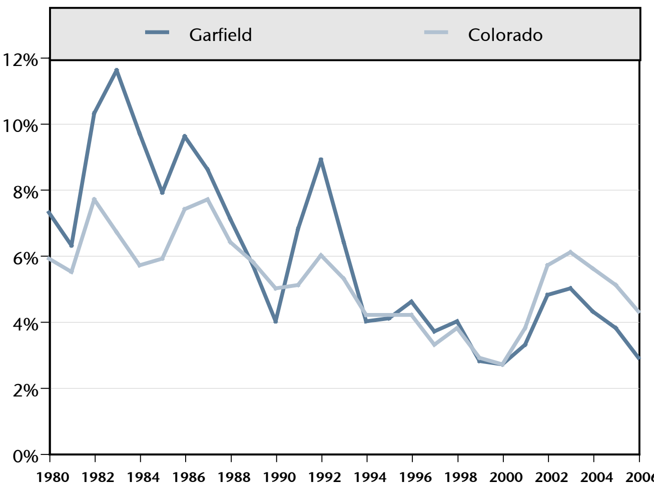
During this brief period, Rifle was the beneficiary of considerable outside assistance for planning support, road improvements and capital investment. With federal assistance, the City completed expansions of its water and sewer systems. Through public and private support, the city completed the Westside Bypass, which was designed to route large truck and other industry-related traffic around the City in order to reduce congestion on Railroad Avenue and the historic downtown. Many public and private sources helped pay for improvements to civic buildings and local roads.

Energy bust: 1982 -1998. On May 2, 1982, or Black Sunday as it became known, Exxon announced it was discontinuing its $5 billion Colony Oil Shale project near Parachute in Garfield County. Exxon laid off 2,200 workers, effectively ending Colorado's nascent energy boom. In Rifle, housing and apartment vacancy rates went from near 0 to near 20 percent in a single year; many local businesses closed; unemployment rates rose precipitously over a period of years; residents left; and population levels declined. As shown in Exhibit I-4, the impacts of this event were felt throughout Garfield County.

Exhibit I-4.
Regional Unemployment Rates, 1980-2006

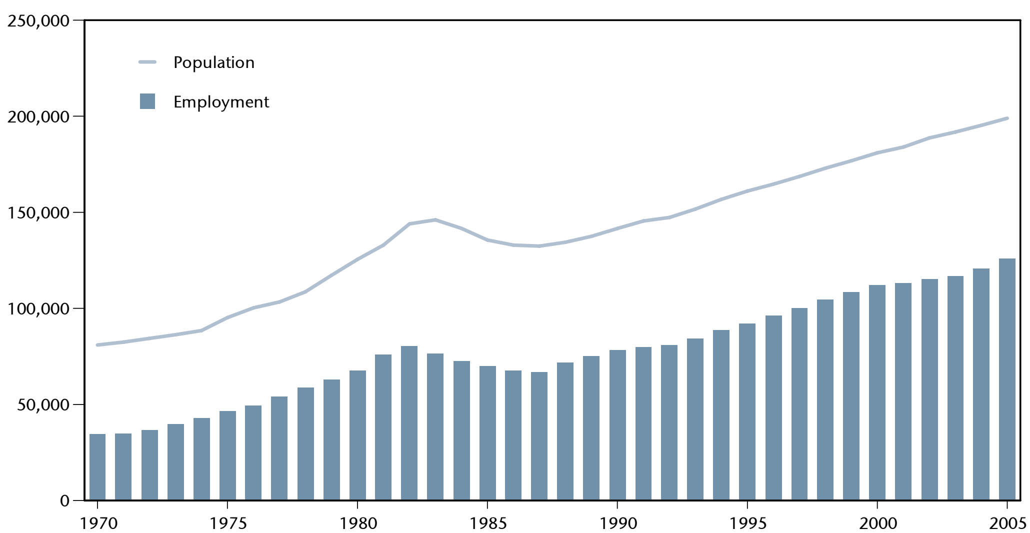
Source:

Colorado Economic and Demographic Information System, Colorado Department of Local Affairs.



Employment and population counts in a four-county, energy resource region of northwest Colorado (Garfield, Mesa, Rio Blanco and Moffat) reflected a similar mid-1980s downturn before a slow return to growth in the early 1990s—led primarily by Mesa County.

Exhibit I-5.
Northwest Colorado,
Population and Employment Growth, 1970-2005



Source: Bureau of Economic Analysis; Includes Mesa, Garfield, Moffat and Rio Blanco Counties

The 1980s energy bust remains a significant psychological presence for policy makers, residents and businesspersons who have seen both sides of energy-driven growth and who still retain a deep skepticism about today's apparent resurgence.

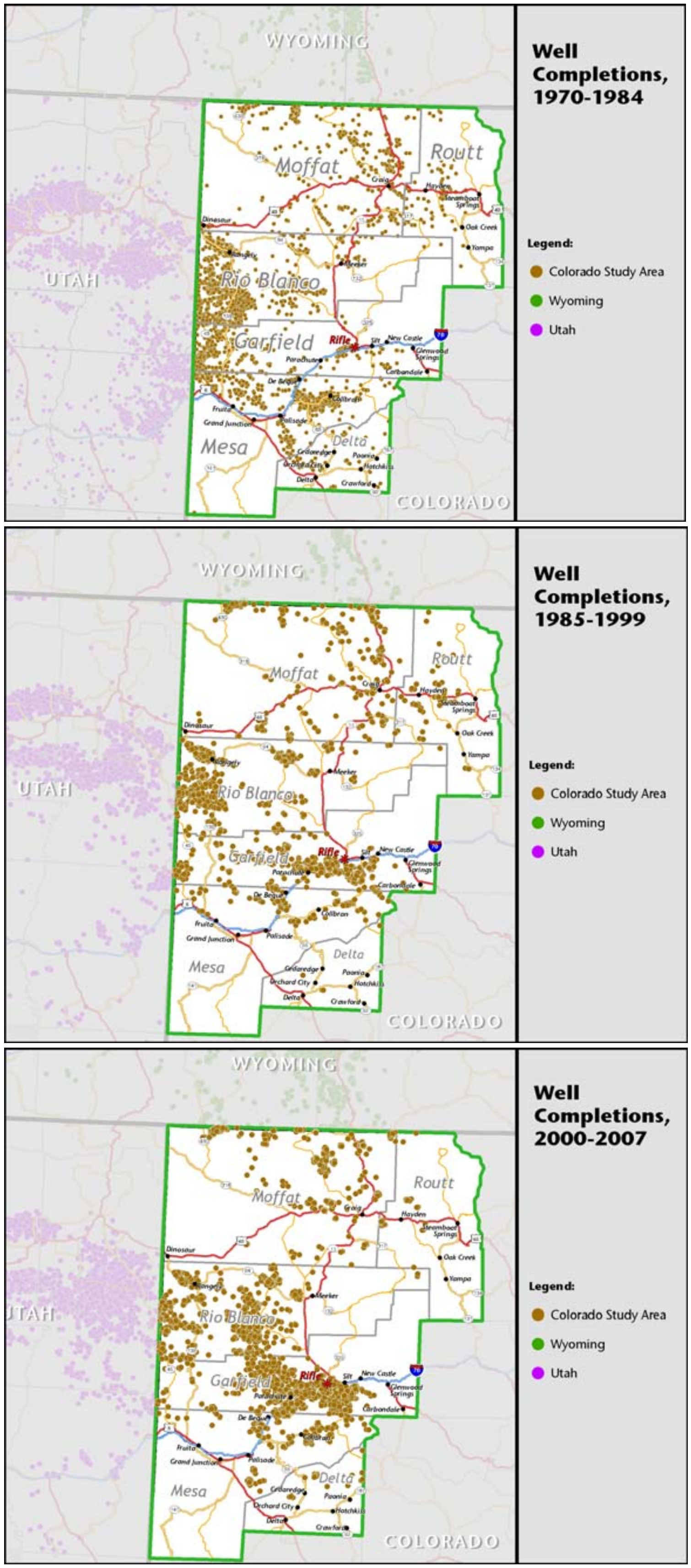
Recreation/retirees: 1998-2003. Rifle's challenges continued for a more than a decade. Slowly, vacant housing was absorbed, often by bargain-hunting retirees who accurately saw the opportunity associated with a temperate climate, access to public lands and recreation, small town lifestyle and inexpensive housing. In the late 1990s, Rifle witnessed the beginnings a new wave of immigration spurred by strong growth in the resort industry in nearby Eagle and Pitkin counties. Although a considerable distance from most resort employment, the economic expansion associated with tourist services—particularly the growing construction industry—had developed to the point where Rifle's quality of life and low cost of living made it a viable residential alternative, albeit often with a lengthy commute.

Natural gas extraction: 2003 to present. Western Garfield County has had natural gas extraction activity for over 20 years, but only in the last seven years has the industry witnessed the demand and pricing conditions necessary to justify aggressive exploitation of these resources. Not only has the pace of exploration increased, but also drilling activity has moved east and north, away from Mesa County toward eastern Garfield County, positioning the city of Rifle at ground zero.

Exhibit I-6 on the following page depicts the change in natural gas drilling activity over the past 15 years, with three snapshots of drilling activity. The migration of drilling from west to east is evident. With this migration of drilling activity comes new jobs and demands for housing and impacts on Rifle's water, sewer and street infrastructure and increased demand for municipal services in general.

Exhibit I-6.
Well Completions

Source:
BBC Research and Consulting, 2008.



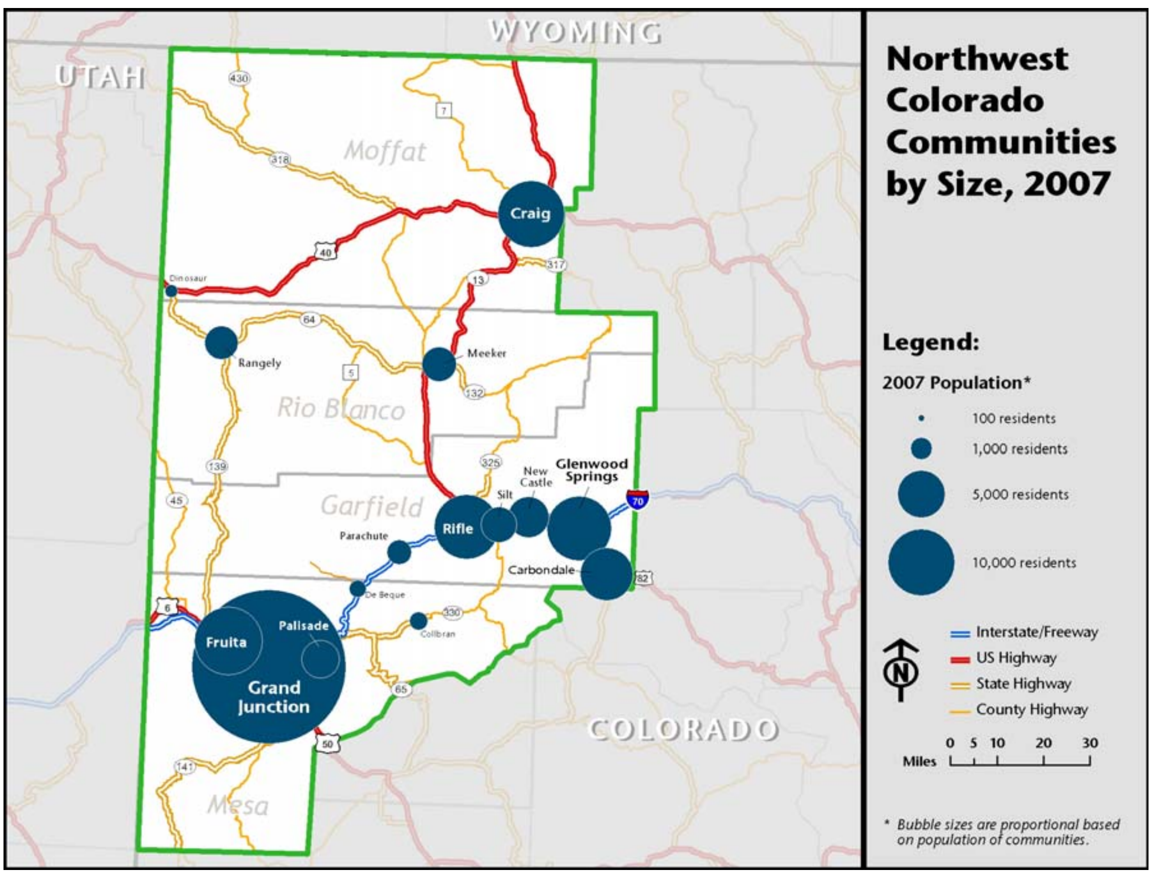
Rifle Today: Economic Repositioning

The most prominent economic influence in the city of Rifle today is the expanding regional natural gas industry. Currently, there are approximately 100 drilling rigs active in the four county energy area surrounding Rifle. BBC estimates that drilling activity in northwest Colorado (direct and indirect) currently supports about 15,000 jobs, roughly 50 percent of which are in Garfield County. additional information on gas drilling activity and employment is provided in Section II of this report.

As noted earlier, the number of gas wells drilled in the study area increased rapidly from 2003 through 2006 and drilling activity has migrated north and east to where Rifle is now the center of natural gas activity. According to the Colorado Oil and Gas Conservation Commission (COGCC), about 1,000 gas wells were drilled in Garfield County in 2007, and production has grown nearly 200 percent since 2003.

Population. By 2007, Rifle had grown to over 9,500 residents and will soon surpass Glenwood Springs to become the largest municipality in Garfield County second largest community in northwest Colorado. Exhibit I-7 shows Rifle and surrounding communities by population size.

Exhibit I-7.
Northwest Colorado Communities by Size, 2007



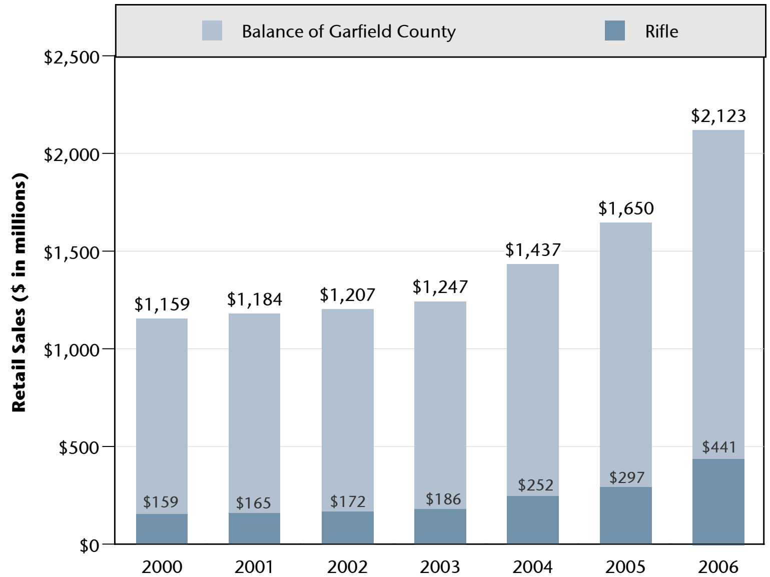
Source: Colorado Department of Local Affairs.

Retail sales. Retail sales in Rifle and Garfield County have steadily increased over the last seven years. A new Wal-Mart opened in Rifle in 2004, which drives the large increase in sales from 2003 to 2004. Exhibit I-8 shows retail sales in the city of Rifle and Garfield County between 2000 and 2006.

Exhibit I-8.
Retail Sales, City of Rifle and Garfield County, 2000-2006

Source:

Colorado Department of Revenue.



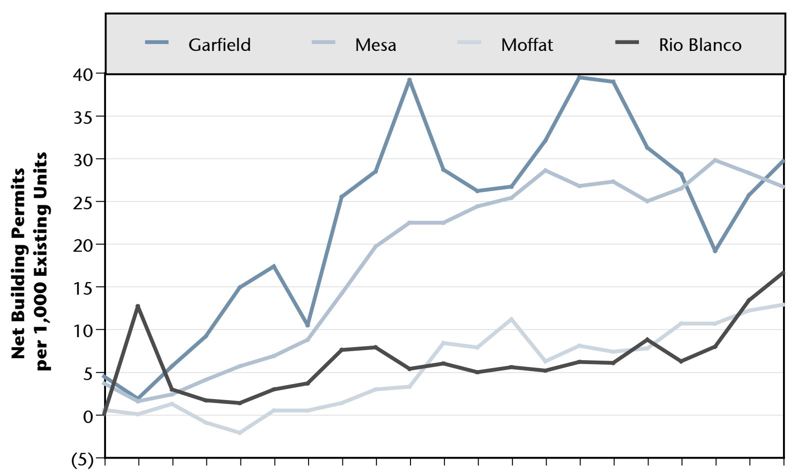
Total retail sales in Rifle increased by about $250 million, or over 130 percent, between 2003 and 2006. Rifle's share of the County's retail sales has increased from 14 percent in 2000 to 21 percent in 2006. This illustrates Rifle's growing role as a retail center in Garfield County, and these receipts are critical to the community's ability to fund growth-related operational and capital investments.

Building activity. Net building permits per year (building permits issued *minus* demolition permits) is a useful indicator of development activity. When taken as a proportion of the existing housing units in the County, it can be used to compare the pace of building activity among counties of different sizes. Exhibit I-9 shows building permits per 1,000 existing housing units, from 1985 to 2005, for each of the four counties in the study region.

Exhibit I-9.
Net Building Permits per 1,000 Existing Housing Units, 1985-2005

Source:

Colorado Economic and Demographic Information System, Colorado Department of Local Affairs.



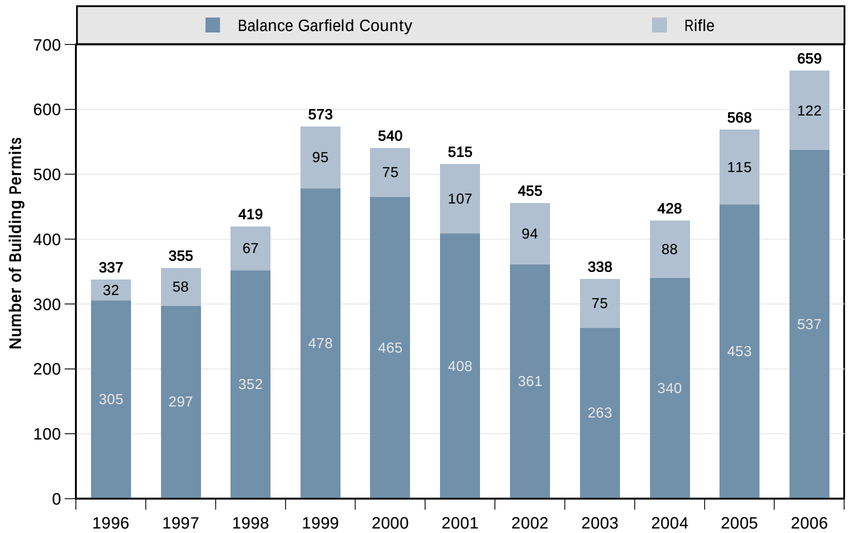
This comparison shows that Garfield County has consistently experienced a higher concentration of building activity in comparison to surrounding counties.

In Garfield County alone, annual residential building permits have increased rapidly since the lull in construction activity in 2003. Rifle's share of county building permits has increased from 9.5 percent in 1996 to over 20 percent in 2005 and 18.5 percent in 2006. Exhibit I-10 shows annual new privately-owned residential building permits in Garfield County between 1996 and 2006.

Exhibit I-10.
Residential Building Permits, Garfield County, 1996-2006

Source:

U.S. Census Bureau; Department of Local Affairs; Garfield County; and City of Rifle



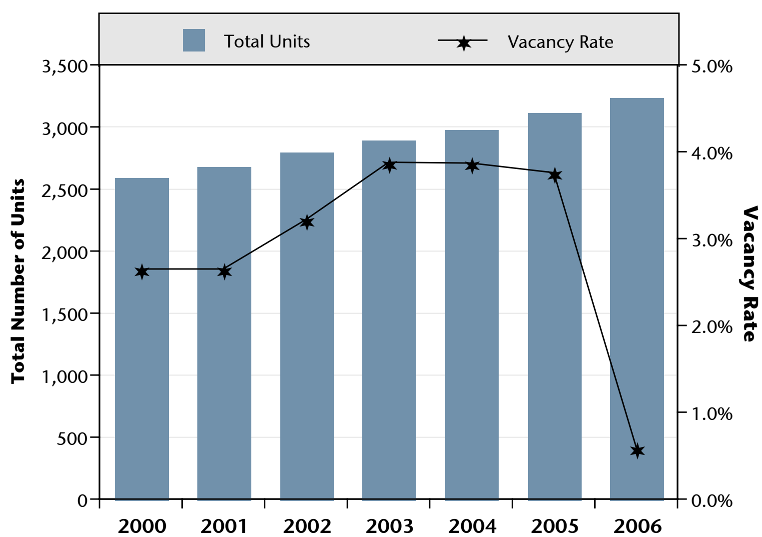
In 2007, Rifle reported 280 total building permits, including 183 for residential units—a significant increase of about 50 percent over the previous year. This shift was due to a large increase in multifamily dwelling units, while permits for other residential units declined.

As of 2006, the city of Rifle had a total of 3,231 housing units, as shown in Exhibit I-11. This represents an increase of 25 percent from 2,586 housing units reported in 2000.

Exhibit I-11.
City of Rifle, Total Housing Units and Vacancy Rate, 2000 to 2006

Source:

State of Colorado, Department of Local Affairs.



Between 2000 and 2005, the City's vacancy rate has hovered between 2.7 percent and 3.7 percent. In 2006 the vacancy rate dropped to 0.6 percent, which is the lowest vacancy rate of municipalities with over 1,000 households in Colorado. Anecdotal reports suggest that at year-end 2007 there is still virtually no significant vacancy in Rifle's residential housing stock.

Wage inflation. The influx of jobs and workers often associated with the rapid development of extractive natural resource industries can have both positive and negative effects on local economies. An increased demand for labor can result in low unemployment rates and increased wages in some sectors. Alternatively, service industries and other sectors often experience declining growth because they cannot compete for labor and other resources.

In northwest Colorado, unemployment levels are well below the State average in counties affected by recent natural gas development and other natural resource industries. In 2007, unemployment rates in the region ranged from just over 2 percent in Rio Blanco County to about 3.2 percent in Mesa County. Most economists place full employment—the unemployment rate where most people can find a job in a reasonable amount of time—at between 4.5 percent and 5.0 percent. Tight labor markets usually lead to wage pressures, as bargaining power shifts from employers to workers. Higher wages provide local residents with bigger paychecks and a wider array of options for employment.

Recent wage data provide evidence of wage pressures in Garfield County. Wages in sectors that typically compete with the natural gas industry have increased substantially in some counties. In Garfield County, the average weekly wage for workers in the heavy construction industry increased by more than 48 percent from 2000 to 2006, coinciding with the rapid growth of natural gas development. This compares to a 14 percent increase statewide over the same period. Garfield County workers in the heavy construction industry now earn about 94 percent of the average wage of a natural gas employee. Statewide, heavy construction industry workers earn about 40 percent as much as oil and natural gas employees.

Exhibit I-12 shows Garfield County and State wage increases for sectors competing for labor with the natural gas industry from 2001 through 2006. Inflation over this time period is assumed to be about 17 percent.

Exhibit I-12. Average Weekly Wage for Select industries in Garfield County, 2001 & 2006

Source:

Quarterly Census of Employment and Wages, Colorado Department of Labor and Employment and BBC Research & Consulting, 2008.

	Average Weekly Wage Garfield County		Percent Increase Garfield County	Percent Increase Colorado
Industry	*2001*	*2006*		
Construction of Buildings	$ 724	$ 898	24.0%	16.2%
Heavy Construction	889	1,318	48.3	14.7
Mining Support	721	1,250	73.4	26.3
Mining (except oil and gas)	1,021	991	-2.9	13.7
Truck Transportation	487	1,053	116.2	18.7

With the exception of the mining industry (excluding natural gas), Garfield County wages increased substantially, relative to the State average, from 2001 through 2006. As a result of The city of Rifle has implemented special wage adjustments for positions that compete directly with the gas industry.

The introduction of an extractive industry into a small economy can adversely effect other sectors that can't support the same wage structure. The more profitable resource industry effectively "crowds out" the development of other services through competition for labor, housing and other resources. In this instance, anecdotal data suggest that Rifle's rising home costs and plentiful local employment opportunities have lessened the area's reliance on resort employment in Pitkin County and reduced community into the Roaring Fork area. Similarly, local schools, hospitals and retailers report difficulty competing with better-funded competition to attract skilled employees.

Summary

As the community nears its 130th anniversary, Rifle appears to be exiting a period of boom and bust and entering an extended era of prosperity and challenge. The seeds for Rifle's current renewal were sown in the late 1990s as the community's low cost housing stock attracted persons working in nearby resorts, a few quality of life migrants and retirees seeking community, housing and mild weather. As the natural gas industry emerged, housing prices rose, vacancies fell and a number of the community's historic downtown buildings, which had been underutilized for many years, were purchased, renovated and leased. Rifle began to grow vigorously. By year end-2007, the natural gas industry's demand for labor was transforming the community with both opportunities (e.g. jobs and higher incomes) and challenges (e.g., rapid growth, service demands and traffic).

SECTION II.
Rifle Tomorrow

SECTION II.
Rifle Tomorrow

For the second time in 30 years, the Rifle community finds itself at the epicenter of a natural resource driven economic boom, which has the potential to transform the economy and the social fabric of northwestern Colorado. This time, a new challenge presents itself to a larger, somewhat better equipped community that is committed to proactively managing its development and protecting the community's long-term economic position.

This section presents an overview of the natural gas industry, projections of energy-related employment and population growth, as well as a snapshot of how Rifle has responded to these growth pressures.

The Natural Gas Industry

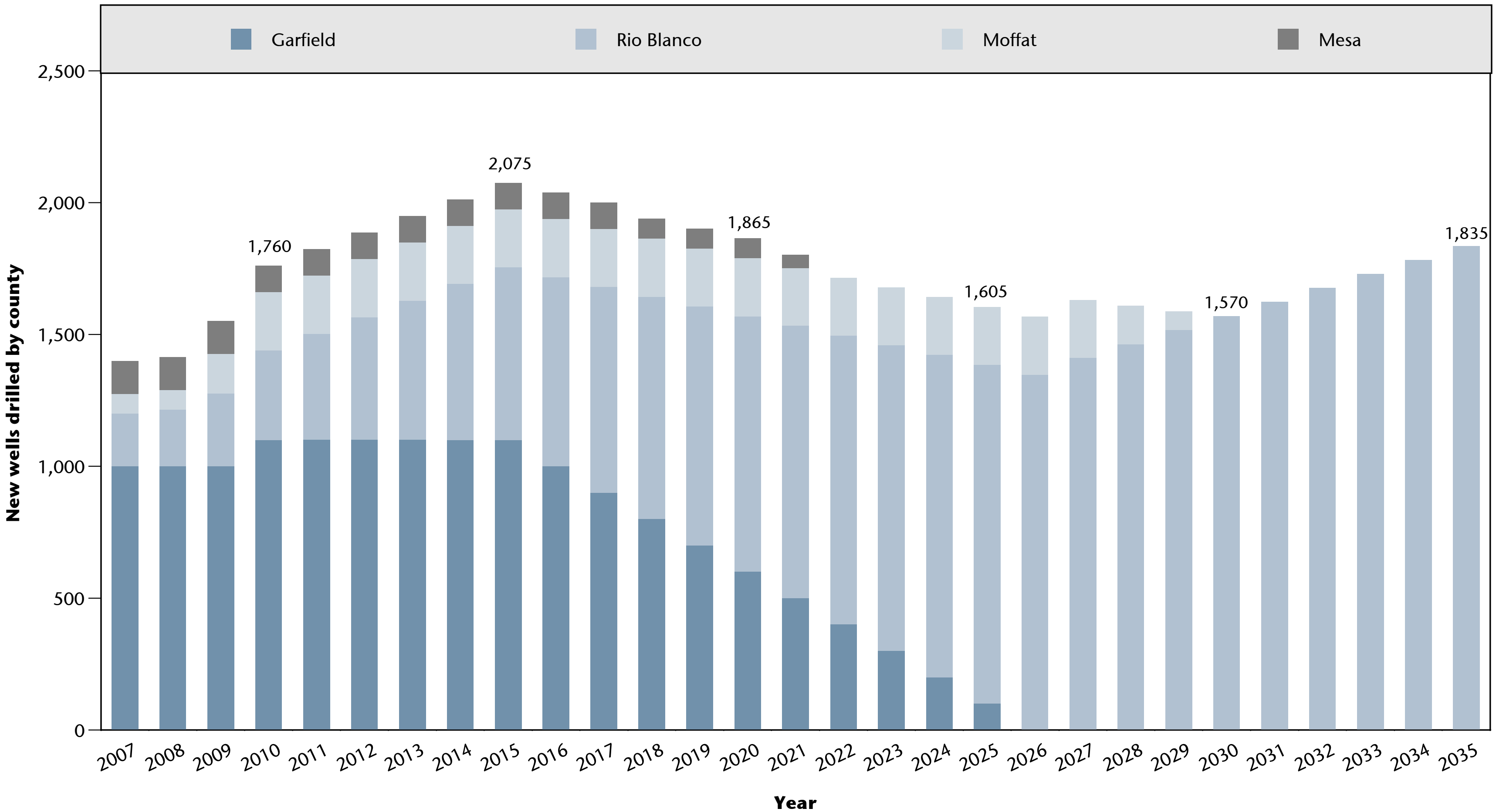
As noted previously, the natural gas industry has been the principal, but not sole, stimulant behind recent growth in Garfield County. Over the coming two decades the focus of natural gas drilling activity will gradually shift northward from Garfield County to Rio Blanco and Moffat counties. In 2007, the BLM conducted extensive research with the natural gas industry to identify a reasonably foreseeable development scenario (RFDS) for natural gas activity in the White River Field Office (WRFO), primarily encompassing Rio Blanco County. BLM's RFDS, based on the agency's assessment and input from the industry, anticipates the completion of more than 17,000 wells in the WRFO by 2027, with well production rising continuously over the next two decades. This is in addition to 1,000 new wells per year expected in Garfield County over the next eight years.

In addition to drilling activity on private, split-estate lands in Garfield County and drilling activity in the WRFO, some additional wells are anticipated on lands in Mesa County and lands within the Little Snake Resource Management Area in northern Moffat County. There has been considerable controversy surrounding proposed drilling on the Roan Plateau in Garfield County, although the actual number of Roan wells likely to be drilled is relatively small. BBC's study for the Associated Governments of Northern Colorado (AGNC) anticipates a total of 1,600 wells on the Roan Plateau between 2010 and 2025.[1]

Drilling activity. Exhibit II-1depicts the annual number of wells projected in the four county study area surrounding Rifle, by county, from 2007 through 2035. It demonstrates a notable shift in exploration from Garfield County to Rio Blanco County. Under this baseline scenario, about 50,000 wells would be drilled in the study area over the 29-year period. Annual drilling activity is expected to rise rapidly for another decade before stabilizing to a range of about 1,500 to 1,800 wells per year.

[1] Projections and forecasts in this report are largely derived from: *Northwest Colorado Socioeconomic Analysis and Forecasts,* BBC Research & Consulting; prepared for the Associated Governments of Northwest Colorado (AGNC), March 2008.

Exhibit II-1.
Projected Annual Natural Gas Wells Drilled in Northwest Colorado, 2007 to 2035

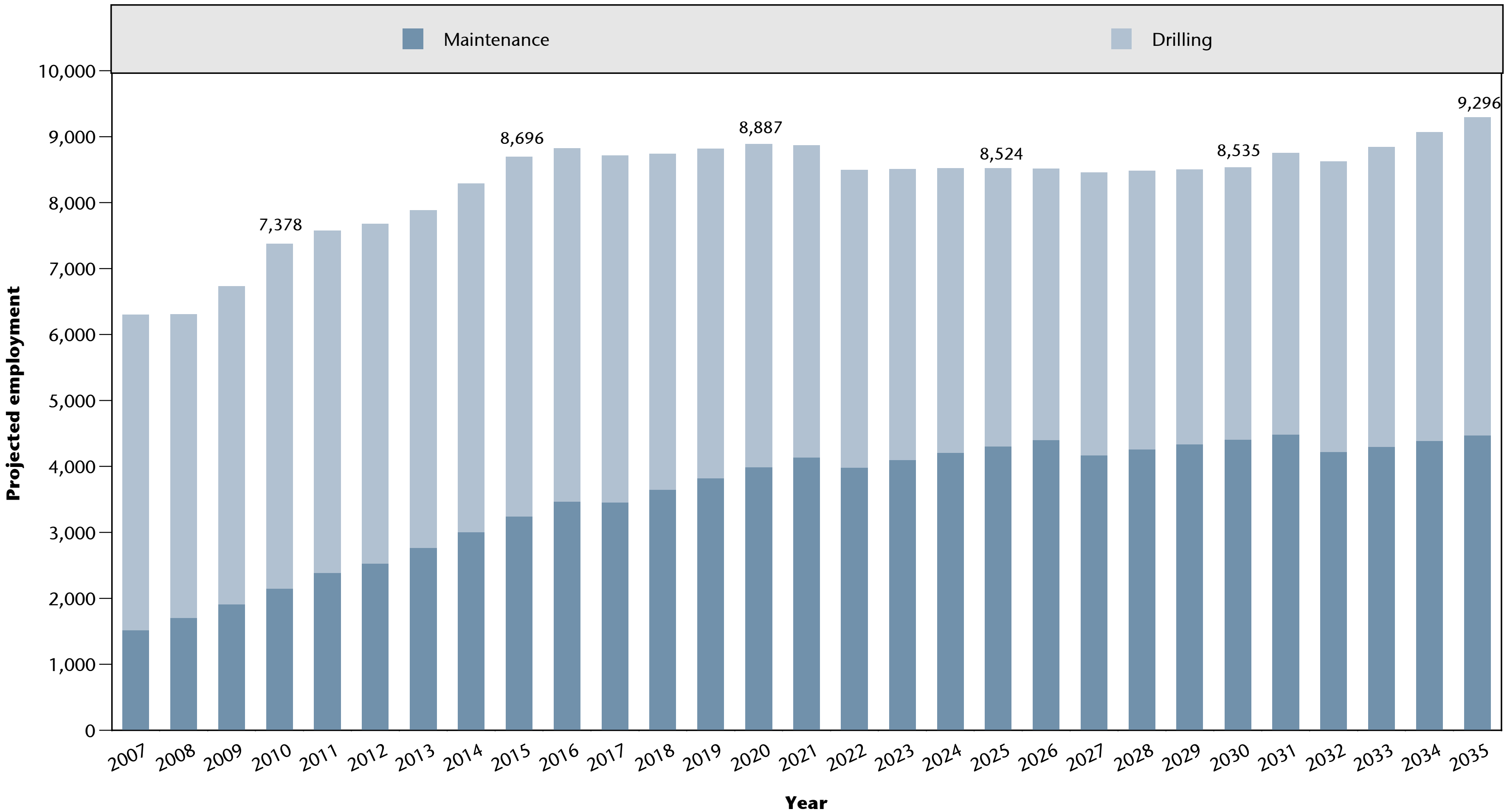


Source: BBC Research and Consulting, 2008.

Under this scenario of consistent drilling activity, the workforce will rise for another 8 to 10 years before stabilizing. An increasing number of workers will be needed to maintain existing wells as the cumulative number of producing wells increases throughout the study area, and overtime the maintenance workforce will be the current drilling workforce. Piceance Basin gas wells are expected to produce for between 20 and 40 years.

Gas employment. Exhibit II-2 depicts the workforce projected to be employed by regional natural gas drilling and well maintenance activity from 2007 through 2035, and it demonstrates the movement from exploration to production and maintenance over this period.

Exhibit II-2.
Projected Natural Gas-Related Employment in Northwest Colorado, 2007 to 2035

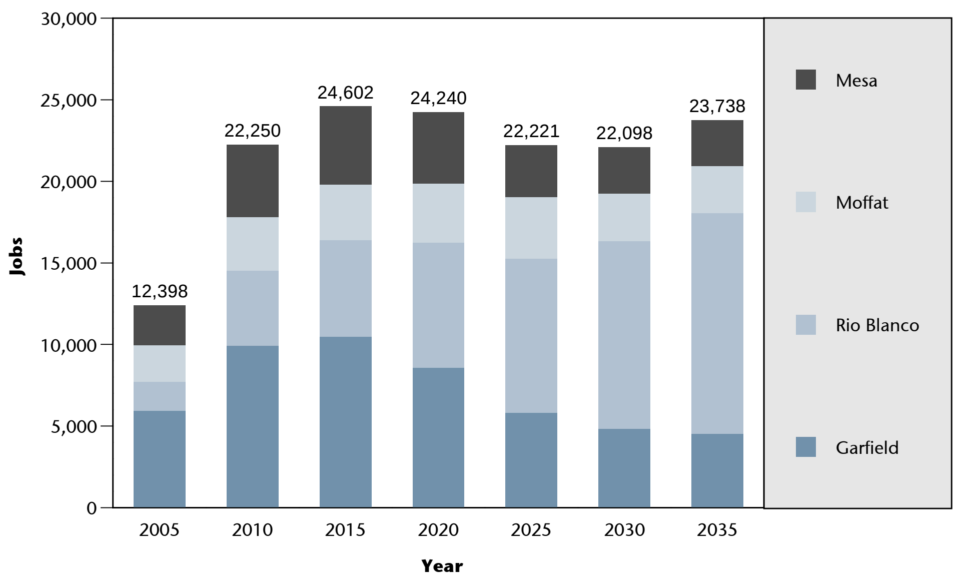


Source: BBC Research and Consulting, 2008.

Gas development will employ nearly 8,900 persons in the region by 2019 and remain stable thereafter. A large portion of these workers are expected to live in Garfield County, specifically Rifle, as it is strategically located near the energy development in both Rio Blanco and Garfield counties, and offers the most developed municipal and commercial services between Glenwood Springs and Grand Junction. Other municipalities near Rifle, including Silt, New Castle and Parachute, lack the commercial concentration that is present in Rifle, and offer very modest municipal services.

Secondary effects. Natural gas development will create basic jobs in the energy sector and related gas field services. Spending by these basic employees will support additional indirect jobs in retail, government and local services. Exhibit II-3 shows anticipated growth in direct and secondary energy related jobs by county. Employment in this category will nearly double between 2008 and 2015.

Exhibit II-3.
Projected Direct and Secondary Energy-Related Employment in Northwest Colorado, 2007 to 2035



Note: Includes direct and secondary (multiplier effect) employment.

Source: Northwest Colorado Socioeconomic Projection model, BBC Research & Consulting, 2008.

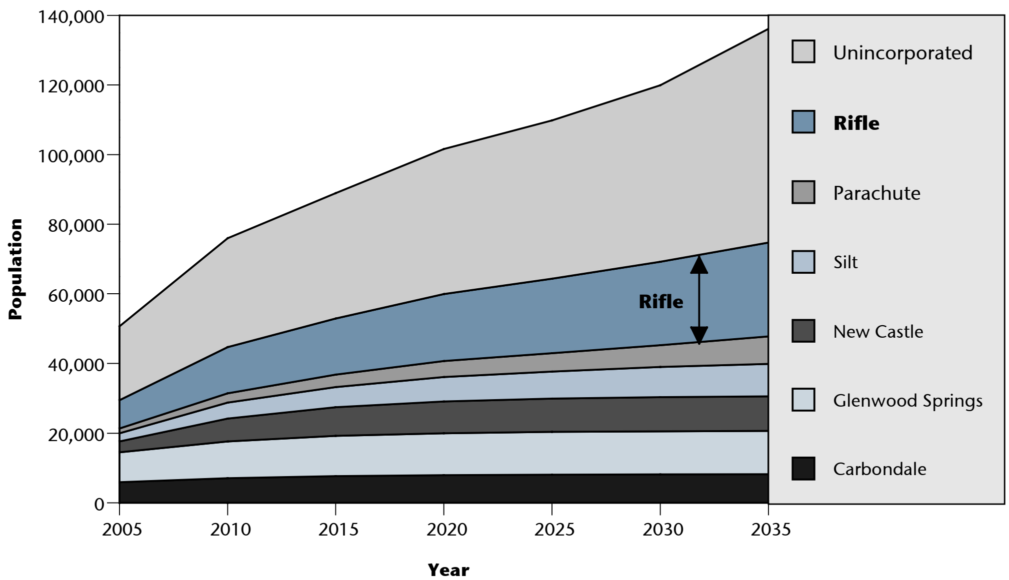
Secondary jobs that are indirectly associated with the natural gas industry will likely be spread throughout the region with many positions occurring in Grand Junction and Glenwood Springs, as well as Rifle and Craig.

Population

Employment growth will spur population growth in areas near job opportunities. Although many jobs will be created in Rio Blanco County, most population growth is expected to occur in Garfield County where schools and services are more readily available.

Exhibit II-4 shows population projections for different communities and the unincorporated areas of Garfield County through 2035.

Exhibit II-4.
Projected Garfield County Baseline Population Growth by Sub-region, 2005–2035



Source: BBC Research and Consulting, 2008.

The unincorporated area of Garfield and Rio Blanco counties will have to accommodate a large share of growth. By 2015, both Glenwood Springs and Carbondale are expected to approach their estimated build out capacities of 12,500 and 8,250, respectively. Under the Baseline Growth Scenario, Rifle is projected to become the largest city in Garfield County, home to nearly 27,000 residents by 2035. Silt, New Castle, Parachute and unincorporated areas of the County are also projected to experience substantial growth.

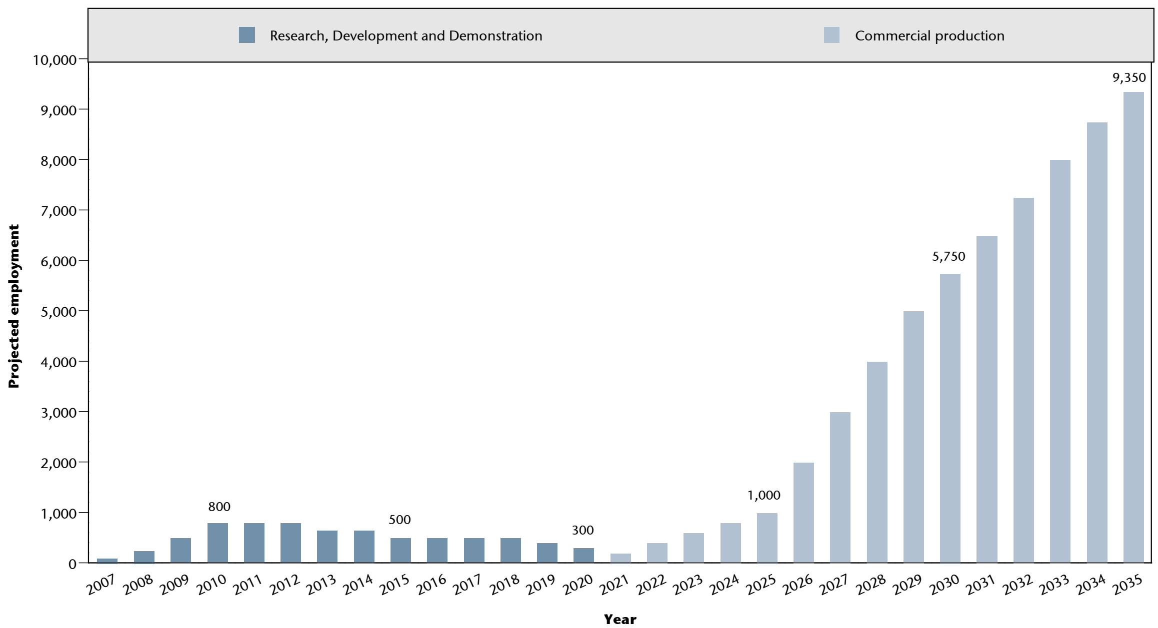
Under the most likely growth projection, the service and physical capacities of Garfield County communities is largely consumed. As a result, a large share of future growth is assigned to the unincorporated county. However, it may be unrealistic to expect this level of development in unincorporated Garfield County given zoning and practical development limitations. Local municipalities, including Rifle, Silt and New Castle, may well be pressed to find ways to overcome some of the barriers constricting development and further expand capacities to accommodate another level of growth.

Commercial Oil Shale

Oil Shale remains the largest wildcard in northwest Colorado's future. The timing, magnitude, technology and economics of oil shale are uncertain. If oil shale develops a commercially viable technology, the industry's employment and population will layer on top of natural gas associated development in the area.

Direct employment. Exhibit II-5 shows total oil shale employment under at least one likely scenario that includes research and early commercial production. Oil shale will also mean additional workers (indirect employment) to construct and maintain the electrical generation facilities and natural gas production necessary to meet energy requirements associated with oil shale production.[2]

Exhibit II-5.
Projected Oil Shale-Related Employment in Northwest Colorado, 2007 to 2035



Source: BBC Research and Consulting, 2008.

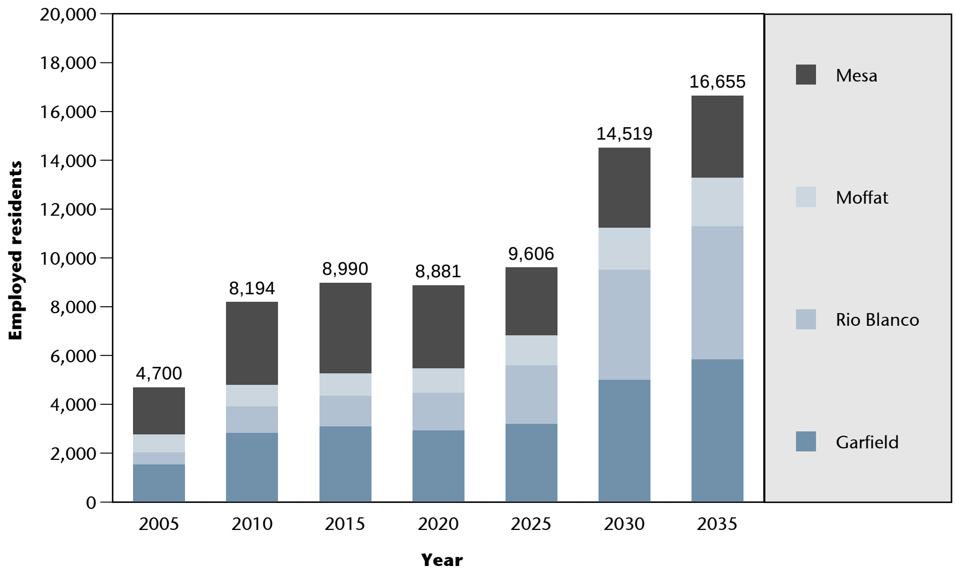
Research and development will bring around 800 direct employees to northwest Colorado by 2010, and this number will likely decrease to 300 by 2020 as the industry moves into a testing phase and some technologies are discontinued. After this point, if commercial production is feasible, development activities will begin and employment will grow rapidly, reaching 1,000 workers in 2025 and 9,350 in 2035. Oil shale employment will be concentrated in Rio Blanco County although many support industries and workers are likely to locate in Rifle or elsewhere along the I-70 corridor.

[2] Oil shale projections are from Northwest Colorado Socioeconomic Forecasts, BBC; 2008; op. cit.

Before 2025, the natural gas sector will spur the bulk of this employment growth. In 2030, the oil shale sector will employ about as many residents as the natural gas sector, and by 2035 it will overtake natural gas as the dominant sector of energy development in the region.

Exhibit II-6 demonstrates how total direct employment growth will be distributed in the four county region by the expected residence of these new workers.

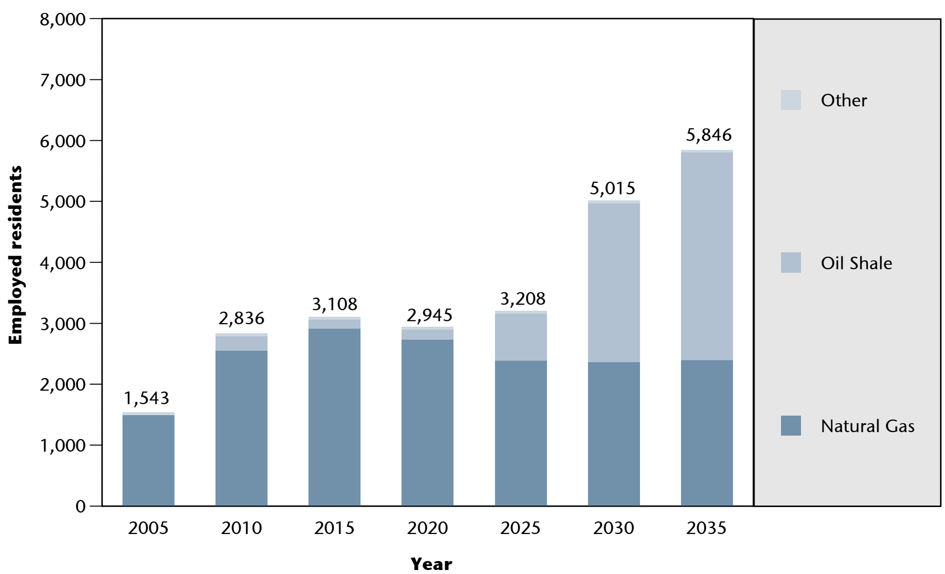
Exhibit II-6.
Total Direct Energy Jobs by County, Oil Shale & Gas Development Scenario, 2005 to 2035



Source: BBC Research and Consulting, 2008.

Exhibit II-7 illustrates this employment growth for Garfield County alone, broken down by the energy subsector employing these residents.

Exhibit II-7.
Garfield County Energy Employment by Subsector, 2005 to 2035

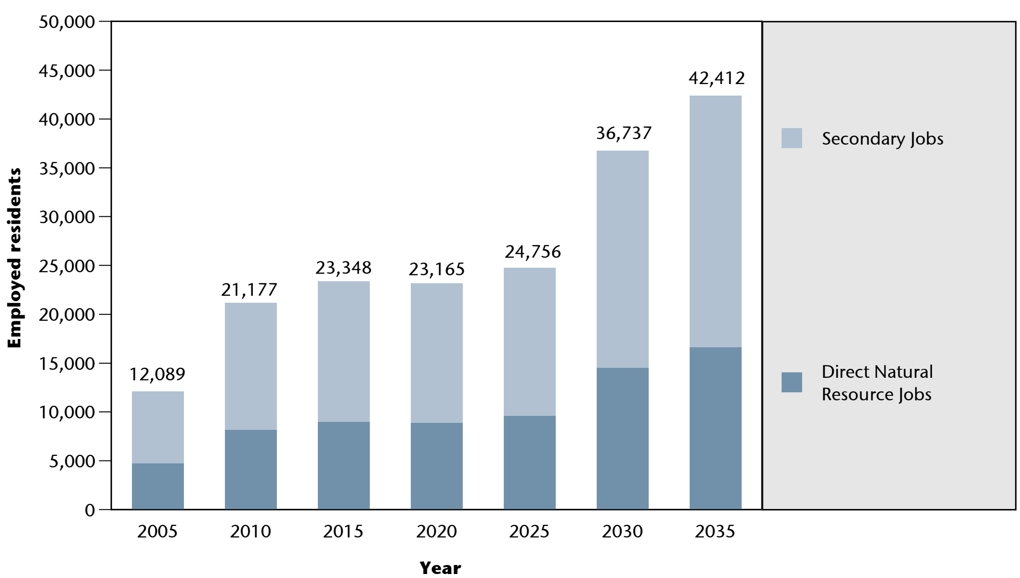


Source: BBC Research and Consulting, 2008.

In Garfield County the number of energy workers residing in the county will grow rapidly from 1,540 to 3,100 between 2005 and 2015, respectively, an increase of over 100 percent. Almost all of the job growth in initial years will be in the natural gas sector. After 2020, the number of energy workers living in Garfield County will begin to grow again, as commercial oil shale development begins. The influx of oil shale workers will cause the number of employed residents to almost double between 2020 and 2035. The number of workers employed in other energy sectors (coal, utilities, other mining) will be marginal throughout this period.

Secondary effects. Natural resource development activity will have significant secondary (multiplier) effects in other sectors of the local economy, causing growth in related industries through increased demand for resources and services (indirect jobs) as well as in non-related industries through increased local spending by new workers (induced jobs). Together, these jobs constitute the secondary employment effects of natural resource development produced in addition to direct jobs in the natural resource industry. Exhibit II-8 demonstrates forecasts for the number of direct and secondary energy workers in the region from 2005 through 2035.

Exhibit II-8.
Direct and Secondary Energy-Related
Employed Residents, Oil Shale Development Scenario, 2005–2035

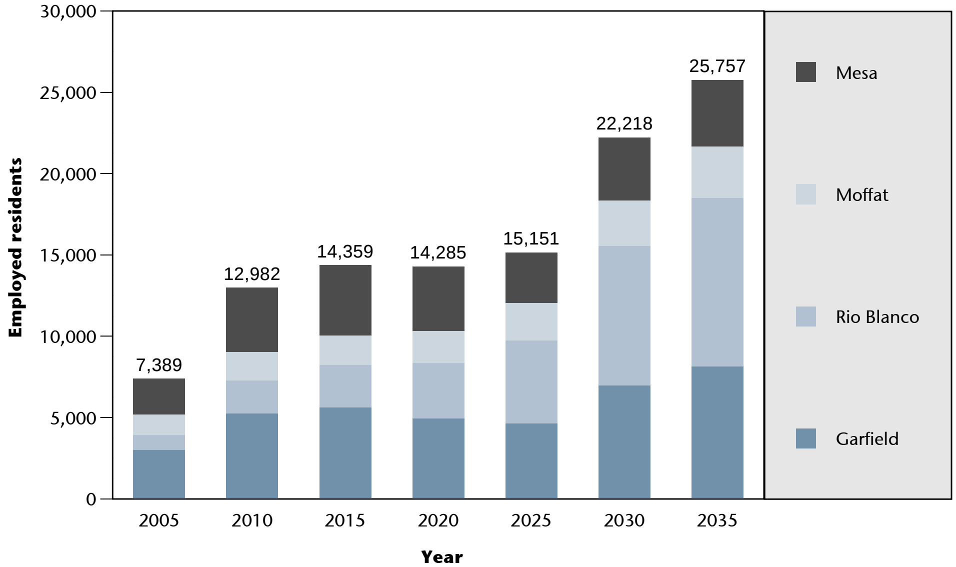


Source: BBC Research and Consulting, 2008.

As shown in this exhibit, the secondary employment effects of energy development are greater than the direct employment effects of energy development. The total number of employed residents is expected to increase from 12,090 in 2005 to 23,350 by 2015. This number will decline slightly before expansion of oil shale activity begins in 2025 and creates significant secondary employment effects through the remainder of the 30-year period, causing the population of direct and secondary energy-related workers to increase to 42,410 by 2035.

Exhibit II-9 shows the distribution of these secondary energy workers across the region by their county of residence.

Exhibit II-9.
Secondary Energy-Related Employed Residents by County, Oil Shale Development Scenario, 2005–2035

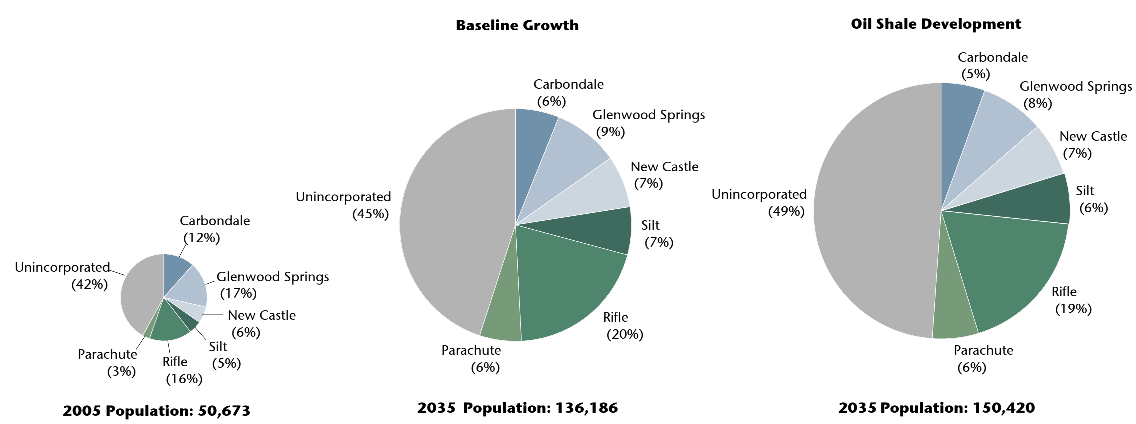


Source: BBC Research and Consulting, 2008.

Assuming oil shale development proceeds, Garfield County population will approach 150,400 residents in 2035, an almost 200 percent increase from 2005. Compared with baseline growth (without oil shale development), Garfield County will see an additional 14,200 residents in 2035 under the oil shale development scenario. The combined estimated population growth in Garfield County of both the baseline and oil shale scenarios yields a total of about 165,000 people.

Rifle is expected to grow to 28,000 residents by 2035. Exhibit II-10 shows Garfield County population and distribution of residents for 2005 and 2035 as a result of both natural gas and oil shale development.

Exhibit II-10.
Garfield County Population Distribution, 2005 and 2035



Source: BBC Research and Consulting, 2008.

Community Housing

The city of Rifle and local developers have already begun a number of initiatives to develop new resident housing and get appropriate services in place.

Planned developments. A very large number of housing units (approximately 1,400 single family and 2,400 multifamily) are currently in the approval and planning stages. The largest developments include the 1,400-unit Rim Rock project north of the City and the 1,200-unit Bryce Valley project northeast of the City. Several smaller developments are planned for the areas south and west of the City.

Exhibit II-11.
Future Development

Source:
City of Rifle Planning Department

Development	No. of Units	Description	Progress
Rim Rock	1,400	Village center, mixed residential	In process
Bryce's Valley	1,500	Village center, mixed residential	In process
The Farm	450	Mixed residential	In process
Trapper Hollow	22	Multifamily, townhomes	Drawing board
Rifle Heights	95	Single Family	In process
Two Creeks	184	Townhomes	In process
Queen's Crown	120	Single Family	In process
Brown Property	(40 acres)	Mixed residential	Drawing board
Black Lion	(40 acres)	Mixed residential	Drawing board
Pioneer Mesa	115	Single Family	In process

In all practicality, Rifle is growing about as rapidly as it can. For-sale housing availability and rental vacancies have been near zero for the last few years despite aggressive annexations, utility extensions and the addition of roughly 400 new homes per year over the past three years. At the time of this report, Rifle has over 3,000 homes in the regulatory process. Growth pressures have been so strong and manpower so stretched that finalization of the City's Comprehensive Plan, which is complete at a draft level, has been delayed two years awaiting staff time for final review. By now, the draft is already out of date.

Construction costs. In recent years, the costs of home building and road construction in Rifle have risen sharply. Prices on construction materials have been driven up by strong demand from the energy sector.

According to City staff responsible for construction contracts, the prices of asphalt and concrete have risen by 30 percent in the past two years (2006-07). Currently, Rifle is constructing a new public safety facility at over $250 per square foot—a large increase from the $125 to $150 per square foot cost of a building constructed by Garfield County in 2005. A school facility built in 2001 was constructed at $110 per square foot, while bids for a new facility came in at up to $225 per square foot in 2006. The cost of Rifle's new waste water treatment plant was estimated at $14 to $16 million in 2006, but the actual cost is over $23 million.

As a result of increasing costs, bids on public works projects have increased by 30 percent in the past three years, and many public works projects receive no bids at all because of contractor and worker shortages. The City is currently trying to mitigate this problem by recruiting an "in house" construction crew to build small capital projects.

Housing prices. Housing prices in Garfield County have risen rapidly to the point that Rifle's role as a low cost alternative for commuting resort workers is no longer an important factor in the local marketplace. In fact, the surge of energy workers and related service jobs—most of which pay higher wages than resort jobs and do not require a lengthy and increasingly expensive commute—has largely overwhelmed the resort services market. One of the ramifications of Garfield County's rapid growth has been the reduction of housing options for resort workers, resultant "push-back" pressure to develop more housing within the resorts, and at least for the time being, significant shortages of workers for seasonal and construction demands in Eagle and Pitkin counties are due largely to affordable housing shortages.

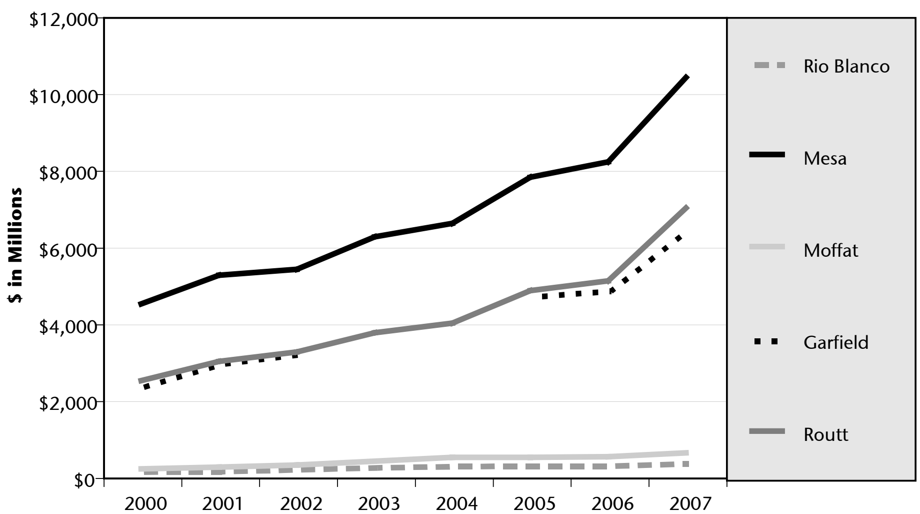
A 2008 report[3] looked at Multiple Listing Service (MLS) data since 2005 and found that the median price for homes in Rifle had increased rapidly from $200,000 in 2005 to $275,000 in 2007, an increase of 38 percent in two years. More tellingly, the report found that in 2007, the proportion of housing affordable to families making 180 percent of the regional median income was only 32 percent, and an analysis of current listings in 2008 suggests that this proportion may be declining even further.

A second recent study by Mesa State College collected the "actual value[4]" data from the respective county assessor's data, which demonstrates the overall rise in the gross value of all residential property.

Exhibit II-12. Residential Actual Value

Source:

Colorado Division of Property Taxation figure (Appendix I, figure 1) in *Investigating Regional Collaboration in Northwest Colorado—a* Study by the Mesa State College Natural Resources and Land Policy Institute, May 2008



Hospitals, schools and other public agencies have all indicated that the cost of housing and the price competition for workers have caused difficulties for these institutions in attracting and retaining qualified teachers, health care professionals, and other skilled employees. The city of Rifle has experienced this effect in its own workforce, including a recent experience in which a city planner left to work for the city of Aspen because it was able to offer affordable housing for its employees.

Overcrowding. Another housing issue has been the use of some units as illegal hot-bunk houses where a large number of industry employees rent the same house and stagger their work schedules so that they can sleep in shifts. Such overcrowding leads to poorly maintained properties and overcrowded streets and driveways. Local motels have turned into "man camps," and it is estimated that 80 percent of local hotel room-nights are used by energy workers.

---

3 Savage Land, Co., Inc.

4 "Actual Value" is a term used by the county assessors, which roughly equates with market value.

Meanwhile, the unavailability of lodging in Rifle has meant that tourists have gone elsewhere for recreational opportunities. Hunting has long been a significant economic generator for Rifle and the surrounding area, but congestion and the lack of available rooms in the City have caused hunters to look elsewhere.

Building fees. Rifle imposes a number of fees on new development. For a sample home valued at $200,000, fees totaled almost $21,000. The largest fees include the use tax fee (about $4,400 on a $200,000 home), sewer system improvement fee ($5,300), water system improvement fee ($4,700) and street impact fee ($3,000). In recent years, the City has doubled sewer rates and increased tap fees by 50 percent to ensure that new development is "paying its way." To this end, it also plans to increase water fees by 50 percent in the next 3 years and continue charging impact fees for streets, parks and special improvements.

The City is doing it share to recover the costs of growth, yet at the same time new fees, charges and costs are exacerbating a housing cost problem and contributing to greater difficulties in attracting staff workers.

Infrastructure Needs

The current Rifle population boom has put a strain on the infrastructure of the City. Water, wastewater, transportation and other infrastructure projects that would have required improvements, expansions and/or replacement in the 2012 to 2015 period, are now needed today. In every segment of the community's infrastructure, there has been expansive growth and the timetable for those improvements has been accelerated dramatically.

Increased traffic flows at the intersection of I-70 and SH-13 will require the construction of several roundabouts. Currently, the City only has sufficient funds to construct two of the three needed roundabouts south of I-70, while a roundabout north of I-70 will require additional funding. The intersection of SH-13 and US-6 nearby will also need to be redesigned in the coming years due to increases in heavy traffic.

A growing population has brought increased demands on the City's public safety department. As a result, the City, in partnership with Garfield County, will construct a new public safety facility in 2008. The existing wastewater and tap water treatment plants are approaching full capacity and will be expanded or replaced in coming years.

Exhibit II-13 below summarizes Rifle's five-year infrastructure needs.

Exhibit II-13.
Five-Year Infrastructure Needs

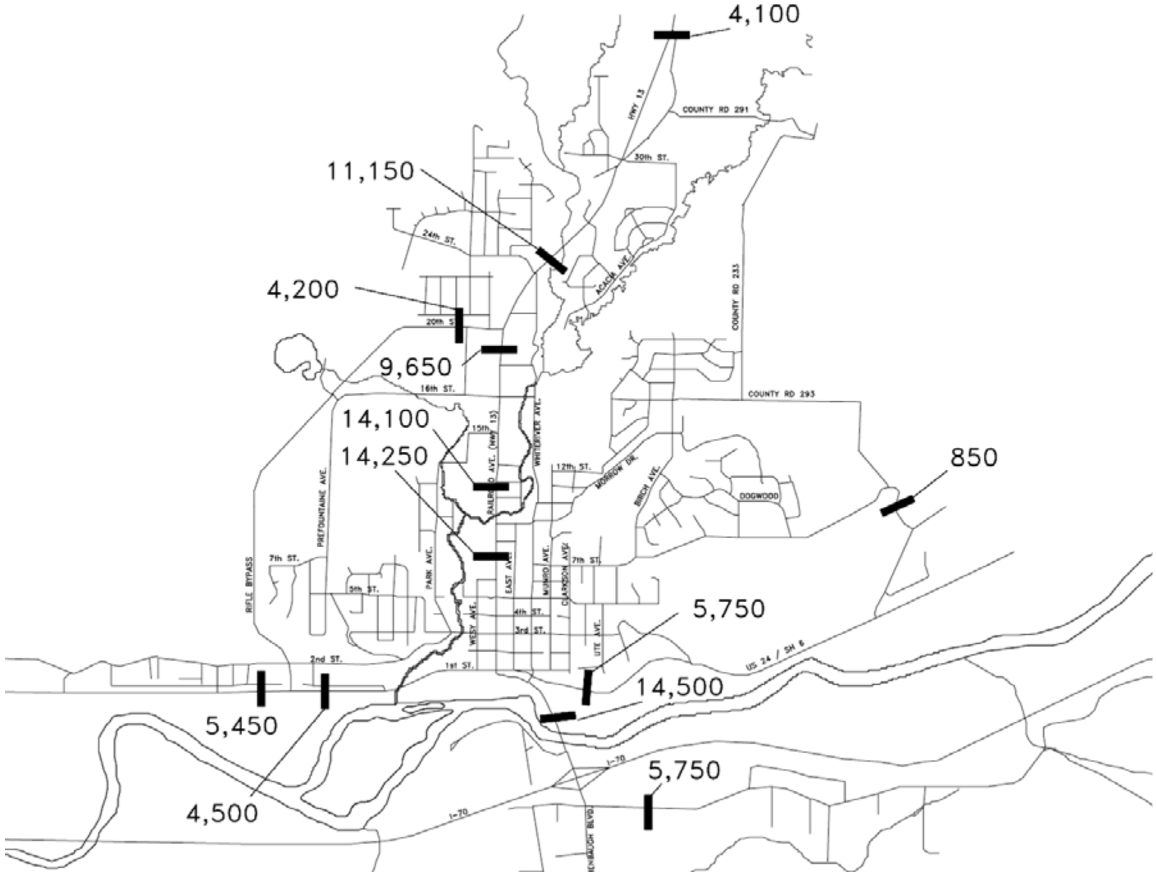
Source:
City of Rifle, August 13, 2007.

	Five-Year Needs
Roads/streets	$14,120,000
Water	$25,000,000
Wastewater	$26,925,000
Storm drainage	$1,270,000
Parks/recreation	$5,645,000
Police	$4,638,000
Total	**$77,598,000**

Traffic congestion is a major problem in several areas of Rifle, most notably along Railroad Avenue in the city center where average daily traffic was estimated to be over 14,000 vehicles per day in 2002. Congestion is a growing problem at the stretch of SH-13 going under I-70 and connecting Rifle proper to the southern commercial district, where average daily traffic was estimated to be 14,500 vehicles per day in 2002.

Exhibit II-14 shows the 2002 traffic counts at key locations throughout the City.

Exhibit II-14.
Average Daily Traffic Volume, 2002.



Source: Rifle Transportation Master Plan, 2002.

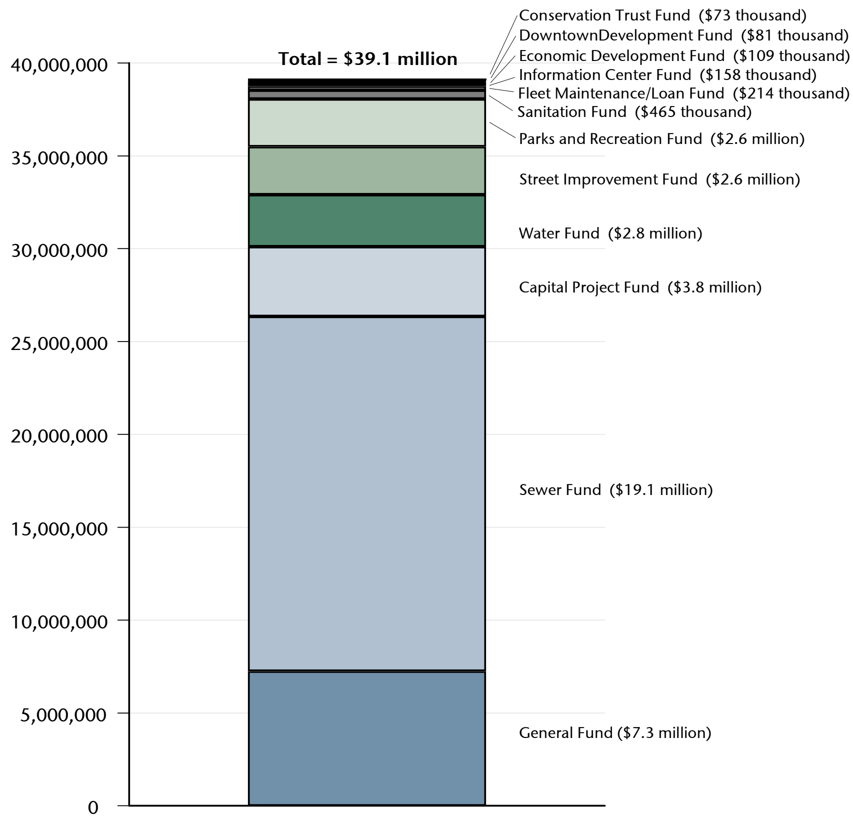
In the past 5 years, traffic on Railroad Avenue has increased from 9,000 vehicles per day to over 14,000 vehicles per day. As drilling activity moves north, Railroad Avenue's traffic will increase proportionately. City public works staff reports that increased traffic has created longer lines at street lights and various intersections. The increase in the number of heavy trucks related to the energy industry is a particular concern, as these vehicles put a large strain on Rifle's infrastructure.

Fiscal Position

The city of Rifle is projected to have total revenue of $39.2 million and total expenditure of $46.5 million in 2007, according to the municipal budget. Exhibit II-15 shows Rifle's municipal funds according to the 2007 budget.

Exhibit II-15. Municipal Funds, City of Rifle, 2007 Budget

Source:
City of Rifle.

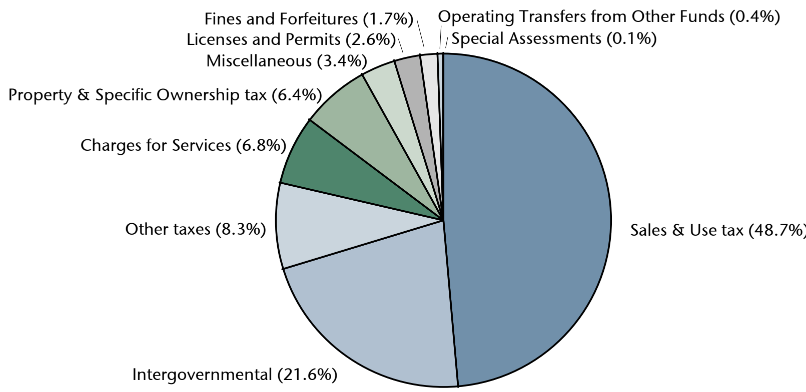


In 2007, the general fund was estimated to receive $7.3 million in revenue. Estimated revenue in 2007 for the sewer fund was much greater than in previous years at $19.1 million due to the construction of a new wastewater treatment facility that will be funded by a grant from the Colorado Department of Local Affairs (DOLA) and the issuance of bonds. Other substantial funds include the capital projects fund ($3.8 million), water fund ($2.8 million), street improvement fund ($2.6 million) and the parks and recreation fund ($2.6 million).

General fund income sources. Sales and use tax account for the largest portion of income to the general fund (49 percent in the 2007 budget). Intergovernmental transfer payments, which include state and federal tax distributions such as severance tax and the highway users trust fund, account for 22 percent of general fund revenue. Property and specific ownership taxes account for just 6.4 percent of budgeted revenue in 2007. Exhibit II-16 displays the City's sources of general fund income.

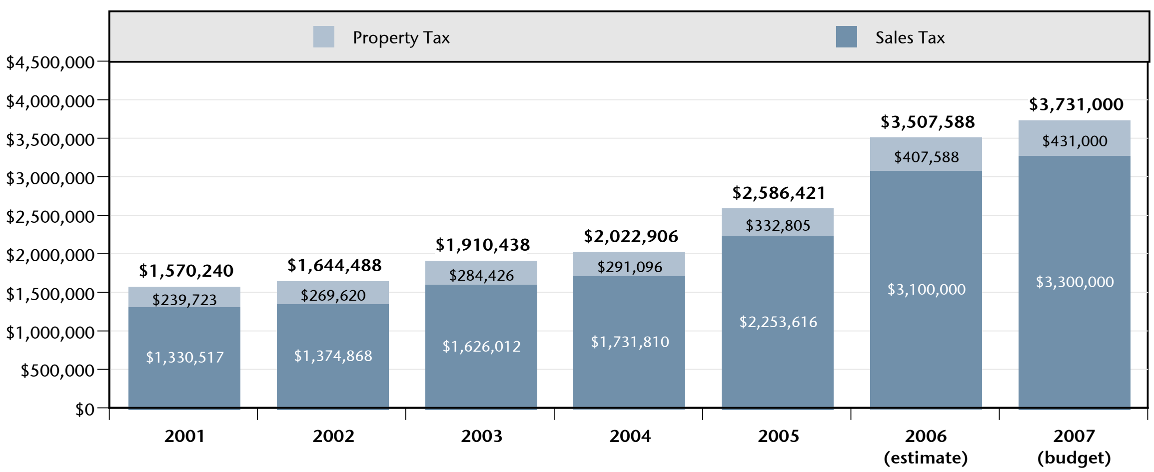
Exhibit II-16.
Sources of General Fund Income, City of Rifle, 2007 Municipal Budget

Source:
City of Rifle.



Sales and property tax. Rifle's sales tax base grew steadily between 2001 and 2007 and has grown substantially as a result of new retail activity in Rifle's south commercial district, as shown in Exhibit II-17.

Exhibit II-17.
Sales and Property Tax, City of Rifle, 2001 to 2007



Source: City of Rifle.

Between 2001 and 2007, Rifle's sales tax revenue grew by almost 150 percent. It grew by 30 percent between 2001 and 2004, and the addition of the Wal-Mart caused sales tax revenue to grow by an additional 30 percent in the following year alone. Property tax revenue increased by 80 percent—from $239,723 to $431,000—between 2001 and 2007, respectively.

Schools

Rapid growth in Rifle's population has led to overcrowding in School District RE-2, which serves Rifle. Between 2001 and 2007, total enrollment at the district grew by 618 students, or 17 percent, to 4,270 students. Hispanic students make up an increasing proportion of the student body and the number of students receiving free and reduced lunches has nearly doubled.

While a rapid increase in assessed valuation has enabled school district RE-2 to pass bond elections for capital improvements, the economic growth in Rifle has had a number of negative effects on school operations:

- The energy boom has caused labor costs to rise sharply, and schools have had a very difficult time recruiting and retaining maintenance staff and bus drivers. (For example, a bus driver makes $14.30/hour working for the school district but can make around $25/hour working in the oil and natural gas industry.

- Schools have encountered difficulty in recruiting teachers due to the high costs of housing. Average monthly pay for a new teacher is approximately $2,100, and monthly rent for many apartments can exceed $1,000. District RE-2 reports that at least 20 teachers who declined positions specified that it was due to inflated housing costs.

- The formula used to determine per-pupil funding assistance from the state has not reflected the changing cost of living in Rifle and Garfield County in recent years.

Overall, statutory limitations have prevented schools from taking advantage of economic growth within their borders. Costs have experienced strong upward pressures while funding has not kept face.

Economic Diversity and Self-Sufficiency

Rifle has not been complacent in tackling the challenges presented by rapid growth, nor has it put up barriers or taken an easy route of resisting growth and exacerbating the current problems of too little housing and too many jobs. The City has been aggressive in its efforts to tax itself to accommodate newcomers. Several examples include the following:

- The public/private partnership that brought Wal-Mart into Rifle was considered a risky venture by some, but has proven critical to generating local tax support;
- City residents passed a 2006 sales tax increase to fund parks and recreational improvements;
- The City has imposed a new series of fees and charges so that new growth comes closer to paying its own way. This effort has included increased sewer rates, tap fees, water fees and impact fees. It has also expanded its planning and building department to support higher volumes of applications and site reviews; and
- The City has made a significant commitment to expanding its infrastructure. Rifle citizens accepted a 100 percent increase in sewer rates in order to fund a new $23.2 million new treatment facility, which should accommodate growth for the next decade.

Rifle has also been proactive in identifying opportunities for commercial, residential and industrial development in various areas of the City. An "Opportunity Assessment Report" completed in 2006 details some of these development opportunities.[5] The report suggests that the City take steps to define itself simultaneously as a river town, energy village and regional economic center. To that end, it gives the following specific recommendations:

- Development of lands adjacent to the Rifle-Garfield Regional Airport that includes a focus on finance and technology businesses, as well as the expansion of Colorado Mountain College facilities and programs related to these fields.
- Enhanced integration of the downtown area with the Colorado River that incorporates extended stay lodging, restaurants, limited retail and residential units. The creation of a "River District" presents a good opportunity for the creation of appealing and affordable housing units.
- Revitalization of Railroad Avenue that involves streetscape uniformity and preservation of the City's western character.
- The creation of an employment center at the western interchange of I-70 that clusters economic activity in manufacturing, processing and storage. By encouraging the growth of these industries in Rifle, the City can retain some of the residents commuting to Grand Junction for work.
- Re-orientation of Rifle as a leader in energy conservation, through the creation of several "co-generation" facilities (those that produce both heat and energy) that rely on alternative energy sources.

Despite these efforts, Rifle's current economy is still driven by the natural gas industry, which tends to crowd out tourism, agriculture, entrepreneurial start-ups and retiree migrations, and thus increases the community's risk if gas prices were to decline.

[5] Chesney & Associates, LLC; Gerstenberger Associates; Vandewalle & Associates, 2006.

SECTION III.
Rifle Challenges and Opportunities

SECTION III.
Rifle Challenges and Opportunities

As noted in prior sections, the city of Rifle is at the center of long-term regional growth forces driven by natural gas and related resource development. Rifle is an attractive location for many businesses and residents that can serve the growing gas and prospective oil shale ventures. However, the level of growth projected for this region presents a number of challenges for the City.

The Challenge

Over the years, many Colorado municipalities have faced periods of rapid growth and they have generally accommodated growth-related service demands and infrastructure with the standard array of local taxes, fees and service charges allowed them under Colorado law. Rifle has managed well thus far, it has made the necessary investments in commercial development that promise a substantial tax base, and the community at nearly 10,000 residents has the scale necessary to support a wide array of community services.

Regardless of their successes to date, there are a number of compelling reasons why the situation currently facing Rifle specifically, and northwest Colorado in general, presents greater public service and cost challenges than traditional growth in urbanizing areas. These challenges are discussed below:

(1) The energy industry, particularly the gas industry, has unique operating characteristics that make the timely and efficient provision of public services challenging.

- The impact of natural gas drilling is not concentrated in a single location, as would be a new power plant or manufacturing plant. The dispersed and often remote locations of drilling activity are difficult to serve, particularly for fire, police and emergency services. The gas industry is road-use intensive and road repair, maintenance and expansion is often the single largest cost for local governments. This burden falls particularly hard on local counties but also on local communities, such as Rifle, where city streets designed for community use become regional collectors. In many instances, the only solution to the increases in pass-through traffic will be by-passes and expensive system expansions. Traffic control and safety (traffic lights, turn lanes, shoulders, roundabouts, issues with school zones) are additional costs typically required to serve a pass-through market that contributes very little to local taxes.

- The natural gas development industry is institutionally decentralized. There are many subcontractors and the industry has fundamental uncertainty regarding pricing and location of new fields. All of this makes forecasting and anticipating service needs, as well as committing to public capital investment, difficult and risky.

- The natural gas industry changes over time as it matures through exploration, completion and maintenance phases. Different development phases have significant effects on employment, skill requirements and traffic patterns and thus on service provision and demand for housing, adding another layer of risk.

(2) Beyond the amount of likely growth, the overall pace of growth is challenging.

- Generally, communities can accommodate modest growth rates without undue disruption. Very rapid growth (i.e., boomtown conditions) can strain public services and planning capacities regardless of funding levels.

- Public institutions—which must operate by time-consuming consensus and public involvement processes—often cannot respond fast enough to keep up with demands. Rapid growth combined with small communities that have limited growth management resources, presents a challenging situation.

(3) Intensive energy operations tend to "crowd out" other basic components of the economy increasing community risks of gas development suddenly diminishes.

- **Agriculture** is challenged by urbanization, rising land values, loss of critical mass and loss of support systems, although Federal Royalty payments can help many ranchers withstand these challenges.

- **Tourism activity** is hurt by declining esthetic values and absence of available hotel rooms; hunting and fishing is hurt by increased pressures on fisheries and wildlife as well as industry occupying lands historically used for ranching and outdoor activity. Competition for employees challenges tourist service businesses ranging from restaurants to lodging.

- **Second home/retirees** are less likely to find the esthetic retreat, small town atmosphere and reasonable home prices that have supported this lifestyle. Drilling in remote areas, traffic congestion, pressure on wildlife and general loss of life style quality also reduces appeal.

- **Small businesses/Start up businesses** are hurt by labor competition, lack of affordable housing, cost of living and rising material costs.

Although energy development, or any new dominant industry, also produces attractive economic opportunities that may in many instances, and for many individuals, outweigh the long-term issues presented by a less diversified economy. The lack of economic diversification is truly a problem if, and when, the primary industry declines, the other supports for the area's economy may have already withered as a result of crowding out.

(4) The energy Industry's economic strength has the ability to compete aggressively for workers, materials and land. Local governments, that often lack the ability to respond to changing conditions quickly and outside of annual budgeting processes, often cannot compete.

- Competition for scarce land, materials and workers can result in higher incomes and general prosperity for local residents, but when severe imbalances occur, as they have in recent years, many local businesses and local governments are forced to work shorthanded, limit hours of operations, raise prices or lower production. Private industry can usually cope because businesses can raise prices appropriately, Government faces a greater problem because its "prices" (tax rates) are generally set or limited by law. Schools can be particularly hard hit because they suffer a second level of cost limitation associated with state equalization.

- Further, recent experience demonstrates that scarcity of contractors and labor has greatly increased the cost of government services. In recent years, government contract solicitations in northwest Colorado for roads, bridges, facilities, schools and services have commonly gone un-bid or bid at prices far in excess of expectations. Commodities, such as cement and gravel, have periodically been in short supply and very expensive. Schoolteachers, maintenance workers, engineers and skilled support staff are very difficult to attract and retain. Worker turnover, a common occurrence, is very expensive.

(5) Public sector service and capital costs associated with growth are often exaggerated by the area's geographic features and limited private lands.

- Communities in the Colorado Front Range have generally developed in flat plains without significant geographic constraints; this is not the case in northwest Colorado. The majority of population in Garfield and Mesa counties lives in the Colorado River Valley, which as long as communities were small, represented only a modest constraint to development. As this area urbanized, the land that is both appropriately and easily developed along the river has been consumed, and communities such as Rifle, Parachute, Silt and New Castle are faced with expanding onto nearby mesas or bridging the river to take advantage of open lands on the other side. This creates expensive water, sewer and road issues. Continuing growth in the Rifle area may eventually require additional expensive bridges over I-70 and the Colorado River, or a sharp community division between north and south based on congestion at the City's only river crossing.

- North/south travel is particularly difficult because of geographic constraints. SH-13 (Rifle to Meeker) is the only north/south route in the region and will very likely become highly congested and potentially dysfunctional under most foreseeable development scenarios. All contemplated solutions are very expensive because there are so few alternative routes for regional travel.

(6) Rapid growth communities are uniquely challenged by the spending limitations and tax prescriptions dictated by the Tabor and Gallagher Amendments.

- Attempts to build infrastructure or expand services in advance of development is made more difficult because the Tabor Amendment limits spending by formulae that incorporate measures of past growth; defines allowed costs by Denver-based inflation rates, and effectively restricts the spending necessary to accommodate rapid population and traffic growth. As a result, local governments are hamstrung in their ability to prepare for growth-related demands. Rapid local increases in costs, and the need to raise salaries and material purchase allowances to compete for scarce labor and supplies, are undermined by Tabor's requirement to tie operating increases to Denver-based measures of cost inflation and measures of local population growth.

In sum, it is not just the magnitude or the pace of growth facing Rifle and northwest Colorado but the characteristics of the affected communities and the unique qualities of the emerging natural gas industry that drive high municipal service costs. Communities such as Rifle are forced to make significant sacrifices and take considerable risk in the investment in infrastructure to accommodate the national demand for natural resources.

Rifle's Response

The Rifle community has responded aggressively to the challenges presented by rapid growth and has invested heavily in its permitting and planning systems and physical infrastructure in anticipation of future growth. In January 2008, the City committed to a $23.0 million expansion of their sewerage system—the most immediate barrier to accommodating future development. With this commitment came new fees and charges including new system development fees that were increased 105 percent. Currently, the City has been bonded for $4.2 million in road improvements and has raised sales taxes to build needed recreation and park facilities. Additionally, the City is also evaluating the feasibility of constructing a new water treatment plant at an estimated cost of $25 to $30 million.

Unfortunately, preparing for growth requires raising capital investment monies and completing infrastructure long in advance of population growth and associated sales and property tax revenues. This puts the City in a position of considerable risk and increases the costs to new homeowners.

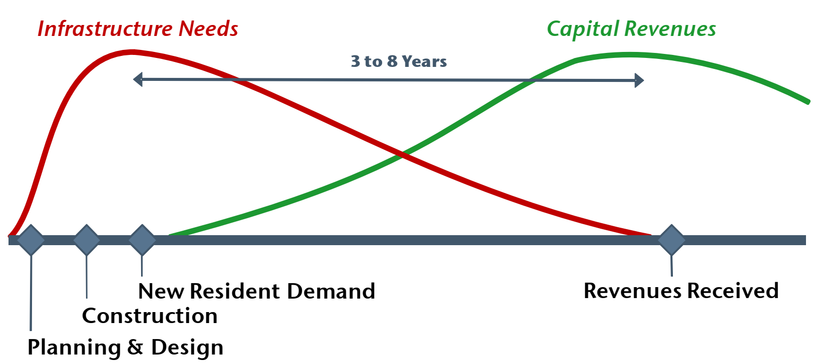
Similarly, although completed natural gas wells will eventually produce high-assessed valuations and related property taxes; municipalities are not the beneficiaries of those revenues. The State of Colorado redistributes a share of Federal Royalty revenues and state severance taxes based on the location of energy workers, which is beneficial to Rifle, but these amounts are uncertain, subject to state-level political and legislative action and have fluctuated widely over the years. Additionally, Colorado has a large grant program available for energy-impacted communities, which has also been instrumental in addressing front-end capital needs, but these funds by necessity must cover a broad area and many jurisdictions, towns and districts.

In sum, the City struggles with four general challenges associated with the current funding system:

- **Timing.** In order to serve residents, infrastructure and services must be implemented and functioning prior to residents' arrival; thus, expensive investments in roads, schools, parks, recreation, jails and administrative space, along with the personnel to operate these facilities, must be acquired before severance tax distributions, sales taxes and property taxes occur. Often, even meeting this schedule implies that planning, design and land acquisition has to commence many years before growth occurs.

Exhibit ES-13. Public Investment Timing Issue

Source:
BBC Research & Consulting



- **Commodity risk.** The lead-time requirement for investments highlights the problem of risk, particularly when dealing with the traditionally volatile resource extraction industry. Communities, like Rifle, are forced to go at risk in providing services and infrastructure—betting on future revenues to repay those bonds and expenditures. When growth occurs as expected, this strategy works well, when it does not, it leaves the community in a crisis—an experience that many residents still remember from the last oil shale boom. The aforementioned tendency for the natural gas industry to crowd out other economic supports compounds this risk equation.

- **Funding risk.** As it matures, the natural gas industry will produce significant tax revenue. As a rule, gas-related property taxes would accrue to the counties, school districts and some special districts, but not municipalities. State severance taxes and Federal Royalty revenues support many state functions and a large share of these receipts are redistributed to local energy-impacted communities for services and infrastructure. Although these funds will grow to be substantial and Rifle should be a significant beneficiary, there is no guarantee that redistributions will occur. If they do, questions exist as to the timing and reliability of distributions.

- **Jurisdictional imbalances.** Under current funding systems, there is no guarantee that revenue will flow to need. Property taxes are one example; sales taxes are a second; and distributions of severance taxes and Federal Royalty revenues are a third—where revenue does not necessarily follow demand for service. If growth occurs as projected, Rifle is almost certain to be under considerable pressure to provide for housing and services but there is no similar certainty about associated revenue.

Rifle's Physical Challenges

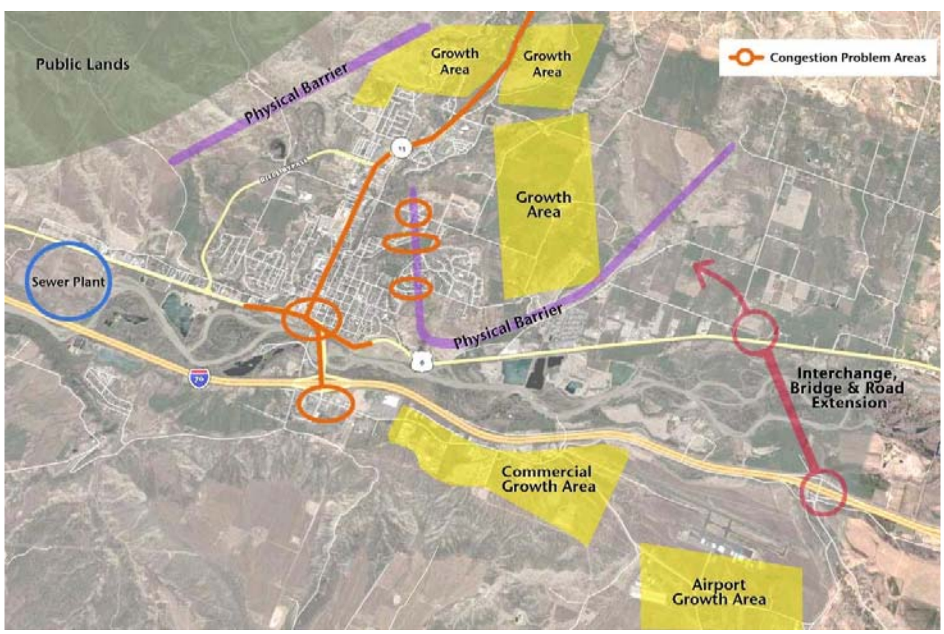
As demonstrated previously, Rifle has substantial growth potential. If infrastructure shortcomings can be overcome, Rifle is well positioned to absorb a large share of the residential and commercial development projected for this area, which would reduce some of the pressure and expense faced by other smaller communities.

Exhibit III-1 offers an overview representation of the City's physical barriers, investment needs and likely growth areas.

Exhibit III-1. Rifle Physical Opportunities and Constraints

Source:

BBC Research & Consulting.



As noted, Rifle has physical barriers, primarily cliffs and abutments that are becoming more problematic as the community grows—a typical situation on the Western Slope where public lands and physical constraints are common. Cliffs to the northwest of the City and the presence of public lands is an immediate barrier to growth in that direction. There is a similar cliff to the east of the core City that has three access points, but these offer very limited capacity access to Railroad Avenue and the core of the City. This problem is made more challenging because of the absence of an arterial system "draining" the east side of the City, where a large share of current development is occurring and providing an alternative means of leaving the City and accessing US-6. Rifle has two north/south and two east-west arterials. As it grows, the community will have to develop additional costly transportation systems for moving about the community and accessing I-70.

On the west side, Rifle needs to initiate the new sewer treatment plant, which will upgrade service for all residents and add about 70 percent more capacity than currently exists. The City's next most pressing burden is its reliance on SH-13 (Railroad Avenue) for local traffic as well as a large share of regional traffic. As noted in Exhibit III-1, congestion levels within the City on SH-13 are already high and the access points near US-6 and I-70 are at capacity at peak period. Some combination of solutions: better engineered entry points, roundabouts; additional arterials to relieve north/south pressure; and an additional access to US-6 away from the City core may all be part of a solution.

Like many area communities, the City has areas suitable for both commercial and residential growth. Barriers to accessing and developing those properties are significant. The single bridge over the Colorado River, which is a often heavily congested, is a barrier with the potential to divide the entire community. Development on the mesas, whether south or east of the City, presents costly water, sewer and road access solutions.

Summary

The city of Rifle is in the first decade of an extraordinary period of development challenges, risks and opportunities. As a focal point of one of the largest gas fields in North America, as well as potential future oil shale production, economic prospects are promising. However, the City is challenged by the pace, magnitude and nature of these growth pressures. Rifles confronted with many risks—ranging from the uncertainties of national energy markets and the possibility of changes in state revenue allocations to the day-to-day challenges of planning, building and ultimately maintaining the quality of life current residents have come to expect. The unusual qualities of the natural gas industry, the State's uncertain severance tax distribution process and the simple physical challenges of Rifle's location make accomplishment of community objectives particularly difficult—and in some instances unusually expensive. With proactive local efforts, regional commitment to coordinating investments and ongoing technical and financial support from state and federal sources, Rifle has the potential to capitalize on these opportunities and create an attractive, high quality, sustainable community.