

8.0 CONCLUSIONS-“A PAUSE”

During the last two decades, Eureka County has experienced significant mining activity especially in the northern part of the County. Approximately 33 percent of Nevada’s gold production comes from Eureka County mines (See Figure 3-10). However, the mine workforce and associated population largely reside outside the County. Table 3-3 shows trends in the Eureka County labor force as compared to resident employment. The total number of jobs in Eureka County in 2014 was 4,421 slightly lower than 2012 at 4,736 jobs. The resident labor force saw small declines between 2012 and 2014.

There are a number of reasons for this condition. Most notably gold prices have declined since 2012. Lower gold prices have a tendency to reduce new development and exploration activity although major mines continue to maintain production levels similar to historic output in Eureka County and several smaller mining projects are in various stages of development, particularly in southern Eureka County.

As a result of historic operating conditions and employment trends, Eureka County derived most of its mining related benefits through local tax revenues such as sales tax collections, property tax, and net proceeds of mines tax (See Figure 4-2). The private sector in Eureka County traditionally saw little direct benefit. Employment gains were muted as were personal income and wages of Eureka County residents. In terms of per capita income Eureka County ranked 8th among Nevada’s 17 counties in 2012 (Table 3-5). The local retail and service sectors saw little increase in activity as the demands for goods and services largely went elsewhere. Eureka County even experiences a poverty rate higher than the State of Nevada as a whole.

Eureka County housing and property values remain some of the most affordable in all of Nevada (See Figure 2-7). Due to the County’s remote location, construction of stick built housing and even the availability of financing have been very limited. Over 64 percent of housing units in Eureka County were mobile homes in 2014 (Table 2-3). However, with the anticipated long-term nature of several mining projects in Eureka County, new conventional stick built homes and rental housing may increase. Other sectors of the Eureka County economy remain stable with little noticeable change during mining cycles. Agriculture, for example, remains one of the County’s base industries and has been relatively stable. However, its total output is sometimes affected by mining due to acquisitions of ranch operations and the change in place and manner of water use. Several large ranches in northern Eureka County are now owned by mining companies. Currently, mining companies own over 51 percent of all agricultural private lands in Eureka County and over 56 percent of total private lands in the County.



The effect of past mining operations has meant real net gains in the public sector through improved local source revenues although such gains were partially offset by the lack of growth related benefits for local residents in terms of income, employment and business activity. In other words, because mining activity did not substantially benefit the private sector, favorable fiscal conditions emerged in Eureka County because very little growth related expenditures were required. The lack of local growth and growth related impacts in terms of public expenditures created a situation where local government revenues, at times, would outpace local government expenditures. Because mining related tax revenues are largely viewed by Eureka County as temporary sources, local government employment and wages remain relatively modest in the County

Future gains in local workforce participants will likely change many aspects of the socio-economic conditions of Eureka County. Additionally, many proposed mining projects if completed to full development will increase the full-time, temporary, and the effective day-time population of the County as well as commuting patterns and the movement of goods. Local growth related impacts from mining projects are a relatively new phenomenon in modern day Eureka County.

Since the beginning of the current mining expansion (2004 -), the population of Eureka County has exhibited small and consistent increases (See Figure 2-1). Historically, mining operations in Eureka County were primarily located north of Interstate 80 with a few smaller operations scattered throughout the County. As a result, the significant growth in the Eureka County workforce at Carlin Trend mines did not translate into large local population gains due to the proximity of neighboring communities outside Eureka County.

Several mining projects with strong prospects of reaching full operations in and around the Diamond Valley/Town of Eureka area could have more than 1,200 projected employees for operational phases not including any of the Barrick's existing operations at Cortez Hills and Bald Mountain. As Barrick's operations move further south along the Carlin trend, an increasing number of employees will choose to live in the Diamond Valley/Town of Eureka area. Barrick's Horse Canyon/Cortez unified project (Gold Rush Deposit) is the company's next flagship project located six kilometers from the Cortez mine, is one of the largest and highest grade gold discoveries of the last decade. Measured and indicated resources stood at 10.6 million ounces and inferred resources were 4.9 million ounces at the end of 2014. Operational employment is expected to be on par with Barrick's other major Carlin Trend mines. Due its proximity to Diamond Valley and the Town of Eureka, significant operational employees are expected to locate to the area.



The proximity of mining projects to the Town of Eureka, and the projected number of operational employees should also generate increased non-mining support services and trade activity as well. Typically, one mining job creates at least one non-mining job in the local economy. Combined, the projected economic activity and associated population growth over the next decade could be substantial and drive demands on local resources and services.

Such activity could have a greater impact on the County in terms of increasing the resident population of workers and by hosting more mining operations that will draw upon Eureka County resources. For example, Barrick Gold built a man-camp at the JD ranch in central Eureka County. The facility could accommodate several hundred workers, developing a new community with many essential services provided by Eureka County. General Moly's proposed Mt. Hope Project just north of the Town of Eureka has the potential to increase the current population of southern Eureka County by as many as 600 persons, a 50 percent increase. However, lack of financing has slowed development of the Mt. Hope project. Additionally, there are a number of proposed projects that may have an impact to southern Eureka County in the next 10 to 15 years. They include:

- Gibellini Vanadium Mine Project by American Vanadium; projected to have approximately 150-200 employees.
- Pan Gold Project by Midway Gold; projected to have approximately 150-200 employees
- Gold Rock Project by Midway Gold; project to have approximately 150-200 employees
- Bald Mountain Project by Barrick Gold; projected to have approximately 150 employees.
- Gold Bar Gold Project by McEwen Mining; projected to have approximately 150 employees.
- Numerous current exploration projects that have yet to define their project scope include:
 - Lookout Mountain and other projects by Timberline Resources
 - Rye Patch Gold
 - Ruby Hill Bullwhacker Expansion by Barrick Gold

The end result could be socio-economic and fiscal conditions in the County significantly different going forward with more population residing in Eureka County closer to proposed projects. Permanent population growth will likely continue in southern Eureka County as well as the Crescent Valley area, pushing the total county population well above 3,000 in the near future and higher in the long-term. Such gains in population will largely occur through in-migration of workers.

Daytime and temporary populations may also increase. They include workers who commute to Eureka County and spend one or more nights in the vicinity of the work site during the week. Currently, the mines in northern Eureka County bus employees daily for work shifts, primarily from residency locations outside Eureka County. Both the Mt. Hope Project and Barrick Mines will have



workforce elements which contribute to the temporary population by providing options for workers to live part-time during the workweek in Eureka County. Local residents especially young adults will find more employment opportunities and may choose to stay near home in Eureka County instead of moving away.

Due to the anticipated changes in population growth and location of mining projects, Eureka County made substantial public expenditures over the last several years just to maintain basic government services such as public safety, municipal utilities, and services to meet the projected demands of mining related growth. At the same time, Eureka County must be mindful of cyclical downturns in mining and must be prepared to handle significant losses in tax revenues. Eureka County maintains several government funds (i.e future reserve fund) to offset future inevitable declines in the mining industry when the non-renewable mineral resources are mined out. The cyclical nature of mining will ultimately result in future downturns and contractions in local economic activity which will erode fiscal conditions in Eureka County. The dual mandate, to accommodate growth and also plan for future declines, places Eureka County in a challenging fiscal position going forward. It appears the current climate and slowdown in mining activity may only be temporary and could resume again in the near future.

Population and Housing

Future population growth will likely alter the demographic characteristics of Eureka County. The average age, household composition, and household size will be influenced by future population gains. Several mining projects with strong prospects of reaching full operations in and around the Diamond Valley/Town of Eureka area could have more than 1,200 projected employees for operational phases not including any of the Barrick's existing operations at Cortez Hills and Bald Mountain. As Barrick's operations move further south along the Carlin trend, an increasing number of employees will choose to live in the Diamond Valley/Town of Eureka area. Barrick's Horse Canyon/Cortez unified project (Gold Rush Deposit) is the company's next flagship project located six kilometers from the Cortez mine, is one of the largest and highest grade gold discoveries of the last decade.

With the inflow of a working age population, the average age is expected to decrease, family households and households with children will likely increase as a percentage of total households in Eureka County. The overall household size will increase as working age adults are more likely to be married and have children. These changes are different from recent demographic trends discussed in Section 2.0.



New housing demand will increase as a result of an influx of temporary and permanent workers. The demand for temporary housing options as well as more conventional housing structures will likely expand the Eureka County housing stock in Table 2-3. The increase in demand could result in higher rents and prices. The year over year (2013-2014) changes in Eureka County population were small due to the current economic climate. However, the long-term trend of continued growth and increasing population in Eureka County appears intact.

Eureka County Economy

The local private sector economic opportunities are likely to increase as compared to previous mining cycles that left wage, employment and income largely unaffected in Eureka County and accrued largely to Elko and Lander Counties. Mining exploration and development projects which are now moving south along the Battle Mountain and Carlin Trends, should have significant impacts on local economic sectors. As seen in Table 3-2, resident employment and the local unemployment rate could fall over the next several years. It appears both the rate of unemployment and employment growth have leveled off and stabilized in 2013 and 2014. Future prospects for gains still remain intact as development of several mining projects are still moving forward. Total local employment (jobs held by residents of Eureka County) could increase by more than 1,200. As shown in Figure 3-3, jobs located in Eureka County and the resident labor force could move higher. The high wages in the mining industry will increase Eureka County personal income, household income, and per capita income above the levels seen in Table 3-6. Again, these measures show level year over year changes.

Eureka County mining output as measured by net proceeds of mines is seen in Figure 3-9. Taxable sales may continue at elevated levels especially during periods where major project expenditures for start-up oriented investment occur. Local trade and services may expand which will be beneficial to most residents in Eureka County. Presently, the trade and services sector of the local economy is very narrow. Increased population and wages will support expanded activity.

Other important elements of the local economy such as agriculture and travel and tourism should remain largely unchanged although some negative adverse impacts could occur in those two sectors given potential environmental impacts associated with proposed mine projects. A significant change in public land management as a result of an endangered species listing of the sage grouse could curtail future growth in all sectors of the Eureka County economy. The number of proposed projects increases the likelihood of impacts. The current model of mining companies is to purchase agricultural properties for a variety of reasons including acquisition of



appurtenant water rights, mitigation options, and insulation from impacts to other private property interests. Mine owned ranches and farms are sometimes not operated in a manner which maximizes the economic outputs from operation. This often results in reductions in livestock numbers, forage and hay production from these lands resulting in decreases in overall agricultural commodity sales for Eureka County. Even in light of some declines in livestock, average farm agricultural output increased from just over \$291,000 in 2007 to just over \$356,000 in 2012.

Local Government Fiscal Conditions

In 2014 Eureka County experienced declines in major mining related tax revenue sources such as taxable sales and net proceeds of mines. The declines are largely due to lower commodity prices as overall County production remains relatively constant. As a result, Eureka County reduced expenditures for many discretionary areas such as major capital improvements as annual government expenditures exceeded annual revenues in 2014 (Table 4-8). This situation is not unexpected and Eureka County manages downturns in revenue by utilizing accumulated ending fund balances while reducing government expenditures.

Over the past several years, Eureka County committed substantial resources to increasing its ability to accommodate increases in population and workers by upgrading facilities and infrastructure. With recent mining trends and exploration activity now focusing future growth and development on the Town of Eureka and Diamond Valley areas, the current pause in economic activity and population growth are seen as temporary. The anticipated number of future jobs in the area could well exceed the current service levels in nearly all categories. With as many as 1,200 employees coming to the area over the next several years, major expenditures can be anticipated for public safety, utility operations, general administrative services and health care.

Education

Permanent population increases will also affect the Eureka County School District. With an increase in permanent working age population, school enrollments will increase and probably return to historic peaks experienced in the 1990s. As seen in Figure 5-1, changes (increases and decreases) in mining activity have a direct impact on schools because the population is driven by working age people, many with children who move into and out of the area. The Mt. Hope Project alone could increase school enrollments possibly to levels exceeding capacity of the existing facilities. Increases above the Mt. Hope Project population may necessitate expansion of school buildings and expenditures by the District for new facilities. The Crescent Valley school has significant capacity



and can absorb relatively large increases in enrollment, if they occur. Increases in teaching and non-teaching staff will be needed to the extent growth occurs. Expansion of school facilities, staff and operating cost remain a real possibility in the future.

Social Indicators

Social indicators in Eureka County have remained relatively consistent over time. Voting, voter registration, crime, traffic, and access to health care show stable trends. Growth in Eureka County over the next several years may have some influence on social indicators. There is no evidence to suggest that large influxes of a mining related workforce will alter voting patterns. Little change in voting patterns has occurred in other northeastern Nevada communities. It has been evidenced in other cases that crime rates and domestic issues will rise in proportion to the population. Temporary construction workforces will likely add to crime rates during the periods they are in Eureka County and will require greater levels of law enforcement resources and other public safety services. Large construction workforces operating in Eureka County are somewhat different than conditions experienced in recent times. The Mt. Hope Project may place as many as 600 to 900 construction phase employees in southern Eureka County. Traffic patterns and commuting could change dramatically in the future resulting in increases in the average daily traffic counts and accident rates on Eureka County roads. The need for health care and health care access will increase proportionally with population gains.

Natural Resources

Other than site specific impacts, recent mining projects have had little long-term impact on natural resources in Eureka County because most mining projects have been relatively short-term in nature, practice modern reclamation standards, and implement effective mitigation measures. A number of current and proposed projects in Eureka County are likely to have much longer operating lives as opposed to the majority of mining projects in Eureka County. The total number of projects and increased duration of operations is likely to have a cumulative impact on natural resources beyond site specific impacts. In many instances, the impacts will be linked to water use. In the past, most mining water use was temporary (10-15 years in duration) and largely non-consumptive. However, the increased duration and more consumptive uses of water will have more long-term impacts to natural resources including wildlife habitat and forage and water for ranching operations. Several measures of water use are included in Section 7.0 such as groundwater wells, water levels, and stream flows for selected locations in Eureka County. Additionally, precipitation records and historic temperatures for southern Eureka County are included in Figure 7-7, 7-8 and 7-9.



Livestock and crop production will likely diminish to some extent as more water is converted to mining and milling uses and mining companies purchase ranching and farming operations. The long-term pumping and consumptive uses of the Mt. Hope Project are predicted to result in the loss of surface water resources, notable declines in groundwater, and declines in water dependent resources within the project area. The areal extent of the impacts and duration is unlike any other project in Eureka County in recent memory. Both BLM and the Nevada Division of Water Resources have entered into a long-term monitoring program with Eureka Moly to ensure that identified impacts from the Mt. Hope Project are detected and hopefully properly mitigated. Eureka County has been granted the ability to participate and provide input in this process. A wide variety of natural resources including but not limited to vegetation, wildlife habitat and surface waters will be monitored. With the increase in operational duration, additional municipal and domestic water withdrawals will occur to support growth.

Additional reductions of authorized AUMs on public lands are predicted to occur due to site specific project needs and the impact created as a result of mining operations. Additionally, a reduction in public land grazing continues to be advocated by a variety of entities even though substantial reductions have already occurred over many decades. As AUMs for domestic livestock have been reduced (See Figure 7-1), growth in feral horse population remains largely uncontrolled. Current populations of feral horses in Eureka County greatly exceed the population levels considered to be sustainable over the long-term with other multiple uses. Much forage loss, adverse impacts to riparian areas and degraded range conditions can be attributed to uncontrolled and over-populated horse herds. Adequate management of these animals is needed to protect the resource for future environmental and socioeconomic needs.

Finally, any listing of the sage grouse could have dramatic impact on natural resource development and use in Eureka County. All economic sectors which rely in part on public lands could be impacted.

