

Resolution Copper Company Economic and Fiscal Impact Report Superior, Arizona



Prepared for:

Resolution Copper Company

September 2011

Prepared by:



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EXECUTIVE SUMMARY

Resolution Copper Company Economic and Fiscal Impact Report Superior, Arizona September 2011

Elliott D. Pollack & Company has been retained to conduct an economic and fiscal impact analysis of the Resolution Copper Company project, a proposed copper mining operation located mainly in Superior, Arizona. The analysis for the mine project includes ongoing construction and mining operations through the life of the mine. In addition to mining operations, this analysis examined the impact of employees supported by operations on the local economy.

The Resolution Copper project will create economic benefits from direct mining operations, supplier purchases and by salaries paid to workers who will in turn spend money in the economy. Economic impact analysis examines the economic implications of an activity in terms of output, earnings, and employment. Estimates are reported for direct operations as well as for the ripple effects that direct operations create, known as indirect and induced effects. Indirect impacts occur from suppliers that are essential to mine site operations such as manufacturers or specialized service contractors. Induced impacts are created by the spending of both direct and indirect employees in the economy.

The Resolution Copper project is estimated to produce overwhelmingly substantial benefits to local regions, the State of Arizona, and the United States as a whole. Its impact is projected to last decades, beginning with 14 years of feasibility and preparation and 50 years of mining operations (including a reclamation period). This analysis excludes significant investment dollars that the company has already made in the last several years. The following impacts summarize our key findings.

Economic Impact

- **Total Economic Activity.** The total economic impact of the Resolution Copper project on the State of Arizona is estimated to be over \$61.4 billion or nearly \$1 billion each year. Operations will support over 3,700 jobs annually, equating to \$220.5 million in annual wages.
- **Employment and Personal Income.** The copper mine will directly employ approximately 1,400 individuals when the mine reaches full production with payroll of roughly \$105 million. Including pre-production and wind down/reclamation, the average annual employment level would be 1,429 jobs with wages of \$107.2 million. The ripple effect of direct operations will support an additional 2,300 jobs each year over the life of the mine earning wages of \$113.3 million. From beginning to end, over \$14.1 billion in wages will be generated.

The total economic impact created by Resolution Copper over the life of the mine is summarized in Table A.



Table A -
 Economic Impact Summary
 Resolution Copper Mine Project
 State of Arizona
 (2011 Dollars)

| Impact Type | Person Years of Employment | Wages | Economic Output |
|--------------------|-----------------------------------|-------------------------|-------------------------|
| Direct | 91,475 | \$6,860,625,000 | \$41,284,099,245 |
| Indirect | 59,773 | \$3,664,685,870 | \$9,527,995,000 |
| Induced | 86,788 | \$3,584,087,781 | \$10,627,938,000 |
| Total | 238,037 | \$14,109,398,650 | \$61,440,032,245 |

Average Annual Economic Impact Summary
 Resolution Copper Mine Project
 State of Arizona
 (2011 Dollars)

| Impact Type | Jobs | Wages | Economic Output |
|--------------------|--------------|----------------------|------------------------|
| Direct | 1,429 | \$107,197,266 | \$645,064,051 |
| Indirect | 934 | \$57,260,717 | \$148,874,922 |
| Induced | 1,356 | \$56,001,372 | \$166,061,531 |
| Total | 3,719 | \$220,459,354 | \$960,000,504 |

Sources: Elliott D. Pollack & Company; IMPLAN; Resolution Copper Co.

The original study conducted in 2008 indicated that 5,800 jobs (including direct, indirect and induced) would be created by the land exchange. These figures included economic activity associated with more than 500 acres of federal land that would be conveyed to the Town of Superior in the exchange, but which would be independent of the Resolution Copper project. While the potential for this land and the jobs associated with the exchange remains, Resolution Copper has elected to simplify the analyses going forward by limiting calculations to only those jobs that directly relate to its mining project. Thus, the 2011 study reports that the mine will generate just over 3,700 direct, indirect and induced jobs on an average annual basis over the life of the project.

Fiscal Impact

Fiscal impact analysis studies the public revenues associated with a particular economic activity. The main revenue sources of local, county, and state governments (i.e., taxes) are analyzed to determine how an activity may affect the various jurisdictions. The analysis excludes special districts or other local tax entities.



- **Total Fiscal Impact.** The project is estimated to generate total federal, state, county and local tax revenue of nearly \$20 billion. Significant sources of revenue will be generated from corporate income taxes, property taxes, and severance taxes.
- **Employee Generated Impacts.** Through the income that they receive from employment, employees will spend a significant amount of money in the local economy and pay taxes to various government entities. They will pay sales taxes, property taxes, individual income taxes, and other fees throughout the course of each year.

Fiscal impacts to federal, state, county, and local governments are summarized in Table B.

**Table B -
Fiscal Impact Summary
Resolution Copper Mine Project
(2011 Dollars)**

| Impact Region | Primary (\$ mil) | Secondary (\$ mil) | Total (\$ mil) |
|----------------------|-------------------------|---------------------------|-----------------------|
| U.S. | \$13,249.0 | \$845.0 | \$14,094.0 |
| Arizona | \$2,071.8 | \$521.3 | \$2,593.1 |
| Counties | \$2,055.6 | \$309.2 | \$2,364.7 |
| Local | \$426.8 | \$392.6 | \$819.3 |
| Total | \$17,803.1 | \$2,068.1 | \$19,871.2 |

Sources: Elliott D. Pollack & Company; IMPLAN; Resolution Copper Co.

Many mining-related assumptions are based on the price of copper. The most significant revenue sources that are affected by copper prices are State severance taxes, income taxes, and property taxes (the total value of the mine is dependent on the value of the copper in the ground). This analysis assumes the State will value the long term price of copper at \$2.50/lb. This price is currently considered by the State to be the long-term estimated price of copper and would be used in property tax calculations. Copper is currently trading near \$4.00/lb, which has a profound impact on the value of the ore and would significantly impact profits. The State of Arizona will continue to revise projections according to market demand, though the trend has been to continually increase the long term figure over the last several years.

The above economic and fiscal impacts are based on assumptions prepared by the client. Whenever possible, a conservative approach to projecting revenues and employment impacts was utilized.



1.0 Introduction

The following study estimates the economic and fiscal impacts of the Resolution Copper Company project, a proposed copper mining operation located just east of Superior, Arizona. In addition to mining operations, this analysis will examine the impact of project employees on the local economy. The study also addresses impacts related to local employment dynamics, the housing market, and other social benefits that arise from the project.

The mine impact is estimated to extend over 64 years, with 14 years of feasibility and preparation and 50 years of mining operations (including reclamation). The capital investment requirements over this period are estimated at nearly \$11.4 billion. Prefeasibility is ongoing currently and construction can begin shortly after project approval. Initial production could begin as early as 2021 and ramp up over a five year period to full production.

Economic impact analysis examines the regional implications of an activity in terms of three basic measures: output, earnings and job creation. Fiscal impact analysis evaluates the public revenues generated by a particular activity. In fiscal impact analysis, the main revenue sources of a city, county or state government are analyzed to determine how the activity may financially affect them.

More specifically, this report will analyze the impact of the following:

- Feasibility analysis period and preparation of the mine site.
- The copper mine with an estimated production life of 50 years (including reclamation).

1.1 Limiting Conditions

This study prepared by Elliott D. Pollack & Company is subject to the following considerations and limiting conditions.

- It is our understanding that this study is for the client's due diligence and other planning purposes. Neither our report, nor its contents, nor any of our work are intended to be included in any registration statement, prospectus, public filing, private offering memorandum, or loan agreement without our prior written approval and, therefore, may not be referred to or quoted in whole or in part.
- The reported recommendation(s) represent the considered judgment of Elliott D. Pollack and Company based on the facts, analyses and methodologies described in the report.
- Except as specifically stated to the contrary, this study does not give consideration to the following matters to the extent they exist: (i) matters of a legal nature, including issues of legal title and compliance with federal, state and local laws and ordinances; and (ii) environmental and engineering issues, and the costs associated with their



correction. The user of this study will be responsible for making his/her own determination about the impact, if any, of these matters.

- This study is intended to be read and used as a whole and not in parts.
- This study has not evaluated the feasibility or marketability of the site for planned uses.
- All estimates regarding direct employment and wages as well as on mining operations were provided by Resolution Copper. This data has been reviewed and verified to determine its reasonableness and applicability to the proposed project. Data is current as of 2011.
- This economic and fiscal impact study evaluates the potential “gross impacts” of the construction and operations. The term “gross impacts” as used in this study refers to the total revenue, jobs and economic output that would be generated by the project. The study will not consider the potential reduction of sales at other establishments in the trade area that may occur as a result of the proposed project.
- This analysis does not consider the costs to any government associated with providing services to the mine or other operations. Such analysis is beyond the scope of this study. In addition, the analysis is based on the current tax structure and rates imposed by the State, counties, and municipalities. Changes in those rates would alter the findings of this study. All dollar amounts are stated in constant 2011 dollars and, unless indicated, do not take into account the effects of inflation.
- Our analysis is based on currently available information and estimates and assumptions about long-term future development trends. Such estimates and assumptions are subject to uncertainty and variation. Accordingly, we do not represent them as results that will be achieved. Some assumptions inevitably will not materialize and unanticipated events and circumstances may occur; therefore, the actual results achieved may vary materially from the forecasted results. The assumptions disclosed in this market study are those that are believed to be significant to the projections of future results.



2.0 Economic Overview

The Town of Superior is located along U.S. 60 at the junction of state Highway 177. The town is situated in a mountainous setting approximately 60 miles east of the Greater Phoenix metro area core.

From its earliest existence in 1882, mines have driven the Town’s economy and allowed it to be a prosperous Pinal County community. Many early mines were focused on silver mining. The Magma Copper Company was established in 1910 and ran the Silver Queen Mine which became a great copper producer after its silver ran out. A smelter was also built in 1924 and remained in operation for 47 years.



2.1 Population

The Town’s population has been fairly constant but declining over the last few decades. The 2010 Census reports a total population of 2,837 people, compared to 3,254 people in 2000 and 3,468 people in 1990. Many attribute the decline in population to the absence of an active mine in the immediate area. Table 1 describes the characteristics of the Town’s population compared to the State of Arizona.

Table 1 -
Town of Superior Population and Ages
2010

| | <u>Superior</u> | <u>AZ</u> | | <u>Superior</u> | <u>AZ</u> | | |
|---------------------------|-----------------|------------------|------|-------------------|-----------|-------|-------|
| Total population | 2,837 | 6,392,017 | | | | | |
| Median age (years) | 45.0 | 35.9 | | | | | |
| | <u>Superior</u> | <u>AZ</u> | | <u>Superior</u> | <u>AZ</u> | | |
| Under 5 years | 170 | 6.0% | 7.1% | 35 to 39 years | 157 | 5.5% | 6.5% |
| 5 to 9 years | 176 | 6.2% | 7.1% | 40 to 44 years | 132 | 4.7% | 6.4% |
| 10 to 14 years | 212 | 7.5% | 7.0% | 45 to 49 years | 191 | 6.7% | 6.7% |
| 15 to 19 years | 178 | 6.3% | 7.2% | 50 to 54 years | 211 | 7.4% | 6.5% |
| 20 to 24 years | 131 | 4.6% | 6.9% | 55 to 59 years | 242 | 8.5% | 5.9% |
| 25 to 29 years | 132 | 4.7% | 6.9% | 60 to 64 years | 220 | 7.8% | 5.5% |
| 30 to 34 years | 130 | 4.6% | 6.5% | 65 years and over | 555 | 19.6% | 13.8% |

Source: U.S Census

The Town’s population is older than the State average. A significantly higher proportion of the Town is of retirement age and there are fewer children as a percent of the total compared to the State as well. Again, many point to a lack of employment as a reason for fewer family-aged households.



2.2 Housing

The 2010 Census reports an estimated 1,465 housing units within the Town of Superior. Based on Assessor records, the overwhelming majority of these homes are over 50 years old as described in Table 2. There did appear to be a limited amount of speculative building in Superior during the housing boom in the mid 2000s when approximately 25 homes were built in 2005. Limited new home construction occurred prior to or after that time.

Table 2 -
Town of Superior Housing Characteristics

| Age | | | |
|-----------|-------|-----------|------|
| Pre 1960 | 66.6% | 1980-1989 | 2.9% |
| 1960-1969 | 11.9% | 1990-1999 | 1.8% |
| 1970-1979 | 9.1% | 2000-2009 | 7.7% |

Source: Pinal County Assessor

Home sales in the Town have followed a similar pattern to the Greater Phoenix metro area. The 2005-2007 years showed heightened sales activity, with prices showing positive gains from the year prior. Noting the age of the housing stock, it is not surprising that housing prices remained at affordable levels.

There was also a brief stint of new home construction and higher sales prices tied to those new home sales. While sales price is not the only single metric to judge against, it is still a striking gap between the prices of resale homes and new homes during the same time period. It would not be unreasonable to assume that new home construction in Superior could again achieve similar pricing.

Following the downturn in housing and the economy as a whole, foreclosure filings made their way into the market and have represented the bulk of sales activity in recent years. This has also acted to severely depress home prices. Table 3 illustrates historical closings and prices by type.

Table 3 –
Town of Superior Home Sales

| Year | Resale Homes | | | | New Homes | |
|----------|------------------|--------------|----------------------|--------------|-----------|--------------|
| | Traditional Sale | | REO/Foreclosure Sale | | Closings | Median Price |
| | Closings | Median Price | Closings | Median Price | | |
| 2005 | 49 | \$65,500 | | | 16 | \$144,539 |
| 2006 | 52 | \$88,000 | | | 9 | \$208,900 |
| 2007 | 35 | \$85,250 | | | | |
| 2008 | 11 | \$130,000 | 2 | \$24,000 | | |
| 2009 | 4 | \$81,000 | 16 | \$32,950 | | |
| 2010 | 10 | \$79,000 | 16 | \$37,000 | | |
| 2011 YTD | 3 | \$60,000 | 2 | \$43,500 | | |

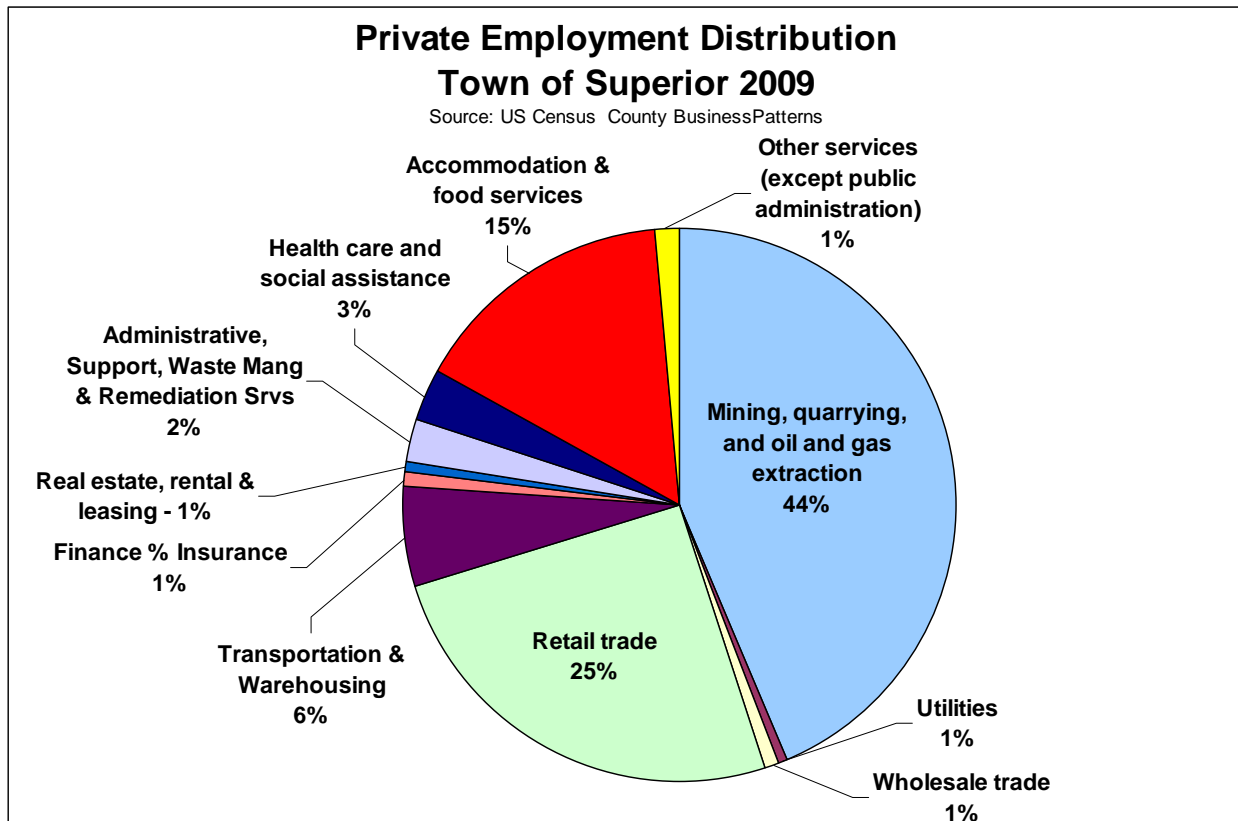
Source: Pinal County Recorder; Hanley Wood Market Intelligence



2.3 Employment

Private employment opportunities in the Town are concentrated in Mining (44%), Retail Trade (25%), and Accommodations & Food Services (15%). Many other industries are represented within the Town, though they comprise relatively small portions of the local economy. Chart 1 displays the distribution of private establishment employment, exclusive of public sector jobs.

Chart 1 -



There are additional public sector employers within the Town as well such as Town of Superior municipal government, Superior School District, and Boyce Thompson Arboretum.

The employment outlook for the Town of Superior and the broader region over the last 20 years is displayed in Table 4. In terms of the Town of Superior, unemployment rates remained at acceptable levels throughout most of the 1990s. Beginning in 2000, the unemployment rate rose rapidly and has remained at an elevated level. This is especially true for 2009 and 2010, when unemployment exceeded 20 percent. That has likely remained unchanged through 2011 as the economy has been extremely slow to rebound and no significant activity has occurred within the Town to date.

The broader Copper Triangle region displays similar characteristics, with unemployment rates exceeding the State and U.S. by large margins, especially in recent years.



Table 4 -
Labor Force and Unemployment
Town of Superior and Region

| | SUPERIOR | | | | SUPERIOR and Surrounding Area ^{1/} | | | |
|------|-------------|----------|------------|-------------|---|----------|------------|-------------|
| | LABOR FORCE | EMPLOYED | UNEMPLOYED | UNEMP. RATE | LABOR FORCE | EMPLOYED | UNEMPLOYED | UNEMP. RATE |
| 1990 | 1,102 | 1,019 | 83 | 7.5% | 8,164 | 7,355 | 809 | 9.9% |
| 1991 | 1,085 | 999 | 86 | 7.9% | 8,296 | 7,445 | 851 | 10.3% |
| 1992 | 1,121 | 1,006 | 115 | 10.3% | 8,610 | 7,431 | 1,179 | 13.7% |
| 1993 | 1,127 | 1,042 | 85 | 7.5% | 8,754 | 7,778 | 976 | 11.1% |
| 1994 | 1,226 | 1,143 | 83 | 6.8% | 9,572 | 8,536 | 1,036 | 10.8% |
| 1995 | 1,287 | 1,215 | 72 | 5.6% | 10,028 | 9,108 | 920 | 9.2% |
| 1996 | 1,378 | 1,283 | 95 | 6.9% | 10,191 | 9,159 | 1,032 | 10.1% |
| 1997 | 1,363 | 1,283 | 80 | 5.9% | 10,058 | 9,172 | 886 | 8.8% |
| 1998 | 1,416 | 1,347 | 69 | 4.9% | 10,277 | 9,465 | 812 | 7.9% |
| 1999 | 1,526 | 1,428 | 98 | 6.4% | 10,577 | 9,664 | 913 | 8.6% |
| 2000 | 1,204 | 1,084 | 120 | 10.0% | 9,597 | 8,704 | 893 | 9.3% |
| 2001 | 1,252 | 1,108 | 144 | 11.5% | 9,715 | 8,708 | 1,007 | 10.4% |
| 2002 | 1,353 | 1,147 | 206 | 15.2% | 10,219 | 8,878 | 1,341 | 13.1% |
| 2003 | 1,400 | 1,196 | 204 | 14.6% | 10,331 | 9,035 | 1,296 | 12.5% |
| 2004 | 1,437 | 1,257 | 180 | 12.5% | 10,311 | 9,168 | 1,143 | 11.1% |
| 2005 | 1,522 | 1,342 | 180 | 11.8% | 10,474 | 9,396 | 1,078 | 10.3% |
| 2006 | 1,774 | 1,589 | 185 | 10.4% | 11,211 | 10,225 | 986 | 8.8% |
| 2007 | 1,932 | 1,743 | 189 | 9.8% | 11,788 | 10,870 | 918 | 7.8% |
| 2008 | 2,188 | 1,864 | 324 | 14.8% | 13,017 | 11,499 | 1,518 | 11.7% |
| 2009 | 2,332 | 1,803 | 529 | 22.7% | 13,784 | 11,120 | 2,664 | 19.3% |
| 2010 | 2,363 | 1,815 | 548 | 23.2% | 13,694 | 10,997 | 2,697 | 19.7% |

^{1/} This region comprises the communities of Globe Hayden, Kearny, Mammoth, Miami, San Carlos Reservation, Superior, and Top-of-the-World

Source: AZ Dept of Economic Security; U.S Bureau of Labor Statistics

2.4 Conclusion

The Town of Superior shares similar economic attributes to many surrounding communities in the region which are heavily dependent on mining operations. Active mines in Miami and Ray as well as a smelter operation in Hayden provide most production jobs and create demand for support/supplier industries as well. Populations have been stable or declining and the age distribution has trended toward older aged residents due to limited employment resources for growing families.



3.0 Impact of Operations

3.1 Economic Impact of Operations

Mine operations have far reaching geographic economic impacts. While direct jobs will be at the mine site, indirect and induced employment will occur throughout the State and beyond. For purposes of this report, we have calculated the economic impacts that will occur within the State of Arizona.

Average Annual Estimates

Over the 64 years of mine operations (14 years of pre-feasibility, construction and ramp up as well as 50 years of mining and reclamation), there will be an average of 1,429 direct employees with relatively high annual wages of \$107.2 million. This includes a period of heightened employment levels during pre-production as well as significantly lower employment levels at the end of operations. For most of the mining operations, an average of 1,400 employees will be on site. There will be a combination of Resolution Copper employees and contractors providing a variety of construction and mining related services.

Direct operations will create a ripple effect throughout the economy by demanding support services and suppliers (indirect effects) as well as goods and services related induced jobs stemming from employee demand. All totaled, annual mine operations will create 3,719 jobs which equates to \$220.5 million in annual wages and \$960.0 million in annual economic output. These opportunities will extend decades through the life of the project.

Table 5 -
Average Annual Economic Impact Summary
Resolution Copper Mine Project
State of Arizona
(2011 Dollars)

| Impact Type | Jobs | Wages (\$mil) | Economic Output (\$ mil) |
|--------------------|--------------|----------------------|---------------------------------|
| Direct | 1,429 | \$107.2 | \$645.1 |
| Indirect | 934 | \$57.3 | \$148.9 |
| Induced | 1,356 | \$56.0 | \$166.1 |
| Total | 3,719 | \$220.5 | \$960.0 |

Sources: Elliott D. Pollack & Company; IMPLAN; Resolution Copper Co.

Cumulative Impacts

During the entire 64 year life of the mine project, mining operations will have generated an estimated 91,475 direct person-years of employment. A person-year of employment refers to one year of employment. Each year that an employment position extends beyond the year prior, a person year accumulates. Including the ripple effects of indirect and induced employment



throughout the region, the mine’s operations will create an estimated 238,037 person-years of employment. This will generate \$14.1 billion in total wages, and create a total of \$61.4 billion in economic output.

**Table 6 -
Economic Impact Summary
Resolution Copper Mine Project
State of Arizona
(2011 Dollars)**

| Impact Type | Person Years of Employment | Wages (\$mil) | Economic Output (\$ mil) |
|--------------------|-----------------------------------|----------------------|---------------------------------|
| Direct | 91,475 | \$6,860.6 | \$41,284.1 |
| Indirect | 59,773 | \$3,664.7 | \$9,528.0 |
| Induced | 86,788 | \$3,584.1 | \$10,627.9 |
| Total | 238,037 | \$14,109.4 | \$61,440.0 |

Sources: Elliott D. Pollack & Company; IMPLAN; Resolution Copper Co.

3.2 Fiscal Impact of Operations

The mine will create significant fiscal benefits for many local municipalities. While the Town of Superior, local counties of Pinal and Gila County, and the State are the largest revenue beneficiaries, every municipality and county in the State collects state shared revenue.

3.2.1 Primary Impacts

The primary revenue sources in the fiscal impact analysis below are severance taxes, corporate income taxes, property taxes, and utility taxes (this includes a gasoline or electricity spending estimate for direct operations).

The property taxes levied for a mine are determined based on the present value of net operating income over the life of the mine. The Resolution Copper Company has estimated total property tax payments each year using assumptions about the value of the ore deposit and a schedule for extracting the copper. These payments are the largest tax expenditure for the company representing billions of dollars over the life of the mine. It is difficult to assess the total impact of these expenditures because the taxes are disbursed among many entities, including the local counties, school districts, and fire districts. For purposes of this report, only property taxes that would accrue to counties and entities that lessen the service burden of counties have been included in the impact analysis. A major collector of property taxes, school districts, is not included in these calculations, though the district will receive significant benefits. One prime example is that the presence of the mine would lessen the tax burden of residents by lowering the overall property tax rates due to an increase of assessed value from the mine.



Table 7 illustrates the estimated primary fiscal impacts of operations on Arizona, counties, and municipalities, respectively over the entire life of the mine. Total taxes collected within the State of Arizona directly related to operations have been estimated at nearly \$4.6 billion. Property taxes at the county level represent the single largest revenue category at nearly \$1.8 billion, followed closely by corporate income taxes of over \$ 1.7 billion. Severance tax payments are estimated at \$777.0 million. Finally, taxes paid on the usage of utilities are estimated at \$280.5 million. These impacts represent the aggregated tax impact of operations over the estimated 64-year study period.

Table 7 -

Primary Fiscal Impact (\$mil)

Resolution Copper Mine Project

(2011 Dollars)

| Impact Type | Direct Severance Tax | Corporate Income Tax | Property Tax | Direct Utility Tax | TOTAL |
|--------------|----------------------|----------------------|------------------|--------------------|------------------|
| State | \$369.8 | \$1,458.3 | N/A | \$243.7 | \$2,071.8 |
| County | \$251.8 | N/A | \$1,781.0 | \$22.7 | \$2,055.6 |
| Local | \$155.4 | \$257.3 | N/A | \$14.0 | \$426.8 |
| Total | \$777.0 | \$1,715.6 | \$1,781.0 | \$280.5 | \$4,554.1 |

Source: Elliott D. Pollack & Company; IMPLAN; AZ Dept. of Revenue; AZ Tax Research Association; Resolution Copper Co.

3.2.2 Secondary Impacts

The secondary revenue sources generated by employees in the fiscal impact analysis below include sales taxes, personal income taxes, property taxes, vehicle license taxes, highway user fees, and unemployment taxes.

Table 8 illustrates the estimated secondary fiscal impacts of operations on Arizona, counties, and municipalities, respectively. Tax revenue has further been categorized into direct, indirect, and induced effects. Taxes collected within the State of Arizona related to employees have been estimated at over \$1.2 billion. Sales taxes and property taxes comprise two of the largest revenue categories at \$369.5 million and \$354.8 million, respectively. Personal income taxes of nearly \$ 277.9 million represent the next largest revenue source. These figures represent impacts over the estimated 64 year study period.

3.2.3 Total Impacts

Table 9 represents the combined primary and secondary impacts of the mine within the State of Arizona, estimated at nearly \$5.8 billion. This table is exclusive of fiscal impacts that will accrue to the federal government. Those impacts are addressed in the following section.



Table 8 -
Secondary Fiscal Impact (\$mil)
Resolution Copper Mine Project
 (2011 Dollars)

| | Employees Sales Tax | State Shared Sales Tax | Income Tax | Resident Property Tax | Vehicle License Tax | Unemp. Tax | HURF Tax | TOTAL |
|--------------------|---------------------------|------------------------------|----------------|-----------------------------|---------------------------|---------------|---------------|------------------|
| DIRECT | | | | | | | | |
| State | \$90.7 | N/A | \$117.2 | N/A | \$5.9 | \$17.3 | \$8.5 | \$239.6 |
| County | \$24.6 | \$17.1 | N/A | \$70.0 | \$5.7 | N/A | \$7.1 | \$124.5 |
| Local | \$49.2 | \$10.6 | \$20.7 | \$66.3 | \$8.2 | N/A | \$8.5 | \$163.5 |
| Total | \$164.6 | \$27.7 | \$137.9 | \$136.4 | \$19.7 | \$17.3 | \$24.0 | \$527.6 |
| INDIRECT | | | | | | | | |
| State | \$52.0 | N/A | \$62.6 | N/A | \$3.9 | \$11.3 | \$5.5 | \$135.3 |
| County | \$14.2 | \$9.8 | N/A | \$45.7 | \$3.7 | N/A | \$4.6 | \$78.1 |
| Local | \$28.5 | \$6.1 | \$11.0 | \$43.4 | \$5.3 | N/A | \$5.6 | \$99.8 |
| Total | \$94.7 | \$15.9 | \$73.7 | \$89.1 | \$12.9 | \$11.3 | \$15.7 | \$313.2 |
| INDUCED | | | | | | | | |
| State | \$60.0 | N/A | \$56.4 | N/A | \$5.6 | \$16.4 | \$8.0 | \$146.4 |
| County | \$16.8 | \$11.3 | N/A | \$66.4 | \$5.4 | N/A | \$6.7 | \$106.6 |
| Local | \$33.5 | \$7.0 | \$9.9 | \$62.9 | \$7.8 | N/A | \$8.1 | \$129.2 |
| Total | \$110.3 | \$18.3 | \$66.3 | \$129.4 | \$18.7 | \$16.4 | \$22.8 | \$382.2 |
| TOTAL | | | | | | | | |
| State | \$202.7 | N/A | \$236.2 | N/A | \$15.4 | \$45.0 | \$22.1 | \$521.3 |
| County | \$55.6 | \$38.3 | N/A | \$182.2 | \$14.7 | N/A | \$18.4 | \$309.2 |
| Local | \$111.2 | \$23.6 | \$41.7 | \$172.6 | \$21.3 | N/A | \$22.1 | \$392.6 |
| Grand Total | \$369.5 | \$61.9 | \$277.9 | \$354.8 | \$51.4 | \$45.0 | \$62.6 | \$1,223.1 |

^{1/} Total may not equal sum of impacts due to rounding. All dollar figures are in constant dollars. Inflation has not been included in these figures. All of the above figures include revenues distributed to counties, cities, and towns. All of the above figures are representative of major revenue sources for the State of Arizona. Figures are intended only as a general guideline as to how the State could be impacted by the project. The above figures are based on current economic structure and tax rates within the State of Arizona.

Source: Elliott D. Pollack & Company; IMPLAN; AZ Dept. of Revenue; AZ Tax Research Association; Resolution Copper Co.



Table 9 -

TOTAL Fiscal Impact (\$mil)

Resolution Copper Mine Project

(2011 Dollars)

| Impact Type | Primary Revenues | | | | Secondary Revenues from Employment | | | | | | | Total Revenues |
|---------------------------|----------------------|----------------------|------------------|--------------------|------------------------------------|------------------------|----------------|-----------------------|---------------------|---------------|---------------|------------------|
| | Direct Severance Tax | Corporate Income Tax | Property Tax | Direct Utility Tax | Employees Sales Tax | State Shared Sales Tax | Income Tax | Resident Property Tax | Vehicle License Tax | Unemp. Tax | HURF Tax | |
| Direct | | | | | | | | | | | | |
| State | \$369.8 | \$1,458.3 | N/A | \$243.7 | \$90.7 | N/A | \$117.2 | N/A | \$5.9 | \$17.3 | \$8.5 | \$2,311.4 |
| County | \$251.8 | N/A | \$1,781.0 | \$22.7 | \$24.6 | \$17.1 | N/A | \$70.0 | \$5.7 | N/A | \$7.1 | \$2,180.0 |
| Local | \$155.4 | \$257.3 | N/A | \$14.0 | \$49.2 | \$10.6 | \$20.7 | \$66.3 | \$8.2 | N/A | \$8.5 | \$590.3 |
| Total | \$777.0 | \$1,715.6 | \$1,781.0 | \$280.5 | \$164.6 | \$27.7 | \$137.9 | \$136.4 | \$19.7 | \$17.3 | \$24.0 | \$5,081.7 |
| Indirect | | | | | | | | | | | | |
| State | N/A | N/A | N/A | N/A | \$52.0 | N/A | \$62.6 | N/A | \$3.9 | \$11.3 | \$5.5 | \$135.3 |
| County | N/A | N/A | N/A | N/A | \$14.2 | \$9.8 | N/A | \$45.7 | \$3.7 | N/A | \$4.6 | \$78.1 |
| Local | N/A | N/A | N/A | N/A | \$28.5 | \$6.1 | \$11.0 | \$43.4 | \$5.3 | N/A | \$5.6 | \$99.8 |
| Total | N/A | N/A | N/A | N/A | \$94.7 | \$15.9 | \$73.7 | \$89.1 | \$12.9 | \$11.3 | \$15.7 | \$313.2 |
| Induced | | | | | | | | | | | | |
| State | N/A | N/A | N/A | N/A | \$60.0 | N/A | \$56.4 | N/A | \$5.6 | \$16.4 | \$8.0 | \$146.4 |
| County | N/A | N/A | N/A | N/A | \$16.8 | \$11.3 | N/A | \$66.4 | \$5.4 | N/A | \$6.7 | \$106.6 |
| Local | N/A | N/A | N/A | N/A | \$33.5 | \$7.0 | \$9.9 | \$62.9 | \$7.8 | N/A | \$8.1 | \$129.2 |
| Total | N/A | N/A | N/A | N/A | \$110.3 | \$18.3 | \$66.3 | \$129.4 | \$18.7 | \$16.4 | \$22.8 | \$382.2 |
| Total^{1/} | | | | | | | | | | | | |
| State | \$370 | \$1,458 | N/A | \$244 | \$202.7 | N/A | \$236.2 | N/A | \$15.4 | \$45.0 | \$22.1 | \$2,593.1 |
| County | \$251.8 | N/A | \$1,781.0 | \$22.7 | \$55.6 | \$38.3 | N/A | \$182.2 | \$14.7 | N/A | \$18.4 | \$2,364.7 |
| Local | \$155.4 | \$257.3 | N/A | \$14.0 | \$111.2 | \$23.6 | \$41.7 | \$172.6 | \$21.3 | N/A | \$22.1 | \$819.3 |
| Total | \$777.0 | \$1,715.6 | \$1,781.0 | \$280.5 | \$369.5 | \$61.9 | \$277.9 | \$354.8 | \$51.4 | \$45.0 | \$62.6 | \$5,777.2 |

^{1/} Total may not equal sum of impacts due to rounding. All dollar figures are in constant dollars. Inflation has not been included in these figures. All of the above figures include revenues distributed to counties, cities, and towns. All of the above figures are representative of major revenue sources for the State of Arizona. Figures are intended only as a general guideline as to how the State could be impacted by the project. The above figures are based on current economic structure and tax rates within the State of Arizona.

Source: Elliott D. Pollack & Company; IMPLAN; Arizona Department of Revenue; Arizona Tax Research Association; Resolution Copper Co.



3.2.4 Regional Benefits

Fiscal Impacts of Operations on the Town of Superior & Arizona Municipalities

Over the full 64 year project, the Town of Superior is anticipated to receive hundreds of millions of dollars in tax revenue. The largest sources of revenue would be retail sales tax and property taxes on new residents. Employee spending in the Town will also generate significant revenue.

Due to the State’s revenue sharing formulas, much of which is based on population share, there would be significant revenue directly attributed to the mine’s operations or directly paid by the company that would not be accounted for by only displaying the benefit to Superior. Thus, total impacts have been illustrated as a statewide municipal impact. Primary impacts will largely be collected through revenue sharing, meaning municipalities with large populations will be the most significant beneficiaries of operations related revenue. Secondary impacts will largely be captured by the municipalities that employees reside in.

Municipalities throughout Arizona are expected to collect over \$819.3 million over the next several decades. During the 14 years of pre-feasibility, construction and ramp-up to full production, primary revenue from operations would be minimal and back end loaded to the last few years of the period. However, there will be a massive influx of employees working to prepare the site and begin production. The wages earned from these employees as well as spin-off employees will create significant tax revenue through sales tax, property tax, income tax, and other sources. During production, the mine is expected to produce the most tax revenue in its first 10 years and gradually decline over the life of the mine while secondary impacts from employees will remain relatively constant.

Combined, municipalities will receive between \$7.9 million and \$17.8 million on an average annual basis. As mentioned previously, impacts occurring prior to full production will be more significant in the latter half of that period which will effectively cause municipalities to receive much more revenue in those years than in the first part of the period.

Table 10 -
Resolution Copper Mine Project
Fiscal Impact Summary of Total Operations (\$mil)
Arizona Municipalities
(2011 Dollars)

| Revenue Type | Pre-Prod. ^{1/} | Yrs 1-10 | Yrs 11-20 | Yrs 21-30 | Yrs 31-40 | Yrs 41-50 | Total |
|-----------------------|-------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Primary (Operations) | \$8.8 | \$118.2 | \$98.3 | \$75.3 | \$64.6 | \$61.7 | \$426.8 |
| Secondary (Employees) | \$102.2 | \$59.7 | \$59.7 | \$59.7 | \$59.7 | \$51.4 | \$392.6 |
| Total | \$111.0 | \$177.9 | \$158.0 | \$135.0 | \$124.3 | \$113.1 | \$819.3 |
| Annual Average | \$7.9 | \$17.8 | \$15.8 | \$13.5 | \$12.4 | \$11.3 | \$12.8 |

1/ Pre- Production is defined as the fourteen years before full mine production.

Source: Elliott D. Pollack & Co.; IMPLAN; AZ Dept of Revenue; AZ Tax Research Association, Resolution Copper Co.



Fiscal Impacts of Operations on the Local Counties

Pinal County and Gila County will be major county beneficiaries from mine operations due to their close proximity and the jurisdiction ownership of mining land. While the majority of the mine and likely complementary development will occur in Pinal County, a portion of the operations will occur in Gila County. At this time it is impossible to accurately distinguish the impacts between the two counties. Additionally, similar to municipal revenues, counties collect significant revenues from the State through several tax categories based on population share and origin of economic activity. Thus the impact is expressed as a statewide, county-level impact.

The main sources of revenue for counties will be State shared severance taxes as well as property taxes from the mine and on the homes of employees. In total, tax revenue expected to be collected by the local counties, including indirect and induced impacts, totals \$2.4 billion.

Arizona counties will receive between \$11.2 million and \$68.6 million on an average annual basis. As with the municipalities, maximum annual revenue is expected to be achieved in years of full production. The county impacts are heavily weighted toward direct property taxes from the value of the mine. Thus, in the last years of production, property taxes will be significantly diminished, though operations will continue at full production in most of those years.

Table 11 -
Resolution Copper Mine Project
Fiscal Impact Summary of Total Operations (\$mil)
Arizona Counties
(2011 Dollars)

| Revenue Type | Pre-Prod. ^{1/} | Yrs 1-10 | Yrs 11-20 | Yrs 21-30 | Yrs 31-40 | Yrs 41-50 | Total |
|-----------------------|-------------------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Primary (Operations) | \$269.7 | \$638.6 | \$456.1 | \$320.3 | \$299.5 | \$71.4 | \$2,055.6 |
| Secondary (Employees) | \$80.5 | \$47.0 | \$47.0 | \$47.0 | \$47.0 | \$40.5 | \$309.2 |
| Total | \$350.2 | \$685.7 | \$503.1 | \$367.3 | \$346.5 | \$111.9 | \$2,364.7 |
| Annual Average | \$25.0 | \$68.6 | \$50.3 | \$36.7 | \$34.7 | \$11.2 | \$36.9 |

1/ Pre- Production is defined as the fourteen years before full mine production.

Source: Elliott D. Pollack & Co.; IMPLAN; AZ Dept of Revenue; AZ Tax Research Association, Resolution Copper Co.

Fiscal Impacts of Operations on the State of Arizona

The State of Arizona stands to collect a significant amount of tax revenue primarily from sales tax, income tax, and a severance tax that is levied on mining profits in lieu of taxing the sales of the ore.

Over the 64 year life of the mine project, the State of Arizona is anticipated to collect nearly \$2.6 billion in tax revenue from mine operations, mine employees, and spin-off impacts. Of that, \$702.4 million comes from corporate income taxes, \$363.6 million comes from severance tax payments, and \$244.5 million comes from a tax on utilities used at the mine. The impact of



employees both at the mine and other new development in Superior is expected to be \$632.5 million over the life of the mine.

Table 12 displays the cumulative and average annual fiscal impact to the State over the life of the project. The State stands to collect between \$12.0 million and \$66.0 annually that can be attributed to mining operations.

Table 12 -
Resolution Copper Mine Project
Fiscal Impact Summary of Total Operations (\$mil)
State of Arizona
(2011 Dollars)

| Revenue Type | Pre-Prod. ^{1/} | Yrs 1-10 | Yrs 11-20 | Yrs 21-30 | Yrs 31-40 | Yrs 41-50 | Total |
|-----------------------|-------------------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Primary (Operations) | \$31.8 | \$580.8 | \$479.9 | \$363.8 | \$313.9 | \$301.7 | \$2,071.8 |
| Secondary (Employees) | \$135.8 | \$79.3 | \$79.3 | \$79.3 | \$79.3 | \$68.3 | \$521.3 |
| Total | \$167.5 | \$660.1 | \$559.2 | \$443.1 | \$393.2 | \$370.0 | \$2,593.1 |
| Annual Average | \$12.0 | \$66.0 | \$55.9 | \$44.3 | \$39.3 | \$37.0 | \$40.5 |

1/ Pre- Production is defined as the fourteen years before full mine production.

Source: Elliott D. Pollack & Co.; IMPLAN; AZ Dept of Revenue; AZ Tax Research Association, Resolution Copper Co.

Fiscal Impacts of Operations on the United States

Though not specifically analyzed in this report, the federal government stands to collect the most significant amount of tax revenue from both the corporate income tax of the company and individual income tax of the mine's employees. A conservative tax rate was used for estimating income taxes.

Table 13 shows the main revenue sources for the federal government. An estimated \$14.1 billion is expected to be paid to the federal government in the form of income taxes.

Table 13 -
Total Fiscal Impact of Operations (\$mil)
Resolution Copper Mine Project
United States
(2011 Dollars)

| | |
|-----------------------|-------------------|
| Corporate Income Tax | \$13,249.0 |
| Individual Income Tax | \$845.0 |
| Total | \$14,094.0 |

Source: Resolution Copper Company, Elliott D. Pollack & Company



4.0 Additional Economic Benefits

An all-inclusive impact of the Resolution Copper mine project on the region is difficult to quantify in terms of the benefits that it will provide beyond increased tax revenues and job creation. However, these types of benefits indeed exist. Of these non-quantifiable impacts, both short-term and long-term regional benefits will be addressed briefly in the following section.

4.1 Employment

With direct employment of over 1,400 mining and construction related jobs, as well as nearly 2,300 jobs for supplier and consumer industries, there will be numerous opportunities for local residents to achieve employment over an extended period of time. Of those unemployed in the Town of Superior, depending on the compatibility of skill sets of those seeking work, a few hundred job openings could quickly reduce unemployment to negligible levels.

The same opportunities will be offered to the entire region within a reasonable geographic area that would comprise the project's accessible labor base. This includes communities such as Miami, Globe, Kearny, Hayden, Winkelman, and the San Carlos Apache Reservation. It could also reach communities to the southwest such as Florence and Queen Creek. The presence of the mine and supplier industries will drastically improve the health of these local economies by putting current residents back to work and attracting additional residents to the area with new employment prospects.

Also of benefit would be allowing families to move in and remain for longer periods of time. The long term potential for the project is crucial in this regard. As opportunities for stable employment continue for the next several decades, additional opportunities for local employment will increase. For a short term project, one might expect a larger percentage of the employees to simply commute and for the supplier base to be imported. For longer term projects, employees become vested in their place of work and also in the local community, as do suppliers of business inputs. Economic leakage is gradually reduced and a community realizes larger economic "spin-off", or multiplier benefits.

The economic prosperity of many mining communities has followed a boom and bust cycle related to the opening and closing of their mines. Resolution Copper Company has signaled a commitment to ending this boom/bust cycle in Superior. The method of extraction requires a continuous process from start to completion. This will help alleviate the economic stress caused by regular business cycles.

4.2 Housing

As mentioned in Section 2.2, there are an estimated 1,465 housing units within the Town of Superior, the majority of which are quite old. Also, only very limited new home building reached Superior during the housing boom in the mid 2000s. Limited new housing options will equate to new home construction for the influx of employees. The potential addition of over 500 acres of federal land to the Town of Superior (discussed further in Section 4.3.3) would provide ample opportunity for residential development to be captured within Town limits.



Some have noted that there are housing options outside of the Town such as the Greater Phoenix suburbs of Mesa, Gilbert, Queen Creek, Apache Junction, Gold Canyon, and new subdivisions in unincorporated Pinal County. However, living in these cities would still require a significant commute by employees of roughly an hour drive each way. With limited nearby options, the preferences of the employee’s household and their threshold of acceptable commute times will factor greatly in the magnitude of new home construction demanded within or near the Town. Superior’s remote location encourages local home development. This is especially true for projects with long-term operational expectations.

New housing construction would create direct local tax revenue in the form of construction sales taxes and speculative builder’s sales taxes. Local construction jobs and spin-off jobs from that activity would also be created, allowing more households to earn wages and spend disposable income dollars in the economy.

To provide some perspective on the benefits of new home construction, an incremental impact of 10 new single family homes was modeled. The assumption for these homes was an average of 1,800 square feet and a purchase price of \$150,000. With the reported wages of employees, these assumptions should be considered conservative.

As shown in Table 14, for every 10 single family homes built in the Town, approximately 8 jobs would be created to build those homes. They would earn wages of \$344,000 and contribute \$1.1 million to economic activity. These figures are expressed as the annualized impact.

Table 14 -
Economic Impact of Construction
10 Single Family Homes
Pinal County
(2011 Dollars)

| Impact Type | Jobs | Wages | Economic Output |
|--------------------|-------------|------------------|------------------------|
| Direct | 5 | \$251,042 | \$870,000 |
| Indirect | 2 | \$59,738 | \$132,000 |
| Induced | 1 | \$32,889 | \$111,000 |
| Total | 8 | \$344,000 | \$1,113,000 |

1/ The total may not equal the sum of the impacts due to rounding. All dollar figures are in constant dollars (inflation has not been included).

Source: Elliott D. Pollack & Company; IMPLAN

The Town would also collect taxes from the construction activity of approximately \$41,000 as illustrated in Table 15. Those new residents would begin paying taxes and spending in the economy, which has been captured in the secondary impact of mining operations (Section 3.2).



Table 15 -
Fiscal Impact of Construction
10 Single Family Homes
Town of Superior
(2011 Dollars)

| Impact Type | Primary Revenues | | Secondary Revenues | | Total Revenues |
|--------------|---|--|------------------------------------|------------------------------|-----------------|
| | Construction/ Speculative Builder's Sales Tax | | Employees Spending Sales Tax | Residents Property Tax | |
| Direct | \$39,000 | | \$577 | \$743 | \$40,320 |
| Indirect | N/A | | \$158 | \$234 | \$390 |
| Induced | N/A | | \$92 | \$142 | \$230 |
| Total | \$39,000 | | \$827 | \$1,119 | \$40,950 |

^{1/} The figures are intended only as a general guideline as to how the Town could be impacted by the project and are based on the current economic structure and tax rates of the State of Arizona and Town of Superior.

Source: Elliott D. Pollack & Company; IMPLAN; AZ Department of Revenue; ATRA

4.3 Economic Development

Among the many regional goals set forth in the Mining Economic Region Vision and Action Plan commissioned by the Arizona Department of Commerce in 2005, there are at least three related to economic development that will be particularly advanced by the efforts of the Town of Superior and the Resolution Copper Company. These include maintaining traditional base industries, educating and training a local workforce, and expanding and diversifying the economic base.

4.3.1 Base Industries

The issue of importing dollars into an economy is a crucial economic development concept. Once a dollar makes its way into the region, it flows from person to person as demanded products and services are supplied. Eventually some money leaves the local economy when products (and some services) are provided by companies outside of the region. This is natural leakage and cannot be avoided. In order to compensate for these outgoing dollars an economy must be internally productive and export products beyond its borders and attract dollars from other areas. An economy's base industries serve this purpose. Examples of base industries include the manufacturing sector, export-related business services, tourism, retirement, federal government employment, and mining. Some base industries are high paying while others are relatively low paying. The key is to encourage higher value added/higher paying base industry development.

Base industry companies also tend to be more capital intensive, and/or utilize skilled labor (not in every case though, i.e. tourism, federal government). As local capital investment improves, and as more highly skilled workers are employed, productivity increases. This also leads to



higher incomes and a higher standard of living for employees in these industries. Of course, this assumes that disincentives of capital investment are minimized and that skilled labor is available.

The State's local serving industries provide goods and services to its local population. Activities include most retail operations, construction, and local service banks, to name a few. The existence of base industries creates demand for these local serving industries. *Without base industries, there is no means of supporting local serving employees.* The ghost towns of the Old West further illustrate the importance of base industries. Once a local mine ran out, a railhead moved, or a drought caused agriculture to no longer be viable, many communities ceased to exist.

Copper mining is the most important traditional base industry in the region as it creates thousands of jobs and, as an export industry, brings non-local tax revenue into the local economies. Until other industries emerge, mining will be the most influential economic driver for the region. This will likely be the case for many decades. Fortunately, the estimated mine life for this project is approximately 50 years. The driving economic influence of the mine over this extended time period would provide enough time to allow the Town of Superior and surrounding communities to advance their economic efforts.

The goal of any economy should be to direct attention to higher value added industries that tend to pay higher wages, export their product out of State which brings in new dollars, and generate new economic activity. These are called "base", or export industries. The attraction and internal growth of these industries will not only result in higher income levels, but will also result in more government tax revenue and will improve basic quality of life measures. The Resolution Copper project is a prime example of improving the region and State's base industry presence.

4.3.2 Educating and Training a Local Workforce

In order to sustain economic prosperity in the Town and region as a whole once the mine project closes, it is crucial that the mine's legacy include an educated workforce and a substantial local knowledge base. Resolution Copper has committed to using a significant amount of local labor in the mine construction and operations. This will require intensive training for many local residents. Additionally, over a 50 year mine operation, there will be multiple generations of employees that will require this training. There will also be business owners and skilled employees stemming from auxiliary development in support of the mining operations. It is imperative to keep all of this knowledge from the various industries local once the mine becomes inactive in order to continue to drive the economy.

The recommendations in the Department of Commerce study note that access to higher education and developing partnerships with local institutions are important for creating a skilled permanent labor force. Resolution Copper, in its 2010 Sustainable Development Report, noted a commitment to local and regional education programs in order to help build a talent pool of local employees. The company has helped secure State funding for Wi-Fi internet throughout the Town of Superior and has partnered with Central Arizona College to promote college and vocational education throughout the region. Increased access and awareness of educational opportunities will have both short-term and long-term benefits for all of the communities in the region.



4.3.3 Diversifying the Economy

All of the sustained increase in education and knowledge will help in the ultimate goal of diversifying the local and regional economies to carry them forward and protect their vitality in times of mining inactivity. The Department of Commerce has noted that diversification must be a regional effort with each community maximizing its strengths. The 2005 study also recommended a regional business recruitment marketing strategy. As mentioned earlier, diversifying an economic base takes time and resources. The best course of action for the diversification process is a study all in itself. It is certain though, that the economic and fiscal impact of the mine, including the increase in local skilled labor, provides a more favorable starting point than the current depressed state of the local economies.

As a part of the proposed land exchange and other considerations, the Town could receive more than 500 acres of land that can be developed for a variety of industrial, commercial, and residential uses. Much of this land is located in the area surrounding the Town's airstrip and would have been lost to the federal government in a reversionary clause should the Town wish to relocate or shut down the airstrip for development purposes. The Town will have much more flexibility for this land and can focus efforts on maximizing the economic development potential of the area and meeting the needs of its residents.

Resolution Copper Company has also supported the Town's partnership and coordination with the Arizona Department of Commerce and other economic development groups in order to diversify the local economy. Once the Resolution Copper mining operations commence, the period of high employment stemming from direct company hiring and the increased demand for mining support services may last more than 50 years. During this extended period, with an increased focus on creating a sustainable diverse economy for not only Superior, but the region as a whole, the boom times would not be taken for granted and the long-term goals would be more attainable than ever.

There will be benefits to the region while mining operations are active, especially in local communities such as Miami, Globe, Kearny, Hayden, Winkelman, and the San Carlos Apache Reservation. These will include, among others, fiscal benefits from increased employee spending as well as economic benefits related to job creation in the mining construction and operations as well as sectors that support the mine operations and provide services to residents. More importantly, the long-term economic health of the region will be well served by the commitment to sustainability and prosperity shown in Superior.

Fundamentally, enhanced economic activity can be achieved through the development of a more robust and diversified local economy. Significant economic development projects like the Resolution Copper Project help to facilitate this expansion.



5.0 Conclusion

The total economic impact of the Resolution Copper project on the State of Arizona is estimated to be over \$61.4 billion or nearly \$1 billion each year. Operations will support over 3,700 jobs annually, equating to \$220.5 million in annual wages.

Tax revenue resulting from operations and employee spending will be quite impressive. Nearly \$20 billion in taxes will be attributed to the project, including payments to the U.S. government, State of Arizona, and counties and municipalities within the State.

Table 16 -

Economic & Fiscal Impact Summary Resolution Copper Mine Project State of Arizona (2011 Dollars)

Economic Impact

| Impact Type | Employment | | Wages (\$mil) | | Economic Output (\$mil) | |
|--------------|----------------|--------------|-------------------|----------------|-------------------------|----------------|
| | Person Years | Annual Jobs | Total | Annual Avg | Total | Annual Avg |
| Direct | 91,475 | 1,429 | \$6,860.6 | \$107.2 | \$41,284.1 | \$645.1 |
| Indirect | 59,773 | 934 | \$3,664.7 | \$57.3 | \$9,528.0 | \$148.9 |
| Induced | 86,788 | 1,356 | \$3,584.1 | \$56.0 | \$10,627.9 | \$166.1 |
| Total | 238,037 | 3,719 | \$14,109.4 | \$220.5 | \$61,440.0 | \$960.0 |

Fiscal Impact

| Impact Region | Primary (\$ mil) | | Secondary (\$ mil) | | Total (\$ mil) | |
|---------------|-------------------|----------------|--------------------|---------------|-------------------|----------------|
| | Total | Annual Avg | Total | Annual Avg | Total | Annual Avg |
| U.S. | \$13,249.0 | \$207.0 | \$845.0 | \$13.2 | \$14,094.0 | \$220.2 |
| Arizona | \$2,071.8 | \$32.4 | \$521.3 | \$8.1 | \$2,593.1 | \$40.5 |
| Counties | \$2,055.6 | \$32.1 | \$309.2 | \$4.8 | \$2,364.7 | \$36.9 |
| Local | \$426.8 | \$6.7 | \$392.6 | \$6.1 | \$819.3 | \$12.8 |
| Total | \$17,803.1 | \$278.2 | \$2,068.1 | \$32.3 | \$19,871.2 | \$310.5 |

Source: Elliott D. Pollack & Co.; IMPLAN; AZ Dept. of Revenue; AZ Tax Research Association; Resolution Copper Co.

For comparative perspective, the Copper Project's results can be measured up to important economic activities that the State has been fortunate to generate. For instance, the 2009 Cactus League spring training season was estimated to have generated \$359 million in economic



activity. The economic activity associated with the Resolution Copper Project will be over two and a half times this impact on a recurring annual basis over the life of the mine. Studies have also estimated the economic impact of an NFL Super Bowl at roughly \$500 million. The effects of the Resolution Copper Project would be the equivalent of hosting *two* Super Bowls every single year for 64 years.

The project should be considered on par with the highly touted announcement of Intel's \$5 billion expansion plan. The two projects have very similar characteristics. Both will involve significant capital investment (Resolution Copper is expected to invest over \$6.5 billion in capital projects during its 14 years of pre-production and expend an *additional* \$5 billion in capital investments during production). There will be periods of high temporary construction employment followed by direct operational employment of 1,000 jobs or more. Of those employed at both projects, many will earn high wages which produce larger ripple effects in the economy. Both also signify a long term investment in the State of Arizona.

The company will demand and even train highly skilled positions which command high wages and offer an improved standard of living for those households. The magnitude of employment opportunities could quickly reduce chronic unemployment levels in the region and spur local economic development for decades.

Ultimately, the Resolution Copper Project can signify an economic turning point from a regional economy's perspective by jump starting job creation and investing heavily in the region. From the State's perspective, it would bring in yet another promising, long-term development to help catalyze Arizona's economic recovery and sustain its long term prosperity.



Appendix A - Methodology & Assumptions

A.1 Project Assumptions

The assumptions for evaluation of the economic and fiscal impacts of the Resolution Copper mine project including employment impacts for mining operations were based on information provided by Resolution Copper Company. The analysis for the mine project includes the ongoing construction activity and mining operations through the life of the mine.

Many of the mining-related assumptions are based on the price of copper. The largest of the revenue sources that are affected by copper prices are the severance tax and State income tax. Property taxes may also be affected because the total value of the mine is dependent on the value of the copper in the ground. This analysis assumes copper to be priced at \$2.50 per pound. This price has been in place for some time and is currently considered by the State to be the long-term estimated price of copper and would be used in severance tax calculations. As of August, 2011, copper is trading at near \$4.00 per pound, which has a profound impact on the value of the ore and would impact profits. It is possible that the State would continue to adjust its long-term copper price estimates upward in light of continued surges in demand and thus price. The potential affects of such an adjustment will be discussed.

A.2 Economic Impact Methodology

Economic impact analysis examines the economic implications of an activity in terms of output, earnings, and employment. For this study, the analysis focused on two separate impacts:

- Construction at the mine
- Operations impact of the mine through 14 years of pre-production and 50 years of mining operations (including reclamation period).

The different types of economic impacts are known as direct, indirect, and induced, according to the manner in which the impacts are generated. For instance, direct employment consists of permanent jobs held by mining employees. Indirect employment is those jobs created by businesses that provide goods and services essential to the operation. These businesses range from manufacturers (who make goods) to wholesalers (who deliver goods). Finally, the spending of the wages and salaries of the direct and indirect employees on items such as food, housing, transportation and medical services creates induced employment in all sectors of the economy, throughout the region. These secondary effects are captured in the analysis conducted in this study.

Multipliers have been developed to estimate the indirect and induced impacts of various direct economic activities. The Minnesota IMPLAN Group (also known as MIG, Inc.), a nationally recognized company which is the sole-source provider of the IMPLAN economic impact modeling system, developed the multipliers used in this study. Founded in 1993, the IMPLAN system was formed as an outgrowth of research work by professors from the University of Minnesota. The data from this system allows our analysts to examine and model complex multiplier models of local economies. In this case, the economy of the State of Arizona has been selected.



The economic impact is categorized into three types of impacts:

- (1) **Employment Impact** – the total wage and salary and self employed jobs in a region. Jobs include both part time and full time workers.
- (2) **Earnings Impact** – the personal income, earnings or wages, of the direct, indirect and induced employees. Earnings include total wage and salary payments as well as benefits of health and life insurance, retirement payments and any other non-cash compensation.
- (3) **Economic Output** – also referred to as economic activity, relates to the gross receipts for goods or services generated by the company’s operations.

Economic impacts are by their nature regional in character. Such impacts are best illustrated when not assigned to a specific locality, although clearly the primary impact of job creation would be on the city where the project is located. However, many other communities in Pinal and Gila County (Superior, Globe, Miami, Kearny, Hayden, Winkelman, Dudleyville, the San Carlos Apache Reservation, Mammoth, and others) as well as throughout the state would also benefit from the construction and operation of the project. People working at the mine would commute to work from their homes in all parts of the region. Therefore, the economic impact is expressed in this report as a statewide benefit. All dollar figures, unless otherwise stated, are expressed in 2011 dollars.

A.3 Fiscal Impact Methodology

Fiscal impact analysis studies the public revenues associated with a particular economic activity. The main revenue sources of local, county, and state governments (i.e., taxes) are analyzed to determine how an activity may affect the various jurisdictions. This report evaluates the impact of the mine project on the State, local counties, and municipalities including the Town of Superior. The mine project will mainly impact both Pinal and Gila County, though other counties will also benefit through State shared revenues. This report will calculate total county-level fiscal impacts. The analysis excludes special districts or other local tax entities. A brief analysis of federal tax collections is included as well.

The fiscal impact figures cited in this report have been generated from information provided by a variety of sources including the U.S. Bureau of the Census; the U.S. Department of Labor; the Internal Revenue Service; the Town of Superior; Maricopa County; the State of Arizona; the Arizona Tax Research Association; and the U.S. Consumer Expenditure Survey.

Fiscal impacts are categorized by type in this study, similar to economic impact analysis. The main sources of revenue generation for governmental entities are related to construction of the project, and ongoing operations once construction is completed.

The ongoing operations of a project also create beneficial fiscal effects for a community. The primary source of revenue for the mine would be generated from severance taxes, property taxes, utility sales taxes, and income taxes. These are “primary” revenues to governmental entities that can be calculated from the assumptions of the study. In addition, the direct, indirect and induced employees supported by mining activities also generate revenues to local governments. For



instance, employees would spend part of their salaries on retail goods (thereby paying sales taxes) and contribute to the other revenue sources that are shared by the State with local cities. These revenues are referred to in this report as “secondary” impacts. All of the revenues referenced will be calculated from the assumptions of the study.

Following is a description of the applicable tax revenue sources of the various jurisdictions that will be considered for this analysis.

- Construction Sales Tax

The State, counties, and local cities levy a sales tax on materials used in the construction of buildings or development of land improvements. That tax is calculated by State law under the assumption that 65% of the construction cost of the facility and its land improvements are related to construction materials with the remaining 35% devoted to labor. The sales tax rate is then applied to the 65% materials figure.

The sales tax on construction materials is a one-time collection by the governmental entity. The State currently levies a 6.6% sales tax on construction activity (a portion of which is shared with local governments), both counties levy a 1.0% sales tax, and the Town of Superior construction sales tax rate is 2.0%.

- Property Tax

Property taxes have been estimated by Resolution Copper Company for the life of the mine. Only portions of the Company’s total tax liability will be displayed as a beneficial fiscal impact to local governments due to the dynamic nature of the collection of property taxes. While entities such as school districts will receive significant collections from the payment of property taxes on the mine, the presence of the mine and its significant value will not necessarily allow them to collect additional revenue. In the case of entities’ spending held relatively constant, the added value of the mine would effectively reduce the property taxes paid by residents and businesses within each entity’s jurisdiction from tax rate reductions. This certainly represents a positive impact on the local economy. However, it is difficult to express in monetary terms.

- Sales Tax

The State, counties, and local cities in Arizona charge sales tax on retail goods and services. The sales tax rate for the State is currently 6.6%, though it is scheduled to be reduced. Portions of this tax are redistributed through revenue sharing to counties and cities throughout Arizona based on population.

The sales tax rate for both counties is 1.0% and the sales tax rate is 2.0% for the Town of Superior. These tax rates are applied to taxable revenues at the retail establishments as well as to the spending of direct, indirect and induced employees. A portion of the employees supported by the project will reside within the town or, at the very least, purchase goods from retailers located within the municipality. Based on data from the U.S. Consumer Expenditure Survey, the projected extent of retail spending and resulting sales tax receipts was calculated.



- Severance Tax

The State collects a severance tax on metalliferous minerals. The most prevalent mineral in the State is copper, but the tax also applies to gold, silver and any other metals or ores mined within the State. The tax is levied either on the production of minerals or extraction from the earth. The current rate is 2.5%. The tax is calculated by deriving a tax base defined as 50% of the difference between the gross value of production and the production costs. Portions of this tax are redistributed through revenue sharing to counties and cities throughout Arizona based on population.

- Speculative Builder's Tax

For residential development, an additional tax (referred to as the speculative builder's sales tax) is levied on the margin between the sales price and the cost of construction. Similar to the construction sales tax, a 35% exemption is given, and the tax is calculated on the remaining 65%. The speculative builder's sales tax utilizes the same rates as the construction sales tax.

- State Shared Revenues

Each city in Arizona receives a portion of State revenues from four different sources - State sales tax (discussed above), State income tax, vehicle license tax and highway user tax. The formulas for allocating these revenues are primarily based on population. Counties also share in the revenue sources of the State, with the exception of income tax.

- State Personal Income Tax

The State of Arizona collects taxes on personal income. The personal income tax rate used in the analysis averages about 1.6% for earnings. These percentages are based on the most recently available income tax data from the State and the projected wage levels of jobs created by the construction and operations impact. This tax is applied to the wages and earnings of direct and indirect employment. Portions of this tax are redistributed through revenue sharing to cities throughout Arizona based on population.

- State Corporate Income Tax

The State of Arizona collects taxes on corporate income. The State's current corporate income tax rate is 6.968% and is applied to a company's taxable income. The tax is essentially applied to corporate profits. Since profits are the revenues that remain after accounting for a wide variety of costs, they can fluctuate significantly from year to year, and would not normally be collected in the first years of an operation if a company runs losses. In addition, a number of tax credits have added further uncertainty to collections. Portions of this tax are redistributed through revenue sharing to cities throughout Arizona based on population.

- HURF Taxes

The State of Arizona collects specific taxes for the Highway User Revenue Fund (HURF). Both the registration fees and the motor vehicle fuel tax (gas tax) are considered in this analysis. The motor vehicle fuel tax is \$0.18 per gallon and is



calculated based on a vehicle traveling 12,000 miles per year at 20 miles per gallon. Registration fees average \$64 per employee in the State of Arizona. These factors are applied to the projected direct and indirect employee count. Portions of these taxes are distributed to cities and counties throughout Arizona based on a formula that includes population and the origin of gasoline sales.

- Vehicle License Tax

The vehicle license tax is a personal property tax placed on vehicles at the time of annual registration. This factor is applied to the projected direct, indirect and induced employee count. The average tax used in this analysis is \$325 and portions of the total collections are distributed through the Highway User Revenue Fund. The remaining funds are shared between cities and counties in accordance with population-based formulas.

- State Unemployment Tax

Unemployment insurance tax for employees is 2.7% on the first \$7,000 of earned income. This factor is applied to the projected wages and earnings of direct and indirect employees.

The above tax categories represent the largest sources of revenues that would be generated to city, county and state governments. This analysis considers gross tax collections and does not differentiate among dedicated purposes or uses of such gross tax collections.

