

Mining's Potential Economic Impacts in the Santa Rita and Patagonia Mountains Region of Southeastern Arizona

Executive Summary

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For:

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EXECUTIVE SUMMARY

The area of southeastern Arizona surrounding the Santa Rita and Patagonia Mountains is home to spectacular landscapes, unique ecosystems rich in biodiversity, and a diverse, robust amenity and knowledge-based regional economy. It is also an area where the Earth's crust is rich in precious and base metal mineral deposits, and where there is a history of mining. These facts, in conjunction with the extensive federal lands open to mining and high metals prices, have led to a significant increase in mineral exploration and development activities in the area over the last few years. As a result, concerns have arisen among various stakeholders about potential impacts on the local economy and environment from proposed mineral exploration and development activities. This report provides economic analysis and interpretation of these issues to inform the debate regarding the impacts of mining and mineral exploration in the area.

The Local Economy: Typical of the Changing West, Robust, Amenity- and Knowledge-Driven

The local economy in Pima and Santa Cruz counties in many ways exemplifies the changing economy of the West. People are moving to the rural West to live, work, and conduct business primarily due to quality-of-life considerations or amenities such as clean air and water, outdoor recreational opportunities, low crime rates, and a pleasant climate, among others. Important aspects of the changing economy are the decline in relative importance of the extractive industries like mining, and the fact that the economy in the West is no longer dependent on resource extraction, with only a few exceptions. Another very significant trend in the West in general — and locally — is that retirement and investment income have become important economic drivers in rural areas.

Specific findings about the local economy include:

- Pima County has a robust, diverse economy, with a strong knowledge economy component. The relative importance of the agriculture and mining industries is very small, accounting for 0.4% each of employment in the county and 0.1% and 0.5%, respectively, of total personal income.
- The economy of Santa Cruz County is much smaller than that of Pima County. Over the last 15 years, the growth in personal income in Santa Cruz County has been primarily due to an increase in income from government, non-labor sources, and wholesale trade. Most of the county's economic activity occurs in Nogales and along the Santa Cruz River corridor to the north.
- Sub-county areas in Santa Cruz County are very different socioeconomically. The Patagonia Census County Division has characteristics of an "amenity-based" economy and an incipient knowledge economy, including in-migration, high educational attainment, higher household



income, the presence of second homes, and a significant proportion of residents who work in their homes.

- Tourism and travel spending are very important components of the economy in both Pima and Santa Cruz counties. These activities are relatively more important in Santa Cruz County because of their magnitude relative to the size of the county economy.
- Outdoor recreation activities contribute significantly to the economy of both counties.

Modest Potential Local Economic Benefits From Proposed Rosemont Project

The Rosemont Copper Project is a proposed open-pit mine for copper, molybdenum, and silver which would be located in the northern portion of the Santa Rita Mountains in Pima County in southeastern Arizona. The project has been proposed by Rosemont Copper Corporation, a wholly-owned subsidiary of Augusta Resource Corporation.

The potential positive local economic benefits from the proposed Rosemont project are small in comparison to the magnitude of the local economy. Local economic impacts would derive primarily from employment, wages and salaries, business purchases, and taxes paid to local governments.

Specific estimate impacts include:

- jobs during the operational period of the proposed project, representing between eight-hundredths of one percent (0.08%) and three-tenths of one percent (0.3%) of total employment in Pima and Santa Cruz counties combined for the year 2005;
- wages/salaries of approximately one-tenth of one percent (0.1%) of total 2005 wages and salary in the two counties combined, or up to three-tenths of one percent (0.3%) of the 2005 total personal income in the counties, representing from one to six weeks of the average level of economic growth in the two counties over the last five years;
- local business economic impact ranging from less than five-tenths of one percent (0.5%) to six-tenths of one percent (0.6%) of the 2005 GDP of the Tucson Metropolitan Statistical Area (MSA);
- estimated total local tax revenues representing about 1.3% of total property, excise, and sales taxes collected in Pima County and the City of Tucson in the 2005/2006 fiscal year and between one-half of one percent (0.5%) and 1.2% of total combined revenues for the two governments.

Significant Potential Local Costs from Proposed Mine Project

The proposed Rosemont project would produce significant costs for local individuals, businesses, governments, and society in general, including:

- estimated increased costs to local school districts of between \$2.7 million and \$10 million per year;
- increased highway maintenance costs on SR 83;
- annual societal costs associated with increased driving of at least \$418,000;
- increased costs to travellers on SR 83 of approximately \$949,000 annually;
- decreased property values for those residential properties impacted by degraded viewsheds and dust pollution;



- decreased revenues from outdoor recreation and tourism; and
- economic impacts associated with environmental effects on surface and groundwater, electrical power generation, and increased carbon dioxide emissions.

The decreased revenues from outdoor recreation and tourism may be the most significant, since direct local economic impacts resulting from these total about \$2.95 billion. Even a very small decline in this activity due to the presence of mining in the area could generate costs to the local economy far in excess of any positive economic impacts.

Quality of life is one of the most important drivers of the local economy in the area of the Santa Rita and Patagonia Mountains. The abundant protected public lands in the area, such as the Mt. Wrightson Wilderness, Las Cienegas National Conservation Area, and the San Rafael Ranch Natural Area, provide key environmental amenities that are important contributors to quality of life. In addition, U.S. Forest lands within the Coronado National Forest contribute extensive recreational value. As such, these protected public lands are significant economic assets for local and regional economic development.

The proposed Rosemont mine and other mining activities in the area could offer important economic benefits in the form of employment, business purchases, and taxes paid to local governments. The project could also generate significant costs in the form of decreased revenues from outdoor recreation and tourism, decreased property values, increased commuting costs, habitat destruction, surface and groundwater impacts, and permanent environmental degradation that could seriously impact sustainability of the local economy long after the mine has closed and its positive economic impacts have dissipated.

As of the publication date of this report (November 30, 2007), the U.S. Forest Service has not approved the Mine Plan of Operations filed by Augusta Resource Corporation. If it is approved, an environmental review process will begin which includes opportunities for public input. The local community should compare potential benefits and costs to determine whether this and other proposed mining projects are justified. It must consider whether there are ways to change the mining plan to minimize or eliminate risks to the local environment and economy. These issues have to be critically examined as the decisions made will strongly impact the area's future economic prosperity and sustainability.





The nonprofit Sonoran Institute inspires, informs and enables community decisions and policies that respect the land and people of western North America. Facing rapid change, communities in the West value their natural and cultural assets, which support resilient environmental and economic systems. Founded in 1990, the Sonoran Institute helps communities conserve and restore those assets and manage growth and change through collaboration, civil dialogue, sound information, practical solutions and big-picture thinking.

The Sonoran Institute contributes to a vision of a West with:

- *Healthy landscapes* – including native plants and wildlife, diverse habitat, open spaces, clean air and water – from northern Mexico to Western Canada.
- *Vibrant communities* where people embrace conservation to protect quality of life today and in the future.
- *Resilient economies* that support prosperous communities, diverse opportunities for residents, productive working landscapes, and stewardship of the natural world.

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