

# From Smelter Site to Affordable and Energy Efficient Housing in San Juan County, Colorado



*A former smelter site near Silverton, Colorado is being redeveloped into an energy efficient, affordable housing complex that will allow the local workforce to transition from renters to owners.*

## ***Silverton—a Town without Affordable Housing***

The Town of Silverton (population 531), which is located within San Juan County in Southwestern Colorado, had a thriving mining economy from 1876 to 1991; nearly 400 jobs were lost when the mines closed. Recently, the area has seen an increase in tourism with its mining history and the scenic narrow gauge railroad serving as its anchor. Many of the houses of former miners have been sold as vacation, seasonal, and second homes, resulting in a lack of affordable housing in the county and the median home price climbing to \$300,000. In addition to the high cost of housing, the Town of Silverton (elevation 9,300 feet) averages 200 inches of snow and only two to three frost-free weeks annually. Silverton residents often pay as much for heating as they do for housing. The cumulative result is that the majority of the area's workforce spends 50% or more of their income on housing costs.

In an effort to provide affordable and energy efficient housing, San Juan County and its partners have been planning the future Anvil Mountain Neighborhood, which will include single and multi-family affordable housing units that incorporate sustainability features, historical preservation, trails and open space amenities. The town decided to develop the project on the former Martha Rose/Walsh Smelter site, as its terrain and location adjacent to Silverton made it an ideal spot.

## ***Cleanup Needed to Reuse the Former Smelter Site***

The 13-acre Martha Rose/Walsh Smelter site is a former ore crushing facility and coal-fired blast furnace that produced silver, lead, and some gold. Operations at the site began in October 1882 and continued sporadically through 1893, when the facility was closed and dismantled. This was just one small component of the former thriving mining economy. The site sat idle for more than 100 years until demand for developable land (the majority of San Juan County's land base is under federal ownership) spurred the community to begin looking into how the site could be reclaimed and reused.

Colorado Housing Inc. and Housing Solutions for the Southwest funded preliminary environmental assessments in 2003 and 2004, as due diligence before the County purchased the property. A more detailed Targeted Brownfields Assessment was completed in 2005 using contractual support from the EPA. The assessments identified lead and arsenic in the soil, slag, and cinders. After the assessments, San Juan County was awarded an EPA Cleanup Grant; after which the county entered the site into the Colorado Department of Public Health and Environment (CDPHE) Voluntary Cleanup Program, which provides technical support to facilitate environmental cleanup and provides assurance against regulatory enforcement.

Site cleanup began in December 2008 and was completed in December 2009, using funds from an EPA Brownfields Cleanup Grant, the Colorado Department of Local Affairs, CDPHE, and San Juan County. There were some delays in the cleanup due to unanticipated site conditions and a shortened field season, due to Silverton's high elevation. In the



*Cleanup underway at the Martha Rose/Walsh Smelter site.*

## **KEY ACCOMPLISHMENTS**

- Cleaned up arsenic and lead contamination
- Leveraged more than \$2 million for cleanup and redevelopment activities
- Identified energy conservation options and funding sources for new homes
- On schedule to begin construction of new development in 2010

end, the lead- and arsenic-contaminated slag and soil was consolidated, contained, and capped in an engineered onsite repository. The repository site will be re-vegetated and landscaped to be used as open space for the new housing community. A portion of the repository may be used as a trail.

### ***Incorporating Sustainable Components into Building Design***

The Anvil Mountain Neighborhood project was selected as an EPA Brownfields Sustainability Pilot, which provided \$50,000 in technical assistance to identify and evaluate energy savings and alternative energy options as well as additional funding resources and approaches. As part of the pilot, the U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL) developed models of energy conservation strategies that integrate sustainable design concepts (e.g., building orientation and window types). The county adopted NREL's energy conservation options as part of the baseline building code for the Anvil Mountain Neighborhood.

The final Sustainability Pilot report outlines strategies on how to implement green building and infrastructure designs, and additional funding resources for implementation of these ideas on formerly mine-scarred lands. Not only will these strategies save money in the design phase, but they will enable homeowners to realize savings over time.

### ***Reuse Supports the Economy and the Environment***

A unique public/nonprofit partnership will likely break ground on the Anvil Mountain Neighborhood development beginning in fall of 2010 or spring of 2011, after funding is finalized. It will include up to 53 housing units, ranging from 700 to 2,200 square feet. The project will include a few market-value homes to help subsidize the remaining affordable units. In addition to housing, 40% of the property will be utilized as open space, including a park and a historic, interpretive area to showcase the community's mining and rail history.

The Anvil Mountain Neighborhood affordable and energy-efficient housing project will provide many benefits to

### **LEVERAGED RESOURCES**

- \$686,000 from the Colorado Department of Local Affairs for cleanup and infrastructure
- \$585,000 from EPA through a Targeted Brownfields Assessment, Brownfields Sustainability Pilot, Brownfields Cleanup Grant and Brownfields Stimulus Grant for site grading
- \$514,000 from San Juan County for property purchase and matching funds
- \$124,000 from a Colorado Department of Transportation Enhancement Grant for historical interpretation and landscaping
- \$100,000 from the Colorado Department of Public Health and Environment for cleanup
- \$60,000 from Housing Solutions for the Southwest for property purchase
- \$60,000 from Colorado Housing Inc for property purchase
- \$6,100 from a State Historical Fund Grant for a historic assessment
- Technical assistance through DOE's Weather and Intergovernmental Program
- In-kind support from the U.S. Bureau of Land Management
- In-kind support from Fullmer Construction

the community. Primarily, the project will help low- to median-income Silverton residents transition from renters to homeowners. From an environmental perspective, cleanup of the Martha Rose/Walsh Smelter site prevents any future releases of contaminants to the natural environment, reduces the use of fossil fuels from the use of efficient green buildings, and creates new open space. In addition, the area's rich mining and rail legacy will be preserved by using architecture design similar to mining-era buildings in the town, preserving former railroad components on the property, and incorporating interpretive signage with historical photos.

*For more information on EPA's Sustainability Pilots, please visit:  
[www.epa.gov/brownfields/sustain\\_plts/index.htm](http://www.epa.gov/brownfields/sustain_plts/index.htm)*

*For additional information, please contact:*

**San Juan County:** (970) 387-5766 • [www.sanjuandevlopment.org](http://www.sanjuandevlopment.org)

**EPA Region 8 Brownfields Program:** (303) 312-7074 • [www.epa.gov/region8/brownfields](http://www.epa.gov/region8/brownfields)



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