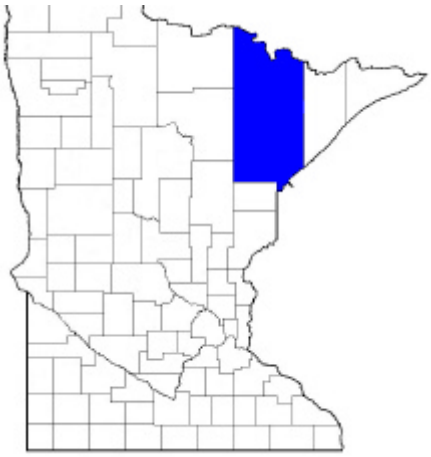

Soudan Underground Mine State Park
Bat Friendly Mine Closure
St. Louis, County

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Partners: **MN Department of Natural Resources**
Bat Conservation International
USDA-NRCS

Throughout the United States, human disturbances of caves and deforestation have forced many bat species from their traditional roosts in search of new homes. Over the past 100 years, many displaced bats have gradually moved to abandoned mines, which often have microclimates similar to caves. Abandoned mines serve as important year-round sanctuaries for bats. Bats use mine sites in a number of ways; for rearing young in summer, winter hibernation, and use as temporary roosts. In some parts of the country, they can also serve as critical migratory stopover sites.

The Soudan mine, the birthplace of Minnesota's "Iron Range", is a large multi-level mine which began operation in 1884. The mine ceased iron ore production in 1962 and was donated by U.S. Steel Corp. to the State of Minnesota in 1963. It has been operating as a state park with mine tours ever since.

The mine has over 50 miles of workings and 27 levels to depths of 2400'. The mine has two shaft openings, #8 currently used for tourist access, and the Alaska shaft, which is abandoned and covered with corrugated metal (see photo). The covering greatly limits the shafts access to bats. "The State of Minnesota has ranked this mine as high priority for bat habitat conservation and enhancement", says Dave Olfelt, MDNR Regional Natural Resources Specialist. Over 24,000 bats have been recorded, the largest known colony in the state. Olfelt adds, "the mine is a particularly attractive hibernation site with stable year-round temperatures of 50°. Bat species using the mine are the little brown bat, Eastern pipistrelle and Northern myotis. The latter two are listed as state species of special concern".

In 1999, NRCS District Conservationist Marge Sella, entered into a Wildlife Habitat Incentives Program (WHIP) agreement with the MDNR and Bat Conservation International (BCI) to help fund modification of the Alaska shaft opening to facilitate bat access and develop an interpretive display. "The project will involve construction of a steel covering over the vertical shaft. The covering will consist of steel grating, which will restore proper seasonal airflow patterns. The heavy duty steel grating will also offer a safe interpretive platform for park visitors. In addition to the platform, a steel cage called a cupola (pronounced *coop-a-la*) will be constructed on top of the platform. The square cupola, located directly over the shaft, will have horizontal bars welded at approximately 4" intervals providing bat access to the shaft, while assuring visitor safety," says Sella.

The Soudan mine and associated structures are listed on the National Register of Historic Places. The Alaska shaft has an existing historic headframe (pictured below) which was used to support the ore skips as they removed ore from deep below the surface. The project was coordinated with the National Park Service and State Historic Preservation Officer (SHPO) during the planning and design stages to assure the platform and cupola do not adversely affect the historic headframe.

The mission of the park is to preserve and display the first iron ore mine in the state and interpret the cultural heritage of the men and women who came to the area to seek a new life in America. "We have long appreciated the critical bat habitat the mine provides", says Paul Wannarka, Park Manager. "We've had plans to restore the bat habitat and incorporate bat ecology into our visitor center and interpretive programs for some time now. However, the project never materialized due to lack of funding. The NRCS WHIP funding was the catalyst needed to secure MDNR funding and additional matching grants from Bat Conservation International".