

# HB Solar Solution Mine Project Fact Sheet

Intrepid Potash – New Mexico, LLC, a wholly-owned subsidiary of Intrepid Potash, Inc., owner and operator of the largest potash mine in Carlsbad, New Mexico and the largest producer of potash in the U.S., has proposed to build and operate a solar solution mine (known as the HB Project) in Eddy County, NM on Intrepid’s own land as well as land managed by the Bureau of Land Management (BLM) and the State of New Mexico. Utilizing Intrepid’s own existing potash mine workings in the area, this project would use environmentally sound and proven technologies to extract and produce potash—a resource vital to our country’s food production—while creating significant economic benefits for the region.

## ABOUT POTASH

Potash is an essential resource for agriculture and food production. Composed of potassium chloride, it is a critical fertilizer that provides potassium, a nutrient vital for the creation of protein and growing many of our nation’s most important crops such as corn, wheat, soybeans, potatoes, and hay. Simply put, potash gives farmers the edge required to grow the best crops and deliver the greatest yield per acre.



## PROJECT OVERVIEW

Located roughly 20 miles northeast of Carlsbad, the HB Project proposes to use solution mining and solar evaporation to extract potash already leased by Intrepid from previously mined areas. Solution mining and solar evaporation are proven technologies that are used around the world, including Intrepid’s facilities in Utah. This project is important because the world’s growing population is increasing food demand and decreasing the amount of land available for growing crops on a per capita basis. Potash plays a vital role in making sure that agricultural land is as productive as it can be. Moreover, the U.S. imports approximately 85 percent of its potash and this project would increase the amount of potash produced domestically. This project would safely and economically allow maximum recovery of potash ore that was unable to be extracted from previous conventional underground mining. Without this project, millions of tons of potash in the underground works would remain in place, squandering this crucial resource and forgoing the expected substantial economic benefits to the region.

The HB Project would involve injecting salt-saturated brine underground to selectively dissolve and recover potash in existing, idled mine workings. Once enriched with dissolved potash, the brine would be pumped through pipelines to above-ground lined, solar evaporation ponds where the potash would be recovered after evaporation. The project would entail a 12 to 18 month construction phase of the following facilities: water supply wells and associated piping, 6 injection wells and 5 extraction wells with 37 miles of associated pipelines (primarily on federal and state land), 520 acres of solar evaporation ponds on property owned by Intrepid and a new flotation plant adjacent to the existing processing facilities at Intrepid’s West Facility.

## ENVIRONMENTAL MITIGATION

Intrepid is committed to building and operating the HB Project in an environmentally friendly manner:

- The project would rely on salty, non-drinkable groundwater to create brine for injecting into the underground workings. To the extent additional water may be needed, Intrepid would utilize its existing water rights.
- To prevent leakage, the evaporation ponds would be lined with thick, industrial-grade plastic liners protected by an 18-inch layer of hardened salt. Additionally, the solar pond area would have monitoring wells and leak detection wells to ensure groundwater is carefully monitored and protected.
- Minimal subsidence is predicted from solution mining. However, Intrepid has an extensive subsidence monitoring network in place that would be surveyed regularly to measure ground movement and ensure that oil and gas wells, pipelines, power lines, and roads are not affected.
- No salt tailing pile would be created. Salt from solution mining would be reused in the injection brine, and any excess salt generated would be sold or disposed of underground after completion of solution mining.

## ECONOMIC BENEFITS

With an expected 28-year mine life, the HB Project is expected to create substantial economic benefits for the region, including:

- More than \$90 million in federal and state royalties and an estimated \$120 to \$130 million in capital construction expenditures.
- 150 to 200 local construction phase jobs and 30 to 40 long-term employees.
- A yield of approximately 5 million total tons of potash at 150,000 – 200,000 tons per year, which will lower Intrepid’s potash production costs and produce significant federal and state royalties.

## A CLOSER LOOK AT SOLUTION MINING AND SOLAR EVAPORATION

Solution mining is a proven, effective and safe mining technique that maximizes recovery of a potash deposit. It has been used in the U.S. and around the world for decades. In this case, it would allow Intrepid to safely and economically recover potash left in place from conventional underground mining in the HB Project area.

The first phase of a potash mining operation typically removes potash deposits with a combination of machines and human labor. The mining of the potash deposit results in open underground works that are held up by pillars (or columns) of salt, potash, and other minerals. Solution mining aims to extract the remaining potash left behind in the pillars and mine walls.

Solution mining involves using pumps to inject a salt-saturated water or “brine” into the existing mined out cavern. Salt-saturated brine is used so only the potash is dissolved and extracted from the existing pillars and surrounding walls. The existing salt is left largely undisturbed in the underground mining works, which will reduce potential surface disturbance and prevent creation of sink holes.

Once the brine is enriched with potash, the brine is pumped out of the cavern through extraction wells and then pipelines are used to transport and deposit the potash-enriched brine into lined solar evaporation ponds. Nature then takes its course by evaporating the brine and leaving behind salt and potash on top of a protective hardened salt layer above the plastic liner.

The precipitated salt and potash is then removed from the pond and transported to a processing facility—called a flotation plant—where the potash is separated from the salt and refined for sale.



A view of the solar evaporation ponds at the Moab, Utah Intrepid Potash facilities, operating since 1972

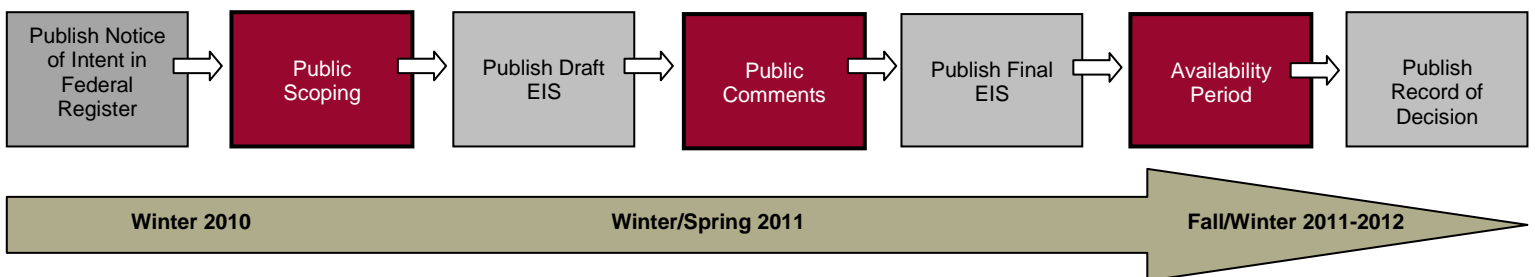
## THE DECISION PROCESS

The HB Project has already received a water discharge permit from the New Mexico Environment Department.

The BLM is also reviewing the project and is currently preparing an Environmental Impact Statement (EIS). The EIS is designed to aid the BLM in the decision-making process for the project. Not only will the BLM solicit feedback from agencies, environmental experts and government organizations, the general public is also encouraged to participate and provide input. Therefore, it is very important for the public to get involved and support the project at key junctures along the EIS timeline.

## THE DECISION SCHEDULE

Red boxes indicate public comment opportunities.



**For more information, please visit [www.Intrepid-HBproject.com](http://www.Intrepid-HBproject.com)**

Intrepid Potash, Inc., the largest producer of potash in the United States, is committed to using environmentally friendly and efficient means to produce low-cost, high-quality potash on which our nation's farmers have come to rely for agricultural use. With careful attention to safety, engineering and business practices, Intrepid Potash, Inc. mines and produces potash from mine site locations in Moab-Utah, Wendover-Utah and Carlsbad-New Mexico.