**Issue Brief: Environmental and Ecological Impacts**

**The environmental consequences of surface mining are extensive and often irreversible. The proposed mining operation threatens:**

#### **Land Degradation and Soil Erosion**

* **Surface mining involves removing topsoil and vegetation, exposing the land to severe erosion and land degradation.**
* **Once stripped, these areas are prone to wind and water erosion, leading to the loss of fertile soil, increased dust pollution, and destruction of natural habitats.**

#### **Water Pollution and Ecosystem Disruption**

* **Runoff from mining sites can carry industrial by-products and hazardous chemicals into nearby water bodies.**
* **This contamination not only affects drinking water quality but also poses severe risks to wildlife and ecosystem integrity.**
* **Magnesium Chloride runoff elevates salinity levels, impacting plant growth and leading to a decline in biodiversity.**

#### **Solid waste Disposal**

* Solid waste collection at Modena is generally oversubscribed, leading to overfilled bins and inadequate disposal options.
* As a resident, I have personally encountered overflowing waste bins, necessitating travel to alternate locations or even returning to Idaho with refuse due to capacity issues.
* The introduction of mining operations in the area will undoubtedly increase waste production, further straining existing solid waste management systems.
* Iron County must assess and improve waste collection infrastructure to accommodate additional demands posed by mine operators and workers. Failure to do so could lead to illegal dumping, environmental contamination, and community health hazards**.**

#### **Air Quality and Silica Dust**

* **The release of silica dust and other particulate matter compromises air quality, increasing the risk of respiratory diseases.**
* **Silicosis is an incurable lung disease directly linked to inhaling fine crystalline silica dust, generated from drilling and crushing operations.**
* **This threatens the health of workers and residents and contradicts OSHA's safety regulations.**

#### **Wildlife and Biodiversity Loss**

* **Wild horses, elk, deer, raptors, and other wildlife depend on the Modena Canyon ecosystem for survival.**
* **The introduction of pollutants, habitat destruction, and human disturbances will disrupt migration patterns, breeding cycles, and food sources, leading to a decline in wildlife populations**
* **The proposed mining operation contradicts Iron County’s Conservation Plans, especially concerning the Greater Sage Grouse, which relies on the region's delicate ecosystem for habitat.**

### **Economic Consequences**

* Modena Canyon and the Hamlin Valley represent a unique collection of natural resources that attract hunters, birders, hikers, rockhounds, and other recreational visitors, in addition to ranching, residential and recreational property owners. The Pew Charitable Trust included Modena Canyon among three notable spots in the Cedar City area, where it calculated millions of dollars in annual economic impact. Pew particularly noted the canyon as a nesting site for numerous species of raptors. Modena Canyon is listed in the Falcon Guide to rockhounding in Utah as a popular source for obsidian and chalcedony. As part of its long range economic development plans, Iron County has promoted Modena Canyon and the Hamlin Valley as part of its Color Country OHV Trail System, placing almost the entirety of its Old West Trail 01 network there.
* While all of these recreational uses contribute economic value to the county and private landowners, none are compatible with the proposed industrial mining operation. Instead, the proposed project will likely have significant negative impact on the interests of property owners by diminishing access and increasing road hazards and associated vehicle maintenance costs. Reducing safe access to private property in the canyon and in Hamlin Valley would impose a significant indirect cost to property. Industrial mining activities would also significantly disrupt the wildlife in the area, further compromising the interests of hunters, hikers, OHV operators and others who access the natural resources of Modena Canyon and Hamlin Valley.

**Potential Mitigation**

* Various strategies have been proposed to mitigate different impacts of the proposed mining operation. Even with optical mitigation, mining in Modena Canyon will unavoidably wipe out many of its precious geological, archaeological, wildlife, and recreational resources. It will irrevocably and forever devastate the interests of surrounding property owners and visitors.
* Prior to completion of any review, the County Assessor should be asked to prepare an estimate of the total loss of property value in Modena, Modena Canyon, and the Hamlin Valley projected a minimum term of Iron County’s 5 year agreement with Progressive Contracting Inc. Should any proposal be approved, reductions in assessed valuation and commensurate tax abatement should be initiated as soon as possible.