



U.S. Department of the Interior  
Bureau of Land Management

**Gibellini Vanadium Mine Project Environmental Impact Statement**

# Welcome

Welcome to the Bureau of Land Management's (BLM's) public meeting for the Gibellini Vanadium Mine Project Draft Environmental Impact Statement (EIS).

Written comments may be submitted at any point until **September 6, 2022.**

**Thank you for joining us.**





U.S. Department of the Interior  
Bureau of Land Management

# Proposed Gibellini Vanadium Mine Project EIS

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## Draft EIS Public Meetings

Virtual: August 10, 2022 – 2:00 to 3:00 pm PDT  
[https://blm.zoomgov.com/webinar/register/  
WN\\_ZBnm3TMWRKuhR\\_clsdh8Jg](https://blm.zoomgov.com/webinar/register/WN_ZBnm3TMWRKuhR_clsdh8Jg)

In-person: August 16, 2022 – 6:00 to 8:00 pm PDT  
White Pine County Library  
950 Campton St., Ely, NV 89301

In-person: August 17, 2022 – 6:00 to 8:00 pm PDT  
Eureka Opera House  
31 S. Main St., Eureka, NV 89316

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# Proposed Gibellini Vanadium Mine Project EIS

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## Meeting Agenda

- I. BLM Welcome Message (5 min)
  - II. Logistics (5 min)
  - III. NEPA Process and Timeline (5 min)
  - IV. Proponent Presentation of Proposed Gibellini Vanadium Mine Project (10 min)
  - V. Alternatives and Potential Resource Impacts (10 min)
  - VI. How to Comment (5 min)
  - VII. Question and Answer Session (20 min)
  - VIII. Meeting Wrap Up
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## Gibellini Vanadium Mine Project Environmental Impact Statement NEPA Process and Timeline

### Public Scoping

July – September 2020

During Public Scoping, the public provides input regarding project and resource concerns. This input is used to identify issues to be addressed through alternatives development or EIS analysis.



### Draft EIS

July 2022

The Draft EIS:

1. Identifies different alternatives that meet the purpose and need while resolving resource conflicts;
2. Discloses the effects of each alternative on the natural and human environment; and
3. Identifies mitigation that may be applied to reduce impacts.



### 45-day Public Comment on Draft EIS

July 2022 – September 2022

The Draft EIS public comment period allows for public comment on the proposed action and alternatives and the analysis contained in the EIS document.



### Final EIS

Winter 2022

The Final EIS will consider all public comments and will disclose the Agency's preferred alternative.



### Record of Decision

Spring 2023

Following release of the Final EIS, the BLM will publish a Record of Decision disclosing the final decision on which alternative analyzed in the EIS may be implemented, as well as any Conditions of Approval.

= completed steps  
 = steps in progress  
 = future steps

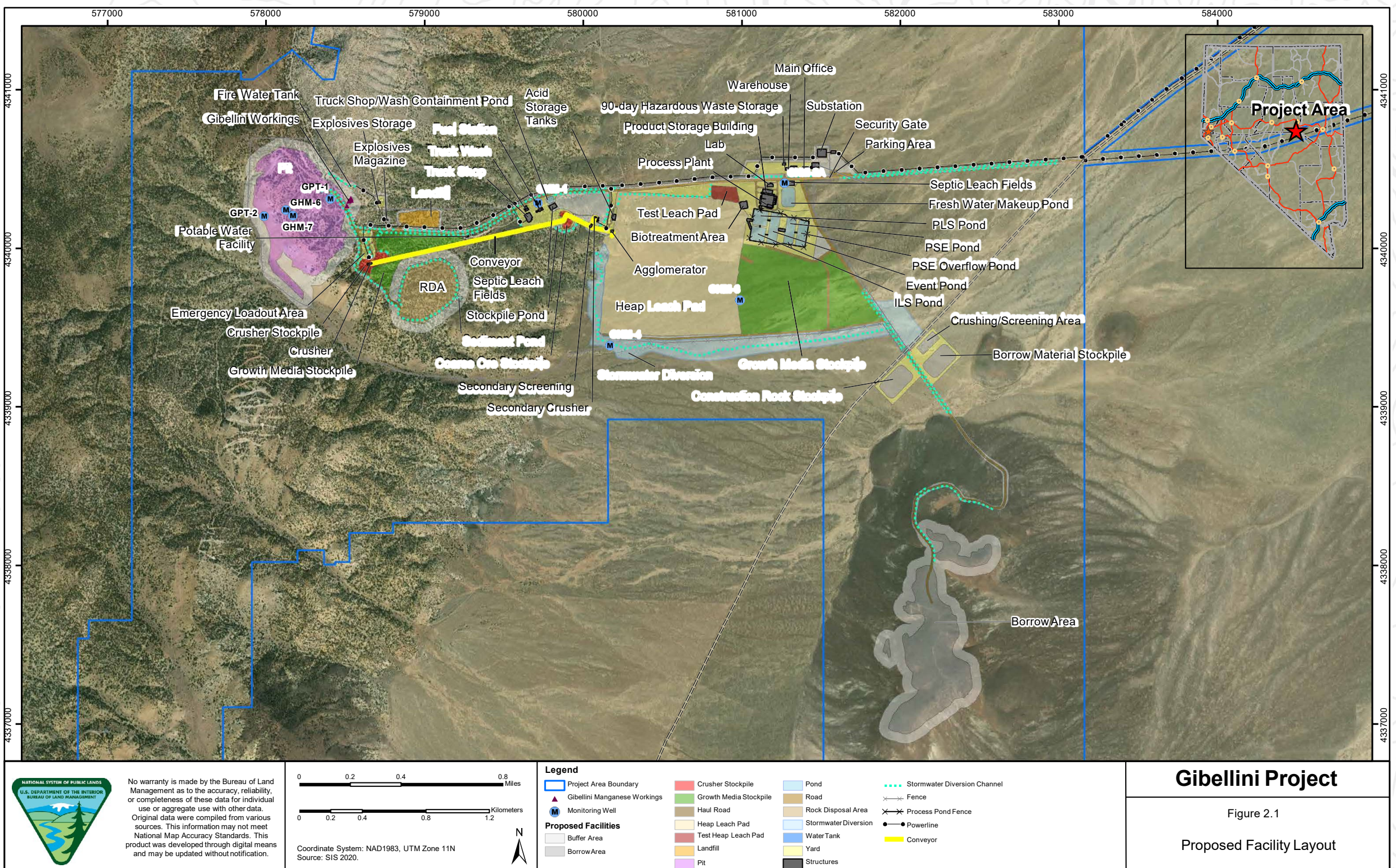




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## Gibellini Vanadium Mine Project Environmental Impact Statement Proposed Action

- The Project area consists of 6,456 acres of public land administered by the Bureau of Land Management (BLM) Battle Mountain District, Mount Lewis Field Office.
- Project-related activities would result in approximately 806 acres of surface disturbance on BLM-administered land. A total of 760 acres of disturbance would occur in the Project area boundary, consisting of mining infrastructure, communication lines, water pipelines, power lines, and roads. An additional 46 acres of disturbance would occur from exploration. Most of the surface disturbance would be reclaimed at the end of mine life. Surface disturbance associated with the pit (85 acres) would be permanent because it would not be reclaimed.
- The Proposed Action would include the following new mine components: open pit, rock disposal area, mine office and facilities, crushing facilities and stockpile, Heap Leach Pad process facility, various process and make-up water ponds, borrow areas, the mine and access roads, water and power supply lines, and ancillary facilities.





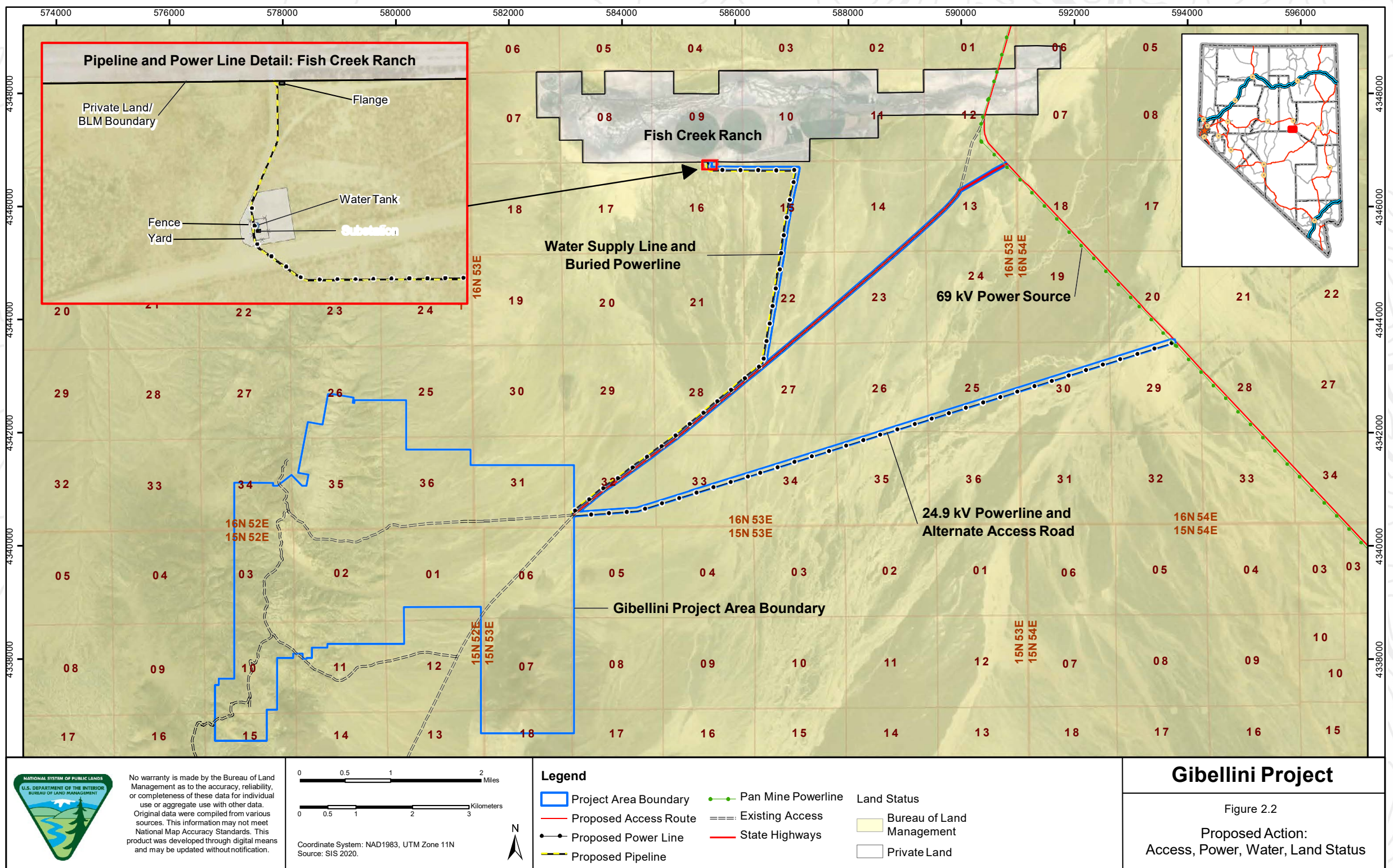


# Gibellini Vanadium Mine Project Environmental Impact Statement

## Proposed Action

### Access, Power, Water, and Land Status

- The water supply line and the powerline would be buried between the access road and Fish Creek Ranch.
- Water for the Project would be obtained from Fish Creek Ranch.







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## Gibellini Vanadium Mine Project Environmental Impact Statement

# Vanadium: The Critical Element

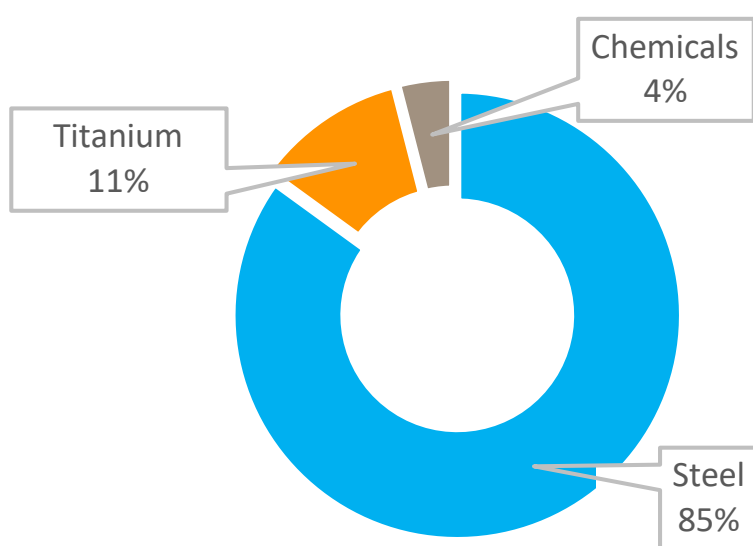
Vanadium is an essential element for uses such as:

- > Steel
  - >>Rebar and structured beams required to meet building codes
  - >>Required for high speed tools and surgical steels
- > Aerospace and Defense Industry
  - >>Titanium vanadium alloys required for aircraft, missiles, personnel transports, etc.
- > Chemicals and Pollution Control
  - >>Required in production of synthetic rubber, polyester, fiberglass, sulfuric acid, etc.
  - >>Critical component of catalytic converters to remove sulfur dioxide, etc.
- > Energy Storage
  - >>The grid scale vanadium flow battery
  - >>Lithium vanadium batteries for electric vehicles

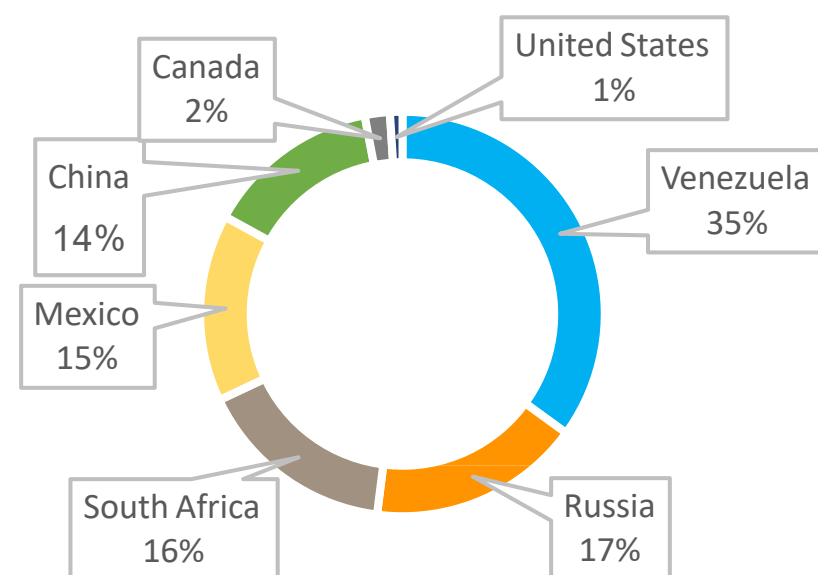
## Vanadium Supply in the U.S.

- > U.S. imports nearly 100% of its vanadium
- > Over 80% comes from countries with geopolitical risk
- > U.S. imports 100% for titanium alloys

United States Vanadium Demand



Vanadium Supply by Country of Origin of Raw Material





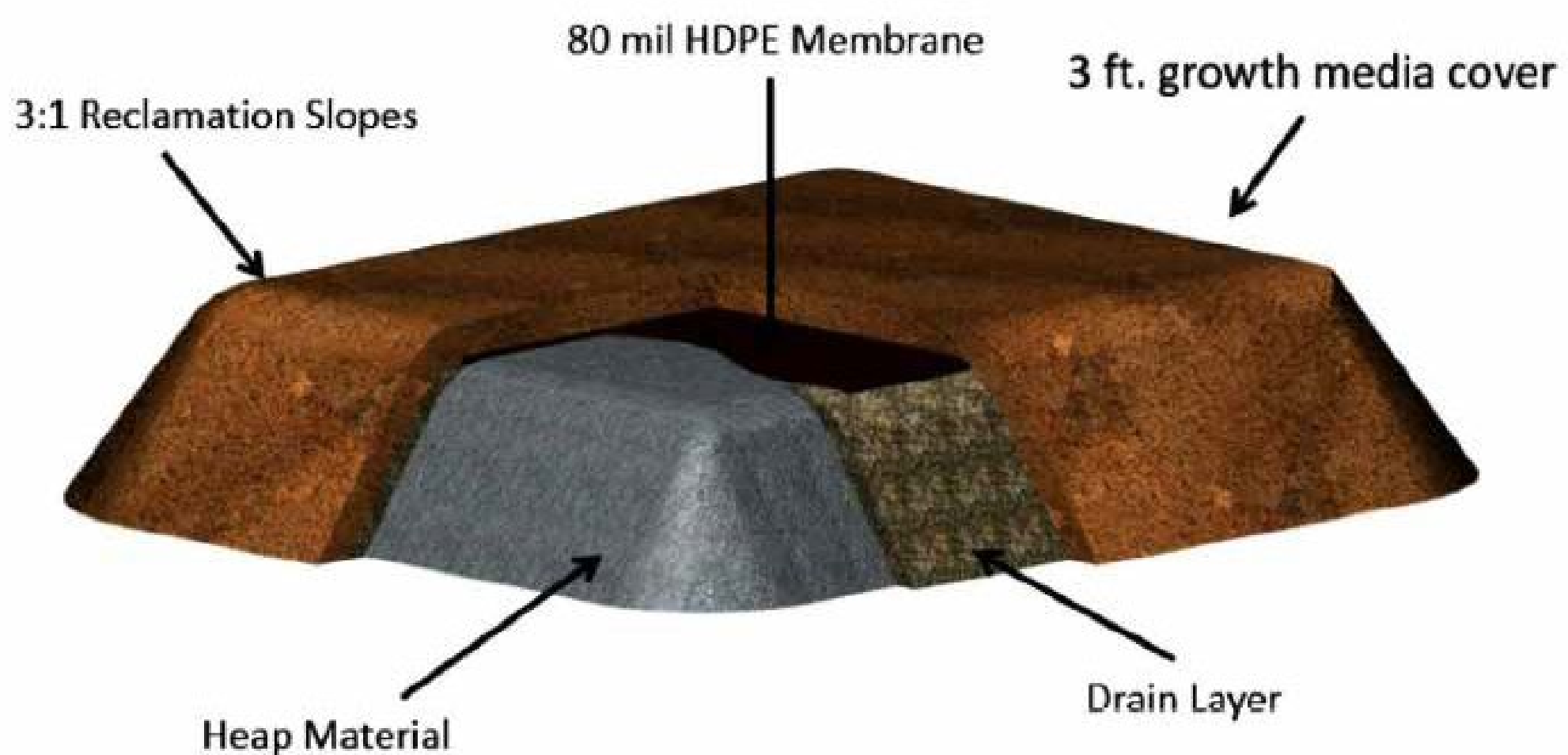


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## Gibellini Vanadium Mine Project Environmental Impact Statement

# Operation and Concurrent Closure Phases

- The intent of reclamation is to return areas within the Project area to beneficial post-mining land use. Concurrent closure of the Heap Leach Pad (HLP) would begin immediately after vanadium recovery ceases.
- The HLP would have six distinct operational and concurrent closure stages:
  - **Stage 1:** Phase 1 Area Active Leaching
  - **Stage 2:** Phase 1 Active Leaching and Begin Stacking Phase 2
  - **Stage 3:** Phase 1 Area Secondary Leaching and Phase 2 Area Active Leaching
  - **Stage 4:** Rinsing of the Phase 1 Area and Acid Recovery for Active Leaching of the Phase 2 Area
  - **Stage 5A:** Draindown of Phase 1 and 2 Areas with Active Fluid Reduction
  - **Stage 5B:** Semi-passive Treatment Phase of Heap Draindown and Final Cover Placement



**Heap Leach Closure Configuration**

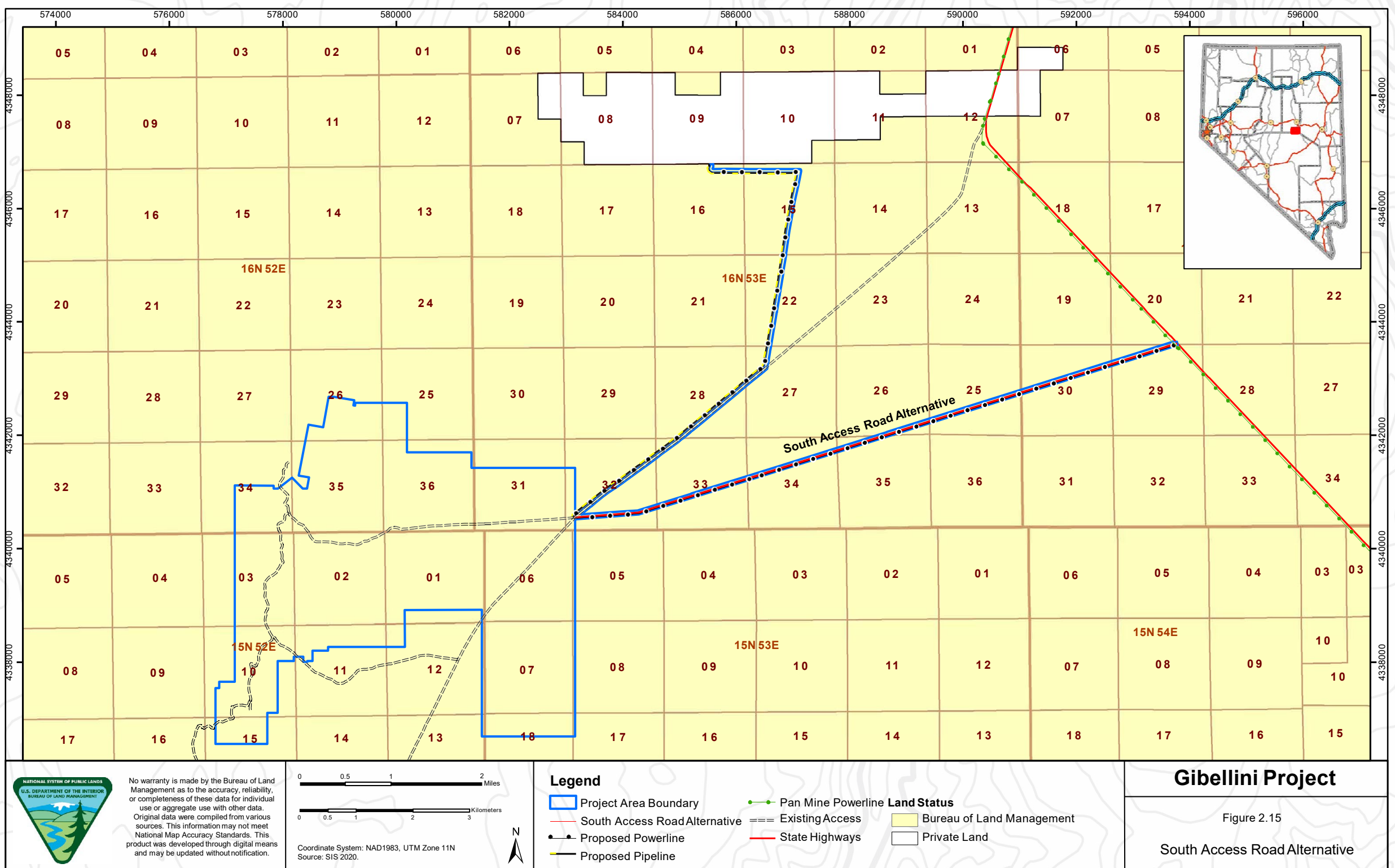




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## Gibellini Vanadium Mine Project Environmental Impact Statement South Access Road Alternative

- The South Access Road Alternative would include the same mine components as described for the Proposed Action, except the access road would be constructed in a different location. This alternative access road would be approximately 7 miles long and extend from County Road M-103 (Duckwater Road) to the Project area.
- This alternative would result in approximately 38 additional acres of surface disturbance relative to the Proposed Action. Total surface disturbance would include 844 acres of BLM-administered land.
- This alternative was developed to minimize environmental impacts by minimizing potential resource conflicts with Greater sage-grouse populations that utilize water in and vegetation along Fish Creek as habitat, as well as avoiding a cultural resource site near the intersection of Fish Creek Road and Duckwater Road.



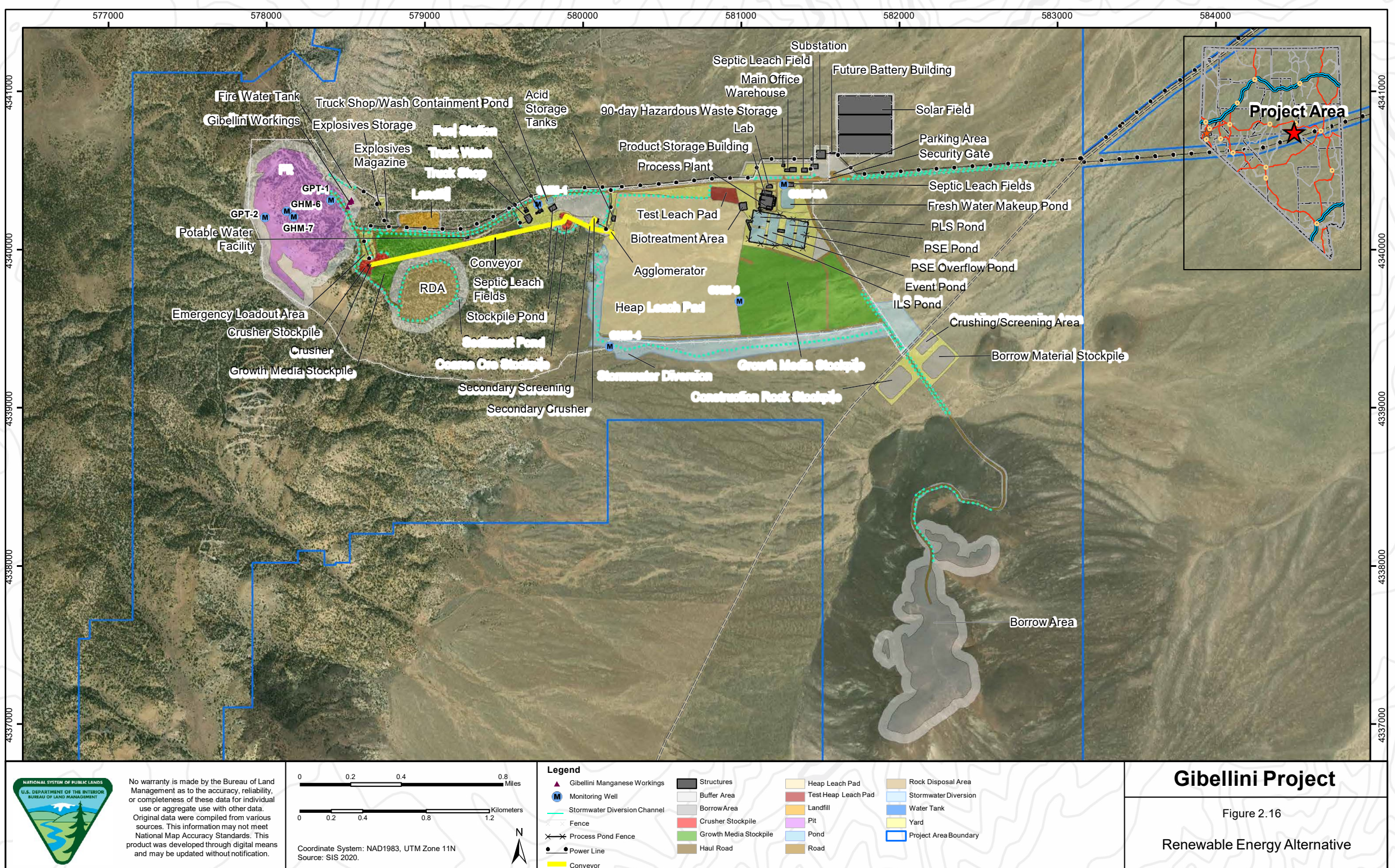




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## Gibellini Vanadium Mine Project Environmental Impact Statement Renewable Energy Alternative

- The Renewable Energy Alternative would consist of the same overall activities as described for the Proposed Action except this alternative would include supporting the mine operations with a combination of renewable energy and a utility interconnection with future large-scale battery storage.
- This alternative would include the installation of enough solar electric photovoltaic capacity so the site would become a net generation facility with battery storage to perform peak smoothing and daily load management as well as providing a sustainable long-term power source servicing the remote electrical needs of southern Eureka County and northern Nye County.
- This alternative would result in approximately 33 additional acres of permanent surface disturbance compared to the Proposed Action because the solar facility would not be reclaimed at the end of the Project. Total surface disturbance for the Renewable Energy Alternative would include 839 acres of BLM-administered land.







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## Gibellini Vanadium Mine Project Environmental Impact Statement Water Resources

- > Make-up water requirement is 500 gallons per minute (GPM) or 1.34 cubic feet per second (cfs).
- > Consistent flow in Fish Creek Springs water supply ranges from 5.4 to 9.8 cfs with a minimum annual flow of 3,900 acre-feet per year.
- > No groundwater pumping needed; all water supplied from the ranch comes from surface water springs to ensure no impact on the water basin, downstream groundwater, or surface water users.
- > Water lease is for 650 GPM to allow infiltration of 30% of the water transferred to the mine to infiltrate back into the ground to match infiltration from center-pivot irrigation.
- > Fish Creek Ranch water rights will be amended to show place of use transferred from ranch to mine. Ranch will have to show non-use of acreage normally irrigated by 650 GPM (approximately one center-pivot).
- > Water management plan developed to monitor water transfer, quality, and quantity.
- > The pit bottom would be approximately 109 feet above the groundwater table, thereby avoiding the potential formation of a pit lake after mining.





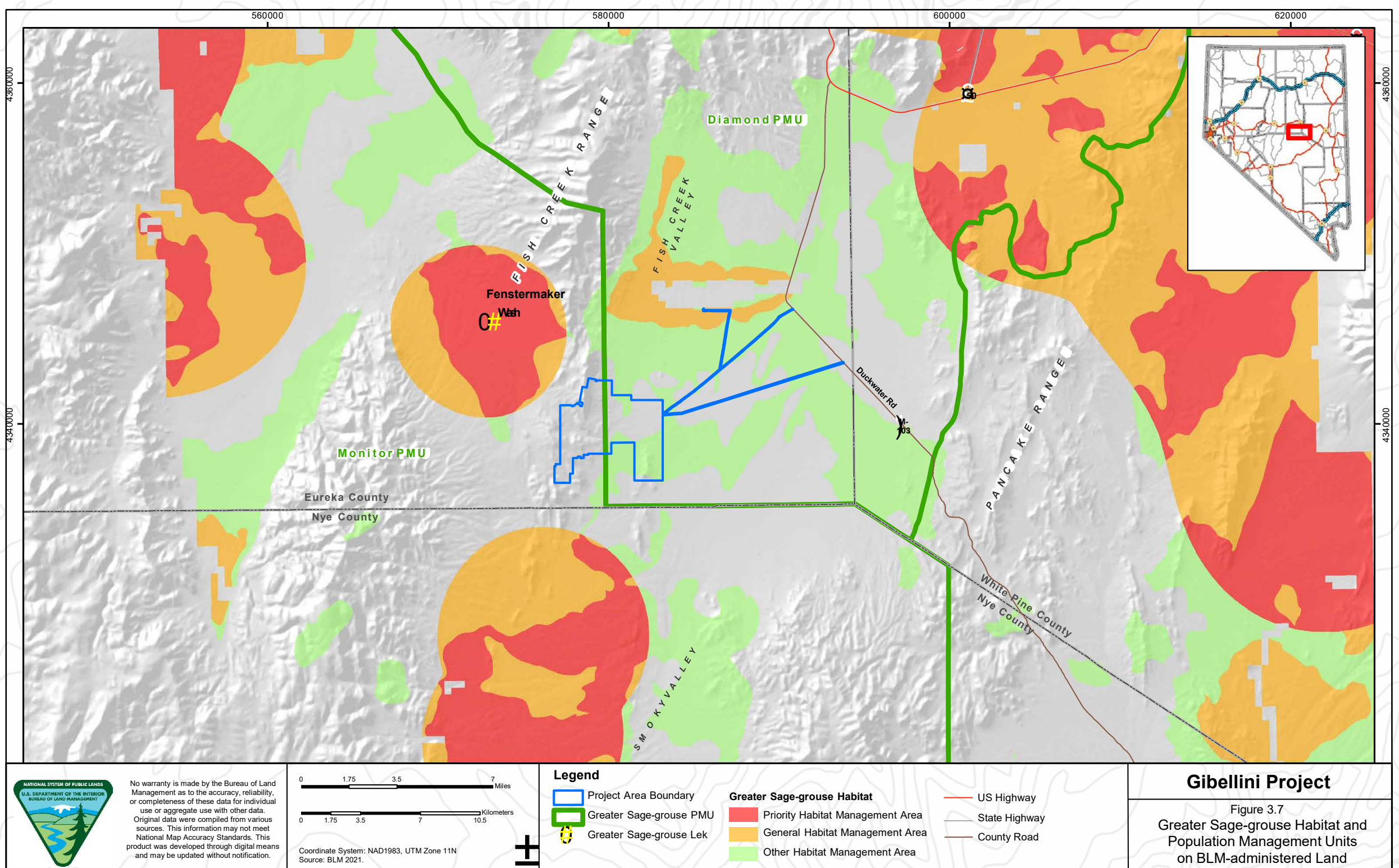


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## Gibellini Vanadium Mine Project Environmental Impact Statement

# Greater Sage-Grouse Impacts and Mitigation

- Greater sage-grouse habitat management areas are present in the Project area and include 31 acres of General Habitat Management Area (GHMA) and 1,571 acres of Other Habitat Management Area (OHMA).
- Impacts to Greater sage-grouse would primarily include loss of 3 acres of GHMA and 132 acres of OHMA habitat. The percent loss of habitat within the Population Management Units would be less than 1 percent regionally. The closest active lek (Fenstermaker Wash) would not be affected directly or indirectly due to noise level changes. Nevada Vanadium Company would monitor lek attendance at this lek during all phases of the Project, from construction through final reclamation.
- Nevada Vanadium Company is working with the Sagebrush Ecosystem Technical Team to use the Conservation Credit System to offset effects of the Project's surface disturbance to Greater sage-grouse and sagebrush habitat.



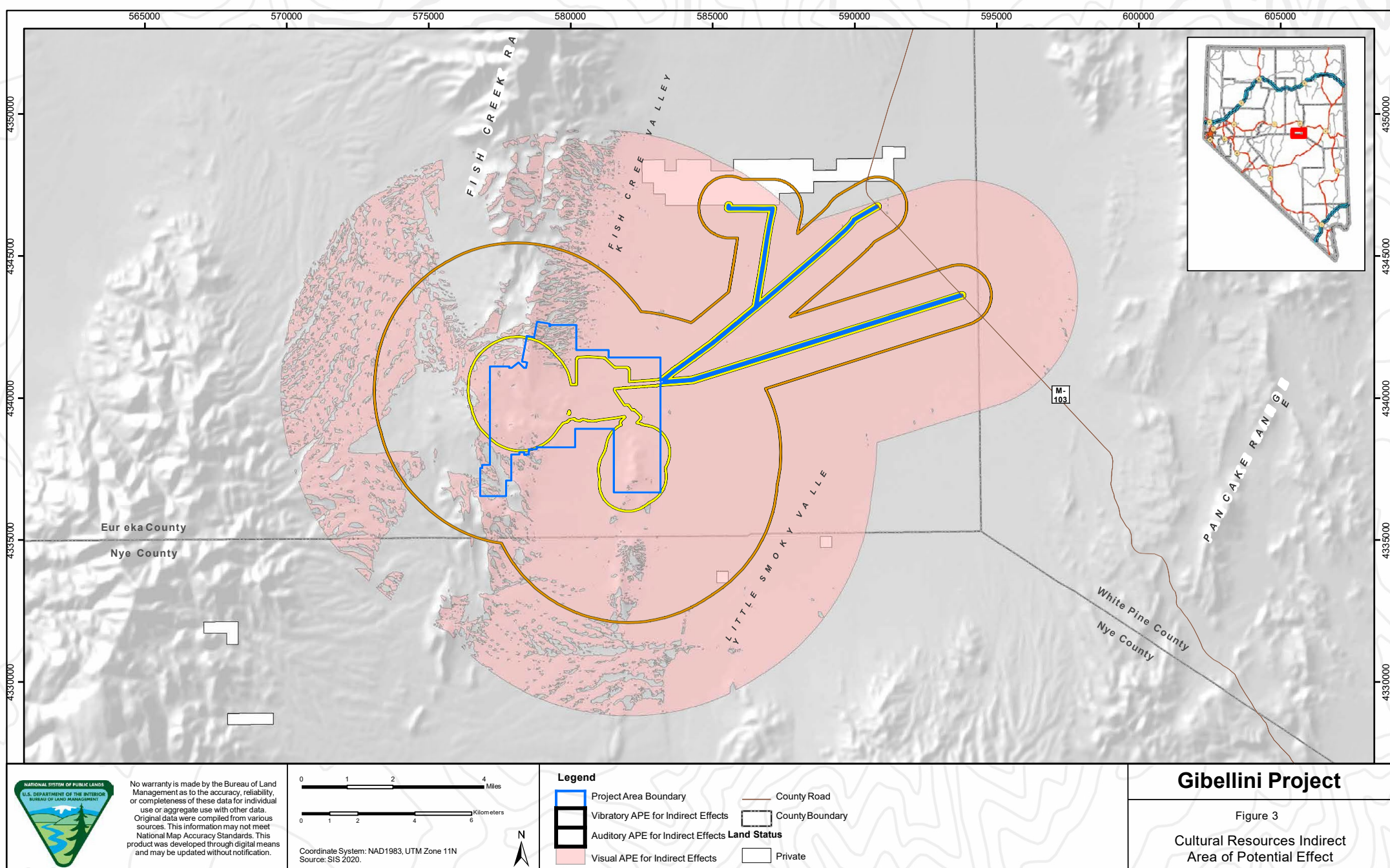




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## Gibellini Vanadium Mine Project Environmental Impact Statement Cultural Resources

- In the direct Area of Potential Effect (APE), there are seven known eligible archaeological sites and one known unevaluated archaeological site.
- Of these, five would be directly physically affected by the Project's ground disturbance; three archaeological sites would be affected by mine facilities, one archaeological site would be affected by the water pipeline, and one archaeological site would be affected by the construction and maintenance of the access road associated with the utility corridor intersecting the Pan Mine 69-kilovolt (kV) power line.
- The three remaining sites would not be physically affected by the Project's facilities and would not be adversely affected.
- Twenty-seven eligible and unevaluated archaeological resources are within the APE for vibrational indirect effects. No indirect adverse effects on archaeological sites would result from vibrations.
- Sixty-nine eligible or unevaluated archaeological resources are within the APE for auditory indirect effects. No adverse auditory effects on architectural resources would occur.
- Sixty-four eligible and unevaluated archaeological resources are within the APE for visual indirect effects. No adverse effects on these resources would result from development of the Proposed Action.







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## Gibellini Vanadium Mine Project Environmental Impact Statement

# Uranium Management and Transportation

- > The Gibellini vanadium deposit contains very low levels of naturally occurring uranium (approximately 0.0012%) that must be removed to meet vanadium product purity specifications (99% vanadium pentoxide).
- > Vanadium heap leaching removes over 90% of contained uranium.
- > Approximately 25 tons of uranium to be produced annually compared to 5,000 tons of vanadium.
- > Uranium removal system is licensed by Nevada Department of Health Radiation Control Program. License requirements include:
  - >> Area monitoring
  - >> Worker protection
  - >> Ore, waste rock, and ground water monitoring
  - >> Air quality monitoring
  - >> Decommissioning requirements
- > The uranium would be converted to a very safe solid yellowcake form to reduce exposure risk to employees and transportation spill risk.
- > Limited quantities of uranium in sealed steel drums would be onsite at any one time.
- > The uranium would be transported in solid form with minimal spill risk and is subject to Department of Transportation regulations.







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## Gibellini Vanadium Mine Project Environmental Impact Statement How to Comment

You may submit written comments on the Draft EIS by any of the following methods:

➤ **At one of the in-person meetings**

Comment forms will be available to fill out and leave with the BLM at the meeting, or mail-in afterward.

➤ **Email**

[sdistel@blm.gov](mailto:sdistel@blm.gov) with "Gibellini Project DEIS" in the subject line.

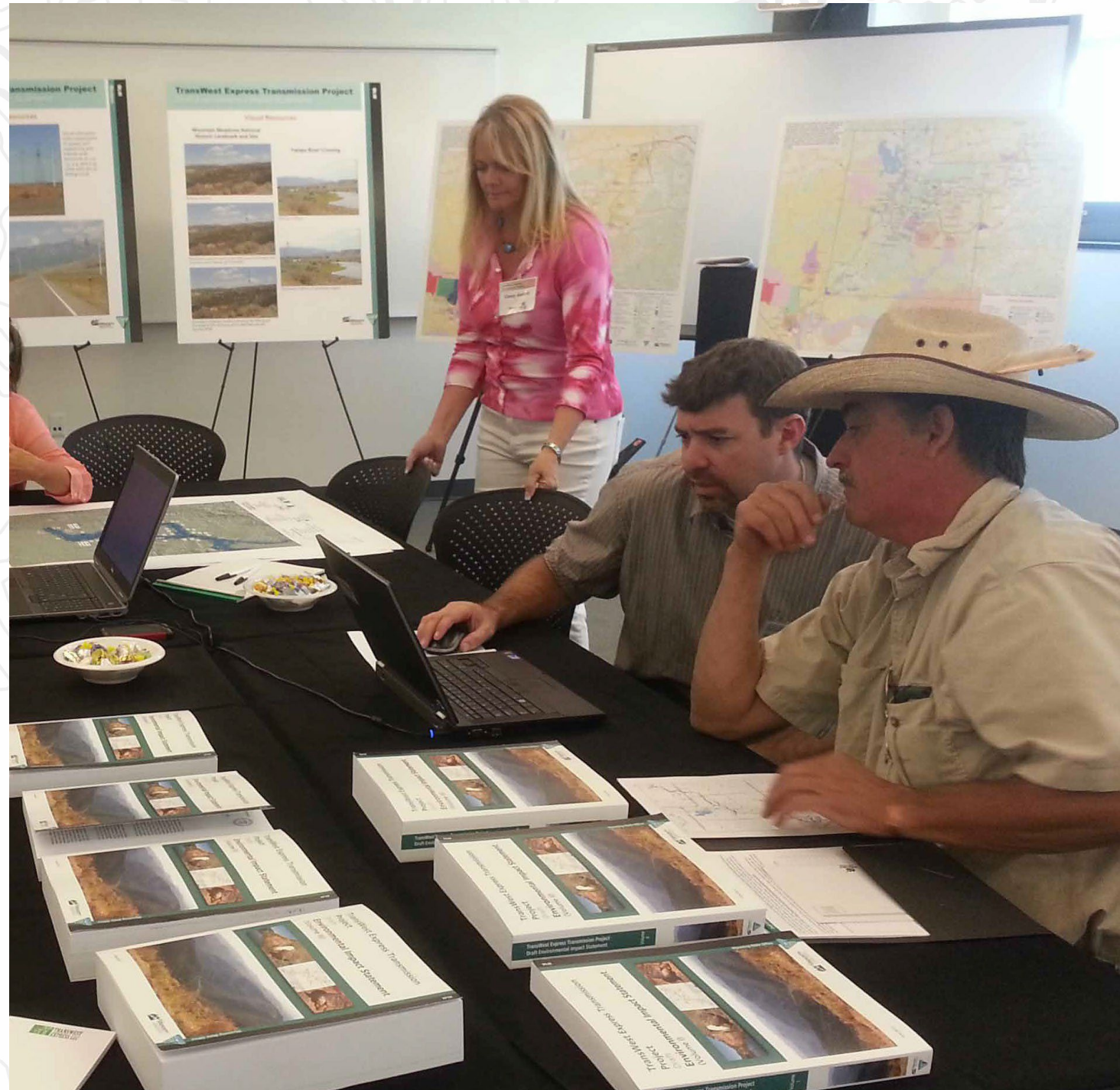
➤ **U.S. Postal Service (USPS)**

Mail a completed/stamped comment form or letter to:

Bureau of Land Management  
Attn: Gibellini Project  
50 Bastian Road  
Battle Mountain, Nevada 89820

➤ **Online**

BLM ePlanning website at <https://go.usa.gov/xf2GR>



## Effective Public Commenting

The most effective comments are those that provide useful information to the BLM in their decision-making for the Project. Comments on the Draft EIS are not counted as votes or as part of a referendum on agency decisions. They are used to improve the document and analyses, and to ensure that the impacts are adequately determined before a final decision. Comments should address any errors in the analyses that may affect the outcome; new information that would change the analyses and conclusions; something that should be clarified in the Draft EIS; or a substantially different alternative that meets the purpose and need statement and has not been considered.

### **ALL COMMENTS MUST BE RECEIVED BY SEPTEMBER 6, 2022**

Before including your address, phone number, email address or other personal-identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you may ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.





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# Questions?

**Beginning of Q&A Session  
(20 minutes)**