



Idaho-Maryland Mining Corporation

SECTION 4

Property Description
and Location





IDAHO-MARYLAND MINING CORPORATION

PRELIMINARY ASSESSMENT TECHNICAL REPORT
IDAHO-MARYLAND MINE, GRASS VALLEY, CALIFORNIA

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The Idaho-Maryland project property is 1.5 miles east of the center of the City of Grass Valley, Nevada County, in the State of California (see Figures 4-1 and 4-2). The property lies primarily between the Idaho-Maryland Road, Brunswick Road, and State Route 174 and consists of approximately 2,750 acres of mineral lands, with 37 acres of surface rights centered around the New Brunswick shaft, and 101 acres of surface rights west of the Idaho shaft, and a one-acre easement on the Round Hole Shaft Property. The 101 acres of surface rights include a 56 acre parcel and an adjoining 45 acre parcel lying immediately to the east. The 56 and 45 acre sites are collectively called the Idaho-Maryland property. The mineral lands comprise portions of Sections 19, 29, 30, and 31 in T16N R9E and portions of Sections 23, 24, 25, 26, 36 in T16N R8E. The site plan is shown on Dwg. 100-C-0005 in Appendix B.

The mineral rights are defined as sub-parcels in a Quit Claim Deed and are restricted to a variable depth from surface. In general, the rights are contiguous below 200 ft from surface. Emgold has an agreement with the mineral rights holders (BET Group) that include a mining lease and option to purchase the 101 and 37 acre properties. The term of the lease agreement is five years commencing on 1 June 2002. During the term of the lease agreement, any gold production from the property will be subject to a 3% Net Smelter Royalty (NSR). Idaho-Maryland owns the 45 acre parcel which comprises a portion of the 1001 acre site.

4.2 Jurisdictions

The Idaho-Maryland mine lands are located within the City of Grass Valley and in unincorporated county lands that are designated to be annexed into the city of Grass Valley by 2005. Other project lands, including the New Brunswick shaft, are on Nevada County lands, and are not part of any scheduled annexation. Certain administrative procedures will therefore need to be completed by the city to allow the project property to be developed for mineral extraction:

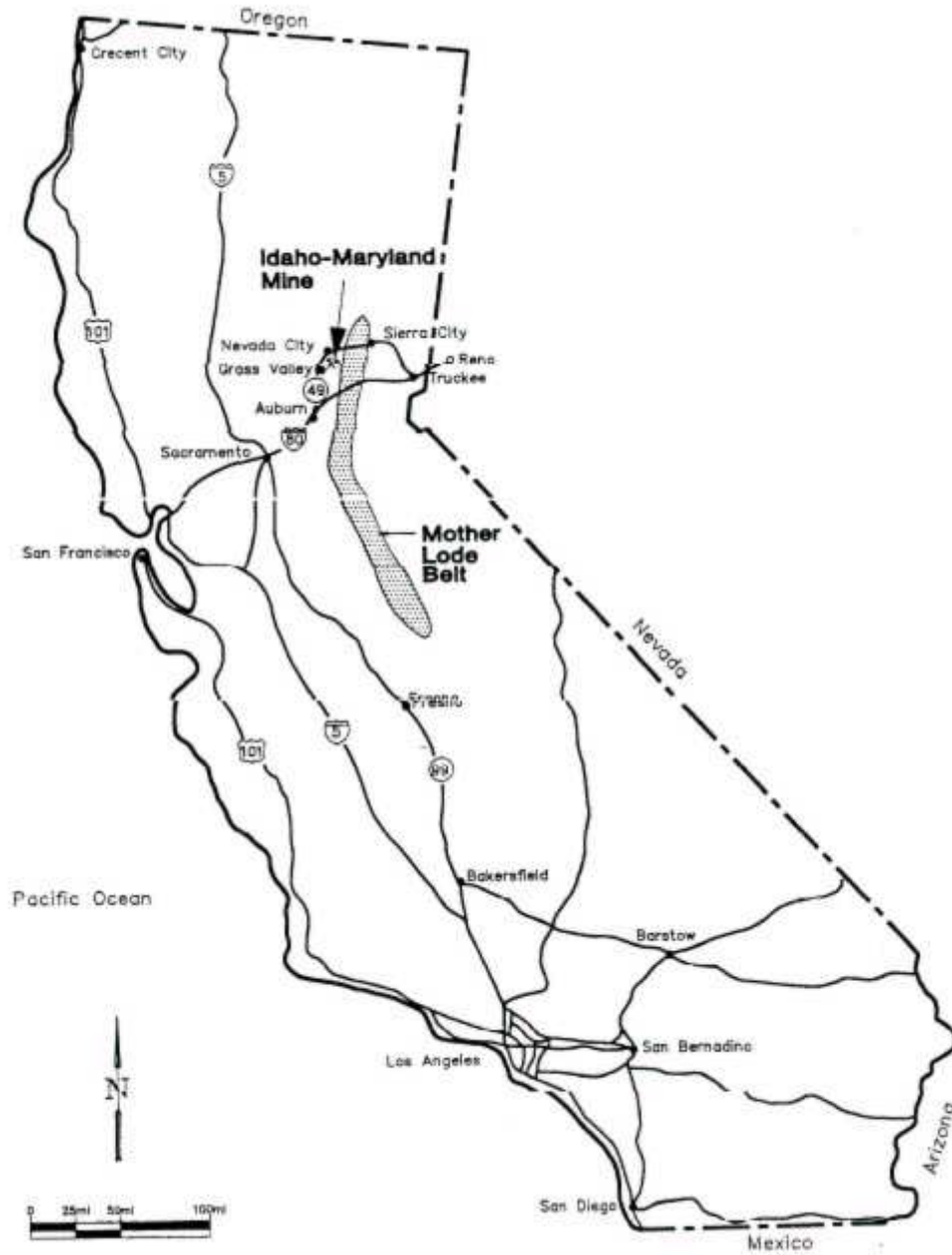
- General Plan Amendment
- Zoning Designation Amendment
- LAFCO Process.

Such actions require a land use permit application be submitted to the Lead Agency, which will trigger the environmental assessment process required by the State of California as defined in the *California Environmental Quality Act (CEQA)*. Other applicable state and federal environmental regulatory requirements are as outlined in Section 4.4.



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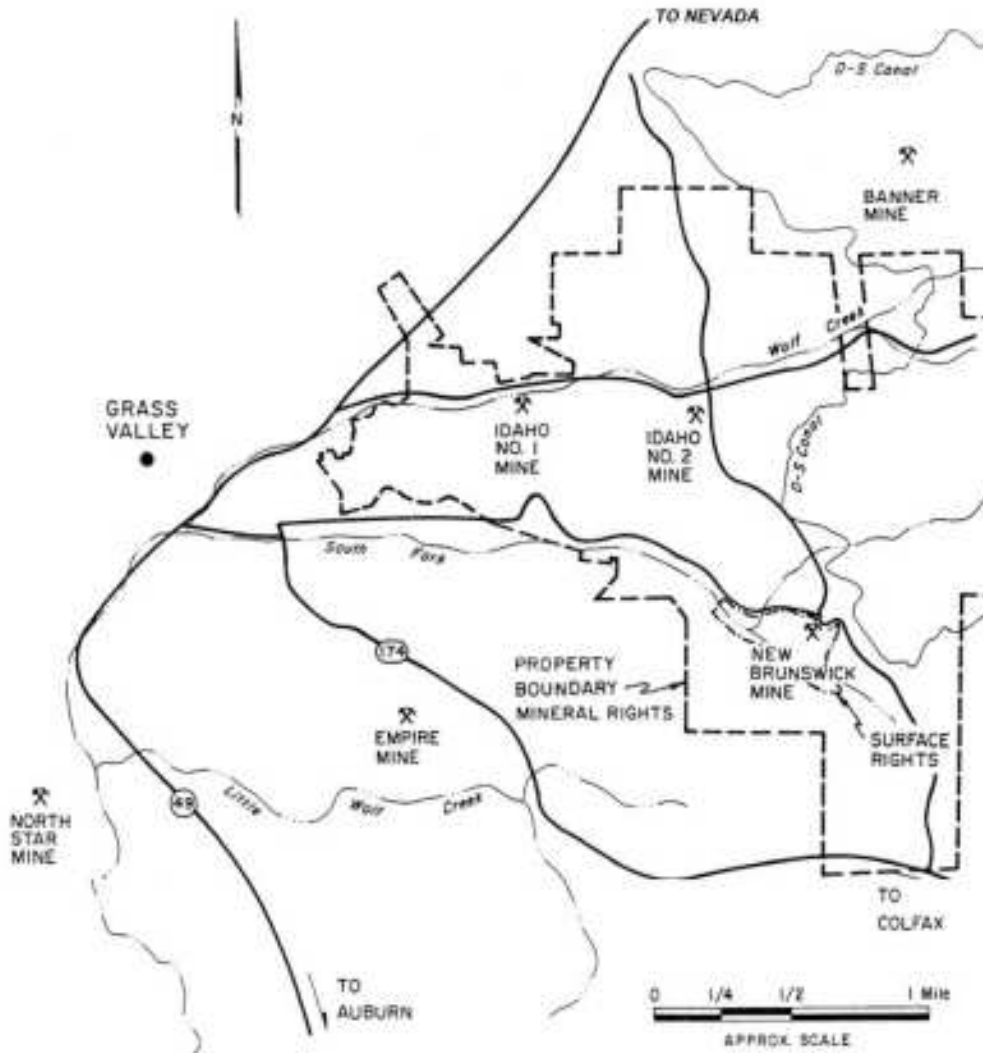
Figure 4-1: Project Location Map





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Figure 4-2: Mine Location Map





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4.3 Permitting History

In the mid-1990s, Emperor Gold Corporation, the predecessor to Idaho-Maryland Mining Corporation, a subsidiary of Emgold, applied to the Nevada County Planning Department for a use permit to dewater and subsequently explore and sample the existing workings of the Idaho-Maryland mine. On 25 January 1996, the Nevada County Planning Department certified the Environmental Impact Report (EIR) prepared in accordance with CEQA and issued a conditional use permit. In accordance with the permit, the project was to have commenced by 25 January 1998 with completion of dewatering, exploration, and post-project activities by 25 January 2003.

To support dewatering activities, Emperor Gold applied for a National Pollution Elimination Discharge System (NPDES) permit with the California Regional Water Quality Control Board, Central Valley Region (CVRWQCB). On 3 May 1996, a permit was issued allowing Emperor to dewater the Idaho-Maryland mine. The permit was valid for a period of five years and expired on 3 May 2001.

Idaho-Maryland management submitted a "Conceptual Development Review Application" to the City of Grass Valley on 30 July 2004. The City of Grass Valley has reviewed the Conceptual Application and has identified where modification and/or additional information is required. Idaho-Maryland management is currently addressing the requirements for the formal Development Review Application.

The Development Review Application addresses the following items:

- neighborhood site plan
- project site plan
- statistics and descriptive information
- architectural plans
- project site cross sections.

In addition, the application addresses the following issues.

Land Use

- Required by the City of Grass Valley (City) and Nevada County (County)
- Identifies the property boundaries, building locations and setbacks, parking spaces, and proposed land improvements. This information is relevant to the surface development required for the project.



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General Plan Amendment

- Required by the City and County
- Describes changes (if any) to the General Plan, how the changes affect the existing policies of the General plan, or how new conditions or community desires warrant changes to the General Plan and how these changes relate to other elements of the General Plan. This information is relevant to the surface development required for the project.

Rezone/Pre-zone

- Required by the City and County
- Describes changes required to applicable zoning regulations and how they conform to the requirements of the General Plan. If General Plan Amendments are required, a description of how General Plan policies are being amended to meet the proposed changes to zoning designations is required. This information is relevant to the surface development required for the project.

Annexation

- Required by the City and County
- Describes current and proposed zoning and land use of the project site and adjacent properties, and provides a statement stating how the property is consistent with the City's Sphere of influence and General Plan. This application must also describe proposed changes to service organizations (i.e., fire and police departments).

Surface Mining and Reclamation Act

- An Exploration and Mining Use Permit is required by the City and County to conform to the requirements of the *Surface Mining and Reclamation Act* administered by the California Department of Conservation, Office of Mine Reclamation. The information developed for this permit application is particularly relevant to the subsurface development required for the project.

4.4 Environmental Laws

The following environmental laws are applicable to the proposed project: the *California Environmental Quality Act* (CEQA, 1970), *Surface Mining and Reclamation Act* (SMARA,



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1975), *Clean Water Act* (CWA, 1972), and *Clean Air Act* (CAA, 1972). These laws, their respective purposes, and their applicability to the project are briefly described below.

California Environmental Quality Act

CEQA is regarded as the foundation of environmental law and policy in California. Its primary objectives are to disclose to decision-makers and the public the significant environmental effects of a proposed development and identify ways to avoid or reduce environmental damage.

Typically, when a Lead Agency is notified of a project, the CEQA process is initiated with consideration of the proposed project's environmental characteristics. Because the proposed Idaho-Maryland project involves re-opening a mine that has been inactive for approximately 50 years, for which minimal reclamation, if any, has been performed, an Environmental Impact Report (EIR) will most likely be required under CEQA.

Surface Mining and Reclamation Act

SMARA was enacted to respond to the need for a continuing supply of mineral resources, while preventing damage from mining activities to public health, property, and the environment. The following activities are subject to SMARA: prospecting and exploratory activities, dredging and quarrying, streambed skimming, borrow pitting, and stockpiling of mined materials.

Mining may begin after the lead agency approves the mining permit and a plan for returning the land to a usable condition; this plan is referred to as a *Reclamation Plan* and is required for surface and subsurface mining operations. In addition, a prerequisite to mining activities is the applicant's proof of financial assurances to guarantee costs of reclamation (e.g., surety bonds, irrevocable letters of credit, or trust funds).

Because the proposed project involves reopening a mine that has been inactive for approximately 50 years, for which minimal reclamation, if any, has been performed, a reclamation plan will need to be prepared for the project in accordance with SMARA. Reclamation plans are required for any exploration and mining related activities disturbing greater than 1,000 yd³; and/or more than 1 acre of land.

Clean Air Act

CAA was first passed to improve the air quality in the United States and has subsequently been amended to set limits on the discharges of certain pollutants.



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The CAA includes a permit program for larger stationary or non-point sources that release pollutants into the air. These can include cars, trucks, other motor vehicles, consumer products, and machines used in industry.

Clean Water Act

CWA was enacted to restore and maintain the quality of US waterways.

The General Permit includes provisions for developing a *Storm Water Pollution Prevention Plan* (SWPPP) to maximize the potential benefits of pollution prevention and sediment and erosion control measures at construction sites.

In the case of the Idaho-Maryland project, the planned surface activities (exploratory mining and stockpiling) for areas greater than 1 acre will be subject to the NPDES (National Pollution Discharge Elimination System) and SWPPP processes to ensure they are performed in a manner that is protective of Wolf Creek.

Summary

Because exploratory activities and stockpiling of mined materials are envisioned for the project, these activities and the necessity to plan for the mine's reclamation require that SMARA be addressed in the permitting and CEQA processes. The CWA and CAA issues can be fully addressed in the context of the CEQA analysis but may require that individual permits for certain mine operations be obtained from the administering agency. Because the proposed mine site is located between two reaches of Wolf Creek, the regulatory requirements for waste streams generated from the mine operations will focus on compliance with CAA and CWA.

4.5 Permit Requirements

Two aspects to the project need to be addressed in the permitting process: 1) those requirements for a surface exploratory phase that will facilitate definition of the mineral resources and 2) those requirements for development of the mineral resources combined with underground exploration and surface processing.

4.5.1 Permitting History

Idaho-Maryland has obtained permits previously for surface exploration drilling and for proposed underground exploration including the dewatering of historical mine workings. Table 4-1 shows these permits.



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Table 4-1: Permits

| Permit | Lead Agency | Date of Permit |
|---|---|-----------------|
| Use Permit-Surface Drilling No. UP03-02 | City of Grass Valley | 21 May 2003 |
| Conditional Use Permit No.U94-017 | County of Nevada | 26 January 1996 |
| NPDES/Waste Discharge Requirements No. 96-098 | California Regional Water Quality Control Board | 3 May 1996 |

The use permit for the year 2003 surface drilling was subsequently extended for a six month time period by the City of Grass Valley. The year 1996 conditional use permit was approved for the dewatering and underground exploration of the historical Idaho-Maryland mine workings, and the NPDES/WDR permit was the dewatering permit issued by the State for that project. That dewatering/underground exploration project was not undertaken because of depressed commodity and equity market conditions at that time.

4.5.2 Annexation and Permitting Authority

Idaho-Maryland's properties include lands under jurisdiction of the City of Grass Valley and also lands that are under the jurisdiction of Nevada County, some of which are planned to be annexed to the City by year 2005. This jurisdiction applies to the permitting process, and who becomes the lead agency. If a memorandum of understanding is signed between the City and the county, the City of Grass Valley will become the lead agency for Idaho-Maryland's permitting activities on parcels that would otherwise be under County jurisdiction.

4.5.3 Use Permit for Exploratory Work

The scope of the exploratory work has and may continue to entail drilling exploratory boreholes from various surface locations (with multiple drill holes at each location). One prior permit was obtained for surface exploration drilling of the Idaho-Maryland property through the City of Grass Valley. That permit took three months to obtain through a negative declaration process that did not necessitate the preparation of an EIR. Idaho-Maryland may conduct future surface exploration on lands under City jurisdiction, with the City as lead agency. These permits would be obtained on an as-needed basis and would consider issues relevant to drilling, such as surface disturbance, noise, water handling and reclamation. These issues would require review under CEQA, which may involve the preparation of an Initial Study and Negative Declaration (IS/ND) and take up to six months to complete. If the surface area to be disturbed is less than 1 acre and involves less than 1,000 yd³ of material being processed off-site, a reclamation plan would not be necessary under SMARA (considered to be a CEQA action in its own right). This work may be an allowable action with a grading permit (which would take up to six weeks to obtain).



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4.5.4 Use Permit for Mineral Resource Development

The mine development and underground diamond drilling exploration program will require comprehensive CEQA review and permitting through the City as Lead Agency. The first step in the permit process is filing a completed Formal Development Review, General Plan, Pre-zone/Re-zone, Annexation and SMARA permits application with the City. Before a permit may be approved, the environmental issues associated with the project development must be addressed and would include, at a minimum:

- preparation of an Environmental Impact Report (EIR) in accordance with CEQA
- preparation of a Reclamation Plan in accordance with SMARA
- application for and issuance of a Discharge Permit for mine dewatering from the CVRWQCB in accordance with the CWA
- application for and issuance of an NPDES permit from the CVRWQCB in accordance with the CWA
- application for and issuance of either a permit to construct or Title V permit from the NSAQMD in accordance with the CAA.

Approval of such permits is often dependent on the completion of the CEQA process. At this time it would appear that the following environmental issues would need to be addressed in a CEQA process after a permit for development is filed with the lead agency:

- Land Use Issues – General Plan Amendments, Zoning Amendments, Local Agency Formation Commission (LAFCO) for annexation of county land into the City of Grass Valley, reclamation planning
- Noise – Use of explosives, equipment use
- Traffic and Circulation – Direct (mine) and indirect (service) employees (trucks, vehicles)
- Air Quality – CAA / dust generation, non-point sources (machinery/ vehicles)
- Cultural Resources – Potential prehistoric and historic sites
- Geology – Potential for subsidence
- Hydrogeology – Effects of dewatering (viability of private wells)
- Surface Water and Water Quality – use of and potential exposure to hazardous substances/materials, CWA, NPDES/SWPPP
- Biology – Riparian habitat, migratory birds, streambed alteration, if any, as a result of being proximate to Wolf Creek
- Visual – Construction of mine operations area (ore, transfer facilities), development of stockpiles, office buildings for employees



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- Public Services – Police, fire, sewer, water, electrical and natural gas to support mine operations (LAFCO)
- Public Health – Use of explosives, effects of subsidence (if any), use of and potential exposure to hazardous substances/materials.

4.5.5 Permitting Period

CEQA Process

The timeframe cited in CEQA in which an EIR is to be completed and certified by the lead agency is one year after the permit application is determined to be complete; such a review under CEQA may require up to 30 days. This time period may be extended by 90 days upon consent of the lead agency and the applicant; generally, the EIR process is to be completed within 15 months.

A typical CEQA process may last up to 24 months when there is an iterative cycle in preparing the technical information to address site-specific or seasonal environmental characteristics that may be impacted by the proposed project (e.g., performance of groundwater and soil tests to support dewatering plans or presence of protected migratory birds in the project area).

General Plan and Zoning Designation

In addition to completing the CEQA process, the permit application must also include a proposal to amend the General Plan and Zoning Designation to allow for the Business Park land use designation to be modified to a classification that allows for mining/mineral resource extraction and processing (i.e., industrial). A separate action by the LAFCO is required to annex the project area into the city and will require a separate process that could take between three and nine months thereafter (based on previous communication between AMEC personnel on 16 October 2002, with Mr. Joe Heckel, City of Grass Valley).

Reclamation Plan

A reclamation plan must also be submitted to address SMARA issues for returning the land to a usable condition after mining is completed. Upon approval of this plan, financial assurances will have to be posted before project construction activities can begin.

Summary and Recommendations

It is anticipated that the best-case CEQA process scenario for reopening the Idaho-Maryland mine and fully developing the mineral resources would entail a timeframe of



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between 12 to 24 months after completion of the project and operational mine plans. In addition, the best-case LAFCO process scenario for the project would involve between three and nine months for annexing county lands into the city to allow for the proposed mining operations. Together, the timeframes comprise a schedule of between 15 and 24 months for environmental and permitting requirements.

4.6 Environmental Status

Idaho-Maryland contracted MACTEC Engineering and Consulting (MACTEC) to complete a Phase 1 Environmental Site Assessment of the WestBet property (also referred to as the Idaho-Maryland). The investigation did not identify evidence of recognized environmental conditions on the property. White crystalline mineral deposits were observed associated with deposits of rock flour fines and clay on the property. MACTEC recommends testing of this material. The details of the MACTEC Phase I Assessment may be found in the following report:

Phase I Environmental Site Assessment, Emgold (US) Corporation. WestBET Property, Centennial Drive and Whispering Pines Lane, Grass Valley, California. MACTEC project No. 4085040502-08, October 14, 2004.

Idaho-Maryland also contracted MACTEC to perform a due diligence site investigation on the adjoining Brenner property (formerly known as the Lausman). The investigation observed evidence of recognized environmental conditions. The most significant environmental concerns on the Brenner property relate to a log pond and underground fuel storage tanks. Subsequent to the performance of the investigation, Idaho-Maryland purchased the property under a joint venture agreement with Milco Development. Under the terms of the agreement, Idaho-Maryland owns the southern 45 acres of the 67 acre property and Milco owns the remaining portion. The log pond is located entirely on the Milco property. The underground fuel storage is located entirely on the Idaho-Maryland property. In addition, there are a number of lesser environmental concerns on the property. MACTEC has outlined a number of recommendations to address these concerns. The details of the MACTEC Due Diligence may be found in the MACTEC report titled:

Due Diligence Site Investigation Emgold (US) Corporation Former Lausman Property 11352 Bennett Road Grass Valley, California. MACTEC Project No. 4085040502 07, March 31, 2004.

The Phase I Environmental Site Assessment is preliminary in scope and MACTEC recommends more detailed assessment including testing on samples of soil and groundwater.



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Virtually all of the building structures related to the historic mine operations on the Idaho-Maryland property have been removed. The only physical structures remaining are two concrete towers. Idaho-Maryland management has stated that the company may be responsible for any environmental liabilities pertaining to the former mine operations.

MACTEC also conducted a Wetlands Assessment on the various Idaho-Maryland properties. In summary MACTEC did not identify any wetlands on the Idaho-Maryland sites. As part of the dewatering program of the project, Idaho-Maryland plans to discharge treated waters into Wolf Creek and the South Fork of Wolf Creek. These discharges would require diffusers to be placed in the creeks. The South Fork of Wolf Creek is considered a Water of the US and is subject US Army Corps of Engineers jurisdiction, therefore it is expected that the Corps would require a National Permit #7 prior to installation of the diffuser.

The findings of the Wetlands Assessment may be found in the following report:

Wetland Assessment, Idaho-Maryland Mining Corporation, Nevada County, California. Idaho-Maryland Mine Project, MACTEC Project no. 408504050201A, October 14, 2004.