

# EXPLORATION PLAN

## RECLAMATION PLAN AND PERMIT APPLICATION FOR THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION, BUREAU OF MINING REGUALTIN AND RECLAMATION FOR AN EXPLORATION PROJECT

### 1.0 Applicant Information

1.1 Claim Names(s) \_\_\_\_\_

Claim Type (Lode, Millsite, etc.) \_\_\_\_\_

Claim Owner(s) \_\_\_\_\_

Claim Owners Mailing Address \_\_\_\_\_

City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_

Project Name \_\_\_\_\_

BLM/USFS Case Number(s) \_\_\_\_\_

Location of Project (Township, Range, Section) T \_\_\_\_\_; R \_\_\_\_\_; S \_\_\_\_\_

### 1.2 Individual Completing Application:

Full Name \_\_\_\_\_

Title \_\_\_\_\_

Office Phone \_\_\_\_\_, Cell Phone \_\_\_\_\_

Email Address \_\_\_\_\_

Date \_\_\_\_\_

### 1.3 Business Address of Individual Completing Application:

Business Name \_\_\_\_\_

Physical Address \_\_\_\_\_

Mailing Address (if different) \_\_\_\_\_

City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_

Country, in not in the USA \_\_\_\_\_

### 1.4 Corporation Information, if applicable:

Corporation Name \_\_\_\_\_

### Corporate Officer's Information:

1.4.1 President \_\_\_\_\_

Physical Address \_\_\_\_\_

Mailing Address (if different) \_\_\_\_\_  
City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_  
Country, if not USA \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Email Address \_\_\_\_\_

1.4.2 Treasurer \_\_\_\_\_

Physical Address \_\_\_\_\_  
Mailing Address (if different) \_\_\_\_\_  
City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_  
Country, if not USA \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Email Address \_\_\_\_\_

1.4.3 Secretary \_\_\_\_\_

Physical Address \_\_\_\_\_  
Mailing Address (if different) \_\_\_\_\_  
City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_  
Country, if not USA \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Email Address \_\_\_\_\_

1.4.4 Nevada Registered Agent \_\_\_\_\_

Physical Address \_\_\_\_\_  
Mailing Address (if different) \_\_\_\_\_  
City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_  
Country, if not USA \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Email Address \_\_\_\_\_

1.5 Partnership Information, if applicable:

1.5.1 Name of Partnership \_\_\_\_\_

Type of Partnership \_\_\_\_\_

Physical Address \_\_\_\_\_

Mailing Address (if different) \_\_\_\_\_

City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_

Country, if not USA \_\_\_\_\_

Telephone Number \_\_\_\_\_

Email Address \_\_\_\_\_

1.5.2 Nevada Registered Agent \_\_\_\_\_

Physical Address \_\_\_\_\_

Mailing Address (if different) \_\_\_\_\_

City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_

Country, if not USA \_\_\_\_\_

Telephone Number \_\_\_\_\_

Email Address \_\_\_\_\_

1.5.3 Authorized Field Representative \_\_\_\_\_

Physical Address \_\_\_\_\_

Mailing Address (if different) \_\_\_\_\_

City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_

Country, if not USA \_\_\_\_\_

Telephone Number \_\_\_\_\_

Email Address \_\_\_\_\_

**NOTE:** A signed authorization must be attached which gives the Field Representative authority to act on behalf of the operator.

2.0 Application Fee

Provide an application for the proposed land acres included in the Reclamation Plan/Reclamation Permit Application that will be affected/disturbed. The application fee should be calculated as described below:

\_\_\_\_\_ Acres of Public Land at \$3.10/acre = \_\_\_\_\_

\_\_\_\_\_ Acres of Private Land at \$5.15/acre = \_\_\_\_\_

Total Fee = \_\_\_\_\_

**NOTE:** A check, money order, or e-payment confirmation receipt must be submitted with the Reclamation Plan/Reclamation Permit Application for the total amount of the calculated application fee. Checks and or money orders must be made 'Payable to the Nevada Division of Environmental Protection'.

3.0 Acknowledgments

The following acknowledgements must be included in the plan:

3.1 It is understood the operator agrees to accept reclamation responsibility for all surface areas affected by the project as outlined in this Reclamation Plan, and an acceptable surety, pursuant to NAC 519A.350, will be provided in an amount sufficient to ensure reclamation of the entire area affected by the project as required pursuant to NAC 519A.360.

3.2 It is understood should the nature of the operation change, a modified or supplemental Reclamation Plan may be required.

3.3 It is understood the approval of this Reclamation Plan does not constitute:

3.3.1 Certification of ownership to any person named herein; and

3.3.2 Recognition of the validity of any mining claim herein.

3.4 It is understood a bond equivalent to the actual cost of performing the agreed upon reclamation measures will be required prior the Reclamation Plan approval and proposed construction activities. The bond amount required, increased or decreased, will be set on a site-specific basis by the lead agency in coordination with cooperating agencies.

3.5 It is understood approval of the Reclamation Plan does not relieve the operator of responsibility to comply with all applicable State or Federal laws, rules or regulations.

3.6 It is understood any information provided with the Reclamation Plan marked 'Confidential' will be treated in accordance with the agency's laws, rules and regulations.

I/We have read and agree to comply with all conditions in the Reclamation Plan, including recommended changes and reclamation requirements. I/We understand the bond will not be released until the lead agency provides written approval of the reclamation work done and authorizes such release. I/We further understand the disturbance report and fees required to be submitted annually to the State of Nevada are required until such time as written approval of completion of all reclamation work and closure of the project is provided by all appropriate regulatory agencies.

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Print Name

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Signature of Operator or Authorized Official

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Date

#### 4.0 Operating Plan

A summary of the proposed project should be provided. This summary should provide an overview of the planned exploration activities including location of the project, size of the project, the various drilling equipment to be used, temporary facilities that may be used, and the anticipated duration of the project. A description of the anticipated project phases and the various exploration techniques (including the equipment) that may be used in each phase should be provided. For new construction, include construction specifications such as widths, lengths, and original underlying ground slopes. Show location and size of culverts that may be installed for project access. Describe maintenance plans.

##### 4.1 Topographic Map(s)

Provide a map showing the claim and project boundaries and all access needs, on and off the claim or project. Specify what existing roads will be used, where maintenance or reconstruction is proposed and where new constructed roads are proposed. Depict and label the location of surface water bodies within one-half mile of the project boundary. Provide a map that uses unique linetypes, or colors that depict where existing and proposed constructed roads and pads will be located within the following slope ranges:

- 0-10%;
- 11-25%;
- 26-45%; and
- >45%.

##### 4.1.1 Boundaries of Project Area

The boundaries of the project should be shown on a map. The legal description of the project (Section, Range, Township, Mount Diablo Baseline and Meridian) should be described in the plan.

##### 4.1.2. Surface Ownership and Estimate of Disturbance Acreage

Surface land ownership within the project area should be shown on a map. A table should be included which identifies the disturbance associated with exploration activities and lists the acres of private land and/or public land that will be disturbed. The disturbance should include, as applicable, drill pads, sumps, roads, trenches, sediment/erosion control features, test wells, monitoring wells, water supply wells, piezometers, geophysical activities, roads, and overland travel routes.

For estimating disturbance acreages, to account for greater cross-sectional cut and fill disturbances in areas of steeper original underlying ground slopes, the following factors should be used to multiply by the proposed constructed road travel widths, or exploration pad platform widths.

Original underlying slope range:	Factor to estimate surface disturbance
0-10%	1.2 times road travel width or pad width.
11-25%	1.5 times road travel width or pad width.
26-45%	2.3 times road travel width or pad width.
>45%	3.0 times road travel width or pad width.

*Sections 4.1.3 to 4.1.9 should be addressed in the reclamation plan if applicable*

- 4.1.3 Areas Disturbed by Previous Operator and Inactive
- 4.1.4 Areas Disturbed by Current Operator Prior to January 1, 1981 and Inactive
- 4.1.5 Areas Disturbed by Current Operator Prior to January 1, 1981 and Still Active
- 4.1.6 Areas Disturbed by Current Operator after January 1, 1981, but Prior to October 1, 1990 and Inactive
- 4.1.7 Areas Disturbed by Current Operator after January 1, 1981, but Prior to October 1, 1990 and Still Active
- 4.1.8 Areas Active On or After October 1, 1990
- 4.1.9 Access Roads Existing Prior to January 1, 1981

The location of these access roads should be shown on the map (Section 2.1.3) and discussed if such roads are to be used for project access. Any maintenance or reconstruction activities that will be done on such roads should be described in the plan.

## 5.0 Reclamation Plan

The Reclamation Plan should describe the required reclamation, closure, and long-term management activities to be undertaken during and after completion of the exploration project that are necessary to properly stabilize the disturbed areas to a safe condition and to protect both disturbed and undisturbed areas from unnecessary and undue degradation. The Reclamation Plan serves as the basic construction plan for calculating the reclamation cost estimate (RCE). The attached Exploration Project Plan of Operations-Basis of the RCE and Reclamation Bond Checklist describe the supporting information, individual drawings or figures, and level of detail required to calculate a project RCE. The plan should provide references to the detailed topographic maps, figures, and tables that are included to support the RCE when describing the reclamation of exploration-related disturbances.

### 5.1 Methods Taken to Prevent Unnecessary or Undue Degradation and to Minimize Loading of Sediment to Surface Waters During Operations and After Reclamation

The plan should provide an overview of proposed concurrent reclamation activities and Best Management Practices (BMPs) that will be employed to control erosion and reduce sedimentation from disturbed areas. This section should also describe the operational storm water controls that would be left in place and whether additional controls will be constructed during reclamation including installation of riprap in erosion-prone areas of ditches and channels. The salvage and management of suitable surficial soils and alluvial material as a growth medium resource to be replaced during reclamation should be described. An overview of the revegetation plan should also be described including the proposed seed mixture and whether any measures such as temporary fencing or noxious weed control will be used on the reclaimed areas.

### 5.2 Post-Mining Land Use

The proposed post-mining land use and compatibility with surrounding uses should be described in the plan.

### 5.3 Other Reclamation Activities, such as Reclamation of Historic Disturbances

If applicable, the plan should describe any planned reclamation activities not related to proposed project disturbances.

#### 5.4 Proposed Reclamation Schedule

The anticipated schedule for initiating and completing reclamation activities on the exploration disturbances should be provided. Planned concurrent reclamation work that maybe completed should be included in the schedule.

#### 5.5 Disposition of Structures, Equipment, and Materials

The plan should describe the temporary facilities that will be used during the operational phase of the exploration project and moved upon completion of the project.

#### 5.6 Drill Hole Plugging Procedures

The reclamation plan should describe all plugging procedures for drill holes, open boreholes, and ground water monitoring wells that will be constructed used during operations and when the wells will be abandoned. A figure or map should be included that shows the locations of the above wells within the project area. The wells which will be used for monitoring purposes during closure and reclamation should be identified. Abandonment methods for the wells as well as any open boreholes should be described and follow the Division of Water Resources requirements for plugging water wells, monitoring wells, and boreholes (NAC 534.420, 534.4365, 534.4369, and 534.4371, respectively).

#### 5.7 Concurrent Reclamation

The plan should describe concurrent reclamation activities that are planned during the operational phase of the project.

#### 5.8 Measures to be Taken During Extended Periods of Non-Operation

A discussion should be provided of the measures or procedures to be implemented during an extended period of non-operation to maintain a stable and safe project site. If not filed at the time of plan submittal, this information shall be filed whenever the operator anticipates a period of non-operation.

#### 5.9 Reclamation Methods

This section of the reclamation plan should summarize the disturbance amounts and proposed methods of reclamation for all proposed project facilities. If possible, all facility disturbances should be assigned to reclamation categories consistent with the reclamation categories as listed in the cost summary of the Nevada Standardized Reclamation Cost Estimator (SRCE). The reclamation plan needs to include a discussion of growth media and closure cover material management plan that identifies the estimated volume of materials that are anticipated to be salvaged and stored during construction and operations.

***For each of the reclamation categories listed below, the regrading, recontouring, growth medium placement, and revegetation tasks that would be completed should be described. Reclamation tasks specific to a reclamation category are further discussed below.***

##### 5.9.1 Exploration

This disturbance category includes abandonment of exploration drill holes and reclamation of exploration trenches. The number of exploration drill holes that will remain open during the operational phase of the project should be identified.

##### 5.9.2 Exploration Roads and Pads

This disturbance category includes exploration roads and pads, overland travel, storage ponds, and staging areas. Proposed construction of exploration roads and pads in steeper terrain should account for the underlying natural ground slope when determining disturbances.

### 5.9.3 Roads

This reclamation category should include all access roads. Location of these roads should be shown on a map or figure in the plan. The dimensions of these roads should be discussed, whether reconstruction of portions of the roads will be required, which roads will be used for monitoring activities during reclamation and closure of the project and the roads not to be reclaimed should be identified.

### 5.9.4 Well Abandonment

The reclamation plan should describe all water production, dewatering, infiltration, and ground water monitoring wells that will be used during operations and when the wells will be abandoned. A figure or map should be included that shows the locations of the above wells within the project area. The wells which will be used for monitoring purposes during closure and reclamation should be identified. Abandonment methods for the wells as well as any open boreholes should be described and follow the Division of Water Resources requirements for plugging water wells, monitoring wells, and boreholes (NAC 534.420, 534.4365, 534.4369, and 534.4371, respectively).

### 5.9.5 Quarries and Borrow Pits

This category includes reclamation of quarries and materials borrow sources constructed during operation and/or reclamation. Locations and proposed post-mining extents and topographic contours of these areas should be shown on a figure or map.

### 5.9.6 Underground Openings

If applicable, the reclamation plan should discuss all closure and reclamation activities required for portals, adits, shafts, declines, vent raises and secondary escape ways, etc., or other underground openings that may be constructed for exploration. All such openings should be identified on a figure or map. If an opening will penetrate a groundwater aquifer, the proposed closure design must be approved by the Division of Water Resources.

### 5.9.7 Ponds

Reclamation activities that will be required for all storm event ponds, temporary discharge ponds, and sediment/settling ponds should be discussed.

### 5.9.8 Waste Rock Storage Facilities

The reclamation plan should describe reclamation required of a waste rock storage facility that may be constructed if the project involves underground exploration activities. A figure or drawing that depicts post-mining topographic configuration of the waste rock storage facility prior to regrading and recontouring should be included. The figure or drawing should contain enough detail to illustrate the operational lift heights, bench setback widths, mid-bench lengths, etc. A post-reclamation figure or drawing should also be provided to show the final slope angles after regrading/recontouring and final limits of disturbance of the reclaimed facility.

### 5.9.9 Yards

This category includes areas used for a variety of purposes such as growth medium stockpile, yards, offices, and ancillary facilities. The reclamation plan should describe the reclamation activities planned, including the thickness of growth medium to be placed over these areas during reclamation.

### 5.9.10 Drainage and Sediment Control

The reclamation plan should describe the storm water drainage control features that will be constructed as temporary or permanent structures. Disturbance associated with these



facilities should account for design dimensions, adjacent cuts and fills, and access that will be required for construction, reclamation, and monitoring. The tasks associated with reclamation and maintenance of the structures should be discussed.

#### 5.9.11 Waste Disposal

The reclamation plan should describe the tasks involved for disposal of any hazardous waste and petroleum contaminated soils that may need to be disposed of during closure and reclamation. An estimate of the quantity of materials requiring disposal should be included in the plan. This category should also include any solid waste products generated by the exploration activities, including trash and drill materials.

#### 5.9.12 Miscellaneous

The tasks involved with removal of fencing, culverts, and any other facility or structure not addressed elsewhere in the Plan, etc. should be included in this reclamation category.

#### 5.9.13 Monitoring

This category includes the post reclamation maintenance and monitoring that will be required on an annual basis for a minimum of three years. Reseeding should assume that at a minimum, approximately 10 percent of the reclaimed areas will require reseeding.

### 6.0 Reclamation Cost Estimate

A reclamation cost estimate (RCE) for completing the reclamation activities described in the plan needs to be included. These costs should be based on labor wage rates and equipment rental rates for the estimated time to complete the tasks and the anticipated costs of materials that would be needed. The RCE can be calculated by using:

- The Nevada Standard Reclamation Cost Estimator (SRCE) found at <http://www.nvbo.nd.org/index.htm> and the Cost Data File found at <http://ndep.nv.gov/bmrr/cost.htm> or equal; or
- The estimate of cost from an outside contractor with completed cost estimate certification form (see Attachment I); or
- Any other method which is acceptable to the Administrator, the Bureau of Land Management (BLM), the United States Forest Service (USFS) or another federal land management agency, if appropriate.

#### 6.1 Cost Calculations

Reclamation costs for each disturbance category (Section 5.9) need to be presented and discussed. The attached guidance, Basis and Checklist for the RCE, describes the methodology which should be used to develop the costs and provides examples of information, data, figures, and tables that should be included with the Reclamation Plan to support the cost calculations

### 7.0 Phased or Sequential Bonding

a. Reclamation bonds can be accepted for specific phases or sequences of an operation, instead of bonding for all proposed surface disturbances at one time. If an operator wishes to bond for only specific operational phases or certain time frames, they may do so. The bond estimate and amount will then be recalculated at the end of each phase or time period, and adjusted accordingly.

Phase bonded exploration permits: Prior to project exceeding the "Approved Phase" (current permitted and bonded) disturbance acreage, the operator should pay a \$250 mod fee and provide

a Plan amendment with mapping with location of the next phase of proposed disturbance, a comprehensive RCE for all existing and proposed disturbance, and a revised disturbance table that accurately summarizes "Approved Phase/current permitted and bonded" acreage and "Subsequent Phase /future (unbounded) disturbance acreage". The "future" disturbance may not be mapped yet or included in the current bond calculations. The permit writer will review the modification and update the permit disturbance table to match the revised disturbance acreages provided by the operator in the Plan amendment.

Each "phased" Plan amendment and permit modification will need to include comprehensive disturbance maps, that describes the proposed drilling and reclamation activities that will be associated with the proposed phase. Each permit modification should include not only the new disturbance associated with the proposed phase; but should also include an updated disturbance map that accurately reconciles the *as-built* acreage of existing disturbance that that will remain in the current approved Plan and reclamation cost estimate. BMRR suggests using a Project Disturbance Table with column headers in the example below:

Type of Disturbance	Approved Phase				Subsequent Phases (acres)	Total (acres)
	Existing public (acres)	Existing private (acres)	Proposed public (acres)	Proposed private (acres)		
Construct roads and pads; 0-10% slopes.						
Constructed roads and pads, 11-25% slopes.						
Constructed roads and pads, 26-45% slopes.						
Constructed roads and pads, >45% slopes.						
Total						

The permit will include a permit condition to provide *as-built mapping* and a break-down of road and pad disturbances by length and width, original underlying ground slope, and a description of field measurements methods used and timeframe the as-built disturbance acreage information was collected.

## Exploration Project Reclamation Plan Basis and Checklist for the Reclamation Cost Estimate

**NOTE:** This guidance information and checklist is provided to assist the operator in calculating the engineering and environmental costs required to properly stabilize, reclaim, and restore the area disturbed by the project. It is not all inclusive, but includes most reclamation activities required at exploration projects.

For exploration projects, including a supplemental section to the reclamation plan that describes the *basis of the reclamation cost estimate* is needed to ensure the Reclamation Plan includes the level of detail necessary to support the assumptions used to develop the reclamation cost estimate (RCE). The basis of the reclamation cost estimate should address all project facilities and generally follow the format of the Nevada Standardized Reclamation Cost Estimator (SRCE) Summary Sheet. **Operators should be familiar with the SRCE User Manual as it provides additional detailed information needed to prepare the RCE.**

Accurate topographic maps showing all proposed operations and locations of disturbances are critical to develop the reclamation cost estimate.

### RCE Checklist:

*The RCE should present the costs for Earthwork, Recontouring, Revegetation and Stabilization associated with reclamation of the following disturbance categories.*

- I. Exploration Drill Hole abandonment
  - a. The RCE must include costs for proper abandonment of water wells, monitoring wells, and exploration drill holes per the Division of Water Resources requirements as contained in NAC 534.420, 534.4365, 534.4369, and 534.4371, respectively. The plan must state the maximum number drill rigs that may be present on site. The RCE must include cost for proper abandonment of the maximum number of bore holes that may be left open at any one time, and assume at least one bore hole for each drill rig that may be on site.
  - b. Exploration trenches should be located on a figure. The RCE must include costs to backfill the trenches and revegetate the trench and spoil pile, if applicable.
2. Exploration Roads and Drill Pads
  - a. Existing and/or proposed exploration drill road and pad locations need to be shown on a figure that identifies which roads will be overland travel and which roads will be constructed (bladed in). The length and width of each road type should be quantified. For constructed roads, the underlying slope, average travel width and additional cut and fill cross-sectional widths need to be accounted for in the RCE.
  - b. The RCE should include costs for reclaiming drill pads and sumps that will be constructed. The average width and length of pad working platforms and additional cut and fill disturbance based on underlying ground slope need to be accounted for in the cost calculations. The RCE for backfilling the sumps should be based on the average size and depth of sumps.
3. Roads
  - a. A figure should be provided in the plan that locates all access, light duty and haul roads. All road segments should be provided a unique identifier. Roads that will require berms on one or both sides of the roadbed should be identified.
  - b. An accompanying table that provides a comprehensive inventory and dimensions of all

roads to be reclaimed will summarize the information needed to calculate reclamation costs. See example Access and Haul Road Inventory Table at the end of this document.

4. Well Abandonment

- a. The RCE should include costs for abandonment of all water production, dewatering, infiltration and ground water monitor wells within the project area. All wells and boreholes must be properly abandoned pursuant with NAC 534 requirements.
- b. A table that includes a comprehensive inventory of all wells that will be used for the operation and require closure should be included to develop the RCE. See example Production, Dewatering, Infiltration and Monitoring Well Inventory table at the end of this document.

5. Quarries and Borrow Areas

- a. The RCE should include costs for all reclamation activities required for these types of disturbances.

6. Underground Openings

- a. Costs associated with closure of each underground opening such as portals, ad its, declines, vent raises and secondary escapeways, etc., need to be accounted for in the RCE.
- b. If any opening will intercept a ground water aquifer, the proposed closure design must be approved by the Division of Water Resources before the proposed closure design can be approved in the plan for reclamation.

7. Ponds

- a. The RCE should include costs for closure and reclamation of all storm event ponds, temporary discharge ponds, and sediment/settling ponds that may be constructed during exploration activities.

8. Waste Rock Dumps

- a. The costs for reclaiming a waste rock dump should be developed based on a figure that depicts the projected configuration of the waste rock dump at the end of operations prior to regrading / recontouring. The figure should show where mid-bench lengths measurements were made, and label and quantify the various operational lift heights and lengths constructed during operations. The figure should also show the final footprint of the reclaimed facility.

9. Yards

- a. The RCE should reflect the reclamation activities that will be required for the proposed yard disturbances, including but not limited to regrading, cover and growth media applications, ripping and scarification, and seeding.
- b. The costs reflect growth media depth, volume, origin of material, and haul distance.

10. Drainage and Sediment Control

- a. Costs should be included for revegetation and maintenance of operational storm water controls that would be left in place after operations. This would include installation of riprap in erosion-prone areas of ditches and channels.

11. Solid Waste Disposal

- a. The RCE should include costs for proper disposal of all solid waste types that may be required during reclamation and closure activities. If special handling or pretreatment is

required prior to disposal, the cost for such should be included.

12. Hazardous Materials Disposal
  - a. Costs should be included for any hazardous materials that will be located on site. The RCE should reflect costs associated with all the required activities required for disposal of the maximum volume of hazardous waste that may be present on site.
13. Hydrocarbon Contaminated Soils (HCS)
  - a. The RCE should include costs for proper disposal of the maximum volume of HCS that would need to be disposed off-site upon completion of exploration activities.
14. Equipment Removal
  - a. Costs should be included for any equipment that will require removal from the project area during reclamation activities that has not been addressed elsewhere in the cost estimate.
  - b. The RCE should reflect any special handling required prior to removal from the site.
15. Fence Removal and Installation
  - a. The RCE should include costs for fencing that will require relocation, installation, and/or removal after operations.
16. Culvert Removal
  - a. All culverts proposed to be removed during site reclamation activities need to be included in the RCE.
  - b. Costs should be included for earthwork and erosion stabilization activities that may be required to reestablish a natural drainage channel in the locations where culverts will be removed.
17. Other Miscellaneous Costs
  - a. This category includes costs that have been calculated for other activities proposed in the reclamation plan. For example, the installation and removal of temporary and/or permanent erosion control structures (or BMPs-best management practices), such as straw bales, silt fencing, erosion mats, willow wattles, etc.

### ***Monitoring***

18. Reclamation Monitoring and Maintenance
  - a. The RCE should include costs for anticipated site monitoring and periodic maintenance of reclaimed areas that may require additional site work to stabilize areas where erosion may have occurred, or where reclaimed seeded areas may require additional growth media placement and reseeding.

### ***Construction Management and Support***

19. Construction Management
  - a. More than one construction manager may be required on larger project sites. More than one construction manager may also be required if a site has several disturbances that are located significant distances from each other, and the reclamation schedule indicates reclamation activities will occur at several locations at the same time.
  - b. Construction management should be included for subsequent activities that will not be completed during the initial reclamation campaign.

20. Construction Support

- a. Costs for facilities such as temporary office space, bathrooms, water and power supplies that will be needed during reclamation and closure activities need to be included.

21. Road Maintenance

- a. The RCE needs to include cost for road maintenance during reclamation activities. The equipment productivity rates are based on roads being maintained in good condition. Road maintenance typically will require a grader, a water truck, and an identified water source.

22. Equipment Mobilization and Demobilization

- a. The reclamation cost estimate needs to include equipment mobilization costs for all of the equipment that would be on site at the same time, and be consistent with the assumptions and timeframes used to determine construction management costs, and the reclamation schedule. For example, mobilization for multiple fleets may be required if the reclamation schedule indicates multiple fleets will be working simultaneously on different facilities within the project area.
- b. The equipment mobilization and demobilization cost calculations need to account for the need to perform subsequent site activities after the initial reclamation campaign may be finished, such as roads and monitoring wells.

Attachment 1

**Contractor and Operator Certification of Mining Operation Reclamation  
Cost Estimate for Federal and Private/State Lands**

I, \_\_\_\_\_ of \_\_\_\_\_  
(contractor name and title) (company and address)  
\_\_\_\_\_ hereby certify under penalty of 18 USC 1001, that I am a Licensed  
Nevada Contractor, \_\_\_\_\_.  
(license, classification and number)

I certify that I am licensed by the State of Nevada to provide bids and estimates for the type and scope of mine reclamation work to be performed as outlined in my estimate. My submitted reclamation cost estimate and hourly rates are based on Davis-Bacon (federal land) or Nevada Labor Commission (private land) labor rates and include Federal Insurance Contributions Act (FICA), Medicare, State Workers Compensation Insurance, State Unemployment Insurance, Federal Unemployment Tax (FUTA), Liability Insurance, Bond Premium Costs (if applicable) and my overhead and profit.

Signed: \_\_\_\_\_, Title: \_\_\_\_\_

Date: \_\_\_\_\_

I, \_\_\_\_\_ of \_\_\_\_\_  
(mine operator name and title) (company and address)

\_\_\_\_\_ hereby certify under penalty of 18 USC 1001, that I have reviewed, or caused to have reviewed, the above contractor's reclamation cost estimate for my project and I concur with the material facts and statements contained therein.

Signed: \_\_\_\_\_, Title: \_\_\_\_\_

Date: \_\_\_\_\_.

**NOTE: Title 18 USC § 1001 provides that:**

***"Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up any by any trick, scheme, or devise a material fact, or makes any false, fictitious, or fraudulent statements or representations, or makes or uses any false writing or documents knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both."***