

**Bureau of Mining Regulation and Reclamation**

## GUIDANCE DOCUMENT

## ATTACHMENT B

## GUIDELINES FOR SUCCESSFUL REVEGETATION

FOR THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION, THE BUREAU  
OF LAND MANAGEMENT AND THE U.S.D.A. FOREST SERVICE**I. MINING PLANS-OF-OPERATIONS****A. Reclaimed Desired Plant Communities for Mining Operation Disturbances**

Reclamation goals for mining disturbances are: 1) stabilize the site, and 2) establish a productive community based on the applicable land use plan and designated post-mining land uses. To meet these goals, a *Reclaimed Desired Plant Community* (RDPC) should be selected for use on the disturbed mine sites.

The RDPC is defined as:

A perennial plant community established on a disturbed site which contributes to stability through management and land treatment, and which produces that type and amount of vegetation necessary to meet or exceed both the land use and activity plan objective established for the site.

Several RDPCs may be selected based on site-specific revegetation goals and variable site characteristics for the mining disturbances. When selecting RDPCs, major alterations in reconstructed soils and the subsequent effect of this on the site's capability to establish and sustain the desired vegetation must be considered. A RDPC must have a reasonable chance for success when making the selection.

The plant community for the RDPC should be diverse, and when appropriate for the site should include grasses, forbs, shrubs and/or trees. The RDPC shall be comprised of species native to the area or introduced species where the need is documented for inclusion to achieve the approved post-mining land use. The RDPC must meet the requirements of applicable State and Federal seed, poisonous and noxious plants, and introduced species laws or regulations. All RDPCs must be approved by the agencies. Plants for RDPCs may be selected using one or more of the following methods:

1. Select existing vegetation types around the mine site to represent the varied RDPCs.
2. Use test plots, demonstration areas, or areas concurrently reclaimed within the mine site or within similar representative areas from adjacent mines to serve as the RDPCs as long as they meet the reclamation goal.
3. For areas where existing vegetative types adjacent to the mine area are severely disturbed or where test plots or demonstration areas are not reasonable alternatives, RDPCs may be selected using appropriate ecological or range site descriptions or other technical sources.

## **B. Guidelines for Successful Revegetation**

The revegetation release criteria for reclaimed mine sites will be to achieve as close to 100 percent of the perennial plant cover of selected comparison areas as possible. The comparison or reference areas will be selected from representative plant communities adjacent to the mine site, test plots or demonstration areas or, as appropriate, representative ecological or range site descriptions. As approved by the agencies, the selected plant communities or reference areas must have a reasonable chance for success on the mine site. Each plan-of-operations shall identify the site-specific release criteria in the reclamation plan or permit. The agencies may also require specific release standards for individual plant species or vegetative types (grasses, forbs, shrubs, trees). Cover would be estimated using a method as described in Sampling Vegetation Attributes, Interagency Technical Reference, 1996, BLM/RS/ST-96/002+1730 or other acceptable technical methods.

The determination of successful revegetation of mining disturbances will require an evaluation of the data by the agencies on a site-specific basis. These data must include all of the information requested in Attachment A of the Reclamation Permit, "Documentation of Reclamation Activities for Surety Release and Annual Fee Responding". When making this evaluation, the following information shall also be considered:

1. Have the desirable species been successfully established, and do they provide sufficient aerial cover to adequately protect the site from soil erosion?
2. Is there evidence that a self-sustaining community has been established? Are vegetative reproduction (e.g. rhizomes) and seedling establishment of the desirable seeded species occurring?
3. Is there evidence of site stability, including the lack of surface soil erosion, gully formation and slumping?
4. Has the revegetation goal in the reclamation plan been met?
5. Has the operator taken reasonable measures to establish the RDPC?

## **C. Timeframes**

The success of the vegetative growth on a reclaimed site may be evaluated for release no sooner than during the third growing season after earthwork, planting and irrigation (if used) has been completed. Final bond release may be considered at that time. Interim progress of reclamation will be monitored as appropriate by the agency and operator. Where it has been determined that revegetation success has not been met, the agencies and the operator will meet to decide on the best course of actions necessary to meet the reclamation goal.

## **II. EXPLORATION PLANS-OF-OPERATIONS**

The same guidelines as described above should be used to evaluate the success of the RDPCs for plan-level exploration disturbances. The agencies may also decide, depending on the size and scope of the project, to evaluate revegetation and reclamation success based on general ground reconnaissance and professional judgement. Extenuating circumstances may be considered when evaluating the success of the

revegetation effort. If regulatory agencies determine that remediation is required on the site, the operator and agencies will meet to determine the procedures.

### **III. BLM NOTICES**

Regarding notice-level activities on public lands, the BLM will evaluate revegetation and reclamation success based on general ground reconnaissance and professional judgment. Notice-level disturbance may be considered reclaimed if in the professional judgment of the regulatory agency effective action has been taken to stabilize and revegetate the site to a condition designed to result in the establishment of a productive post-mining land use. Extenuating circumstances may be considered when evaluating the success of the revegetation effort. If the BLM determines that further stabilization or revegetation efforts are needed, the operator and BLM will meet to determine what further steps are necessary.

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