

## **APPENDIX O—SURFACE RECLAMATION PERFORMANCE STANDARD**

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The lessee is required to use the reclamation practices necessary to reclaim all disturbed areas. Reclamation will ensure surface and subsurface stability, growth of a self-regenerating permanent vegetative cover, and compatibility with post disturbance land use. The vegetation will be diverse and of the same seasonal growth as adjoining vegetation.

Reclamation practices that must be applied or accomplished are re-grading to the approximate original contour; effectively controlling noxious weeds; separating, storing, and protecting topsoil for redistribution during final abandonment; seeding; and controlling erosion. If topsoil is not present, or quantities are insufficient to achieve reclamation goals, a suitable plant growth media will be separated, stored, and protected for later use. Reclamation will begin with the salvaging of topsoil and continue until the required standards are met, at a minimum of two growing seasons after reclamation is initiated. For both short- and long-term projects, vegetative establishment will be monitored annually. Interim reclamation, unless otherwise approved, will require meeting the same standards as final abandonment with the exception of original contour, which may be only partially achievable.

Annual reports consisting of reclamation practices completed and the effectiveness of the reclamation will be provided to the Little Snake Field Office. The first report will be due in January following initiation of reclamation practices and annually thereafter until performance measures are achieved.

There are numerous reclamation techniques and best management practices that increase the success rate of reclamation and stabilization. With the exception of those stated above, it is the lessee's prerogative to use whichever best accomplishes the objectives. However, it is recommended that state-of-the-art reclamation, stabilization, and management practices be used to achieve the desired objective in a timely and cost-effective manner. A Plan for Surface Reclamation is required as part of the Plan of Development (POD). The Authorizing Officer must approve the specific seed mix, reclamation techniques, and other details proposed by the operator in the plan.

The following definitions and measurements will be used to accomplish and determine if reclamation has been achieved:

- ❑ Permanent vegetative cover will be accomplished if the basal cover of perennial species, preferably native, adapted to the area, is at least 90 percent of the basal cover of the undisturbed vegetation of adjoining land or the potential basal cover as defined in the Natural Resource Conservation Service Ecological Site(s) for the area. In addition, some presence of a desirable woody species is required.
- ❑ Appropriate diversity will be accomplished if at least two perennial genera and three perennial species adapted to the area make up the basal cover of the reclaimed area in precipitation zones 13 inches or less and three perennial genera and four perennial species in precipitation zones greater than 13 inches. One species will not make up more than 50 percent of the perennial vegetation by basal cover.
- ❑ Plant communities that are self-regenerating and adapted to the area will be evident if the community is in good vigor, there is evidence of successful reproduction, and the species are those commonly used and accepted in the area.
- ❑ Surface stability will be accomplished if soil movement, as measured by deposits around obstacles, depths of truncated areas, and height of pedestalling is not greater than 0.3 of an inch and if erosion channels (rills, gullies, etc.) are less than 1 inch in depth and at intervals greater than 10 feet.

If this standard is not met by the end of the second growing season, two alternatives exist depending on the severity of the erosion:

- If erosion is greater than two times the allowable amount, corrective action would have to be taken by the responsible company at that time.
- If erosion is less than or equal to two times the allowable amount, and it is determined the erosion occurred during vegetative establishment and the site may become stable, no corrective action would be required at that time. Another check (and measurement) would be performed one year later to determine if stability standards have been met. If the original measurements have not increased by more than the allowed standard, the standard would be considered met. However, if the increase is greater than the allowed standard, corrective action would be required before being considered reclaimed.