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STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
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4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

April 6, 1982

Dr. Jerry Barker
Bio Resources, Inc.
P.O. Box 3447
Logan, Utah 84321

RE: Vegetation Guidelines
Vegetation Studies for UP&L's Mines
ACT/015/017, ACT/015/018A file
ACT/015/018B, ACT/015/027
Emery County, Utah

Dear Dr. Barker:

Enclosed please find the Division's Vegetation Information Guidelines as well as a draft copy of Revegetation Monitoring Guidelines.

After consultation with Lynn Kunzler, Reclamation Biologist with the Division, the Division has the following comments in response to questions posed during our telephone conversation of April 5, 1982:

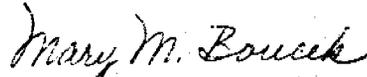
1. If raw cover data for the Mixed Conifer Reference Area (Deer Creek Mine) cannot be found, it should not be necessary to collect the data again.
2. It is preferable to collect shrub density data by species if possible. However, overall woody plant density is the minimum required by current regulations.
3. If a particular sampling area is comprised of dense, uniform shrubby vegetation, determination of shrub density by a plot method (e.g., total count within ten square meter plots) may be preferable to point-center quarter method. If the latter method is employed and large clumps of indistinguishable individual shrubs of the same species are encountered, it is probably more desirable to measure distance to the outside edge of the clump rather than to the center.

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Regardless of which method is utilized, density (number of plants per unit area) should be calculated and sampling adequacy should be demonstrated, displaying all statistical parameters and formulas employed.

Please do not hesitate to contact the Division if you have any further questions.

Sincerely,



MARY M. BOUCEK
RECLAMATION BIOLOGIST

cc: Chris Shingleton, Utah Power & Light

Enclosure

MMB/tr