0016

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

April 30, 1998

Johnny Pappas, Senior Environmental Engineer
Cyprus Plateau Mining Corporation
Willow Creek Mine
847 Northwest Highway 191
Helper, Utah 84526

Re: Vegetation in the Willow Creek Relocation Area, Cyprus Plateau Mining Corporation, Willow Creek Mine, ACT/007/038, Folder #2, Carbon County, Utah

Dear Mr. Pappas:

On April 27, 1998, we walked along most of the portions of Willow Creek that were relocated as part of the Willow Creek Mine construction. The purpose was to look at the vegetation and try to decide whether weed control or other remedial revegetation efforts were needed.

While there are some weeds in the "upland" areas away from the stream channel, I do not feel weed control or other revegetation is probably needed. However, the slopes leading down to the stream itself have nearly a monoculture of downy brome, and I do not feel this weed will disappear over time. It tends to be a vigorous competitor that does not allow other species to become established, and, without control, it will probably persist indefinitely. Downy brome does not meet the performance standards for establishing native species that are compatible with the postmining land use.

The permittee is ultimately responsible for successful revegetation, but I recommend you consider herbicidal control efforts this spring followed by seeding and possibly planting in the fall. A broad-spectrum herbicide, such as Roundup or Rodeo, could be used to kill downy brome now, and the area could be scarified or roughened and seeded in the fall. If you use an herbicide, you should try to avoid spraying desirable plants, and you must follow label directions.

Other methods of controlling downy brome are available, but, for the most part, they are not as sure or nearly as fast as using an herbicide. Also, the area that would need to be treated is not so large that it would be terribly difficult to use an herbicide.

Based on an assessment I did last summer, it appears it will be necessary to plant willow cuttings this year. When we visited the site earlier this week, we could only see a few willow cuttings, but many were probably not visible because they were covered by water. Hopefully, this water is depositing sediment where it will be easier to plant the willow cuttings. We need to wait until the water level subsides before making a final determination of how many cuttings need to be replaced and where to put them.

Last summer, I found 28 cottonwoods, both pole plantings and transplants, that appeared to be

alive. Some of these did not appear to be healthy, and I had concerns about whether they would survive. However, this could be simply a result of them trying to become established and concentrating resource allocation to root development. For the ones that did not appear to be alive, a study in Idaho found that 80% of freshly-cut cottonwood pole plantings remained dormant until the second year after planting while 5% leafed out the first year. The balance presumably died. Based on this, I feel you should wait to see if more poles leaf out before deciding whether to replace them.

I informed Michelle Waltz of the Army Corps of Engineers of our meeting and discussion, but I have not had a reply. I will let you know if I receive comments from her.

Please let me know if you have questions about these recommendations or if I can help you further. I appreciate your cooperation.

Sincerely,

Paul B. Baker
Reclamation Biologist

tat
cc: Pete Hess
Daron Haddock
Joe Helfrich
O:\007038.WIL\FINAL\WCRIPARI.PBB