

0004

Outgoing

C0150019

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**From:** Ingrid Wieser  
**To:** Suzanne Steab  
**Date:** 3/16/2009 7:08 AM  
**Subject:** Fwd: Re: Task ID 2964 - Cottonwood Phase II and III Bond Release Application

Re: Cottonwood/Wilberg Mine C0150019

>>> Ingrid Wieser 2/17/2009 9:28 AM >>>  
Dennis and Pat-

I have looked into your points about the deficiencies for the Cottonwood/ Wilberg Old Waste Rock Disposal site. I have attempted to clarify some of the deficiencies. Please let me know if I can provide you with more information, I would be happy to help. Pat- I addressed cheatgrass in # 3 of this letter, you will not have to remove that from the report.

1. Range Condition: In the Vegetation Guidelines, under methods, Letter b. of Reference areas states, "Reference areas must be in fair or better range condition at the time of bond release sampling. For reference areas not meeting this criteria, describe management practices (i.e., fencing) that will be employed to improve range condition. Range condition should be determined according to Soil Conservation Service guidelines." The letter from 1990 is not adequate since the condition needs to be reassessed during bond release sampling. The Soil Conservation Service is now a part of the Natural Resources Conservation Service, so the range condition should be assessed by that agency or another appropriate regulatory agency. The range condition should have been assessed prior to bond release sampling, but it's likely that the condition will be fair or better, so this shouldn't be a problem.

2. Woody Species Density: (For areas with a postmining land use of wildlife habitat): R645-301-356.231: Minimum stocking and planting arrangements will be specified by the Division on the basis of local and regional conditions and after consultation with and approval by Utah agencies responsible for the administration of forestry and wildlife programs. Furthermore, in the Vegetation Information Guidelines, # 8 of the Suggested steps in preparing premining vegetation information states that the Division will provide a technical memo stating the success criteria for woody species density. This memo should be incorporated into the MRP or at least the Bond release application. I did try and track down a density standard in the MRP. I did find a density for the "new" waste rock site on Page 3-14.1 of the MRP for the new waste rock site. This may be the same density standards for the old site given the proximity. If the density standard already exists, you would just need to site it in the application and compare it with the actual densities for year 9 and 10.

The second part of the woody species density deficiency was that the Applicant is required to demonstrate that 80% of the woody species used to demonstrate the stocking density have been in place for at least 6 years and 100% has been in place for

at least 2 years. This is typically demonstrated by using year 4 quantitative vegetation monitoring. I could not track down the year 4 report, and it should be provided in the bond release application so that demonstration can be made.

3. Cheatgrass: Due to the fact that the Division did not require a weed control program, and your demonstration of the insignificance of the cheatgrass cover, the Division will not require you to remove *Bromus Tectorum* from the demonstration of achievement of success standards. Please provide your calculations and narrative on the significance of Cheatgrass on the site in the application as a deficiency response. You will not have to rewrite the report.

If you can incorporate these changes into the application in a formal deficiency response, we should be able to approve the bond release. Again, please let me know if you have any further questions.

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>>> "Oakley, Dennis" <[Dennis.Oakley@PacifiCorp.com](mailto:Dennis.Oakley@PacifiCorp.com)> 2/13/2009 4:33 PM >>>  
Ingrid,

In reviewing the Cottonwood Waste Rock Site Phase II and III Bond Release application deficiencies, you have indicated two areas that need attention.

1) Need to specify range conditions - see attached range report letter from SCS. Also look in the Cottonwood Volume 10, Chapter VII, page 7-19. I also thought that a demonstration was made in the application as to when the specific cells were seeded. For the deficiency, I will discuss woody species on a per year monitored basis. Monitoring has been conducted every year since the site was first reclaimed. The Division has received all monitoring reports.

2) You have indicated that the *Bromus tectorum* should not be included in the demonstration for reveg success standards. Although I highly agree with that point, I also looked at the R645 regulations and vegetation guidelines. The guidelines specifically state; "Plant species considered weeds by the county where the mine is located should not be used in comparisons of vegetation cover." The guidelines go on to state on page 8; "Many weeds are annuals and might not be considered permanent,

but weeds usually persist to some degree for several years.....However, if the area has more than 25% relative cover from weeds,...revegetation and succession of native species may not be possible."

With that said, I have two comments. 1) Bromus tectorum is not a listed Utah noxious weed, nor is it listed on the Emery County weed list that I have found. I do not argue the fact that it is an exotic invasive species. My personal opinion is that it should be listed as a weed. However, the guidelines specifically state weeds by county should not be used in cover estimates.

2) My second comment also is referenced from the guidelines. The guidelines consider cover by weeds in excess of 25% a red flag that needs further attention. If the guidelines are considering a percentage value for the species, would it not have to be included in the monitoring? If the species was not mentioned in the monitoring report, it would not be known to exist on the site.

I talked with Patrick Collins (Mt. Nebo Scientific) who has monitored the site from the beginning as well as gathered the data for the Phase II and III bond release application. He indicated in his Year 1 report the total living cover for the reclaimed cells and berms was 51.89%. Bromus tectorum making up 6.88% of this cover. In Year 2, the total living cover was 53.30%, with Bromus tectorum making up 2.71%. Comparing the two years could tell me either the Bromus tectorum is on the decline or the sampling took place in a totally different location within the site. However, what the report correctly points out is that Bromus tectorum is a statistically insignificant cover source. If the species is excluded from monitoring (using the Year 1 data), it shows a mean cover of 45.01% compared to 30.16% reference area. Without having this information included in the data, this status of Bromus tectorum would have never been known.

With the above information presented, do you still want the Bromus tectorum data excluded from the monitoring report? There would be a large amount of work to remove it from the reports.

Please respond to both Patrick Collins and myself.

Thanks  
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Senior Environmental Engineer

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The ablest man I ever met is the man you think you are.

- Franklin D. Roosevelt -