



Department of Environmental Quality

*To protect, conserve, and enhance the quality of
Wyoming's environment for the benefit of current and
future generations*



Matthew H. Mead, Governor

Todd Parfitt, Director

February 24, 2016

Mr. Randall Atkins
c/o WWC Engineering
1849 Terra Ave.
Sheridan, WY 82801

RE: AVF Determination, Brook Mine Coal Mine Permit Application, TFN 6 2/025

Dear Mr. Atkins

The Land Quality Division has evaluated potential Alluvial Valley Floor (AVF) lands within the proposed permit boundary of the Brook Mine. An AVF determination was initiated on September 24, 2015 when a group of LQD personnel visited the proposed mine site for a field evaluation of one drainage, Slater Creek. The entire length of the stream within the permit boundary was walked for evaluation purposes. The geomorphology, vegetation, and hydrology of the drainage was observed. Photos were taken to assist in AVF characterization. Upon completing the field examination of Slater Creek and evaluation of aerial photography, Big Horn Coal Permit 213 AVF assessments, historic geologic maps, available literature, and personal communication within LQD, a determination of the AVF characteristics of the drainage within the Brook Mine proposed permit boundary has been made. The analysis of the potential Slater Creek AVF has determined that 13.11 acres within the Brook Mine Permit Boundary are considered to be AVF and have been declared as such. The declaration statement was crafted as a memorandum to file and placed within the active TFN for the Brook Mine permit application, TFN 6 2/025. The document is available for review at the Sheridan LQD office as well as the LQD office in Cheyenne.

Further determination of the status of AVF potential for Slater Creek one-half mile upstream from the proposed Brook Mine permit boundary is pending. The acreage in question is owned by Mr. Tony Bocek and permission to access his property to complete the AVF determination is required at this time. It is the responsibility of the mine permit applicant to obtain written permission to facilitate the final AVF determination. Upon receipt of written permission for LQD personnel to access Mr. Bocek's property, a field evaluation of the acreage in question will be scheduled. An invitation will be extended to your representative to accompany LQD personnel on the site analysis. LQD will provide the name of the staff member or members who will be present at the field evaluation.

An evaluation of the lands within one-half mile of the proposed Brook Mine permit boundary that may qualify as AVF has concluded. The Hidden Water Creek valley floor is located to the north of the proposed permit boundary as well as within the acreage in the northeastern quadrant of the projected



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permit. It has been determined that the Hidden Water Creek streambed materials do not qualify as AVF at this time.

The lands south of and adjacent to the Brook Mine submittal, within one-half mile, are located along the valley of the Tongue River. Previous AVF analyses were made for the Big Horn Coal Company (BHC) coal mining permit (No. 213) in 1981 and the Tongue River flood plain was determined to be AVF at that time. This determination covered affected lands downstream from BHC as well as all acreage upstream, terminating at the west section line of section 21, T57N, R84W. The Tongue River bottom lands need to have a field survey for AVF characteristics from that location in section 21 to a distance of approximately four miles upstream of the Interstate 90 Bridge which crosses the Tongue River. The acreage in question is all fee surface ownership and permission to access the properties is required prior to AVF evaluation. Unfortunately, there are 27 owners of record who would need to be approached for permission to trespass. This places AVF determination in a difficult position as it is strongly expected that some of the property owners will not grant LQD access to perform their studies. These positions have been indicated in personal communication to LQD staff by some of the landowners.

Because of this, final declaration of the Tongue River valley as an AVF cannot yet be completed. The acreage within one-half mile of the proposed Brook Mine permit boundary was defined as potential AVF by the Brook Mine permit application, Appendix D-11, Alluvial Valley Floors. This characterization is corroborated by LQD analysis. Because of this, the Tongue River acreage within one-half mile of the southern boundary of the proposed permit is assumed to be AVF at this time.

A tributary of the Tongue River, Goose Creek, is also located within one-half mile of the proposed Brook Mine permit boundary. This was determined to be AVF and was included in the previously mentioned Big Horn Coal mine permit 213. Since the acreage adjacent to Goose Creek has already been declared AVF, no further declaration needs to be made unless the Brook Mine permit boundary is modified in future amendments to include lands south of the present permit application.

This letter serves as notification that Appendix D11, and other relevant sections of the submitted coal mine permit application must be updated to reflect the findings of AVF by LQD. Please contact Bj Kristiansen or Mark Rogaczewski at the LQD District 3 office with questions or comments.

Sincerely,



Bjarne Kristiansen, PG
Natural Resources Program Principal
WDEQ-LQD District III

Cc: Cheyenne LQD files