

Animas-La Plata Project



February 18, 2014

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Division of Reclamation, Mining, and Safety
Department of Natural Resources
1313 Sherman Street, Rm. 215
Denver, CO 80203

Re: Animas Glacier Gravel Pit, Technical Revision M-2011-028

On August 23, 2012, the Division of Reclamation, Mining and Safety (Division or Office) issued its recommendation to approve, with a stipulation, over public objection, the 112c application for the Animas Glacier Gravel, Permit No. M-2011-028. The Association and Reclamation have expressed concerns with this application related to drainage impacts on Basin Creek.

As you explained, the Division's recommendation, if approved by the Board, ensures ample opportunity for the applicant to comply with inadequacies identified by the Division related to proposed discharge from the site. The Division's recommendation for approval carried a stipulation that did not authorize the Applicant to proceed with the mining activities proposed in the application until the permit fully satisfied the requirements of the Act and Rules through a Technical Revision process.

The Association is extremely concerned that work has been accomplished well beyond the construction of the access road without our "ample opportunity" or your knowledge. At this time our concerns have not been addressed. In collaboration with the Bureau of Reclamation the Association provides the following comments and concerns:

DMRS letter dated August 28, 2012

- Your letter required the technical revision be submitted to address final **design** of the drainage issues. Not only have we not received a final design to address our concerns, Four Corners Materials (FMC) has already constructed the retention pond and dam. This was not supposed to occur.

FCM letter dated January 22, 2014

- FCM references Rege Leach's email stating that the 72-hour maximum retention time should not **presently** apply, since the Animas River is not **currently** over appropriated. What is the estimate for the time frame in which it **will** apply, and how will the gravel pit intend to ensure that this happens?
 - The concern here is the impoundment of 220 AF of water, as a regular practice, no unlimited retention time, impounded by a structure that has no design, had no construction controls, has no means of discharge, has no emergency spillway, and sits upstream of millions of dollars of Animas La Plata Project infrastructure.
- FCM stated that the northern drainage will not be impacted by the pit. I disagree and point to the fact that the dam is earthen, without any erosion protection designed (or built) on the downstream embankment face, and does not appear to have been compacted. This is highly erodible, and will drain onto Project lands. At a minimum, the downstream face erosion protection should be installed or Applicant's judicious use and maintenance of BMPs.

Rege's email (Exhibit A)

- Rege references that Wright Water Engineering has been consulting for this project. Why don't we have any materials from them?
 - The reference seems to indicate that a longer than 72-hour retention will be needed for turbidity control. Please provide the support for this statement. It indicates that the pond will be forever full of water, to be used as a settling pond for operations, rather than a storm water retention pond. This raises our concerns.

Drainage Report – Amendment 1, also dated January 22, 2014

- The report itself declares that it is an as-built (after the dam was constructed) assessment of storm water volumes only. This does not address most of our previous concerns.
- The Colorado Office of the State Engineer should be immediately notified of the constructed feature, as it would fall within the jurisdiction of the Rules and Regulations for Dam Safety and Dam Construction
 - The structure is greater than 10-ft tall from the lowest point
 - The impoundment has a capacity greater than 100 AF
 - This would be a Class I or Class II Hazard Classification, per State guidelines, and there appears to have been zero consultation with or permitting of the already constructed dam.
- The report indicates that the reservoir will be used for operations.

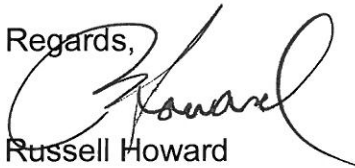
- This indicates that it is not storm water retention only, rather for maintaining a reservoir of water for operations
- Because the reservoir is intended to impound some undetermined amount of water at all times, the drainage study needs to be expanded to assess the impacts of various storm return periods, on top of various impoundment volumes at the beginning of the storm event. All studies seem to begin with zero impoundment.
- The report indicates that a 4.8 AF pond was constructed in the pit, independent of the dam. How was this constructed? How was it sized? What is its purpose?
- The report indicates that “Swale A” has been removed. Why? Note that the revised “drainage Basin Map” no longer shows swales “B” and “C”. The new dam has been constructed across “Swale C”. Please provide some information to the thought process here. Will a swale be continually constructed along the west perimeter as mining operations move south, or how do you plan to deal with drainage in the newly disturbed areas?
- The drainage study does not include the expanding mining area to the south, which is assumed to also drain to the reservoir, and would increase the drainage area approximately two fold.
- There is no information provided to show the limits of a 220 AF impoundment, or how that volume was calculated. Please include an inundation area and calculations.
- There is still no dewatering plan, or no information on the quantity of water to be used for operations, yet the hydrologic studies all start with an empty pond, and reservoir.
- The main concern at this point is the dam.
 - At a minimum, the following information should be submitted, probably to the State:
 - Design drawings and specifications
 - Geotechnical report
 - Materials classification report
 - Construction reports documentation construction means and methods
 - Materials reports documenting all material properties in structure, before and after construction
 - Lab testing data for moisture-density control
 - Freeboard analysis
 - The single “dam” drawing in the previous drainage report lacks the following:
 - Erosion protection for both faces of the embankment
 - Dimensions of critical features (such as the height of structure)
 - Filters or drains, if needed
 - Instrumentation, if needed
 - Baseline study of existing seepage
 - The constructed structure:
 - Appears to not have been compacted, other than equipment travel
 - Materials appear to be solely cut waste from road construction

- I doubt there is a clay core, per design
- The side slopes appear to exceed the 3:1 design
- I doubt there is a key trench, per design
- There is no emergency spillway, per design
- The gradations are certainly out of "specification" notes
- The foundation was likely never treated in any fashion, if needed
- There was certainly no grouting or dental concrete used, if needed
- We have no idea about percolation through the foundation

Bottom line, the dam FCM constructed is a disaster waiting to happen. There was no design for it, it was not supposed to have been built, and it has not been run through the State. The Technical Revision only makes some minor revisions to the hydrology calculations. It does not address our previous concerns. We are immensely more concerned now, than we were before they constructed the dam.

The Association requests a meeting be held as soon as possible to resolve these issues.

Regards,



Russell Howard
General Manager
Animas La Plata Operation, Maint. and Replacement Association