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Outgoing

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Revised Runoff Control Text

Peter Brinton <peterbrinton@utah.gov> Thu, May 8, 2014 at 10:01 AM
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Here are my responses to your comments below...

I looked at both the design report and Figure 8a, and I agree that what has been provided so far for the ITDF meets the rules. Typically, hydro features ends up in one place (which it sounds like Figures 15a & 15b will be).

On the draft map Figure 15a, the big wash (Big Wash?) in Section 28 should be identified. OK, will do. Noted. The affected watershed boundaries in this main mining area should also be identified – look at Figure 15; the water shed areas are immense and extend off even this smaller scale map. A larger watershed that has a berm across part of it (impoundment by the upstream side of flotation tailings storage facility) justifies our asking that it be shown on a map and with an acreage, and is consistent with with our rules. But since the flotation tailings pre-date the revision, and since the Division understands that flotation tailings will begin to be re-processed and placed in the ITDF (increasing any runoff storage capacity if berms do not impound, as aerial photos suggest they have not, to an unknown some degree), diligent maintentance of the berm for diversion/storage of any upstream runoff will be acceptable. Also, as drawn on the draft map, the partial east watershed boundary (red) is incorrect (it is a lot larger, as you said)., as well as any significant berms, retention basins, or other drainage control structures, as required by rule-The dumps in the Hickory Wash and tributary provide detention for upgradient runoff, as described in the text. There are no other drainage control structures or detention basins planned. OK As the text describes and the large scale maps for Hidden Treasure, Bawana and Sunrise demonstrate, the upland areas that will shed runoff to the disturbed areas are very small. What is more, much of the runoff flows and will flow into the pits. The runoff affecting the dumps will largely result from direct precipitation on the dump surfaces, as the NOI text describes. One of the watersheds (above the Hidden Treasure pit) is approximately 90 acres (not very big, but a similar size for which they are commonly shown on other permits' maps, like Topaz's hydro map). Obviously we have no impoundment capacity issues there. As you said, the rest of the watersheds are small. Neither of these watershed identification comments need to be addressed now, since they're pre-revision and given the dynamic nature of the permitting right now, but we may ask for watersheds to be specifically identified at some point in the future, to be consistent with other permits. Calculations of peak flows from the large watershed and impoundment capacity of the berms may also be requested. I assume this is the map that will be used for the SWPPP. For consistency with the rest of the map, flow arrows in the area of Sunrise mining operations should also be shown. There are no significant drainages in the Sunrise pit and dump area. Observations of the topographic contours in this area clearly show the direction of sheet wash flow. Understood. Since flow arrows aren't required by rule and since flow based on topo should be obvious, as you said, flow arrows aren't needed.

In Google Earth, the western ephemeral channel on draft Figure 15b extends past the east-west road. If a culvert goes under the road where the drainage is drawn to stop, it should be shown - or else retention, if it stops there. The roads that this drainage crosses are old roads and are not maintained by CSM. Some or all may be county roads and they are undoubtedly used by BLM. Whether there are culverts there or not is not relevant to the proposed mining operations. Sounds good. It looks like the drainage continuing to the south of the road, based on aerial photos.

It appears that the flotation tailings pond has some runoff going into it, either from the road or from the east watershed, which would contradict the Notice text on 63a if coming from the watershed. On page 63a it says: "The eastern drainage is currently impounded by the north dike of the flotation tailings pond." It therefore does not flow into the flotation tailings pond. That pond has always had a diversion berm on its north side, which prevents runoff water from reach it. Otherwise, the NOI text looks good to me. Google Earth aerial photos (2013) indicate that some flow has been entering the flotation pond from the upstream side (apparently both from the thickeners and also from the larger western drainage). FYI. Your comment and the NOI text are fine, if that's the plan going forward. It doesn't look like the berms on the south side of the road have always (and maybe still don't?) divert from the pond, but Google Earth has limitations. Leslie, next time I come down, we can take a look and discuss. I haven't been there before, and don't want to make a mountain out of a mole hill.

April is on the hydrology map comment (#5) from the January Sunrise conditional approval letter as well, but more with regards to the Storm Water Pollution Prevention Plan (SWPPP), so April will be looking at that once it's here. See my message, above. Noted.

Peter

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