



STATE OF
COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

Treiber Lakes (M-2011-049) Inspection Report Response

William Schenderlein <bill@blueearthssolutions.net>
To: "Eschberger - DNR, Amy" <amy.eschberger@state.co.us>
Cc: Richard Raines <rraines@scwtp.org>

Mon, Aug 2, 2021 at 3:33 PM

Amy – please find attached our response to the inspection report dated June 4, 2021. We have requested some extensions to corrective actions, so if there are issues with the extension requests please let me know. Feel free to call or email if you need additional information or have any questions.

Bill Schenderlein, P.E.

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(970) 227-2803



Treiber Lakes Inspection Report Response.pdf
6786K



August 2, 2021

Colorado Department of Natural Resources
Division of Reclamation, Mining and Safety
Attn: Amy Eschberger
1313 Sherman Street; Room 215
Denver Colorado, 80203

**RE: Response to Inspection Report for City of Greeley
Treiber Lakes, Permit No. M-2011-049**

Dear Ms. Eschberger:

The following discussion and attachments are submitted on behalf of our client, City of Greeley, in response to the Inspection Report comments prepared by the Division of Reclamation, Mining and Safety dated June 4, 2021, for the Treiber Lakes site inspection performed on May 26, 2021. The information and discussion below address each inspection topic as it was presented by the Division:

Inspection Topic: Sediment Control

The erosion gullies on the north reservoir side slope referred to in the inspection report are shown in the attached Photographs 1, 2, and 3. The deep gullies were created by the discharge of inlet water being pumped into the reservoir. The erosion rills along the reservoir side slopes referred to in the inspection report have been created by localized stormwater runoff events. The reservoir slope erosion gullies and rills have not yet been addressed. To properly repair the erosion gullies and regrade areas of the reservoir side slopes where rilling has occurred, the reservoir water level needs to be lowered. Due to water rights administration, the reservoir will not likely be lowered until the winter 2021/2022 season.

To prevent the erosion gully problem identified in the inspection report from reoccurring, the City of Greeley shall design and construct a stabilized inlet rundown for future pumping discharges into the reservoir. However, similar to repair of the existing erosion gullies, construction of a properly designed inlet rundown is not feasible until the reservoir water level is lowered. During construction of the inlet rundown, the reservoir side slopes will be re-graded where necessary to correct any erosion gullies and rills.

Until the corrective action can be completed, the City of Greeley shall monitor the erosion gullies and rills to assess the situation for further damage and potential off-site impacts. Although erosion creating the gullies and rills has produced, and will continue to produce, sediment mobilization and transport, the sediment is fully captured by the reservoir and does not affect adjacent lands. The City of Greeley understands that excessive erosion of the reservoir side slopes could also destabilize the slopes and/or create failure of the installed slurry wall, potentially jeopardizing the reservoir seal with the Office of the State Engineer. However, as seen on the attached as-built drawing for the north reservoir slurry wall construction (Figure 1), the slurry wall was designed, and built, 15 feet from the reservoir top of bank. Currently, the erosion gullies and rills only affect localized areas of the reservoir side slopes and do not threaten the slurry wall integrity. Since the erosion gullies are on the

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north side of the reservoir, wave action caused by winds predominantly from the north and west would not be expected to further deteriorate the erosion scars. Additionally, no further inlet discharge flows are anticipated until the erosion problem is corrected.

Therefore, the City of Greeley requests extending the corrective action due date until March 15, 2022. However, prior to the proposed corrective action due date, the stabilized inlet rundown design, including location and specifications, shall be submitted to the Division in a Technical Revision by December 3, 2021. The Technical Revision shall also provide an anticipated date for construction of the inlet rundown.

Inspection Topic: Reclamation Success

The City of Greeley requests extending the corrective action (Technical Revision) due date until December 3, 2022. Along with the inlet rundown design described above, the Technical Revision shall include additional reservoir infrastructure constructed on, or proposed for, the Treiber Lakes site. The Technical Revision shall contain infrastructure design and/or as-built information for interconnect pipes, outlets, and bank stabilization.

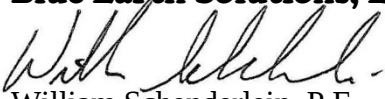
Inspection Topic: Revegetation

Weed control methods for the Treiber Lakes site, including mowing and chemical spraying, are provided in the Regular 112 Construction Materials Reclamation Permit application. Since the inspection date of May 26, 2021, weed control activities have included both spraying and mowing. Chemical spraying has targeted noxious weeds (i.e. Canada thistle, leafy spurge) and hand trimmers have been used to cut weeds and volunteer trees and shrubs (i.e. cottonwoods, willows) on the reservoir slopes and near the reservoir water line (Photographs 4, 5, 6, and 7). Mowing of weeds and grasses was performed on the remainder of the site (see attached Figure 2).

During the recent activities responding to the inspection report, the revegetation success and weed control methods have been assessed and revisions to the revegetation/weed management plan for the Treiber Lakes site are anticipated. To have resources in place by spring 2022, the weed management plan revisions shall be formulated following a review of the recent site activities. A revised weed management plan shall be included in the Technical Revision submitted to the Division by December 3, 2021.

If you have any questions regarding these inspection report responses, please call me directly at (970) 227-2803.

Sincerely,
Blue Earth Solutions, LLC


William Schenderlein, P.E.
Project Manager

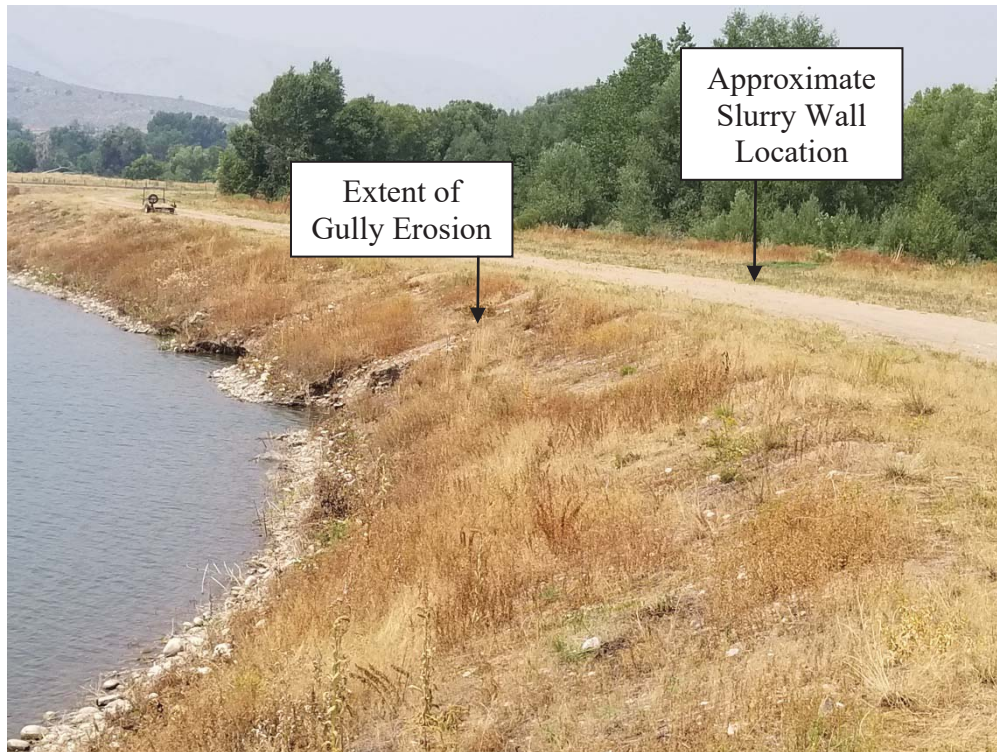
Attachments



Photograph #1. DRMS inspection photograph of inlet water being discharged into the north reservoir.



Photograph #2. Erosion gully on north reservoir created by inlet water discharge.



Photograph #3. Gully erosion location relative to slurry wall location.



Photograph #4. Post-chemical spraying of noxious weeds.



Photograph #5. Post-chemical spraying of noxious weeds.



Photograph #6. Hand trimming on reservoir side slopes.



Photograph #7. Cutting volunteer cottonwood/willow along reservoir shoreline.



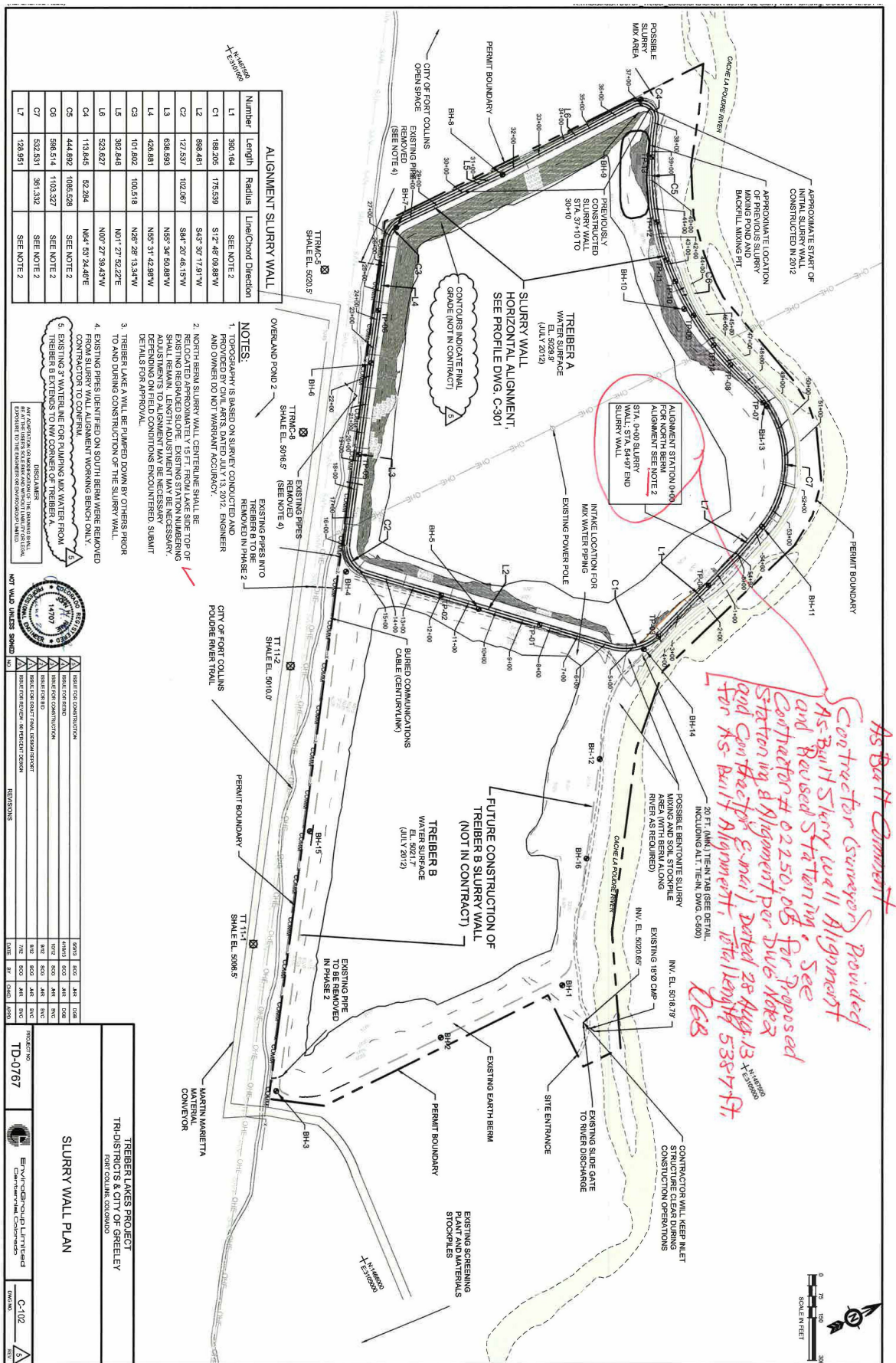
Photograph #8. Mowing grasses and weeds along reservoir top of bank.

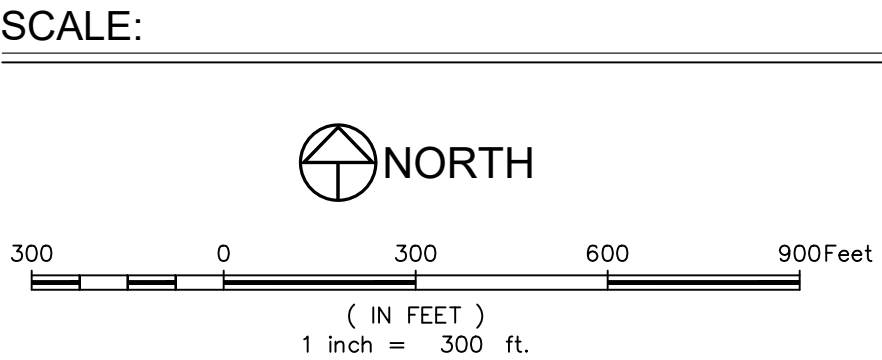
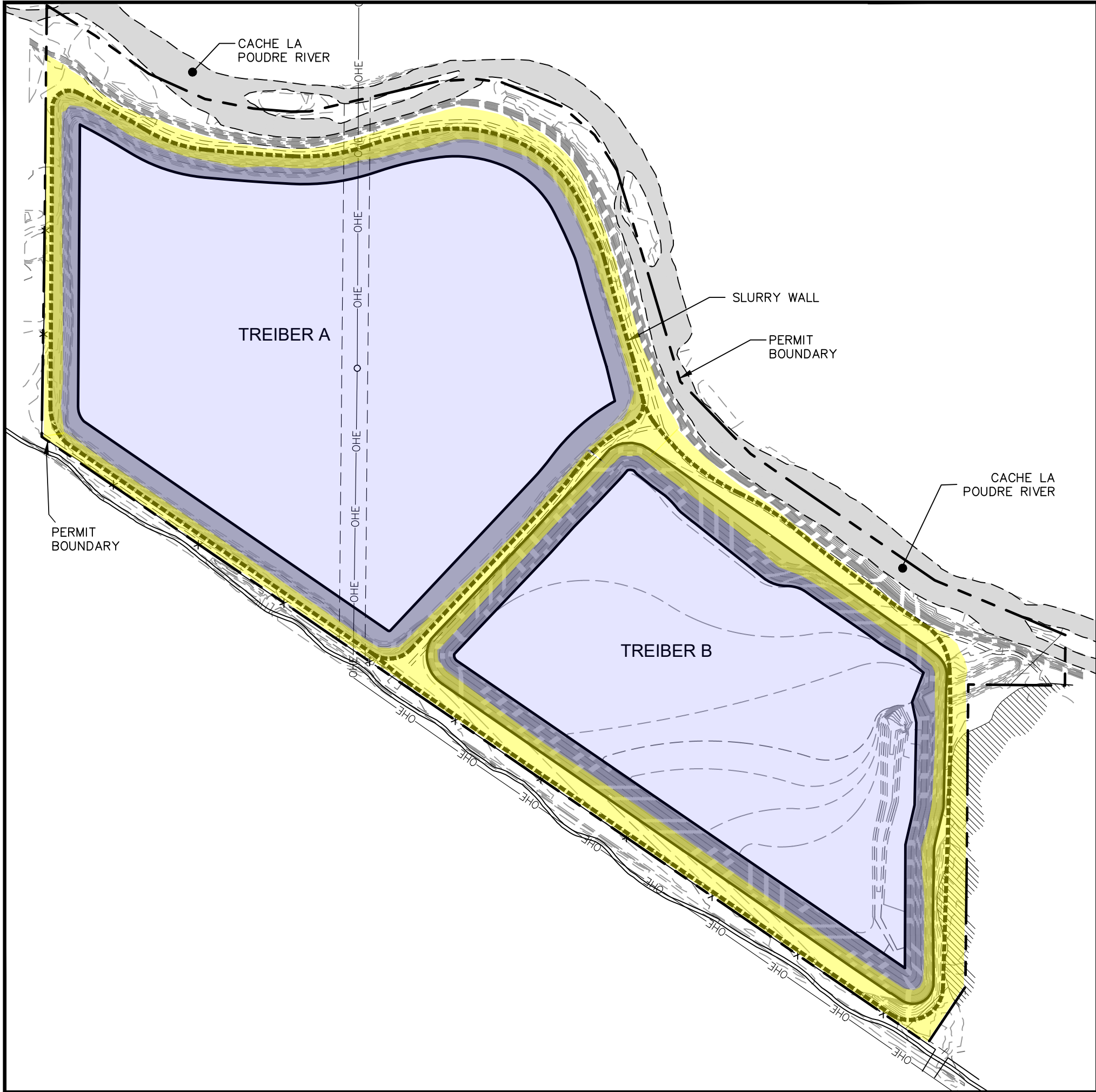


Photograph #9. Mowed grasses and weeds on north side of Treiber Lakes site.



Photograph #10. Mowed grasses and weeds on south side of Treiber Lakes site.





- LEGEND:
- Permit Boundary
 - Slurry Wall
 - Area sprayed and mowed following May 26, 2021
DRMS site inspection
 - Approximate reservoir water level at time of site inspection
and spraying/mowing operations