



January 8, 2021

Aaron Bivens  
Bivens Trucking & Excavating, Inc.  
862 W. Willox Ln  
Ft. Collins, CO 80524

**Re: Bivens Pit, Permit No. M-1985-184, Technical Revision No. 2 (TR-02), Adequacy Review No. 1**

Mr. Bivens:

On December 28, 2020, the Division of Reclamation, Mining and Safety (Division) received your Technical Revision application (TR-02) for the Bivens Pit, addressing the following:

*Update mining plan, reclamation plan, and mining and reclamation plan maps.*

After reviewing the materials submitted, the Division has identified the following adequacy items that must be addressed before an approval of TR-02 can be issued:

- 1) The updated mining plan states the operator plans to continue mining the pit from Phase 1 (i.e., the existing pond) to the south and expanding the pond to its original mine plan surface area of 6.5 acres, described as the Final Phase. However, on the updated mining plan map presented on Figure 3, the operator proposes expanding the existing pond by 1.1 acres in the Final Phase, which would give a total final pond surface of 4.6 acres (3.5 acres existing + 1.1 acre expansion). Additionally, on the updated reclamation plan map presented on Figure 4, the legend indicates the final reclaimed water body will be 4.9 acres in size. Please explain and/or correct this discrepancy in the proposed final pond size. Does the operator propose a maximum final pond size of 6.5 acres, 4.9 acres, or 4.6 acres? Please make any necessary corrections to the appropriate text and/or figures.
- 2) Page 3 of the water court approved augmentation plan provided in Attachment 3 for Case No: 90-CW-129 (W-7813-74) states the plan was approved for a 6.05 acre “area of water surface left by mining”. This indicates the augmentation plan would not cover a proposed final pond size of 6.5 acres. Therefore, please make any necessary corrections to the appropriate text and/or figures to ensure the proposed final surface area of exposed groundwater does not exceed the 6.05 acres approved by the augmentation plan.
- 3) Page 5 of the water court approved augmentation plan provided in Attachment 3 for Case No: 90-CW-129 (W-7813-74) states the applicant had applied for a well permit for the site which was pending with the Office of the State Engineer (at the time of augmentation approval). Please confirm that a well permit is in place with the Division of Water Resources for the existing amount of exposed groundwater at the site, and that the well permit will be amended, if required, to cover the proposed pond expansion.



- 4) In expanding the pond to the south as proposed, would the operator first need to dewater the area? If so, where does the operator intend to discharge this water? If dewatering activities are proposed, please commit to obtaining the necessary discharge permit from the Colorado Department of Public Health and Environment, Water Quality Control Division prior to initiating these activities.
- 5) The updated reclamation plan proposes two separate scenarios for final reclamation. One plan includes leaving a 4.6 acre pond (per the text; 4.9 acre pond per Figure 4) with a 0.4 acre recreational area, a 1.3 acre parking area (to receive 6 inches of road base), 1.3 acres of roads (to receive 6 inches of road base), and an area of 2.7 acres to be retopsoiled at 12 inches depth and revegetated. The other plan includes all the same features except that a water feature of unspecified size may be excavated between the recreational area and the proposed parking area and this material will be used to backfill an unspecified portion of the expanded pond.

The operator is allowed to propose more than one potential reclamation plan for the site. However, the Division must calculate the required financial warranty for the most costly plan proposed in the event the permit was revoked and the State had to complete reclamation of the site. In this case, as long as the proposed final pond size does not exceed what is approved in the augmentation plan, the plan to excavate a water feature and backfill a portion of the pond would be the most costly plan of the two proposed. Therefore, unless the operator chooses instead to commit to the first reclamation plan without the water feature, the Division requires the following details in order to calculate the required financial warranty:

- a) Please provide the anticipated size (in acres) and depth of the proposed water feature.
- b) Please provide the approximate volume of material expected to be excavated from the water feature area.
- c) Will construction of the water feature and/or backfilling the southern portion of the pond require dewatering? If so, please provide additional details on this activity, including the estimated total costs.
- d) Please specify the anticipated equipment to be used to excavate the water feature and to haul the material to the southern end of the pond for backfill.
- e) Please provide an approximate length of slope (in feet) around the edge of the water feature which will require grading. Will these slopes be graded to 3H:1V or flatter?
- f) Please provide an approximate area around the water feature including its slopes, which will require retopsoiling and revegetation (if this area exceeds the proposed 2.7 acres to retopsoil and revegetate).
- g) Please specify the anticipated equipment to be used to backfill the southern portion of the pond.

- h) Please provide the anticipated size (in acres) of the southern portion of the pond to be backfilled. Will this area be retopsoiled and revegetated for reclamation?
  - i) Please clarify whether the proposed 2.7 acres requiring retopsoiling and revegetation for reclamation includes the proposed water feature area and the proposed backfilled portion of the pond. Will construction of the water feature reduce the proposed 1.3 acre parking area? If so, please specify the anticipated size of the parking area if the water feature is constructed.
- 6) The updated reclamation plan states that areas to be revegetated will be seeded with the approved reclamation grass seed mix (switchgrass, slender wheatgrass, tall wheatgrass, alkali sacaton, and yellow sweet clover). Please be advised, yellow sweet clover is now considered to be an invasive species as it readily invades open areas and may compete for resources with native species. Please remove yellow sweet clover from the proposed seed mixture, or replace it with a species that is more compatible with native species. The approved seed mixture is enclosed for reference.
- 7) The updated reclamation plan states the truck scale and scale house will be removed at the end of operations. Please provide the approximate dimensions of the permanent features requiring demolition for removal (e.g., concrete pads). Additionally, please specify the estimated costs for demolishing and removing any permanent features, including costs for disposal. Will any demolished features be disposed of on site or off-site? For materials disposed of on site, please specify the approximate location of disposal. For materials disposed of off-site, please provide an estimated distance to the disposal location.
- 8) On Figure 1 – Site Layout, the legend shows the permitted disturbance area to be 11.1 acres. Please be advised, the allowed disturbance cannot exceed the approved permit area, which is 11 acres in this case. Please adjust this acreage amount accordingly.
- 9) On Figure 4 – Post Mining Land Use and Reclamation Plan, features from both of the proposed reclamation plans are shown on this map, including the potential water feature and the potential pond backfill area (from the 2<sup>nd</sup> proposed reclamation plan). Please provide a separate reclamation plan map for each of the proposed reclamation plans showing how each portion of the affected lands will be reclaimed for each of the proposed plans, including the correct acreages. While the operator will have the option of choosing which reclamation plan to implement at the site (after TR-02 approval), the Division must calculate the required financial warranty based on the most costly reclamation plan proposed, in the event the permit was revoked and the State had to complete reclamation of the site. Alternatively, the operator could commit to one reclamation plan, and modify Figure 4 accordingly.

This completes the Division's preliminary adequacy review of the materials submitted for TR-02. The decision date for TR-02 is currently set for **January 27, 2021**. If additional time is needed to address the adequacy items, an extension request must be received by our office prior to the decision date.

If you have any questions, you may contact me by telephone at (303) 866-3567, ext. 8129, or by email at [amy.eschberger@state.co.us](mailto:amy.eschberger@state.co.us).

January 8, 2021  
Aaron Bivens  
Bivens Trucking & Excavating, Inc.  
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Sincerely,

A handwritten signature in blue ink that reads "Amy Eschberger". The signature is written in a cursive, flowing style.

Amy Eschberger  
Environmental Protection Specialist

Encl: Page E-3 from original permit application with approved seed mixture

Cc: Tim Gerken, Telesto Solutions, Inc.  
Michael Cunningham, DRMS

Topsoil that is to remain stockpiled for more than one growing season will be sloped no greater than 3H:1V and seeded with a fast growing vegetative cover (i.e. smooth brome or slender wheatgrass) to prevent deterioration or contamination.

There is no woody vegetation in the permit area. Existing grassy vegetation will be incorporated into the topsoil.

Topsoil will be redistributed in an even manner at a 12 inch depth. The topsoil presently stockpiled is of such quality, addition of soil amendments is not necessary.

#### Revegetation

The shoreline and surrounding disturbed areas are to be revegetated as part of the reclamation plan.

Seeding will be done in the late fall or early spring to ensure maximum advantage of soil moisture when germination occurs.

The following seed mix is proposed to ensure the greatest probability of success and is based on environmental and biological factors common to the site. The mix provides for a diverse and long-lasting vegetative cover.

<u>Species</u>	<u>Drill Seeded*</u> <u>lbs PLS/Acre</u>	<u>Seed/ft<sup>2</sup></u>
Switchgrass	1.1	10.0
Slender wheatgrass	2.7	10.0
Tall wheatgrass	3.3	6.0
Alkali sacaton	.2	8.0
Yellow sweetclover	<u>.7</u>	<u>4.0</u>
	8.0	38.0

\*Double the amounts if broadcast seeded.

Weed control will be by mechanical means if weeds become a significant percentage of the plant community. A significant percentage would be considered 30 percent. If mechanical means prove not to be adequate, chemical weed killers recommended by a recognized agency, i.e., Soil Conservation Service, Agricultural Extension Service, will be used in conformance with State and Federal laws.