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May 7, 2025 (rev 06/02/2025)

Jocelyn Carter  
Environmental Protection Specialist  
Division of Reclamation, Mining, and Safety  
1313 Sherman St Suite 215  
Denver, CO 80203

**Re: M-1977-573 - West Pueblo Pit – TR07 Request Letter**

Dear Ms. Carter,

The Arkansas Groundwater and Reservoir Association (“AGRA”), permit holder of active permit M-1977-573 (the Permit), would like to submit this letter to you requesting from the Division of Reclamation, Mining, and Safety (DRMS) a Technical Revision (TR) to the existing mine reclamation plan currently approved for the Permit and the West Pueblo Pit (Pit).

With this TR, AGRA will address two separate issues affecting the Permit. The first is that a large quantity of imported spoils were deposited in the Pit during the construction of facilities associated with the Southern Delivery System (SDS) constructed by Colorado Springs Utilities during the 2010’s. These spoils total approximately 270,000 cubic yards (CY) and occupy roughly ten percent of the Pit’s available storage volume.

The second issue addressed by this TR is a section of localized scour along the Arkansas River at the western property boundary. The river has created a large scour hole as the result of a malfunctioning rock fish structure placed in the river near the river’s edge. AGRA and Colorado Parks and Wildlife (CPW), the two property owners affected by this erosion, have been collaborating on a solution to this problem. This solution consists of slope grading and riprap placement to protect against further erosion.

### **Imported SDS Fills/Spoils**

The northern part of the Pit contains a large quantity of imported fill that was deposited in the Pit during the construction of facilities associated with Colorado Springs Utilities' Southern Delivery System (SDS) project. AGRA has estimated the quantity of this material to be about 270,000 CY of soil removed from the site of the Juniper Pump Station located near Pueblo Dam. These soils, while difficult to characterize thoroughly without detailed soils testing, which has not been performed by AGRA, are believed to consist of overburden, coarse sands and gravels, and processed sedimentary rock such as shale which underlies much of the region as bedrock.

There is also a significant unquantified amount of limestone boulders that may also be from SDS related excavations, although this is uncertain. This deposit is located just south of the fills. No classification of this rock has been performed but a visual inspection has been performed, and the rock appears to range in gradation from large boulders to small cobbles, with most rocks being angular in shape. Approximately 600 CY of this rock was recently used as riprap for emergency repairs along the Arkansas River at the west side of parcel boundary. These repairs will be discussed in more detail in the section below.



**Figure 1. Overview of West Pueblo Pit, Showing Approximate Location of Imported Fills.**

## Emergency Bank Repairs

The Arkansas River flows along the western and southern side of the Pit. At the Pit's western edge, the river has created a large scour hole and has eroded into the property and across the property line, destroying a haul road that is actively used by pedestrians recreating in the area.

Figure 2 below shows an overview of the scour hole and shows the cause of the erosion and the damage that has been sustained on AGRA's property as a result.





**Figure 2. Overview of The Scour Hole at West Pueblo Pit, Showing Cause of Erosion and Damaged Areas.**

Figure 3 below shows an example of the vertical bank caving that was occurring due to saturated soils, before emergency repairs were completed.



**Figure 3. A Close-Up View of the Damaged Bank, Showing Where the Bank Is Failing Vertically.**

Anticipating higher flows during spring runoff and high release rates from Pueblo Dam, AGRA and CPW pursued emergency repairs to ensure that no further damage would ensue and that the Pit would not be breached. A local contractor was engaged and hired to perform site grading and riprap placement along the bank to adequately protect it from higher flows. Approximately 600 CY of riprap present on the Pit floor was removed by the contractor and placed on the bank, after grading the bank slope back to an approximate 2:1 slope. Figure 4 shows the finished repairs.





Figure 4. A View of Completed Bank Repairs at the West Pueblo Pit, April 2<sup>nd</sup>, 2025.



Figure 5. An Overview of Completed Bank Repairs at the West Pueblo Pit, April 25<sup>th</sup>, 2025.

## Reclamation Plan

Regarding the mine reclamation plan in effect under this permit, nothing about that plan will change as a result from the export of the imported fills or from the repairs along the Arkansas River. The reclaimed condition is still expected to be water storage. The seed mixes approved under TR06 remain in effect. Final grades, in the Pit and around the Pit, are to remain unchanged from their current state. It is estimated, although unknown with precision due to the presence of the imported fills, that the final Pit floor grade is approximately one percent, or 1 foot of elevation change per 100 feet of horizontal distance; the lowest elevation is near the southeast corner of the Pit and the highest is in the vicinity of the northern edge. Precise determinations of lowest and highest floor elevations will not be possible until the Pit floor is cleaned once the imported fills have been removed.



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## Conclusion

AGRA is submitting a technical revision to the reclamation plan for permit no. M1977-573 to account for imported fills from the construction of a water project by Colorado Springs Utilities and for the construction of emergency repairs to the riverbank at the western edge of the Pit due to scour caused by a faulty fish structure in the Arkansas River near the bank. Per the requirements set forth in the Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials, Sections 6.4.5 and 6.4.6, Exhibits E and F are being submitted to DRMS to update the reclamation plan for this permit to address these issues.

If you have any questions or would like to discuss this project, please do not hesitate to contact me at [dan@agraco.net](mailto:dan@agraco.net) or 719-406-2852.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan R. Tucker", is written over a light gray rectangular background.

**Daniel R. Tucker, PE**

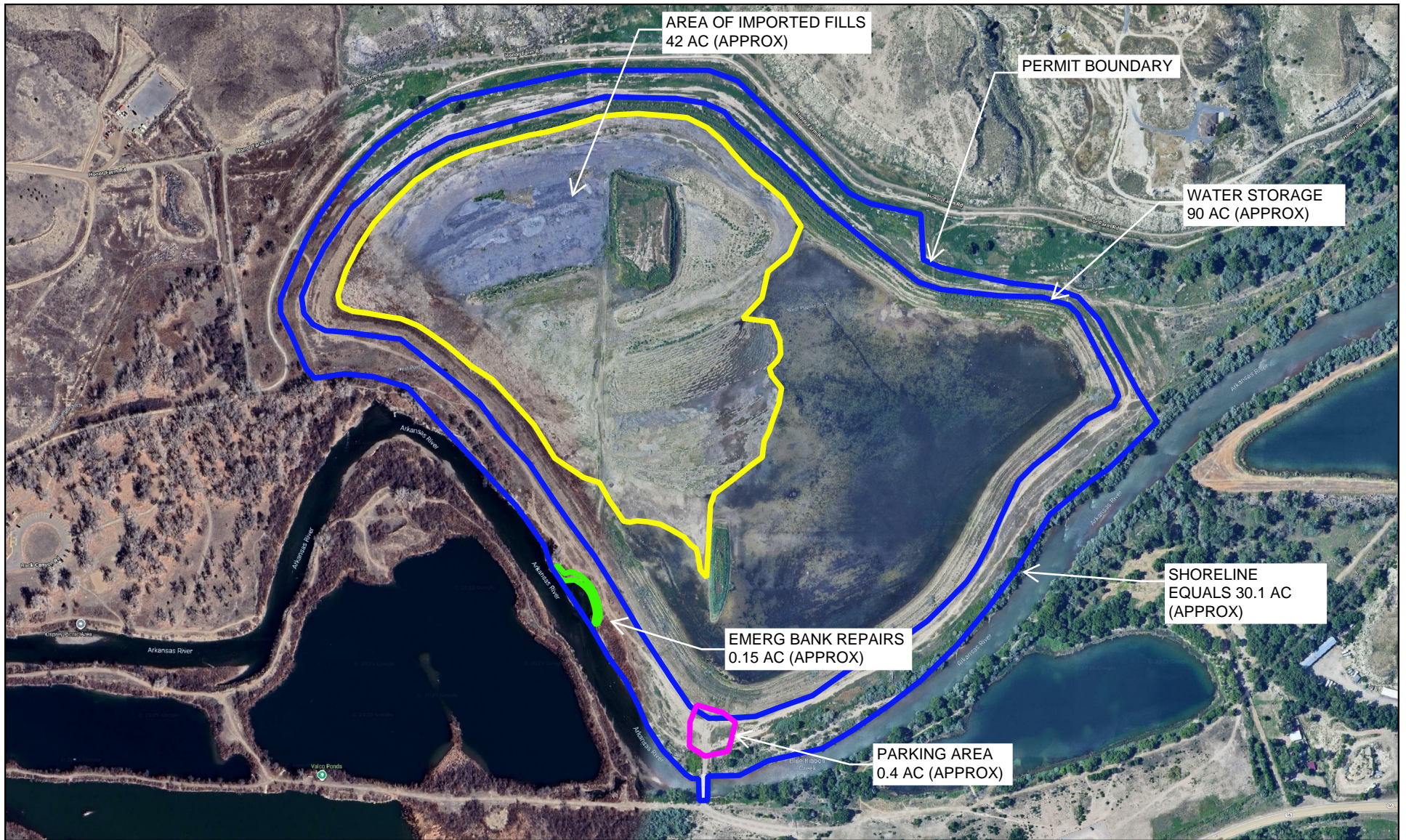
Water Resources Engineer,  
Arkansas Groundwater and Reservoir Association

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**Exhibit F**  
**Reclamation Plan Map**

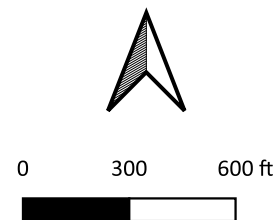




**EXHIBIT F**  
**M1977-573 - TR07**

**M1977-573 - Site Legend**

- Parking Area
- Water Surface and Limit of Disturbed Areas
- West Pueblo - Emerg. Bank Repairs
- West Pueblo - Imported Fills



Date: 6/2/2025  
Coordinate System:  
NAD83/State Plane  
Colorado South, feet  
Sources:

Created by: Dan  
Tucker, PE, AGRA

