

Wyatt WEBSTER <wyatt.webster@holcim.com>

M-2004-051 Technical Revision 04 - Wattenberg Lakes Mine

1 message

Wyatt WEBSTER <wyatt.webster@holcim.com>

Fri, Mar 7, 2025 at 9:13 AM

To: Carl Eiberger <Black.Bear@comcast.net>

Mr. Eiberger,

Please find the attached technical revision application for Wattenberg Lakes Mine. You are receiving this as a condition of our DRMS permit. We spoke about this previously where the onsite wetland mitigation will be relocated offsite to a bank site. If you have any questions, please let me know.


Thank you,

Wyatt Webster
Environmental & Land Manager
Holcim - WCR, Inc.
1687 Cole Blvd., Suite 300
Golden, CO, 80401
United States
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 **2025_0227_M-2004-051_TR4submittal.pdf**
5469K



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
DENVER REGULATORY OFFICE
9307 SOUTH WADSWORTH BLVD
LITTLETON, CO 80128-6901

May 8, 2024

Mr. Wyatt Webster
Holcim-WCR, Inc.
Wyatt Webster
1687 Cole Boulevard, Suite 300
Golden, CO 80401

Steven Maestas
City of Westminster
4800 West 92nd Avenue
Westminster, CO 80030

SUBJECT: Closing of Non-Compliance Action for Corps File No. NWO-2000-80189-DEN, Wattenberg Lakes Aggregate Mining, Weld County, CO

Dear Mr. Webster and Mr. Maestas:

This letter concerns the U.S. Army Corps of Engineers (Corps) Notice of Non-Compliance letter, dated July 18, 2023, for the non-compliance with the terms or conditions of the authorization above. The project site is located at a latitude of 40.018930, longitude of -104.833187, in Weld County, Colorado.

To resolve this non-compliance action you requested a meeting, held on August 23, 2023, and subsequently submitted a request for a permit modification. We determined that a permit modification could be accepted as a resolution to this non-compliance. The permit modification request was review by this office and a permit amendment was issued on May 8, 2024. Therefore, the Corps has determined that the non-compliance action is resolved. We are closing the non-compliance action for the above violation.

Please refer to Corps file number NWO-2000-80189-DEN in correspondence concerning this matter. If you have any questions, please contact Celena Cui at Celena.H.Cui@usace.army.mil or by phone at (303) 979-4120.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Downing", is located below the "Sincerely," text.

Kiel G. Downing
Chief, Denver Regulatory Office

November 13, 2023

Ms. Celena Cui, Regulatory Specialist
U.S. Army Corps of Engineers
Denver Regulatory Office
9307 South Wadsworth Boulevard
Littleton, CO 80128-6901

RE: Wattenberg Lakes Aggregate Mining Design Modifications, Weld County, Colorado; U.S Army Corps of Engineers (Corps) File No. NWO-2000-80189-DEN

Dear Ms. Cui,

ERO Resources Corporation (ERO), on behalf of Holcim-WCR, Inc. (Holcim), is providing the following information in support of an amendment and extension to the Section 404 Individual Permit (IP) authorization for the Wattenberg Lakes Gravel Mining Project (project) (Corps File No. NWO-2000-80189-DEN). Holcim, in coordination with the city of Westminster (City), is proposing modifications to the original design of the reservoirs and associated mitigation for the project. The original project and IP included excavation and placement of fill material into the Huett Ditch, Lupton Slough, South Platte River, and adjacent wetlands in connection with construction of the Wattenberg Lakes mining and water storage facilities in Wattenberg, Colorado (project area; Figure 1).

The gravel mining operations have been ongoing since 2005 and occur along both the east and west sides of the South Platte River. The Corps issued a time extension for the project in July 2015, and the permit now expires on July 31, 2023. The original design of the project included construction of three reservoirs on the west side of the South Platte River post-mining operations (Figure 2). The City is proposing modifications to the project design, including changing the number of reservoirs from three to two, and installation of a spillway at Pond 3 to prevent damage from flood events along the river (Figure 3). ERO conducted a thorough assessment of the current project impacts on wetlands and waters of the U.S. and the proposed impacts based on the proposed project modifications. Details of the proposed project modifications are discussed below and shown on Figure 3 and Appendix A.

Project Location

The project area is in Sections 25 and 36, Township 1 North, Range 67 West; and Sections 30 and 31, Township 1 North, Range 66 West of the 6th Principal Meridian in Wattenberg, Weld County, Colorado (Figure 1). The UTM coordinates of the approximate center of the project area are 514393mE, 4429885mN of NAD 83 Zone 13N. The longitude/latitude of the project area is 104.831342°W/40.019051°N. The elevation of the project area is approximately 4,940 feet above sea level.

Proposed Modifications

To date, the project complies with all applicable Colorado Regional conditions and Special Conditions outlined in the IP. Since the original IP application approval in September 2005, modifications to the project are proposed for the remaining phases, as described below.

Project Modifications

The original IP included excavation of aggregate with reclamation of the site occurring as mining proceeds, with the excavation areas eventually becoming three water storage reservoirs. Other portions of the project area would eventually be reclaimed by creating conservation areas and wetland mitigation areas (Figure 2). The proposed water storage reservoirs would all be constructed west of the South Platte River and included Pond 1 in the southern portion of the project area, Pond 2 in the northwestern portion of the project area, and Pond 3 in the east/central portion of the project area, as shown on Figure 2. Holcim and the City are now proposing that Pond 1 be expanded to encompass the storage that would have been associated with Pond 2 (Figure 3). The modifications are proposed to reduce, in part, the amount of long-term maintenance and operations necessary for the reservoirs by consolidating the three reservoirs into two reservoirs. The modifications would also allow for more continuity and connectivity of wetlands as part of the proposed mitigation plan (Figure 4; Appendix B). Consistent with the original IP, the proposed modifications to the reservoirs will be compatible in location, volume, and timing with the City's needs and will be used to generally support the population of the growing Denver metropolitan area. No changes to the proposed total volume of the reservoirs are proposed. The majority of the proposed reservoir modifications occur within the same footprint of original impacts on waters of the U.S., including wetlands; however, construction of a soil-bentonite barrier wall on the north side of the proposed Pond 1 would permanently impact approximately 0.66 acre of additional wetlands from this modification. Minor modifications are also proposed to the alignment of the soil-bentonite barrier wall along the west side of Pond 3. The soil-bentonite barrier wall is needed to provide seepage control for the reservoir.

Spillway and Bank Stabilization

During the 2013 flood, a portion of the western bank of the South Platte River and the berm along the river that separates it and Pond 3 were breached, allowing flood waters to flow into the mining area and future reservoir. Uplands and wetlands between the river and Pond 3 were scoured and covered by sediment, and the soil-bentonite wall around Pond 3 was breached. Holcim repaired the slurry wall and stabilized the bank; however, Holcim and the City are proposing to construct a spillway near the location of the flood damage to provide flood protection (Figure 3; Appendix A). The purpose of the spillway is to reduce the potential for a breach of the river berm and mitigate damage to the City's reservoir and the floodplain environment.

The spillway would consist of armored slope protection on the bank along the South Platte River and for a stretch along the east side of the reservoir to allow flood flows in the river to safely enter and exit the reservoir without eroding the banks of the South Platte River or the reservoir (Figure 3; Appendix A). The spillway would be approximately 600 feet long at the crest and a concrete cutoff wall would be constructed near the crest on the South Platte River side and would extend about 4-feet deep and be 5-feet wide. The spillway chute along the east bank of Pond 3 would consist of a 2-foot layer of grouted

riprap over 9-inches of drain material. The top of the spillway would primarily be earthen, with the Huett Ditch incorporated as part of the spillway to continue to support wetlands and flows through the spillway and to the north (downstream). A 10-foot-wide concrete road would be constructed along the top of the spillway for access. To be in compliance with the decreed flow allowances, water that enters the reservoir through the spillway during flood events could be discharged back to the river via the spillway (at high reservoir elevations), or via the previously permitted pump station outlet.

Bank stabilization is proposed along the channel bank at the spillway and would extend approximately 1,400 linear feet along the South Platte River. Bank stabilization at this location would help mitigate further erosion and migration of the channel bank (Figure 3; Appendix A). The eroded banks at this location would be graded to a less steep grade and would be armored with a 2-foot layer of riprap over 9-inches of bedding. The proposed riverbank stabilization would be designed in accordance with the Mile High Flood Control District standards and likely extend at least 2 feet below the bottom of the existing river thalweg and be at least 3 feet thick. The bank stabilization activities would result in the placement of approximately 0.22 cubic yard of fill per linear foot beneath the plane of the OHWM in the project area. The bank stabilization activities and impacts below the OHWM would be limited to the minimum amount necessary to stabilize the bank and would not cause more than a minimal adverse environmental impact.

Construction of the pump station and inlet and outlet structures that were included in the original IP may occur at a later stage than construction of the spillway and bank stabilization (Figure 3). The design modifications associated with the spillway and bank stabilization would result in an additional 0.93 acre of temporary impacts on wetlands along Huett Ditch and approximately 0.04 acre of wetlands and 0.36 acre of stream channel along the west bank of the South Platte River. The proposed activity would result in an average of approximately 0.22 cubic yards per running foot of fill placed below the Ordinary High Water Mark.

Endangered Species Act Compliance

In 2022, ERO assessed the project area for potential habitat for threatened, endangered, and candidate species listed under the Endangered Species Act (ESA) of 1973, as amended (16 United States Code 1531 et seq.). The project area does not fall within Service habitat or survey guidelines developed by the Service for the majority of the species identified on the Service's Information for Planning and Consultation (IPaC) resources list for the project (Table 1).

Table 1. IPaC resource list for the project.

Common Name	Scientific Name	Status*	Habitat	Habitat Present or Potential to be Affected by Project?
Mammals				
Gray wolf	<i>Canis lupus</i>	E	Wolves thrive in a wide range of habitats; highly adaptable as a species and occurs in temperate forests, mountains, and grasslands	No, gray wolves do not currently occur in Weld County and the project activities would not result in appreciable take.
Preble's meadow jumping mouse (Preble's)	<i>Zapus hudsonius preblei</i>	T	Shrub riparian/wet meadows in Adams and Weld County	No—see discussion below

Common Name	Scientific Name	Status*	Habitat	Habitat Present or Potential to be Affected by Project?
Tricolored bat	<i>Perimyotis subflavus</i>	PFE	Caves, mines, forested habitats	No
Birds				
Eastern black rail	<i>Laterallus jamaicensis ssp. jamaicensis</i>	T	Shallow cattail wetlands, wet sedge meadows with dense cover in southeastern Colorado in Weld County	No
Piping plover**	<i>Charadrius melodus</i>	T	Sandy lakeshore beaches and river sandbars	No
Whooping crane**	<i>Grus americana</i>	E	Mudflats around reservoirs and in agricultural areas	No
Fish				
Pallid sturgeon**	<i>Scaphirhynchus albus</i>	E	Large, turbid, free-flowing rivers with a strong current and gravel or sandy substrate	No
Insects				
Monarch butterfly	<i>Danaus plexippus</i>	C	Grassland ecosystems containing milkweed (<i>Asclepias</i> spp.)	No
Plants				
Ute ladies'-tresses orchid (ULTO)	<i>Spiranthes diluvialis</i>	T	Moist to wet alluvial meadows, floodplains of perennial streams, and around springs and lakes below 7,800 feet in elevation in Adams and Weld County	No, habitat on-site not conducive to establishment of this species
Western prairie fringed orchid**	<i>Platanthera praeclara</i>	T	Moist to wet prairies and meadows	No

*T = Federally Threatened Species; E = Federally Endangered Species; C = Candidate for Federal Listing.

**Water depletions in the South Platte River may affect the species and/or critical habitat in downstream reaches in other counties or states.

Source: Service 2021.

There is no likelihood for the proposed project to affect the gray wolf because the project area is outside the known range of this species and lacks suitable habitat.

Suitable habitat for the piping plover, whooping crane, pallid sturgeon, and western prairie fringed orchid is not found in the project area. The Service determined that federal actions that cause new depletions or that would allow historic depletions to continue to the South Platte River system adversely affect the piping plover, whooping crane, pallid sturgeon, and western prairie fringed orchid and their habitats. The Service determined that the water depletions from the project would cause incidental take in the form of harm by reducing habitat availability and habitat maintenance capability of the Platter River for the piping plover, whooping crane, pallid sturgeon, and least tern. The Service issued a Biological Opinion (No. ES/LK-6-CO-04-F-031, in May 2005, which contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BO. Holcim is in compliance with the terms and conditions associated with incidental take of the Biological Opinion and is a member of the South Platte Water Related Activities Program (SPWRAP) (Appendix C). SPWRAP serves as the vehicle by which Colorado water users participate in the South Platte River Recovery Implementation Program in central Nebraska and obtain regulatory benefits provided by that program. The proposed spillway and bank stabilization activities would not result in additional water depletions that would affect habitat for these species, and as discussed above and consistent with the original IP, the proposed modifications to the reservoirs will be compatible in location, volume, and timing with the City's needs and no changes to the proposed total volume of the reservoirs are proposed.

The tricolored bat (formerly known as the eastern pipistrelle) is a small bat found throughout the eastern two thirds of the United States and has been known to hibernate in caves, mines, and occasionally abandoned buildings (Armstrong, Fitzgerald, and Meaney 2011; Service 2021). Although the project area is in the tricolored bat's overall range, the project area lacks suitable contiguous forested habitat; therefore, the project would have no effect on tricolored bat. Furthermore, the tricolored bat is a proposed endangered species and is not currently protected under federal regulation.

The project area contains pockets of herbaceous emergent wetland habitat that may be considered suitable for the eastern black rail; however, these areas would not be impacted by the proposed modifications. Additionally, the Service currently only considers the Arkansas River drainage part of the breeding range for eastern black rails and does not consider the South Platte River drainage within the eastern black rail's breeding range (Beane 2021). Based on current knowledge of the eastern black rail's distribution, there would be no effects on the species, and no further action is necessary.

Monarch butterflies may occasionally travel through the site inventory area and some host plants were observed; however, the site inventory area is not in a designated migration corridor or breeding or overwintering area for this species (Service 2019) and, therefore, no appreciable take would occur. Additionally, the monarch butterfly is a candidate species and is not currently protected under federal regulation.

Suitable habitat for ULTO is not present because of the bank degradation along the South Platte River limiting wetland vegetation to narrow margins along the toes of the channel banks that are subject to frequent scour events, and a persistent population of ULTO would not be able to become established under these conditions. Additionally, the project area is not conducive to the establishment of ULTO and differs from suitable habitat for ULTO because of human modification in the project area and the lack of species typically associated with ULTO (USFWS 1992). Due to the lack of suitable habitat and modification to the channel, the proposed project would not affect ULTO.

Rationale for Excluding the Project Area as Occupied Preble's Habitat

During the 2022 field survey, ERO assessed the project area for suitable Preble's habitat based on vegetation characteristics and habitat affinities of Preble's. Although portions of the project area contain patches of shrubs, the vegetated areas are narrow and fragmented, and the entire project area is highly unlikely to support Preble's because of the high level of disturbance from the gravel mining operations. The proposed project would not likely impact Preble's habitat because:

- **Lack of Suitable Habitat:** The entire project area is highly disturbed and the proposed spillway and bank stabilization area along the South Platte River lacks sizable and contiguous multilayered shrub cover typically associated with known Preble's habitat. The majority vegetation in the project area is dominated by nonnative and noxious upland herbaceous species.
- **Habitat Fragmentation and Human Disturbance:** The project area has been disturbed by previous and ongoing activities, and the channel banks along the South Platte River are eroded and subject to frequent scour events.

- **Project Area is Not Identified as Important to Species Recovery (Critical Habitat):** ERO reviewed critical habitat designations as an indicator of areas identified as important to the recovery of the species. The project area contains no designated critical habitat, and the nearest designated critical habitat, and known population, is over 20 miles west of the project area along South Boulder Creek. Additionally, the project area is within 1.5 river miles of the Denver Block Clearance Zone.

National Historic Preservation Act Compliance

To assist with the Corps' consultation obligations under Section 106 of the National Historic Preservation Act (NHPA), ERO archaeologist Jonathan Hedlund conducted a file review of the project area with the Colorado Office of Archaeology and Historic Preservation online Compass database on October 31, 2023. The file search results indicate that about 50 percent of the permit area was surveyed but there are no previously documented cultural resources in the project area. The *KN Wattenberg Transmission, L.L.C. Front Runner Pipeline* (MC.E.R70) Class III survey was completed in 1998 by Greystone. The survey crosses the north half of the permit area.

ERO reviewed additional literature – including historical maps, aerial photographs, and public records – to determine if any buildings or structures were historically located in the project area. Historical aerial images indicate lateral migration of the South Platte River altered the permit area repeatedly until present-day conditions were reached in 2019 (Nationwide Environmental Title Research 2023). This migration indicates there is no potential for intact archaeological deposits due to regular erosion and aggradation. Other areas of the proposed spillway modifications are disturbed by modern quarrying.

Historical maps depict similar lateral migration since 1902 (U.S. Geological Survey 1902). Historical maps also depict a 2.5-mile-long historical levee constructed on the west side of the South Platte River in about 1950 (U.S. Geological Survey 1950). Aerial imagery indicates portions of the earthen levee were likely reconstructed in the 1980s and 1990s. Minor earthen levees are ubiquitous features along the South Platte River and therefore similar to secondary ditches and field ditches representing “meaningless background noise in terms of historical significance” (Horn and Norton 2021). The proposed spillway modifications also intersect a portion of the recently realigned Huett Ditch (also known as the Lupton Bottom Seep Ditch #1; 5WL4824.1). The ditch segment was documented in 2012 about 500 feet west of its current alignment. It was moved around 2014 and the historical alignment is completely destroyed (Nationwide Environmental Title Research 2023).

ERO's review demonstrates that the permit area is entirely disturbed and there is no potential for archaeological resources. Two historic structures are present, but both have been modified recently and neither would qualify for listing in the National Register of Historic Places as historic properties. ERO recommends a finding of no historic properties affected for activities in the project area pursuant to 36 CFR 800.4(d)(1) of the NHPA and general condition 20.

Impacts

The original IP included 27.66 acres of permanent impacts on wetlands, and 0.98 acre of temporary impacts on wetlands were proposed as part of disturbances associated with installation of conveyors

and pipelines. As of March 2023, the full 27.66 acres of permanent wetlands impacts have occurred, 7.05 acres of temporal mitigation is in place, and 2.34 acres of wetlands have successfully established along the realigned Huett Ditch in the project area. The 0.98 acre of temporary impacts have not yet occurred but are still planned in the future when final installation of conveyors and pipelines occurs. There were also 5.34 acres of additional project impacts to wetlands from staging north of Pond 1.

Overall, a total of approximately 1.63 acres of additional wetlands would be impacted by the proposed project design modifications, which includes 0.66 acre along Pond 1, 0.93 acre along Huett Ditch, and 0.04 acre along the South Platte River, in addition to the 5.34 acre of impacts north of Pond 1 (Table 1). The design modifications associated with the spillway and bank stabilization would also result in 0.36 acre of impacts to stream channel along the west bank of the South Platte River, with an average of approximately 0.22 cubic yards per running foot of fill placed below the Ordinary High Water Mark.

Due to these modifications to the design, and to provide the highest quality wetland mitigation, Holcim is proposing modifications to the wetland mitigation required by the project (Appendix B). Wetland mitigation for the project is proposed at an aerial and functional compensatory mitigation ratio of 1.25:1 for the original project impacts and a ratio of 1:1 for the additional impacts from the proposed design modifications. The overall impacts on wetlands for the project including the original IP impacts, additional impacts, proposed modifications, total 35.61 acres. When applying the mitigation ratios, Holcim is proposing 44.00 acres of wetland mitigation (Table 2). Mitigation associated with Huett Ditch has already occurred onsite, resulting in the successful reestablishment of 2.34 acres in a wetland channel. When accounting for the 2.34 acres of wetlands that have been restored onsite, 41.63 acres of wetland mitigation remains to compensate for project impacts (Table 2), for which Holcim is proposing to purchase 41.63 acres of mitigation bank credits from the Corps-approved South Platte Mitigation Bank in Morgan County. The project area is within the primary service area of the South Platte Mitigation Bank in the Middle South Platte-Cherry Creek subbasin (HUC 10190003).

Table 2. Wetland impacts and mitigation for the project.

	Impacts (acres)	Mitigation Ratio	Mitigation (acres)	Notes
Original IP	28.64	1:1.25	35.69	
Additional project impacts from staging north of Pond 1	5.34	1:1.25	6.68	
Additional impacts from the proposed design modifications	1.63	1:1	1.63	
Compensatory Mitigation Required			44.00	
Permittee-Responsible Mitigation (PRM)			-2.34	On-site mitigation in the Huett Ditch and Lupton Slough. In place as of 2023.
Total Remaining Mitigation			41.63	To be purchased from the South Platte Mitigation Bank

Conclusion

ERO, on behalf of Holcim and the City, request an amendment to the IP and extension of time to complete the work under Corps File No. NWO-2000-80189-DEN. Holcim and the City request the permit be extended until 2030 to allow for mining activities to be completed and reservoir components be installed.

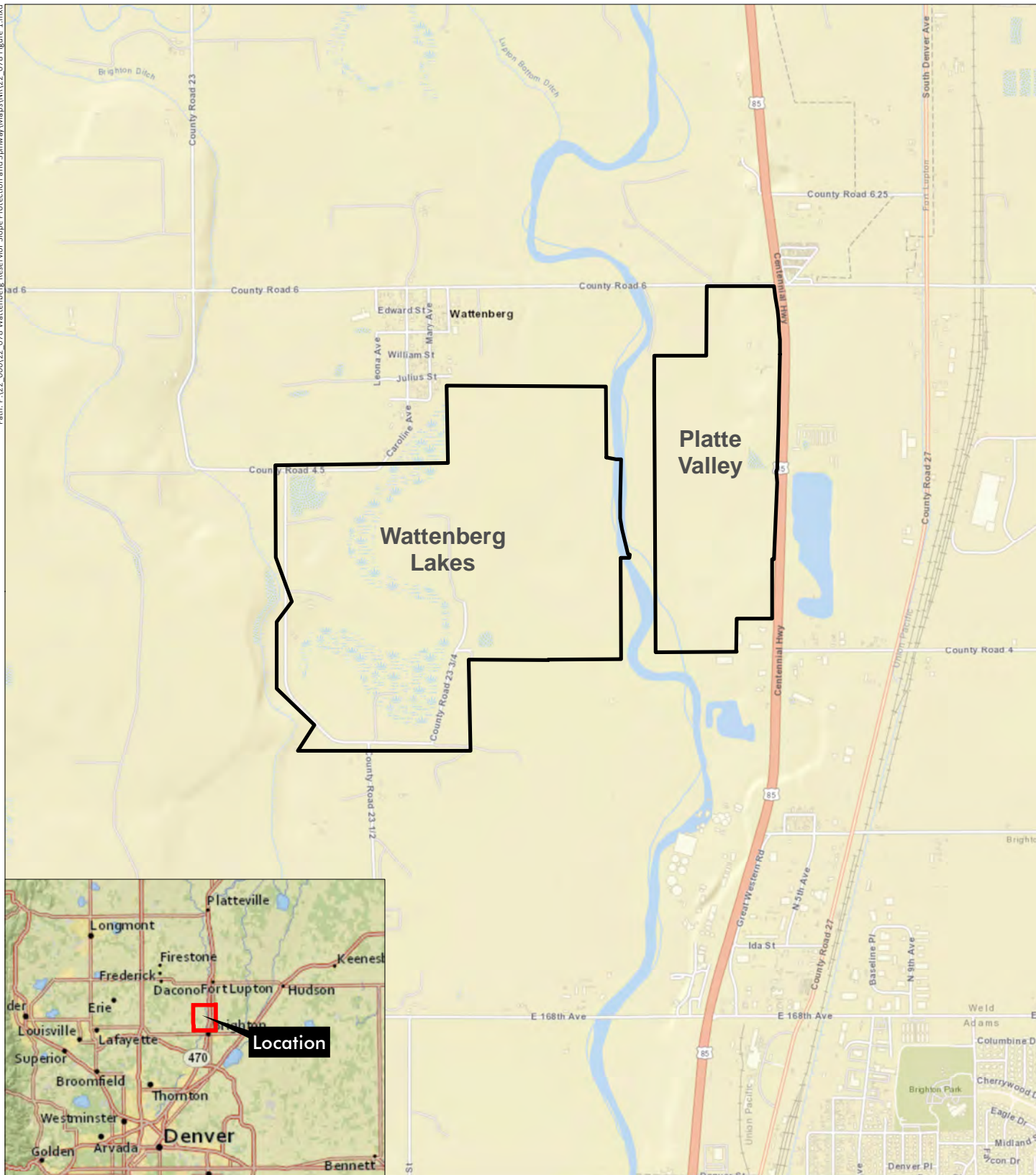
If you have any questions, please contact me (cmarne@eroresources.com) or Moneka Worah (mworah@eroresources.com) or call either of us at (303) 830-1188.

Sincerely,

A handwritten signature in cursive script, appearing to read "C Marne".

Courtney Marne
Biologist/Associate

Attachments: Figures 1 through 4; Appendix A Wattenberg Slope Protection and Spillway Design; Appendix B Wattenberg Mitigation Plan; Appendix C South Platte Water Related Activities Program; Appendix D Addresses of Adjoining Landowners



Wattenberg Reservoir Slope Protection and Spillway

Sections 25 and 36, T1N, R67W; Sections 30 and 31, T1N, R66W; 6th PM

UTM NAD 83: Zone 13N; 514393mE, 4429885mN

Longitude 104.831342°W, Latitude 40.019051°N

USGS Fort Lupton, CO Quadrangle

Weld County, Colorado

 Project Area

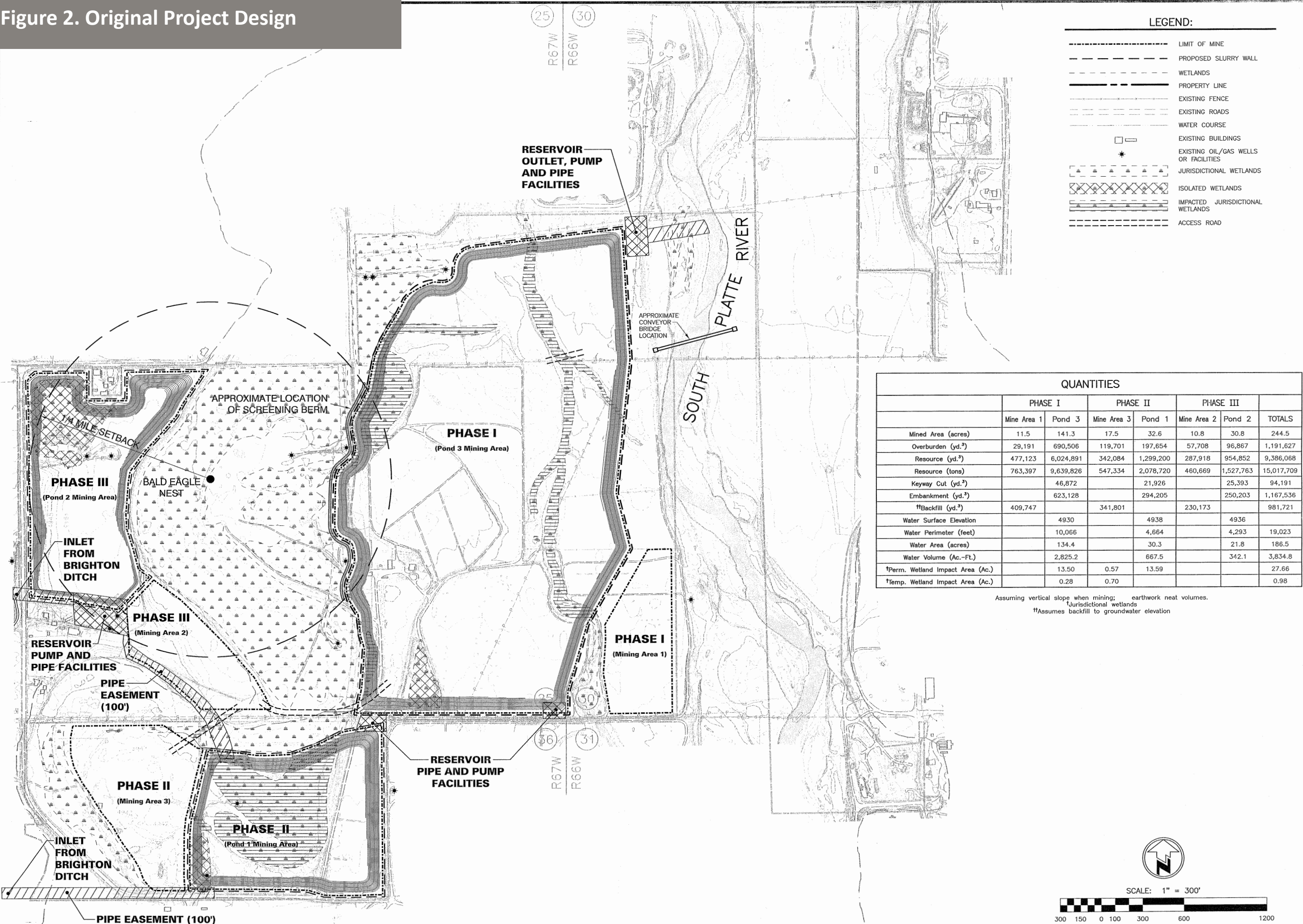


Figure 1 Vicinity Map

Prepared for: RJH Consultants, Inc.
File: 22_078 Figure 1.mxd (GS)
March 24, 2023

ERO
ERO Resources Corp.

Figure 2. Original Project Design



Applegate Group, Inc.
Consultants for Land, Minerals, and Water
1499 West 120th Ave., Ste. 200
Denver, CO 80234-2728
(303) 433-8600
fax: (303) 433-2759
email: info@applegatengroup.com Website: www.applegatengroup.com

**WATTENBERG LAKES
MINING and RESERVOIR LAYOUT**

FIGURE 3F

AGGREGATE INDUSTRIES

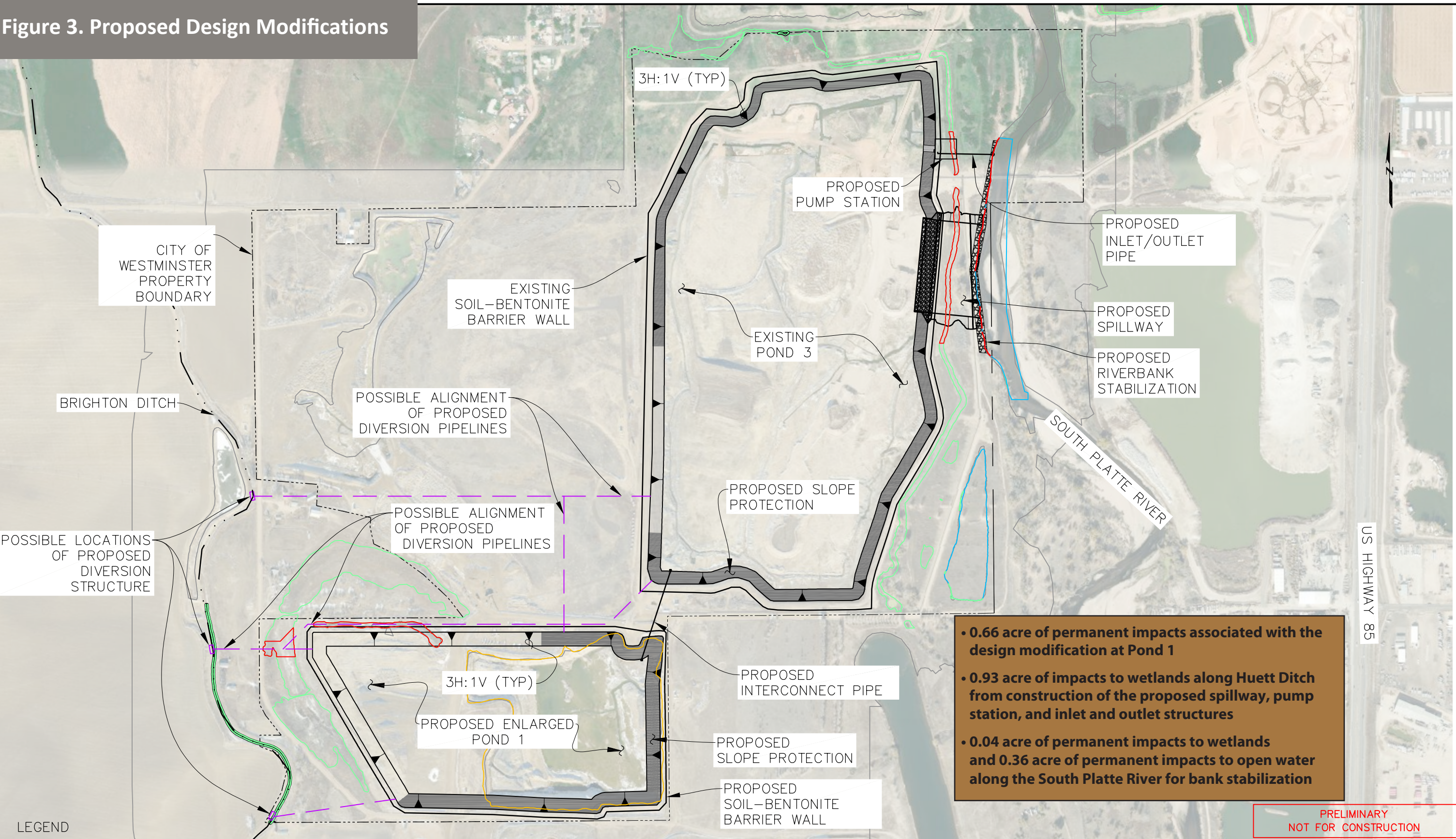
NO	DATE	BY	CHK'D	DESCRIPTION
1	03/22/05	LLD	WKS	Revised Layout for Reservoir Changes
1	03/11/05	LLD	WKS	Revised Layout based on wet and dry
1	03/11/05	LLD	WKS	Revised Layout based on wet and dry

Date: 3/04/04
Job No: 00-107W
Drawn: CJC
Design: CFR
Checked: CFR
Scale: 1" = 300'

Sheet: **1**

Of: **1**

Figure 3. Proposed Design Modifications



P:\22105 - WATTENBERG RESERVOIR SLOPE PROTECTION-SPILLWAY DESIGN\CAD\FIGURES\2023-04-19_PERMIT_AMEND_APP_FIG3_V2.DWG 10/25/2023 1:29 PM



WESTMINSTER
COLORADO

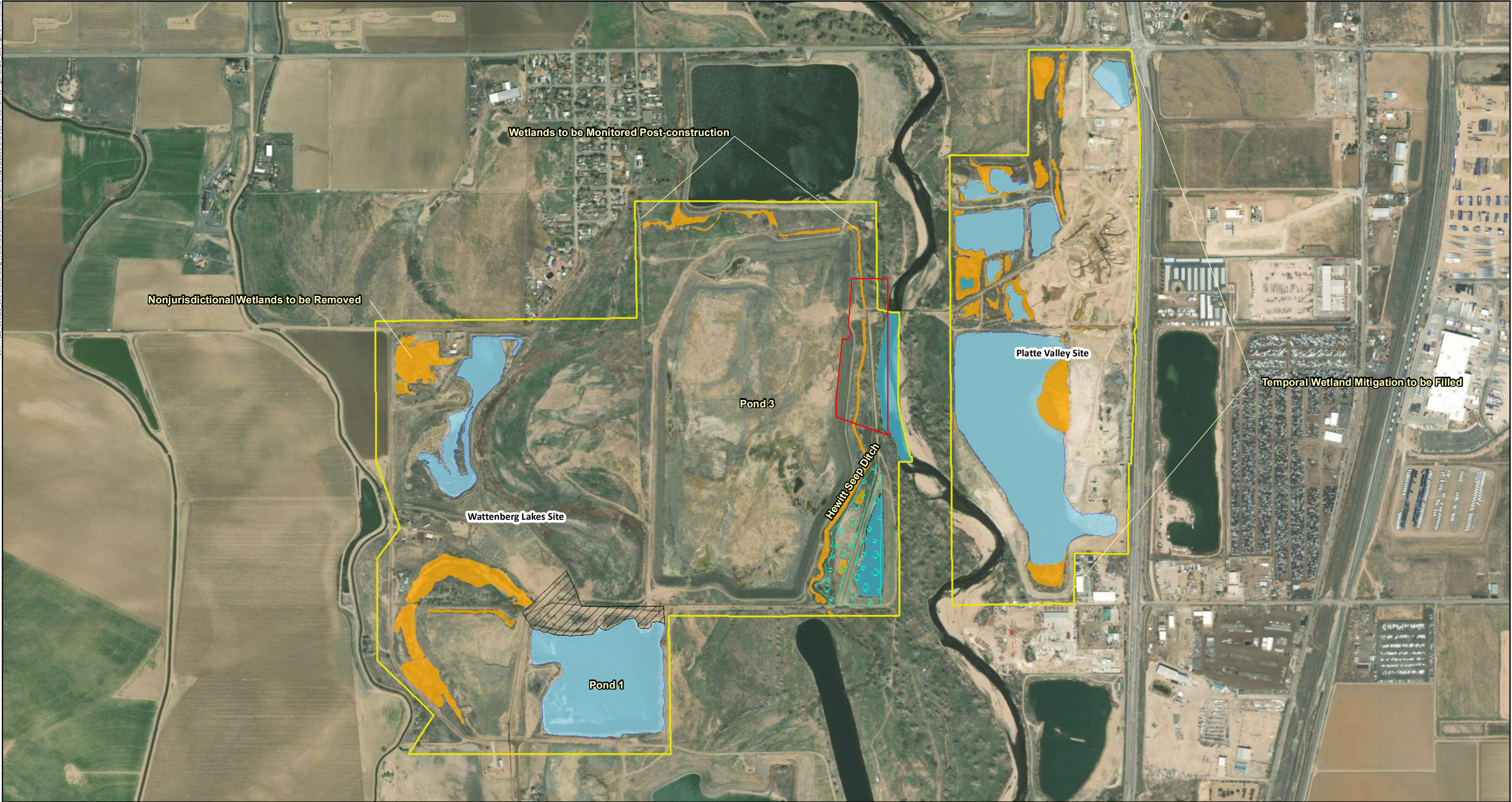


RJH
CONSULTANTS, INC.

WATTENBERG RESERVOIR
SPILLWAY AND SLOPE
PROTECTION

PROJECT NO. 22105

GENERAL PLAN



Wattenberg Reservoir Slope Protection and Spillway

- Ordinary High Water Mark

Gravel Pond

Wetland

Project Area
- Area to be Graded Lower to Maintain Hydrological Connectivity

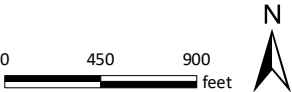
Proposed Cottonwood Replacement Area to be Eliminated

Proposed Design Modification Area
- 41.62 acres of Wetlands to be Purchased from the South Platte Mitigation Bank

Image Source: Maxar Technologies© April 23, 2023

Figure 4
Mitigation Plan

Prepared for: RJH Consultants, Inc.
File: 22_193 Figure 4 mit.mxd (WH)
October 9, 2023



[illegible]

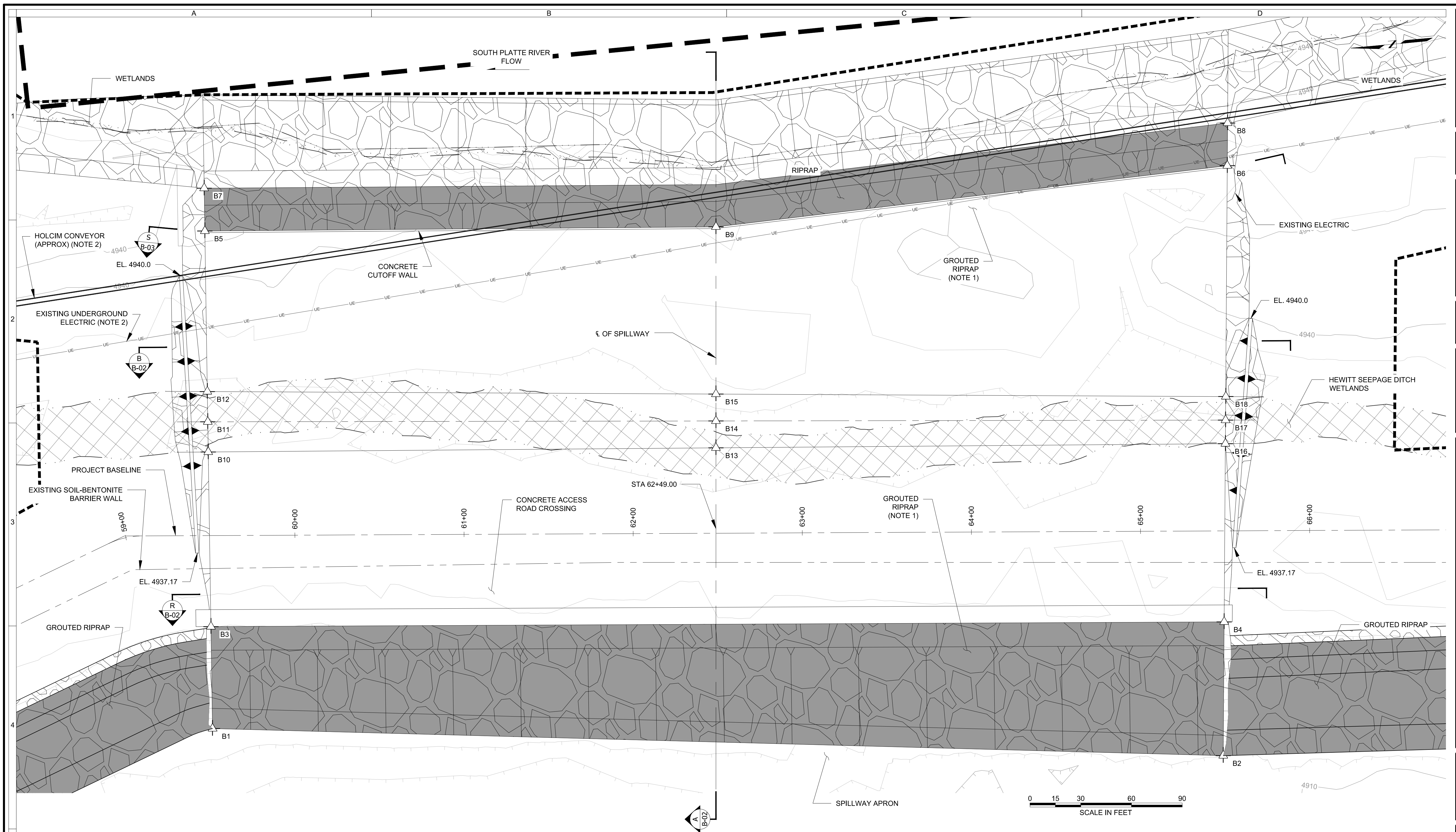
DESIGNED BY:	SMG	
DRAWN BY:	BJH	
CHECKED BY:	ATM	
APPROVED BY:	ATM	

RJH PROJECT NUMBER
22105

WATTENBERG RESERVOIR SLOPE
PROTECTION AND SPILLWAY
PROJECT - POND 3

SPILLWAY PLAN AND PROFILE

PRELIMINARY
NOT FOR CONSTRUCTION



NOTES:
1. FOR BID ALTERNATIVE 1, REPLACE GROUTED RIPRAP WITH HYDROTURF.
2. TO BE RELOCATED BY OTHERS.

CONTROL POINT TABLE			
POINT	NORTHING	EASTING	ELEVATION
B1	1251524.23	3188158.57	4914.21
B2	1250930.59	3188087.78	4912.93
B3	1251519.62	3188218.67	4931.10
B4	1250922.79	3188166.43	4931.10
B5	1251501.74	3188451.88	4935.60
B6	1250896.18	3188434.79	4935.60
B7	1251499.81	3188477.12	4938.00
B8	1250893.69	3188459.95	4938.00
B9	1251200.60	3188426.56	4935.40

CONTROL POINT TABLE			
POINT	NORTHING	EASTING	ELEVATION
B10	1251511.73	3188321.59	4932.70
B11	1251510.37	3188339.40	4931.60
B12	1251509.00	3188357.22	4933.50
B13	1251212.59	3188296.48	4932.70
B14	1251211.13	3188312.31	4931.90
B15	1251209.67	3188328.15	4934.10
B16	1250912.39	3188271.29	4932.70
B17	1250911.02	3188285.15	4932.20
B18	1250909.58	3188299.00	4932.70



Consultants in Natural Resources and the Environment

Wattenberg Lakes Gravel Mining Revised Compensatory Mitigation Plan Weld County, Colorado

Prepared for—

Holcim-WCR, Inc.
1687 Cole Boulevard, Suite 300
Golden, Colorado 80401

Prepared by—

ERO Resources Corporation
1626 Cole Boulevard, Suite 100
Lakewood, Colorado 80401
(303) 830-1188
ERO Project #22-078

November 2023

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Wattenberg Lakes Gravel Mining Revised Compensatory Mitigation Plan Weld County, Colorado

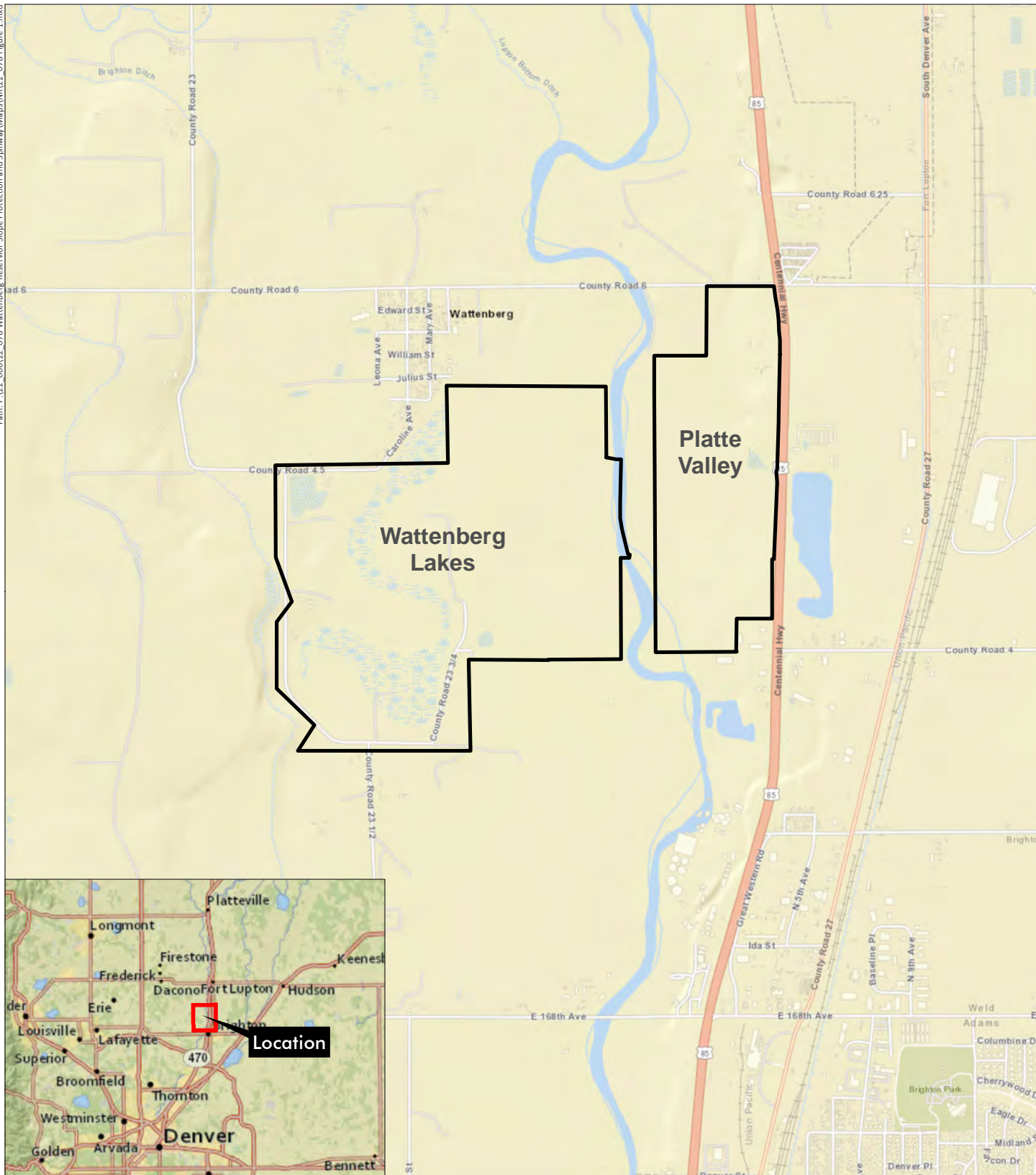
November 2023

Project Description

ERO Resources Corporation (ERO), on behalf of Holcim-WCR, Inc. (Holcim), is providing the following information in support of an amendment to the Section 404 Individual Permit (IP) authorization for the Wattenberg Lakes Gravel Mining project (project) (U.S. Army Corps of Engineers (Corps) File No. NWO-2000-80189-DEN). Holcim, in coordination with the city of Westminster (City), is proposing modifications to the original design of the reservoirs and associated mitigation for the project. The gravel mining and water storage facilities are in Wattenberg, Colorado (project area; Figure 1). The gravel mining operations have been ongoing since 2005 and occur along both the east and west sides of the South Platte River. The original design of the project included construction of three reservoirs on the west side of the South Platte River post-mining operations (Figure 2). The City is proposing modifications to the reservoir design, including reducing it to two reservoirs instead of three, and installation of a spillway to prevent damage from high flood events along the river (Figure 3). Due to these modifications to the design, and to provide the highest quality wetland mitigation, Holcim is proposing modifications to the wetland mitigation required by the project. This Revised Compensatory Mitigation Plan (revised mitigation plan) has been developed to address modifications to the project and associated wetland mitigation areas, and the unavoidable impacts on wetlands and other waters of the U.S. associated with the project following impact avoidance and minimization.

Location

The project area is in Sections 25 and 36, Township 1 North, Range 67 West; and Sections 30 and 31, Township 1 North, Range 66 West of the 6th Principal Meridian in Wattenberg, Weld County, Colorado (Figure 1). The UTM coordinates of the approximate center of the project area are 514393mE, 4429885mN of NAD 83 Zone 13N. The longitude/latitude of the project area is 104.831342°W/40.019051°N. The elevation of the project area is approximately 4,940 feet above sea level.



Wattenberg Reservoir Slope Protection and Spillway

Sections 25 and 36, T1N, R67W; Sections 30 and 31, T1N, R66W; 6th PM

UTM NAD 83: Zone 13N; 514393mE, 4429885mN

Longitude 104.831342°W, Latitude 40.019051°N

USGS Fort Lupton, CO Quadrangle

Weld County, Colorado

 Project Area

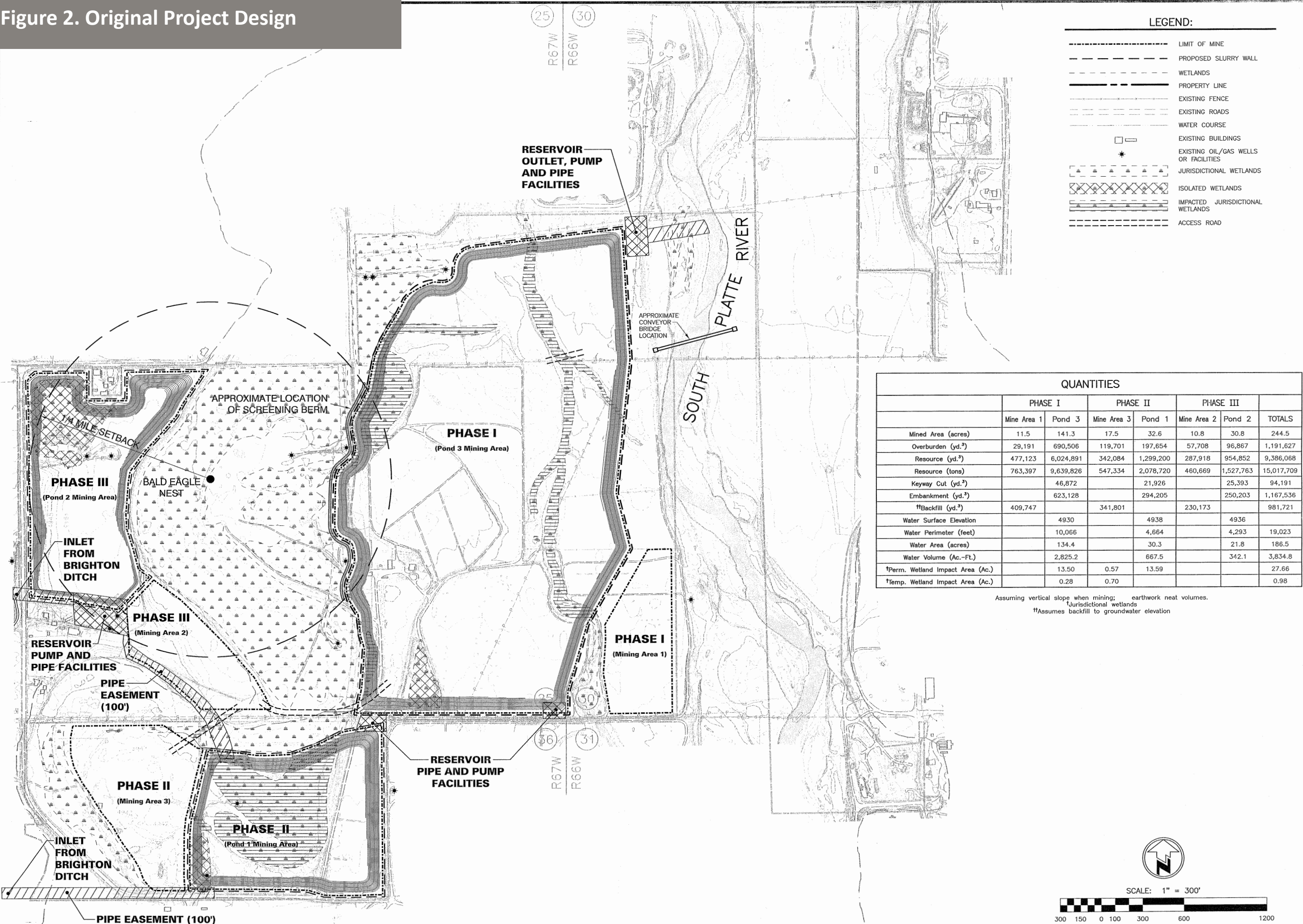


Figure 1 Vicinity Map

Prepared for: RJH Consultants, Inc.
File: 22_078 Figure 1.mxd (GS)
March 24, 2023

ERO
ERO Resources Corp.

Figure 2. Original Project Design



Applegate Group, Inc.
Consultants for Land, Minerals, and Water
1499 West 120th Ave., Ste. 200
Denver, CO 80234-2728
(303) 433-8600
fax: (303) 433-2759
email: info@applegatengroup.com Website: www.applegatengroup.com

**WATTENBERG LAKES
MINING and RESERVOIR LAYOUT**

FIGURE 3F

AGGREGATE INDUSTRIES

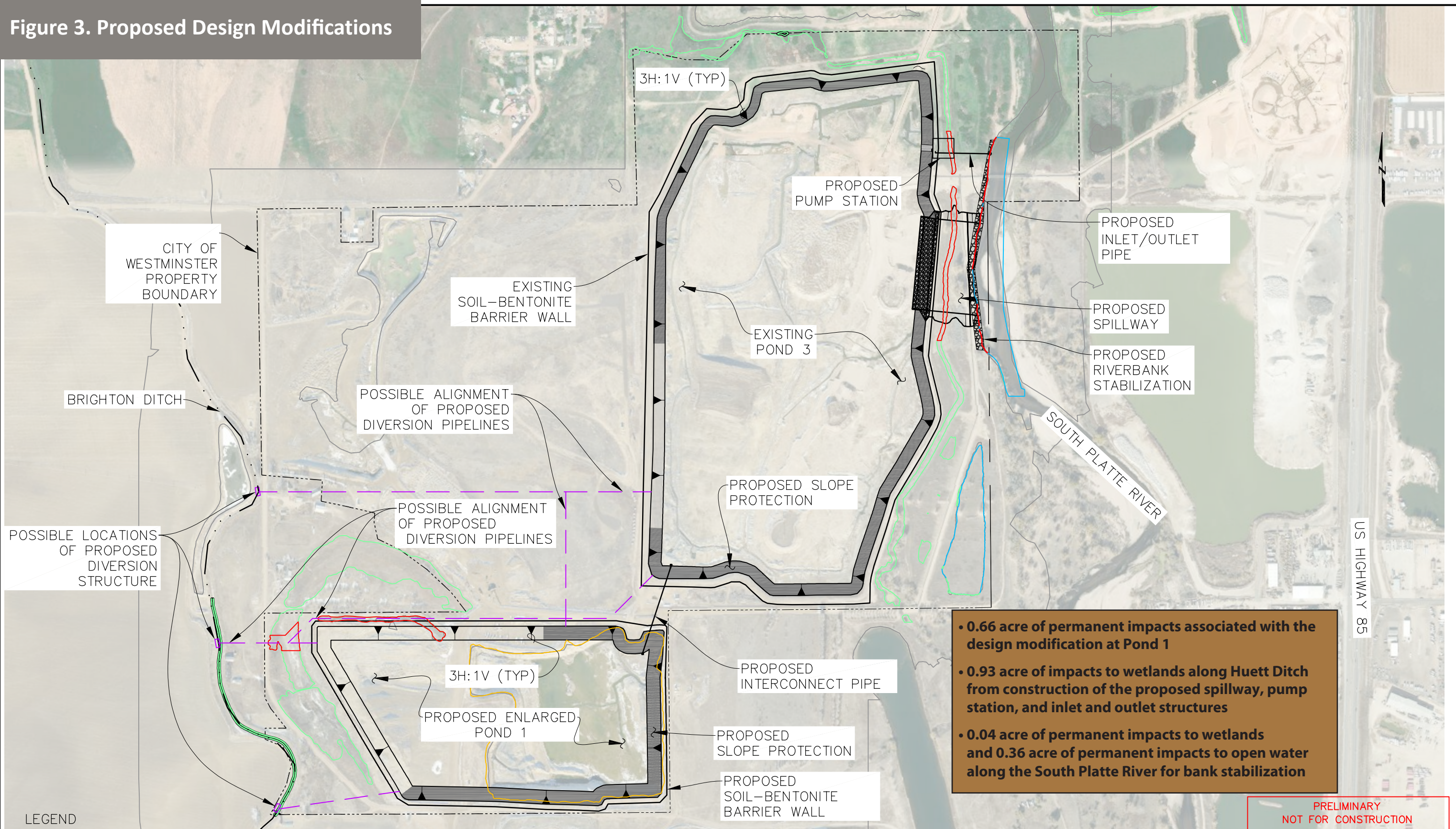
NO	DATE	BY	CHK'D	DESCRIPTION
1	03/22/05	LLD	WKS	Revised Layout for Reservoir Changes
1	03/11/05	LLD	WKS	Revised Layout based on wet and dry ponding changes

Date: 3/04/04
Job No: 00-107W
Drawn: CJC
Design: CFR
Checked: CFR
Scale: 1" = 300'

Sheet: **1**

Of: **1**

Figure 3. Proposed Design Modifications



PRELIMINARY
NOT FOR CONSTRUCTION

-  EXISTING ORDINARY HIGH WATER MARK
 EXISTING WETLANDS
 EXISTING UNLINED GRAVEL PONDS
 PROPOSED IMPACTED WETLANDS



WATTENBERG RESERVOIR SPILLWAY AND SLOPE PROTECTION

PROJECT NO. 22105

GENERAL PLAN

Compensatory Mitigation

Compensatory mitigation replaces and improves permanently impacted resources. For this project, compensatory mitigation focuses on providing functions similar to or better than functions provided by the impacted wetlands.

The objectives of the mitigation plan are to mitigate at an aerial and functional compensatory mitigation ratio of no less than 1:1. Holcim is proposing to mitigate for the majority of the permanent loss of wetlands that would result from the proposed project by purchasing mitigation bank credits from a local mitigation bank approved by the Corps.

Impacts associated with the Huett Ditch and Lupton Slough are proposed to be mitigation for onsite, as mitigation associated with Huett Ditch has already occurred, resulting in the successful re-establishment of a wetland channel.

Wetland Mitigation

The impacts from mining activities and reservoir construction were largely to the Huett Ditch and Lupton Slough. Onsite mitigation originally and currently proposed are focused on recreating the form and function of the ditch and slough. Mitigation associated with Huett Ditch has already occurred and focused on recreating the form and function of the ditch and slough, resulting in the successful reestablishment of 2.34 acres in a wetland channel with varied flow, gradual banks, and native vegetation. The Huett Ditch would be incorporated along the crest of the spillway to continue to support wetlands and flows through the spillway and to the north (downstream). At the spillway, the previously established wetlands associated with Huett Ditch would be temporarily impacted during construction (Figure 3).

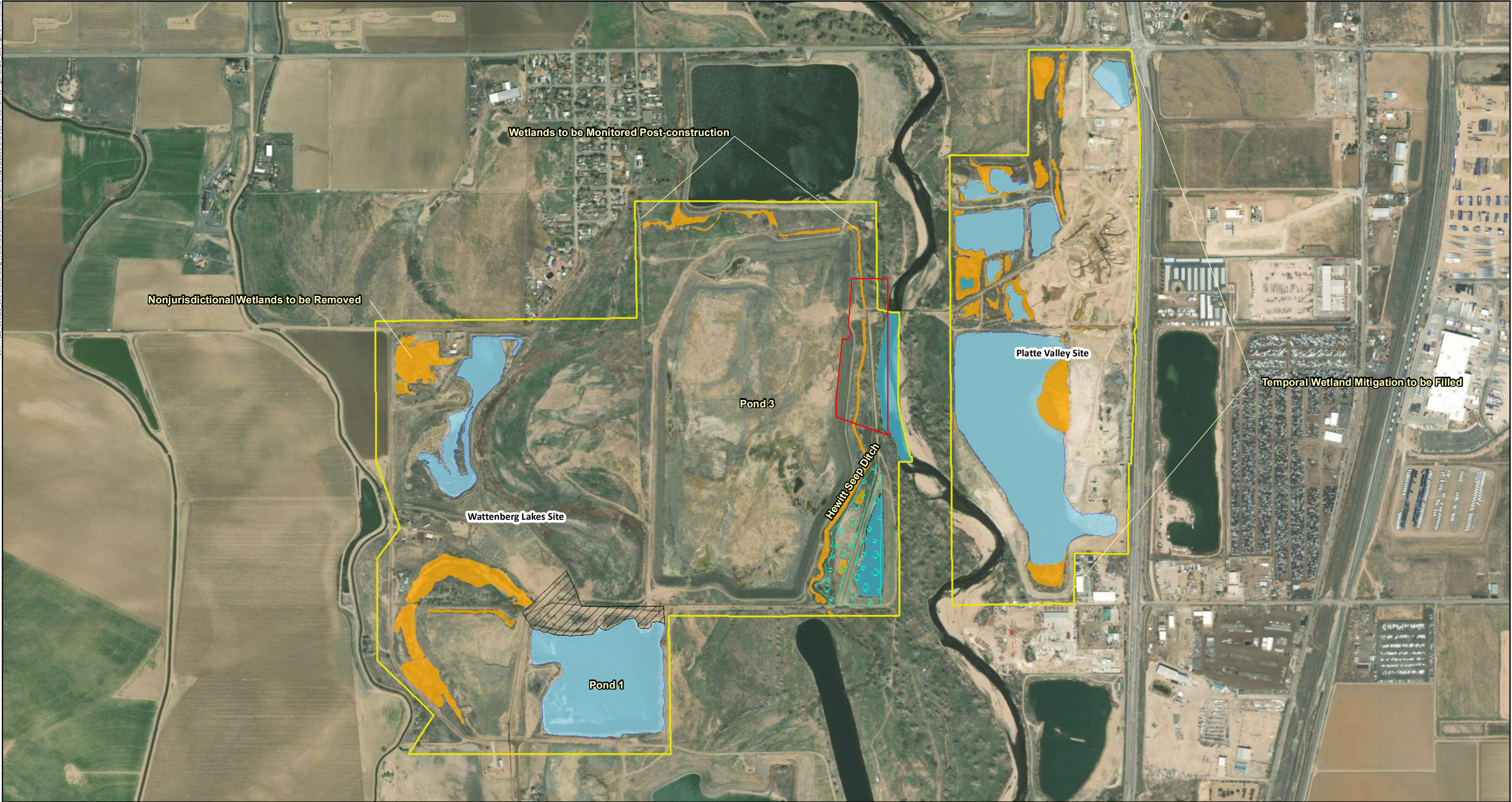
For the remaining mitigation, Holcim is proposing to purchase 41.63 acres of mitigation bank credits from the Corps-approved South Platte Mitigation Bank (Bank) in Morgan County to mitigate for the permanent loss of wetlands that would result from the proposed project. The project area is within the primary service area of the Bank in the Middle South Platte-Cherry Creek subbasin (HUC 10190003). The objectives of the revised mitigation plan are to mitigate in the project area at an aerial and functional compensatory mitigation ratio of 1.25:1 for the original project impacts and a ratio of 1:1 for the additional impacts from the proposed design modifications. Table 1 summarizes the proposed compensatory mitigation acreages and ratios for permanent wetland impacts.

Table 1. Wetland Impacts and Mitigation

	Impacts (acres)	Mitigation Ratio	Mitigation (acres)	Notes
Original IP	28.64	1:1.25	35.69	
Additional project impacts from staging north of Pond 1	5.34	1:1.25	6.68	
Additional impacts from the proposed design modifications	1.63	1:1	1.63	
Compensatory Mitigation Required			44.00	
Permittee-Responsible Mitigation (PRM)			-2.34	On-site mitigation in the Huett Ditch and Lupton Slough. In place as of 2023.
Total Remaining Mitigation			41.63	To be purchased from the South Platte Mitigation Bank

Based on this revised mitigation plan, Holcim requests the following amendments from the original IP conditions. The proposed mitigation and modification areas are shown on Figure 4.

- The original IP included 7.05 acres of temporal wetland mitigation to be constructed on the Platte Valley site, east of the South Platte River, to provide relief from temporal losses during the mining process. Based on this revised mitigation plan, the 7.05 acres of wetlands that were created for temporal loss would no longer be required and Holcim can fill in those areas.
- Holcim requests the cottonwood replacement requirement and mitigation areas (southwest of Pond 3) be removed as the mitigation would now be fulfilled with Bank credits and no longer necessitate supplementary PRM.
- The area north of Pond 1 would be graded lower to minimize impacts from the Pond 1 slurry wall and to help maintain hydrological connectivity with the oxbow and wetland slough to the north and west.
- The nonjurisdictional wetlands in the northwest corner of the Wattenberg Lakes site would be filled per the original IP.



Wattenberg Reservoir Slope Protection and Spillway

- Ordinary High Water Mark

Gravel Pond

Wetland

Project Area
- Area to be Graded Lower to Maintain Hydrological Connectivity

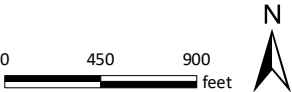
Proposed Cottonwood Replacement Area to be Eliminated

Proposed Design Modification Area
- 41.62 acres of Wetlands to be Purchased from the South Platte Mitigation Bank

Image Source: Maxar Technologies© April 23, 2023

Figure 4
Mitigation Plan

Prepared for: RJH Consultants, Inc.
File: 22_193 Figure 4 mit.mxd (WH)
October 9, 2023



Compensatory Mitigation Rule

Background

In 2008, the Corps and Environmental Protection Agency (EPA) issued their final Compensatory Mitigation Rule (73 Federal Register 19670 [April 10, 2008]). This rule consolidates previous agency regulations and guidance and provides equivalent standards for all types of mitigation under the Clean Water Act Section 404 regulatory program, including compensatory mitigation required for activities authorized by general permit. In 2020, the Corps also issued the Colorado Mitigation Procedures (COMP), Version 2.0 (Corps 2020). The following sections document how Holcim and the City would address compensatory mitigation for the proposed project and how the mitigation complies with the Compensatory Mitigation Rule and COMP.

The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts on waters of the U.S. authorized by Corps permits. The Corps' district engineer must determine the compensatory mitigation to be required in a Corps permit, based on what is practicable and capable of compensating for aquatic resource functions that would be lost as a result of the permitted activity. When evaluating compensatory mitigation options, the district engineer considers what would be environmentally preferable (33 Code of Federal Regulations (CFR) 332.3[a]).

The Compensatory Mitigation Rule establishes a preference hierarchy for mitigation options as follows:

1. Mitigation bank credits
2. In-lieu fee program credits
3. Permittee-responsible mitigation conducted under a watershed approach
4. Permittee-responsible, on-site, and in-kind mitigation
5. Permittee-responsible, off-site, and out-of-kind mitigation

In general, the required compensatory mitigation should be within the same watershed as the impact site and should be located where it is most likely to successfully replace lost functions and services (33 CFR 332.3[b][1]).

Holcim believes that purchasing credits from a Corps-approved mitigation bank complies with the Compensatory Mitigation Rule because the purchase is practicable (Holcim is financially able to purchase available mitigation credits), capable of compensating for aquatic resource functions that would be lost, and is the environmentally preferable mitigation option.

Holcim believes that permittee-responsible, onsite mitigation associated with the Huett Ditch complies with the Compensatory Mitigation Rule because it is practicable and capable of compensating for aquatic resource functions that would be lost and is the ecologically preferable mitigation option. Onsite mitigation associated with the Huett Ditch is already successfully replacing lost functions and services at the same location and has maintained wetland functions by reestablishing vegetation and structural diversity in a channel with supportive hydrology.

Practicable

Practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes (33 CFR 332.1[c][2]). Compensatory mitigation of the majority of the resources via a mitigation bank offsets the loss of wetland functions at the local scale within the watershed because the project area and Bank are in the same primary service area within the Middle South Platte-Cherry Creek subbasin. The remaining mitigation of unavoidable impacts on wetlands associated with the Huett Ditch is most effectively provided close to the impact and has already been integrated into project design and construction.

Capable

Holcim is financially able to purchase the mitigation bank credits which will compensate for aquatic resource functions that would be lost from the project. Permittee-responsible mitigation for Huett Ditch is capable of compensating for the aquatic resource functions that were locally lost.

Environmentally Preferable

When evaluating compensatory mitigation options, the Corps' district engineer will consider what would be environmentally preferable (33 CFR 332.3[d]).

Because purchasing mitigation bank credits is the preferred Corps and EPA mitigation option, Holcim is proposing to purchase 41.63 acres of mitigation bank credits from a local mitigation bank approved by the Corps to mitigate for the permanent loss of wetlands that would result from the proposed project.

When considering what would be environmentally preferable, the district engineer also must assess the location of the compensation site relative to the impact site and their significance within the watershed, and the costs of the compensatory mitigation project (33 CFR 332.3[a][1]).

Holcim proposes that with the exception of the Huett Ditch wetland mitigation, permanent modifications to wetlands associated with the project activities be mitigated for via purchasing mitigation bank credits. The project area is in the service area of the Bank.

The onsite mitigation associated with Huett Ditch is located near the impact site. This on-site approach to compensatory mitigation provides and maintains important local functions of the ditch. The likelihood of ecological success and sustainability for the PRM is high because:

- The compensatory mitigation has been undertaken concurrent with the proposed project.
- The activity is in an area with supportive hydrology for wetland mitigation as demonstrated by the establishment of wetland vegetation.
- The permanent impacts on wetlands and waters were localized.
- Holcim has adhered to special conditions associated with the Corps' authorization related to success criteria, monitoring, and protection to ensure mitigation is done properly.

Colorado Mitigation Procedures

The COMP is intended to standardize the Corps' compensatory mitigation procedures for quantifying wetland and stream losses (debits) and compensatory mitigation (credits) within the State of Colorado (Corps 2020). The COMP requires the following information be included in the mitigation plan:

- Pre-project planning information (wetland impacts and assessment of mitigation plan's ability to replace wetland functions)
- Site selection and determination of restoration potential
- Measurement of existing conditions and proposed conditions at both impact and mitigation sites; and
- Post construction monitoring plan for the mitigation site that will evaluate success and identify remedial actions necessary to meet performance standards and success criteria.

The mitigation description above and the following sections below provide the information required and details the proposed mitigation plan for the Wattenberg Reservoir project.

Compensatory Mitigation Plan

Holcim proposes the mitigation plan described below. Holcim understands that the Corps may require that additional special permit conditions be included in any authorization issued to compensate for adverse environmental impacts.

Objectives

Compensatory mitigation replaces and improves permanently impacted resources. For this project, compensatory mitigation focuses on providing functions similar to or better than functions provided by the impacted wetlands.

Mitigation associated with Huett Ditch has already occurred and focused on recreating the form and function of the ditch and slough, resulting in the successful reestablishment of 2.34 acres in a wetland channel with varied flow, gradual banks, and native vegetation. The Huett Ditch wetlands previously established would remain north and south of the proposed spillway (Figure 3). No modifications to these PRM areas are proposed and these wetlands are meeting the original mitigation monitoring requirements; therefore, Holcim requests the mitigation associated with Huett Ditch be cleared from further monitoring. The PRM occurs on City property, a majority of which is mapped as dedicated floodway, that would not be developed for residential or commercial uses in the future; therefore, there is little threat to the compensatory mitigation site from future changes in land uses incompatible with the mitigation.

For the remaining mitigation, Holcim is proposing to purchase 41.63 acres of mitigation bank credits from the Corps-approved South Platte Mitigation Bank (Bank) in Morgan County to mitigate for the permanent loss of wetlands that would result from the proposed project.

Site Selection

Holcim chose the compensatory mitigation site to meet watershed needs by providing or replacing lost functions via a mitigation bank in the same service area as the project impacts and integrating the compensatory mitigation with the design and implementation.

Mitigation associated with Huett Ditch has already occurred onsite and focused on recreating the form and function of the ditch, resulting in the successful reestablishment of 2.34 acres in a wetland channel with varied flow, gradual banks, and native vegetation.

Site Protection Instrument

The PRM occurs on City property, a majority of which is mapped as dedicated floodway, that would not be developed for residential or commercial uses in the future; therefore, there is little threat to the compensatory mitigation site from future changes in land uses incompatible with the mitigation. Holcim would be responsible for implementing long-term management and monitoring of the compensatory mitigation. In addition, Holcim is proposing a deed restriction in the mitigation areas in the project area.

Baseline Information

A discussion of baseline conditions in the project area has been previously provided to the Corps in the original permit submittal. The proposed compensatory mitigation would replicate the existing baseline conditions as closely as practicable and would improve functions compared to the impacted wetlands by improving water distribution, connectivity, water quality, and vegetation diversity.

Determination of Credits

The objectives of the revised mitigation plan are to mitigate at an aerial and functional compensatory mitigation ratio of 1.25:1 for the original project impacts and a ratio of 1:1 for the additional impacts from the proposed design modifications. This ratio and location of mitigation onsite and within the same subbasin as the project impacts would help maintain important functions in the affected reach and reduce adverse effects on the watershed.

Mitigation Work Plan

The PRM wetlands associated with Huett Ditch are meeting the original mitigation monitoring requirements; therefore, Holcim requests the mitigation associated with Huett Ditch be cleared from further monitoring.

Maintenance Plan

The PRM compensatory mitigation site has met the success criteria, and therefore Holcim is not proposing a maintenance plan, and requests the mitigation associated with Huett Ditch be cleared from further monitoring.

Performance Standards and Monitoring Requirements

The PRM wetlands associated with Huett Ditch are meeting the original mitigation monitoring requirements; therefore, Holcim requests the mitigation associated with Huett Ditch be cleared from further monitoring.

Long-Term Management Plan

Holcim agrees that once the mitigation areas have been constructed and planted, proper precautions would be taken to prevent domestic animals and human activity from adversely affecting them, and there would be no regular mowing or other detrimental effects on the mitigation areas.

The PRM compensatory mitigation has been designed to be, to the maximum extent practicable, self-sustaining once the mitigation success standards have been achieved. Holcim would be the party responsible for all long-term management of the compensatory mitigation project.

Adaptive Management Plan

The PRM compensatory mitigation site has met the success criteria, and therefore Holcim is not proposing an adaptive management plan, and requests the mitigation associated with Huett Ditch be cleared from further monitoring.

Financial Assurances

Holcim has access to adequate funds to cover the mitigation bank purchase. Additionally, Holcim has an established escrow account for revegetation and reclamation as part of the mining permit. This ensures that adequate funding is available for the PRM compensatory mitigation monitoring and maintenance.

Reference

U.S. Army Corps of Engineers. 2020. "Colorado Mitigation Procedures, Version 2.0." Albuquerque, Omaha, and Sacramento Districts.

Appendix C South Platte Water Related Activities Program Certificate

Year: 2023

633.48 Units

CERTIFICATE OF MEMBERSHIP

Aggregate Industries - WCR, Inc.

I Class

Industrial Membership

This certifies that ("Aggregate Industries - WCR, Inc.") has become a I Class member of the South Platte Water Related Activities Program, Inc. (SPWRAP), a non-profit corporation incorporated under the laws of the State of Colorado. This Certificate indicates that Member has paid all assessments owed on its membership through the current year identified above. This membership is not transferable except as may be provided in the Articles or Bylaws of SPWRAP. Additional terms, conditions and limitations pertaining to this membership are printed on the back hereof.

In Witness Whereof, SPWRAP has caused this Certificate to be signed by its duly authorized officer and sealed with the seal of the corporation this 10th day of Nov, 2023.

Kim Hutton



Daniel G. Hutton

Appendix D Addresses of Adjoining Landowners

CITY OF AURORA 15151 E ALAMEDA PKWY AURORA CO 80012-1555
CONSOLIDATED MUTUAL WATER COMPANY 12700 W 27TH AVE LAKEWOOD CO 80215-7088
GARTRELL RON L 11360 COUNTY ROAD 4 1/2 FORT LUPTON CO 80621-7284
YOSHI AND SUZU LLLP PO BOX 508 BRIGHTON CO 80601-0508
FAUDOA HECTOR ALFONSO 98 COUNTY ROAD 45 HUDSON CO 80642-6102
CARMONA HECTOR L TORRES 1158 COUNTY ROAD 23 1/2 BRIGHTON CO 80603-9206
LYNCH TINA M PO BOX 963 BRIGHTON CO 80601-0963
HUSSEY JENNIFER 1058 COUNTY ROAD 23 1/2 BRIGHTON CO 80603-9205
HUSSEY NOLAN 1058 COUNTY ROAD 23 1/2 BRIGHTON CO 80603-9205
ASPHALT PAVING CO 14802 W 44TH AVE GOLDEN CO 80403-1893