June 2, 2022

Adams County Community and Economic Development Department

RE: Conditional Use Permit Submittal

To Whom it May Concern:

The purpose of this letter is to provide background information and documentation to the Greatrock North Water and Sanitation District’s proposal to construct a new evaporative concentrate pond to support the district’s water treatment plant. The district currently owns and operates two (2) existing concentrate ponds that receive brine concentrate from the district’s reverse osmosis water treatment plant. With the new treatment plant expansion, the district wishes to construct a third concentrate pond. These ponds are regulated by the Colorado Department of Health and Environment and are considered waste impoundments.

The proposed pond will be designed and permitted according to CDPHE requirements, most notably Section 9 of CCR 1007-2, Part 1. The pond will be dual lined with a synthetic liner and contain an active leak detection system. The proposed pond is located on district owned property (Adams County Parcel No. 0156702400001). A gravity concentrate pipeline will be constructed within Adams County and district owned easements to convey the concentrate from the water treatment plant to the new concentrate pond.

The required attachments to the Conditional Use Permit Application are as follows and are included:

1. Development Application Form
2. Written Explanation of Project
3. Site Plan Showing Proposed Development
4. Proof of Ownership
5. Proof of Water and Sewer Services (N/A)
6. Proof of Utilities (N/A)
7. Legal Description
8. Certificate of Taxes Paid
9. Certificate of Notice to Mineral Estate Owners/and Lessees
10. Certificate of Surface Development
11. Traffic Impact Letter
12. Engineering Development and Operation Plan (EDOP) with Appendices
13. Resources Review

Sincerely,

ELEMENT ENGINEERING

Nicholas P. Marcotte, P.E.
President
CONDITIONAL USE PERMIT

Application submittals must include all documents on this checklist as well as this page. Please use the reference guide (pgs. 3-4) included in this packet for more information on each submittal item.

All submittals shall include one (1) hard copy of all documents and one (1) electronic copy with all documents combined in a single PDF. For hard copies, each document shall be labeled or tabbed with the corresponding checklist number.

1. Development Application Form (pg. 5)
2. Application Fees (see pg. 2)
3. Written Explanation of the Project
4. Site Plan Showing Proposed Development
5. Proof of Ownership (warranty deed or title policy)
6. Proof of Water and Sewer Services
7. Proof of Utilities (e.g. electric, gas)
8. Legal Description
9. Certificate of Taxes Paid
10. Certificate of Notice to Mineral Estate Owners/and Lessees (pg. 7)
11. Certificate of Surface Development (pg. 8-10)

Supplemental Items (if applicable) *Contact County staff for supplemental forms

1. Traffic Impact Study
2. Neighborhood Meeting Summary

N/A - No water/sewer proposed.
N/A - No utilities proposed.

3. Solid waste transfer station* Resource Review
4. Solid waste composting facility* EDOP w/ Appendices
5. Scrap tire recycling facility*
6. Inert fill*
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Conditional Use-Guide to Development Application Submittal

The submittal documents for all Land Use/Development Applications are listed below. Detailed explanations of the submittal documents are also provided.

All development application submittals shall comprise of one (1) electronic copy (USB or CD) and one (1) hard copy of each document. Application submittals that do not conform to these guidelines shall not be accepted.

3. Written Explanation:
   - A clear and concise, yet thorough, description of the proposal. Please include, if applicable, timeframe, purpose of project, and improvements that will be made to the site.

4. Site Plan:
   - A detailed drawing of existing and proposed improvements.
   - Including:
     o Streets, roads, and intersections
     o Driveways, access points, and parking areas
     o Existing and proposed structures, wells, and septic systems,
     o Easements, utility lines, and no build or hazardous areas
     o Scale, north arrow, and date of preparation
   - An Improvement Location Certificate or Survey may be required during the official review

5. Proof of Ownership:
   - A deed may be found in the Office of the Clerk and Recorder.
   - A title commitment is prepared by a professional title company.

6. Proof of Water:
   - A written statement from the appropriate water district indicating that they will provide service to the property OR a copy of a current bill from the service provider.
   - Well permit(s) information can be obtained from the Colorado State Division of Water Resources at (303) 866-3587.

7. Proof of Utilities (Gas, Electric, etc):
   - A written statement from the appropriate utility provider indicating that they will provide service to the property.
   - Copy of a current bill from the service provider.

8. Legal Description:
   - Geographical description used to locate and identify a property.
   - Visit http://gisapp.adcogov.org/quicksearch/ to find the legal description for your property.

9. Proof of Taxes Paid:
   - All taxes on the subject property must be paid in full. Please contact the Adams County Treasurer’s Office.

10. Certificate of Notice to Mineral Estate Owners/ Certificate of Surface Development:
    - The State of Colorado requires notification to mineral rights owners of applications for surface development (i.e. zoning, plats, etc.)
    - Mineral or Surface right owners may be found in the title commitment for the subject property
• You may also search the Office of the Clerk and Recorder for any recorded deeds, easements, or other documents

SUPPLEMENTAL:

1. Preliminary Traffic Impact Study:
   • This shall include, but not limited to:
     o Trip generation estimates from the development,
     o Current traffic counts,
     o Projected future traffic counts to include background traffic projections and future traffic projections from the development.
     o A description of the traffic impacts that the development will have on the surrounding area.

Final Traffic Study:
• Shall have all of the information contained in a Preliminary Traffic Impact Study and it shall also include recommendations on how to mitigate the traffic impacts that are caused by the development. (See chapter 8 for full description of requirements).

2. Neighborhood Meeting Summary:
• Please refer to Section 2-01-02 of the Adams County Development Standards and Regulations for the specific requirements regarding time, location, and notice
• A written summary shall be prepared including the materials submittal presented at the meeting, any issues identified at the meeting, and how those issues have been addressed
DEVELOPMENT APPLICATION FORM

Application Type:
- [] Conceptual Review
- [] Subdivision, Preliminary
- [] Subdivision, Final
- [] Plat Correction/ Vacation
- [] Preliminary PUD
- [] Final PUD
- [] Rezone
- [] Special Use
- [] Temporary Use
- [] Variance
- [] Conditional Use
- [] Other: 

PROJECT NAME: Greatrock North Water and Sanitation District

APPLICANT

Name(s): Greatrock North Water and Sanitation District
Phone #: 303.439.6029

Address: 370 Interlocken Blvd #500
City, State, Zip: Broomfield, CO 80021
2nd Phone #: Email: lisa.johnson@CLAconnect.com

OWNER

Name(s): Greatrock North Water and Sanitation District
Phone #: 303.439.6029

Address: 370 Interlocken Blvd #500
City, State, Zip: Broomfield, CO 80021
2nd Phone #: Email: lisa.johnson@CLAconnect.com

TECHNICAL REPRESENTATIVE (Consultant, Engineer, Surveyor, Architect, etc.)

Name: Nicholas Marcotte, P.E.
Phone #: 303.378.2969

Address: 12887 W Cedar Drive, Suite 300
City, State, Zip: Lakewood, CO 80228
2nd Phone #: Email: nmarcotte@elementengineering.net
**DESCRIPTION OF SITE**

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Have you attended a Conceptual Review? YES [x] NO [ ]

If Yes, please list PRE#: PRE2022-00003

I hereby certify that I am making this application as owner of the above described property or acting under the authority of the owner (attached authorization, if not owner). I am familiar with all pertinent requirements, procedures, and fees of the County. I understand that the Application Review Fee is non-refundable. All statements made on this form and additional application materials are true to the best of my knowledge and belief.

Name: John D. Wyckoff  Date: 6/2/2022

Owner's Printed Name

Name:

Owner's Signature
**Certificate Of Completion**

Envelope Id: 7BC26472F6A6420B870AF5D2838E9145
Status: Completed

Subject: Please DocuSign: Greatrock North - Conditional Use Permit Application Form

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Enveloped Stamping: Enabled
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**Record Tracking**

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Security Level: Email, Account Authentication (None)
Signature Adoption: Drawn on Device
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Using IP Address: 97.122.223.170
Signed using mobile

**Electronic Record and Signature Disclosure:**
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| Signing Complete | Security Checked | 6/2/2022 2:24:52 PM |
| Completed | Security Checked | 6/2/2022 2:24:52 PM |

**Payment Events**

**Electronic Record and Signature Disclosure**
ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

From time to time, CliftonLarsonAllen LLP (we, us or Company) may be required by law to provide to you certain written notices or disclosures. Described below are the terms and conditions for providing to you such notices and disclosures electronically through the DocuSign system. Please read the information below carefully and thoroughly, and if you can access this information electronically to your satisfaction and agree to this Electronic Record and Signature Disclosure (ERSD), please confirm your agreement by selecting the check-box next to ‘I agree to use electronic records and signatures’ before clicking ‘CONTINUE’ within the DocuSign system.

Getting paper copies

At any time, you may request from us a paper copy of any record provided or made available electronically to you by us. You will have the ability to download and print documents we send to you through the DocuSign system during and immediately after the signing session and, if you elect to create a DocuSign account, you may access the documents for a limited period of time (usually 30 days) after such documents are first sent to you. After such time, if you wish for us to send you paper copies of any such documents from our office to you, you will be charged a $0.00 per-page fee. You may request delivery of such paper copies from us by following the procedure described below.

Withdrawing your consent

If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

Consequences of changing your mind

If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. Further, you will no longer be able to use the DocuSign system to receive required notices and consents electronically from us or to sign electronically documents from us.

All notices and disclosures will be sent to you electronically
Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through the DocuSign system all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact CliftonLarsonAllen LLP:

You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:
To contact us by email send messages to: BusinessTechnology@CLAconnect.com

To advise CliftonLarsonAllen LLP of your new email address

To let us know of a change in your email address where we should send notices and disclosures electronically to you, you must send an email message to us at BusinessTechnology@CLAconnect.com and in the body of such request you must state: your previous email address, your new email address. We do not require any other information from you to change your email address.

If you created a DocuSign account, you may update it with your new email address through your account preferences.

To request paper copies from CliftonLarsonAllen LLP

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an email to BusinessTechnology@CLAconnect.com and in the body of such request you must state your email address, full name, mailing address, and telephone number. We will bill you for any fees at that time, if any.

To withdraw your consent with CliftonLarsonAllen LLP

To inform us that you no longer wish to receive future notices and disclosures in electronic format you may:
i. decline to sign a document from within your signing session, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;

ii. send us an email to BusinessTechnology@CLAconnect.com and in the body of such request you must state your email, full name, mailing address, and telephone number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

Required hardware and software

The minimum system requirements for using the DocuSign system may change over time. The current system requirements are found here: https://support.docusign.com/guides/signer-guide-signing-system-requirements.

Acknowledging your access and consent to receive and sign documents electronically

To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please confirm that you have read this ERSD, and (i) that you are able to print on paper or electronically save this ERSD for your future reference and access; or (ii) that you are able to email this ERSD to an email address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format as described herein, then select the check-box next to ‘I agree to use electronic records and signatures’ before clicking ‘CONTINUE’ within the DocuSign system.

By selecting the check-box next to ‘I agree to use electronic records and signatures’, you confirm that:

- You can access and read this Electronic Record and Signature Disclosure; and
- You can print on paper this Electronic Record and Signature Disclosure, or save or send this Electronic Record and Disclosure to a location where you can print it, for future reference and access; and
- Until or unless you notify CliftonLarsonAllen LLP as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by CliftonLarsonAllen LLP during the course of your relationship with CliftonLarsonAllen LLP.
PROJECT EXPLANATION:

Element Engineering LLC has been engaged by the Greatrock North Water and Sanitation District (District or GNWSD) to provide engineered plans and specifications obtain required regulatory approval for the Reverse Osmosis Water Treatment Plant (WTP) project. The WTP will utilize a reverse osmosis (RO) process to treat groundwater before pumping the treated water to the district’s distribution system and storage tanks. The district currently owns and operates an existing RO WTP that treats a different portion of its wells. Two existing concentrate ponds are owned and operated by the district to receive concentrate from the existing plant. The new WTP will include a third concentrate evaporation pond and concentrate delivery pipeline.

The new facility and its associated RO treatment process will generate a concentrate stream that requires detention for evaporative wastewater treatment before discharge. The district currently operates another reverse osmosis treatment facility (Box Elder Creek Ranch Water Treatment Plant) that discharges into the two existing north and south detention ponds for evaporative treatment. The district requires additional capacity to provide treatment for the waste stream of the proposed new facility, thus necessitating the construction of the third concentrate pond. Element Engineering has prepared this application for Engineering Design and Operations Plan (EDOP) approval to meet the Colorado Department of Public Health and Environment (CDPHE) Hazardous Materials and Waste Management Division (the Division) Regulations 6CCR 1007-2.

The proposed pond will be designed and permitted according to CDPHE requirements, most notably Section 9 of CCR 1007-2, Part 1. The pond will be dual lined with a synthetic liner and contain an active leak detection system. The proposed pond is located on district owned property (Adams County Parcel No. 0156702400001). A gravity concentrate pipeline will be constructed within Adams County and district owned easements to convey the concentrate from the water treatment plant to the new concentrate pond.

The proposed improvements will be constructed entirely outside of the 100-year floodplain. No fill will take place in the floodplain. Excess soil removed from the new impoundment area will be stockpiled onsite (on the district’s property) in a neatly compacted area where it will be stabilized and re-seeded for long term stabilization. A grading, erosion control, and stormwater management plan is attached to the EDOP which is attached to this application as required.
Special Warranty Deed
(Pursuant to 38-30-115 C.R.S.)

THIS DEED, made on this 30th day of January, 2019 by ROTHNICK INVESTMENTS LLC, a COLORADO LIMITED LIABILITY COMPANY Grantor(s), of the County of Arapahoe and State of Colorado for the consideration of ($250,000.00) "Two Hundred Fifty Thousand and 00/100" dollars in hand paid, hereby sells and conveys to GREATROCK NORTH WATER AND SANITATION DISTRICT, a QUASI MUNICIPAL CORPORATION AND POLITICAL SUBDIVISION OF THE STATE OF COLORADO Grantee(s), whose street address is c/o SPECIAL DISTRICT MANAGEMENT SERVICES, INC. 141 UNION BLVD, SUITE 150, LAKWOOD, CO 80228, County of Jefferson, and State of Colorado, the following real property in the County of Adams, and State of Colorado, to wit:

See attached “Exhibit A”

also known by street and number as: VACANT LAND, Hudson, CO 80642

with all its appurtenances and warrants the title against all persons claiming under the Grantor(s) except AND EXCEPT TAXES FOR THE YEAR OF CLOSING; AND EXCEPT FOR OIL, GAS, OTHER MINERAL AND MINERAL RIGHTS, TO THE EXTENT THE GRANTOR HAS OWNERSHIP TO ANY; AND EXCEPT FOR THOSE EXCEPTIONS IDENTIFIED ON EXHIBITS B AND C ATTACHED HERETO AND BY THIS REFERENCE MADE A PART OF THIS DEED.

(SEE ATTACHED “SIGNATURE PAGE”)
Special Warranty Deed Open

SIGNATURE PAGE

ROTHNICK INVESTMENTS LLC, A COLORADO LIMITED LIABILITY COMPANY

By:  [Signature]

JAY B. SCOLNICK, MANAGER

State of Colorado

County of Denver

The foregoing instrument was acknowledged before me on this 28th day of January, 2019 by JAY B. SCOLNICK as Manager of ROTHNICK INVESTMENTS LLC, A COLORADO LIMITED LIABILITY COMPANY.

Witness my hand and official seal

My Commission expires: 1/8/22

SHERRY NELSON
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20024021687
My Commission Expires July 8, 2022
Exhibit A

PARCEL 5

A PARCEL OF LAND LOCATED IN THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 1 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 2 AND CONSIDERING THE SOUTH LINE OF SAID SOUTHEAST QUARTER OF SECTION 2 TO BEAR NORTH 89°52'15" WEST, WITH ALL BEARINGS CONTAINED HEREIN BEING RELATIVE THERETO;

THENENCE NORTH 45°12'57" WEST, A DISTANCE OF 56.91 FEET TO THE WESTERLY RIGHT-OF-WAY LINE OF HUDSON ROAD AS DESCRIBED IN THE WARRANTY DEED RECORDED SEPTEMBER 21, 1983 IN BOOK 2792 AT PAGE 947 AND THE POINT OF BEGINNING;

THENENCE NORTH 89°52'15" WEST, A DISTANCE OF 2186.00 FEET ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF EAST 160TH AVENUE AS DESCRIBED IN SAID WARRANTY DEED;

THENENCE NORTH 27°30'52" EAST, A DISTANCE OF 950.17 FEET;
THENENCE NORTH 89°31'50" EAST, A DISTANCE OF 54.01 FEET;
THENENCE NORTH 27°27'08" EAST, A DISTANCE OF 26.18 FEET;
THENENCE SOUTH 89°52'15" EAST, A DISTANCE OF 1015.32 FEET;
THENENCE SOUTH 20°14'33" EAST, A DISTANCE OF 300.34 FEET;
THENENCE SOUTH 89°52'15" EAST, A DISTANCE OF 556.00 FEET TO SAID WESTERLY RIGHT-OF-WAY LINE;

THENENCE SOUTH 00°33'39" EAST, A DISTANCE OF 586.00 FEET ALONG SAID WESTERLY RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING;

CONTAINING A CALCULATED AREA OF 1,524,874 SQUARE FEET OR 35.0063 ACRES, MORE OR LESS.

I, BRIAN J. PFOHL, A SURVEYOR LICENSED IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE ABOVE LEGAL DESCRIPTION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CHECKING.

BRIAN J. PFOHL, P.L.S. 38445
FOR AND ON BEHALF OF MANHARD CONSULTING
EXHIBIT B

EXCLUDED WATER AND WATER RIGHTS

1. All water rights associated with the wells that bear Colorado State Engineer Permit Nos. 20094-A (sometimes referred to as 20094-R), 20094-B (sometimes referred to as 20094-S), 20094-C (sometimes referred to as 20094-T) and 6579-F, and including the water and water rights adjudicated in Water Division 1, Case No. W-4666, date of Decree August 6, 1974, and including the water and water rights adjudicated in Water Division 1, Case Number 04CW165, date of Decree August 23, 2005, and any amendments thereto, and all shares in any incorporated or unincorporated ditch and/or reservoir companies and/or associations and/or any other form of multiple ownership ditch and/or reservoir organization and/or water supply entity, which are appurtenant to, or associated with, the real property located in Adams County, Colorado that is more particularly described on Exhibit A as Parcel 5.

2. The wells with Permit Nos. 20094-A (sometimes referred to as 20094-R), 20094-B (sometimes referred to as 20094-S), 20094-C (sometimes referred to as 20094-T) and 6579-F.
EXHIBIT C

1. RIGHT OF WAY FOR DITCHES OR CANALS CONSTRUCTED BY THE AUTHORITY OF THE UNITED STATES AS RESERVED IN UNITED STATES PATENT RECORDED OCTOBER 08, 1904, IN BOOK 16 AT PAGE 224.

2. RIGHT OF PROPRIETOR OF A VEIN OR LODE TO EXTRACT AND REMOVE HIS ORE THEREFROM SHOULD THE SAME BE FOUND TO PENETRATE OR INTERSECT THE PREMISES AS RESERVED IN UNITED STATES PATENT RECORDED OCTOBER 08, 1904, IN BOOK 16 AT PAGE 224.

3. RESERVATION OF ONE-HALF OF ALL OIL, GAS, OTHER MINERALS AND MINERAL RIGHTS SET FORTH IN DEED RECORDED OCTOBER 4, 1973 IN BOOK 1892 AT PAGE 124 AND RECORDED NOVEMBER 8, 1976 IN BOOK 2101 AT PAGE 786, ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN.

4. MINERAL RESERVATION CONTAINED IN DEED FROM ALBROCK PARTNERS, LLC, A COLORADO LIMITED LIABILITY COMPANY TO PREMIER COMMUNITY DEVELOPMENTS LTD., AN ARIZONA CORPORATION RECORDED JUNE 18, 2018 UNDER RECEPTION NO. 2018000048659.

5. TERMS, CONDITIONS, PROVISIONS, BURDENS AND OBLIGATIONS AS SET FORTH IN PETITION FOR CLASS D IRRIGATION WATER ALLOTMENT CONTRACT RECORDED SEPTEMBER 10, 2018, UNDER RECEPTION NO. 2018000073480.

6. WATER AND WATER RIGHTS QUIT CLAIMED FROM ROTHNICK INVESTMENTS, LLC, A COLORADO LIMITED LIABILITY COMPANY TO NEIL A. GWARTZMAN IN DEED RECORDED OCTOBER 25, 2018, UNDER RECEPTION NO. 2018000086559 FROM NEIL A. GWARTZMAN TO PREMIER COMMUNITY DEVELOPMENTS LTD., AN ARIZONA CORPORATION BY DEED RECORDED OCTOBER 25, 2018, UNDER RECEPTION NO. 2018000086550.

7. ANY RIGHTS OR INTERESTS OF THIRD PARTIES WHICH EXIST OR ARE CLAIMED TO EXIST IN AND OVER THE PRESENT AND PAST BED, BANKS OR WATERS OF HAYESMOUNT CREEK. SAID CREEK IS EVIDENCED BY ADDENDUM A-1 TO THE REAL ESTATE CONTRACT AND IS STORED AS OUR IMAGE 13815618
Adams County
Exempt Property Profile

Parcel Number: 0156702400001

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Account Summary

Legal Description

SECT,TWN,RNG:2-1-65 DESC: PARC IN THE SE4 OF SEC 2 DESC AS FOLS COMMENCING AT THE SE COR OF SD SEC 2 AND CONSIDERING THE S LN OF SD SE4 OF SEC 2 TO BEAR N 89D 52M 15S W WITH ALL BRNGS CONTAINED HEREIN BEING RELATIVE THERETO TH N 45D 12M 57S W 56/91 FT TO THE WLY ROW LN OF HUDSON RD AND THE POB TH N 89D 52M 15S W 2186 FT ALG THE NLY ROW LN OF E 160TH AVE TH N 27D 30M 52S E 950/17 FT TH N 89D 31M 50S E 54/01 FT TH N 27D 27M 08S E 26/18 FT TH S 89D 52M 15S E 1015/32 FT TH S 20D 14M 33S E 300/34 FT TH S 89D 52M 15S E 556 FT TO SD WLY ROW LN TH S 00D 33M 39S E 586 FT ALG SD WLY ROW LN OF THE POB 35/0063A

Subdivision Plat

N/A

Account Summary

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Permits

Permit Cases

VIO2021-02709

Sales Summary
Click [here](https://gisapp.adcogov.org/QuickSearch/doreport.aspx?pid=0156702400001) to go to Clerk / Recorder search page

**Valuation Summary**

### Land Valuation Summary

<table>
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<tr>
<th>Account Number</th>
<th>Land Type</th>
<th>Unit of Measure</th>
<th>Number of Units</th>
<th>Fire District</th>
<th>School District</th>
<th>Vacant/Improved</th>
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<tr>
<td>R0195539</td>
<td>Exempt</td>
<td>Acres</td>
<td>35.0063</td>
<td>FIRE DISTRICT 6 GREATER BRIGHTON</td>
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<td>$1,630.00</td>
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<td><strong>Land Subtotal:</strong></td>
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### Improvements Valuation Summary

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<td><strong>Improvements Subtotal:</strong></td>
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**Total Property Value**

|                  | **$5,605.00** | **$1,630.00** |

### Building Summary

**NO BUILDING RECORDS FOUND**

### Tax Summary

Click [here](https://gisapp.adcogov.org/QuickSearch/doreport.aspx?pid=0156702400001) to go to Treasurer's search page
Enterprise Zone Summary

Property within Enterprise Zone

False

Precincts and Legislative Representatives Summary

Precinct

| 244 |

Commissioner Representative

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State House Representative

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State Senate Representative

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US Congress Representative

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<tr>
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Zoning Summary
### Zoning Authority

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<tbody>
<tr>
<td>Adams County</td>
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**Note:** Data is updated daily. Above data was updated as of: 01/05/22

**Legal Disclaimer:** Although every reasonable effort has been made to ensure the accuracy of the public information data and graphic representations, Adams County cannot be responsible for consequences resulting from any omissions or errors contained herein. Adams County assumes no liability whatsoever associated with the use or misuse of this data.
Adams County Treasurer
Receipt of Tax Payment

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ROTHNICK INVESTMENTS LLC
1635 E LAYTON DR
ENGLEWOOD, CO 80113-7000

---

<table>
<thead>
<tr>
<th>Situs Address</th>
<th>Payor</th>
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<tbody>
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</table>

Legal Description
SECT,TWN,RNG:2-1-65 DESC: PARC IN THE SE4 OF SEC 2 DESC AS FOLS COMMENCING AT THE SE COR OF SD SEC 2 AND CONSIDERING THE S LN OF SD SE4 OF SEC 2 TO BEAR N 89D 52M 15S W WITH ALL BRNGS CONTAINED HEREIN BEING RELATIVE THEREO TH N 45D 12M 57S W 56/91 FT TO THE WLY ROW LN OF HUDSON RD AND THE POB TH N 89D 52M 15S W 1286 FT ALG THE NLY ROW LN OF E 160TH AVE TH N 27D 30M 52S E 950/17 FT TH N 89D 31M 505 E 54/01 FT TH N 27D 27M 08S E 26/18 FT TH S 89D 52M 15S E 1015/32 FT TH S 20D 14M 33S E 300/34 FT TH S 89D 52M 15S E 556 FT TO SD WLY ROW LN TH S 00D 33M 39S E 586 FT ALG SD WLY ROW LN OF THE POB 35/0063A

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Payments Received
Check
Check Number 00150008
$167.52

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<td>$0.00</td>
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</table>

Balance Due as of Feb 6, 2019
$0.00

WE ARE EXPANDING TO SERVE YOU BETTER!

4430 S ADAMS COUNTY PKWY C2436 11860 PECOS STREET
BRIGHTON CO 80601 WESTMINSTER CO 80234
MON - FRI 7 AM - 5 PM MON - THUR 7:30 AM - 5 PM
720-523-6160

ALL CHECKS ARE SUBJECT TO FINAL COLLECTION. THANK YOU FOR YOUR PAYMENT!

Lisa L. Culpepper J.D.    Adams County Treasurer
To Whom it May Concern,

NOTICE IS HEREBY GIVEN; the Greatrock North Water & Sanitation District (GNWSD) proposes to apply for a Conditional Use Permit (CUP) to support the district’s water treatment plant in Hudson, Colorado. Anadarko Petroleum Corporation is listed as having mineral rights for the property per Adams County Colorado Accessor’s Office. The State of Colorado requires notification to mineral rights owners of applications for surface development.

The Greatrock North Water & Sanitation District currently owns and operates two (2) existing concentrate ponds that receive brine concentrate from the district’s reverse osmosis water treatment plant. With the ongoing construction of the district’s new treatment plant expansion, the district wishes to construct a third concentrate pond. These ponds are regulated by the Colorado Department of Health and Environment and are considered waste impoundments. Also, Adams County requires a Conditional Use Permit (CUP) application for the proposed project including a public meeting prior to submittal of the application.

The proposed pond will be designed and permitted according to CDPHE and Adams County requirements, most notably Section 9 of CCR 1007-2, Part 1. The pond will be dual lined with a synthetic liner and contain an active leak detection system. The proposed pond is located on district owned property (Adams County Parcel No. 0156702400001). A gravity concentrate pipeline will be constructed within Adams County Right of Way and district owned easements to convey the concentrate from the water treatment plant to the new concentrate pond.

The district’s new water treatment facility will generate a concentrate stream that requires detention for evaporative elimination. The district currently operates another reverse osmosis treatment facility (Box Elder Creek Ranch Water Treatment Plant) that discharges into the two existing north and south detention ponds for evaporative treatment. The district requires additional capacity to provide treatment for the waste stream of the proposed new facility, thus necessitating the construction of the third concentrate pond. Element Engineering has prepared this application for Engineering Design and Operations Plan (EDOP) approval to meet the Colorado Department of Public Health and Environment (CDPHE) Hazardous Materials and Waste Management Division (the Division) Regulations 6CCR 1007-2.
CO Rev Stat 24-65.5-103 (2016) states:

(1) Not less than thirty days before the date scheduled for the initial public hearing by a local government on an application for development, the applicant shall send notice, by certified mail, return receipt requested, or by a nationally recognized overnight courier, to:

(a) (I) A mineral estate owner who either:

(A) Is identified as a mineral estate owner in the county tax assessor's records, if those records are searchable by parcel number or by section, township, and range numbers or other legally sufficient description; or

(B) Has filed in the office of the county clerk and recorder in which the real property is located a request for notification in the form specified in subsection (3) of this section.

(II) Such notice shall contain the time and place of the initial public hearing, the nature of the hearing, the location and legal description by section, township, and range of the property that is the subject of the hearing, and the name of the applicant.

(b) The local government considering the application for development. Such notice shall contain the name and address of the mineral estate owners to whom notices were sent in accordance with paragraph (a) of this subsection (1).

(1.5) If an applicant files more than one application for development for the same new surface development with a local government, the applicant shall only be required to send notice pursuant to subsection (1) of this section of the initial public hearing scheduled for the first application for development to be considered by the local government. Local governments shall, pursuant to section 24-6-402 (7), provide notice of subsequent hearings to mineral estate owners who register for such notification.

(2) (a) The applicant shall identify the mineral estate owners entitled to notice pursuant to this section by examining the records in the office of the county tax assessor and clerk and recorder of the county in which the real property is located, including the appropriate request for notification pursuant to subsection (3) of this section. Notice shall be sent to the last-known address of the mineral estate owner as shown by such records.

(b) If such records do not identify any mineral estate owners, including their addresses of record, the applicant shall be deemed to have acted in good faith and shall not be subject to further obligations under this article. The applicant shall not be liable for any errors or omissions in such records.

(3) A mineral estate owner who requests or desires to obtain notice under this article or the mineral estate owner's agent may file in the office of the county clerk and recorder of the county in which the real property is located a request for notification form that identifies the mineral estate owner's mineral estate and the corresponding surface estate by parcel number and by section, township, and range numbers or other legally sufficient description. The clerk and recorder shall file request for notification forms in the real estate records for the county and shall also keep an index of request for notification forms by section, township, and range numbers or by subdivision lots and blocks.

(4) Prior to convening an initial public hearing on an application for development, a local government shall require the applicant to certify that notice has been provided to the mineral estate owner pursuant to subsection (1) of this section.
(5) A mineral estate owner may waive the right to notice under this section in writing to the applicant. Failure of a mineral estate owner to be identified in the records described in paragraph (a) of subsection (1) of this section or to file a request for notification under subsection (3) of this section shall not waive the right of such mineral estate owner to file an objection with the local government to such application for development no later than thirty days following the initial public hearing for approval of the application for development or to exercise the remedies set forth in section 24-65.5-104.

(6) Before completing the sale of a mineral estate, a mineral estate owner who has received notice as the owner of the mineral estate of a pending public hearing with respect to an application for development pursuant to this section shall notify the buyer of the mineral estate of the existence of the application for development. A transfer of an interest in a mineral estate by a mineral estate owner following the filing of a request for notification pursuant to subsection (3) of this section shall not modify the address to which the applicant may deliver notice under paragraph (a) of subsection (1) of this section until the transferee of such interest has filed an amendment to the request for notification describing the address to which such notices shall be sent.

Please accept this notification and description of the proposal to apply for a Conditional Use Permit for this project. If you have any questions, please contact nmarcotte@elementengineering.net 303-378-2969.

Sincerely,

Nicholas P. Marcotte, P.E.
President, Element Engineering LLC

Enclosure(s):
Project Location
Description of Property
CERTIFICATION OF NOTICE TO MINERAL ESTATE OWNERS

I/We, Great Rock North Water and Sanitation District
(the “Applicant”) by signing below, hereby declare and certify as follows:

With respect to the property located at:
Physical Address: Not listed in Adams County GIS Map

Legal Description:
SECT. T2N R19W 1-65 DESC' PARC IN THE SE4 OF SEC 2 DESC AS FOLLOWS COMMENCING AT THE SE COR OF 3D SEC 2 AND CONSIDERING THE S LN OF SD SE4 OF SEC 2 TO BEAR N 89D 52M 15S W WITH ALL BRNGS CONTAINED HERIN BEING RELATIVE THERE TO THN 45D 12M 57'S W56'60 FT TO THE WLY ROW LN OF HUDSON RD AND THE PO9 TH N 89D 52M 15S W 2186 FT ALG THE WLY ROW LN OF E 100TH AVE THN 27D 30M 52S E 950'17 FT THN 89D 31M 50S E 54'61 FT THN 27D 27M 08S E 2618' FT THN 89D 52M 15S E 1015'12 FT THN 20D 14M 335 E 300'34 FT THN 89D 52M 15S E 556' FT TO SD WLY ROW LN THN 60D 33M 395 E 586' FT ALG SD WLY ROW LN OF THE PO9 35'00'00 CON #(...)

Parcel #s: 01567024000001 (PLEASE CHECK ONE):

X        On the  27__ day of April  2022, which is not less than thirty days before the initial public hearing, notice of application for surface development was provided to mineral estate owners pursuant to section 24-6S.5-103 of the Colorado Revised Statutes;

I/We have searched the records of the Adams County Tax Assessor and the Adams County Clerk and Recorder for the above identified parcel and have found that no mineral estate owner is identified therein.

Date: 6/1/2022
Applicant: Great Rock North Water and Sanitation District
By: John D. Wyckoff
Print Name: John D. Wyckoff
Address: 3013 Valley Dr., Arvada, CO 80007

STATE OF COLORADO
COUNTRY OF ADAMS

Subscribed and sworn to before me this 2 day of June  2022 by

John D. Wyckoff

Witness my hand and official seal.

My Commission expires: 5-18-2024
Notary Public

A recorded copy of this Certification shall be submitted to the Adams County Community and Economic Development Department with all applicable land use applications.
APPLICANT’S CERTIFICATION CONCERNING QUALIFYING SURFACE DEVELOPMENT, PURSUANT TO C.R.S. §24-65.5-103.3 (1)(b)

I/We, ________________________________, (the “Applicant”) by signing below, hereby declare and certify as follows:

Concerning the property located at:
Physical Address: Not listed in Adams County GIS Map

Parcel #(s): 0156702400001

With respect to qualifying surface developments, that (PLEASE CHECK ONE):

XX No mineral estate owner has entered an appearance or filed an objection to the proposed application for development within thirty days after the initial public hearing on the application; or

____ The Applicant and any mineral estate owners who have filed an objection to the proposed application for development or have otherwise filed an entry of appearance in the initial public hearing regarding such application no later than thirty days following the initial public hearing on the application have executed a surface use agreement related to the property included in the application for development, the provisions of which have been incorporated into the application for development or are evidenced by a memorandum or otherwise recorded in the records of the clerk and recorder of the county in which the property is located so as to provide notice to transferees of the Applicant, who shall be bound by such surface use agreements; or

____ The application for development provides:
(i) Access to mineral operations, surface facilities, flowlines, and pipelines in support of such operations existing when the final public hearing on the application for development is held by means of public roads sufficient to withstand trucks and drilling equipment or thirty-foot-wide access easements;
(ii) An oil and gas operations area and existing well site locations in accordance with section 24-65.5-103.5 of the Colorado Revised Statutes; and
(iii) That the deposit for incremental drilling costs described in section 24-65.5-103.7 of the Colorado Revised Statutes has been made.

Date: ___________________________ Applicant: ______________________________

After Recording Return To: By: ______________________________
Print Name: ______________________________
Address: ______________________________
NOTICE OF PUBLIC MEETING

NOTICE IS HEREBY GIVEN; the Greatrock North Water and Sanitation District (GNWSD) proposes to apply for a Conditional Use Permit (CUP) to support the district’s water treatment plant.

The district currently owns and operates two (2) existing concentrate ponds that receive brine concentrate from the district’s reverse osmosis water treatment plant. With the ongoing construction of the district’s new treatment plant expansion, the district wishes to construct a third concentrate pond. These ponds are regulated by the Colorado Department of Health and Environment and are considered waste impoundments. Also, Adams County requires a Conditional Use Permit (CUP) application for the proposed project including a public meeting prior to submittal of the application.

The proposed pond will be designed and permitted according to CDPHE and Adams County requirements, most notably Section 9 of CCR 1007-2, Part 1. The pond will be dual lined with a synthetic liner and contain an active leak detection system. The proposed pond is located on district owned property (Adams County Parcel No. 0156702400001). A gravity concentrate pipeline will be constructed within Adams County Right of Way and district owned easements to convey the concentrate from the water treatment plant to the new concentrate pond.

At this public meeting, the district’s engineering representative, Element Engineering, LLC, will discuss the proposed project and answer questions from the public concerning the Conditional Use Permit (CUP) and proposed project. Meeting information is as follows:

Date and Time: April 5, 2022 @ 5:30 PM
Virtual Attendance via Zoom: https://tinyurl.com/2p84cys4
No in-person meeting will be held.

DESCRIPTION OF PROJECT

The district’s new water treatment facility will generate a concentrate stream that requires detention for evaporative elimination. The district currently operates another reverse osmosis treatment facility (Box Elder Creek Ranch Water Treatment Plant) that discharges into the two existing north and south detention ponds for evaporative treatment. The district requires additional capacity to provide treatment for the waste stream of the proposed new facility, thus necessitating the construction of the third concentrate pond. Element Engineering has prepared this application for Engineering Design and Operations Plan (EDOP) approval to meet the Colorado Department of Public Health and Environment (CDPHE) Hazardous Materials and Waste Management Division (the Division) Regulations 6CCR 1007-2.

Element Engineering will moderate the public meeting and will provide all parties who join an opportunity to ask questions or provide comment.
Project Location

Adams County Map

Legend
- Lake
- River
- Parks and Open Space
- Highways (3,000 - 5,000)
- Interstate
- Highway
- Tunnel
- Coastal
- Building
- County Boundary
- City
- Adams
- Aurora
- Northglenn
- Thornton
- Westminster

Notes

This map is a digital mapping tool created from an internet mapping site and is for informational only. Data on this map may not be accurate, current, or exhaustive. THIS MAP IS NOT TO BE USED FOR NAVIGATION.
MEETING AGENDA

DATE OF MEETING: April 5th, 2022 @ 5:30 PM Via Microsoft Teams

PROJECT TITLE: Greatrock North Water & Sanitation Conditional Use Permit

PURPOSE

- The Greatrock North Water and Sanitation District (GNWSD) proposes to apply for a Conditional Use Permit (CUP) for construction of a Third Concentration Pond. The proposed pond will be designed and permitted according to CDPHE and Adams County requirements, most notably Section 9 of CCR 1007-2, Part 1. The pond will be dual lined with a synthetic liner and contain an active leak detection system. The proposed pond is located on district owned property (Adams County Parcel No. 0156702400001). A gravity concentrate pipeline will be constructed within Adams County Right of Way and district owned easements to convey the concentrate from the water treatment plant to the new concentrate pond.

- The district currently owns and operates two (2) existing concentrate ponds that receive brine concentrate from the district’s reverse osmosis water treatment plant. With the ongoing construction of the district’s new treatment plant expansion, the district wishes to construct a third concentrate pond. These ponds are regulated by the Colorado Department of Health and Environment and are considered waste impoundments. Also, Adams County requires a Conditional Use Permit (CUP) application for the proposed project including a public meeting prior to submittal of the application.

DESCRIPTION OF PROJECT

- The district’s new water treatment facility will generate a concentrate stream that requires detention for evaporative elimination. The district currently operates another reverse osmosis treatment facility (Box Elder Creek Ranch Water Treatment Plant) that discharges into the two existing north and south detention ponds for evaporative treatment. The district requires additional capacity to provide treatment for the waste stream of the proposed new facility, thus necessitating the construction of the third concentrate pond. Element Engineering has prepared this application for Engineering Design and Operations Plan (EDOP) approval to meet the Colorado Department of Public Health and Environment (CDPHE) Hazardous Materials and Waste Management Division (the Division) Regulations 6CCR 1007-2.

QUESTIONS/COMMENTS

- Participants are encouraged to provide their name and mailing addresses for the purpose of receiving notice of public hearings concerning any application that will be subsequently submitted.

- Participants are encouraged to type-in or ask questions or provide comment during the Zoom call via the Chat option during the meeting.
NEXT STEPS

1. Provide written summary of Public Meeting with attendance sign-in sheet which includes how any issues identified at the Public Meeting have been addressed.

2. Submit Conditional Use Permit (CUP) to Adams County for review.

Project Location
# Meeting Attendance Sheet

**April 5, 2022, 5:30pm MST**

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Email</th>
</tr>
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<tbody>
<tr>
<td>No Public Attendees</td>
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</table>
Olsson completed a desktop review (DTR) of resources on behalf of a Greatrock North Water and Sanitation District (GNSWD) location of a proposed third concentrate pond. The resources review includes a review of natural, scenic, cultural, and agricultural resources and how the development will be designed to preserve these resources in support of a Conditional Use Permit (CUP) for Water Treatment Plant Expansion. The site is located in Township 1 South, Range 65 West, Section 2 in Adams County, Colorado, on private land (parcel 0156702400001; the owner is GNWSD). The results of our DTR are presented below. On-site verification of resources was not included as part of this review.

Overview

This reporting is based on review of the following file transmitted to us by Element Engineering:

- Property Report for Parcel Number 015670240001

A spatial data search was conducted on April 1, 2022, to evaluate the following resources:

- Waters of the U. S. (WOTUS);
- Federal Emergency Management Agency (FEMA) 100-year floodplains in Adams County;
- Areas identified as exceptional environmental value under the Adams County development Standards and Regulations;
- Cultural resources; and
- Agricultural Preservation.

WOTUS and FEMA Review

A review of WOTUS and FEMA data was conducted on April 1, 2022, for the purpose of this reporting and included an initial assessment of the following:

- Aerial imagery of the proposed Project site;
- United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI 2021); and
• National Hydrography Dataset (NHD).
• FEMA 100-year floodplain review.

Aerial imagery depicts the Project site in a fallow field zoned Agricultural Land, A3 (Appendix A, Figure 1). The NHD depicts an unnamed intermittent stream along the western edge of the Project site (Appendix A, Figure 1). The western edge of the Project site is within the FEMA 100-year floodplain which follows the unnamed intermittent stream. There are no NWI mapped wetlands within the Project site. Development associated with the project shall be located out of the riparian plant community and no less than 50 feet from the intermittent stream onsite. GNWSD shall avoid development within the floodplain, if development within the floodplain cannot be avoided, development must comply with the Adams County Floodplain Overlay District standard and a Floodplain Development Permit will be required.

**Natural Resources Conservation Review**

The Natural Resource Conservation Overlay (NRCO) is an overlay designation for areas of exceptional environmental value. The locations protected under the NRCO are areas that are important wildlife habitat, designated floodplains and associated riparian areas, and important reservoir sites to provide wetlands and other habitat areas. A majority of the Project site is located within NRCO designation (Appendix A, Figure 1). As such, all development within the NRCO District shall comply with the development standards in 3-43-05 of the Adams County Development Standards and Regulations. Density calculations should be conducted based on the net available land as determined by applying the Natural Resource Protection Factor (Table 1) to the protected resource area and subtracting the resulting land area from the total area of the property. All land area consisting of natural resources or natural features (i.e., floodplains, hydric soils, wetlands, riparian areas, lakes, and reservoirs) lying within a site proposed for development shall be measured. The hydric soil map (Appendix A, Figure 2) shows that 97 percent of the Project site is within soil rating Not Hydric and three percent of the Project site is rated as Hydric (1 to 32% of the soil composition is hydric). The total acreage of each resource type shall be multiplied by its respective natural resource protection factor to determine the amount of resource protection land or area required to be kept in open space in order to protect the resource or feature. If two or more resources are present on the same area of land, the most restrictive natural resource protection factor shall be used. The Natural Resource Areas within the Project site should be further refined with Adams County.

<table>
<thead>
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<th>Natural Resource Area</th>
<th>Protection Factor</th>
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<tbody>
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<tr>
<td>Riparian Area</td>
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<tr>
<td>Wetlands</td>
<td>2.0</td>
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<tr>
<td>Lakes/Reservoirs</td>
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<td>Hydric Soils</td>
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Cultural Resources
The cultural resources review can be found in Appendix B.

Agricultural Review
The Project site is located in Agricultural Zone 3. Any conversion of agricultural land shall comply with standards under 4-14-02-05-03 of the Adams County Development Standards and Regulations. Farm and ranch lands shall be assessed according to the U.S. Department of Agriculture (USDA) Agricultural Soil Capability Classifications. The site shall be mapped and the soils with the lowest classifications shall be developed first. The Project site falls within Non-irrigated Capability Class 6 (Appendix A, Figure 3). Class 6 represents soils with severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat. The Project site ranges from Class 2 to Class 4 for Irrigated Capability Class (Appendix A, Figure 4). Class 4 represents soils that have a very severe limitation that reduce the choice of plants or that require very careful management or both, Class 4 makes up approximately 20 percent of the Project site. Class 3 represents soils that have severe limitations that reduce the choice of plants or that require special conservation practices or both, Class 3 makes up approximately 77 percent of the Project site. Class 2 represents soils that have moderate limitations that reduce the choice of plants or that require moderate conservation practices, Class 2 makes up approximately 3 percent of the Project site. The Natural Resources Conservation Service classifies 76 percent of the Project site as Farmland of Statewide importance and the remaining 24 percent is classified as Not Prime Farmland (Appendix A, Figure 5). Impacts the Project will have on the continued agricultural use of the undeveloped area will depend on the final design and should be reviewed with Adams County.

Disclosure
This evaluation was completed using readily available existing and published data. It did not include an on-site investigation nor coordination with any public agencies. If Element Engineering has questions about the results presented herein, please contact Jessica Roath at jroath@olsson.com or 303.725.9185.
Greatrock North Water and Sanitation District (GNWSD)
022-01943
Adams County, Colorado
NRCS Hydric Soils Map
Figure 2

- Property Parcel
- Hydric Rating:
  - Not Hydric
  - Hydric (1 to 32%)

Basemap: ESRI World Imagery
NAD 1983 StatePlane Colorado Central FIPS 0502 Feet
Greatrock North Water and Sanitation District (GNWSD)
022-01943
Adams County, Colorado
NRCS Farmland Classification Map
Figure 5

Property Parcel
Prime Farmland Classification
Farmland of statewide importance
Not prime farmland

Basemap: ESRI World Imagery
APPENDIX B
CULTURAL RESOURCES TECHNICAL MEMO
Element Greatrock North Water and Sanitation District Project, Cultural Resources Technical Memo

Adams County, Colorado

Element Engineering
Element Greatrock North Water and Sanitation District Project, Cultural Resources Technical Memo
Weld County, Colorado

AK Pioneer Consulting, LLC
1768 Bluebird Dr.
Bailey, CO 80421

TYPE OF WORK
Desktop Diligence Study

PRINCIPAL INVESTIGATOR
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AUTHOR(S)
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DATE
April 18, 2022
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List of Acronyms

°F degrees Fahrenheit
AKPC AK Pioneer Consulting, LLC
APE area of potential effects
GLO General Land Office
NR Natural Resources
NRCS Natural Resources Conservation Services
NRHP National Register of Historic Places
OAHP Office of Archaeology and Historic Preservation
Project Element Greatrock North Water and Sanitation District Project
USDA U.S. Department of Agriculture
USGS U. S. Geological Survey
Introduction

Element Greatrock North Water and Sanitation District (GNWSD) currently owns and operates two existing concentrate ponds that receive brine concentrate from the district’s reverse osmosis water treatment plant. GNSWD wishes to expand the treatment plant and construct a third concentrate pond (Project). Olsson, Element Engineering’s contractor assisting them with the preparation of a Conditional Use Permit application, contracted AK Pioneer Consulting, LLC (AKPC) to complete a desktop diligence study of the Project. This technical memo provides important information for Project planning and supports Adams County’s policy to “protect culturally and historically significant resources” (Adams County Comprehensive Plan, Chapter 3, Policy 9.4, adopted December 2012).

The Project is in the southeast quarter of Section 2 of Township (T) 1 South (S), Range (R) 65 West (W) approximately 4.75 miles southeast of Lochbuie, in Adams County, Colorado. The Project boundary is adjacent to Hudson Mile Road and E. 160th Ave on the northwest side (Figure 1 and Figure 3). The Project area of potential effects (APE) for cultural resources is approximately 35 acres on private land.

![Figure 1. Project location.](image-url)
Figure 2. Project area.
Environment

Present Environment
The Project is in the South Platte River Basin within the Colorado Piedmont of the eastern High Plains physiographic province. It is in a semi-arid climate zone with moderate precipitation throughout the year with up to 80 percent falling between April and September. Summers are warm to hot with an average maximum of 89-degrees Fahrenheit (°F). Winters are cold and sometimes severe with extreme low temperatures of 14°F. Average elevation for the Project area varies from 5,090 to 5,110 feet above sea level (Western Regional Climate Center 2016; Williams and Chronic 2014).

Hydrology

The Project is within the Middle-South Platte-Cherry Creek watershed. Horse Creek Reservoir is the largest water body near the Project. Boot Leg Reservoir is also near the Project but is currently not holding water. These reservoirs are fed by Box Elder Creek, a major tributary of the South Platte River. The Denver Hudson Canal is approximately 0.4 miles north of the Project and is part of the reservoir system in this area. A wide shallow drainage borders the western edge of the Project and currently does not have water. Several other canals and ditches are also near the area (Figure 3).

Topography and Geology
The Project is in the eastern High Plains of Colorado generally characterized by broad, open, gently rolling uplands. Beneath the Plains is the Ogallala Formation composed of Tertiary sand, gravel, and clay washed down from the Rocky Mountains. The Project is on the South Platte River terrace largely comprised of Cretaceous Pierre Shale atop older Mesozoic and Paleozoic rocks. The shale deposits are a productive resource for oil and gas extraction activities. The Front Range of the Rocky Mountains is easily visible to the west on a clear day.

Soils and Depositional Settings
There are four soil types within the Project area (U.S. Department of Agriculture [USDA], Natural Resources Conservation Service [NRCS] 2022). They are a mix of loam or loamy sand derived from wind re-worked alluvium found on plains, terraces, and interfluves on slopes between 1 and 9 percent. The largest soil types in the Project...
area are the Truckton loamy sand (77 percent) and Blakeland Truckton association (15.8 percent).

The highest potential for buried cultural materials near the Project area exists in the floodplain and near water resources. Due to high eolian activity in the area, subsurface cultural materials are likely and are often found in agricultural fields brought to the surface from tilling and other activities.

**Natural Vegetation and Wildlife**

The Project is in the High Plains ecoregion (Chapman et al. 2006). Prior to settlement in the area, vegetation was largely short grass prairie comprised of blue grama, buffalograss, needlegrass, and wheatgrass. Today the vegetation is dominated by pasture or cropland with areas of shortgrass prairie and sandsage prairie. Natural vegetation includes sagebrush, rabbitbrush, sandreed, Junegrass, Indian ricegrass. Riparian areas contain cottonwood and other herbaceous species. Animal species in the ecosystem include but are not limited to mule or white-tailed deer, fox, coyote, prairie-dog, rabbit, skunk, Bobwhite quail, mourning dove, hawks, owls, wild turkey, pheasants, snow geese, and pronghorn. Rattlesnakes and bullsnakes are the common reptiles. Major fish species include carp, sunfish, minnows, shiners, and catfish (NRCS 2009).

**Present Built Environmental Setting**

The present built environment reflects modern land use patterns in the region. Development is predominantly related to residential communities, agricultural and rangeland, transportation, and utilities. Residential housing, ranching and farming complexes, fences, transmission lines and utility boxes, paved and unpaved roads comprise most of the modern structures and objects in the viewshed. Except for some paving for housing evident near the east end of the Project, the land immediately adjacent to the Project is undeveloped and largely still used for agriculture.

**Culture History**

The Project area is in the upper Platte River Basin. The following discussion is based on Colorado Prehistory: A Context for the Platte River Basin (Gilmore et al. 1999), Colorado Plains Historic Context (Mehls 1984), and Colorado History: A Context for Historical Archaeology (Church et al. 2007). The history of Native Americans in the Platte River Basin is divided into three major stages: Paleoindian, Archaic, and Late Prehistoric. The Post-Contact, the fourth stage, describes the dynamic interactions between Native Americans and non-Native Americans from early contact to the twentieth century. The stages are further subdivided into cultural periods, as discussed below presented in Table 1.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Period</th>
<th>Date Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paleoindian</td>
<td></td>
<td>12,040–5740 B.C.</td>
</tr>
<tr>
<td>Clovis</td>
<td></td>
<td>(12,040–9750 B.C.)</td>
</tr>
</tbody>
</table>

Table 1. Culture history of the Platte River Basin.
Paleoindian Stage (12,040–5740 B.C.)
During the late Pleistocene and early Holocene, Colorado was cooler and wetter than today. Now-extinct megafauna including mammoth, camel, and sloth were plentiful. The majority of archaeological sites dating to the Paleoindian Stage are game kill and processing sites. Tool kits contain large, highly crafted, flaked-stone tools.

This stage is subdivided into three periods: the Clovis Period, the Folsom Period, and the Plano Period. The Clovis Period is noted for its large, fluted lanceolate projectile points. The Folsom Period, which represents the beginning of a transition to smaller-game hunting, is noted for smaller, pressure-flaked and fluted lanceolate dart points used to hunt bison antiquus. Tools continued to decrease in size and undergo morphological changes during the Plano Period. Lanceolate and stemmed dart points are typical of Plano Period sites.

Archaic Stage (5500 B.C.–A.D. 150)
The cultural adaptations of the Archaic Stage coincide with the Altithermal, a warming and drying trend that resulted in environmental conditions similar to the present. Modern Holocene species replaced the earlier Pleistocene fauna, enabling diversification of plant resources and subsistence strategies. The Archaic Stage is subdivided into three periods: Early, Middle, and Late. Tool kits of the Middle Archaic Period are diversified with more varieties of ground stone and smaller projectile points including stemmed and notched forms. Stone boiling firepits, storage cists, and architectural features are evident. Late Archaic projectile points are large corner-notched and side-notched dart points. Grinding stones, butchered bone and bone tools, and floral remains are common on Late Archaic sites.

Late Prehistoric (A.D. 150–1540)
The Late Prehistoric is divided into the Early Ceramic and Middle Ceramic Periods. The occurrence of ceramic technology distinguishes Late Pre-historic sites from Late Archaic sites. The bow and arrow were introduced at this time as indicated by the prevalence of small, corner-notched projectile points with narrow necks. Artifact assemblages at habitation sites are more complex than in previous periods, suggesting longer occupations and/or repeated use over time. In the Middle Ceramic, permanent or
even semi-permanent settlements are unknown. The population seems to decrease; a trend which continues into the fifteenth century.

**Post-Contact (A.D. 1540–present)**

The Post-Contact Stage is the period during which Native Americans, particularly on the Plains, moved across the landscape in reaction to environmental and external cultural pressures. Following the arrival of the Spanish explorer Coronado in A.D. 1540, Native American culture was irreversibly altered through contact with European cultures (Gilmore et al. 1999:5).

Native Americans had occupied the Americas for at least 12,000 years by the time European explorers arrived in the New World (Church et al. 2007:107). Explorers from the Old World entered a cultural landscape in flux. Plains Apachean groups had migrated south recently, crossing the Plains, and arriving in the Southwest about 1525 A.D. The Comanche arrived in Colorado in the early part of the eighteenth century. In response, the Apache moved out of the northeastern portion of Colorado, continuing their migration south. During the eighteenth and nineteenth centuries, the Cheyenne and Arapaho tribes, who had been displaced from distant homelands much earlier, migrated to eastern Colorado. The Kiowa and Pawnee also were present in eastern Colorado (Church et al. 2007:90-93).

The Spanish were the first non-Native Americans in Colorado, appearing in the mid-1600s and claiming the southern portion of the state as the northern frontier of New Spain. By the end of the seventeenth century, French trappers and traders arrived from French Louisiana (Church et al. 2007:108). Native Americans in eastern Colorado had more initial contact with the northern fur traders than with the Spanish to the south. French fur trappers are thought to be the first non-Native Americans in northern Colorado.

**Early High Plains Irrigation and Farming to 1900**

Commercial agriculture on the eastern plains of Colorado began in response to the gold rush and the influx of people. Expanding transportation networks enabled farmers to get their produce to market in the business centers along the Front Range and into mining camps in the mountains. In 1859, David Wall dug ditches to bring water from Clear Creek to his vegetable farm near Golden, marking the beginning of irrigation along the Front Range (Mehls 1984:63).

To attract farmers and ranchers to immigrate west, U.S. legislators passed the 1842 Preemption Act that allowed the purchase of 160 acres of land at $1.25 per acre. Twenty years later, the Homestead Act of 1862 allocated title of 160 acres to individuals who paid the patent fees and “proved up” within five years (Mehls and Mehls 2006:3). The U.S. Government and farmers soon realized larger tracts of land would be required for successful farming in the semi-arid region. The U.S. Government enacted the Timber Culture Act of 1873 to encourage the planting of trees. Individuals would receive 160 acres if they planted 40 acres of trees and kept them alive for 10 years. The act was amended, eventually, from 40 acres to 10 acres. The Desert Land Act of 1877
further encouraged settlement and irrigation of the eastern plains of Colorado. With this act, individuals could claim up to 640 acres at $1.25 per acre if they irrigated the land within three years (Mehls 1984:63-64).

The first attempt to irrigate large tracts of land was conducted by the Union Colony in Greeley in 1871 with the irrigation of 200 acres. Due to a particularly dry year in 1874, farmers in Fort Collins who were upstream of the Union Colony used almost all the water from the Cache La Poudre, which provided water to the Union Colony. Tensions between the farmers escalated but resulted in an agreement to a “first-in-time, first-in-right” system of priorities for use. Colorado’s doctrine of prior appropriation for water rights was established as a result. This doctrine was incorporated into Colorado’s first constitution (Mehls 1984:63).

Post-1900 Agriculture, Dryland Farming
A particularly wet period in the late 1800s encouraged early homesteaders in northeastern Colorado. They were able to grow wheat, barley, rye, beans, and vegetables without irrigation. As they entered the twentieth century, the rain came less frequently, and crops failed (Mehls 1984).

Changes in federal land policy and scientific innovations renewed efforts to farm the marginal, dry land of the Plains. Between 1905 and the 1930s, a Russian variety of wheat became the primary crop in eastern Colorado. Technological innovations, including new types of plows and gasoline engines, enabled small families to harvest large tracts of land. In response to public pressure, the U.S. Congress revoked the Timber Culture and Desert Land Acts. In 1909, Congress passed the Enlarged Homestead Act, which increased claimed acreage to 320 acres. Following World War I, the acreage an individual could claim increased to 640 acres under the Stock Raising Homestead Act. These land acts fueled a boom in Plains agriculture (Mehls 1984:104).

Dryland farming was popularized by promoters between 1910 and 1920 (Mehls 1984:104). During these years, land was consolidated under single ownership and farms expanded. Organizations such as the Transmissouri Dryfarming Congress (also known as the International Dryfarming Congress), formed to provide solutions to dryland farmers’ needs. The headquarters for the Transmissouri Dryfarming Congress was Colorado Springs until 1912 when it was moved to Lethbridge, Canada. This group met annually to discuss farmers’ experiences and worked to introduce new systems and techniques to ensure better crop production. Federal funds became available to set up experiment stations in 1902 and helped to create 28 stations in the Great Plains region of the United States (Brengle 1982).

Following the end of World War I, which brought a drop in crop prices, many farmers and farming communities failed economically. As crop prices dropped and a drought set in, families were unable to support themselves. By the 1930s, with the Dust Bowl and the onset of the Great Depression, few farming families remained (Mehls 1984:105). Communities throughout eastern Colorado were equally affected.
Oil and Gas Development
In 1860, oil was discovered in a natural seep at Fremont County’s Oil Spring. The seep was the first drilled in Colorado. This find led to further exploration, resulting in the discovery of the Florence Field. These early discoveries had low production rates; it was not until the automobile boom that oil was in demand. Early oil and gas exploration focused on northwestern Colorado, which at the time had the Nation’s richest and best-defined oil shale resources. Prior to the 1930s, exploration was poorly funded, and the technology was unsophisticated (Church et al. 2007:361-364).

Post-World War II, petroleum development increasingly used large equipment requiring installation by trucks, which necessitated extensive road building (Church et al. 2007:364). The exploitation of oil and gas is evident in concentrated drilling and pipeline networks in many fields, and in extensive gathering systems and interstate pipelines that deliver oil and gas to major refineries. The mechanization of oil and gas extraction that followed World War II resulted in well pads with heavy, industrial equipment (Church et al. 2007:365-366).

Adams County, Colorado
In 1901, Adams County was carved out of the original Arapahoe County. Adams County has been a mixed agricultural and industrial county throughout its history. The area around Brighton, the county seat, was originally settled by white settlers in 1859. Between 1870 and 1871, the Boulder County Railroad and the Denver Pacific Railroad linked at the Hughs Station in Adams County. Brighton developed around the station and was incorporated in 1887. At that time, Brighton had 175 residents, a hotel, a market, a school, a blacksmith, saloons, a newspaper, and a church (Colorado Encyclopedia).

The Project area is near Hudson, to the north, and Lochbuie, to the west. Hudson was established in 1887 and incorporated in 1914. The Hudson City Land & Improvement Company of Denver developed the townsite. Lochbuie was established in 1960 as a mobile home park called Spacious Living. It was known as Space City. In 1974, Space City was incorporated and renamed Lochbuie (Bright 1993).

Irrigation systems drawing water from the South Platte have enabled a strong agricultural economy in Adams County. In the early 1900s, sugar beet farming dominated the area. In 1917, the Great Western Sugar Company built a beet-processing factory in Brighton. The cultivation of sugar beets was labor intensive and required a large labor supply. With labor in short supply in Colorado, the Great Western Sugar Company recruited labor throughout the United States, Europe, and Mexico. Recruitment led to German Russians, Japanese Americans, and Mexicans moving or migrating to work in the sugar beet fields (Mehls and Mehls 2006:12-13).

Previous Work
AKPC conducted a review of the Office of Archaeology and Historic Preservation’s (OAHP’s) Compass database to determine the number of previous cultural resource inventories and sites within 0.5 mile of the APE for the Project (Figure 4). According to
data received April 7, 2022 (File Search No. 24574), no previous inventories have been completed within 0.5 miles the Project area. The Denver Hudson Canal (5AM.517) is near, but not in the Project area. The canal is officially eligible for the National Register of Historic Places (NRHP). The Project area has not been previously surveyed.

Figure 4. OAHP sites within 0.5 mile of the Project.
Historic Maps and Aerials

General Land Office (GLO) plat maps, United States Geological Survey (USGS) topographical maps, and aerial photos were searched to determine if there were historical modifications to the land within the Project area (GLO 2022 and USGS 2022). Such modifications may include trails and roads, settlements, irrigation ditches, and other culturally modified features.

The 1867 GLO survey plat for T1S, R65 W was reviewed (Figure 5). No trails, roads, settlements, irrigation ditches, or other culturally modified features are identified in Section 2.

USGS maps were reviewed using the USGS Map Locator website. The 1952 Horse Creek, CO; the 1942 Mile High Lakes, CO were reviewed (Figure 6). Two-track section line roads are near the Project but do not cross it. The Denver Hudson Canal and a structure are northwest of the Project area.

Review of historic aerial imagery did not identify any cultural features on the landscape within the Project boundary. The parcel has been used as an agricultural field sometime prior to 1948 to present (Historicaerials.com).

Figure 5. 1867 GLO Plat, T1S, R65W Section 2.

Figure 6. 1942 Mile High Lakes, CO and 1952 Horse Creek, CO USGS 7.5’ topo quads.
Summary and Recommendations

GNSWD is planning to expand their current treatment plant and construct a third concentrate pond near the corner of Hudson Mile Road and E. 160th Ave in Adams County, Colorado. The Project area is approximately 35 acres on private land.

AKPC completed this desktop diligence study of the Project to identify cultural resources within 0.5 mile of the proposed Project. Evaluation included a search of site files, records, technical reports, and map files from the OAHP on-line database, listings on the NRHP, state and national historic landmarks, aerial photographs, historic GLO plat maps, and historic USGS topographic maps.

The OAHP records search identified no previous inventories and one cultural resource within 0.5 mile of the Project. None of the Project APE has been previously surveyed. No cultural resources or features were identified in the OAHP record search, historic map review, or historic aerial photos within the Project boundary.

Per the 2012 Adams County Comprehensive Plan, Adam’s County supports efforts to protect culturally and historically significant resources. Without cultural resource inventory, it is impossible to know if significant cultural resources may exist within the Project area. Cultural inventory is not required for projects developed on private land with no federal nexus.

Due to extensive disturbance from decades of agricultural activity within the Project area, intact cultural artifacts or features are not likely to be present on the ground surface. However, they may exist subsurface below the plow zone. Therefore, AKPC recommends following an Inadvertent Discovery Plan (IDP) that outlines the process and procedures should unanticipated resources be discovered during construction. Per the IDP, an archaeologist should be consulted for cultural remains (not human) and a paleontologist should be consulted for fossil remains discovered during ground disturbing activities.
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