STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY
Department of Natural Resources
1313 Sherman St., Room 215
Denver, Colorado 80203
Phone: (303) 866-3567
FAX: (303) 832-8106

AM02
PSH/mac

CTION MATERIALS
R (112) OPERATION
PERMIT APPLICATION FORM

RECEIVED
NOV 19 2018
DIVISION OF RECLAMATION MINING AND SAFETY

COLORADO DIVISION RECLAMATION MINING & SAFETY

M-1976-056
Complied!
8 Minor Infractions

AM02
2 Violations!
PSH/mac

CHECK ONE: _____ **There is a File Number Already Assigned to this Operation**

Permit # M -____-____-___ (Please reference the file number currently assigned to this operation)

☐ **New** Application (Rule 1.4.5) ☑ **Amendment** Application (Rule 1.10)

☐ **Conversion** Application (Rule 1.11)

Permit # M -M -1976 -056 (provide for **Amendments** and **Conversions** of existing permits)

The application for a Construction Materials Regular 112 Operation Reclamation Permit contains three major parts: (1) the applicati form; (2) Exhibits A-S, Addendum 1, any sections of Exhibit 6.5 (Geotechnical Stability Exhibit; and (3) the application fee. When y submit your application, be sure to include one (1) complete signed and notarized **ORIGINAL** and one (1) copy of the complet application form, two (2) copies of Exhibits A-S, Addendum 1, appropriate sections of 6.5 (Geotechnical Stability Exhibit, and a check f the application fee described under Section (4) below. Exhibits should **NOT** be bound or in a 3-ring binder; maps should be folded 8 1/2" X 11" or 8 1/2" X 14" size. To expedite processing, please provide the information in the format and order described in this for

GENERAL OPERATION INFORMATION

Type or print clearly, in the space provided, ALL information requested below.

1. **Applicant/operator or company name (name to be used on permit)**: McAtee Construction Company
   - 1.1 Type of organization (corporation, partnership, etc.): Corporation
2. **Operation name (pit, mine or site name)**: Riverside Pit
3. **Permitted acreage (new or existing site)**: 86.35 permitted acres
   - 3.1 Change in acreage (+) 21.25 acres
   - 3.2 Total acreage in Permit area 107.60 acres
4. **Fees**:
   - 4.1 New Application ~~$2,696.00~~ application fee
   - 4.2 New Quarry Application ~~$3,342.00~~ quarry application
   - 4.4 Amendment Fee $2,229.00 amendment fee
   - 4.5 Conversion to 112 operation (set by statute) ~~$2,696.00~~ conversion fee
5. **Primary commoditie(s) to be mined**: Gravel Sand Borrow soil _____
   - 5.1 Incidental commoditie(s) to be mined: 1. ____ - ____ lbs/Tons/yr 2. ____ / ____ lbs/Tons/yr
     3. ____ / ____ lbs/Tons/yr 4. ____ / ____ lbs/Tons/yr 5. ____ / ____ lbs/Tons/yr
   - 5.2 Anticipated end use of primary commoditie(s) to be mined: Specification aggregates, fill
   - 5.3 Anticipated end use of incidental commoditie(s) to be mined: _____

6. **Name of owner of subsurface rights of affected land**: McAtee Construction Co, C/O Simon
   If 2 or more owners, "refer to Exhibit O".

7. **Name of owner of surface of affected land**: McAtee Construction Co, C/O Simon

8. **Type of mining operation**: ✔ Surface _____ Underground

9. **Location Information**: The center of the area where the majority of mining will occur:

   COUNTY: Logan

   PRINCIPAL MERIDIAN (check one): ✔ 6th (Colorado) _____ 10th (New Mexico) _____ Ute

   SECTION (write number): S 28

   TOWNSHIP (write number and check direction): T 8 ✔ North _____ South

   RANGE (write number and check direction): R 52 _____ East ✔ West

   QUARTER SECTION (check one): _____ NE _____ NW ✔ SE _____ SW

   QUARTER/QUARTER SECTION (check one): _____ NE _____ NW ✔ SE _____ SW

   GENERAL DESCRIPTION: (the number of miles and direction from the nearest town and the approximate elevation): 0.5 miles east of Sterling CO, site elevation 3925

10. **Primary Mine Entrance Location** (report in either Latitude/Longitude **OR** UTM):

    Latitude/Longitude:

    Example: (N) 39° 44′ 12.98″
    (W) 104° 59′ 3.87″

    Latitude (N): deg 40 min 37 sec 40.17 (2 decimal places)

    Longitude (W): deg 103 min 11 sec 15.10 (2 decimal places)

    OR

    Example: (N) 39.73691°
    (W) -104.98449°

    Latitude (N) _____._____ (5 decimal places)

    Longitude(W) _____._____ (5 decimal places)

    OR

    Universal Tranverse Mercator (UTM)

    Example: 201336.3 E NAD27 Zone 13
    4398351.2 N

    UTM Datum (specify NAD27, NAD83 or WGS 84) WGS 84 Zone 13

    Easting _____

    Northing _____

11. **Correspondence Information**:

APPLICANT/OPERATOR (name, address, and phone of name to be used on permit)

Contact's Name: Brett Baker Title: President

Company Name: McAtee Construction Company

Street/P.O. Box: 6215 Clear Creek PKWY P.O. Box: _____

City: Cheyenne

State: CO Zip Code: 82007

Telephone Number: (307) - 635-9005

Fax Number: (_____) - _____

PERMITTING CONTACT (if different from applicant/operator above)

Contact's Name: Steve O'Brian Title: President

Company Name: Environment, Inc

Street/P.O. Box: 7985 Vance Dr. #205A P.O. Box: _____

City: Arvada

State: CO Zip Code: 80003

Telephone Number: (303) - 423-7297

Fax Number: (303) - 423-7599

INSPECTION CONTACT

Contact's Name: Jeff Harms Title: manager

Company Name: McAtee Construction Company

Street/P.O. Box: _____ P.O. Box: _____

City: Sterling

State: CO Zip Code: 80751

Telephone Number: (970) - 521-0651

Fax Number: (970) - 522-9725

CC: STATE OR FEDERAL LANDOWNER (if any)

Agency: _____

Street: _____

City: _____

State: _____ Zip Code: _____

Telephone Number: (_____) - _____

CC: STATE OR FEDERAL LANDOWNER (if any)

Agency: _____

Street: _____

City: _____

State: _____ Zip Code: _____

Telephone Number: (_____) - _____

12. **Primary future (Post-mining) land use (check one)**:

☐ Cropland(CR)	☐ Pastureland(PL)	☐ General Agriculture(GA)
☐ Rangeland(RL)	☐ Forestry(FR)	☐ Wildlife Habitat(WL)
☐ Residential(RS)	☐ Recreation(RC)	☑ Industrial/Commercial(IC)
☐ Developed Water Resources(WR)		☐ Solid Waste Disposal(WD)

13. **Primary present land use (check one)**:

☐ Cropland(CR)	☐ Pastureland(PL)	☐ General Agriculture(GA)
☐ Rangeland(RL)	☐ Forestry(FR)	☐ Wildlife Habitat(WL)
☐ Residential(RS)	☐ Recreation(RC)	☑ Industrial/Commercial(IC)
☐ Developed Water Resources(WR)		

14. **Method of Mining**: Briefly explain mining method (e.g. truck/shovel): Scrapers, and front end loaders remove topsiol and a wet dredge is used to mine.

15. **On Site Processing**: ☑ Crushing/Screening

13.1 Briefly explain mining method (e.g. truck/shovel): Dredged material is transferred to a crushing/screen plant for processing then stockpiled for use att he concrete and asphalt batch plants..

List any designated chemicals or acid-producing materials to be used or stored within permit area: None

16. **Description of Amendment or Conversion**:

If you are amending or converting an existing operation, provide a brief narrative describing the proposed change(s).

This amendment is to add 21.25 acres to the permit area. Approximately 15.0 acres of this addition are existing industrial areas where a Concrete Batch Plant, an Asphalt Batch Plant and stockpile areas are located near Riverside Drive. Addition of this new area moved the affected lands/ permit area to the property lines. Areas around the lakes will re resoiled and revegetated and the final industrial use area of 8.23 acres will remain when mining ends.

Maps and Exhibits:

Two (2) complete, unbound application packages must be submitted. One complete application package consists of a signed application form and the set of maps and exhibits referenced below as Exhibits A-S, Addendum 1, and the Geotechnical Stability Exhibit. Each exhibit within the application must be presented as a separate section. Begin each exhibit on a new page. Pages should be numbered consecutively for ease of reference. If separate documents are used as appendices, please reference these by name in the exhibit.

With each of the two (2) signed application forms, you must submit a corresponding set of the maps and exhibits as described in the following references to Rule 6.4, 6.5, and 1.6.2(1)(b):

EXHIBIT A	Legal Description
EXHIBIT B	Index Map
EXHIBIT C	Pre-Mining and Mining Plan Map(s) of Affected Lands
EXHIBIT D	Mining Plan
EXHIBIT E	Reclamation Plan
EXHIBIT F	Reclamation Plan Map
EXHIBIT G	Water Information
EXHIBIT H	Wildlife Information
EXHIBIT I	Soils Information
EXHIBIT J	Vegetation Information
EXHIBIT K	Climate Information
EXHIBIT L	Reclamation Costs
EXHIBIT M	Other Permits and Licenses
EXHIBIT N	Source of Legal Right-To-Enter
EXHIBIT O	Owners of Record of Affected Land (Surface Area) and Owners of Substance to be Mined
EXHIBIT P	Municipalities Within Two Miles
EXHIBIT Q	Proof of Mailing of Notices to County Commissioners and Conservation District
EXHIBIT R	Proof of Filing with County Clerk or Recorder
EXHIBIT S	Permanent Man-Made Structures
Rule 1.6.2(1)(b)	ADDENDUM 1 - Notice Requirements (sample enclosed)
Rule 6.5	Geotechnical Stability Exhibit (any required sections)

The instructions for preparing Exhibits A-S, Addendum 1, and Geotechnical Stability Exhibit are specified under Rule 6.4 and 6.5 and Rule 1.6.2(1)(b) of the Rules and Regulations. If you have any questions on preparing the Exhibits or content of the information required, or would like to schedule a pre-application meeting you may contact the Office at 303-866-3567.

Responsibilities as a Permittee:

Upon application approval and permit issuance, this application becomes a legally binding document. Therefore, there are a number of important requirements which you, as a permittee, should fully understand. These requirements are listed below. Please read and initial each requirement, in the space provided, to acknowledge that you understand your obligations. If you do not understand these obligations then please contact this Office for a full explanation.

BAB 1. Your obligation to reclaim the site is not limited to the amount of the financial warranty. You assume legal liability for all reasonable expenses which the Board or the Office may incur to reclaim the affected lands associated with your mining operation in the event your permit is revoked and financial warranty is forfeited;

BAB 2. The Board may suspend or revoke this permit, or assess a civil penalty, upon a finding that the permittee violated the terms or conditions of this permit, the Act, the Mineral Rules and Regulations, or that information contained in the application or your permit misrepresent important material facts;

BAB 3. If your mining and reclamation operations affect areas beyond the boundaries of an approved permit boundary, substantial civil penalties, to you as permittee can result;

BAB 4. Any modification to the approved mining and reclamation plan from those described in your approved application requires you to submit a permit modification and obtain approval from the Board or Office;

BAB 5. It is your responsibility to notify the Office of any changes in your address or phone number;

BAB 6. Upon permit issuance and prior to beginning on-site mining activity, you must post a sign at the entrance of the mine site, which shall be clearly visible from the access road, with the following information (Rule 3.1.12):

a. the name of the operator;

b. a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board; and,

c. the permit number.

BAB 7. The boundaries of the permit boundary area must be marked by monuments or other markers that are clearly visible and adequate to delineate such boundaries prior to site disturbance.

BAB 8. It is a provision of this permit that the operations will be conducted in accordance with the terms and conditions listed in your application, as well as with the provisions of the Act and the Construction Material Rules and Regulations in effect at the time the permit is issued.

BAB 9. Annually, on the anniversary date of permit issuance, you must submit an annual fee as specified by Statute, and an annual report which includes a map describing the acreage affected and the acreage reclaimed to date (if there are changes from the previous year), any monitoring required by the Reclamation Plan to be submitted annually on the anniversary date of the permit approval. Annual fees are for the previous year a permit is held. For example, a permit with the anniversary date of July 1, 1995, the annual fee is for the period of July 1, 1994 through June 30, 1995. Failure to submit your annual fee and report by the permit anniversary date may result in a civil penalty, revocation of your permit, and forfeiture of your financial warranty. It is your responsibility, as the permittee, to continue to pay your annual fee to the Office until the Board releases you from your total reclamation responsibility.

NA 10. For joint venture/partnership operators: the signing representative is authorized to sign this document and a power of attorney (provided by the partner(s)) authorizing the signature of the representative is attached to this application.

NOTE TO COMMENTORS/OBJECTORS:

It is likely there will be additions, changes, and deletions to this document prior to final decision by the Office. Therefore, if you have any comments or concerns you must contact the applicant or the Office prior to the decision date so that you will know what changes may have been made to the application document.

The Office is not allowed to consider comments, unless they are written, and received prior to the end of the public comment period. You should contact the applicant for the final date of the public comment period.

If you have questions about the Mined Land Reclamation Board and Office's review and decision or appeals process, you may contact the Office at (303) 866-3567.

Certification:

As an authorized representative of the applicant, I hereby certify that the operation described has met the minimum requirements of the following terms and conditions:

1. To the best of my knowledge, all significant, valuable and permanent man-made structure(s) in existence at the time this application is filed, and located within 200 feet of the proposed affected area have been identified in this application (Section 34-32.5-115(4)(e), C.R.S.).

2. No mining operation will be located on lands where such operations are prohibited by law (Section 34-32.5-115(4)(f), C.R.S.;

3. As the applicant/operator, I do not have any extraction/exploration operations in the State of Colorado currently in violation of the provisions of the Colorado Land Reclamation Act for the Extraction of Construction Materials (Section 34-32.5-120, C.R.S.) as determined through a Board finding.

4. I understand that statements in the application are being made under penalty of perjury and that false statements made herein are punishable as a Class 1 misdemeanor pursuant to Section 18-8-503, C.R.S.

This form has been approved by the Mined Land Reclamation Board pursuant to section 34-32.5-112,C.R.S., of the Colorado Land Reclamation Act for the Extraction of Construction Materials. Any alteration or modification of this form shall result in voiding any permit issued on the altered or modified form and subject the operator to cease and desist orders and civil penalties for operating without a permit pursuant to section 34-32.5-123, C.R.S.

Signed and dated this 9th day of November, 2018.

McAtee Construction Company
Applicant/Operator or Company Name

If Corporation Attest (Seal)

Signed: _____

Title: President

Signed: _____
Asst. Corporate Secretary or Equivalent
Town/City/County Clerk

State of Wyoming)
) ss.
County of Laramie)

The foregoing instrument was acknowledged before me this 9th day of November, 2018, by Brett Baker as President of McAtee Construction Company

PAULA HAVENS - NOTARY PUBLIC
COUNTY OF LARAMIE STATE OF WYOMING
My Commission Expires January 28, 2022

_____
Notary Public

My Commission expires: January 28, 2022

SIGNATURES MUST BE IN BLUE INK

You must post sufficient Notices at the location of the proposed mine site to clearly identify the site as the location of a

Affidavit of Authority to Execute Financial Warranty Documents

Before me this day, the undersigned Brett Baker [name of authorized person], in his/her capacity as President [title of authorized person] ("Affiant"), personally appeared and, being first duly sworn upon oath said:

1. This affidavit is being executed and submitted on behalf of McAtee Construction Company [name of business organization], a(n) Corporation [legal form of business organization, *e.g.*, corporation, partnership, limited liability company, etc.], in good standing in the State of Colorado (the "Company").

2. It is in the interest of the Company to execute certain financial warranty documents associated with file number M-1976-056 (DRMS file number), which are required by the Colorado Mined Land Reclamation Board and Division of Reclamation Mining and Safety pursuant to Colorado law ("Financial Warranty Documents").

3. Affiant is duly authorized to sign such Financial Warranty Documents on behalf of the Company and to bind the Company to the same.

4. Affiant is not prohibited or limited by the Company's governing documents or by any applicable law from executing the Financial Warranty Documents.

5. Affiant will inform the Division of Reclamation Mining and Safety within thirty (30) days in the event that his/her authorization to execute Financial Warranty Documents on the Company's behalf is terminated.

Further, Affiant sayeth not.

Brett Baker
Affiant's Name

Signature

STATE OF Wyoming)
) ss.:
COUNTY OF Laramie)

The foregoing instrument was acknowledged before me this 9th day of November, 2018,
by Brett Baker as President of McAtee Construction Company

Notary Public Paula Havens

My Commission Expires January 28, 2022

PAULA HAVENS - NOTARY PUBLIC
COUNTY OF LARAMIE STATE OF WYOMING
My Commission Expires January 28, 2022

MCATEE CONSTRUCTION COMPANY

dba McAtee Paving Company • Sterling Redi Mix Company • Green Bros. Ready Mix
P.O. Box 1908 • Sterling, Colorado 80751
Phone: 970-522-3647 • Fax: 970-522-9725

RIVERSIDE PIT

M.L.R.B. PERMIT # M-76-056

LOGAN COUNTY, COLORADO

NOVEMBER 2018

AMENDMENT TO A MINED LAND RECLAMATION PERMIT

Prepared by:
ENVIRONMENT, INC.
7985 VANCE DR., SUITE 205A
ARVADA, CO 80003
(303) 423-7297

TABLE OF CONTENTS

Exhibit A LEGAL DESCRIPTION

Existing area

Part of the E½SE¼, Section 28 and Part SW¼NE¼ and NW¼NE¼, Section 33, Township 8 North, Range 52 West of the 6th Principal Meridian, LOGAN COUNTY COLORADO, containing 86.35 acres more or less.

Amendment area

Part SE¼SE¼, and SW¼SE¼ of Section 28 and Part of the SW¼NE¼, Section 33, Township 8 North, Range 52 West of the 6th Principal Meridian, LOGAN COUNTY COLORADO. Containing 21.25 acres more or less.

TOTAL PERMIT AREA 107.6 ACRES

PERMIT BOUNDARY DESCRIPTION

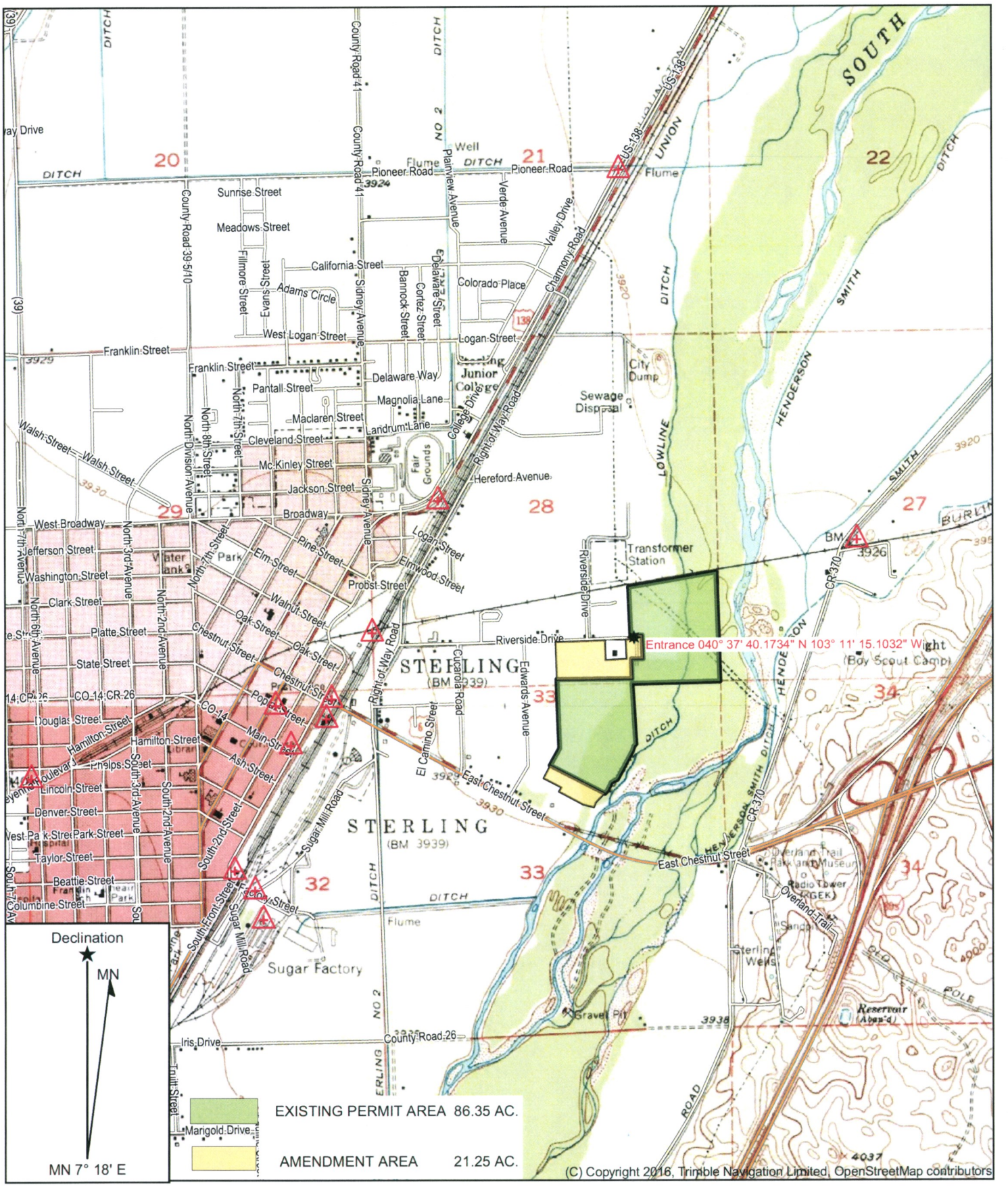
Beginning at the northeast corner of Section 33, Township 8 North, Range 52 West, of the Sixth Principal Meridian being the TRUE POINT OF BEGINNING. Thence S87°11'33"W, 1332.06 feet to a point on the east line of Lot 3 Block 2 of the Sonnenberg Industrial Park East, said line being the south line of the existing eastern parcel of the Riverside Pit. Thence along the east line of the Sonnenberg Industrial Park East, S04°43'00"E, 931.40 feet; thence S47°22'45"W, 36.36 feet; thence S09°51'55"E, 75.16 feet; thence S26°38'25"W, 498.49 feet; thence S62°31'05"W, 105.82 feet; thence S22°45'05"W, 125.66 feet; thence S43°21'05"W, 252.27 feet; to the SE corner of Lot 8 Block 2 of said subdivision; thence S22°14"05"W, 89.19 feet; thence along the south line of Lot 8 Block 2, N77°36'02"W, 157.07 feet.

Thence N63°08"59"W, 425.92 feet, to the SW corner of Lot 8; thence N26°51'07"E, 65.61 feet; along the south line of Lot 17 Block 1 N63°15'59"W, 304.83 feet, to the southwest corner of said lot.

Thence N26°51'05"E, 513.66 feet to the southeast cornet Lot 8 Block 1; thence N03°33'10"W, 232.60 feet along the west side of Lot 19 Block 1; thence N33°29'39"W, 200.07 feet, along the west line of Lot 20 Block 1; thence N33°33'25"W, 599.82 feet along the west line of Lots 21, 22 and 23 Block 1 to the northwest corner of Lot 23; thence along the west line of Lots 24, 25 and 26 Block 1, N03°29'21"W, 538.39 feet to the northeast corner of Lot 26, a point on the South ROW line of Riverside Drive.

Thence N86°29'04"E, 750.54 feet along said ROW line; thence S03°33'41"E, 299.91 feet; thence N86°30'12"E, 323.17 feet; thence N03°32'36"W, 299.998 feet to a point on the south ROW line of Riverside Drive; thence along said ROW, N86°33'05"E, 72.82 feet; thence N03°39'19"W, 804.28 feet to a point on the south ROW line of the Nebraska, Kansas & Colorado Railway line; thence N70°55'48"E, 1350.12 feet along the railroad ROW line to the northeast corner of the existing permit area, said point being on the east section line of Section 28.

Thence along said section line, S03°21'06"E, 346.85 feet; thence S03°22'46"E, 1328.61 feet to the TRUE POINT OF BEGINNING, containing 107.6 acres more or less.

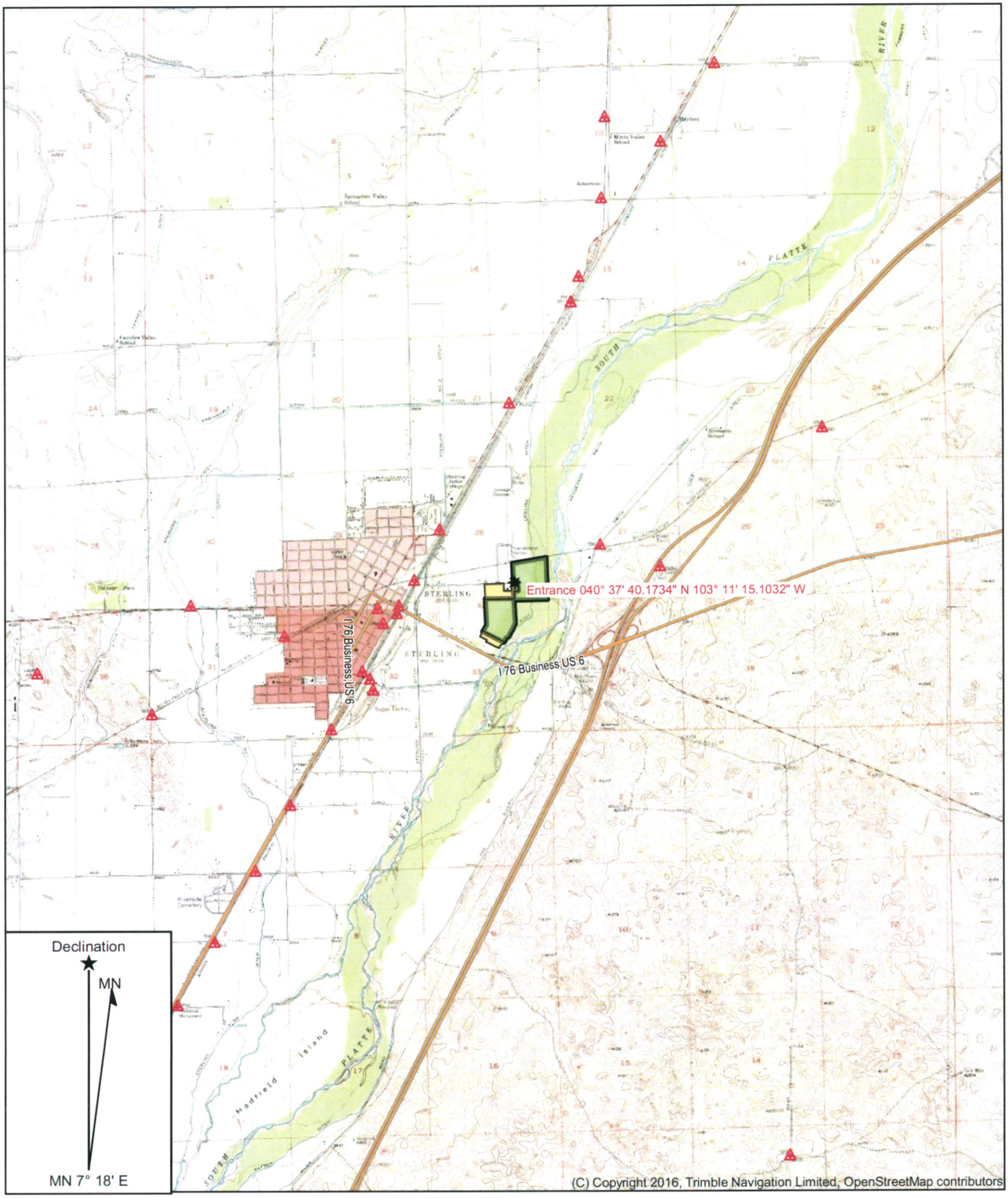


Name: STERLING NORTH
Date: 10/10/18
Scale: 1 inch = 2,000 ft.

PART OF THE E1/2SE1/4 and SW1/4SE1/4, Section28 and parts of the SW1/4NE1/4, and NW1/4NE1/4, SEC. 33, T-8-N, R-52-W, 6TH P.M., LOGAN COUNTY, COLORADO

McAtee Construction Co.
Riverside Pit M-1976-056
Exhibit B - Vicinity Map

all small maps in this entry!



Name: STERLING
Date: 10/23/18
Scale: 1 inch = 5,280 ft.

PART OF THE E1/2SE1/4 and SW1/4SE1/4, Section28 and parts of the SW1/4NE1/4, and NW1/4NE1/4, SEC. 33, T-8-N, R-52-W, 6TH P.M., LOGAN COUNTY, COLORADO

McAtee Construction Co.
Riverside Pit M-1976-056
Exhibit B1 - Area Map

Unless specifically discussed below the methods described in the November 1976 and August 2000 Mining and Reclamation Plans and Technical Revisions filed on 12/23/1983, 3/28/1991, 5/8/2012, 8/28/2012 and 7/24/2015 will remain unchanged.

In 1976 the application was for a 46.55 acres ± permit area that would be reclaimed as 2 lakes and the surrounding area would be resoiled and revegetated. Mining was to be done in 4 Stages by a wet dredge starting on the west part of the property in Lake Marjorie near the asphalt plant and the processing site was to be the south end of Lake Marjorie. Mining would then move to Lake Robert and mine from north to south. With the final area to be mined being the south end of Lake Marjorie.

In 1983, a Technical Revision was filed to reconfigure Stage 1 (north side of Lake Marjorie), add a bridge to cross the Lowline Ditch, revise the seed mix and mulching requirements and recalculate the bond.

The Technical Revision filed in 1991 was to remove the staging, move the bridge to the south permit line, revise the Mining Plan and it's Timetable and Reclamation Plan and it' Timetable and recalculate the bond.

The permit was amended in 2000 to add approximately 39.80 acres ± that is now the West Area containing 2 lakes, East Lake and West Lake. The total permit area is now 86.35 acres ±. Method of mining did not change and mining would start on the north end of West Lake when mining in Lake Robert was done, then move to the East Lake and finish on the south End of Lake Marjorie.

In 2012 two (2) Technical Revisions were filed, the first was to add a provision for minor blasting at the mine to facilitate keeping the mining face in a safe configuration. The second added a Weed Control Plan to the permit.

The most recent Technical Revision was required as a result of the September 2013 South Platte River flood event. It involved revisiting the permit for the Lake Robert area where the river had entered the mine and backfilled nearly 5.0 acres of the south end, destroyed most of the reclamation that was completed on the lake shore and left a flood overflow channel bisecting Lake Robert. It was anticipated flood water would continue to flow thru the channel and enter the Lake Robert area whenever the Platte River flooded. An armored outlet structure was installed in the north lake shore and the south shore was left open. The fill area was left to be naturally revegetated since it was sand washed in by the river and there is no topsoil for that area. The current plan for the Lake Robert area is to grade the above water slopes to 3:1. The below water slope were washed to flatter then 3:1 by the flood, prior to the flood reclamation was pretty well done in the Lake Robert area. A graveled equipment parking area was added and a concrete pad left from the dredging operations was retained in this Technical Revision since these will be used for equipment parking in the future.

The current bond is $131,200 and a new reclamation cost estimate is presented in Exhibit L on page 45 of this application. Existing sloping, grading and shaping plans will apply to

the new area since they are similar to the area now in the permit. Most of the added area will remain industrial as they contain the permanent Asphalt and Concrete plants and support facilities. The permit area is zoned Heavy Industrial by the City of Sterling. The following changes to the mining plan are numbered sequentially to give some order to this amendment.

The areas being added for the most part were part of the original property purchased in 1998 by McAtee Construction Company. It was an old feedlot that operated into the early 1970's and covered 100+ acres. When the feedlot was closed it was subdivided into 26 lots of various sizes intending to be developed into a Heavy Industrial area. In 2000 the northern 2 lots and the southern 2 lots were not put into the permit area as they were going to be developed. This addition will involve mining parts of the north lots and most of the southern lots.

AMENDMENT 1 - Acreage added to Permit

This section describes the changes in area made to the permit. This amendment adds 21.25 acres to the permit area that adjoins the existing permit areas on the north and south sides of the West Lake area, 18.94 acres, including the old Asphalt Plant area that is surrounded by Lake Marjorie, 2.31 acres.

We have created three new maps that show the entire permit area. On the Current Conditions Map - Map Exhibit C the yellow outline is the new permit area and the green outline is the existing permit area. The maps were updated to show what has been mined, reclaimed or partially reclaimed todate. In the existing permit area, the Pre-Mining (Current Conditions) Map shows approximately how the site looks now. This was carried to the Mining Plan Map showing how we feel the site will look when mining progresses from where it is currently taking place in the West Lake to the East Lake areas. There will still be areas in Lake Marjorie that need to be mined to total depth. The Reclamation Plan shows how we feel the site will look when mining is complete.

The new area has little soil as explained in the 2000 Amendment. When the feedlot closed the area was stripped to the subsoil sand surface to remove the accumulated manure. There is a heavy covering of weeds over the entire site with sparse grass growing in isolated spots. The original owners made no attempt to seed the area when they cleaned it up and it was left with no soil to speak of. For many years there was no vegetation on it at all. They planned to create an industrial area and development would have solved the issue.

There are two power lines bisecting the site from north to south. The western most line will remain during mining and will serve as the separation line for the two new lakes. An agreement with Xcel Energy will allow McAtee Construction Company to mine between 2 of the northern poles to connect the lakes and make mining easier. Xcel requires a 40 foot setback around each pole so that distance is the setback used on each side of the centerline of the poles to allow access and protect them from mining. The eastern line has been buried, immediately adjacent to the

east permit line on the West Area. There are no specific R.O.W. widths listed in the deed and McAtee is working with the power company, to allow mining within 200 feet of the lines.

Both lakes will be expanded in the West area and some of the northern side will not be mind as it will remain as Heavy Industrial uses that include an Asphalt Batch Plant, a Concrete Batch Plant and a parking/stockpile area. Mining began on West Lake and has progressed to the south. The plan is now to dredge the material from between the power poles and transition into the East Lake area and mine to the dredge setback line on the north end. Mining will then continue to the south end of the East lake before returning to finish the West Lake. The depth of the gravel is 40 to 60 feet deep in this area but only the upper 40 feet will be mined as shown on the maps. **Map Exhibit C-1 Mining Plan Map** shows how the area will look as mining progress in the East Lake area. Mining is done using a dredge to pump the sand to a screen where the sand, gravel and water are separated. The material is then conveyored to the stockpile area. This is the same method described in the approved Mining Plan. All setbacks around the site in the new areas will be 25 feet from the permit line or strictures to the top of the bank and 40 feet along both sides of the western most powerline. The powerline setback area will provide access to the powerlines and the perimeter setbacks around the lakes will be used for access too. In addition, a 6 to 22 feet of dredge setback will be maintained near needed to protect structures other then the powerline. This line will be the closest to a structure that the dredge working face will get to that structure. The area between the Top of Bank and dredge dig line will then be mined at a 3:1 slope or the material will be used as part of the underwater sloping. These lines are shown on the **Mining Plan Map** around the souther unmined parts of the West Area.

According to the NRCS report from **Exhibits I/J** from the 2000 application there was very little topsoil on the west area. It is possible that we can salvage enough to place 6 inches on the above water areas. The Soils Map and supporting data for the mine have been updated and include in **Exhibit I & J**. If we encounter topsoil or growth medium we will store it on the setback areas for use in reclamation. If the stockpiles remain undisturbed for more than a year we will cover seed the piles with 40.0 #'s-PLS of Western Wheatgrass, per acre of surface area of stockpile to prevent erosion. The piles will be within 500 feet of the seedbed to reduce the haul distance. As mining progresses thru the stage and additional stripping has to be done the material will either be stockpiled for later use or moved directly to the areas needing resoiling.

Processing will continue to take place in the Plant Site area now located on the south end of Lake Marjorie as shown on **Map Exhibit C**. Once mining is done on the West Area we will return to the Plant Site area in Lake Marjorie and remove the remaining material in that area. This is discussion is intended as an estimate of the direction of mining only and may change as the actual mining takes place in any given area. The estimated

direction of mining in each stage is shown as a series of arrows on the **Map Exhibit C-1 Mining Plan Map.**

The slopes will be created as mining progresses around the lake perimeter. Excess sand is used to rebuild the slopes with the dredge each time mining on the site ends. This will reduce the amount of backfilling work needed at any-one-time. Please see **Map Exhibit C-1** for how an area may look as mining progresses through it. As explained in 2000, mining will still continue simultaneously in the existing lake areas depending on the type of material needed by the company.

As in the approved plan there will be no more than 1200 feet of above water slope needing backfilling at any time. The working face is at its maximum width when mining is taking place in East Lake where it will be 625 feet long. We have found that as the area is dredged the sand tends to slough off the working face leaving a stabile slope of 2h to 1v which needs little work when mining ends. However, some blasting has been used if natural sloughing does not occur. The dredge is used to place sand along the below water bank areas as mining stops each year to further stabilize them and the above water slopes are then graded using a blade to prepare the seedbed.

AMENDMENT 2 - Mining sequence change

In the current plan McAtee was to mine in West Lake first and the move to East Lake and finish in Lake Marjorie. At this time the cut between the lakes is being completed and mining will start on the north end of the East lake and work to the dredge setback line along the Concrete Plant/stockpile area. Mining will then return to the West Lake area and complete the band of material left on the north and south sides. Mining will end in Lake Marjorie once the West Area is mined out.

AMENDMENT 3 - Addition of Industrial areas

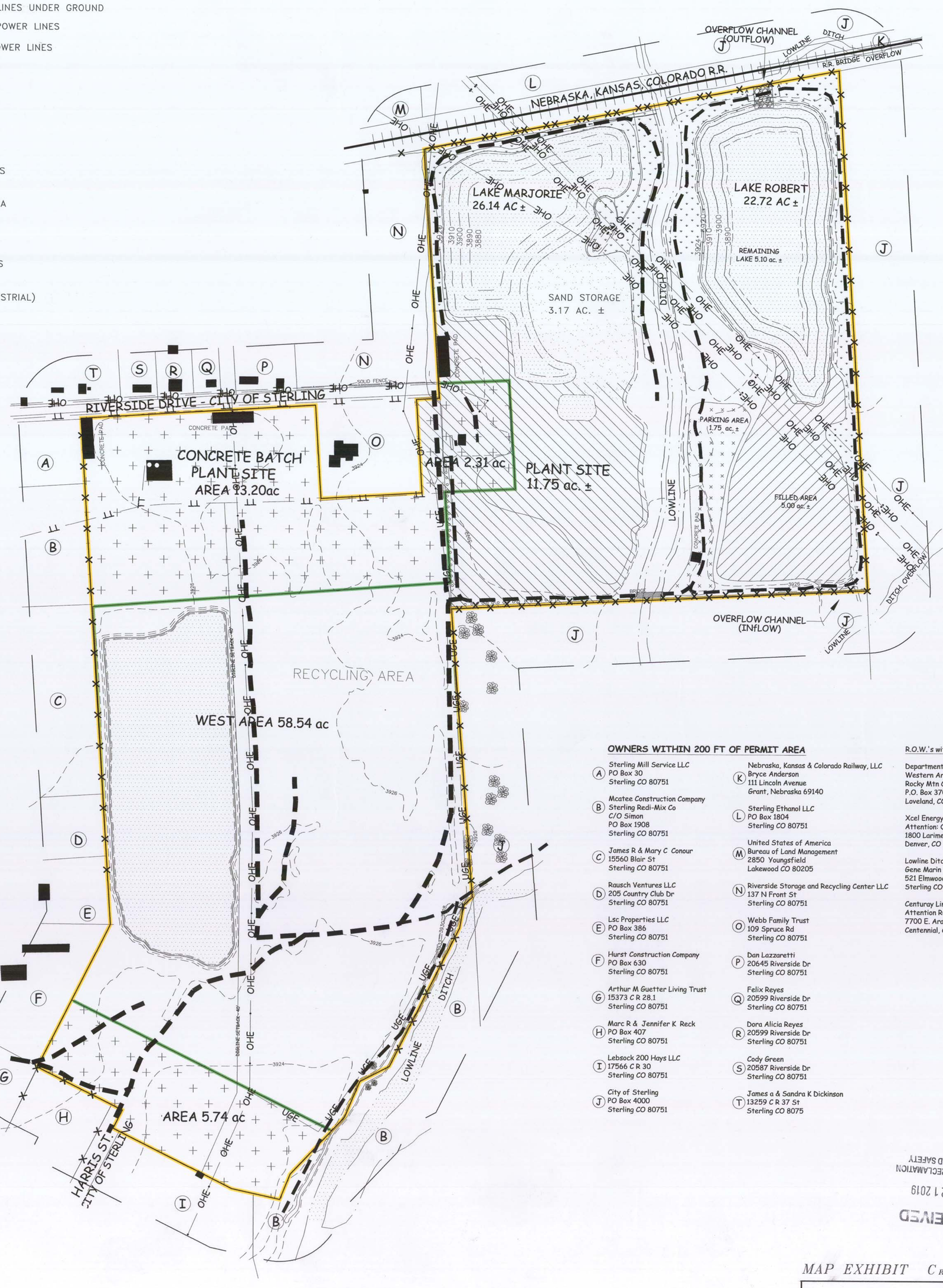
The Asphalt Plant and Concrete Plans and material stockpile areas that exist at this time and are added because the Mined Land Reclamation Board determined they should be in the permit area. These areas will remain after mining ends since they have the proper zoning in the City of Sterling. The support facilities, such as the scale and scale house, plant offices, the concrete pads used for truck parking and raw material stockpiles will remain after reclamation is complete.

AMENDMENT 4 - Revised Mining Timetable

		ACRES		
PHASE	YEARS	MINED	MINING 100%	SLOPE AREA
Lake Robert	3-5	17.27	8.28	8.99
Lake Marjorie	3-5	15.49	6.65	8.84
West Lake	7-10	19.80	9.12	10.68
East Lake	10-12	24.29	13.23	11.06
TOTALS		76.85	37.28	39.57

LEGEND

- PERMIT/AFFECTED LANDS
- AFFECTED LANDS (CURRENT)
- 200 FOOT LINE
- DIKE
- ROADS
- FENCE
- TT — COMMUNICATION LINES UNDER GROUND
- UGE — BELWO GROUND POWER LINES
- OHE — ABOVE GROUNDPOWER LINES
- RAILROAD
- DITCH
- EXISTING TREES
- LAKE AREA
- AMENDMENT AREAS
- REVEGETATED AREA
- PARKING AREA
- BACKFILLED AREAS
- PLANT SITE (INDUSTRIAL)



OWNERS WITHIN 200 FT OF PERMIT AREA

(A) Sterling Mill Service LLC
PO Box 30
Sterling CO 80751

(B) Mcatee Construction Company
Sterling Redi-Mix Co
C/O Simon
PO Box 1908
Sterling CO 80751

(C) James R & Mary C Conour
15560 Blair St
Sterling CO 80751

(D) Rausch Ventures LLC
205 Country Club Dr
Sterling CO 80751

(E) Lsc Properties LLC
PO Box 386
Sterling CO 80751

(F) Hurst Construction Company
PO Box 630
Sterling CO 80751

(G) Arthur M Guetter Living Trust
15373 C R 28.1
Sterling CO 80751

(H) Marc R & Jennifer K Reck
PO Box 407
Sterling CO 80751

(I) Lebsock 200 Hays LLC
17566 C R 30
Sterling CO 80751

(J) City of Sterling
PO Box 4000
Sterling CO 80751

(K) Nebraska, Kansas & Colorado Railway, LLC
Bryce Anderson
111 Lincoln Avenue
Grant, Nebraska 69140

(L) Sterling Ethanol LLC
PO Box 1804
Sterling CO 80751

(M) United States of America
Bureau of Land Management
2850 Youngsfield
Lakewood CO 80205

(N) Riverside Storage and Recycling Center LLC
137 N Front St
Sterling CO 80751

(O) Webb Family Trust
109 Spruce Rd
Sterling CO 80751

(P) Dan Lazzaretti
20645 Riverside Dr
Sterling CO 80751

(Q) Felix Reyes
20599 Riverside Dr
Sterling CO 80751

(R) Dora Alicia Reyes
20599 Riverside Dr
Sterling CO 80751

(S) Cody Green
20587 Riverside Dr
Sterling CO 80751

(T) James a & Sandra K Dickinson
13259 C R 37 St
Sterling CO 8075

R.O.W.'s within 200 feet

Department of Energy
Western Area Power Administration
Rocky Mtn Customer Service Region
P.O. Box 3700
Loveland, CO 80539-3003

Xcel Energy
Attention: Quinn Kilty
1800 Larimer St. Suite 1300
Denver, CO 80202

Lowline Ditch Company
Gene Marin
521 Elmwood St.
Sterling CO 80751

Centuray Link
Attention ROW
7700 E. Arapahoe Road, Suite 220
Centennial, CO 80112-1268

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AUG 21 2019
DIVISION OF RECLAMATION MINING AND SAFETY

N

0 100 200 400

SCALE 1"=200'

STRUCTURES WITHIN 200 FT OF PERMIT AREA

(A) Sterling Mill Service LLC
Chainlink fence#

(B) Mcatee Construction Company
Sterling Redi-Mix Co
wire fences - east*
chainlink fence - west#
Private fiber optic line

(C) James R & Mary C Conour
chainlink fence - west#

(D) Rausch Ventures LLC
chainlink fence - west#

(E) LSC Properties LLC
chainlink fence - west#
Building

(F) Hurst Construction Company
2 - Buildings
chainlink fence - west

(H) Marc R & Jennifer K Reck
chainlink fences

(I) Lebsock 200 Hays LLC
Building

(K) Nebraska, Kansas & Colorado Railway, LLC
Railroad tracks*
Bridge*

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Solid fence

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2 - Buildings

(J) City of Sterling
Harris St. & Riverside St.

Lowline Ditch Company
Irrigation Ditch & Headgate*

Western Area Power Administration
2 - Powerlines (Lake Robert area)*

Xcel Energy
Powerlines#

Century Link
Communications lines

* structures listed in original 1976 permit.

structures added after 2000 permit approval

RECEIVED
AUG 21 2019
DIVISION OF RECLAMATION MINING AND SAFETY

DATE	DESCRIPTION	BY
MARCH 1983	TECHNICAL REVISION – STAGE MODIFICATIONS	SRM/ENV.
MARCH 1991	TECHNICAL REVISIONS – STAGE REMOVAL	SRM/ENV.
AUGUST 2000	AMMENDMENT – ADDED AREA – 39.80 ac.	SRM/ENV.
NOV 2018	AMMENDMENT – ADDED AREA – 21.25 ac.	MCC/ENV.
JAN 2019	ADEQUACY RESPONSE – ADDED POWERLINE SETBACK	MCC/ENV.

MAP EXHIBIT C REVISED 8/2019

MCATEE CONSTRUCTION COMPANY

dba McAtee Paving Company • Sterling Redi Mix Company • Green Bros. Ready Mix
P.O. Box 1908 • Sterling, Colorado 80751
Phone: 970-522-3647 • Fax: 970-522-9725

RIVERSIDE PIT

M-1976-056

CURRENT CONDITIONS MAP

Parts of the NE/4SE/4, SE/4SE/4, & SW4/SE4/, SEC. 28
and Parts of the SW/4NE/4, & NW/4NE/4, SEC 33,
TOWNSHIP 8 NORTH, RANGE 52 WEST, 6TH P.M.,
LOGAN COUNTY, COLORADO

PREPARED BY: ENVIRONMENT, INC.
7985 VANCE DR., # 205A
ARVADA, CO 80003
(303) 423-7297

DATE: 11/8/2018

AUG 20, 2019 – 10:15:36

LEGEND

- AFFECTED LANDS
- 200 FOOT LINE
- DIKE
- ROADS
- FENCE
- TT — COMMUNICATION LINES UNDER GROUND
- UGE — BELWO GROUND POWER LINES
- OHE — ABOVE GROUNDPOWER LINES
- RAILROAD
- DITCH
- EXISTING TREES
- LAKE AREA
- REVEGETATED AREA
- PARKING AREA
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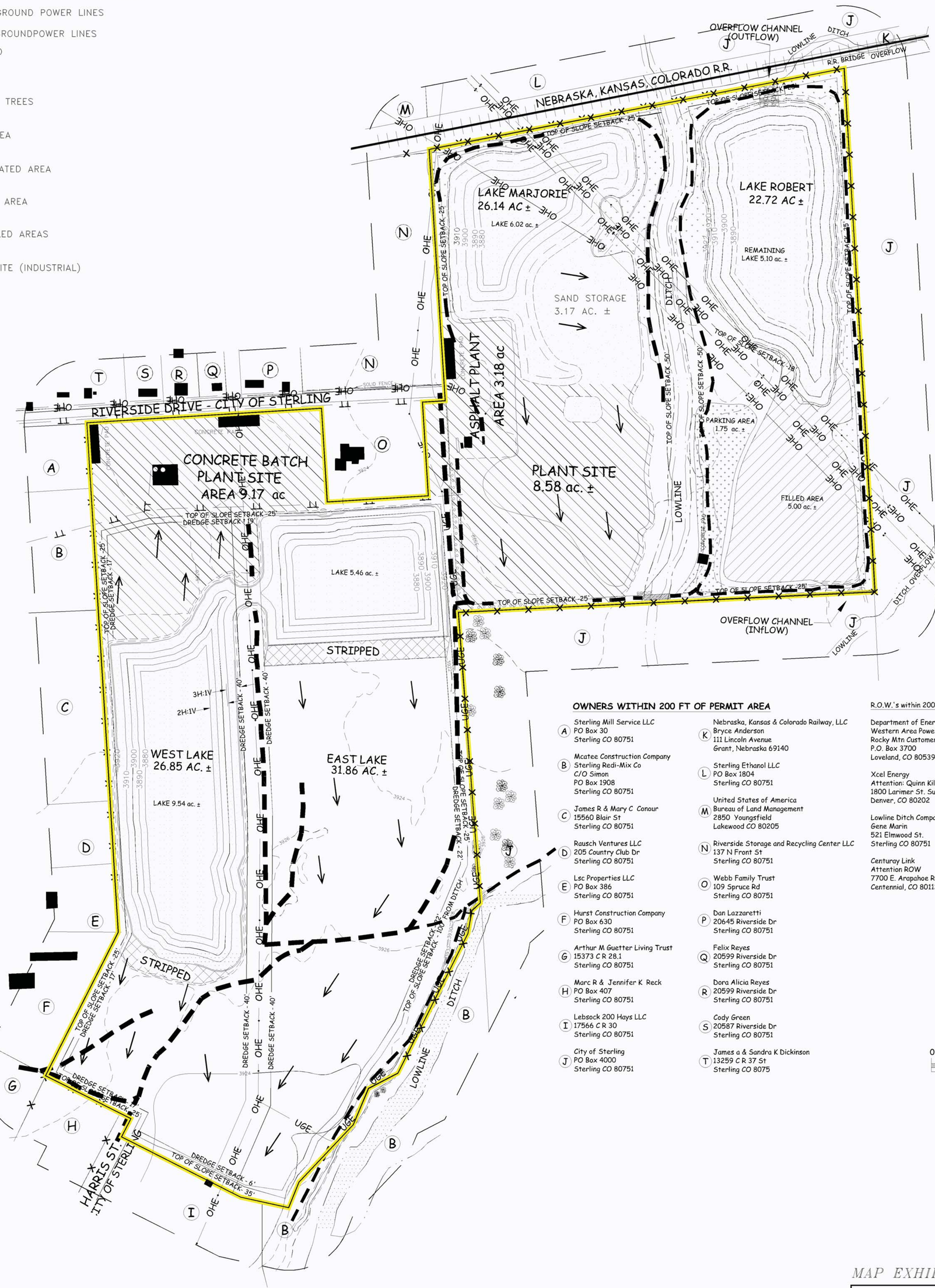
- PLANT SITE (INDUSTRIAL)



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R.O.W.'s within 200 feet

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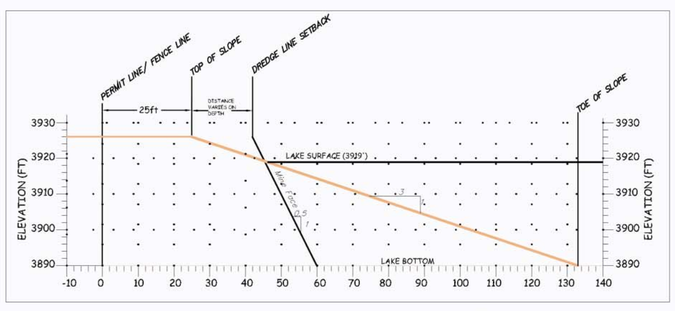
N

0 100 200 400

SCALE 1"=200'



TYPICAL MINING SETBACK CROSS SECTION

STRUCTURES WITHIN 200 FT OF PERMIT AREA

(A) Sterling Mill Service LLC
Chainlink fence#

(B) Mcatee Construction Company
Sterling Redi-Mix Co
wire fences - east*
chainlink fence - west#
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chainlink fence - west#
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2 - Buildings
chainlink fence - west

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Harris St. & Riverside St.

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Irrigation Ditch & Headgate*

Western Area Power Administration
2 - Powerlines (Lake Robert area)*

Xcel Energy
Powerlines#

Century Link
Communications lines

* structures listed in original 1976 permit.

\# structures added after 2000 permit approval

DATE	DESCRIPTION	BY
MARCH 1983	TECHNICAL REVISION – STAGE MODIFICATIONS	SRM/ENV.
MARCH 1991	TECHNICAL REVISIONS – STAGE REMOVAL	SRM/ENV.
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NOV 2018	AMMENDMENT – ADDED AREA – 21.25 ac.	MCC/ENV.
AUGUST 2019	ADEQUACY RESPONSE – ADDED SETBACK LINES	MCC/ENV.

MAP EXHIBIT C–1 REVISED 8/2019

McATEE CONSTRUCTION COMPANY

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P.O. Box 1908 • Sterling, Colorado 80751
Phone: 970-522-3647 • Fax: 970-522-9725

RIVERSIDE PIT

M–1976–056

MINING PLAN MAP

Parts of the NE/4SE/4, SE/4SE/4, & SW4/SE4/, SEC. 28
and Parts of the SW/4NE/4, & NW/4NE/4, SEC 33,
TOWNSHIP 8 NORTH, RANGE 52 WEST, 6TH P.M.,
LOGAN COUNTY, COLORADO

PREPARED BY: *ENVIRONMENT, INC.*
7985 VANCE DR., # 205A
ARVADA, CO 80003
(303) 423-7297

DATE: 11/8/2018

AUG 29, 2019 – 12:31:12

There are no plans at this time to change the future use for the mined areas except as discussed below. Currently the post mining land use is recreational and the new area on the south will have the same designation. However, the Concrete Batch Plant site, Asphalt Batch Plant site and Lake Robert parking area and concrete pad will remain as Industrial areas when reclamation is complete. No work will be needed on these areas. The approved reclamation plans, including resoiling, and revegetation methods will remain unchanged from what is currently approved in the existing permit. McAtee will use the revegetation and resoiling methods approved in the original application and the Technical Revisions, on the new areas.

Review of the Reclamation Plan Map shows how the permit area will be reclaimed. The reclamation on parts of the Lake Robert area is still up in the air due to the potential flooding factor. In the adequacy response to Technical Revision filed in 2015 the following text was provided that still applies.

> During the inspection we discussed leaving the Reclamation Plan for Lake Robert unchanged for a period of time to see what happens. We propose leaving the area within the old lake perimeter that were flooded as is for 5 years. This will give us time to see what the long term affects are on the natural reclamation being done by the yearly flooding. At the end of that time McAtee would reevaluate the area and decide if a change to the reclamation plan is needed or find out what changes the flood events have had that may make it necessary to revise the permit.

The text below describes how the new area will differ from the existing areas and the maps show the areas to be reclaimed.

AMENDMENT 5 - Seed mix change topsoil and revegetation for added areas.

The soils and vegetation on the new area is the same as the information submitted in the original permit and the 2000 amendment. As described in those reports there is little growth medium on this area because of its past uses. What little growth medium is present will be salvaged to use on the above water slopes for revegetation. It may be difficult to establish vegetation on the new slope areas because of the lack of soil on the site. The northern areas will be reclaimed as Industrial area so no additional reclamation work will be needed on them when mining ends.

The seed mix, shown below was approved by the Mined Land Reclamation Board in 1976 and again on 11/27/2000. This mix will be used around the lake areas that are to be reclaimed. The plan as described in the 1976 and 2000 permit documents will apply to the new area as well, with the exception noted above. The seeding rate shown provides approximately 35 PLS per square foot and if broadcast the seeding rate will be increased by 75%.

RIVERSIDE SEEDMIX (REVISED 2018)

Species		# PLS/Acre
Switchgrass	Greenville or Neb 28	1.00
Sideoats Grama	Vaughn or Butte	2.00
Little Bluestem	Pastura	3.50
Sand Bluestem	Elida	3.00
Western Wheatgrass	Arriba	3.00
	Per ac. Total	12.50

The trees originally proposed have planted and partially died over the years in Lake Marjorie and Lake Robert areas. They will not be replanted. There was no tree planting proposed on the west lake area and none are planned in this amendment. The added area has no trees on it at this time, since it was used as feedlot. The landowners may wish to plant them at their risk, but the operator does not want the liability of having to have a certain number growing to complete final release on the permit.

AMENDMENT 6 - Lake Robert Changes

In the Technical Revision filed on 7/24/2015 the final disposition of Lake Robert was left open ended for 5 years due to the uncertainty of what would happen if the South Platte River continued to flood the area. Over the past three years there has been no flooding and the area backfilled by the river continues to support grasses and cottonwood seedlings that have been naturally transported to that area. It is very similar to other sandbars or river scour areas that naturally reclaim themselves between periods of flooding in this area. It is now appropriate to address the revision that was anticipated in 2015 since that would have required an amendment anyway.

The proposed change is to leave the backfilled area as flood channel with no additional reclamation to be done on it since it may flood in the future. If this flooding occurs it is likely that the backfill area will increase and the lake area will be reduces so once Lake Robert is revegetated, as-built maps will be filed with the Division. The old lake bank slopes from the original ground surface to the water surface and top of the backfilled area will be slope to 3h to 1 or less and revegetated as approved in the current plan. The armored outlet on the north shore of Lake Robert will remain in place to protect the area if flooding occurs in the future. Much of the Lake Robert area was reclaimed prior to the flood. The northern end of the area around the lake area is well revegetated and may need no further work, the parking area will need grading and the concrete pad will remain.

The road over the south inlet channel has been rebuilt to provide access to the powerlines on the east side of the mine. It was built to control minor inflow into the backfilled area but during another large flood will most likely be washed out.

Prior to final reclamation in Lake Robert an armored inlet will be built in this area like what was done on the north end. The design and construction plans for this inlet structure, backfill outline and a final reclamation configuration will be filed as a Technical Revision to the permit prior to the permanent structure being built.

AMENDMENT 7 - Revised Reclamation Timetable

The Timetable reflects the areas shown on the new maps in this amendment.

		ACRES ±							
PHASE	YEARS	TOTAL	WATER	ROAD	REVEG	LAKE BOTTOM	BACK SLOPE BELOW WATER	DITCH AREA*	INDUSTRIAL/ MISC.**
Lake Marjorie	4-6	26.14	15.00	0.70	6.24	6.65	8.35	1.02	3.18
Lake Robert	4-6	22.72	5.10	0.95	8.90	3.04	2.06	1.02	1.75
West Lake	4-6	26.85	18.18	0.00	5.35	9.12	9.06	0.00	3.32
East Lake	4-6	31.86	23.29	1.02	5.69	13.23	10.06	0.00	1.86
TOTALS		107.57	61.57	2.67	26.18	32.04	29.53	2.04	10.11

* Ditch area in old area will not be disturbed.
** Asphalt Plant, Concrete Plant & Parking Area

MCATEE CONSTRUCTION COMPANY

RIVERSIDE PIT – M-1976-056

FIGURE E-1 RECLAMATION PLAN MAP

LEGEND

- AFFECTED LANDS
- 200 FOOT LINE
- DIKE
- ROADS
- FENCE
- POWER LINES
- RAILROAD
- DITCH
- EXISTING TREES

- LAKE AREA – 61.57 ac±
- REVEGETATED AREA– 26.18 ac±
- INDUSTIRAL AREAS – 8.36 ac±
- PARKING AREA – 1.75 ac±
- BACKFILLED AREAS – 5.01 ac±

N

0 200 400 800

SCALE 1"=400'

PREPARED BY: ENVIRONMENT, INC.
7985 VANCE DR., # 205A
ARVADA, CO 80003
(303) 423-7297

Parts of the NE/4SE/4, SE/4SE/4, & SW4/SE4/, SEC. 28 and Parts of the SW/4NE/4, & NW/4NE/4, SEC 33, TOWNSHIP 8 NORTH, RANGE 52 WEST, 6TH P.M., LOGAN COUNTY, COLORADO

OCT 23, 2018 – 11:25:13

BANK PROTECTION PLAN

This bank protection plan covers two areas in the Riverside Pit that lie within 400 feet of the South Platte River or the Lowline Ditch head gate area that were affected by the flooding in 2013. While this flood was greater then a 100 year event the damages done to the South Platt River corridor has had long term affects to the Riverside Pit that requires McAtee Construction Company to take certain precautions to keep the river or ditch from capturing the lakes that will remain after reclamation is complete.

We have followed the 1987 Urban Drainage and Flood Control District (UDFCD) Publication guideline document for planning and design of the armoring on the lake side bank and the inlet spillway on the south end of Lake Robert. McAtee Construction Company has no control over the river banks or ditch bank as they are not on property owned by McAtee. So we can only protect on site areas, but after the 2013 flood the Lowline Ditch company placed new armoring along the west bank of the ditch wherever it was damaged by flooding. This primarily took place from the old head gate down ditch, to where the ditches return flow structure was damaged just south of the original permit line. We believe the chances of the ditch capturing the lake area is remote as this would prevent delivery of irrigation water to the areas north of the mine. The ditch company had constructed a large return flow spillway to the south of the eastern parcel to keep this from happening. The flood levee and armoring done many years ago from the Highway 6 bridge north to the old head gate, survived the flood and are intact. Much of this lies along the east side of the permit area. McAtee Construction Company had no control over how the armoring along the levee or ditch was done so we do not know what criteria was used when doing the work. This plan is prepared to protect the lake banks within 100 feet of the ditch/river front from damage during and after a flood event.

We have no information on the flow velocities or volume of flows for a 100 year event in this stretch of the river. During past 100 year events the mined area did not flood directly from the river/ditch but rather the ground water elevations came up to inundate the area. In the 2013 event (1000 year) the water elevation in the mine area was approximately 3 feet deep. What flood water that did enter the site came as sheet flows across HWY 6 to the south. Review of the most recent FIRM maps show that the 100 year flood elevations in this area should be nearly 7 feet above the existing ground surface according to our measurements. For example they have a flood elevation line along the south side of the Lake Robert area that shows the 100 year elevation should be 3935, yet the ground elevation is 3928 and even in 2013 the water was not 7 feet deep on this area . We believe they have used an elevation datum that is different from

the WGS 84 we use since in the 2013 flood event the water level never exceeded 4 feet.

There are general items that will be common to both armoring area. In general, all armoring material will be recycled concrete and asphalt fragments that meet the definition of Inert Materials, there will be no exposed rebar in the concrete and it will be sized to D50 or greater. D50 is specified as 12 inch + with fines mixed it to fill voids. The toe of the armoring will be a minimum of 3 feet below the existing ground level as described below. McAtee will keep enough material stored on the mine to complete armoring needed on an area as it is mined and ready for armoring.

The attached Figure G-1 shows the cross sections of the areas discussed below and details of the armoring will be placed to protect areas within 100 feet of the river or west ditch bank. **Map Exhibit F- Reclamation Plan Map** has been revised to show the location of the areas to be armored in the mine.

Lake Robert Inlet

This area covers the 90 feet wide by 45 feet long area where the 2013 flood breached the south lake bank into the Lake Robert area. To permanently reconstruct the damaged area on the south line of the permit area and finish reclamation in that area, an inlet spillway will be placed in the area originally breached. The spillway elevation will match the outlet elevation so if it ever flood again the lake area will fill during an event that is below the 100 year elevation. The plan is to use 5h to 1v slope from the existing surface to the top of the spill way on both sides to make it easer to cross. The top will be 2 foot lower then the ground surface. The armoring of the spill way will be placed 3 feet below the existing flow channel and the north and south slopes will be graded 3h to 1v. This will leave a 15 foot wide crest so the power lines can be accessed. If the FEMA elevations are correct then the crest of the spillway will be 9 feet blow the flood crest allowing the lake area to become full prior to flooding occurring.

The size of the spill way was determined by what it would take to repair the damage done during the last flood. Now that the ditch company has fixed their return flow spillway, the return flows from this area are back to normal. No water has entered the mine from the overflow channel since 2016. In this area the river channel is more then 400 feet from the mined area and there is no direct wet connections between the river and the permit area on the south end. Estimated volume of inert fill (concrete and asphalt rubble) needed to complete the spillway is 450 cubic yards.

East lake Bank Armoring.

In East Lake there is a 1,260 foot section of lake bank within 100 feet of the west ditch that will be armored to urban drainage standards. The ditch bank armoring and much of the levee are on land now owned by McAtee Construction Company. During the 2013 flood even the levee kept the river from entering the area west of the west ditch bank, but water enter from over land sheet flows from south of Highway 6 and the raised groundwater elevation. It appears there is a short section near where the ditch turns to the northeast that may have been over topped and the west ditch bank was damaged from here to the ditch overflow just south of the Permit boundary. This means that north of this point there was no direct connection between the ditch/river corridor so the water accumulated on the land south of the railroad until is soaked into the ground after the flooding ended. For this reason there is no way to construct inlet or outlet spillways in the east lake area that would have a direct connection to the river corridor. The option chosen for this area is to armor the bank following the UDFCD Guidelines.

In this area the levee and armoring installed many years ago held up to the flood, the ditch company placed massive amounts of new armoring on the west bank and resized and improved the return flow spillway to allow flood water that enter the upper end of the ditch to return to the river without damaging the ditch. Because of the levee and the corridor armoring we proposed installing the lake bank armoring 100 feet from the west ditch bank along this section. The location of the armoring is shown on the revised **Map Exhibit F - Reclamation Plan Map**.

Bank armoring will be done using the asphalt and concrete recycle material described above using the D50 material size specification. At a minimum the toe of the armoring will be 3 feet below the lowest water level in the lake and 2 feet or more thick. This is approximately 2.35 cyd/lft for this area. The armoring will cover the bank slopes from the original ground surface to a depth of 3 feet below the water and parallel to the west side of the levee. Once sloping begins the armoring will be installed on sections completed. Estimated total volume of inert fill (concrete and asphalt rubble) needed to complete the East Lake bank armoring is 2,960 cubic yards.

Supplied supporting documents

2 - Firmett Maps showing the flood plane area and elevations at mine (2016)

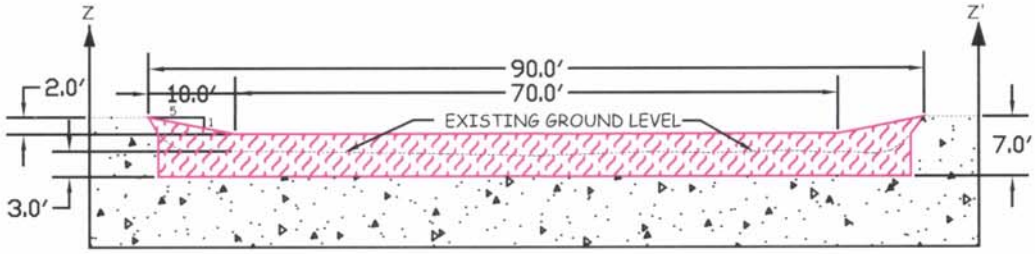
Figure G-1 - Bank Protection Plan cross sections

Legend

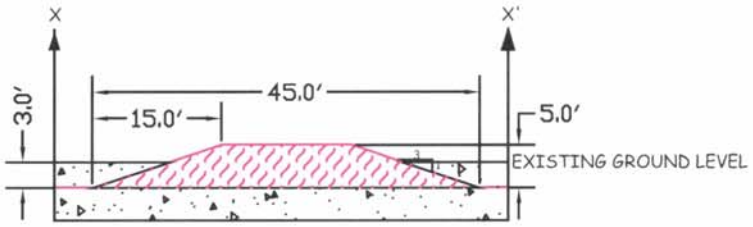
- Natural ground.
- Armoring material
- Unknown fill and armoring
- Existing ground

McATEE CONSTRUCTION COMPANY
RIVERSIDE PIT
Permit # M-1976-056
FIGURE G-1 - BANK PROTECTION PLAN

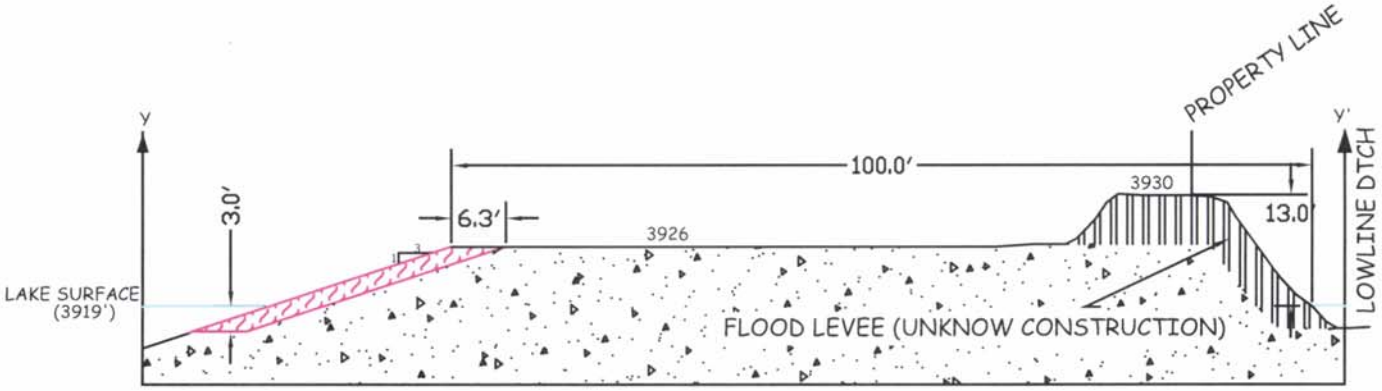
NOTE - Cross section locations are shown on Map Exhibit F revised August 2019



SECTION Z- EAST-WEST SECTION OF LAKE ROBERT INLET
NO SCALE



SECTION X - NORTH-SOUTH SECTION OF LAKE ROBERT INLET
NO SCALE



SECTION Y - BANK ARMORING ALONG DITCH SIDE OF THE EAST LAKE AREA
NO SCALE

PREPARED BY: ENVIRONMENT, INC.
7985 VANCE DR., # 205A
ARVADA, CO 80003
(303) 423-7297
Environment-inc@outdrs.net

AUG 14, 2019 - 10:29:43

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile *Zone*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represe an authoritative property location.

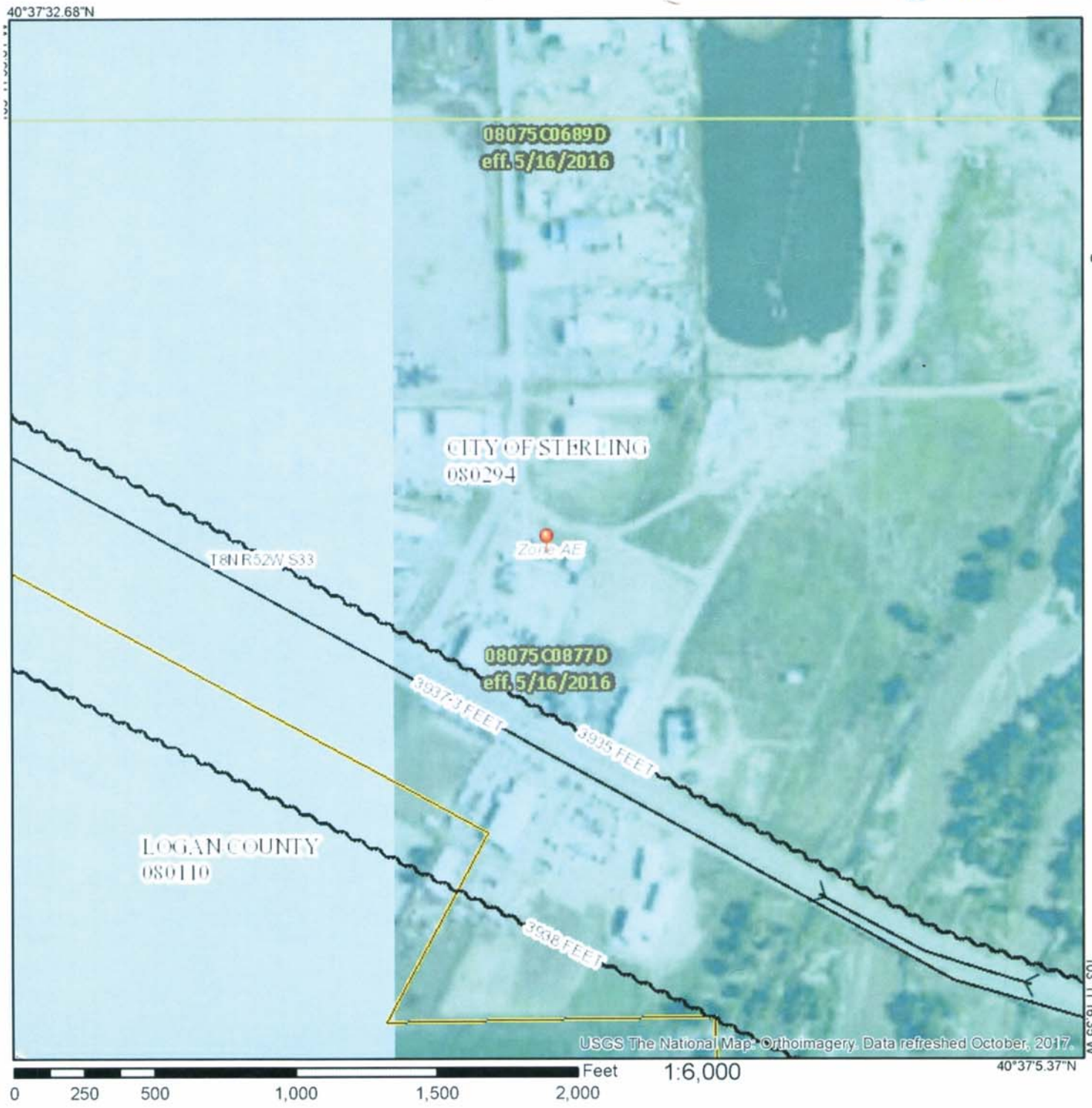
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/8/2019 at 5:59:34 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile *Zone*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
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GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
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OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represe an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

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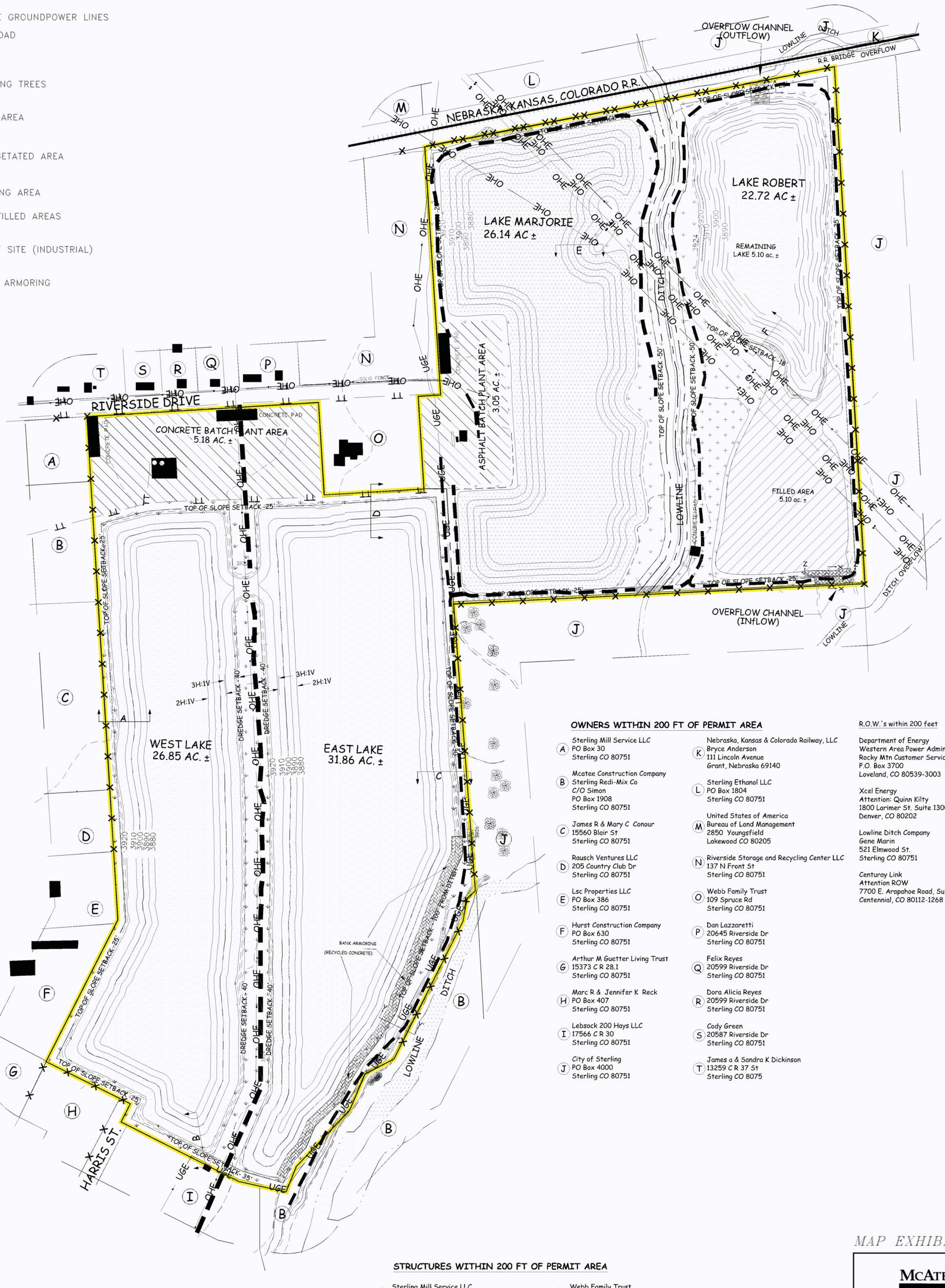
LEGEND

- AFFECTED LANDS
- 200 FOOT LINE
- DIKE
- ROADS
- FENCE
- TT — COMMUNICATION LINES UNDER GROUND
- UGE — BELWO GROUND POWER LINES
- OHE — ABOVE GROUNDPOWER LINES
- RAILROAD
- DITCH
- EXISTING TREES
- LAKE AREA
- REVEGETATED AREA
- PARKING AREA
- BACKFILLED AREAS
- PLANT SITE (INDUSTRIAL)
- BANK ARMORING



OWNERS WITHIN 200 FT OF PERMIT AREA

A. Sterling Mill Service LLC
PO Box 30
Sterling CO 80751

B. Mcatee Construction Company
Sterling Redi-Mix Co
C/O Simon
PO Box 1908
Sterling CO 80751

C. James R & Mary C Conour
15560 Blair St
Sterling CO 80751

D. Rausch Ventures LLC
205 Country Club Dr
Sterling CO 80751

E. Lsc Properties LLC
PO Box 386
Sterling CO 80751

F. Hurst Construction Company
PO Box 630
Sterling CO 80751

G. Arthur M Guetter Living Trust
15373 C R 28.1
Sterling CO 80751

H. Marc R & Jennifer K Reck
PO Box 407
Sterling CO 80751

I. Lebsock 200 Hays LLC
17566 C R 30
Sterling CO 80751

J. City of Sterling
PO Box 4000
Sterling CO 80751

K. Nebraska, Kansas & Colorado Railway, LLC
Bryce Anderson
111 Lincoln Avenue
Grant, Nebraska 69140

L. Sterling Ethanol LLC
PO Box 1804
Sterling CO 80751

M. United States of America
Bureau of Land Management
2850 Youngsfield
Lakewood CO 80205

N. Riverside Storage and Recycling Center LLC
137 N Front St
Sterling CO 80751

O. Webb Family Trust
109 Spruce Rd
Sterling CO 80751

P. Dan Lazzaretti
20645 Riverside Dr
Sterling CO 80751

Q. Felix Reyes
20599 Riverside Dr
Sterling CO 80751

R. Dora Alicia Reyes
20599 Riverside Dr
Sterling CO 80751

S. Cody Green
20587 Riverside Dr
Sterling CO 80751

T. James a & Sandra K Dickinson
13259 C R 37 St
Sterling CO 8075

R.O.W.'s within 200 feet

Department of Energy
Western Area Power Administration
Rocky Mtn Customer Service Region
P.O. Box 3700
Loveland, CO 80539-3003

Xcel Energy
Attention: Quinn Kilty
1800 Larimer St. Suite 1300
Denver, CO 80202

Lowline Ditch Company
Gene Marin
521 Elmwood St.
Sterling CO 80751

Centuray Link
Attention ROW
7700 E. Arapahoe Road, Suite 220
Centennial, CO 80112-1268

STRUCTURES WITHIN 200 FT OF PERMIT AREA

A. Sterling Mill Service LLC
Chainlink fence#

B. Mcatee Construction Company
Sterling Redi-Mix Co
wire fences - east*
chainlink fence - west#
Private fiber optic line

C. James R & Mary C Conour
chainlink fence - west#

D. Rausch Ventures LLC
chainlink fence - west#

E. LSC Properties LLC
chainlink fence - west#
Building

F. Hurst Construction Company
2 - Buildings
chainlink fence - west

H. Marc R & Jennifer K Reck
chainlink fences

I. Lebsock 200 Hays LLC
Building

K. Nebraska, Kansas & Colorado Railway, LLC
Railroad tracks*
Bridge*

N. Riverside Storage and Recycling Center LLC
Solid fence

O. Webb Family Trust
Building

P. Dan Lazzaretti
House & Garage

Q. Felix Reyes
House

R. Dora Alicia Reyes
House & Garage

S. Cody Green
House

T. James a & Sandra K Dickinson
2 - Buildings

J. City of Sterling
Harris St. & Riverside St.

Lowline Ditch Company
Irrigation Ditch & Headgate*

Western Area Power Administration
2 - Powerlines (Lake Robert area)*

Xcel Energy
Powerlines#

Century Link
Communications lines

* structures listed in original 1976 permit.

structures added after 2000 permit approval

N

0 100 200 400

SCALE 1"=200'

DATE	DESCRIPTION	BY
MARCH 1983	TECHNICAL REVISION – STAGE MODIFICATIONS	SRM/ENV.
MARCH 1991	TECHNICAL REVISIONS – STAGE REMOVAL	SRM/ENV.
AUGUST 2000	AMMENDMENT – ADDED AREA – 39.80 ac.	SRM/ENV.
NOV 2018	AMMENDMENT – ADDED AREA – 21.25 ac.	MCC/ENV.
AUGUST 2019	AMMENDMENT – ADEQUACY RESPONSE CHANGES	MCC/ENV.

MAP EXHIBIT F REVISED 8/2019

McATEE CONSTRUCTION COMPANY

dba McAtee Paving Company • Sterling Redi Mix Company • Green Bros. Ready Mix
P.O. Box 1908 • Sterling, Colorado 80751
Phone: 970-522-3647 • Fax: 970-522-9725

RIVERSIDE PIT

M–1976–056

RECLAMATION PLAN MAP

Parts of the NE/4SE/4, SE/4SE/4, & SW4/SE4/, SEC. 28
and Parts of the SW/4NE/4, & NW/4NE/4, SEC 33,
TOWNSHIP 8 NORTH, RANGE 52 WEST, 6TH P.M.,
LOGAN COUNTY, COLORADO

PREPARED BY: ENVIRONMENT, INC.
7985 VANCE DR., # 205A
ARVADA, CO 80003
(303) 423-7297

DATE: 11/8/2018

AUG 29, 2019 – 13:20:40

Exhibit G WATER INFORMATION.

The post 1981 water is covered by well permit #66811F under an agreement between McAtee Construction Company and the Logan Well Users Association augmentation plan Cases #2007CW0300 and 17CW3062. Minor revisions may be necessary to the permit since we are increasing the amount of lake area when mining is complete. At the current time there is approximately 22.75 acres of lake surface of which 7.36 acres is pre 1981 water.

On average 0.3 ac-ft of water is retained in the sand each year and accounted for in the augmentation plan. Water used by the industrial facilities and for dust control comes from the City of Sterling water tap.

DISTRICT COURT, WATER DIVISION NO. 1, COLORADO 9th Street & 9th Avenue P.O. Box 2038 Greeley, CO 80632	
CONCERNING THE APPLICATION FOR WATER RIGHTS OF: LOGAN WELL USERS, INC. IN LOGAN, MORGAN & WASHINGTON COUNTIES.	▲COURT USE ONLY▲
Kim R. Lawrence, #8366 Kelly J. Custer, #27247 Lind, Lawrence & Ottenhoff LLP 355 Eastman Park Drive, #200 Windsor, CO 80550 Phone: (970) 674-9888 E-mail: kim@llolaw.com kelly@llolaw.com	Case No. 07CW300

APPLICATION FOR APPROVAL OF PLAN FOR AUGMENTATION FOR WATER RIGHTS AND CHANGE OF WATER RIGHTS

1. Name, Address and Telephone Number of Applicant. Logan Well Users, Inc., P.O. Box 1172, Sterling, Colorado, 80751, (970)580-3832.

Application for Augmentation Plan

2. Augmentation Plan. Applicant operates an augmentation plan decreed in Case No. 03CW195. ¶49.6 of the decree in Case No. 03CW195 (Decree) allows the addition of wells to the plan subject to notice and terms and conditions.

2.1. Description of the Plan. The wells to be added to the plan, hereinafter "Wells" are set out in Table 1 below and are located on maps attached hereto. The Decree provides, "Any well added to the plan for augmentation shall be located in Logan County." Three of the Wells are located in Washington County, immediately adjacent to Logan County, and Applicant seeks a limited exception to said term and condition to add wells, 425, 426 and 427 in Table 1 due to their proximity to Logan County and because no injury to the water

rights of others will be caused by adding the three wells. The consumptive use factors set out in ¶52.3.4. and ¶52.3.5. of the Decree and the methods for determining depletions from past and future pumping set out in ¶52.2 and ¶52.3 will be used. Out of priority depletions from use of the Wells that have occurred prior to the date the court allows the Wells to be added to the plan will be replaced by Applicant. Out of priority depletions from use of the Wells that may occur after the court decree adding the Wells to the plan, whether or not the depletions result from pumping before or after the date the court allows the Wells to be added to the plan, will be replaced by the Applicant.

Table 1

Logan Well Users Member Wells to be Added to Plan

					Well Location				Aquifer Parameters		
Well	Name	Permit	WDID	Case	Qtr/Qtr	Sec	Twp	Rng	W	X	Harm T
221	Dan Klindt	R292	645506	W1574	NWSE	35	07N	53W	11,716	2,767	388,800
227	Dan Klindt	15263	645595	W815	SWNW	36	07N	53W	12,411	4,463	378,800
233	Datteri Brothers	R11751	645374	W1250	SESW	3	06N	53W	10,787	3,039	339,600
393	B. W. Weakley	15263	645595	W815	SWNW	36	07N	53W	12,411	4,463	378,800
422	Jill Brammer	8906F	645697	W6204	SWNW	21	8N	52W	13,430	67	392,700
423	Gary Ramey	Pending		-	NENE	4	7N	52W	5,148	2,120	154,000
424	Douglas Fritzler			-	SWSE	4	7N	53W	22,676	22,549	104,200
425	Flying Dishpan - East	8383	016684	W982	NENE	17	5N	54W	18,009	1,918	390,000
426	Flying Dishpan - West	6966	018659	W1470	SWNW	17	5N	54W	20,302	3,173	396,000
427	Keystone	6563	016675	W1097	NENW	16	5N	54W	17,493	3,295	390,000
428	Highland Park Water Co	5882-F	646469	W2440	NWNE	36	08N	53W	13,483	4,530	244,600
429	McAtee Construction Co	Pending		-	SESE	28	08N	52W	22,564	1,566	197,900
430	Robert Lingreen	Pending		-	NWSE	36	7N	53W	13,445	5,816	330,900

2.2. Water Rights to be used for Augmentation.

2.2.1. Those water rights that may be used for augmentation pursuant to the Decree.

2.2.2. The Recharge Well described in ¶4.

2.2.3. Eleven shares of Morgan Prewitt Reservoir Company to be changed pursuant to ¶6.

2.2.4. Augmentation Credits owned by Member Wells 425, 426 and 427 from the recharge projects of the Johnson & Edwards Ditch, Case No. 03CW423 and the Lower Platte & Beaver Canal Company, Case No. 03CW443.

Application for Water Rights

3. Applicant seeks to adjudicate the following water rights on behalf of and with the consent of the owners of the structures.

3.1. Name of Structure. Ramey Well.

3.1.1. Owner. Gary Ramey, 11874 Rd 370 Sterling, CO 80751.

3.1.2. Location. In the NE¼ NE¼ of Section 4, Township 7 North, Range 52 West of the 6th P.M., Logan County, Colorado.

3.1.3. Appropriation date. December 11, 2007.

3.1.4. Amount claimed. 15 gpm, conditional.

3.1.5. Source. Groundwater tributary to the South Platte River.

3.1.6. Use. Irrigation of 1 acre located in the NE¼ NE¼ of Section 4, Township 7 North, Range 52 West of the 6th P.M., Logan County, Colorado.

3.2. Name of Structure. Fritzler Well.

3.2.1. Owner. Douglas Fritzler, 18234 Rd 24 Sterling, CO 80751.

3.2.2. Location. In the SW¼ SE¼ of Section 4, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado.

3.2.3. Appropriation date. December 11, 2007.

3.2.4. Amount claimed. 900 gpm, conditional.

3.2.5. Source. Groundwater tributary to the South Platte River.

3.2.6. Use. Irrigation of 160 acres located in the SW¼ SE¼ of Section 4, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado.

Application to Add Recharge Well

4. Applicant seeks to add one recharge well for use with the plan for augmentation in Case No. 03CW195. The recharge well will be operated in accordance with the terms and conditions of ¶27 of the Decree.

   4.1. Name of Structure. SIC B1 Well 19533-F (R-16). (This well was decreed as an augmentation well in the Decree)

      4.1.1. Location. In the SE¼ SE¼ Section 7, Township 7 North, Range 52 West of the 6th P.M., Logan County, Colorado, at a point 1000 feet from the South section line and 1000 feet from the East section line, said Section 7.

      4.1.2. WDID. 64 5558.

      4.1.3. Appropriation date. April 7, 1975.

      4.1.4. Amount claimed. 2240 gpm, conditional.

      4.1.5. Source. Groundwater tributary to the South Platte River.

      4.1.6. Use. Augmentation of water rights used for irrigation, municipal, commercial, livestock, fire protection, recharge and replacement.

      4.1.7. Glover Parameters. W = 28,660; X=487; Harmonic T = 271,200; S=0.2.

   4.2. Description of Recharge. Water diverted at the point described in ¶4.1 is delivered to the Sterling Irrigation Company Recharge Project decreed in Case No. 03CW195 and is allowed to percolate into the underground aquifer for Applicant's stated beneficial uses.

Application for Change of Water Rights

5. Decreed Name of Structure. Lingreen Well 59332-F.

   5.1. Decree. Logan Well Users, Inc. 03CW195 at ¶10.13, February 21, 2006.

   5.2. Location. In the NW¼ SE¼ of Section 36, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado, 2040 feet from the South section line and 1630 feet from the East section line.

5.3. Appropriation date. February 28, 2003.

5.4. Amount claimed. 1500 gpm, conditional.

5.5. Source. Groundwater tributary to the South Platte River.

5.6. Use. Augmentation of water rights used for irrigation, municipal, commercial, livestock, fire protection, recharge and replacement.

5.7. Proposed change. Add to the existing use, irrigation of 200 acres located in the NW¼ SE¼ of Section 36, Township 7 North, Range 53 West, Logan County, Colorado.

6. Decreed Name of Structure. Prewitt Inlet Canal. Morgan Prewitt Reservoir Company (11.0 shares).

6.1. Decrees. Prewitt Inlet Canal was decreed in Case No. 2142 on January 15, 1914, for 32,300 a.f. with an appropriation date of May 25, 1910 and in Case No. 16704 on October 18, 1965, for 34,960 a.f. with an appropriation date of December 31, 1929. The Prewitt Inlet Canal is located in Section 24, Township 5 North, Range 55 West of the 6th P.M., Morgan County, Colorado, and the Prewitt Reservoir is located in Section 2, Township 5 North, Range 54 West of the 6th P.M., Washington and Logan Counties, Colorado.

6.2. Ownership. Applicant's members own and have consented to change 11.0 shares of Morgan-Prewitt (Shares). Keystone Triple G Ranch owns 7.0 shares; Leola Lucille Gill owns 3.0 shares and Gary Ramey owns 1.0 share (Prewitt Owners). The ownership of Morgan-Prewitt Reservoir Company shares entitles the Prewitt Owners to delivery of water allocated to the Morgan Prewitt Reservoir Company in Prewitt Reservoir. The Prewitt Owners seek to change the use of the water which may be allocated to them by virtue of the ownership of their shares.

6.3. Historical Use. The water associated with Prewitt Reservoir is allocated to the owners of the Prewitt Reservoir water rights. The Prewitt Owners have historically used their aliquot share of the Prewitt Reservoir water rights for irrigation or leased the water to other water users for irrigation.

6.4. Proposed Change. Applicant seeks to change the use of the Shares to include augmentation, replacement, and recharge into the groundwater recharge ponds described in the Decree in Case No. 03CW195, wildlife and wildlife recovery, as well as the decreed irrigation use, with the right to totally consume the consumable portion of the water, either by first use, successive use, or disposition. Applicant will demonstrate dominion and control over the water for reuse and successive use through proper measurement and

accounting. Applicant also proposes to release the shares from Prewitt Reservoir and leave the water in the river to provide augmentation rather than divert them at downstream ditches for irrigation. The water from Prewitt Reservoir will be released from Prewitt Reservoir and if not diverted for irrigation purposes, will be diverted at the headgates of the ditches or at the Recharge Wells and delivered to recharge ponds, or allowed to remain in the South Platte River to replace out-of-priority depletions. Applicant proposes to adopt the terms and conditions decreed in Case No. 03CW195 for the changed use of the Shares.

7. Names and Addresses of Owners of the Structures: Ramey Well and One share of Morgan Prewitt are owned by Gary Ramey, 11874 Rd 370 Sterling, CO 80751. Fritzler Well is owned by Douglas Fritzler, 18234 Rd 24 Sterling, CO 80751. Lingreen Well 59332-F is owned by Robert Lingreen, 17401 Rd14 Atwood, CO 80722. The Prewitt Inlet Canal is owned and managed by the Prewitt Operating Committee, c/o James Yahn, P.O. Box 103, Sterling, Colorado 80751. SIC Well B1 is owned by the Sterling Irrigation Company, c/o Kathie Seetch, P.O. Box 1825, Sterling, CO 80751. Seven shares of Morgan Prewitt are owned by Keystone Triple G Ranch LLP, c/o Hilde Gill Kaiser, 11213 W. Asbury Ave. Lakewood, CO 80227. Flying Dishpan Ranch Co., 8395 Green Island Cir. Lone Tree, CO 80124. Three shares of Morgan Prewitt are owned by Leola Lucille Gill, 8395 Green Island Cir. Lone Tree, CO 80124.

DATED this 20th day of December, 2007.

LIND, LAWRENCE & OTTENHOFF LLP

Kim Lawrence
Digitally signed by Kim Lawrence
Location: Windsor, Colorado
Date: 2007 12.20 10:42:47 -07'00'

Kim R. Lawrence, #8366
Kelly J. Custer, #27247
Attorneys for Logan Well Users Inc.

STATE OF COLORADO)
)ss.
COUNTY OF LOGAN)

Kevin Vollmer, being first duly sworn upon oath, deposes and states that he is the President of Logan Well Users Inc., that he has read the foregoing and that the contents contained therein are true and correct to the best of his information, knowledge and belief.

_____
Kevin Vollmer

SUBSCRIBED AND SWORN TO before me this _____ day of December, 2007, by Kevin Vollmer.

_____
Notary Public

My commission expires: _____

E-FILED PURSUANT TO RULE 121. DULY SIGNED COPY ON FILE AT THE LAW OFFICES OF LIND, LAWRENCE & OTTENHOFF LLP

municipal purposes to support the plan for augmentation of Crystal Lakes as decreed by this Court in combined cases W-7631 and W-8540 on November 9, 1983, which decree is incorporated herein by this reference. That plan provides for augmentation of wells throughout the Crystal Lakes area. **c. Description of place of use** where water is applied to beneficial use. The Crystal Lakes augmentation plan area is described in the said Decree in W-7631 and W-8540 as located in parts of Township 10 North, Range 73 West, Township 10 North, Range 74 West and Township 11 North, Range 74 West, all West of the 6th Principal Meridian in Larimer County, and is shown on map attached hereto as Exhibit E. **d. Pursuant to C.R.S. 37-92-301(4),** Crystal Lakes requests that the subject Original water storage right be made absolute to its full extent of 93.21 acre feet, that the subject First Enlargement water storage right be made absolute to its full extent of 25.48 acre feet, and that the subject Second Enlargement storage right be made absolute to the extent of 26.63 acre feet out of the 151.79 acre feet conditionally decreed in Case 91CW116, for all of the above described decreed purposes based on the fact that said volume of the appropriation has been captured, possessed and controlled at the alternate storage structure as decreed in said case 09CW185. **e. C.R.S. § 37-92-301(4)(e) provides,** "A decreed conditional storage right shall be made absolute for all decreed purposes to the extent of the volume of the appropriation that has been captured, possessed, and controlled at the decreed storage structure." The case Northern Colo. Wtr. Cons. Distr. v. Three Peaks Water, Inc., 859 P.2d 836 (Colo. 1993) provides that a water right can be made absolute by diversion or storage at an alternate structure provided that structure has in fact been decreed as an alternate, as was done for Crystal Lakes in said Case 09CW185. **8. Names and addresses of owners or reputed owners of the land** upon which any new diversion or storage structure or modification to any existing diversion or storage structure necessary for the subject rights is or will be constructed or upon which water is or will be stored, including any modification to the existing storage pool: Applicant. WHEREFORE, Crystal Lakes prays: A. that the court enter a Decree making the subject water rights absolute to the extent of the entire 93.73 acre feet of the subject Original Storage right, the entire 25.48 acre feet of the First Enlargement storage right, and 26.63 acre feet of the Second Enlargement storage right; B. that the Court determine that the said amounts are absolute for all the decreed uses, and that no further diligence applications are necessary to keep the subject Original Storage Right, the First Enlargement Storage Right or the first 26.63 acre feet of the Second Enlargement Storage Right in full force and effect; and C. that the Court determine that the remaining 125.16 acre feet of the Second Enlargement Storage Right remains conditional and an application for finding of reasonable diligence will still be due during the month of May 2019, as provided in the last diligence decree for that storage rights entered May 21, 2013 in Case 11CW110; and The only relief requested in this case is to make conditional storage rights absolute as stated, and to provide for subsequent diligence determinations for the portion of the storage right that remains conditional. No changes are requested in any previous decrees or stipulations.

17CW3062 (07CW300). Logan Well Users, Inc., P.O. Box 1172, Sterling, CO 80751 c/o Lawrence Jones Custer Grasmick, LLP, 5245 Ronald Reagan Blvd., Suite 1, Johnstown, CO, 80534 (970)622-8181. APPLICATION FOR FINDING OF REASONABLE DILIGENCE, TO MAKE ABSOLUTE CONDITIONAL WATER RIGHTS AND FOR CHANGE OF WATER RIGHTS TO CORRECT DECREE ERRORS IN **LOGAN, MORGAN and WASHINGTON COUNTIES,** The following water rights were decreed conditional in the decree entered in Case No. 07CW300 (Decree). Applicant seeks a finding of reasonable diligence and to make absolute certain conditional water rights. In addition applicant seeks changes of water rights to correct clerical errors for two of the wells in the Decree and pursuant to Water Court Rule 3(c) seeks approval of the Court to include the changes/corrections in this proceeding. Groundwater Rights. 1. The following conditional groundwater rights were adjudicated in the Decree. 1.1. Name of Structure. Ramey Well-Permit No. 68167-f (LWU ID 423) (WDID 6406860). 1.1.1. Owner. Gary Ramey, 11874 Rd 370 Sterling, Colorado 80751. 1.1.2. Location. In the NE1/4 NE1/4 of Section 4, Township 7 North, Range 52 West of the 6th P.M., Logan County, Colorado. 1.1.3. Appropriation Date. December 11, 2007. 1.1.4. Amount. 15 g.p.m., conditional. 1.1.5. Source. Groundwater tributary to the South Platte River. 1.1.6. Use. Irrigation of 1 acre located in the NE1/4

NE1/4 of Section 4, Township 7 North, Range 52 West of the 6th P.M., Logan County, Colorado. 1.2. Name of Structure. Fritzler Well-Permit No. 74959-F (LWU ID 424) (WDID 6406861). 1.2.1 Owner. Douglas Fritzler, 18234 Rd 24 Sterling, Colorado 80751. 1.2.2 Location. In the SW1/4 SE1/4 of Section 4, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado. 1.2.3. Appropriation Date. December 11, 2007. 1.2.4. Amount. 900 g.p.m., conditional. 1.2.5. Source. Groundwater tributary to the South Platte River. 1.2.6. Use. Irrigation of 160 acres located in the SE1/4 of Section 4, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado. 1.3. Name of Structure. McAtee Riverside Pit-Permit No. 66811-F (LWU ID 429) (WDID 6403005). 1.3.1. Owner. McAtee Construction Company, 220 Edwards Avenue, Sterling, Colorado 80751. 1.3.2. Location. In the SE1/4 of Section 28 and the NE1/4 of Section 33, Township 8 North, Range 52 West of the 6th P.M., Logan County, Colorado. 1.3.3. Appropriation Date. December 22, 2008. 1.3.4. Amount. 120 acre-feet, conditional. 1.3.5. Source. Groundwater tributary to the South Platte River. 1.3.6. Use. Gravel pit evaporation and water removed during mining. 1.4. Name of Structure. Lingreen Well-Permit No. 80631-F (LWU ID 430) (WDID 6406702). 1.4.1. Owner. Robert Lingreen, P.O. Box 1969, Sterling, Colorado 80751. 1.4.2. Previous Decree. Logan Well Users, Inc. 03CW195 at ¶30.13, February 21, 2006. 1.4.3. Location. In the NW1/4 SE1/4 of Section 36, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado, 2040 feet from the South section line and 1630 feet from the East section line. 1.4.4. Appropriation Date. December 20, 2007. 1.4.5. Amount. 1500 g.p.m., conditional. 1.4.6. Source. Groundwater tributary to the South Platte River. 1.4.7. Use. Irrigation of 200 acres located in Section 36, Township 7 North, Range 53 West, Logan County, Colorado. This water right is in addition to the water right decreed to this structure in Case No. 03CW195. 1.5. Decreed Name of Structure. Karg Well No. 7 P-15964 (LWU ID 435) (WDID 6405734). 1.5.1. Owner. Rhodes Enterprises LLC, 6423 CR 29.7 Merino, CO 80741. 1.5.2. Previous Decree. Case No. W-1559, Water Division No. 1, September 11, 1975. 1.5.3. Location. In the SW1/4 NE1/4 of Section 33, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 2658 feet from the North section line and 1620 feet from the East section line of said Section 33. 1.5.4. Appropriation. September 25, 2009. 1.5.5. Amount. 1.9 c.f.s., conditional. 1.5.6. Source. Groundwater tributary to the South Platte River. 1.5.7. Use. Commercial, feedlot, irrigation, and stock watering. This water right is in addition to the water right decreed to this structure in Case No. W-1559. 1.6. Name of Structure. Northeastern Junior College Well No. 1 (LWU ID 434) (WDID 6406899). 1.6.1. Owner. Colorado State Board for Community Colleges and Occupational Education, 9101 E. Lowry Blvd Denver CO 80230. 1.6.2. Location. In the SW1/4 NW1/4 of Section 36, Township 8 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 232 feet from the North section line and 350 feet from the west section line, of said Section 36. 1.6.3. Appropriation Date. April 30, 2009.1.6.4. Amount. 0.20 c.f.s., conditional. 1.6.5. Source. Groundwater tributary to the South Platte River. 1.6.6. Use. Municipal. 1.7. Name of Structure. Logan County Industrial Site Well No. 1 (LWU ID 436) (WDID 6406868). 1.7.1. Owner. Alliance Clean Oil LLC, 6 West Dry Creek Circle, Suite 150 Littleton, CO 80120. 1.7.2. Location. In the NW1/4 NW1/4 of Section 35, Township 8 North, Range 52 West of the 6th P.M., Logan County, Colorado at a point 263 feet from the North section and 808 feet from the West section Line, of said Section 35. 1.7.3. Appropriation Date. August 19, 2009. 1.7.4. Amount. 0.267 c.f.s., conditional. 1.7.5. Source. Groundwater tributary to the South Platte River. 1.7.6. Use. Irrigation of 30 acres located in the NW1/4 SE1/4 of Section 25, Township 8 North, Range 52 West of the 6th P.M., Logan County, Colorado. 1.8. Name of Structure. Logan County Industrial Site Well No. 2 (LWU ID 437) (WDID 6406869). 1.8.1. Owner. Alliance Clean Oil LLC, 6 West Dry Creek Circle, Suite 150 Littleton, CO 80120. 1.8.2. Location. In the NE1/4 NW1/4 of Section 35, Township 8 North, Range 52 West of the 6th P.M., Logan County, Colorado at a point 513 feet from the North section line and 1328 feet from the West section Line, of said Section 35. 1.8.3. Appropriation Date. August 19, 2009. 1.8.4. Amount. 0.267 c.f.s., conditional. 1.8.5. Source. Groundwater tributary to the South Platte River. 1.8.6. Use. Irrigation of 30 acres located in the NW1/4 SE1/4 of Section 25, Township 8 North, Range 52 West of the 6th P.M., Logan County, Colorado. 1.9. Name of Structure. Logan County Industrial Site Well No. 3 (LWU ID 438) (WDID 6406870). 1.9.1. Owner. Alliance Clean Oil LLC, 6 West Dry Creek Circle, Suite 150 Littleton, CO 80120. 1.9.2. Location. In the NE1/4 NW1/4 of Section

35, Township 8 North, Range 52 West of the 6th P.M., Logan County, Colorado at a point 205 feet from the North section line and 1960 feet from the West section Line, of said Section 35. 1.9.3. Appropriation Date. August 19, 2009. 1.9.4. Amount. 0.0267 c.f.s., conditional. 1.9.5. Source. Groundwater tributary to the South Platte River. 1.9.6. Use. Industrial. 1.10 Name of Structure. Logan County Industrial Site Well No. 4 (LWU ID 439) (WDID 6406871).1.10.1 Owner. Alliance Clean Oil LLC, 6 West Dry Creek Circle, Suite 150 Littleton, CO 80120.1.10.2.Location. In the NW1/4 NW1/4 of Section 35, Township 8 North, Range 52 West of the 6th P.M., Logan County, Colorado at a point 693 feet from North section line and 779 feet from East section line, of said Section 35. 1.10.3. Appropriation Date. August 19, 2009. 1.10.4. Amount 0.14 c.f.s., conditional. 1.10.5. Source. Groundwater tributary to the South Platte River. 1.10.6. Use. Industrial. 1.11. Name of Structure. Smart Brothers Well-Permit No. 75236-F (LWU ID 441) (WDID 6406900). 1.11.1. Owner. Smart Brothers, Inc., 3525 County Road 31, Atwood, CO 80722. 1.11.2. In the SE1/4 NW1/4 of Section 22, Township 6 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 2592 feet from North section line and 2368 feet from West section line, of said Section 22. 1.11.3. Appropriation Date. September 14, 2009. 1.11.4. Amount. 4.45 c.f.s., conditional. 1.11.5. Source. Groundwater tributary to the South Platte River. 1.11.6. Use. Livestock watering, feedlot and irrigation of 200 acres located in Section 22, Township 6 North, Range 53 West of the 6th P.M., Logan County, Colorado. 1.12. Name of Structure. Rosie's LLC Well No. 6-Permit No. 75037-F (LWU ID 447) (WDID 6406902). 1.12.1. Owner. Rosie's LLC, 17566 CR 30, Sterling, CO 80751. 1.12.2. Location. In the SE1/4 NE1/4 of Section 23, Township 8 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 2074 feet from the North section line and 50 feet from the East section line, said Section 23. 1.12.3. Appropriation Date. February 2, 2010. 1.12.4. Amount. 1.78 c.f.s, conditional. 1.12.5. Source. Groundwater tributary to the South Platte River. 1.12.6. Use. Irrigation of 160 acres located in Section 23, Township 8 North, Range 53 West of the 6th P.M., Logan County, Colorado. 1.13. Name of Structure. Rosie's LLC Well No. 8-Permit No. 75038-F (LWU ID 448) (WDID 6406903). 1.13.1. Owner. Rosie's LLC, 17566 CR 30, Sterling, CO 80751. 1.13.2. Location. In the NE1/4 SE1/4 of Section 23, Township 8 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 2071 feet from the South section line and 183 feet from the East section line, said Section 23. 1.13.3. Appropriation Date. February 2, 2010. 1.13.4. Amount. 1.78 c.f.s., conditional. 1.13.5. Source. Groundwater tributary to the South Platte River. 1.13.6. Use. Irrigation of 160 acres located in Section 23, Township 8 North, Range 53 West of the 6th P.M., Logan County, Colorado. 1.14. Name of Structure. Rosie's LLC Well No. 11-Permit No. 75039-F (LWU ID 449) (WDID 6406904). 1.14.1. Owner. Rosie's LLC, 17566 CR 30, Sterling, CO 80751. 1.14.2. Location. In the SE1/4 NE1/4 of Section 23, Township 8 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 1956 feet from the North section line and 481 feet from the East section line, said Section 23. 1.14.3. Appropriation Date. February 2, 2010. 1.14.4. Amount. 1.67 c.f.s., conditional. 1.14.5. Source. Groundwater tributary to the South Platte River. 1.14.6. Use. Irrigation of 160 acres located in Section 23, Township 8 North, Range 53 West of the 6th P.M., Logan County, Colorado. 1.15. Name of Structure. Rosie's LLC Well No. 12-Permit No. 75040-F (LWU ID 450) (WDID 6406905). 1.15.1 Owner. Rosie's LLC, 17566 CR 30, Sterling, CO 80751. 1.15.2. Location. In the SE1/4 SE1/4 of Section 23, Township 8 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 985 feet from the South section line and 103 feet from the East section line, said Section 23. 1.15.3. Appropriation Date. February 2, 2010. 1.15.4. Amount. 1.67 c.f.s., conditional. 1.15.5. Source. Groundwater tributary to the South Platte River. 1.15.6. Use. Irrigation of 160 acres located in Section 23, Township 8 North, Range 53 West of the 6th P.M., Logan County, Colorado. 1.16. Name of Structure. Janice Lebsock Well-Permit No. 75041-F (LWU ID 451) (WDID 6406906). 1.16.1. Owner. Janice Lebsock, 9061 CR 19 Sterling, CO 80751. 1.16.2. Location. In the SE1/4 SE1/4 of Section 16, Township 7 North, Range 54 West of the 6th P.M., Logan County, Colorado at a point 896 feet from the South section line and 1012 feet from the East section line, said Section 16. 1.16.3. Appropriation Date. February 2, 2010. 1.16.4. Amount. 3.34 c.f.s., conditional. 1.16.5. Source. Groundwater tributary to the South Platte River. 1.16.6. Use. Irrigation of 381 acres located in Section 16, Township 7 North, Range 54 West of the 6th P.M., Logan County, Colorado. 1.17. Name of Structure. Guenzi Farms, Inc. Well No. 1-Permit No. 75028-F (LWU ID 452) (WDID 6406907).

1.17.1. Owner. Guenzi Farms, Inc. 1079 CR 25, Sterling, CO 80751. 1.17.2. Location. In the NE1/4 NW1/4 of Section 19, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 50 feet from the North section line and 1750 feet from the West section line, said Section 19. 1.17.3. Appropriation Date. February 2, 2010. 1.17.4. Amount. 2.23 c.f.s., conditional. 1.17.5. Source. Groundwater tributary to the South Platte River. 1.17.6. Use. Irrigation of 120 acres located in the SW 1/4 of Section 19, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado. 1.18. Name of Structure. Guenzi Farms, Inc. Well No. 2-Permit No. 75029-F (LWU ID 453) (WDID 6406908). 1.18.1. Owner. Guenzi Farms, Inc. 1079 CR 25, Sterling, CO 80751. 1.18.2. Location. In the SW1/4 SW1/4 of Section 20, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 150 feet from the South section line and 785 feet from the West section line, said Section 20. 1.18.3. Appropriation Date. February 2, 2010. 1.18.4. Amount. 2.23 c.f.s., conditional. 1.18.5. Source. Groundwater tributary to the South Platte River. 1.18.6. Use. Irrigation of 160 acres located in the SE1/4 of Section 19 and 220 acres located in the W1/2 of Section 20, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado. 1.19 Name of Structure. Guenzi Farms, Inc. Well No. 3-Permit No. 75030-F (LWU ID 454) (WDID 6406909). 1.19.1. Owner. Guenzi Farms, Inc. 1079 CR 25, Sterling, CO 80751. 1.19.2. Location. In the SE1/4 SW1/4 of Section 20, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 210 feet from the South section line and 1600 feet from the West section line, said Section 20. 1.19.3. Appropriation Date. February 2, 2010. 1.19.4. Amount. 2.23 c.f.s., conditional. 1.19.5. Source. Groundwater tributary to the South Platte River. 1.19.6. Use. Irrigation of 220 acres located in the W1/2 of Section 20, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado. 1.20. Name of Structure. Alan Harryman Well-Permit No. 75031-F (LWU ID 455) (WDID 6406910). 1.20.1. Owner. Alan Harryman 7111 CR 7 Merino, CO 80741. 1.20.2 Location. In the SW1/4 SW1/4 of Section 29, Township 7 North, Range 54 West of the 6th P.M., Logan County, Colorado at a point 50 feet from the South section line and 326 feet from the West section line, said Section 29. 1.20.3. Appropriation Date. March 11, 2010. 1.20.4. Amount. 2.67 c.f.s., conditional. 1.20.5. Source. Groundwater tributary to the South Platte River. 1.20.6. Use. Irrigation of 160 acres located in the SW1/4 of Section 29, Township 7 North, Range 54 West of the 6th P.M., Logan County, Colorado. 1.21. Name of Structure. Mark Kross Well-Permit No. 75907-F (LWU ID 456) (WDID 6406911). 1.21.1. Owner. Mark Kross 10678 Hwy 6 Merino, CO 80741. 1.21.2. Location. In the NW1/4 SE1/4 of Section 26, Township 6 North, Range 54 West of the 6th P.M., Logan County, Colorado at a point 1286 feet from the South section line and 1385 feet from the East section line, said Section 26. 1.21.3. Appropriation Date. February 2, 2010. 1.21.4. Amount. 2.00 c.f.s., conditional. 1.21.5. Source. Groundwater tributary to the South Platte River. 1.21.6. Use. Irrigation of 62 acres located in the SE1/4 of Section 26, Township 6 North, Range 54 West of the 6th P.M., Logan County, Colorado. 1.22. Name of Structure. Perry Pomeroy III Well 9463-FR-Permit No. 75960-F (LWU ID 457) (WDID 6406064). 1.22.1. Owner. Perry Pomeroy III 13514 CR 16.5 Merino CO 80741.1.22.2. Location. In the NE1/4 SW1/4 of Section 29, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado at a point 2276 feet from the South section line and 1696 feet from the West section line, said Section 29. 1.22.3. Appropriation Date. March 11, 2010. 1.22.4. Amount. 1.34 c.f.s., conditional. 1.22.5. Source. Groundwater tributary to the South Platte River. 1.22.6. Use. Irrigation of 160 acres located in the S1/2 SW1/4 of Section 29 and N1/2 NW1/4 of Section 32, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado. **RECHARGE WATER RIGHTS** 2. Name of Structure. Dune Ridge State Wildlife Area Recharge Project (DRRP). 2.1. Diversion. Dune Ridge SWA Well No. 1 (LWU ID R-17) (a/k/a LWU ID 228), (WDID 645848). 2.1.1. Location. In the SE1/4 SW1/4 Section 19, Township 7 North, Range 52 West of the 6th P.M., Logan County, Colorado, at a point 15 feet from the South section line and 1420 feet from the West section line, said Section 19. 2.1.2. Appropriation Date. December 22, 2008. 2.1.3. Amount. 2000 g.p.m., conditional. 2.1.4. Source. Groundwater tributary to the South Platte River. 2.1.5. Use. Recharge for use in the plan for augmentation decreed in this decree and in the 03Decree for augmentation of water rights used for irrigation, municipal, commercial, livestock, fire protection, wildlife and also for wildlife habitat, wildlife water and any other beneficial uses consistent with the intended purposes of creating additional habitat for wildlife and waterfowl at the DRRP. 2.2. Diversion.

Dune Ridge SWA Well No. 2 (LWU ID R-18) (WDID 6406872). 2.2.1. Location. In the NW1/4 SW1/4 Section 19, Township 7 North, Range 52 West of the 6th P.M., Logan County, Colorado, at a point 2474 feet from the South section line and 805 feet from the West section line, said Section 19. 2.2.2. Appropriation Date. December 22, 2008. 2.2.3. Amount. 2500 g.p.m., conditional. 2.2.4. Source. Groundwater tributary to the South Platte River. 2.2.5. Use. Recharge for use in the plan for augmentation decreed in this decree and in the 03Decree for augmentation of water rights used for irrigation, municipal, commercial, livestock, fire protection, wildlife and also for wildlife habitat, wildlife water and any other beneficial uses consistent with the intended purposes of creating additional habitat for wildlife and waterfowl at the DRRP. 3. Name of Structure. SIC B1 Well 19533-F (LWU ID R-16) (WDID 645558). (a/k/a LWU ID 418 when used for irrigation and LWU ID A-51 when used for augmentation). 3.1. Previous Decree. Logan Well Users, Inc. 03CW195 at ¶30.31, February 21, 2006. 3.2. Owner. Sterling Irrigation Company, P.O. Box 1825, Sterling, CO 80751. 3.3. Location. In the SE1/4 SE1/4 Section 7, Township 7 North, Range 52 West of the 6th P.M., Logan County, Colorado, at a point 1000 feet from the South section line and 1000 feet from the East section line, said Section 7. 2.4. Appropriation. September 25, 2009. 3.5. Amount. 2240 g.p.m., conditional. 3.6. Source. Groundwater tributary to the South Platte River. 3.7. Use. Recharge for augmentation use in this decree and in the plan for augmentation decreed in Case No. 03CW195 of water rights used for irrigation, municipal, commercial, livestock and fire protection. 4. Outline of What Has Been Done Toward Completion. 4.1. The Diligence period for the conditional rights is April 16, 2011 to April 30, 2017. 4.2. During the diligence period well permits were issued and wells drilled as indicated in ¶1. 4.3. During the diligence period Logan made annual projections under the decree terms, operated the augmentation plans set out in the Decree and in Case No. 03CW195, recharged water rights and provided the required accounting. All Member Wells were allowed to operate under the augmentation plans if the owners desired to divert groundwater for decreed uses. 4.4. During the diligence period on October 18, 2012 a recharge pond was added by Notice to the Little Creek Ranch Recharge Project. 4.5. During the diligence period Logan obtained a decree in Case No. 13CW3162 adding wells to the plan for augmentation decreed in Case No. 03CW195 and 07CW300 and changing water rights. 4.6. During the diligence period Logan filed an Application in Case No. 16CW3187 to adjudicate water rights and add wells to the plan for augmentation decreed in Case No. 03CW195 and 07CW300 and also filed a Substitute Water Supply Plan application with the State Engineer. 4.7. During the diligence period Logan filed an Application in Case No. 17CW3045 to adjudicate water rights and add wells to the plan for augmentation decreed in Case No. 03CW195 and 07CW300 and also filed a Substitute Water Supply Plan application with the State Engineer. 4.8. During the diligence period Logan filed a statement of opposition in and participated in Case No. 11CW292, In the Matter of the Rules Governing Measurement of Tributary Ground Water, in the South Platte River Basin in Colorado. 4.9. During the diligence period Logan has expended funds to install monitoring wells, for certification of well meters, for reading of well meters, maintenance of recharge ponds, accounting, engineering and legal services, which total more than $316,225.00. 5. Claims to Make Absolute and for Finding of Reasonable Diligence Pursuant to §37-92-304 *C.R.S.* Applicant's consultant Spronk Water Engineers, Inc., reviewed the State Engineer Diversion Records and Applicant's records to determine the diversions made pursuant the conditional water rights described above. Applicant claims the following amounts of each water right should be decreed absolute. The conditional water rights amounts not made absolute set out in ¶¶1-3 should remain conditional. 5.1. Ramey Well-Permit No. 68167-F (LWU ID 423). 6.4 g.p.m was diverted on August 12, 2016 and should be made absolute. 5.2. Fritzler Well-Permit No. 74959-F (LWU ID 424). 293.5 g.p.m was diverted in August 2016 and should be made absolute. 5.3. McAtee Riverside Pit-Permit No. 66811-F (LWU ID 429). 102.5 acre feet was diverted in 2016 and should be made absolute. 5.4. Smart Brothers Well-Permit No. 75236-F (LWU ID 441). 1.20 c.f.s. was diverted on July 21, 2015 and should be made absolute. 5.5. Rosie's LLC Well No. 6-Permit No. 75037-F (LWU ID 447). 1.78 c.f.s. was diverted on June 24, 2015 and should be made absolute. 5.6. Rosie's LLC Well No. 8-Permit No. 75038-F (LWU ID 448). 1.76 c.f.s. was diverted in July 2011 and should be made absolute. 5.7. Rosie's LLC Well No. 11-Permit No. 75039-F (LWU ID 449). 1.67 c.f.s. was diverted on June 24, 2015 and should be made absolute. 5.8. Rosie's LLC Well No. 12-Permit No. 75040-

F (LWU ID 450). 0.93 c.f.s. was diverted in July 2011 and should be made absolute. 5.9. Janice Lebsock Well-Permit No. 75041-F (LWU ID 451). 2.94 c.f.s. was diverted on June 3, 2016 and should be made absolute. 5.10 Guenzi Farms, Inc. Well No. 1-Permit No. 75028-F (LWU ID 452). 1.42 c.f.s. was diverted in August 2011 and should be made absolute. 5.11. Guenzi Farms, Inc. Well No. 2-Permit No. 75029-F (LWU ID 453). 2.13 c.f.s. was diverted in August 2011 and should be made absolute. 5.12. Guenzi Farms, Inc. Well No. 3-Permit No. 75030-F (LWU ID 454). 2.23 c.f.s. was diverted in July 29, 2013 and should be made absolute. 5.13. Alan Harryman Well-Permit No. 75031-F (LWU ID 455). 1.91 c.f.s. was diverted in August 2011 and should be made absolute. 5.14. Mark Kross Well-Permit No. 75907-F (LWU ID 456). 1.21 c.f.s. was diverted on September 2, 2015 and should be made absolute. 5.15. Perry Pomeroy III Well 9463-FR-Permit No. 75960-F (LWU ID 457). 0.97 c.f.s. was diverted in August 2011 and should be made absolute. 6. The water rights set out in the Decree are part of an integrated system. Applicant's water rights and recharge system and each of the water rights and structures which will provide augmentation, substitution, replacement and exchange supplies under this decree collectively comprise an integrated system of water rights and structures under §37-92-301(4)(b) *C.R.S.* Work performed and effort or costs expended by Applicants on any water rights or structures which are part of its integrated water system should be considered in finding that reasonable diligence has been shown in the development of water rights for all features of the system as provided in §37-92-301(4)(b), *C.R.S.* 7. Applicants request the Court find that the water rights have been made absolute as described in ¶5 and that Applicant has been diligent in the development of the conditional water rights not made absolute herein, which are part of Applicant's integrated system. CHANGES OF WATER RIGHTS TO CORRECT DECREE ERRORS 8. Name of Structure. Lingreen Well-Permit No. 80631-F (LWU ID 430) (WDID 6406702). 8.1. The appropriations for this well are set out in ¶1.4. The well was first decreed in Logan Well Users, Inc., Case No. 03CW195 at ¶30.13, on February 21, 2006 with an appropriation date of February 28, 2003 for augmentation use. The appropriation in the Decree is for irrigation use. 8.2. Permit No. 80632-F was issued for the well on February 23, 2017 for the decreed uses. The well has never been used for augmentation or irrigation. 8.3. The decreed location for the well in both decrees is in the NW1/4 SE1/4 of Section 36, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado, 2040 feet from the South section line and 1630 feet from the East section line which is incorrect. The location of the well should be 2040 feet from the South section line and 2,630 feet from the East section line the NW1/4 SE1/4 of Section 36, Township 7 North, Range 53 West of the 6th P.M., Logan County, Colorado. 8.4. Applicant seeks to correct the location of the well. In addition the corrected location requires the correction of the AWAS parameters to X = 5,960 feet, W = 11,620 feet and Harmonic T = 311,500 gpd/ft. 9. Name of Structure. Logan County Industrial Site Well No. 3 (LWU ID 438) (WDID 6406870). The appropriation for this well is set out in ¶1.9. The well has not been permitted or drilled. The amount decreed was 0.0267 c.f.s., conditional. Applicant seeks to correct and change the amount to 0.267 c.f.s., which is the same flow rate decreed to Logan County Industrial Site Well No. 1 and 2 in ¶1.7 and ¶1.8 above.

17CW3063 CASTLE PINES METROPOLITAN DISTRICT, 5880 Country Club Drive, Castle Rock, CO 80108; (303) 688-8330; c/o Jeff Coufal, District Manager. Please send all pleadings and correspondence to: Scott A. Clark and Morgan L. Figuers, Burns, Figa & Will, P.C.; 6400 South Fiddler's Green Circle, Suite 1000, Greenwood Village, CO 80111; (303) 796-2626. APPLICATION FOR UNDERGROUND WATER RIGHTS FROM NONTRIBUTARY AND NOT NONTRIBUTARY SOURCES IN THE DENVER, ARAPAHOE, AND LARAMIE-FOX HILLS AQUIFERS, APPROVAL OF WELL FIELD OPERATION, AND PLAN FOR AUGMENTATION IN THE DENVER AQUIFER. **IN DOUGLAS COUNTY, COLORADO**. 2. Purpose of Application and Subject Property: Castle Pines Metropolitan District ("CPMD") CPMD is a special district located in Douglas County, Colorado. CPMD seeks to adjudicate the Denver Basin groundwater in the Denver, Arapahoe, and Laramie-Fox Hills aquifers underlying 9.98 acres, more or less, in Douglas County, Colorado, located in the E1/2 of Section 8, T7S, R67W, of the 6th P.M., as generally shown on Figure 1 ("Subject Property"). The Subject Property is the 9.98-acre, western-most portion of an 11.556-acre tract known as the Kimball Subdivision

Exhibit H — WILDLIFE INFORMATION

No change.

Exhibit I — SOILS

The soils found on the new area is described in the following document supplied by the NRCS Web Soil Survey match those found in the 2000 report from the Sterling Field Office and are consistent with those described in the original application text. The new area has Alda loam (3) and Fluvaquents (29) soils on it as described on the Soils section on page 28 (1976) of the original application.

It is important to remember that this site was once part of an old feed lot so little topsoil exists. The NRCS reports indicates there is an average of 5 inches of soil available, our own observations indicate there is from 0 to 5 inches with there being no topsoil in the south east quadrant of the site where the old concrete was piled. Using an average of 3.5 inches salvageable it may be possible to salvage enough soil to replace it on the above water areas at a rate of 6 inches ± as committed to in the original plan.

An updates Soils Map and supporting data was downloaded from the NRCS site and is provided in this application packet for the Divisions review.

Exhibit J — VEGETATION

The newly added area on the south is vacant and the northern parcels have been used as Asphalt and Concrete Batch Plants sites for many years. There is no vegetation on these areas of any value. The vegetation growing on the south end is of very low quality consisting mostly of weeds and Sandreed grass. The narrative on page 31 (1976) has been supplemented with the site specific information prepared by the NRCS in March 2000. The descriptions in the original application apply to the new areas as well.

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Logan County, Colorado

October 10, 2018

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:6,520 if printed on A portrait (8.5" x 11") sheet.

Scale 1"=543 ft.

Meters: 0 50 100 200 300

Feet: 0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Logan County, Colorado
Survey Area Data: Version 13, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 21, 2011—Jun 21, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Alda loam	41.9	39.3%
28	Fluvaquentic Haplaquolls	9.3	8.7%
29	Fluvaquents	15.0	14.0%
128	Westplain-Alda complex	0.5	0.4%
131	Miscellaneous Water	40.1	37.6%
Totals for Area of Interest		**106.8**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Logan County, Colorado

3—Alda loam

Map Unit Setting

National map unit symbol: 35bq
Elevation: 3,500 to 4,100 feet
Mean annual precipitation: 13 to 19 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 125 to 150 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Alda and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alda

Setting

Landform: Flood plains, stream terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous, stratified loamy alluvium over sandy and gravelly

Typical profile

H1 - 0 to 10 inches: loam
H2 - 10 to 34 inches: stratified loamy sand to loam
H3 - 34 to 60 inches: very gravelly sand

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Available water storage in profile: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B
Ecological site: Sandy Lowland (R072XY107KS)
Hydric soil rating: No

Minor Components

Mollic fluvaquents

Percent of map unit: 12 percent
Landform: Terraces

Hydric soil rating: Yes

Loveland

Percent of map unit: 3 percent
Hydric soil rating: No

28—Fluvaquentic Haplaquolls

Map Unit Setting

National map unit symbol: 35bn
Elevation: 3,500 to 4,500 feet
Mean annual precipitation: 13 to 17 inches
Mean annual air temperature: 46 to 55 degrees F
Frost-free period: 110 to 165 days
Farmland classification: Not prime farmland

Map Unit Composition

Fluvaquentic haplaquolls and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fluvaquentic Haplaquolls

Setting

Landform: Flood-plain steps, meandering channels
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Recent alluvium over sand & gravel

Typical profile

H1 - 0 to 12 inches: variable
H2 - 12 to 60 inches: stratified gravelly sand to loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 6.00 in/hr)
Depth to water table: About 0 to 24 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Available water storage in profile: Moderate (about 6.2 inches)

Interpretive groups

Land capability classification (irrigated): 6w
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: D
Ecological site: Salt Meadow (R067BY035CO)

Hydric soil rating: Yes

Minor Components

Westplain

Percent of map unit: 5 percent
Hydric soil rating: No

Alda

Percent of map unit: 5 percent
Hydric soil rating: No

29—Fluvaquents

Map Unit Setting

National map unit symbol: 35bp
Elevation: 3,500 to 7,200 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 80 to 150 days
Farmland classification: Not prime farmland

Map Unit Composition

Fluvaquents and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fluvaquents

Setting

Landform: Intermittent streams, abandoned channels, flood-plain steps
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Recent alluvium

Typical profile

H1 - 0 to 10 inches: variable
H2 - 10 to 60 inches: very gravelly sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (0.57 to 19.98 in/hr)
Depth to water table: About 6 to 24 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent

Salinity, maximum in profile: Nonsaline to moderately saline (0.0 to 8.0 mmhos/cm)
Available water storage in profile: Low (about 4.7 inches)

Interpretive groups
Land capability classification (irrigated): 6w
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: D
Ecological site: Riparian (R067BY073CO)
Hydric soil rating: Yes

Minor Components

Alda
Percent of map unit: 10 percent
Hydric soil rating: No

128—Westplain-Alda complex

Map Unit Setting
National map unit symbol: 35b3
Elevation: 3,500 to 4,100 feet
Mean annual precipitation: 13 to 19 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 120 to 150 days
Farmland classification: Not prime farmland

Map Unit Composition
Westplain and similar soils: 55 percent
Alda and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Westplain

Setting
Landform: Stream terraces, flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Thin mantle clayey alluvium over mottled & stratified sand & gravel

Typical profile
H1 - 0 to 8 inches: silty clay loam
H2 - 8 to 14 inches: clay loam
H3 - 14 to 17 inches: very gravelly clay loam
H4 - 17 to 60 inches: very gravelly sand

Properties and qualities
Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 6w
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: C/D
Ecological site: Saline Subirrigated (R072XY102KS)
Hydric soil rating: Yes

Description of Alda

Setting

Landform: Terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous, stratified loamy alluvium over mottled sand & gravel

Typical profile

H1 - 0 to 10 inches: loam
H2 - 10 to 34 inches: stratified loamy sand to loam
H3 - 34 to 60 inches: very gravelly sand

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 18 to 48 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Ecological site: Saline Subirrigated (R072XY102KS)
Hydric soil rating: No

Minor Components

Lebsack

Percent of map unit: 10 percent
Hydric soil rating: No

131—Miscellaneous Water

Map Unit Setting

National map unit symbol: 1jg7c
Mean annual precipitation: 31 to 47 inches
Mean annual air temperature: 43 to 64 degrees F
Frost-free period: 175 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Water, sewage lagoons: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Chemical Properties

This folder contains a collection of tabular reports that present soil chemical properties. The reports (tables) include all selected map units and components for each map unit. Soil chemical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil chemical properties include pH, cation exchange capacity, calcium carbonate, gypsum, and electrical conductivity.

Chemical Soil Properties

This table shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. It is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil.

Gypsum is expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water. Soils that have a high content of gypsum may collapse if the gypsum is removed by percolating water.

Salinity is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Sodium adsorption ratio (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced saturated hydraulic conductivity and aeration, and a general degradation of soil structure.

Chemical Soil Properties–Logan County, Colorado								
Map symbol and soil name	**Depth**	**Cation-exchange capacity**	**Effective cation-exchange capacity**	**Soil reaction**	**Calcium carbonate**	**Gypsum**	**Salinity**	**Sodium adsorption ratio**
	In	*meq/100g*	*meq/100g*	*pH*	*Pct*	*Pct*	*mmhos/cm*	
3—Alda loam								
Alda	0-10	10-20	—	6.6-8.4	0-10	0	0.0-4.0	0
	10-34	2.0-10	—	7.4-8.4	5-15	0	0.0-4.0	0
	34-60	0.0-5.0	—	6.6-8.4	0-5	0	0.0-4.0	0
28—Fluvaquentic Haplaquolls								
Fluvaquentic haplaquolls	0-12	—	—	—	0	0	0	0
	12-60	3.0-15	—	7.4-8.4	0	0	0.0-4.0	0
29—Fluvaquents								
Fluvaquents	0-10	5.0-20	—	7.4-8.4	0-10	0	0.0-8.0	0
	10-60	0.0-5.0	—	7.4-8.4	0-10	0	0	0
128—Westplain-Alda complex								
Westplain	0-8	25-45	—	7.9-8.4	1-10	0	2.0-8.0	0
	8-14	20-40	—	7.9-8.4	1-10	0	2.0-8.0	0
	14-17	15-30	—	7.9-8.4	1-10	0	2.0-8.0	0
	17-60	0.0-5.0	—	7.4-7.8	0-2	0	2.0-4.0	0
Alda	0-10	10-20	—	6.6-8.4	0-10	0	2.0-8.0	0
	10-34	2.0-10	—	7.4-8.4	5-15	0	2.0-8.0	0
	34-60	0.0-5.0	—	6.6-8.4	0-5	0	2.0-8.0	0
131—Miscellaneous Water								
Water, sewage lagoons	—	—	—	—	—	—	—	—

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Physical Soil Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (Ksat), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear

extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates in the table are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The content of organic matter in a soil can be maintained by returning crop residue to the soil.

Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and Ksat. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Reference:
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (http://soils.usda.gov)

Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Physical Soil Properties–Logan County, Colorado

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
3—Alda loam														
Alda	0-10	-44-	-41-	10-15- 20	1.25-1.33-1.40	4.00-23.00-42.00	0.14-0.16-0.17	0.0- 1.5- 2.9	2.0- 3.0-4.0	.24	.24	4	4L	86
	10-34	-81-	- 9-	5-10- 15	1.25-1.43-1.60	14.00-78.00-141.00	0.06-0.12-0.17	0.0- 1.5- 2.9	0.5- 0.8-1.0	.15	.15			
	34-60	-96-	- 2-	0- 3- 5	1.45-1.53-1.60	141.00-141.00-141.00	0.02-0.03-0.04	0.0- 1.5- 2.9	0.0- 0.3-0.5	.02	.05			
28—Fluvaquentic Haplaquolls														
Fluvaquentic haplaquolls	0-12	—	—	—	—	1.41-22.00-42.33	—	—	1.0- 2.0-3.0			3	8	0
	12-60	-92-	- 5-	1- 3- 22	1.35-1.48-1.60	1.41-22.00-42.33	0.08-0.13-0.18	0.0- 1.5- 2.9	0.5- 0.8-1.0	.20	.55			
29—Fluvaquents														
Fluvaquents	0-10	—	—	4-17- 30	1.20-1.35-1.50	4.00-73.00-141.00	0.07-0.12-0.16	0.0- 1.5- 2.9	0.5- 0.8-1.0	.20	.20	3	8	0
	10-60	-96-	- 2-	0- 3- 5	1.60-1.65-1.70	141.00-141.00-141.00	0.04-0.07-0.09	0.0- 1.5- 2.9	0.0- 0.5-1.0	.05	.17			

Physical Soil Properties–Logan County, Colorado														
Map symbol and soil name	**Depth**	**Sand**	**Silt**	**Clay**	**Moist bulk density**	**Saturated hydraulic conductivity**	**Available water capacity**	**Linear extensibility**	**Organic matter**	**Erosion factors**			**Wind erodibility group**	**Wind erodibility index**
										Kw	**Kf**	**T**		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
128—Westplain-Alda complex														
Westplain	0-8	- 8-	-55-	35-38- 40	1.15-1.23-1.30	0.42-1.00-1.41	0.15-0.17-0.18	0.0- 1.5- 2.9	4.0- 5.0-6.0	.28	.28	2	4L	86
	8-14	-34-	-32-	27-34- 40	1.25-1.33-1.40	0.42-0.92-1.41	0.15-0.17-0.18	3.0- 4.5- 5.9	2.0- 3.0-4.0	.28	.28			
	14-17	-35-	-33-	27-33- 38	1.25-1.33-1.40	0.42-0.92-1.41	0.07-0.08-0.09	0.0- 1.5- 2.9	0.5- 0.8-1.0	.10	.32			
	17-60	-96-	- 2-	0- 3- 5	1.45-1.53-1.60	141.00-141.00-141.00	0.02-0.03-0.03	0.0- 1.5- 2.9	0.0- 0.3-0.5	.02	.05			
Alda	0-10	-44-	-41-	10-15- 20	1.25-1.33-1.40	4.00-23.00-42.00	0.13-0.15-0.16	0.0- 1.5- 2.9	2.0- 3.0-4.0	.24	.24	4	4L	86
	10-34	-81-	- 9-	5-10- 15	1.25-1.43-1.60	14.00-78.00-141.00	0.05-0.11-0.16	0.0- 1.5- 2.9	0.5- 0.8-1.0	.15	.15			
	34-60	-96-	- 2-	0- 3- 5	1.45-1.53-1.60	141.00-141.00-141.00	0.01-0.02-0.03	0.0- 1.5- 2.9	0.0- 0.3-0.5	.02	.05			
131—Miscellaneous Water														
Water, sewage lagoons	—	—	—	—	—	—	—	—	—					

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties–Logan County, Colorado

Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
3—Alda loam														
Alda	85	B	0-10	Loam	CL-ML, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	90-95-100	85-90-95	60-68-75	20-23-25	NP-3 -5
			10-34	Stratified loamy sand to loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0- 0- 0	0- 0- 0	95-98-100	90-95-100	50-73-95	15-45-75	20-23-25	NP-3 -5
			34-60	Very gravelly sand	GP, GP-GM, SP, SP-SM	A-1	0- 5- 10	0- 5- 10	35-45-55	30-40-50	20-28-35	0- 5- 10	—	NP
28—Fluvaquentic Haplaquolls														
Fluvaquentic haplaquolls	90	D	0-12	Variable	—	—	—	—	—	—	—	—	—	—
			12-60	Stratified gravelly sand to loam	GC-GM, GM, SC-SM, SM	A-2, A-4	0- 3- 5	0- 5- 10	60-73-85	55-68-80	50-60-70	20-35-50	15-20-25	NP-5 -10
29—Fluvaquents														
Fluvaquents	90	D	0-10	Variable	CL, ML, SC, SM	A-2, A-4, A-6	0- 0- 0	0- 5- 10	90-93-95	85-90-95	55-60-65	20-40-60	15-23-30	NP-8 -15
			10-60	Very gravelly sand, gravelly sand	GP, GP-GM, SP, SP-SM	A-1	0- 0- 0	10-20-30	40-60-80	30-50-70	10-18-25	0- 5- 10	—	NP

Engineering Properties–Logan County, Colorado														
Map unit symbol and soil name	**Pct. of map unit**	**Hydrologic group**	**Depth**	**USDA texture**	**Classification**		**Pct Fragments**		**Percentage passing sieve number—**				**Liquid limit**	**Plasticity index**
					Unified	**AASHTO**	**>10 inches**	**3-10 inches**	**4**	**10**	**40**	**200**		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
128—Westplain-Alda complex														
Westplain	55	C/D	0-8	Silty clay loam	ML	A-7	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-98-100	85-90-95	40-43-45	10-13-15
			8-14	Clay loam	CL	A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	90-95-100	70-75-80	30-35-40	10-15-20
			14-17	Very gravelly clay loam	GC	A-2, A-6	0- 0- 0	0- 3- 5	35-45-55	30-40-50	30-40-50	20-30-40	30-35-40	10-13-15
			17-60	Very gravelly sand	GP, GP-GM, SP, SP-SM	A-1	0- 0- 0	0- 3- 5	35-45-55	30-40-50	20-28-35	0- 5- 10	—	NP
Alda	35	B	0-10	Loam	CL-ML, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	90-95-100	85-90-95	60-68-75	20-23-25	NP-3 -5
			10-34	Stratified loamy sand to loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0- 0- 0	0- 0- 0	95-98-100	90-95-100	50-73-95	15-45-75	20-23-25	NP-3 -5
			34-60	Very gravelly sand	GP, GP-GM, SP, SP-SM	A-1	0- 5- 10	0- 5- 10	35-45-55	30-40-50	20-28-35	0- 5- 10	—	NP

Vegetative Productivity

This folder contains a collection of tabular reports that present vegetative productivity data. The reports (tables) include all selected map units and components for each map unit. Vegetative productivity includes estimates of potential vegetative production for a variety of land uses, including cropland, forestland, hayland, pastureland, horticulture and rangeland. In the underlying database, some states maintain crop yield data by individual map unit component. Other states maintain the data at the map unit level. Attributes are included for both, although only one or the other is likely to contain data for any given geographic area. For other land uses, productivity data is shown only at the map unit component level. Examples include potential crop yields under irrigated and nonirrigated conditions, forest productivity, forest site index, and total rangeland production under of normal, favorable and unfavorable conditions.

Rangeland Productivity and Plant Composition

In areas that have similar climate and topography, differences in the kind and amount of rangeland or forest understory vegetation are closely related to the kind of soil. Effective management is based on the relationship between the soils and vegetation and water.

This table shows, for each soil that supports vegetation suitable for grazing, the ecological site; the total annual production of vegetation in favorable, normal, and unfavorable years; the characteristic vegetation; and the average percentage of each species. An explanation of the column headings in the table follows.

An *ecological site* is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time throughout the soil development process; a characteristic hydrology, particularly infiltration and runoff that has developed over time; and a characteristic plant community (kind and amount of vegetation). The hydrology of the site is influenced by development of the soil and plant community. The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service (NRCS).

Total dry-weight production is the amount of vegetation that can be expected to grow annually in a well managed area that is supporting the potential natural plant community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's growth of leaves, twigs, and fruits of woody plants. It does not include the increase in stem diameter of trees and shrubs. It is expressed in pounds per acre of air-dry vegetation for favorable, normal, and unfavorable years. In a favorable year, the amount and distribution of precipitation and the temperatures make growing conditions substantially better than average. In a normal year, growing conditions are about average. In an unfavorable year, growing conditions are well below average, generally because of low available soil moisture. Yields are adjusted to a common percent of air-dry moisture content.

Characteristic vegetation (the grasses, forbs, and shrubs that make up most of the potential natural plant community on each soil) is listed by common name. Under *rangeland composition*, the expected percentage of the total annual production is given for each species making up the characteristic vegetation. The amount that can be used as forage depends on the kinds of grazing animals and on the grazing season.

Range management requires knowledge of the kinds of soil and of the potential natural plant community. It also requires an evaluation of the present range similarity index and rangeland trend. Range similarity index is determined by comparing the present plant community with the potential natural plant community on a particular rangeland ecological site. The more closely the existing community resembles the potential community, the higher the range similarity index. Rangeland trend is defined as the direction of change in an existing plant community relative to the potential natural plant community. Further information about the range similarity index and rangeland trend is available in the "National Range and Pasture Handbook," which is available in local offices of NRCS or on the Internet.

The objective in range management is to control grazing so that the plants growing on a site are about the same in kind and amount as the potential natural plant community for that site. Such management generally results in the optimum production of vegetation, control of undesirable brush species, conservation of water, and control of erosion. Sometimes, however, an area with a range similarity index somewhat below the potential meets grazing needs, provides wildlife habitat, and protects soil and water resources.

Reference:
United States Department of Agriculture, Natural Resources Conservation Service, National range and pasture handbook.

Rangeland Productivity and Plant Composition–Logan County, Colorado						
Map unit symbol and soil name	**Ecological site**	**Total dry-weight production**			**Characteristic vegetation**	**Rangeland composition**
		Favorable year	**Normal year**	**Unfavorable year**		
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct*
3—Alda loam						
Alda	Sandy Lowland	3,000	2,400	1,300	Grass	85
					Forb	10
					Shrub	5
28—Fluvaquentic Haplaquolls						
Fluvaquentic haplaquolls	Salt Meadow	3,500	3,000	2,500	Switchgrass	15
					Rush	5
					Western wheatgrass	5
					Alkali sacaton	—
29—Fluvaquents						
Fluvaquents	Riparian	3,000	2,500	1,000	Narrowleaf cottonwood	15
					Willow	15
					Reedgrass	10
128—Westplain-Alda complex						
Westplain	Saline Subirrigated	4,200	3,000	1,500	Grass	94
					Forb	5
					Shrub	1
Alda	Saline Subirrigated	4,200	3,000	1,500	Grass	94
					Forb	5
					Shrub	1
131—Miscellaneous Water						
Water, sewage lagoons	—	—	—	—	—	—

CLIMATE

This information was downloaded from the Climatology Database at Colorado State University. The average Daily temperature is 51.0 degrees and the average precipitation amount is 14.18 inches per year. Sterling is the closest data collection station to this property. Data is for Years 1996-2010, the most recent available.

Station data Latitude - 40°37' Longitude - 103°13' Elevation - 3940 Feet

MONTHLY AVERAGE TEMP (F)													
	JAN	*FEB*	*MAR*	*APR*	*MAY*	*JUN*	*JUL*	*AUG*	*SEP*	*OCT*	*NOV*	*DEC*	*ANN*
AVERAGE	29.4	32.6	40.8	49.2	60.0	69.6	77.0	73.7	64.0	50.5	39.2	28.4	51.0
MAXIMUM	38.2	38.7	47.0	53.7	62.2	74.9	82.9	78.0	64.0	50.5	39.2	28.4	52.4
YEAR	2006	1999	2007	2006	2006	2002	2003	2003	1998	2007	2005	1999	1999
MINIMUM	17.9	26.3	33.9	43.7	57.9	64.3	73.4	69.6	58.7	43.1	29.1	21.6	49.8
YEAR	2007	2007	2002	1997	2008	1998	2009	2004	2006	2009	2000	2007	2009
YEARS OF RECORD	14	15	15	13	14	15	15	14	13	14	13	13	11
MONTHLY AVERAGE MINIMUM TEMP (F)													
AVERAGE	15.7	18.4	26.2	34.3	45.7	55.1	61.8	58.9	48.5	35.2	24.7	15.0	36.3
MAXIMUM.	22.7	24.9	32.3	38.4	48.8	58.5	65.7	63.3	53.3	38.5	29.2	19.1	37.3
YEAR	2006	1998	2007	2003	2007	2006	2003	2007	1998	2000	2005	1999	2006
MINIMUM	5.3	12.2	17.3	29.9	41.8	49.5	59.4	54.6	44.1	31.7	15.8	8.9	35.2
YEAR	2007	2003	2002	1997	2002	1998	2004	2004	2006	2009	0222	2007	1996
YEARS OF RECORD	14	15	15	13	14	15	15	14	13	14	13	13	11
MONTHLY AVERAGE MAXIMUM TEMP (F)													
AVERAGE	43.2	46.9	55.4	64.1	74.2	84.0	91.2	88.3	79.4	65.9	53.7	41.8	65.6
MAXIMUM	53.6	55.9	61.7	70.4	78.1	92.5	100.0	93.7	86.2	70.4	63.2	48.6	67.8
YEAR	2006	1999	2007	2006	2000	2002	2003	2003	1998	2007	1999	1999	1999
MINIMUM	30.6	38.3	50.4	57.6	69.6	79.0	87.1	84.5	73.2	54.5	42.4	34.1	63.3
YEAR	2007	2007	2002	1997	1996	1998	2009	2004	2006	2009	2000	2009	2009
YEARS OF RECORD	14	15	15	13	14	15	15	14	13	14	13	13	11
MONTHLY PRECIPITATION (IN)													
AVERAGE	0.25	0.37	0.70	1.33	2.08	2.11	2.94	1.96	1.24	1.01	0.30	0.36	14.18
MAXIMUM	0.88	1.07	2.57	3.52	3.58	4.98	10.52	4.20	2.89	2.42	0.70	1.23	21.67
YEAR	1996	2001	2000	2007	2007	2009	1998	1999	2009	2005	2004	2007	2009
MINIMUM	0.00	0.00	0.00	0.10	0.64	0.15	0.76	0.61	0.07	0.00	0.00	0.00	0.00
YEAR	2004	1999	1999	2002	2008	2001	2002	2001	2002	2001	2000	2002	2002
YEARS OF RECORD	15	14	15	13	14	15	15	14	13	12	12	13	10
MONTHLY SNOWFALL (IN)													
AVERAGE	1.6	2.5	2.8	0.5	0.0	0.0	0.0	0.0	0.1	0.8	2.3	5.5	17.1
MAXIMUM	8.0	9.0	8.0	5.5	0.0	0.0	0.0	0.0	2.0	9.5	6.5	17.0	41.2
YEAR	2007	2010	2002	2009	2009	2010	2010	2009	2000	2009	2004	2007	2009
MINIMUM	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
YEAR	2008	2007	2007	2007	2009	2010	2010	2009	2009	2008	2005	2001	1998
YEARS OF RECORD	15	14	15	13	14	15	15	14	14	13	12	13	10

LOADED FROM WRCC DATABASE - October 17, 2018 (http://www.wrcc.dri.edu.cgi-bin/cliMONtmxt.pl?cotrap)

This reclamation cost estimate in based on the assumption that there will be no more than 30.00 acres ± needing resoiling and revegetation at any-one-time. No dewatering is needed since the underwater slopes are created as mining progresses by placing excess sand along the mined slopes or the working face could be done sing a push in method. The following information portray a a time period consistent with what is shown on the Mining Plan map where Lake Robert and the north end of Lake Marjorie is reclaimed. The southern end of Lake Marjorie is used as a processing and stockpile area (8.57 ac), sand storage and processing plant area. In the west area the West Lake has been partially stripped and mined and the north end is plant site area. The East lake is actively being mined from north to south so only the area around the lake would need reclamation and the 595 foot long working face would need partial grading. The Asphalt Plant site area in Lake Marjorie and the Concrete Plant area on the north end or the West area would need no work. Tree planting required in the existing areas are complete.

In this scenario, some material is still being mined in the existing pit area. The areas needing to be resoiled and seeded are the processing plant area and sand stockpile in Lake Marjorie; the stripped area on the north and south end of the West lakes and the lake shores; and in the East lake the lake shores and stripped area. The roads, Concrete and Asphalt Plant areas will need no work. The method used to revegetate the lake perimeter will remain as currently permitted. This is an attempt to set the bond so there is flexibility to operate without reevaluating the bond yearly.

According to our scenario, we will have to respread 6 inches of topsoil on 18.90 acres or 15,250 cubic yards of soil and revegetate 18.90 ac.±. The working face grading will need to move 13,222 yds (595 ft x (20 ft.x60ft)/2). The table below outlines the various areas of disturbance, at that time. Our cost estimate to do all of the shaping is based on using a 140M blade for seed bed preparation & ripping and a 631B scraper for resoiling, but the actual equipment used by the permittee may differ. The revegetation cost figure includes grass seed, mulch, chemical fertilizer (ammonium nitrate & superphosphate) drilling costs and mulch crimping.

Table L-1

RECLAMATION ACTIVITY	LAKE AREAS (ac.)			TOTALS
	Marjorie	East	West	Acres
RESOIL	13.25	1.48	4.17	18.90
REVEGETATE	13.25	1.48	4.17	18.90
ROADS	0.70	1.02	0.00	1.72
PLANT SITE/PARKING AREA	3.18	1.86	3.32	8.36
ABOVE WATER SHAPING	13.25	1.48	4.17	18.90
LAKE AREA	6.02	5.46	9.54	21.02
WORKING FACE GRADING	0.00	595'	0.00	
DITCH AREA	1.02	0.00	0.00	1.02

ESTIMATED UNIT COSTS FOR RECLAMATION ITEMS:

	Unit Cost
1. Revegetation includes grass seed mix, mulch, fertilizer and mulch crimping	$1,100.00/ac
2. Re-spreading soil and/or growth media with **631B cat scraper, haul distance 800 ft or less**	0.60/YD^3
3. Seed bed preparation **140G cat blade**, 1.84 acres per hour	$84.52/AC
4. Working face sloping with a **D8T Cat dozer - Push distance 120' or less.**	$0.743/YD^3
5. Plant site ripping **140M cat blade w/ ripper**, 1.55 acres per hour	$147.28/AC.

RECLAMATION COSTS

1. Revegetation, 18.90 ac @ $1,100.00/ac	$20,790.00
2. Resoiling, haul distance less than 500 ft., (15,250 yd^3 x 1.12 swell) @ $0.60/yd^3	10,245.31
3. Seedbed preparation 18.90 ac x @ $84.52/ac	1,597.43
4. Working face sloping 13,222 yd^3 @ $0.753/yd	9,823.13
5. Plant site ripping 8.57 ac @ $147.28/ac.	1,262.19
6. Secondary Revegetation @30 of 18.90 ac.	6,237.00
Net Total	$54,955.06
7. Indirect costs	
Mobilization (haul 2 miles one way)	2,418.17
Insurance, Bond, & Profit	7,429.92
8. Administration costs	3,119.25
TOTAL ESTIMATE	$67,922.40

RECOMMEND BOND BE SET AT $68,000.00

COST SUMMARY WORK

Task description: **2019 AM-02 Bond Estimate Summary**

Site: **Riverside Pit** Permit Action: 2019 AM-02 Bond Estimate Permit/Job#: M1976056

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 1/10/2019 County: Logan Filename: M056-000
User: PSH

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Replace 6" of topsoil on 18.90 acres	SCRAPER1	1	29.77	$7,766.00
002	Grading above waterline	GRADER	1	14.55	$1,501.00
003	Regrade Working Face - East and West Lakes	DOZER	1	362.33	$50,915.00
004	Rip 8.57 Acre Plant Area	RIPPER	1	15.99	$3,655.00
005	Revegetate 18.90 Acres	REVEGE	1	80.00	$38,646.00
006	Mob / Demob	MOBILIZE	1	4.32	$5,125.00
007	Backfill Lake Roberts Slopes	TRUCK1	1	70.40	$26,610.00
	SUBTOTALS:			**577.36**	**$134,218**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$2,711.20
Performance bond:	1.05	Total =	$1,409.29
Job superintendent:	115.07	Total =	$8,405.86
Profit:	10.00	Total =	$13,421.80
		TOTAL O & P =	$25,948.15
		CONTRACT AMOUNT (direct + O & P) =	$160,166.15

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	0.00	Total =	0.00
Engineering work and/or contract/bid preparation:	4.25	Total =	$6,807.06
Reclamation management and/or administration:	5.00		$8,008.31
CONTINGENCY:	0.00	Total =	$0.00
		TOTAL INDIRECT COST =	$40,763.52
		TOTAL BOND AMOUNT (direct + indirect) =	**$175,000.00 (rounded)**

SCRAPER TEAM WORK

Task description: **Replace 6" of topsoil on 18.90 acres**

Site: **Riverside Pit** Permit Action: 2019 AM02 Bond Estimate Permit/Job#: M1976056

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 1/10/2019 County: Logan Filename: M056-001
User: PSH

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	$110.85	NA	NA	NA	NA	NA
Operating cost/hour:	$119.02	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	$31.05	NA	NA	NA	NA	NA
Unit Subtotals:	$260.92	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	$260.92	Support:	$0.00	Maint:	$0.00

Total work team cost/hour: **$260.92**

MATERIAL QUANTITIES

Initial volume: 15,250 CCY Swell factor: 1.215
Loose volume: **18,529** LCY

Source of estimated volume: AM-02 Application
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 81,600 pounds
Payload Capacity: 51.00 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 24.00 LCY
Heaped Volume: 34.00 LCY
Average Volume: 29.00 LCY
Adjusted Capacity: **29.00** LCY

Cycle Time:

Scraper Loading Time: 0.80 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 3900 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	3.00	3.00	6.00	1069	0.51

Haul Time: **0.51** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-3.00	3.00	0.00	2937	0.31

Return Time: **0.31** minutes

Total Scraper team cycle time: **2.32** minutes
Adjusted for job conditions: 622.50 LCY/Hour
Selected Number of Scrapers: 1 Scraper(s)
Adjusted single scraper team (unit) hourly production: 622.50 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **622.50** LCY/Hour

Unadjusted unit production/hour: 750.00 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **29.77** Hours

Unit cost: $0.419 /LCY Total job cost: **$7,766**

MOTOR GRADER WORK

Task description: **Grading above waterline**

Site: **Riverside Pit** Permit Action: 2019 AM-02 Bond Estimate Permit/Job#: M1976056

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 1/10/2019 County: Logan Filename: M056-002
User: PSH

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 140M Horsepower: 183
Ripper Attachment: Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$38.38	NA
Operating Cost/Hour:	$36.03	100
Ripper Ownership Cost/Hour:	$0.00	NA
Ripper Operating Cost/Hour:	$0.00	
Operator Cost/Hour:	$28.69	NA
Total Unit Cost/Hour:	$103.10	

Total Fleet Cost/Hour: **$103.10**

MATERIAL QUANTITIES

Total Area to be graded or ripped: 18.90 acres

Source of estimated acreage: AM-02 Permit Application

HOURLY PRODUCTION

Average Grader Speed:	1.50	mph
Selected Application:	Finish grading (0-2.5 mph) - 1.5	
Selected Blade Angle:	30	degrees
Effective Blade Length:	10.40	feet
Width of blade overlap per pass:	2.00	feet
Net grading or ripping width per pass:	8.40	feet
Unadjusted Hourly Unit Production:	1.5273	acres/hour

Job Condition Correction Factors Site Altitude: 3900 feet

		Source
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.85	(1sh/d, mod.)
Net Correction:	0.8500	multiplier

Adjusted Hourly Unit Production: 1.2982 acres/Hour
Adjusted Hourly Fleet Production: **1.2982** acres/Hour

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **14.56** Hours

Unit cost: $79.42 per acre Total job cost: **$1,501**

BULLDOZER WORK

Task description: **Regrade Working Face - East and West Lakes**

Site: **Riverside Pit** Permit Action: 2019 AM-02 Bond Estimate Permit/Job#: M1976056

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 1/10/2019 County: Logan Filename: M056-003
User: PSH

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D6T XL
Horsepower: 185
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$52.66	NA
Operating Cost/Hour:	$46.34	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.52	NA

Total unit Cost/Hour: $140.52
Total Fleet Cost/Hour: **$140.52**

MATERIAL QUANTITIES

Initial Volume: 53,333
Swell factor: 1.099
Loose volume: **58,608** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 444.6 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -30 %
Average site altitude: 3,900 feet

Material weight: 3,400 lbs/LCY

Weight description: Sand and gravel - Wet

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.676	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3638

Adjusted unit production: 161.75 LCY/hr
Adjusted fleet production: **161.75** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.869/LCY

Total job time: **362.33** Hours
Total job cost: **$50,915**

BULLDOZER RIPPING WORK

Task description: **Rip 8.57 Acre Plant Area**

Site: **Riverside Pit** Permit Action: 2019 AM-02 Bond Estimate Permit/Job#: M1976056

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 1/10/2019 County: Logan Filename: M056-004
User: PSH

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310
Ripper Attachment: 1-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$93.62	NA
Operating Cost/Hour:	$73.35	100
Ripper Ownership Cost/Hour:	$12.36	NA
Ripper Operating Cost/Hour:	$7.67	100
Operator Cost/Hour:	$41.52	NA
Total Unit Cost/Hour:	$228.52	

Total Fleet Cost/Hour: **$228.52**

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 8.57 acres Rip Depth (ft): 0.50 Volume: 6,913 BCY or CCY

Source of estimated quantity: AM-02 Permit Application

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	3.71	mph
Average Ripping Width:	5.56	degrees
Average Ripping Length:	500.00	feet
Average Dozer Speed:	88.00	feet
Average Maneuver Time:	0.25	feet
Production per unit area:	0.646	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.646	Acres/hr
Site Altitude:	3,900	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier

Adjusted Hourly Unit Production: 0.54 Acres/hr
Adjusted Hourly Fleet Production: **0.54** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **15.99** Hours

Unit cost: $426.507 Per acre Total job cost: **$3,655**

REVEGETATION WORK

Task description: **Revegetate 18.90 Acres**

Site: **Riverside Pit** Permit Action: 2019 AM-02 Bond Estimate Permit/Job#: M1976056

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 1/10/2019 County: Logan Filename: M056-005
User: PSH

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	10.00	pound	$0.21	$2.10
			Total Fertilizer Materials Cost/Acre	**$2.10**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$34.72
Total Fertilizer Application Cost/Acre	**$34.72**

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$106.29
Total Tilling Cost/Acre	**$106.29**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Nebraska 28	1.00	8.93	$11.01
Sideoats Grama - Butte	2.00	6.57	$19.80
Little Bluestem - Pastura	3.50	20.89	$60.34
Sand Bluestem - Garden Co.	3.00	7.78	$75.78
Western Wheatgrass - Arriba	3.00	7.58	$24.84
Totals Seed Mix	12.50	51.74	**$191.77**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$232.00
Total Seed Application Cost/Acre	**$232.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$288.00	$576.00
Herbicide - Tordon 22K @ 1.0 pt/ac	2.00	ACRE	$12.38	$24.76
Total Mulch Materials Cost/Acre				**$600.76**

Application

Description	Cost /Acre
Weed spray, hand, aquatic area, annuals [DMG]	$133.12
Weed spray, hand, aquatic area, nox. [DMG]	$175.00
Weed spray, truck, non-aquatic area, nox. [DMG]	$73.22
Weed spray, truck, non-aquatic areas, ann. [DMG]	$23.91
Total Mulch Application Cost/Acre	**$405.25**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres:	18.9	Cost /Acre:	$1,572.89
Estimated Failure Rate:	30%	Cost /Acre*:	$1,572.89
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MULCHING		

Initial Job Cost:	**$29,727.62**
Reseeding Job Cost:	**$8,918.29**
Total Job Cost:	**$38,646**
Job Hours:	**80.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mob / Demob**

Site: **Riverside Pit** Permit Action: 2019 AM-02 Bond Estimate Permit/Job#: M1976056

PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None
Date: 1/10/2019 County: Logan Filename: M056-006
User: PSH

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	$16.63	$18.37	$22.33
Operating Cost/Hour:	$44.38	$46.13	$50.07
Operator Cost/Hour:	$27.66	$27.66	$27.66
Helper Cost/Hour:	$0.00	$25.39	$25.39
Total Unit Cost/Hour:	$88.67	$117.55	$125.45

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat 631G	52.50	$110.85	$125.45	1	$236.30	$125.45	$250.00
CAT 140M	16.68	$38.38	$88.67	1	$127.05	$88.67	$250.00
Cat D6T XL	23.25	$52.66	$88.67	1	$141.33	$88.67	$250.00
Cat D8T - 8SU	53.08	$102.55	$125.45	1	$228.00	$125.45	$250.00
Subtotals:					**$732.68**	**$428.24**	**$1,000.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	$19.39	1	$19.39	$19.39
Drill/Broadcast Seeder with Tractor	$36.08	1	$36.08	$36.08
Subtotals:			**$55.47**	**$55.47**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	STERLING, CO	
Total one-way travel distance:	2.00	miles
Average Travel Speed:	25.00	mph

Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$5,116.47
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$8.88

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.08	0.08
Return Time (Hours):	0.08	0.08
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	2.16	0.16

JOB TIME AND COST

Total job time:	**4.32**	Hours
Total job cost:	**$5,125**	

TRUCK/LOADER TEAM WORK

Task description: **Backfill Lake Roberts Slopes**

Site: **Riverside Pit** Permit Action: 2019 AM-02 Bond Estimate Permit/Job#: M1976056

PROJECT IDENTIFICATION

Task #: 007 State: Colorado Abbreviation: None
Date: 1/11/2019 County: Logan Filename: M056-007
User: PSH

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Generic 8-10 cy, 6x4
-Loader:	CAT 950H high lift
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	$15.87	$26.14	NA	NA	NA	NA
Operating cost/hour:	$40.15	$30.84	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	$0.00	NA	NA	NA	NA
Operator cost/hour:	$0.00	$40.90	NA	NA	NA	NA
Unit Subtotals:	$56.02	$97.89	NA	NA	NA	NA
Number of Units:	5	1	0	0	0	0
Group Subtotals:	Work:	$377.99	Support:	$0.00	Maint:	$0.00

Total work team cost/hour: **$377.99**

MATERIAL QUANTITIES

Initial volume: 26,666 CCY Swell factor: 1.060
Loose volume: **28,266** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,900 Pounds/LCY
Description: Sand and gravel - Dry
Rated Payload: 27,280 Pounds

Payload Capacity: 9.41 LCY

Truck Bed (volume) Basis:

Struck Volume:	8.00	LCY
Heaped Volume:	10.00	LCY
Average Volume:	9.00	LCY
Adjusted Volume:	9.41	LCY

Final Truck Volume Based on Number of Loader Passes: **8.39** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	4.300	LCY (heaped)
Bucket Fill Factor:	0.975	Loose material - mixed moist aggregates (95-100%) 0.975
Adjusted Capacity:	**4.193**	LCY

Job Condition Corrections: Site Altitude (ft.): 3900 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 2 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	-0.060	minutes
	Adjusted Loader Cycle Time:	**0.440**	minutes
	Net Load Time per Truck:	**0.540**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	0.540	Minutes	Adjusted for site altitude:	0.540	Minutes
Truck Maneuver and Dump Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3500.00	0.00	4.00	4.00	2665	1.413

Haul Time: **1.413** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3500.00	0.00	4.00	4.00	2849	1.257

Return Time: **1.257** minutes
Total Truck Cycle Time: **4.510** minutes

Loading Tool unit Production 483.75 LCY/Hour Adjusted for job efficiency: 401.51 LCY/Hour
Truck Unit Production 111.55 LCY/Hour Adjusted for job efficiency: 92.59 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 462.94 LCY/Hour
Adjusted single truck/loader team production: 401.51 LCY/Hour
Adjusted multiple truck/loader team production: **401.51** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **70.40** Hours

Unit cost: $0.941 /LCY Total job cost: **$26,610**

Exhibit M OTHER PERMIT AND LICENSES

1. An Air Pollution permit is not needed for this pit since less than 70,000 tons of material is mined each year.

2. McAtee Construction Company has the necessary use permit and zoning for the permit area with the City of Sterling. Property is zoned Heavy Industrial.

3. This is an open pit operation and ground water will be exposed. The exposed water at the mine is covered well permit # 66811F and operated under the Logan Water Users Association augmentation plan (cases #2007CW0300 & 17CW3262) and is updated as needed when new lake area is created.

4. A dredge fill permit (404) is <u>not required</u> because there will be no backfilling into waters of the U.S. on this site.

5. A Storm Water Management Plan (SWMP) has been prepared for this pit. A discharge permit has been issued for the mine permit #COG501554. The SWMP will be revised to include the new area.

EXHIBIT N

SOURCE OF LEGAL RIGHT TO ENTER

STATE OF Wyoming)
) ss AFFIDAVIT
COUNTY OF Laramie)

Brett Baker, being first duly sworn upon oath, deposes and says:

1. He is the President of McAtee Construction Company, the operator of the Riverside Pit and is empowered to act for and on behalf of the company in all respects in connection with any applications, petitions, contracts, correspondence, bonds or activities with or before the Colorado Mined Land Reclamation Board under the provisions of the Colorado Mined Land Reclamation Act.

2. The surface and mineral rights in and to the property known as the Riverside Pit are owned by McAtee Construction Company.

3. The McAtee Construction Company is legally empowered to enter upon the subject lands and to conduct mining operations for construction and decorative rock and other auxiliary uses.

Signed _____
President

SUBSCRIBED and sworn to before me this 9th day of November, 2018, by Brett Baker, as President of McAtee Construction Company.

Notary Public

My commission expires:
January 28, 2022

(Notarial seal)

PAULA HAVENS - NOTARY PUBLIC
STATE OF WYOMING
My Commission Expires January 28, 2022

Exhibit O — OWNERS OF RECORD

Owners of Substance to be mined

McAtee Construction Company
P.O. Box 1908
Sterling CO, CO 80751

Landowners within 200 feet

Sterling Mill Service LLC
PO Box 30
Sterling CO 80751

Mcatee Construction Company
Sterling Redi-Mix Co
C/O Simon
PO Box 1908
Sterling CO 80751

James R & Mary C. Conour
15560 Blair St
Sterling CO 80751

Rausch Ventures LLC
205 Country Club Dr
Sterling CO 80751

LSC Properties LLC
PO Box 386
Sterling CO 80751

Hurst Construction Company
PO Box 630
Sterling CO 80751

Arthur M Guetter Living Trust
15373 C R 28.1
Sterling CO 80751

Marc R & Jennifer K Reck
PO Box 407
Sterling CO 80751

Lebsock 200 Hays LLC
17566 C R 30
Sterling CO 80751

City of Sterling
PO Box 4000
Sterling CO 80751

Nebraska, Kansas & Colorado Railway, LLC
Bryce Anderson
111 Lincoln Avenue
Grant, Nebraska 69140

Sterling Ethanol LLC
PO Box 1804
Sterling CO 80751

United States of America
Bureau of Land Management
2850 Youngsfield
Lakewood CO 80205

Riverside Storage and Recycling Center LLC
137 N Front St
Sterling CO 80751

Webb Family Trust
109 Spruce Rd
Sterling CO 80751

Dan Lazzaretti
20645 Riverside Dr
Sterling CO 80751

Dora Alicia & Felix Reyes
20599 Riverside Dr
Sterling CO 80751

Cody Green
20587 Riverside Dr
Sterling CO 80751

James A & Sandra K Dickinson
13259 C R 37 St
Sterling CO 80751

ROW - EASEMENT HOLDERS WITHIN 200 FEET

Century Link
Attention ROW
7700 E. Arapaho Rood, Suite 220
Centennial, CO 80112-1268

Xcel Energy (PSCO)
Mr. Quinn Kilty
1800 Larimer, St. Suite 1300
Denver, CO 80202

Lowline Ditch Company
Gene Marin
521 Elmwood St.
Sterling, CO 80751

Department of Energy
Western Area Power Administration
Rocky Mtn Customer Service Region
P.O. Box 3700
Loveland, CO 80539-3003

Exhibit P

MUNICIPALITIES WITHIN TWO MILES

City of Sterling
421 N. 4th Street
Sterling, CO 80751

Exhibit Q - Notices and Proof of Mailing for City, Board of County Commissioners and Soil Conservation District

NOTICE OF FILING
FOR COLORADO MINED LAND RECLAMATION PERMIT
FOR **AN AMENDMENT TO A REGULAR (112) CONSTRUCTION MATERIALS EXTRACTION OPERATIONS** NOTICE TO THE
BOARD OF COUNTY COMMISSIONERS
LOGAN COUNTY

McAtee Construction Company, (the "Applicant/Operator") has applied for an amendment to a regular (112) reclamation permit from the Colorado Mined Land Reclamation Board ("the Board") to conduct a construction materials mining operation in Logan County known as the Riverside Pit. The attached information is being provided to notify you of the location and nature of the proposed operation. The entire application is on file with the Colorado Division of Reclamation Mining and Safety ("the Division") and the Logan County Clerk and Recorders office at 315 Main, Sterling, CO 80751.

The applicant proposes to reclaim the land to a private recreation area and industrial area. Pursuant to C.R.S. 34-32.5-116(4)(m), C.R.S., the Board may confer with the local Board of County Commissioners before approving the post-mining land use. Accordingly, the Board would appreciate your comments on the proposed operation. Please note that, in order to preserve your right to a hearing before the Board on this application, you must submit written comments to the application within twenty (20) days of the date of last publication notice pursuant to Section 34-32.5-112(10), C.R.S.

If you would like to discuss the proposed post-mining land use, or any other issue regarding this application, please contact Division of Reclamation Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203, (303) 866-3567.

McAtee Construction Company.
(Date)

Hand Delivered

Exhibit Q (cont) - Notices and Proof of Mailing to City, Board of County Commissioners and Soil Conservation District

NOTICE OF FILING
FOR COLORADO MINED LAND RECLAMATION PERMIT
FOR **AN AMENDMENT TO A REGULAR (112) CONSTRUCTION MATERIALS EXTRACTION OPERATIONS** NOTICE TO THE STERLING CITY COUNCIL

McAtee Construction Company. (the "Applicant/Operator") has applied for an amendment to a regular (112) reclamation permit from the Colorado Mined Land Reclamation Board ("the Board") to conduct a construction materials mining operation in Logan County known as the Riverside Pit. The attached information is being provided to notify you of the location and nature of the proposed operation. The entire application is on file with the Colorado Division of Reclamation Mining and Safety ("the Division") and the Logan County Clerk and Recorders office at 315 Main, Sterling, CO 80751.

The applicant proposes to reclaim the land to a private recreation area and industrial area. Pursuant to C.R.S. 34-32.5-116(4)(m), C.R.S., the Board may confer with the local City Council before approving the post-mining land use. Accordingly, the Board would appreciate your comments on the proposed operation. Please note that, in order to preserve your right to a hearing before the Board on this application, you must submit written comments to the application within twenty (20) days of the date of last publication notice pursuant to Section 34-32.5-112(10), C.R.S.

If you would like to discuss the proposed post-mining land use, or any other issue regarding this application, please contact Division of Reclamation Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203, (303) 866-3567.

McAtee Construction Company
(Date)

Hand Delivered

Exhibit Q (cont) - Notices and Proof of Mailing to City, Board of County Commissioners and Soil Conservation District

NOTICE OF FILING
FOR COLORADO MINED LAND RECLAMATION PERMIT
FOR **AN AMENDMENT TO A REGULAR (112) CONSTRUCTION MATERIALS EXTRACTION OPERATIONS** NOTICE TO THE BOARD OF THE SOIL CONSERVATION DISTRICT
Centennial Office

McAtee Construction Company (the "Applicant/Operator") has applied for an amendment to a regular (112) reclamation permit from the Colorado Mined Land Reclamation Board ("the Board") to conduct a construction materials mining operation in Logan County known as the Riverside Pit. The attached information is being provided to notify you of the location and nature of the proposed operation. The entire application is on file with the Colorado Division of Reclamation Mining and Safety ("the Division") and the Logan County Clerk and Recorders office at 315 Main, Sterling, CO 80751.

The applicant proposes to reclaim the land to a private recreation area and industrial area. Pursuant to C.R.S. 34-32.5-116(4)(m), C.R.S., the Board may confer with the local Board of the Soil Conservation District before approving the post-mining land use. Accordingly, the Board would appreciate your comments on the proposed operation. Please note that, in order to preserve your right to a hearing before the Board on this application, you must submit written comments to the application within twenty (20) days of the date of last publication notice pursuant to Section 34-32.5-112(10), C.R.S.

If you would like to discuss the proposed post-mining land use, or any other issue regarding this application, please contact Division of Reclamation Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203, (303) 866-3567.

McAtee Construction Company
(Date)

Hand Delivered

Exhibit R - CLERK AND RECORDERS NOTICE AND PROOF OF DELIVERY

November ,2018

Logan County Clerk and Recorder
Logan County Courthouse
315 Main
Sterling, Colorado 80751

Re: Amendment of a Mined
Land Reclamation Permit

Dear Sir/Madam:

We are delivering to you here with a copy of the application amendment for the Riverside Pit, an amendment to a Regular 112 Construction Materials permit, operated by McAtee Construction Company. Two copies of the application are on file with the Division of Reclamation Mining and Safety (DIVISION OF RECLAMATION MINING AND SAFETY).

This copy of the application is delivered to you pursuant to 34-32.5-112(9)(a), Colorado Revised Statutes 1995, as amended, which states in part:

> *....the applicant shall file a copy of such application for public inspection at the office of the County Clerk and Recorder of the County in which the affected land is located.*

Please acknowledge receipt of this copy of the amended permit application by signing in the appropriate space provided below and returning one copy of this letter to the person delivering the book. Please hold the book for picked up after the application has been approved by the Division of Reclamation Mining and Safety (approx. 160 days)

Sincerely,
Environment, Inc.

Stevan L. O'Brian
President

enclosure

RECEIVED THIS ____ DAY OF _____, _____
MINED LAND RECLAMATION BOARD amendment application for the Riverside Pit.

By _____
Logan County Clerk and Recorder

Exhibit S PERMANENT MAN-MADE STRUCTURES

The permanent and man-made structures around the permit areas are shown on the map and listed below. Structures marked with a * were listed in original 1976 permit. Structures marked with a # were added in 2000 permit

Sterling Mill Service LLC
Chainlink Fence - west#

Mcatee Construction Company
Sterling Redi-Mix Co
C/O Simon
Wire Fences east*, Chainlink Fence west#, Private fiber optic line, Concrete# and Asphalt* plants

James R & Mary C Conour
Chainlink Fence - west#

Rausch Ventures LLC
Chainlink Fence - west#

LSC Properties LLC
Chainlink Fence - west#
Building

Hurst Construction Company
Chainlink Fence - west*
2 - buildings

Marc R & Jennifer K Reck
Chainlink Fences - southwest#

Lebsock 200 Hays LLC
Building

Riverside Storage and Recycling Center LLC
Solid wood fence - Riverside Street side

Webb Family Trust
Building

Dan Lazzaretti
House & Garage

Dora Alicia
House & garage

Felix Reyes
House

Cody Green
House

James a & Sandra K Dickinson
2 - buildings

Nebraska, Kansas & Colorado Railway, LLC
Railroad line & Bridge*

Sterling City of
Harris St and Riverside St.

Century Link
communication lines

Xcel Energy (PSCO)
power lines#

Lowline Ditch Company
irrigation ditch*

Western Area Power Admin.
2 - powerlines* (Lake Robert area)

Mining has been on going since prior to 1976 and many of the structures around the western permit area were installed after the 2000 permit was issued. Mining was complete or has taken place within 200 feet of those shown around the existing permit area. Structure agreements have been mailed to the owners listed in this Exhibit and copies of the mailing receipts are provided on the next 4 pages. Any signed agreement returned to McAtee will be provided for the record. A Geotechnical Analysis is provided in this packet in case any structure agreements are not returned.

7010 2780 0002 2063 3155

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Postage	$3.45	0451 10
Certified Fee	$0.00	
Return Receipt Fee (Endorsement Required)	$0.00	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$0.50 $3.95	11/15/2018

Sent To
Street, Apt. No.; or PO Box No.
City, State, ZIP+4
James R & Mary C. Conour
15560 Blair St
Sterling CO 80751

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Total Postage & Fees	$0.50 $3.95	11/15/2018

Sent To
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City, State, ZIP+4
Sterling Mill Service LLC
PO Box 30
Sterling CO 80751

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Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$0.50 $3.95	11/15/2018

Sent To
Street, Apt. No.; or PO Box No.
City, State, ZIP+4
Rausch Ventures LLC
205 Country Club Dr
Sterling CO 80751

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Total Postage & Fees	$0.50 $3.95	11/15/2018

Sent To
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Hurst Construction Company
PO Box 630
Sterling CO 80751

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Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$0.50 $3.95	11/15/2018

Sent To
Street, Apt. No.; or PO Box No.
City, State, ZIP+4
LSC Properties LLC
PO Box 386
Sterling CO 80751

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Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$0.50 $3.95	11/15/2018

Sent To
Street, Apt. No.; or PO Box No.
City, State, ZIP+4
Marc R & Jennifer K Reck
PO Box 407
Sterling CO 80751

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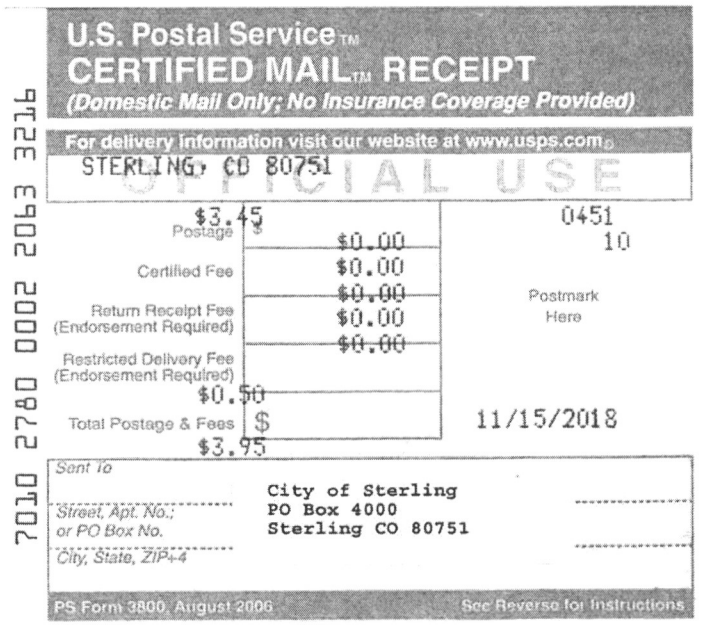

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Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
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City of Sterling
PO Box 4000
Sterling CO 80751
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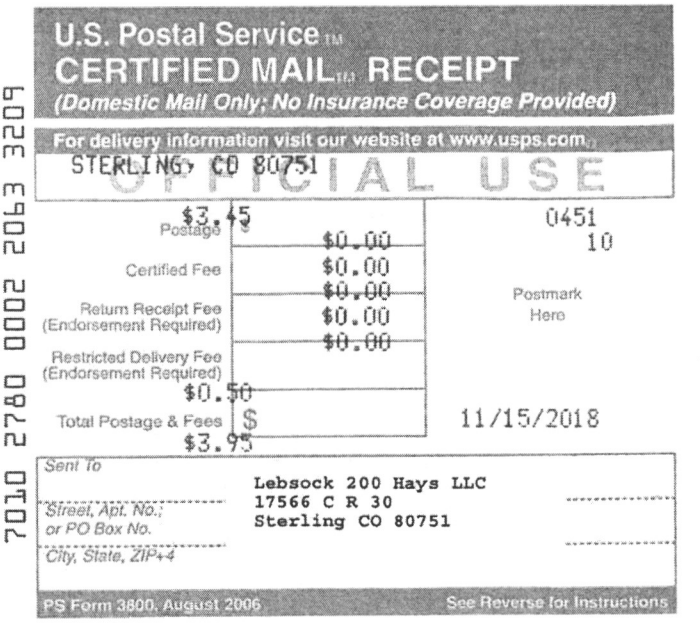

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Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
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Postmark Here
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City, State, ZIP+4
Lebsock 200 Hays LLC
17566 C R 30
Sterling CO 80751
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Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
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7010 2780 0002 2063 3247
Sent To
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City, State, ZIP+4
Webb Family Trust
109 Spruce Rd
Sterling CO 80751
PS Form 3800, August 2006
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Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
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Postmark Here
11/15/2018
7010 2780 0002 2063 3223
Sent To
Street, Apt. No.; or PO Box No.
City, State, ZIP+4
NK&C Railway, LLC
Bryce Anderson
111 Lincoln Avenue
Grant, Nebraska 69140
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Return Receipt Fee (Endorsement Required) $0.00
Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
0451 10
Postmark Here
11/15/2018
7010 2780 0002 2063 3254
Sent To
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City, State, ZIP+4
Dan Lazzaretti
20645 Riverside Dr
Sterling CO 80751
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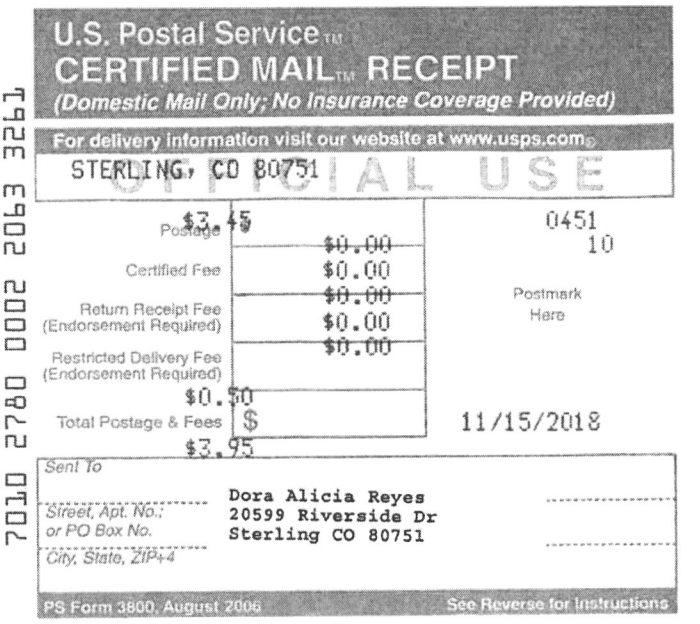
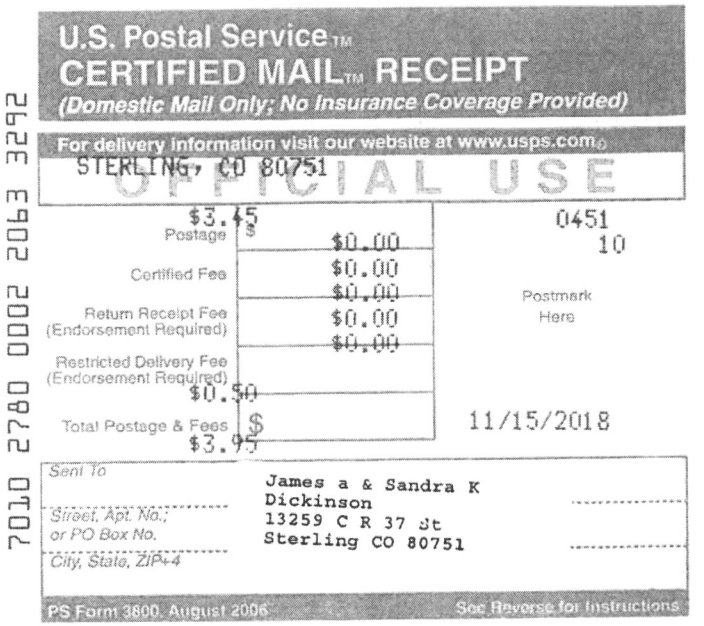
Postage $3.45
Certified Fee $0.00
Return Receipt Fee (Endorsement Required) $0.00
Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
0451 10
Postmark Here
11/15/2018
7010 2780 0002 2063 3230
Sent To
Street, Apt. No.; or PO Box No.
City, State, ZIP+4
Riverside Storage and
Recycling Center LLC
137 N Front St
Sterling CO 80751
PS Form 3800, August 2006
See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
STERLING, CO 80751
OFFICIAL USE
Postage $3.45
Certified Fee $0.00
Return Receipt Fee (Endorsement Required) $0.00
Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
0451 10
Postmark Here
11/15/2018
7010 2780 0002 2063 3278
Sent To
Felix Reyes
Street, Apt. No.; or PO Box No. 20599 Riverside Dr
City, State, ZIP+4 Sterling CO 80751
PS Form 3800, August 2006 See Reverse for Instructions



U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
STERLING, CO 80751
OFFICIAL USE
Postage $3.45
Certified Fee $0.00
Return Receipt Fee (Endorsement Required) $0.00
Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
0451 10
Postmark Here
11/15/2018
7010 2780 0002 2063 3261
Sent To
Dora Alicia Reyes
Street, Apt. No.; or PO Box No. 20599 Riverside Dr
City, State, ZIP+4 Sterling CO 80751
PS Form 3800, August 2006 See Reverse for Instructions

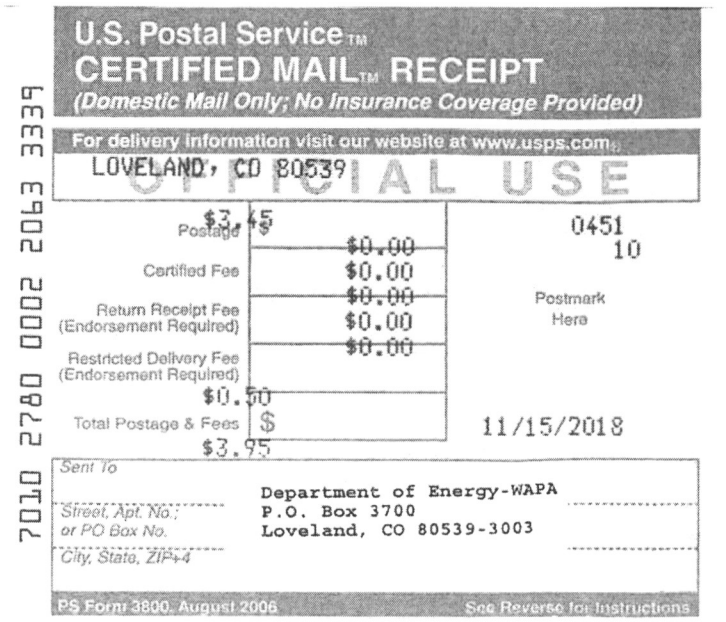


U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
STERLING, CO 80751
OFFICIAL USE
Postage $3.45
Certified Fee $0.00
Return Receipt Fee (Endorsement Required) $0.00
Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
0451 10
Postmark Here
11/15/2018
7010 2780 0002 2063 3292
Sent To
James a & Sandra K Dickinson
Street, Apt. No.; or PO Box No. 13259 C R 37 St
City, State, ZIP+4 Sterling CO 80751
PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
STERLING, CO 80751
OFFICIAL USE
Postage $3.45
Certified Fee $0.00
Return Receipt Fee (Endorsement Required) $0.00
Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
0451 10
Postmark Here
11/15/2018
7010 2780 0002 2063 3285
Sent To
Cody Green
Street, Apt. No.; or PO Box No. 20587 Riverside Dr
City, State, ZIP+4 Sterling CO 80751
PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
STERLING, CO 80751
OFFICIAL USE
Postage $3.45
Certified Fee $0.00
Return Receipt Fee (Endorsement Required) $0.00
Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
0451 10
Postmark Here
11/15/2018
7010 2780 0002 2063 3322
Sent To
Lowline Ditch Company
c/o Gene Marin
Street, Apt. No.; or PO Box No. 521 Elmwood St.
City, State, ZIP+4 Sterling CO 80751
PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
ENGLEWOOD, CO 80112
OFFICIAL USE
Postage $3.45
Certified Fee $0.00
Return Receipt Fee (Endorsement Required) $0.00
Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $3.95
0451 10
Postmark Here
11/15/2018
7010 2780 0002 2063 3308
Sent To
Century Link
7700 E. Arapaho Rood,
Street, Apt. No.; or PO Box No. Suite 220
City, State, ZIP+4 Centennial, CO 80112-1268
PS Form 3800, August 2006 See Reverse for Instructions



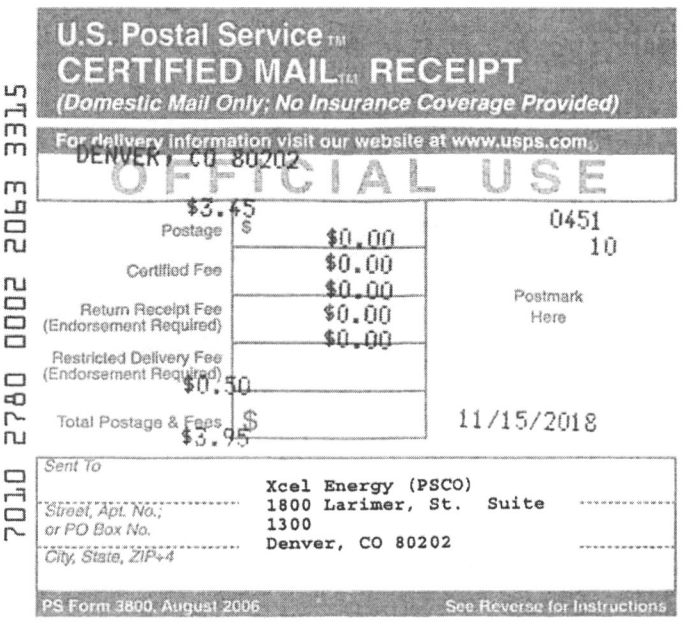
U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
LOVELAND, CO 80539
OFFICIAL USE

7010 2780 0002 2063 3339

Postage	$3.45	0451 10
Certified Fee	$0.00 $0.00	
Return Receipt Fee (Endorsement Required)	$0.00 $0.00	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00 $0.00	
Total Postage & Fees	$3.95	11/15/2018

Sent To
Street, Apt. No.; or PO Box No.: Department of Energy-WAPA
P.O. Box 3700
City, State, ZIP+4: Loveland, CO 80539-3003

PS Form 3800, August 2006 See Reverse for Instructions



U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
DENVER, CO 80202
OFFICIAL USE

7010 2780 0002 2063 3315

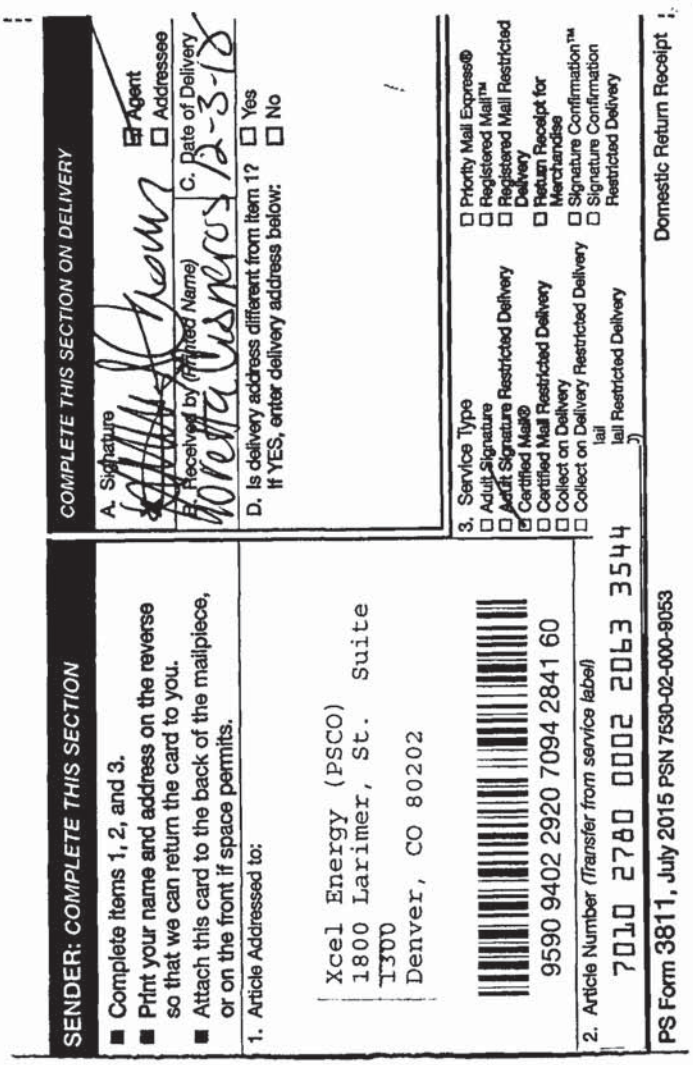
Postage	$3.45	0451 10
Certified Fee	$0.00 $0.00	
Return Receipt Fee (Endorsement Required)	$0.00 $0.00	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00 $0.00	
Total Postage & Fees	$3.95	11/15/2018

Sent To
Street, Apt. No.; or PO Box No.: Xcel Energy (PSCO)
1800 Larimer, St. Suite 1300
City, State, ZIP+4: Denver, CO 80202

PS Form 3800, August 2006 See Reverse for Instructions

MCATEE CONSTRUCTION CO.
ADJOINING OWNER NOTIFICATION - MAILING RECEIPTS
January 7, 2019

RIVERSIDE PIT
M.L.R.B. #M-1976-056



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Xcel Energy (PSCO)
1800 Larimer, St. Suite 1700
Denver, CO 80202

9590 9402 2920 7094 2841 60

2. Article Number (Transfer from service label)
7010 2780 0002 2063 3544

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

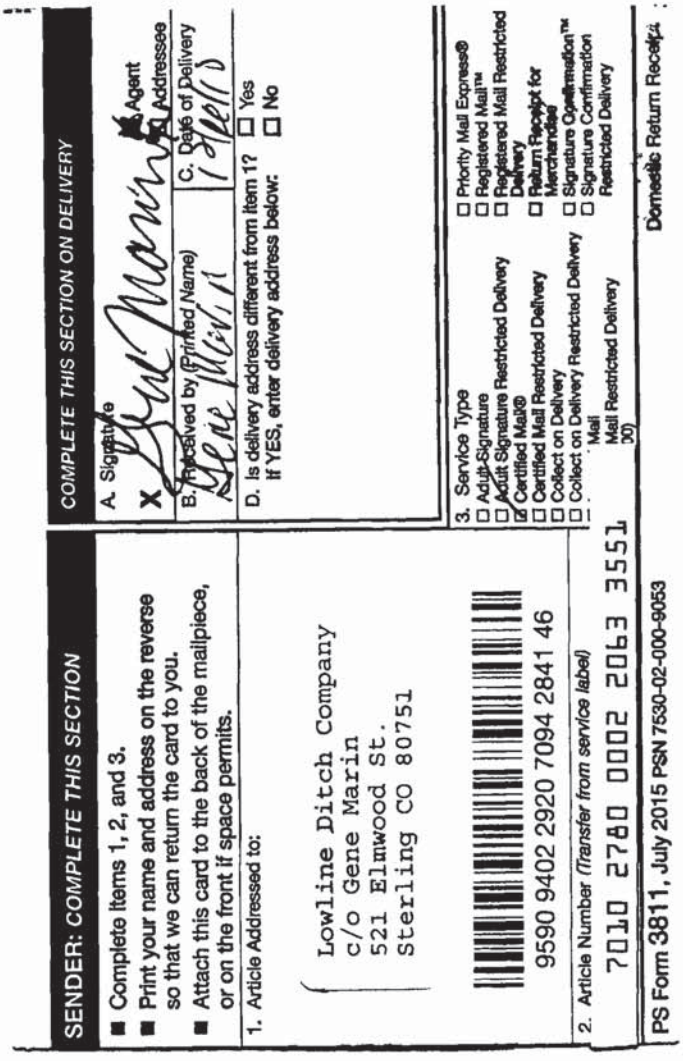
COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) Noretta Usinger C. Date of Delivery 12-3-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☐ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Lowline Ditch Company
c/o Gene Marin
521 Elmwood St.
Sterling CO 80751

9590 9402 2920 7094 2841 46

2. Article Number (Transfer from service label)
7010 2780 0002 2063 3551

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

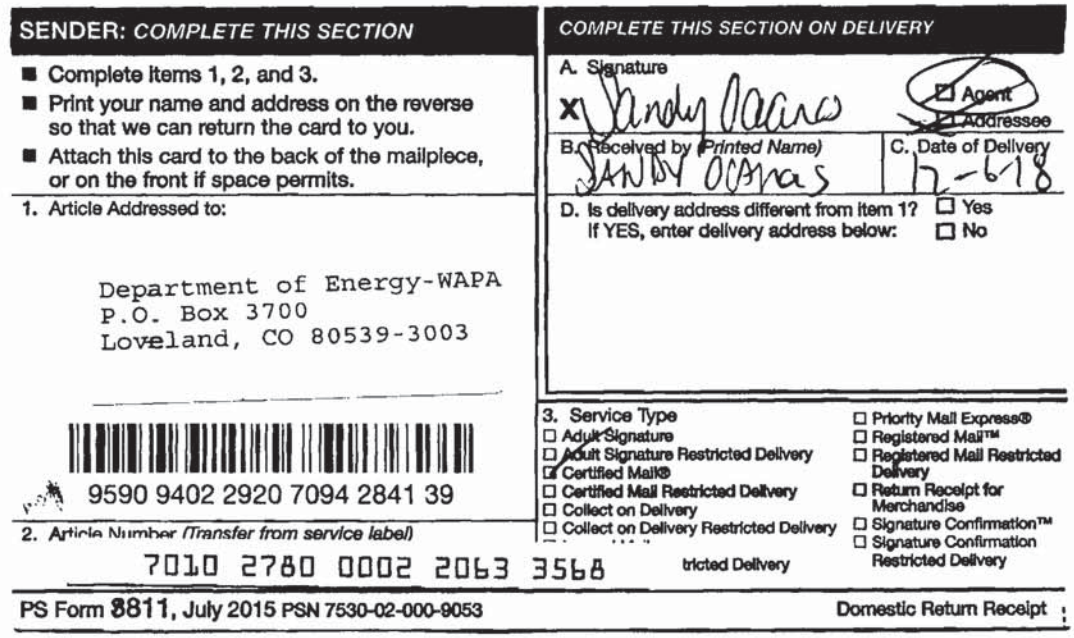
COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) Gene Marin C. Date of Delivery 12-6-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☐ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Department of Energy-WAPA
P.O. Box 3700
Loveland, CO 80539-3003

9590 9402 2920 7094 2841 39

2. Article Number (Transfer from service label)
7010 2780 0002 2063 3568

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

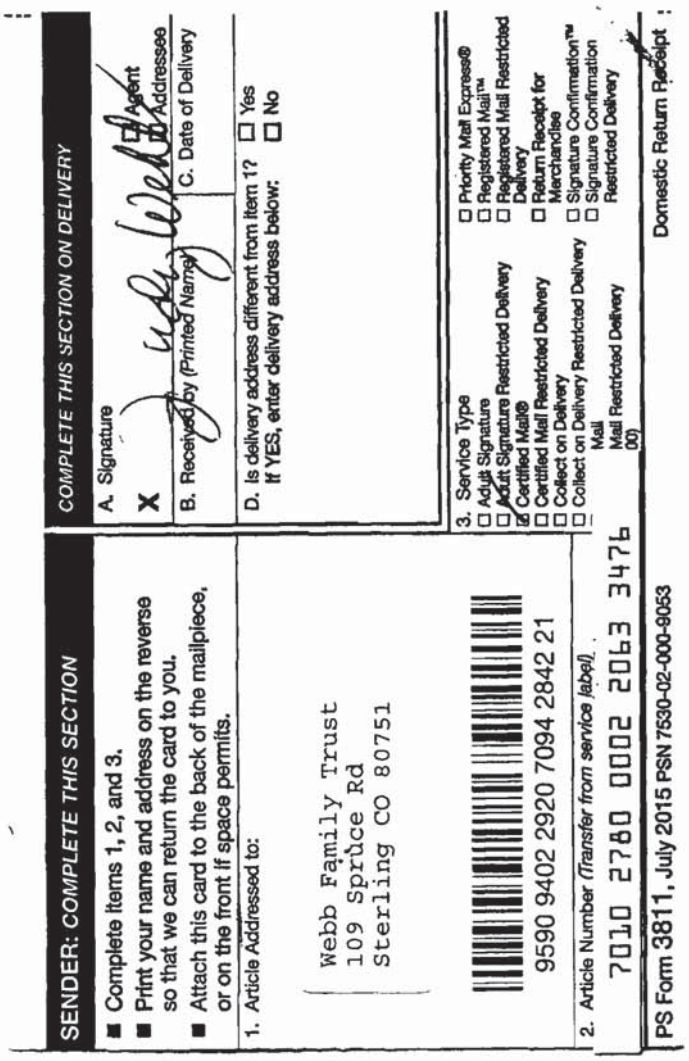
B. Received by (Printed Name) SANDY OCHRAS C. Date of Delivery 12-6-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

MCATEE CONSTRUCTION CO.
ADJOINING OWNER NOTIFICATION - MAILING RECEIPTS
January 7, 2019

RIVERSIDE PIT
M.L.R.B. #M-1976-056



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Webb Family Trust
109 Spruce Rd
Sterling CO 80751

2. Article Number (Transfer from service label)
9590 9402 2920 7094 2842 21

7010 2780 0002 2063 3476

COMPLETE THIS SECTION ON DELIVERY

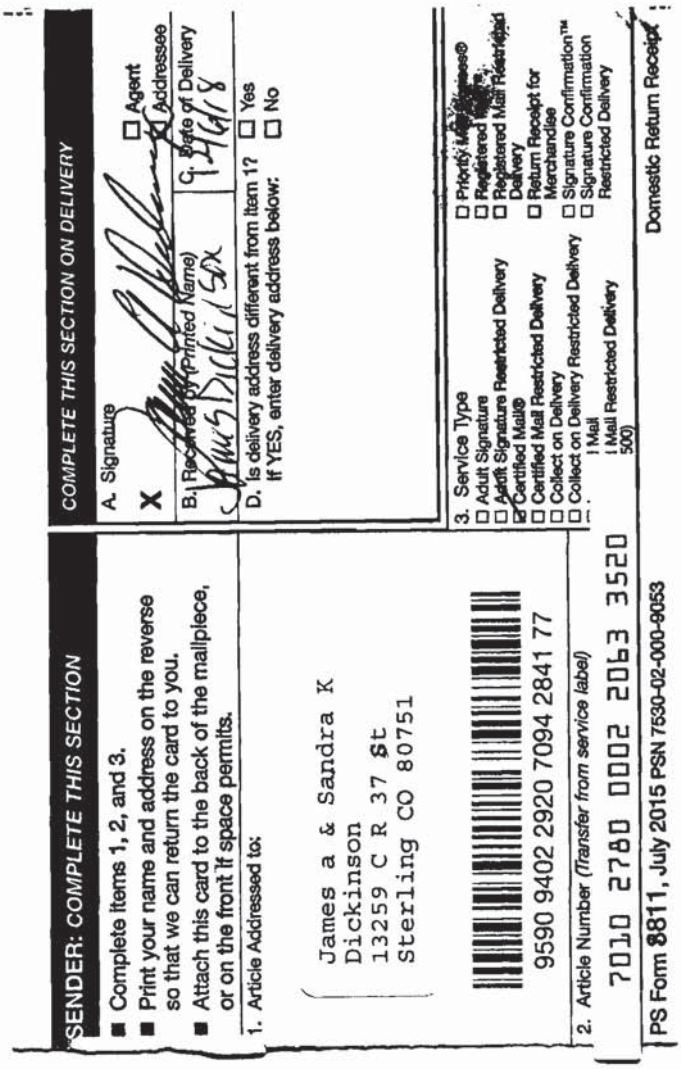
A. Signature
X
☐ Agent
☐ Addressee

B. Received by (Printed Name)
C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

James a & Sandra K
Dickinson
13259 C R 37 St
Sterling CO 80751

2. Article Number (Transfer from service label)
9590 9402 2920 7094 2841 77

7010 2780 0002 2063 3520

COMPLETE THIS SECTION ON DELIVERY

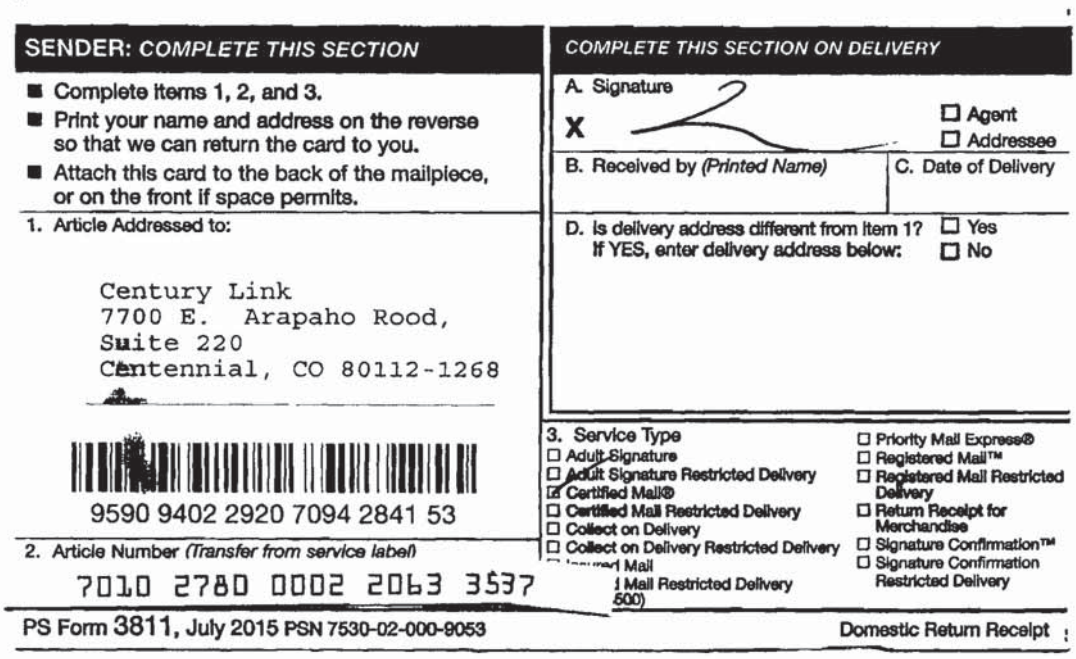
A. Signature
X
☐ Agent
☐ Addressee

B. Received by (Printed Name)
C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Century Link
7700 E. Arapaho Rood,
Suite 220
Centennial, CO 80112-1268

2. Article Number (Transfer from service label)
9590 9402 2920 7094 2841 53

7010 2780 0002 2063 3537

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X
☐ Agent
☐ Addressee

B. Received by (Printed Name)
C. Date of Delivery

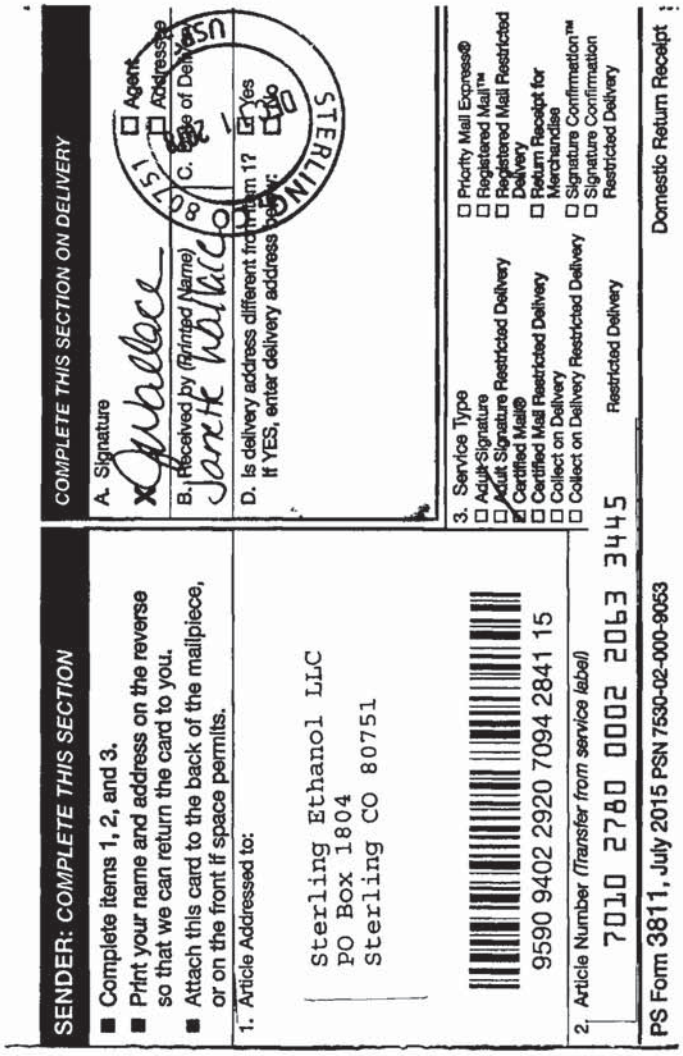
D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

MCATEE CONSTRUCTION CO.
ADJOINING OWNER NOTIFICATION - MAILING RECEIPTS
January 7, 2019

RIVERSIDE PIT
M.L.R.B. #M-1976-056



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Sterling Ethanol LLC
PO Box 1804
Sterling CO 80751

2. Article Number (Transfer from service label)
9590 9402 2920 7094 2841 15

7010 2780 0002 2063 3445

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Agent
Addressee

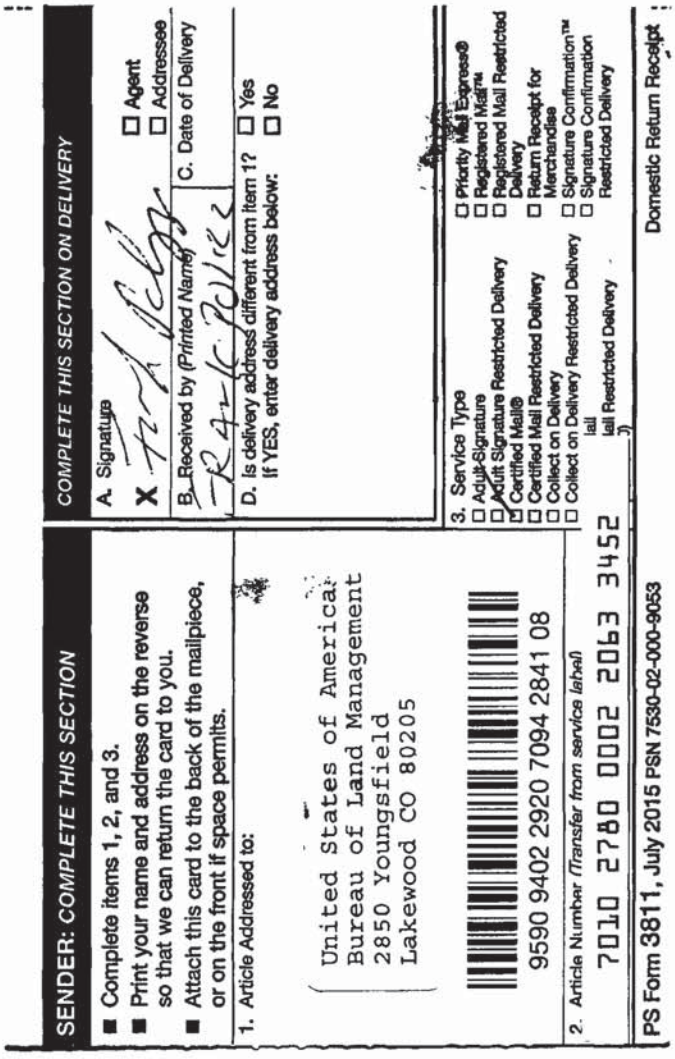
B. Received by (Printed Name) Janet Wallace
C. Date of Delivery 1/8/19

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
- Adult Signature
- Adult Signature Restricted Delivery
- Certified Mail®
- Certified Mail Restricted Delivery
- Collect on Delivery
- Collect on Delivery Restricted Delivery
- Priority Mail Express®
- Registered Mail™
- Registered Mail Restricted Delivery
- Return Receipt for Merchandise
- Signature Confirmation™
- Signature Confirmation Restricted Delivery

Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 — Domestic Return Receipt



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

United States of America
Bureau of Land Management
2850 Youngsfield
Lakewood CO 80205

2. Article Number (Transfer from service label)
9590 9402 2920 7094 2841 08

7010 2780 0002 2063 3452

COMPLETE THIS SECTION ON DELIVERY

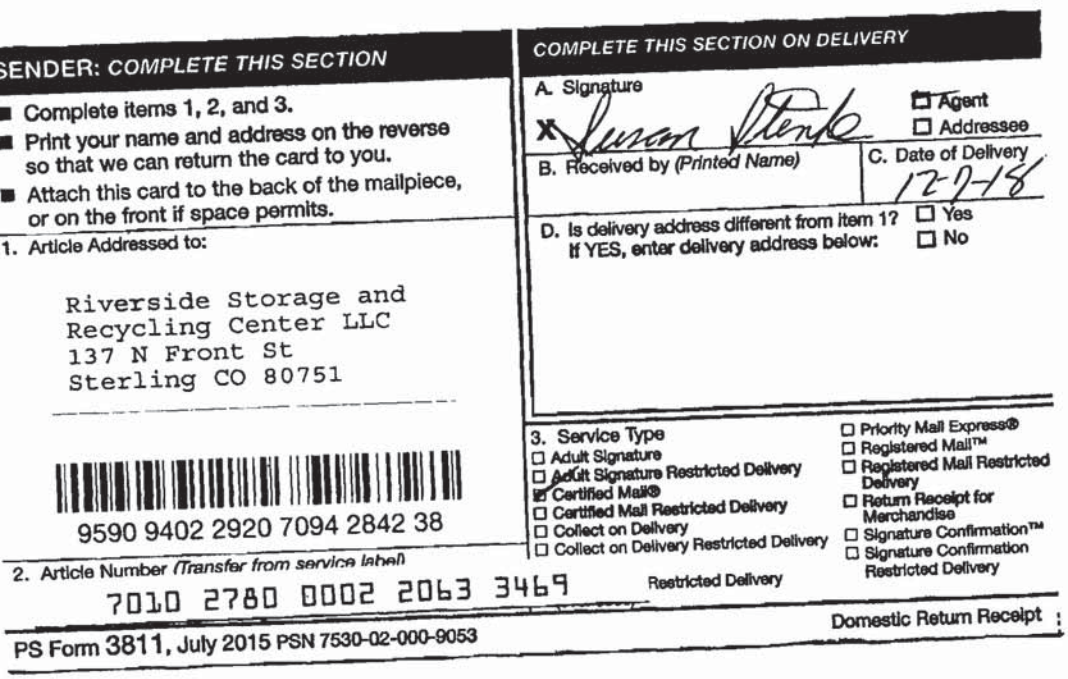
A. Signature
X Agent
Addressee

B. Received by (Printed Name)
C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
- Adult Signature
- Adult Signature Restricted Delivery
- Certified Mail®
- Certified Mail Restricted Delivery
- Collect on Delivery
- Collect on Delivery Restricted Delivery
- Priority Mail Express®
- Registered Mail™
- Registered Mail Restricted Delivery
- Return Receipt for Merchandise
- Signature Confirmation™
- Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 — Domestic Return Receipt



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Riverside Storage and
Recycling Center LLC
137 N Front St
Sterling CO 80751

9590 9402 2920 7094 2842 38

2. Article Number (Transfer from service label)
7010 2780 0002 2063 3469

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Agent
Addressee

B. Received by (Printed Name)
C. Date of Delivery 12-7-18

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

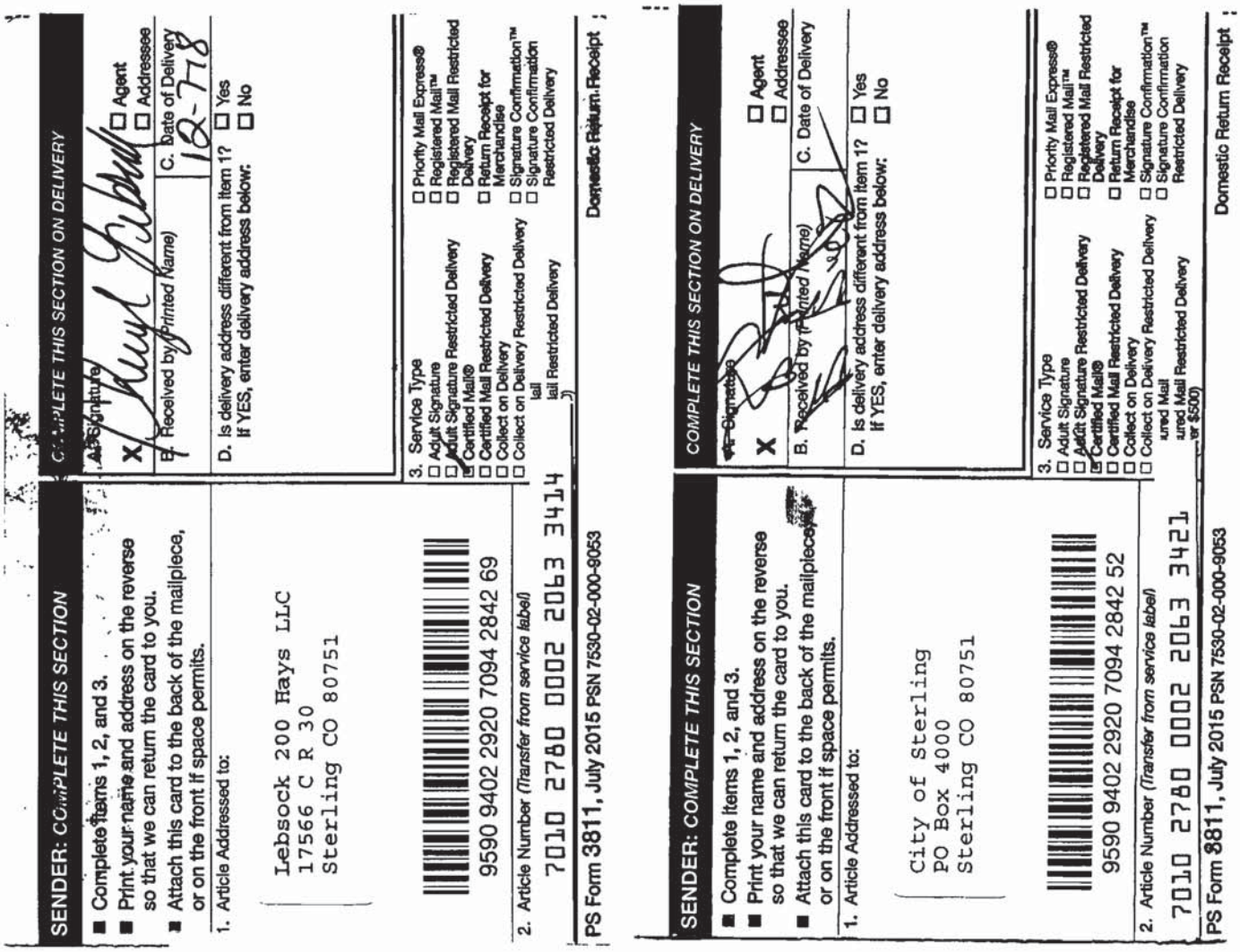
3. Service Type
- Adult Signature
- Adult Signature Restricted Delivery
- Certified Mail®
- Certified Mail Restricted Delivery
- Collect on Delivery
- Collect on Delivery Restricted Delivery
- Priority Mail Express®
- Registered Mail™
- Registered Mail Restricted Delivery
- Return Receipt for Merchandise
- Signature Confirmation™
- Signature Confirmation Restricted Delivery

Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 — Domestic Return Receipt

MCATEE CONSTRUCTION CO.
ADJOINING OWNER NOTIFICATION - MAILING RECEIPTS
January 7, 2019

RIVERSIDE PIT
M.L.R.B. #M-1976-056



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Lebsock 200 Hays LLC
17566 C R 30
Sterling CO 80751

2. Article Number (Transfer from service label)
9590 9402 2920 7094 2842 69
7010 2780 0002 2063 3414

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X
☐ Agent
☐ Addressee

B. Received by (Printed Name) C. Date of Delivery
12-7-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

City of Sterling
PO Box 4000
Sterling CO 80751

2. Article Number (Transfer from service label)
9590 9402 2920 7094 2842 52
7010 2780 0002 2063 3421

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X
☐ Agent
☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

NK&C Railway, LLC
Bryce Anderson
111 Lincoln Avenue
Grant, Nebraska 69140

9590 9402 2920 7094 2842 45

2. Article Number (Transfer from service label)
7010 2780 0002 2063 3438

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X
☐ Agent
☐ Addressee

B. Received by (Printed Name) C. Date of Delivery
12-4-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

MCATEE CONSTRUCTION CO.
ADJOINING OWNER NOTIFICATION - MAILING RECEIPTS
January 7, 2019

RIVERSIDE PIT
M.L.R.B. #M-1976-056

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Hurst Construction
Company
PO Box 630
Sterling CO 80751

9590 9402 2920 7094 2842 83

2. Article Number *(Transfer from service label)*
7010 2780 0002 2063 3384

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* G Guetter C. Date of Delivery 12-7-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Arthur M Guetter Living
Trust
15373 C R 28.1
Sterling CO 80751

9590 9402 2920 7094 2841 22

2. Article Number *(Transfer from service label)*
7010 2780 0002 2063 3391

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Marc R & Jennifer K
Reck
PO Box 407
Sterling CO 80751

9590 9402 2920 7094 2842 76

2. Article Number *(Transfer from service label)*
7010 2780 0002 2063 3407

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

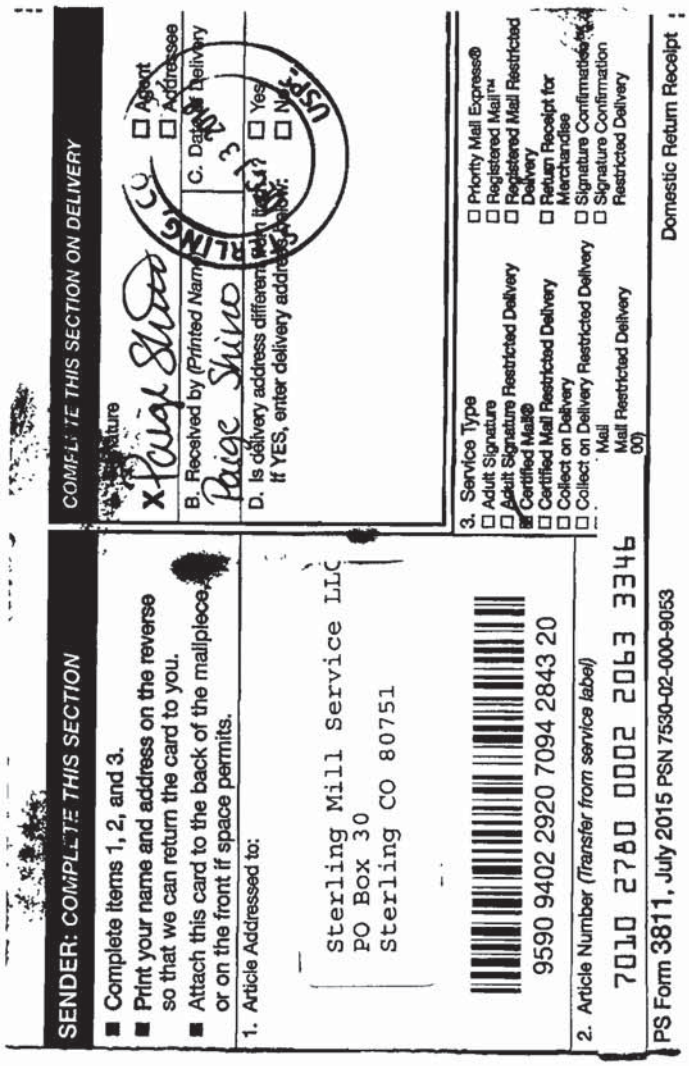
B. Received by *(Printed Name)* Brenda S. Hurst C. Date of Delivery 12-7-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

MCATEE CONSTRUCTION CO.
ADJOINING OWNER NOTIFICATION - MAILING RECEIPTS
January 7, 2019

RIVERSIDE PIT
M.L.R.B. #M-1976-056



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Sterling Mill Service LLC
PO Box 30
Sterling CO 80751

2. Article Number (Transfer from service label)
7010 2780 0002 2063 3346

9590 9402 2920 7094 2843 20

COMPLETE THIS SECTION ON DELIVERY

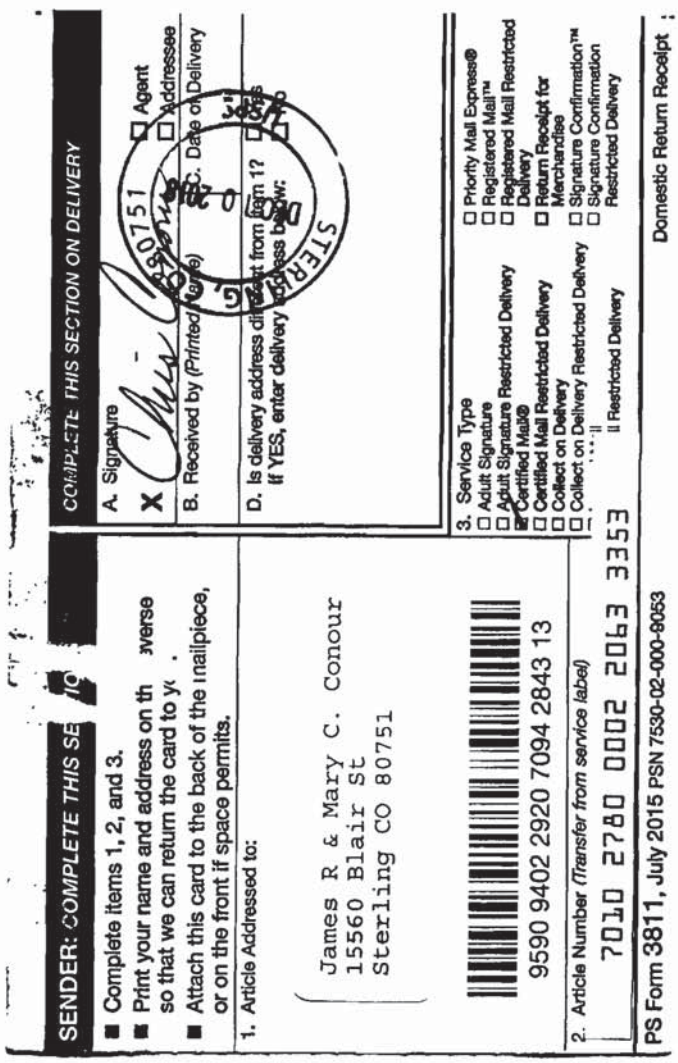
A. Signature
x Paige Shino
☐ Agent
☐ Addressee

B. Received by (Printed Name) Paige Shino
C. Date of Delivery 12-7-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☐ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Mail
☐ Mail Restricted Delivery 00)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt



SENDER: COMPLETE THIS SE

- Complete items 1, 2, and 3.
- Print your name and address on th verse so that we can return the card to y .
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

James R & Mary C. Conour
15560 Blair St
Sterling CO 80751

2. Article Number (Transfer from service label)
7010 2780 0002 2063 3353

9590 9402 2920 7094 2843 13

COMPLETE THIS SECTION ON DELIVERY

A. Signature
x
☐ Agent
☐ Addressee

B. Received by (Printed Name)
C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☐ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

LSC Properties LLC
PO Box 386
Sterling CO 80751

9590 9402 2920 7094 2842 90

2. Article Number (Transfer from service label)
7010 2780 0002 2063 3377

COMPLETE THIS SECTION ON DELIVERY

A. Signature
x Megan Huss
☐ Agent
☐ Addressee

B. Received by (Printed Name) Megan Huss
C. Date of Delivery 12-7-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
ed Mail
ed Mail Restricted Delivery $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

MCATEE CONSTRUCTION CO.
ADJOINING OWNER NOTIFICATION - MAILING RECEIPTS
January 7, 2019

RIVERSIDE PIT
M.L.R.B. #M-1976-056

7010 2780 0002 2063 3506

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

WILD HARVEST CPU ARVADA, CO 80004 Postmark Here NOV 30 2018

Sent To: Felix Reyes
Street, Apt. No.; or PO Box No.: 20599 Riverside Dr
City, State, ZIP+4: Sterling CO 80751

PS Form 3800, August 2006 See Reverse for Instructions

7010 2780 0002 2063 3513

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com
OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

WILD HARVEST CPU ARVADA, CO 80004 Postmark Here NOV 30 2018

Sent To: Cody Green
Street, Apt. No.; or PO Box No.: 20587 Riverside Dr
City, State, ZIP+4: Sterling CO 80751

PS Form 3800, August 2006 See Reverse for Instructions

7010 2780 0002 2063 3360

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

WILD HARVEST CPU ARVADA, CO 80004 Postmark Here NOV 30 2018

Sent To: Rausch Ventures LLC
Street, Apt. No.; or PO Box No.: 205 Country Club Dr
City, State, ZIP+4: Sterling CO 80751

PS Form 3800, August 2006 See Reverse for Instructions

7010 2780 0002 2063 3483

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com
OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

WILD HARVEST CPU ARVADA, CO 80004 Postmark Here NOV 30 2018

Sent To: Dan Lazzaretti
Street, Apt. No.; or PO Box No.: 20645 Riverside Dr
City, State, ZIP+4: Sterling CO 80751

PS Form 3800, August 2006 See Reverse for Instructions

7010 2780 0002 2063 3490

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

WILD HARVEST CPU ARVADA, CO 80004 Postmark Here NOV 30 2018

Sent To: Dora Alicia Reyes
Street, Apt. No.; or PO Box No.: 20599 Riverside Dr
City, State, ZIP+4: Sterling CO 80751

PS Form 3800, August 2006 See Reverse for Instructions

USPS Tracking®

FAQs > (https://www.usps.com/faqs/uspstracking-faqs.htm)

Track Another Package +

Dora Alicia Reyes
20599 Riverside Dr
Sterling CO 80751

Tracking Number: 70102780000220633490

Remove ×

Your item was delivered at 1:05 pm on December 10, 2018 in STERLING, CO 80751.

Delivered

December 10, 2018 at 1:05 pm
Delivered
STERLING, CO 80751

Tracking History ⌄

Product Information ⌄

See Less ^

Felix Reyes
20599 Riverside Dr
Sterling CO 80751

Tracking Number: 70102780000220633506

Remove ×

Your item was delivered at 1:05 pm on December 10, 2018 in STERLING, CO 80751.

Delivered

December 10, 2018 at 1:05 pm
Delivered
STERLING, CO 80751

See More ⌄

Remove ×

Tracking Number: 70102780000220633513

Cody Green
20587 Riverside Dr
Sterling CO 80751

Your item has been delivered to the original sender at 1:25 pm on January 16, 2019 in STERLING, CO 80751.

Delivered

January 16, 2019 at 1:25 pm
Delivered, To Original Sender
STERLING, CO 80751

See More

Dan Lazzaretti
20645 Riverside Dr
Sterling CO 80751
Tracking Number: 70102780000220633483

Remove ×

Your item has been delivered to the original sender at 1:25 pm on January 16, 2019 in STERLING, CO 80751.

Delivered

January 16, 2019 at 1:25 pm
Delivered, To Original Sender
STERLING, CO 80751

See More

Rausch Ventures LLC
205 Country Club Dr
Sterling CO 80751
Tracking Number: 70102780000220633360

Remove ×

Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.

In-Transit

January 13, 2019
In Transit to Next Facility

Tracking History

January 13, 2019

Feedback

In Transit to Next Facility
Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.

January 10, 2019, 6:48 am
Arrived at USPS Regional Facility
COLORADO SPRINGS CO DISTRIBUTION CENTER

January 5, 2019, 3:33 pm
Unclaimed/Being Returned to Sender
STERLING, CO 80751

Reminder to Schedule Redelivery of your item

December 6, 2018, 4:41 pm
Notice Left (No Authorized Recipient Available)
STERLING, CO 80751

December 6, 2018, 3:20 am
Departed USPS Regional Facility
DENVER CO DISTRIBUTION CENTER

December 4, 2018, 8:43 am
Arrived at USPS Regional Facility
DENVER CO DISTRIBUTION CENTER

December 3, 2018, 9:13 am
Departed USPS Regional Facility
COLORADO SPRINGS CO DISTRIBUTION CENTER

December 2, 2018, 9:09 pm
Arrived at USPS Regional Facility
COLORADO SPRINGS CO DISTRIBUTION CENTER

December 1, 2018, 2:06 am
Arrived at USPS Regional Facility
DENVER CO DISTRIBUTION CENTER

November 30, 2018, 9:00 am
Acceptance
ARVADA, CO 80004

Product Information

See Less

Xcel Energy℠
PUBLIC SERVICE COMPANY

Siting and Land Rights
1800 Larimer Street, Suite 400
Denver, Colorado 80202

April 3, 2019

Mr. Mike Weingardt
McAtee Construction Company
20758 Riverside Drive
Sterling, CO 80751

Dear Mr. Weingardt,

Public Service Company of Colorado's (PSCo) has reviewed McAtee Construction Company's proposed dredge pumping area within PSCo's electric transmission line easement, located in a portion of the NE1/4 of Section 33, Township 8N, Range 52W of the 6th Principal Meridian, in the County of Logan, State of Colorado, as more particularly shown on the attached Exhibit A.

PSCo has no objection to the pumping area relative to its electric transmission line and associated land rights provided that the high voltage transmission line clearance requirements specified on the attached Exhibit B, are maintained at all times.

Should you have any questions, please feel free to contact me directly.

Sincerely,

Crystal Sanchez, SR/WA
Agent, Siting and Land Rights
(303) 571-7586

EXHIBIT A Simon – McAtee Construction / Sterling Ready Mix

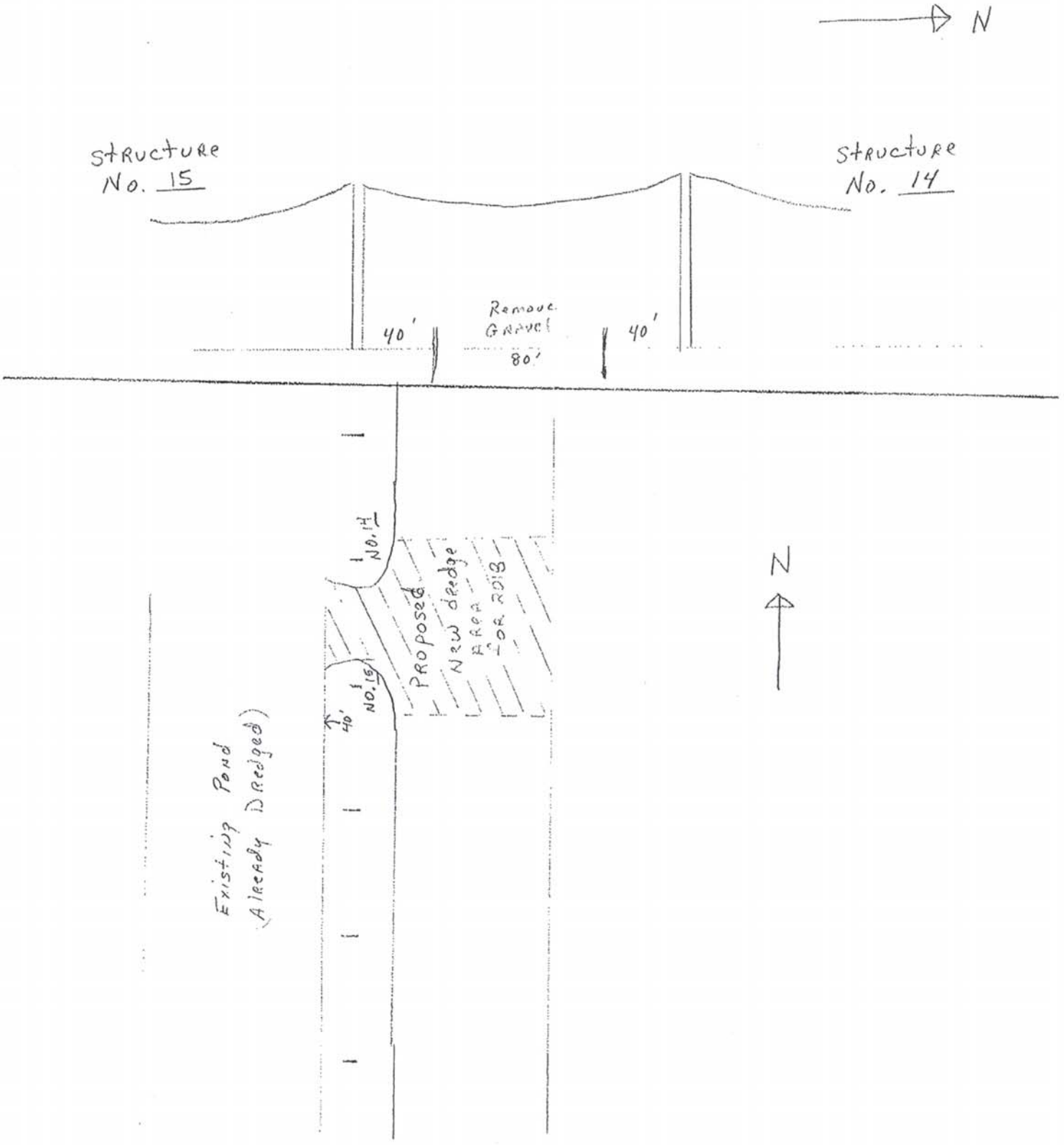


EXHIBIT B

XCEL ENERGY/PUBLIC SERVICE COMPANY OF COLORADO

HIGH VOLTAGE ELECTRIC TRANSMISSION LINE

CLEARANCE REQUIREMENTS

FOR YOUR SAFETY

When working near or under a high voltage electric transmission line, it must be assumed the transmission line is energized, and any workers may not be closer than twenty feet (20') in any direction to the energized transmission lines or conductors. The Xcel Energy/Public Service Company of Colorado Electric Transmission Line Operations Department must be contacted at 303-273-4662 or 303-273-4665 a minimum of 31 days in advance to arrange for a Patrolman to be on site during any construction work within an electric transmission line right-of-way. Safety provisions will allow for operations in accordance with Occupational Safety and Health Act requirements.

When determined to be necessary, the Electric Transmission Line Patrolman will arrange for an outage of the electric lines. Any outage is a day-to-day situation, with the Patrolman on the job site at all times. When the Patrolman has arranged for an outage, any workers must be no closer than three feet (3') in any direction from the de-energized lines or conductors. There is a fee charged when an electrical clearance is required or the patrolman is on site for more than four hours.

Under **NO** circumstances may work be started within twenty feet (20') in any direction of the transmission lines or conductors without clearance from the Patrolman. It is the responsibility of the party in charge of the work or contractor to notify the Patrolman whenever starting and ending the work.

When an encroachment of any electric transmission line right-of-way is proposed, it is necessary to request a review of all details to ensure compliance with the National Electric Safety Code. Approved encroachments shall be documented with a fully executed License Agreement. For encroachment review and approval, please call (303) 571-7260.

PLAN AHEAD AND
FOLLOW THESE INSTRUCTIONS – IT COULD SAVE A LIFE

PERMITTEE/STRUCTURE OWNER AGREEMENT

State of Colorado, Mined Land Reclamation (MLR) law requires the permit applicant (operator/permittee) to agree to reimburse the owner of any permanent man-made structure(s) within 200 feet of the permitted mining area for damage done to the structure(s) as a result of the permitted operation.

McAtee Construction Company believes James R & Mary C. Conour own the following structure(s), located within 200 feet of the permitted mining area: Chainlink Fence

McAtee Construction Company agrees to reimburse you for any damage done to the listed structures as a result of the mining operation. Your acknowledging signature and a notary seal in the spaces provided below shall satisfy the MLR law requirement. McAtee Construction Company certifies this agreement as follows:

CERTIFICATION: The applicant McAtee Construction Company represented by Brett Baker, as President, does hereby certify that James R & Mary C. Conour shall be compensated for any damage from the proposed mining operation to the above listed structure(s) located within 200 feet of the permitted mining area described in the MLR Permit for the Riverside Pit.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY:
Permit Applicant: McAtee Construction Company. 6215 Clear Creek PKWY, Cheyenne, WY 82007
Representative: Brett Baker, office -307-635-9005

Signature: _____ Date: 11/15/18

STATE OF Wyoming)
) ss
COUNTY OF Laramie)

The foregoing was acknowledged before me this 15th day of November, 2018, by Brett Baker as President of McAtee Construction Company.

Notary Public: Paula Havens My Commission Expires: January 24, 2022

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:
Structure Owner(s): James R & Mary C. Conour Date: 12-4-18

Contact name (print): James R Conour Contact name (print): Mary Chris Conour

Signature: _____ Signature: _____

STATE OF Colorado)
) ss
COUNTY OF Logan)

PAMELA M. CLAYMON
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20144024598
MY COMMISSION EXPIRES JUNE 19, 2

The foregoing was acknowledged before me this 4th day of December, 2018, by Mary Chris Conour.

Notary Public: Pamela M. Claymon My Commission Expires: June 19, 2022

SENT TO STRUCTURE OWNER VIA CERTIFIED MAIL # 70102780000220633155

PERMITTEE/STRUCTURE OWNER AGREEMENT

State of Colorado, Mined Land Reclamation (MLR) law requires the permit applicant (operator/permittee) to agree to reimburse the owner of any permanent man-made structure(s) within 200 feet of the permitted mining area for damage done to the structure(s) as a result of the permitted operation.

McAtee Construction Company believes Department of Energy Western Area Power own the following structure(s), located within 200 feet of the permitted mining area: 2 - powerlines

McAtee Construction Company agrees to reimburse you for any damage done to the listed structures as a result of the mining operation. Your acknowledging signature and a notary seal in the spaces provided below shall satisfy the MLR law requirement. McAtee Construction Company certifies this agreement as follows:

CERTIFICATION: The applicant McAtee Construction Company represented by Brett Baker, as President, does hereby certify that Department of Energy, Western Area Power Administration shall be compensated for any damage from the proposed mining operation to the above listed structure(s) located within 200 feet of the permitted mining area described in the MLR Permit for the Riverside Pit.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY:
Permit Applicant: McAtee Construction Company. 6215 Clear Creek PKWY, Cheyenne, WY 82007
Representative: Brett Baker, office -307-635-9005

Signature: _____ Date: 11/15/18

STATE OF Wyoming)
) ss
COUNTY OF Laramie)

The foregoing was acknowledged before me this 15th day of November, 2018, by Brett Baker as President of McAtee Construction Company.

Notary Public: _____ My Commission Expires: January 28, 2022

PAULA HAVENS - NOTARY PUBLIC
COUNTY OF LARAMIE
STATE OF WYOMING
My Commission Expires January 28, 2022

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:
Structure Owner(s): Department of Energy, Western Area Power Administration,

Contact name (print): Jason Groendyk

Signature: _____ Date: 11/20/18

BARBARA M. O'ROURKE
Notary Public
State of Colorado
Notary ID # 20094007058
My Commission Expires 03-06-20:

STATE OF Colorado)
) ss
COUNTY OF Larimer)

The foregoing was acknowledged before me this 20th day of November, 2018, by Jason Groendyk

Notary Public: Barbara M. O'Rourke My Commission Expires: 3-6-2021

SENT TO STRUCTURE OWNER VIA CERTIFIED MAIL # 70102780000220633339

PERMITTEE/STRUCTURE OWNER AGREEMENT

State of Colorado, Mined Land Reclamation (MLR) law requires the permit applicant (operator/permittee) to agree to reimburse the owner of any permanent man-made structure(s) within 200 feet of the permitted mining area for damage done to the structure(s) as a result of the permitted operation.

McAtee Construction Company believes LSC Properties LLC own the following structure(s), located within 200 feet of the permitted mining area: Chainlink Fence, & Building

McAtee Construction Company agrees to reimburse you for any damage done to the listed structures as a result of the mining operation. Your acknowledging signature and a notary seal in the spaces provided below shall satisfy the MLR law requirement. McAtee Construction Company certifies this agreement as follows:

CERTIFICATION: The applicant McAtee Construction Company represented by Brett Baker, as President, does hereby certify that LSC Properties LLC shall be compensated for any damage from the proposed mining operation to the above listed structure(s) located within 200 feet of the permitted mining area described in the MLR Permit for the Riverside Pit.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY:
Permit Applicant: McAtee Construction Company. 6215 Clear Creek PKWY, Cheyenne, WY 82007
Representative: Brett Baker, office -307-635-9005

Signature: Brett Baker Date: 11/15/18

STATE OF Wyoming)
) ss
COUNTY OF Laramie)

The foregoing was acknowledged before me this 15th day of November, 2018, by Brett Baker as President of McAtee Construction Company.

Notary Public: [illegible] My Commission Expires: January 28, 2022

PAIGE HAWKINS
NOTARY PUBLIC
STATE OF WYOMING
My Commission Expires January 28, 2022

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:
Structure Owner(s): LSC Properties LLC Contact name (print): Gregory J. Gertge

Signature: Gregory J. Gertge Date: 11-19-2018

STATE OF Colorado)
) ss
COUNTY OF Logan.)

The foregoing was acknowledged before me this 19th day of November, 2018, by Gregory J. Gertge.

CODY BROWN
NOTARY PUBLIC - STATE OF COLORADO
Notary ID #20184014759
My Commission Expires 4/3/2022

Notary Public: Cody Brown My Commission Expires: 4/3/2022

SENT TO STRUCTURE OWNER VIA CERTIFIED MAIL # 70102780000220633179

PERMITTEE/STRUCTURE OWNER AGREEMENT

State of Colorado, Mined Land Reclamation (MLR) law requires the permit applicant (operator/permittee) to agree to reimburse the owner of any permanent man-made structure(s) within 200 feet of the permitted mining area for damage done to the structure(s) as a result of the permitted operation.

McAtee Construction Company believes Riverside Storage and Recycling Center LLC own the following structure(s), located within 200 feet of the permitted mining area: Solid wood fence

McAtee Construction Company agrees to reimburse you for any damage done to the listed structures as a result of the mining operation. Your acknowledging signature and a notary seal in the spaces provided below shall satisfy the MLR law requirement. McAtee Construction Company certifies this agreement as follows:

CERTIFICATION: The applicant McAtee Construction Company represented by Brett Baker, as President, does hereby certify that Riverside Storage and Recycling Center LLC shall be compensated for any damage from the proposed mining operation to the above listed structure(s) located within 200 feet of the permitted mining area described in the MLR Permit for the Riverside Pit.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY:
Permit Applicant: McAtee Construction Company. 6215 Clear Creek PKWY, Cheyenne, WY 82007
Representative: Brett Baker, office -307-635-9005

Signature: _____ Date: 11/15/18

STATE OF Wyoming)
) ss
COUNTY OF Laramie)

The foregoing was acknowledged before me this 15th day of November, 2018, by Brett Baker as President of McAtee Construction Company.

Notary Public: _____ My Commission Expires: January 28, 2022

PAULA HAVENS - NOTARY PUBLIC
STATE OF WYOMING
My Commission Expires January 28, 2022

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:
Structure Owner(s): Riverside Storage and Recycling Center LLC

Contact name (print): Craig Shriver

Signature: _____ Date: 11-19-18

LINDA GERK
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994002796
MY COMMISSION EXPIRES 02/01/201

STATE OF Colorado)
) ss
COUNTY OF Logan)

The foregoing was acknowledged before me this 19th day of November, 2018, by Craig Shriver.

Notary Public: _____ My Commission Expires: 2-1-2019

SENT TO STRUCTURE OWNER VIA CERTIFIED MAIL # 70102780000220633230

PERMITTEE/STRUCTURE OWNER AGREEMENT

State of Colorado, Mined Land Reclamation (MLR) law requires the permit applicant (operator/permittee) to agree to reimburse the owner of any permanent man-made structure(s) within 200 feet of the permitted mining area for damage done to the structure(s) as a result of the permitted operation.

McAtee Construction Company believes Webb Family Trust own the following structure(s), located within 200 feet of the permitted mining area: Building

McAtee Construction Company agrees to reimburse you for any damage done to the listed structures as a result of the mining operation. Your acknowledging signature and a notary seal in the spaces provided below shall satisfy the MLR law requirement. McAtee Construction Company certifies this agreement as follows:

CERTIFICATION: The applicant McAtee Construction Company represented by Brett Baker, as President, does hereby certify that Webb Family Trust shall be compensated for any damage from the proposed mining operation to the above listed structure(s) located within 200 feet of the permitted mining area described in the MLR Permit for the Riverside Pit.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY:
Permit Applicant: McAtee Construction Company. 6215 Clear Creek PKWY, Cheyenne, WY 82007
Representative: Brett Baker, office -307-635-9005

Signature: Brett Baker Date: 11/15/18

STATE OF Wyoming)
) ss
COUNTY OF Laramie)

The foregoing was acknowledged before me this 15th day of November, 2018, by Brett Baker as President of McAtee Construction Company.

Notary Public: Paula Hazens My Commission Expires: January 28, 2022

PAULA HAZENS - NOTARY PUBLIC
COUNTY OF LARAMIE STATE OF WYOMING
My Commission Expires January 28, 2022

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:
Structure Owner(s): Webb Family Trust Contact name (print): Robert Webb, Trustee

Signature: Robert Webb Date: 11-26-18

STATE OF Colorado)
) ss
COUNTY OF Logan)

The foregoing was acknowledged before me this 26th day of November, 2018, by Robert Webb, Trustee

Notary Public: Linda Gerk My Commission Expires: 2-1-2019

LINDA GERK
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994002796
MY COMMISSION EXPIRES 02/01/2019

SENT TO STRUCTURE OWNER VIA CERTIFIED MAIL # 70102780000220633247

PERMITTEE/STRUCTURE OWNER AGREEMENT

State of Colorado, Mined Land Reclamation (MLR) law requires the permit applicant (operator/permittee) to agree to reimburse the owner of any permanent man-made structure(s) within 200 feet of the permitted mining area for damage done to the structure(s) as a result of the permitted operation.

McAtee Construction Company believes James a & Sandra K Dickinson own the following structure(s), located within 200 feet of the permitted mining area: 2- buildings

McAtee Construction Company agrees to reimburse you for any damage done to the listed structures as a result of the mining operation. Your acknowledging signature and a notary seal in the spaces provided below shall satisfy the MLR law requirement. McAtee Construction Company certifies this agreement as follows:

CERTIFICATION: The applicant McAtee Construction Company represented by Brett Baker, as President, does hereby certify that James a & Sandra K Dickinson shall be compensated for any damage from the proposed mining operation to the above listed structure(s) located within 200 feet of the permitted mining area described in the MLR Permit for the Riverside Pit.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY:
Permit Applicant: McAtee Construction Company. 6215 Clear Creek PKWY, Cheyenne, WY 82007
Representative: Brett Baker, office -307-635-9005

Signature: Brett Baker Date: 11/15/18

STATE OF Wyoming)
) ss
COUNTY OF Laramie)

The foregoing was acknowledged before me this 15th day of November, 2018, by Brett Baker as President of McAtee Construction Company.

Notary Public: Paula Havens My Commission Expires: January 28, 2022

PAULA HAVENS - NOTARY PUBLIC
COUNTY OF LARAMIE STATE OF WYOMING
My Commission Expires January 28, 2022

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:
Structure Owner(s): James a & Sandra K Dickinson Date: Dec 4 2018

Contact name (print): JAMES A DICKINSON Contact name (print): SANDRA K DICKINSON
Signature: James A Dickinson Signature: Sandra K Dickinson

STATE OF CO)
) ss
COUNTY OF Logan)

The foregoing was acknowledged before me this 4 day of December, 2018, by James A Dickinson Sandra K Dickinson.

Notary Public: Patricia A Vandenbark My Commission Expires: 02/9/19

PATRICIA A VANDENBARK
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19974002733
MY COMMISSION EXPIRES FEBRUARY 9, 2019

SENT TO STRUCTURE OWNER VIA CERTIFIED MAIL # 70102780000220633292

PERMITTEE/STRUCTURE OWNER AGREEMENT

State of Colorado, Mined Land Reclamation (MLR) law requires the permit applicant (operator/permittee) to agree to reimburse the owner of any permanent man-made structure(s) within 200 feet of the permitted mining area for damage done to the structure(s) as a result of the permitted operation.

McAtee Construction Company believes Hurst Construction Company own the following structure(s), located within 200 feet of the permitted mining area: Chainlink Fence and 2 - Buildings

McAtee Construction Company agrees to reimburse you for any damage done to the listed structures as a result of the mining operation. Your acknowledging signature and a notary seal in the spaces provided below shall satisfy the MLR law requirement. McAtee Construction Company certifies this agreement as follows:

CERTIFICATION: The applicant McAtee Construction Company represented by Brett Baker, as President, does hereby certify that Hurst Construction Company shall be compensated for any damage from the proposed mining operation to the above listed structure(s) located within 200 feet of the permitted mining area described in the MLR Permit for the Riverside Pit.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY:
Permit Applicant: McAtee Construction Company. 6215 Clear Creek PKWY, Cheyenne, WY 82007
Representative: Brett Baker, office -307-635-9005

Signature: [signature] Date: 11/15/18

STATE OF Wyoming)
) ss
COUNTY OF Laramie)

The foregoing was acknowledged before me this 15th day of November, 2018, by Brett Baker as President of McAtee Construction Company.

Notary Public: [illegible signature] My Commission Expires: January 26, 2022

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:
Structure Owner(s): Hurst Construction Company
Contact name (print): Machelle Grossart, CORPORATION SECRETARY

Signature: Machelle Grossart Date: 12-5-18

STATE OF Colorado)
) ss
COUNTY OF Logan)

The foregoing was acknowledged before me this 5th day of December, 2019, by Machelle Grossart.

Notary Public: Geraldine M Guerin My Commission Expires: March 29, 2019

GERALDINE M. GUERIN
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19874078228
COMMISSION EXPIRES MARCH 29, 2019

SENT TO STRUCTURE OWNER VIA CERTIFIED MAIL # 70102780000220633186

GEOTECHNICAL STABILITY EXHIBIT

This information is presented to address the plan to mine within 200 feet of the structures listed in Exhibit S. The factors of safety are based on non-site specific data for the material being mine. In the past, Mr. Alan Sorenson reviewed Slope Stability Reports prepared for the mines in Colorado and he suggested that an appropriate friction angle could be found in Table 1 of a Federal Highway Administration paper ***Rock Slopes: Design, Excavation and Stabilization, Publication No. FHWA-TS-89-045, Table 1 - Typical Soil and Rock Properties*** and used when non-site-specific information was available of a dense sand deposit. A copy is attached for reference. So for this analysis a 42 ° friction angle and a near vertical mining face of ½:1 is used for the pre reclamation calculations. For the reclamation calculation a 3:1 slope was used.

TABLE A

DRY UNIT WEIGHT (LBS/CFT)	SATURATED WT (LBS/CFT)	COHESION FACTOR	FRICTION ANGLE
116	135	0	42

This analysis is being prepared prior to knowing if any structure waiver agreements will be returned. The plan is to choose the closest structure of the amended mining areas on each side of the permit and derived specific factors of safety (SF) for the closest structure to where actual mining activities will take place, If the closest structure is determined to be safe from mining then any structures further away will be safe and a specific analysis is not needed.

In the Lake Robert area no new mining will take place. Mining is done near the power lines, Railroad line & bridge and the Lowline Ditch. For this area we calculated the safety factor based on the reclaimed slopes for the powerlines poles since they are closest to where mining was done. The same applies for the north end of the Lake Marjorie area where reclamation is complete.

The mine depth closest to any structure is shown on the cross section for that structure and varies for 20 to 40 feet. For the reclaimed slopes around the existing lake areas are shown

as 3h to 1v since they are rebuilt when mining reaches the mining limits. For the structures adjacent to unmined area a working face of ½ to 1 is used to calculate the mining SF and 3:1 is used for the reclaimed SF. In the remaining 3 it is calculated for the working face and the finished slope. This is a wet mining operation so water is associated with the mine so the friction angle used was the lowest in the range for the type of material.

The top of slope lines around the exterior of the West area will be 25 feet from the permit line or structure which ever is closer, the working face setback will be 40 feet from the closest structures and 40 feet either side of the above ground power line poles that bisects the area. On the West Lake area the closest structure to the mining area is the boundary fence along the west side of the permit area. Mining has historically been 25 feet from the fence. On the south the closest structure is an old building that straddles the property. On the east side of the East Lake is a buried powerline where the mining setback will be a minimum of 25 feet from the ROW line. On the north side, the private fiber optic line is the closest structure and the setback from this structure will be 25 feet too.

I also point out here that along the entire north side of the West Area none of the structures along both sides of Riverside Drive will be located within 200 feet of the mining face. One building to the north of the East Lake area is within 200 feet but the fiber optic line is still the closest structure

The information presented is based on the cross sections shown in this report and using the distances from them to determine the safety factors from the proposed mining face closest to the structure. The locations of the cross sections are shown on **Map Exhibit F - Reclamation Plan Map**.

SECTION A - BOUNDARY CHAINLINK FENCE TO MINING FACE EAST SIDE- SAFETY FACTOR 1.5 - Is located along the west part of the permit area from the northwest corner to approximately 1480 feet down the west side. The floor of the lake in that area will be approximately 3890 and the base of the fence is approximately 3926. The top of the top of slope will be approximately 2 feet below and 25 feet east of the chainlink fence. The working face will be no closer then 40 feet from the fence. Reclaimed 3:1 slope SF = 3.31

SECTION B - LEBSOCK BUILDING TO MINING FACE SETBACK - SAFETY FACTOR 1.51 - Is located on the south side of the East Lake area. The floor of the lake in that area will be approximately 3890 and the base of the building is approximately 3925. The top of the mine face will be approximately 1 foot below and 35 feet northwest of the building. The working face will be no closer then 40 feet from the building. Reclaimed slope SF = 3.61

SECTION C - EAST LAKE EAST SIDE BURIED POWERLINE TO MINING FACE - SAFETY FACTOR 1.50 - Is located on the east side of the West Area along the Lowline Ditch. The floor of the lake in that area will be approximately 3880 and the powerline is approximately 3924. The top of the top of slope will be approximately 4 feet above and 25 feet west of the structure and the slope will be reclaimed 3h to 1v. The working face will be no closer then 40 feet from the powerline. Reclaimed slope SF = 3.51

SECTION D - FIBER OPTIC LINE TO MINING FACE SETBACK - SAFETY FACTOR 1.52 - Is located on the north sie of the west area where mining will take place against the Industrial area. The floor of the lake in that area will be approximately 3880 and the base of the fiber optic line is approximately 3924. The top of the slope will be approximately 3 feet above and 25 feet south of the fiber optic line and the slope will be mined 3h to 1v. The working face will be no closer then 40 feet from the fiber optic line. Reclaimed slope SF = 3.53

The material in the mine wall will be in-place dense sand and a little gravel and assumed to be cohesionless and having an assumed natural friction angle (Φ) of 42° (≈1.11:1).

Using the measured angles from the cross sections, the safety factors for each slope were calculated using the 42° (Φ) as the base angle. The safety factors are shown in the following table using the formula **FS = TanΦ ÷Tan**θ, where θ is the slope angle from the toe of the created slope to the closest structure. The Safety Factors have been calculated for the ½:1 and the 3:1 slopes at each cross section location and are shown on the attached **Table B**.

MCATEE CONSTRUCTION COMPANY - RIVERSIDE PIT

Geotechnical Analysis - Table B

Units	Degrees				Factors of safety	
Section	Friction Angle	Working Face Angle	Mine face toe of slope to structure	Reclaimed toe of slope to structure	Mining Face slope	Reclaimed slope
A	42	63.4	30.8	15.2	1.51	3.31
B	42	63.4	30.8	14.0	1.51	3.61
C	42	63.4	30.9	14.4	1.50	3.51
D	42	63.4	30.6	14.3	1.52	3.53

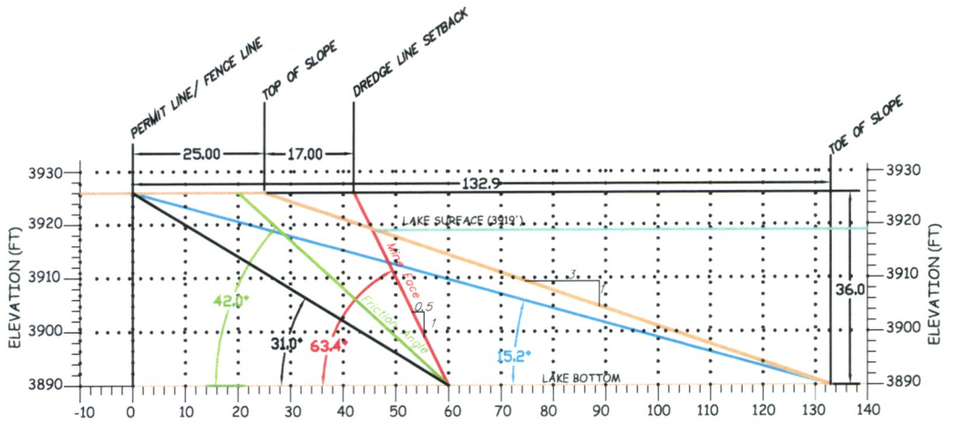
Excerpt from Rock Slopes: Design, Excavation and Stabilization, Publication No. FHWA-TS-89-045,

TABLE 1 - TYPICAL SOIL AND ROCK PROPERTIES

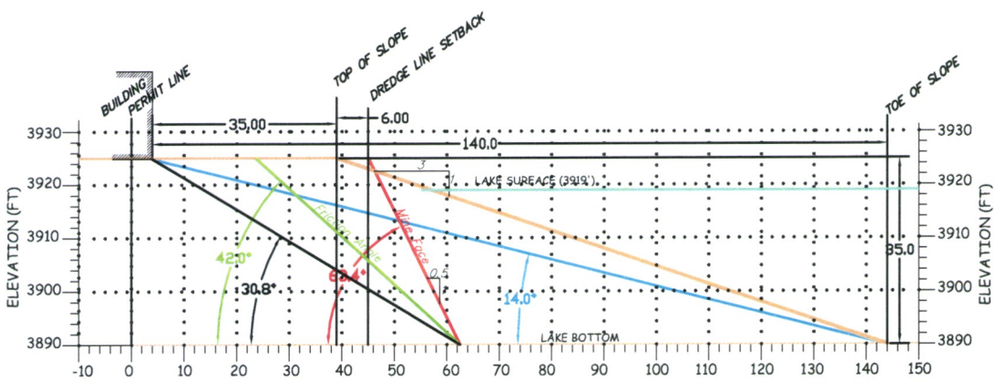
Type		Description: Material	Unit weight (Saturated/dry) lb/ft³	Unit weight (Saturated/dry) kN/m³	Friction angle degrees	Cohesion lb/ft²	Cohesion kPa
Cohesionless	Sand	Loose sand. uniform grain size	118/90	19/14	28-34"		
		Dense sand, uniform grain site	130/109	21/17	32-40"		
		Loose sand, mixed grain size	124/99	20/16	34-40*		
		Dense sand, mixed grain size	135/116	21/18	38-46*		
	Gravel	Gravel, uniform grain size	140/130	22/20	34-37*		
		Sand and gravel, mixed grain size	120/110	19/17	48-45"		
	Blasted/broken rock	Basalt	140/110	22/17	40-50*		
		Chalk	80/62	13/10	30-40"		
		Granite	125/110	20/17	45-50"		
		Limestone	120/100	19/16	35-40*		
		Sandstone	110/80	17/13	35-45*		
		Shale	125/100	20/16	30-35"		
Cohesive	Clay	Soft bentonite	80/30	13/6	7-13	200-400	10-20
		Very soft organic clay	90/40	14/6	12-16	200-600	10-30
		Soft, slightly organic clay	100/60	16/10	22-27	400-1000	20-50
		Soft glacial clay	110/76	17/12	27-32	600-1500	30-70
		Stiff glacial clay	130/105	20/17	30-32	1500-3000	70-150
		Glacial till, mixed grain size	145/130	23/20	32-35	3000-5000	150-250
	Rock	Hard igneous rocks - granite, basalt, porphyry	160** to 190	25 to 30	35-45	720000-1150000	35000-55000
		Metamorphic rocks - quartrite, gneiss. slate	160 to 180	25 to 28	30-40	400000-800000	20000-40000
		Hard sedimentary rocks - limestone, dolomite, sandstone	150 to 180	23 to 28	35-45	200000-600000	10000-30000
		Soft sedimentary rock - sandstone, coal, chalk, shale	110 to 150	17 to 23	25-35	20000 - 400000	1000-20000

* Higher friction angles in cohesionless materials occur at low confining or normal stresses as discussed in Chapter 5.

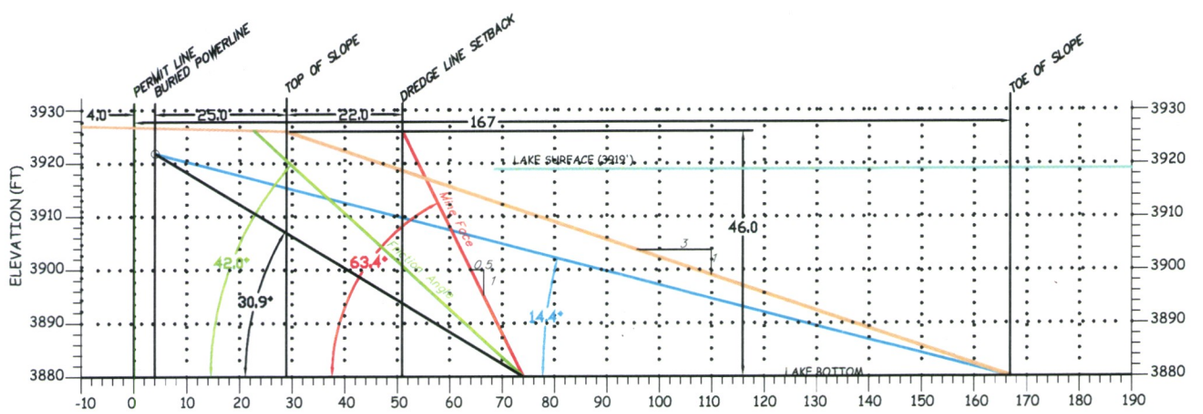
** For intact rock, the unit weight of the material does not vary significantly between saturated and dry states with the exception of materials such as porous sandstones.



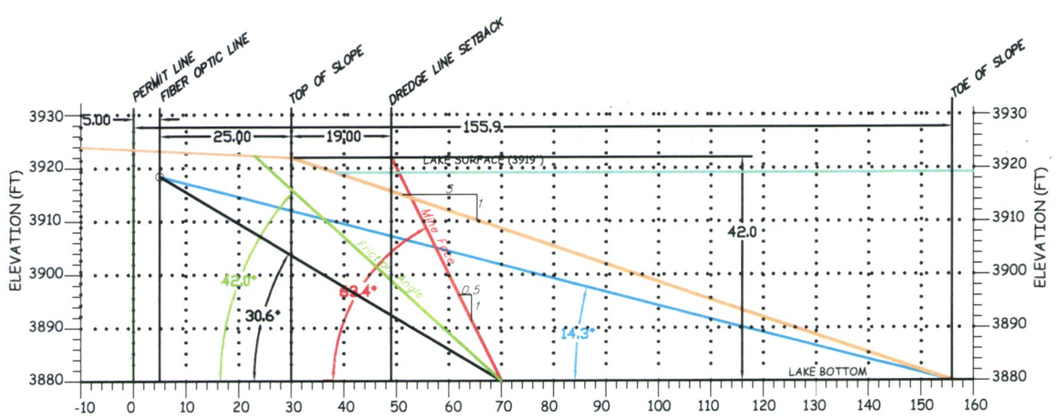
SECTION A - WEST FENCE TO DIGLINE - MINE FACE SAFETY FACTOR 1.51
RECLAIMED SLOPE SAFETY FACTOR 3.31



SECTION B -SOUTH BUILDING TO DIGLINE - MINE FACE SAFETY FACTOR 1.51
RECLAIMED SLOPE SAFETY FACTOR 3.61



SECTION C - BURIED POWERLINE TO DIGLINE - MINE FACE SAFETY FACTOR 1.5
RECLAIMED SLOPE SAFETY FACTOR 3.51



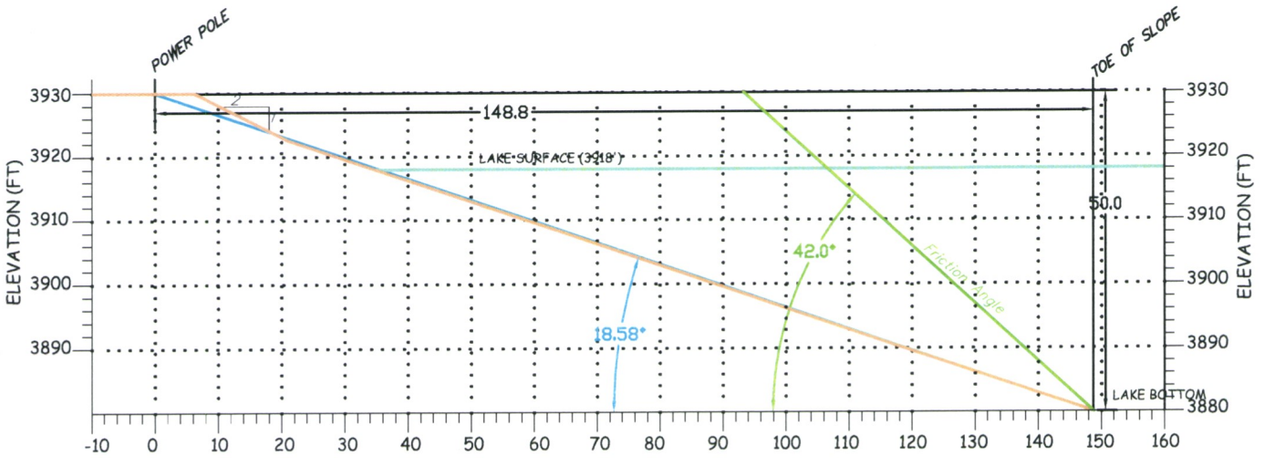
SECTION D - FIBER OPTIC LINE TO DIGLINE - MINE FACE SAFETY FACTOR 1.52
RECLAIMED SLOPE SAFETY FACTOR 3.53

NO SCALE

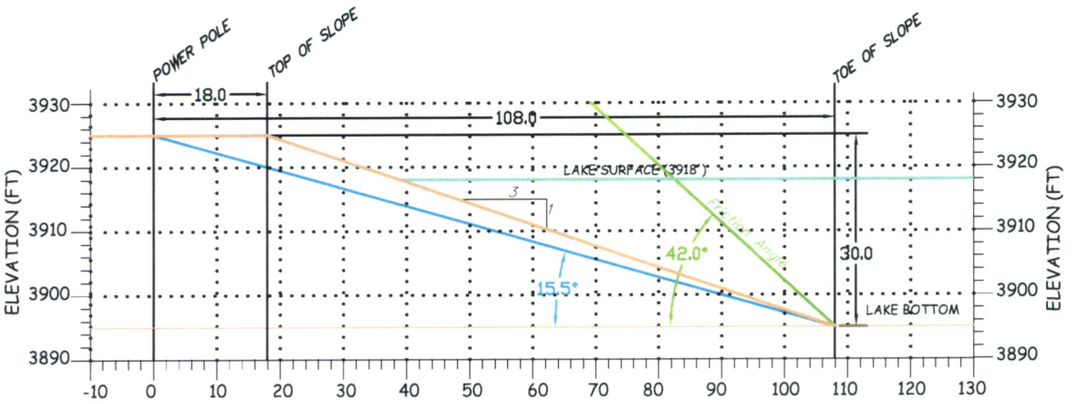
Cross section Key
Red Line - Working face (¾:1 slope)
Green Line - Native material friction slope angle (38° Slope)
Blue Line - Angle from toe of reclaimed slope to closest structure
Black Line - Line from toe of mine face to structure to obtain angle used to calculate the safety factor.

McATEE CONSTRUCTION COMPANY
RIVERSIDE PIT
Permit # M-1976-056
Geotechnical Stability Exhibit A

OCT 31, 2018 – 15:51:51



SECTION E - LAKE MARJORIE POWER LINES RECLAIMED - MINE FACE SAFETY FACTOR 2.64



SECTION F - LAKE ROBERT POWERLINES RECLAIMED - SAFETY FACTOR 3.25

NO SCALE

Cross section Key
Red Line - Working face (¼:1 slope)
Green Line - Native material friction slope angle (38° Slope)
Blue Line - Angle from toe of reclaimed slope to closest structure
Black Line - Line from toe of mine face to structure to obtain angle used to calculate the safety factor.

McATEE CONSTRUCTION COMPANY
RIVERSIDE PIT
Permit # M-1976-056
Geotechnical Stability Exhibit A

NOTICE

This site is the location of a proposed construction materials operation. McAtee Construction Company, whose address and phone number is P.O. Box 1908, Sterling, CO 80751 (970) 522-0651, has applied for an amendment to the Riverside Pit Permit # M-1976-056, a Regular 112 Reclamation Permit with the Colorado Mined Land Reclamation Board. Anyone wishing to comment on the application may view the application at the Logan County Clerk and Recorders office, Logan County Courthouse, 315 Main, Sterling, Colorado 80751, and should send comments prior to the end of the public comment period to the Division of Reclamation Mining and Safety, 1313 Sherman St, Room 215, Denver, CO 80203.

certification

I, _____ Hereby certify that I posted a sign containing the above notice for the proposed area known as Riverside Pit on _____.

_____ _____

SIGNATURE DATE

PUBLIC NOTICE

McAtee Construction Company. has filed an amendment to an amendment application for to their Reclamation Permit with the Colorado Mined Land Reclamation Board under the provisions of the Colorado Mined Land Reclamation Act for the extraction of construction materials. The proposed mine is known as the Riverside Pit, M-1976-056 and is located in parts of Sections 28 and 33, Township 8 North, Range 52 West, 6th Principal Meridian, Logan County, Colorado.

The proposed date of commencement was 1976 and the proposed date of completion December 2045. The proposed future use of the land is industrial and private recreation.

Additional information and the tentative decision date may be obtained from the Division of Reclamation Mining and Safety, 1313 Sherman St., Suite 215, Denver, CO 80203 (303) 866-3567, or at the Logan County Clerk and Recorders Office, Logan County Courthouse, 315 Main, Sterling, Colorado 80751, or the above named applicant.

Comments must be in writing and must be received by the Division of Reclamation Mining and Safety by 4:00 p.m. on __ (Date).

Please note that comments related to noise, truck traffic, hours of operation, visual impacts, effects on property values and other social or economic concerns are issues not subject to this Office's jurisdiction. These subjects and similar ones, are typically addressed by your local governments, rather that the Division of Reclamation Mining and Safety or the Mined Land Reclamation Board.

McAtee Construction Company
Sterling, Colorado

First Publication:
Second Publication:
Third Publication:
Last Publication:
Published in:

McAtee Construction Company
Proof of Publication.

Riverside Pit
August 15, 2019

PUBLIC NOTICE

McAtee Construction Company, has filed an amendment to an application for to their Reclamation Permit with the Colorado Mined Land Reclamation Board under the provisions of the Colorado Mined Land Reclamation Act for the extraction of construction materials. The proposed mine is known as the Riverside Pit, M-1976-056 and is located in parts of Sections 28 and 33, Township 8 North, Range 52 West, 6th Principal Meridian, Logan County, Colorado.

The proposed date of commencement was 1976 and the proposed date of completion December 2045. The proposed future use of the land is industrial and private recreation.

Additional information and the tentative decision date may be obtained from the Division of Reclamation Mining and Safety, 1313 Sherman St., Suite 215, Denver, CO 80203 (303) 866-3567, or at the Logan County Clerk and Recorders Office, Logan County Courthouse, 315 Main, Sterling, Colorado 80751, or the above named applicant.

Comments must be in writing and must be received by the Division of Reclamation Mining and Safety by 4:00 p.m. on Thursday, January 10, 2019.

Please note that comments related to noise, truck traffic, hours of operation, visual impacts, effects on property values and other social or economic concerns are issues not subject to this Office's jurisdiction. These subjects and similar ones, are typically addressed by your local governments, rather that the Division of Reclamation Mining and Safety or the Mined Land Reclamation Board.

McAtee Construction Company
Sterling, Colorado
Published: Sterling Journal Advocate Nov. 30, Dec. 7, 14, 21, 2018 - 1538435

Prairie Mountain Media, LLC

PUBLISHER'S AFFIDAVIT

County of Logan
State of Colorado

The undersigned, Crystal Musser, being first duly sworn under oath, states and affirms as follows:

1. He/she is the legal Advertising Reviewer of Prairie Mountain Media LLC, publisher of the *Sterling Journal Advocate*.
2. The *Sterling Journal Advocate* is a newspaper of general circulation that has been published continuously and without interruption for at least fifty-two weeks in Logan County and meets the legal requisites for a legal newspaper under Colo. Rev. Stat. 24-70-103.
3. The notice that is attached hereto is a true copy, published in the *Sterling Journal Advocate* in Logan County on the following date(s):

Nov 30 and Dec 7, 14, 21, 2018

Crystal Musser
Signature

Subscribed and sworn to me before me this
21st day of December, 2018.

Shayla Najera
Notary Public

SHAYLA NAJERA
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20174031965
MY COMMISSION EXPIRES JULY 31, 2021

(SEAL)

Account: 1069318
Ad Number: 1538435
Fee: $282.72

Environment, Inc.

LARRY E. O'BRIAN
FOUNDER

STEVAN L. O'BRIAN
PRESIDENT

7985 VANCE DRIVE, SUITE 205A
ARVADA, COLORADO 80003
303-423-7297
FAX 303-423-7599

November 14, 2018

Board of Supervisors
Centennial Soil Conservation District
621 Iris St
Sterling, Colorado 80751

Dear Board members:

Re: Application for a Mined
Land Reclamation Permit

We are delivering to you here a Notice of Application and supporting documents for amendment to the Riverside Pit that is operated by McAtee Construction Co., pursuant to rule 2.2.2(1), Colorado Mined Land Reclamation Board - Mineral Rules and Regulations.

Please acknowledge receipt of this notice by signing in the appropriate space provided below and return a signed copy of this cover letter to the person delivering it. We need to submit this copy to the Division of Reclamation, Mining & Safety as proof of our filing with you.

Respectfully Submitted,

Stevan L. O'Brian

enclosure

RECEIVED THIS 16th DAY OF November, 2018
Centennial Soil Conservation District

By Amber Beeson

Title District Manager

Environment, Inc.

LARRY E. O'BRIAN
FOUNDER

STEVAN L. O'BRIAN
PRESIDENT

7985 VANCE DRIVE, SUITE 205A
ARVADA, COLORADO 80003
303-423-7297
FAX 303-423-7599

November 14, 2018

Logan County Board of
County Commissioners
325 Main St. Suite 2
Sterling, CO. 80751

Dear Commissioners;

Re: Amended application for a Mined
Land Reclamation Permit

We are delivering to you here a Notice of Application and supporting documents for an amendment to the Riverside Pit that is operated by McAtee Construction Co., pursuant to rule 2.2.2(1), Colorado Mined Land Reclamation Board - Mineral Rules and Regulations.

Please acknowledge receipt of this notice by signing in the appropriate space provided below and return a signed copy of this cover letter to the person delivering it. We need to submit this copy to the Division of Reclamation, Mining & Safety as proof of our filing with you.

Respectfully Submitted,

Stevan L. O'Brian

enclosure

RECEIVED THIS 16 DAY OF November, 2018
Logan County Board of County Commissioners

By Jennifer Crow

Title Admin. Support Sp.

Exhibit R - CLERK AND RECORDERS NOTICE AND PROOF OF DELIVERY

November ,2018

Logan County Clerk and Recorder
Logan County Courthouse
315 Main
Sterling, Colorado 80751

LOGAN COUNTY
NOV 16 2018
CLERK & REC

Re: Amendment of a Mined
Land Reclamation Permit

Dear Sir/Madam:

We are delivering to you here with a copy of the application amendment for the Riverside Pit, an amendment to a Regular 112 Construction Materials permit, operated by McAtee Construction Company. Two copies of the application are on file with the Division of Reclamation Mining and Safety (DIVISION OF RECLAMATION MINING AND SAFETY).

This copy of the application is delivered to you pursuant to 34-32.5-112(9)(a), Colorado Revised Statutes 1995, as amended, which states in part:

> *....the applicant shall file a copy of such application for public inspection at the office of the County Clerk and Recorder of the County in which the affected land is located.*

Please acknowledge receipt of this copy of the amended permit application by signing in the appropriate space provided below and returning one copy of this letter to the person delivering the book. Please hold the book for picked up after the application has been approved by the Division of Reclamation Mining and Safety (approx. 160 days)

Sincerely,
Environment, Inc.

Stevan L. O'Brian
President

enclosure

RECEIVED THIS 16th DAY OF November, 2018
MINED LAND RECLAMATION BOARD amendment application for the Riverside Pit.

Tamara M. Bacon

By Margaret Armstrick, Deputy Clerk
Logan County Clerk and Recorder

Environment, Inc.

LARRY E. O'BRIAN
FOUNDER

STEVAN L. O'BRIAN
PRESIDENT

7985 VANCE DRIVE, SUITE 205A
ARVADA, COLORADO 80003
303-423-7297
FAX 303-423-7599

August 20, 2019

LOGAN COUNTY
AUG 21 2019
CLERK & REC

Mr. Peter Hayes
Division of Reclamation, Mining & Safety
1313 Sherman St., Suite 215
Denver, CO 80215

Dear Peter;

RE: McAtee Construction Company - Riverside Pit - M-1976-056
Amendment 02 adequacy response 01

On behalf of my client McAtee Construction Company, I am responding to your adequacy review letter dated January 14, 2019. I have included your review points that need to be addressed in the order presented so the questions and answers will be in the same document for easy reference.

1.6 Public Notice

1. As required by Rules 1.6.2(d) and 1.6.5(2), please submit proof of publication in a newspaper of general circulation in the locality of the proposed mining operation.

Attached is a copy of the Proof of Publication.

2. As required by Rule 1.6.2(e), please submit proof of the notice to all owners of record of surface and mineral rights of the affected land and the owners of record of all land surface within 200 feet of the boundary of the affected lands, including all easement holders located on the affected land and within 200 feet of the boundary of the affected lands. Proof of notice may be return receipts of a Certified Mailing or by proof of personal service.

Attached are copies of the Return Receipt cards that were returned. Of the 23 sent, 20 were delivered and 18 green cards were returned and we did not get a green card back on the remaining 2. Three (3) were not picked up so were returned to McAtee. Copies of the USPS tracking information for the 5 missing green cards are attached as well as copies of the proof of mailing certificates are provided for those 5 notices.

3. The Division received comments from the Division of Water Resources and the Office of Archaeology and Historic Preservation. The letters are attached for review. Please address the comments noted in the letters and revise the amendment application accordingly.

Environment, Inc.

LARRY E. O'BRIAN
FOUNDER

STEVAN L. O'BRIAN
PRESIDENT

7985 VANCE DRIVE, SUITE 205A
ARVADA, COLORADO 80003
303-423-7297
FAX 303-423-7599

November 14, 2018

City of Sterling
City Manager
421 North Fourth St
Sterling, Colorado 80751

Re: Application for a Mined
Land Reclamation Permit

We are delivering to you here a Notice of Application and supporting documents for an amendment to the Riverside Pit that is operated by McAtee Construction Co., pursuant to rule 2.2.2(1), Colorado Mined Land Reclamation Board - Mineral Rules and Regulations.

Please acknowledge receipt of this notice by signing in the appropriate space provided below and return a signed copy of this cover letter to the person delivering it. We need to submit this copy to the Division of Reclamation, Mining & Safety as proof of our filing with you.

Respectfully Submitted,

Stevan L. O'Brian

enclosure

RECEIVED THIS 16 DAY OF November 2018
City of Sterling

By _____

Title City Manager

BFB

Environment, Inc.

LARRY E. O'BRIAN
FOUNDER

STEVAN L. O'BRIAN
PRESIDENT

7985 VANCE DRIVE, SUITE 205A
ARVADA, COLORADO 80003
303-423-7297
FAX 303-423-7599

LOGAN COUNTY
SEP 17 2019
CLERK & REC

M1976056

September 11, 2019

Logan County Clerk and Recorder
Logan County Courthouse
315 Main
Sterling, Colorado 80751

Re: Adequacy Packet 02 for an Amendment of
a Mined Land Reclamation Permit

Dear Sir/Madam:

We are delivering to you here with a copy of the second adequacy response packet for the amendment for the Riverside Pit, an amendment to a Regular 112 Construction Materials permit, operated by McAtee Construction Company.

This copy of the adequacy packet is delivered to you pursuant to 34-32.5-112(9)(a), Colorado Revised Statutes 1995, as amended, which states in part:

> *....the applicant shall file a copy of such application for public inspection at the office of the County Clerk and Recorder of the County in which the affected land is located.*

Please acknowledge receipt of this copy of the amended permit application by signing in the appropriate space provided below and returning one copy of this letter to the person delivering the book. Please hold the book for picked up after the application has been approved by the Division of Reclamation Mining and Safety (approx. 160 days)

Sincerely,
Environment, Inc.

Stevan L. O'Brian
President

enclosure

RECEIVED THIS 17th *DAY OF* September, 2019
Adequacy response packer 02 for the Riverside Pit.

By Pamela M. Bacon
Logan County Clerk and Recorder
by Margaret Ann Finch
Deputy Clerk

Steve O'Brian

17-SEPT-2019

Peter,

HERE IS THE HARD COPY OF THE SECOND* ADEQUACY PROOF OF PLACEMENT FOR THE McATEE CONSTRUCTION COMPANY, RIVERSIDE PIT.

Regards,

Steve

Environment, Inc.
7985 Vance Dr., #205A
Arvada, Colorado 80003
(303) 423-7297
environment-inc@outdrs.net

NOTICE

This site is the location of a proposed construction materials operation. McAtee Construction Company, whose address and phone number is P.O. Box 1908, Sterling, CO 80751 (970) 522-0651, has applied for an amendment to the Riverside Pit Permit # M-1976-056, a Regular 112 Reclamation Permit with the Colorado Mined Land Reclamation Board. Anyone wishing to comment on the application may view the application at the Logan County Clerk and Recorders office, Logan County Courthouse, 315 Main, Sterling, Colorado 80751, and should send comments prior to the end of the public comment period to the Division of Reclamation Mining and Safety, 1313 Sherman St, Room 215, Denver, CO 80203.

certification

I, Jeff Harms Hereby certify that I posted a sign containing the above notice for the proposed area known as Riverside Pit on 11-16-18.

SIGNATURE

11-16-18
DATE

Division of Reclamation, Mining, and Safety

Fee Receipt for M1976056

McAtee Construction Company
Jeff Harms
220 Edwards Ave

Sterling CO 807510000

Receipt #: 27755
Date: 11/19/2018
Permit: M1976056

Payment Method	Revenue Code	Fee Description/Notes	Amount
Check #00702450	4300-MAMD	Minerals Amendment Fees User: sdt AM02	$2,229.00
		Receipt Total:	**$2,229.00**

McAtee Construction Company

dba McAtee Paving Company • Sterling Redi Mix Company • Green Bros. Ready Mix
P.O. Box 1908 • Sterling, Colorado 80751
Phone: 970-522-3647 • Fax: 970-522-9725

August 30, 2019

Mr. Peter Hayes
Division of Reclamation, Mining & Safety
1313 Sherman St., Suite 215
Denver, CO 80215

Dear Mr. Hays;

RE: McAtee Construction Company - Riverside Pit - M-1976-056
Amendment 02

This letter is to confirm that McAtee Construction Company was notified that the amendment application packet for the Riverside Pit - M-1976-056 was filed on November 19, 2018 with the Division of Reclamation, Mining and Safety. We received copies of the applicant packet and participated in planning the changes.

Should you have any questions please call me at 307-635-9055

Sincerely
McAtee Construction Company

Brett Baker
President

cc file
Environment, Inc.