

September 18, 2019

Mr. Eric Scott
Division of Reclamation, Mines, and Safety
1313 Sherman Street, Room 215
Denver, Colorado 80203

RE: Adequacy Review 2 for 112 Construction Materials Reclamation Amendment 1 to the Permit,
Bernhardt Gravel Mine, Permit M-2002-120; Response

Dear Mr. Scott:

This letter is being generated to satisfy the preliminary review dated August 21, 2019 for the Bernhardt Gravel Mine. The italicized items are the current comment and the bold text are the responses:

*The Division of Reclamation, Mining, and Safety has completed its second adequacy review of your 112 construction materials reclamation permit amendment application. The application was called complete for review on May 3, 2019. All comment and review periods began on May 3, 2019. **The decision date for this application has been extended to September 5, 2019. Please be advised that if you are unable to satisfactorily address any concerns identified in this review before the decision date, it will be your responsibility to request an extension of the review period. If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the Division may deny this application. In order to allow the Division adequate time to review your responses to any adequacy issues, please submit your adequacy responses to the Division no later than one week prior to the decision date (August 30, 2019).***

*Please note that any changes or additions to the application on file in our office must also be reflected in the public review copy, which has been placed with the Weld County Clerk and Recorder. **This response has been delivered to Weld County for public review.***

The review consisted of comparing the application content with specific requirements of Rule 6.1, 6.2, 6.4 and 6.5 of the Minerals Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials. As with most applications, there are items that will require clarification of the existing information. Any remaining inadequacies are summarized below:

- *All maps will need to show the revised permit/amendment boundary that corresponds to the existing fence-line on the south side of the amended property, not the parcel boundary as currently shown. Please also include full size color copies of all final maps included in the application. **The maps and permit boundary have been updated. Full size maps have been include in the submittal.***
- *Please verify consistency in the mining and reclamation plans with respect to the statement that the amended parcel will not be mined. **The maps have been updated.***
- *Exhibit E - Reclamation Plan will need to include spillway design information (sizing, capacity, etc.) and construction design information will need to be provided to verify adequacy of the proposed inlet/outlet structures. Please also verify the text in the reclamation plan that refers to fertilizer and trees for consistency with the provided adequacy responses. **A spillway design memo, table and a typical spillway design drawing are attached. The text in the reclamation plan has been updated to be consistent with the plans.***

- *Please verify Exhibit F - Reclamation Plan Map to depict the proposed final shoreline configurations and setbacks for the reservoirs in Cells 2 and 3 with respect to the existing utilities (electric, gas, etc). The maps have been updated to depict the most recent configurations. Should a change in configuration occur a technical revision will be submitted to the DRMS.*
- *Please verify the proposed locations of all spillway inlet/outlet structures on the Exhibit Reclamation Plan Map. Some justification should be provided as to why only one inlet/outlet structure is believed to be sufficient for Cell 5. Given the configuration of the cell and proximity to the river, DRMS feels a reinforced outlet structure located near the southeast corner of the cell may also be required to prevent stream capture during a flood event. A spillway design memo has been attached discussing the spillways in more detail.*
- *Please provide additional rationale for the statement made in the adequacy response for Exhibit G that "... the mining and reclamation are not expected to directly affect the surface or groundwater systems." Factors affecting surrounding groundwater due to slurry lining a mine are from shadow (decrease in water surface elevation) and mounding (increase in water surface elevation). The Bernhard Gravel Mine has been in operation since approximately 2004 and slurry lining of the cells began shortly thereafter.*

To date all mining takes place within lined cells and the northwest area has been a silt pond and fresh water pond since commencing mining around 2004/2005. As a result the dewatering effects and drawdown due to mine activity mine are very small if not insignificant since the slurry walls are working properly.

Shadow and Mounding:

The mining and slurry lining of the site started approximately 15 years ago. Cell 2 and 3 have are approved liners and Cells 4 and 5 are conditionally approved liners. There are two houses approximately 260 feet to the west of Cell 2. The average groundwater depth across the site is 8.5 feet below ground surface and the groundwater depth nearest the house was just reported as 13.5 feet below ground. The Cell 2 slurry wall was the first slurry wall to be installed and was approved in 2009. The homes to the west were constructed prior to the installation of the slurry wall. To date there have been no complaints or discussions with the miner, DRMS or the Division of Water Resources concerning a mounding effect west of Cell 2. This could be due to the depth to groundwater, the proximity of the mine to the river and the river acting as a natural groundwater relief but as stated earlier there have been no reports of mounding on the upstream or west side of the mine that have negatively affected adjacent structures. The downstream or shadow side of the mine does not contain many groundwater wells, irrigation ponds or areas that rely on groundwater. The area to the east is mainly agricultural (which is owned by the mining area land holder Bernhardt) with some industrial development to the southeast. The river might act as a groundwater control as it bisects the site and is within close proximity to the mining area. To date there have been no complaints or discussions with the miner, DRMS or Division of Water Resources concerning a shadow effect east of Cell 2.

The miner continues to monitor groundwater wells onsite. Data is attached showing the location of the groundwater monitoring wells along with recent groundwater depths.

- *Exhibit L – Reclamation Cost Estimate will need to include detailed information for the line item(s) for spillway construction. Reclamation costs provided will be reviewed by DRMS when all*

adequacy issues have been addressed. This Exhibit should be updated as needed to reflect all changes made during the adequacy review process. The reclamation costs have been updated.

- *Permittee still needs to obtain legal right of entry from Town of Milliken for the parcel in the permit located on the west side of the permit for Exhibit N, and information for Town of Milliken must be included in Exhibit O. The operator is waiting on the Legal Right to Enter. An email showing that the legal right to enter is pending is attached.*
- *For Exhibit S, please provide a separate map and a table indicating where the structures are located within the permit and within 200' of the permit, and information showing who owns what structures, so that the provided structure agreement mailing information can be verified to be accurate and complete. A separate map and table have been included showing the structures. All signed structure agreements have been included.*
- *DRMS has reviewed the updated stability report provided demonstrating that the existing setback from the powerline within Cell 2 (23 feet from shore to pole) is stable. DRMS noted that one of the assumptions made in the analysis is that the existing shoreline is at the final configuration and has been sloped at no steeper than 3:1, H:V. Has this assumption been verified, and if so, how? If the existing slope has not been verified to be 3:1 or flatter, please re-run the analysis utilizing more conservative value that would be representative of un-reclaimed mine slopes of 1.5:1 H:V. If the existing setback cannot be shown to meet the required factor of safety under these conditions, the permittee will need to commit to immediately backfilling the existing Cell 2 shoreline to a stable slope/distance in the area adjacent to the overhead power line within 30 days. (3:1 slope or flatter as shown in the provided analysis, or a minimum 55' offset from the powerline as demonstrated by the original stability analysis). A copy of the structure agreement between Xcel/PSCO is included in this response and should be adequate to address this comment. In addition an updated analysis using 1.5 to 1 side slopes and the offset from the powerline of 23-feet was performed. The results were within engineering standards and show an adequate factor of safety. All signed structure agreements are attached and proof of delivery are attached.*

This concludes the Division's second adequacy review of this application. This letter shall not be construed to mean that there are no other technical deficiencies in your application. Other issues may arise as additional information is supplied. Please remember that the decision date for this amendment application is September 5, 2019. As previously mentioned, if you are unable to provide satisfactory responses to any inadequacies prior to this date, it will be your responsibility to request an extension of time to allow for continued review of this application. If there are still unresolved issues when the decision date arrives and no extension has been requested, the application will be denied. If you have any questions, please contact me at (303) 866-3567 x8140.

Page 4
Mr. Eric Scott
September 18, 2019

CIVIL RESOURCES, LLC

A handwritten signature in blue ink, appearing to read 'Andy Rodriguez'.

Andy Rodriguez, P.E

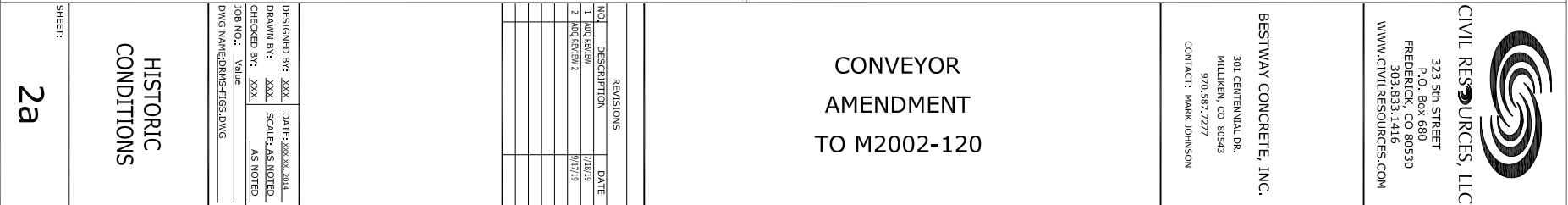
Bestway Concrete


A handwritten signature in blue ink, appearing to read 'Mark Johnson'.


Mark Johnson, Manager


Encl:
Plans
Legal Right to Enter Correspondence
Reclamation Plan
Bonding Cost
Proof of Delivery to Clerk
Structure Information
Spillway Design Memo
Groundwater Monitoring Information


UPDATED PLANS





		
CIVIL RESOURCES, LLC		
323 5th STREET P.O. Box 680 FREDRICK, CO 80530 303.853.1416 WWW.CIVILRESOURCES.COM		
BESTWAY CONCRETE, INC.		
301 CENTENNIAL DR. MILLIKEN, CO 80543 970.587.7277 CONTACT: MARK JOHNSON		
CONVEYOR AMENDMENT TO M2002-120		
REVISIONS		
NO.	DESCRIPTION	DATE
1	MOE REVIEW	7/18/19
2	MOE REVIEW 2	9/17/19
DRAWN BY: XXX		
CHECKED BY: XXX		
DWG NAME: DRRS-FGS.DWG		
DESIGNED BY: XXX		DATE: XXX.XX.XXX
DRAWN BY: XXX		SCALE: AS NOTED
CHECKED BY: XXX		AS NOTED
JOB NO.: XXX		VALUE
DWG NAME: DRRS-FGS.DWG		
HISTORIC CONDITIONS		
SHEET: 2a		

		
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DRAWN BY: XXX		SCALE: AS NOTED
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2	MOE REVIEW 2	9/17/19
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DWG NAME: DRRS-FGS.DWG		
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SHEET: 2a		



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P.O. Box 680
FREDERICK, CO 80530
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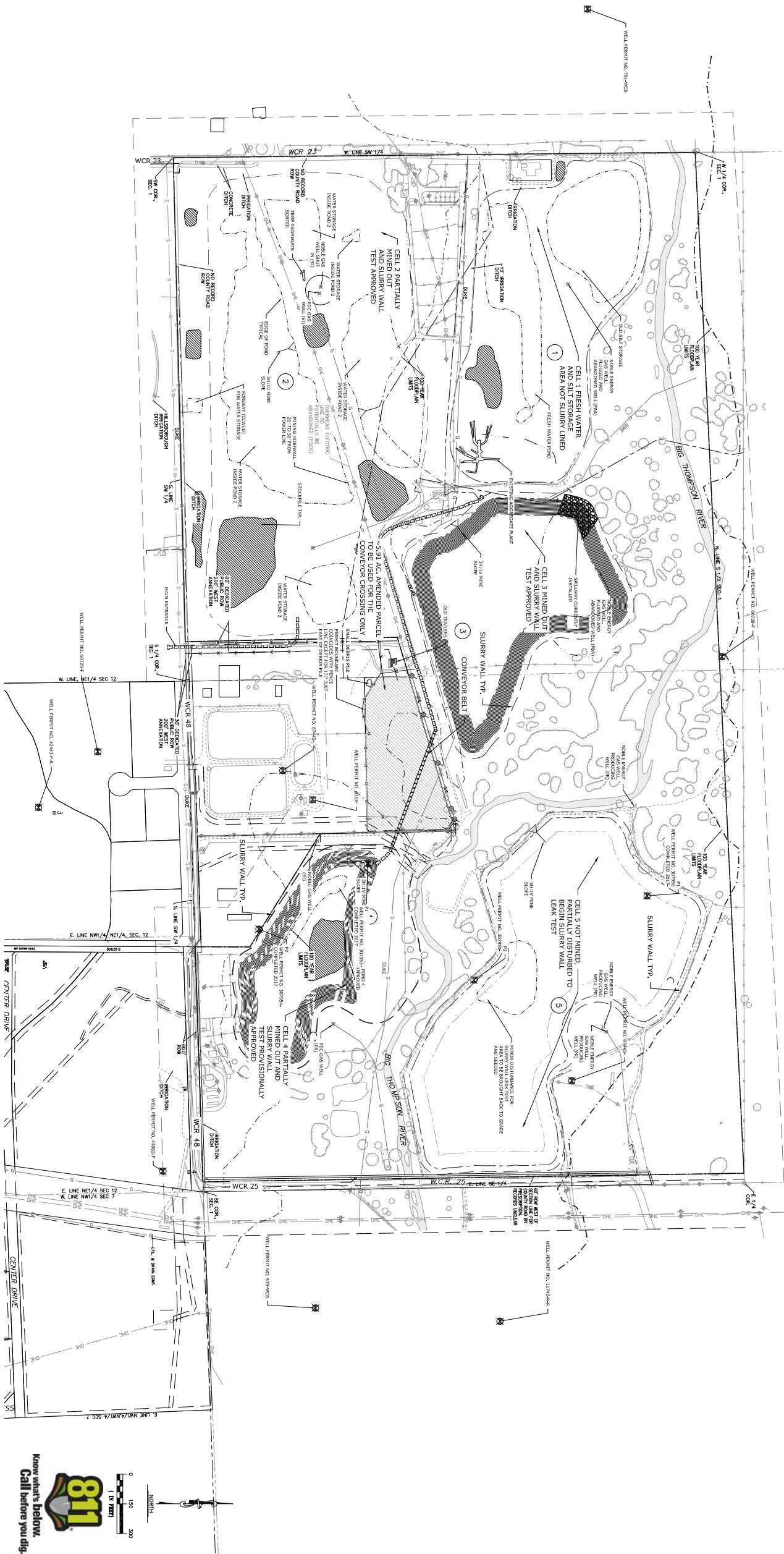
BESTWAY CONCRETE, INC.
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CONVEYOR
AMENDMENT
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REVISIONS		
NO.	DESCRIPTION	DATE
1	LOG REVIEW	7/15/19
2	LOG REVIEW 2	9/17/19

DESIGNED BY: XXX	DATE: XXX.XX.XX14
DRAWN BY: XXX	SCALE: AS NOTED
CHECKED BY: XXX	AS NOTED
DWG NAME: DRMS-FIGS.DWG	

EXISTING
CONDITIONS/
MINING
PLAN



LEGEND:

PERMIT BOUNDARY	EXISTING ROAD R.O.W.	STRUCTURES
100 YR. FLOODPLAIN	PROPOSED ROAD R.O.W.	SOILS CLASSIFICATION
EXISTING DITCH		BOUNDARY
EXISTING 2' CONTOURS		MONITORING WELLS
EXISTING OVERHEAD		WATER WELLS
POWER		PROPOSED MONITORING WELLS
EXISTING GAS LINE		TESTHOLE NUMBER
EXISTING TELEPHONE LINE		NUMBER OF FEET OF OVERBUREN
EXISTING FENCE		NUMBER OF FEET OF GRAVEL RESOURCE
SECTION LINE		
EDGE OF UNPAVED ROAD		

NOTE:

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APPLICANT:

BESTWAY CONCRETE & AGGREGATE
301 CENTENNIAL DRIVE
MILLIKEN, CO 80543

SURVEY INFO:

KING SURVEYORS
659 E. Center Drive | Windsor, Colorado 80550
phone: (970) 686-5011 | email: info@kingsurveyors.com

FLOODPLAIN INFO:

FLOODPLAIN INFO IS FROM
FIRM FLOOD INSURANCE RATE MAP
NO. 13020B0250
EFFECTIVE DATE: SEPTEMBER 28, 1982

EXISTING VEGETATION:

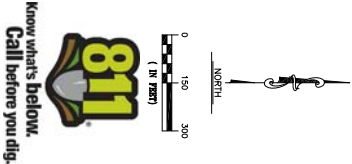
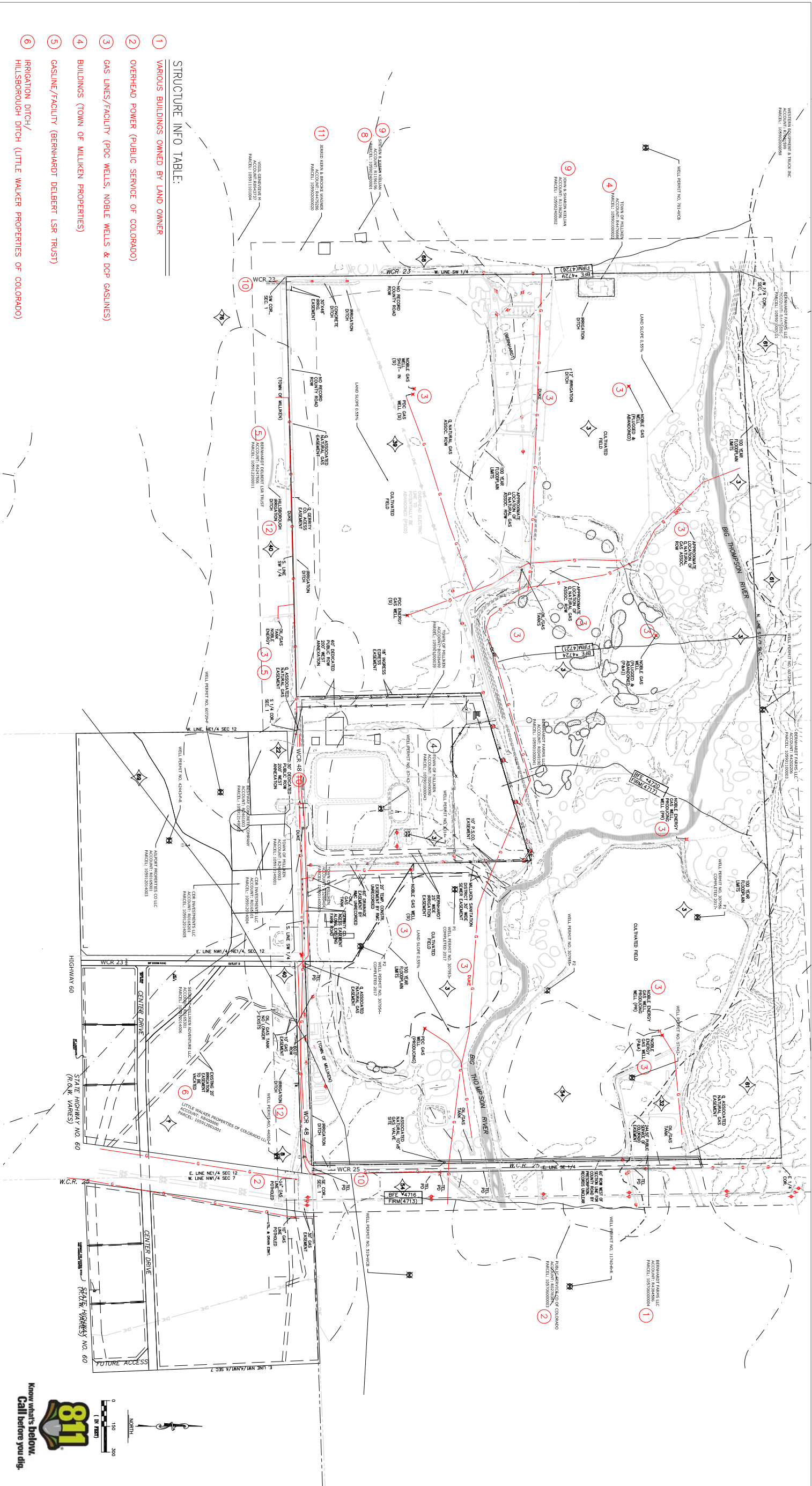
FALLOWED AGRICULTURAL LAND

AFFECTED LANDS:

CONVEYOR PROPERTY: VARIOUS OUT BUILDINGS

STRUCTURE INFO:

VARIOUS BUILDINGS OWNED BY LAND OWNER
OVERHEAD POWER (PUBLIC SERVICE OF COLORADO)
GAS LINES/FACILITY (PDC WELLS, NOBLE WELLS & DCP GASLINES)
BUILDINGS (TOWN OF MILLIKEN PROPERTIES)
GASLINE/FACILITY (BERNHART DELBERT LSR TRUST)
HILLSBOROUGH DITCH (LITTLE WALKER PROPERTIES OF COLORADO)
BERNHART DELBERT LSR TRUST
IRIGATION DITCH/BERNHART DELBERT LSR TRUST
HOUSE/BUILDING (STEVEN & KAREN KIELAN)
HILLSBOROUGH DITCH (JOHN & SHARON KIELAN)
WCR 25 & ROW (WELD COUNTY PUBLIC WORKS)
WCR 48 & ROW (WELD COUNTY PUBLIC WORKS)
WCR 23 & ROW (WELD COUNTY PUBLIC WORKS)
HOUSE/BUILDING (JERRID KERN & BROOKE WAGNER)
HILLSBOROUGH DITCH



STRUCTURE INFO TABLE:

- 1 VARIOUS BUILDINGS OWNED BY LAND OWNER
- 2 OVERHEAD POWER (PUBLIC SERVICE OF COLORADO)
- 3 GAS LINES/FACILITY (PDC WELLS, NOBLE WELLS & DCP GASLINES)
- 4 BUILDINGS (TOWN OF MILLIKEN PROPERTIES)
- 5 GASLINE/FACILITY (BERNHARDT DELBERT LSR TRUST)
- 6 IRRIGATION DITCH/
HILLSBOROUGH DITCH (LITTLE WALKER PROPERTIES OF COLORADO)
- 7 IRRIGATION DITCH/HILLSBOROUGH DITCH
(BERNHARDT DELBERT LSR TRUST)
- 8 HOUSE/BUILDING (STEVEN & KAREN KIELAN)
- 9 IRRIGATION DITCH/
HILLSBOROUGH DITCH (JOHN & SHARON KIELAN)
- 10 WCR 25 & ROW (WELD COUNTY PUBLIC WORKS)
WCR 48 & ROW (WELD COUNTY PUBLIC WORKS)
WCR 23 & ROW (WELD COUNTY PUBLIC WORKS)
- 11 HOUSE/BUILDING (FERRID KERN & BROOKE WAGNER)
- 12 HILLSBOROUGH DITCH

- LEGEND:
- PERMIT BOUNDARY
 - 100 YR. FLOODPLAIN
 - EXISTING DITCH
 - EXISTING 2' CONTOURS
 - ONE
 - EXISTING OVERHEAD
 - POWER
 - EXISTING GAS LINE
 - EXISTING TELEPHONE LINE
 - EXISTING FENCE
 - EDGE OF UNPAVED ROAD
 - EXISTING ROAD R.O.W.
 - PROPOSED ROAD R.O.W.
 - STRUCTURES
 - SOILS CLASSIFICATION BOUNDARY
 - MONITORING WELLS
 - EXISTING GAS WELL (P&A, PR OR SI)
 - EXISTING TANK BATTERY
 - TESTHOLE NUMBER
 - NUMBER OF FEET OF OVERBURDEN
 - NUMBER OF FEET OF GRAVEL RESOURCE
 - BASE FLOOD ELEVATIONS

CIVIL RESOURCES, LLC
323 5th STREET
P.O. Box 680
FREDERICK, CO 80530
303.833.1416
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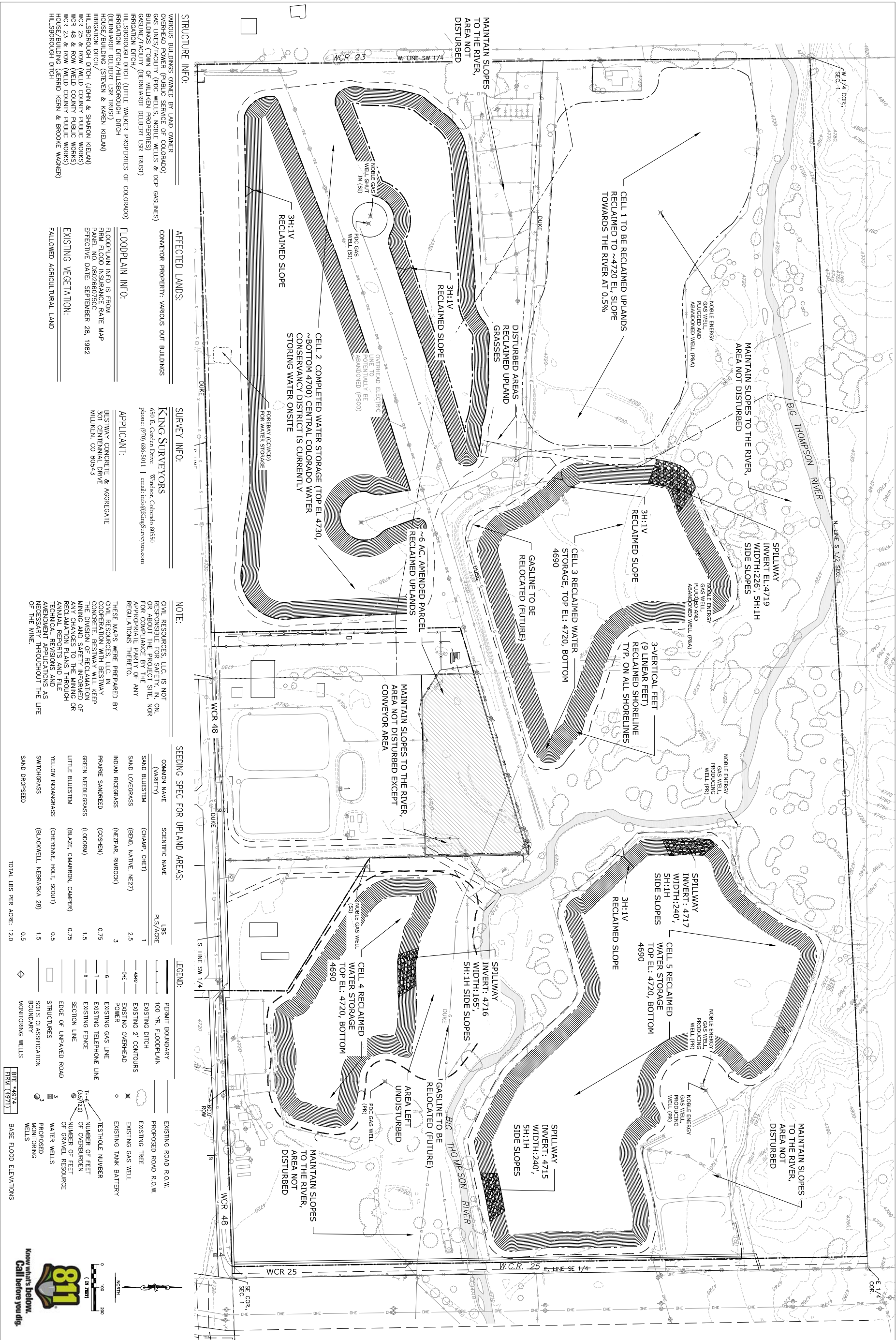
BESTWAY CONCRETE, INC.
301 CENTENNIAL DR.
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970.587.7277
CONTACT: MARK JOHNSON

CONVEYOR
AMENDMENT
TO M2002-120

REVISIONS		
NO.	DESCRIPTION	DATE
1	ADD REVIEW	7/18/19
2	ADD REVIEW 2	9/17/19

DESIGNED BY: XXX DATE: XXX.XX.XX.2014
DRAWN BY: XXX SCALE: AS NOTED
CHECKED BY: XXX AS NOTED
DWG NAME: DRMS-FIGS.DWG

STRUCTURES



STRUCTURE INFO:

VARIOUS BUILDINGS OWNED BY LAND OWNER
OVERHEAD POWER (PUBLIC SERVICE OF COLORADO)
GAS LINES/FACILITY (PDC WELLS, NOBLE WELLS & DCP GASLINES)
BUILDINGS (TOWN OF MILLIKEN PROPERTIES)
GASLINE/FACILITY (BERNHARDT DELBERT LSR TRUST)
IRRIGATION DITCH/
HILLSBOROUGH DITCH (LITTLE WALKER PROPERTIES OF COLORADO)
(BERNHARDT DELBERT LSR TRUST)
HOUSE/BUILDING (STEVEN & KAREN KIELAN)
IRRIGATION DITCH/
HILLSBOROUGH DITCH (JOHN & SHARON KIELAN)
WCR 48 & ROW (WELD COUNTY PUBLIC WORKS)
WCR 23 & ROW (WELD COUNTY PUBLIC WORKS)
HILLSBOROUGH DITCH (JERRID KERN & BROOKE WAGNER)

AFFECTED LANDS:

CONVEYOR PROPERTY: VARIOUS OUT BUILDINGS

FLOODPLAIN INFO:

FIRM FLOOD INSURANCE RATE MAP
PANEL NO. 080260750C
EFFECTIVE DATE: SEPTEMBER 28, 1992

EXISTING VEGETATION:

FALLOWED AGRICULTURAL LAND

SURVEY INFO:

KING SURVEYORS
639 E. Garden Drive | Windsor, Colorado 80550
Phone: (970) 686-5011 | email: info@kingsurveyors.com

APPLICANT:

BESTWAY CONCRETE & AGGREGATE
301 CENTENNIAL DRIVE
MILLIKEN, CO 80543

NOTE:

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THESE MAPS WERE PREPARED BY CIVIL RESOURCES, LLC, IN COOPERATION WITH BESTWAY CONCRETE. BESTWAY WILL KEEP THE DIVISION OF RECLAMATION OF MINING AND GEOTECHNICAL ENGINEERING ADVISED THROUGH ANNUAL REPORTS AND FILE TECHNICAL REVISIONS AND AMENDMENT APPLICATIONS AS NECESSARY THROUGHOUT THE LIFE OF THE MINE.

SEEDING SPEC. FOR UPLAND AREAS:

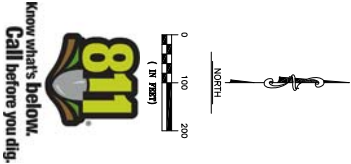
COMMON NAME (VARIETY)	SCIENTIFIC NAME	LIBS P.LS./ACRE
SAND BLUESTEM	(CHAMP, CHE1)	1
SAND LOVEGRASS	(BEND, NATIVE, NE27)	2.5
INDIAN RICEGRASS	(NEZPAR, RIMROCK)	3
INDIAN SANDREED	(GOOSHEN)	0.75
GREEN NEEDLEGRASS	(LOODORN)	1.5
LITTLE BLUESTEM	(BLAZE, OMARON, CAMPER)	0.75
YELLOW INDIANGRASS	(CHEYENNE, HOLT, SCOUT)	0.5
SWITCHGRASS	(BLACKWELL, NEBRASKA 28)	1.5
SAND DROPSEED		0.5
TOTAL LBS PER ACRE:		12.0

LEGEND:

PERMIT BOUNDARY	EXISTING ROAD R.O.W.
100 YR. FLOODPLAIN	PROPOSED ROAD R.O.W.
EXISTING DITCH	EXISTING TREE
EXISTING 2' CONTOURS	EXISTING GAS WELL
EXISTING OVERHEAD POWER	EXISTING TANK BATTERY
EXISTING GAS LINE	TESTHOLE NUMBER
EXISTING TELEPHONE LINE	NUMBER OF FEET OF OVERBURDEN
SECTION LINE	NUMBER OF FEET OF GRAVEL RESOURCE
EDGE OF UNPAVED ROAD	WATER WELLS
STRUCTURES	PROPOSED MONITORING WELLS
SOIL CLASSIFICATION BOUNDARY	
MONITORING WELLS	

B.F. 4974
T.M. 4977

BASE FLOOD ELEVATIONS



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CONTACT: MARK JOHNSON

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REVISIONS		DATE
NO.	DESCRIPTION	
1	LOG REVIEW	7/18/19
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RECLAMATION
PLAN

SHEET:
3

DESIGNED BY: XXX, DATE: XXX.XX.XX14
DRAWN BY: XXX, SCALE: AS NOTED
CHECKED BY: XXX, AS NOTED
JOB NO.: 14816
DWG NAME: DRMS-FIGS.DWG

LEGAL RIGHT TO ENTER CORRESPONDENCE

Andy Rodriguez

From: Matthew Gould <mgould@bell-law.com>
Sent: Wednesday, September 18, 2019 8:36 AM
To: Mark Johnson
Cc: Andy Rodriguez
Subject: RE: legal right enter

Mark:

I apologize for my delay. I am working on this now.

Matt

From: Mark Johnson <Mark.Johnson@burnco.com>
Sent: Tuesday, September 10, 2019 9:52 AM
To: Matthew Gould <mgould@bell-law.com>
Cc: Andy Rodriguez <andy@civilresources.com>
Subject: RE: legal right enter

Yes sir that will work. Thanks



Mark Johnson
Compliance Manager / Facilities and Acquisitions
Phone: (970)-587-7277
Email: mark.johnson@burnco.com
Excellence • Integrity • Passion

From: Matthew Gould <mgould@bell-law.com>
Sent: Tuesday, September 10, 2019 9:50 AM
To: Mark Johnson <Mark.Johnson@burnco.com>
Subject: RE: legal right enter

[External Email]

Mark:

Thank you. I'm afraid I'm running a bit behind on this.

Here is my question. If we back this up with a separate agreement that essentially states that the rights granted in this instrument will not be exercised, can we record that separate agreement? I'm looking for a way to give you what you need for the state without risking any compromise to the use of the site by any assignee who might not be bound by an unrecorded agreement.

Matt

From: Mark Johnson <Mark.Johnson@burnco.com>
Sent: Wednesday, September 04, 2019 10:26 AM

To: Matthew Gould <mgould@bell-law.com>

Subject: FW: legal right enter

You move it around or whatever.

Mark 303.435.4455



Mark Johnson
Compliance Manager / Facilities and Acquisitions
Phone: (970)-587-7277
Email: mark.johnson@burnco.com
Excellence · Integrity · Passion

From: Andy Rodriguez <andy@civilresources.com>

Sent: Wednesday, September 4, 2019 8:29 AM

To: Mark Johnson <Mark.Johnson@burnco.com>

Subject: FW: legal right enter

[External Email]

Her is the legal right to enter document in word format.

From: Andy Rodriguez

Sent: Thursday, July 11, 2019 8:05 AM

To: 'Mark Johnson' <Mark.Johnson@burnco.com>

Subject: legal right enter

Notary Public

EXHIBIT A - LEGAL DESCRIPTION OF LEGAL RIGHT TO ENTER LANDS

Parcel 1:

A PARCEL OF LAND IN THE NORTHWEST ONE-FOURTH OF THE SOUTHWEST ONE-FOURTH (NW 1/4 SW 1/4) OF SECTION 1, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, WELD COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER (SW COR.) OF SAID SECTION 1 AND CONSIDERING THE WEST LINE OF SAID SECTION 1 TO BEAR NORTH 00°00'00" EAST WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO; THENCE NORTH 00°00'00" EAST ALONG SAID WEST LINE OF SECTION 1, 1702.97 FEET; THENCE NORTH 90°00'00" EAST, 30.00 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 00°00'00" EAST, 208.71 FEET; THENCE NORTH 90°00'00" EAST, 104.35 FEET; THENCE SOUTH 00°00'00" WEST, 208.71 FEET; THENCE SOUTH 90°00'00" WEST, 104.35 FEET TO THE TRUE POINT OF BEGINNING. THE ABOVE DESCRIBED PARCEL OF LAND CONTAINS ONE-HALF (1/2) ACRE; and

Parcel 2:

A TRACT OF LAND BEING A VACATION OF WELD COUNTY ROAD 23 RIGHT-OF-WAY LYING IN THE SOUTHWEST QUARTER OF SECTION 1 AND IN THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH P.M. COUNTY OF WELD, STATE OF COLORADO BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS; SAID RIGHT-OF-WAY TO BE VACATED SHALL BE THE WEST 30.00 FEET OF SAID SOUTHWEST QUARTER AND THE EAST 30.00 FEET OF SAID SOUTHEAST QUARTER LYING NORTH OF THE SOUTH 1,702.97 FEET OF SAID QUARTERS LYING SOUTH OF THE BIG THOMPSON RIVER.

ACCOUNT: R4476686

PARCEL: 105901000022

EXHIBIT E - RECLAMATION PLAN

EXHIBIT E – RECLAMATION PLAN – ADQ 2

This information provided in this Exhibit is intended to satisfy the requirements outlined in Section 6.4.5 of the Colorado Mined Land Reclamation Board Construction Material Rules and Regulations: The proposed mining and reclamation plan focuses on minimizing the ecological impacts of mining, minimizing the length of time of impact, and maximizing long-term benefits.

The mine is currently:

Cell 1 – mined out, silt storage and fresh water pond – not reclaimed.

Cell 2 – mined out – slurry wall approved and water currently stored – partially reclaimed

Cell 3 – mined out – slurry wall approved – actively being reclaimed, finalizing slopes, cleaning the bottom, shoreline reclamation and perimeter seeding remain.

Cell 4 – partially mined – slurry wall provisionally approved, actively being mined.

Cell 5 – minimum disturbance for provisional slurry wall test.

Amended Area – minimum disturbance with conveyor going through. Area will not be mined.

(a) *A description of the type(s) of reclamation the Operator proposes to achieve in the reclamation of the affected land, why each was chosen, the amount of acreage accorded to each, and a general discussion of methods of reclamation as related to the mechanics of earthmoving;*

The mined area will be reclaimed to existing grade around the buffer areas or perimeter of the Ponds. Each pond except for Pond 1 will be reclaimed water storage with an approved slurry wall. The amended area will not be mined and the minimal disturbed area where the conveyor passed through will be reclaimed as upland. The area will be fine graded back to existing grades, which is 0.5% towards the northwest/Big Thompson River.

- Pond 1: 27.76 acres, approximately 11 acres of this Pond is silt storage and fresh water pond.
- Pond 2: 25.8 acres, approximately 50-percent is water storage. Central Colorado Water Conservancy District owns the approved storage pond and stores their water rights in that pond.
- Pond 3: 3 acres of perimeter seeding and above water line seeding, otherwise this pond is nearing completion of reclamation below high water line. CCWCD installed a spillway in the northwest corner of the pond earlier in the year.
- Pond 4: 12.5 acres, which is overestimated as the slopes are reclaimed on the south side at 3:H1V.
- Typically during active mining the miner does anticipate like to “open up” more than 10 to 20 acres at a time.

Refer to Exhibit F for the acreages and additional details, including grades and pond configurations.

Earthmoving

The topsoil will be replaced by a scraper and generally graded with a blade or dozer. All grading will be done in a manner that controls erosion and siltation of the affected lands, to protect areas outside the affected land from slides and other damage. In addition, all backfilling and grading will be completed as soon as feasible after the mining process. All disturbed areas will be regraded and smoothed to a finished grade that is suitable for revegetation or the final land use.

As noted previously, the area will be reclaimed as mining commences. Finish grading, topsoil placement and seeding will occur once the resource is completely removed. A typical cross-section of the shoreline is included on the Reclamation Plan Map.

(b) *A comparison of the proposed post-mining land use to other land uses in the vicinity and to adopted state and local land use plans and programs.*

Once returned to existing (pre-mined) grade, the site can return to being farmed. The water storage reservoirs will be compatible with the other land uses in the vicinity, which includes farmland, industrial land, and rural residential.

(c) *A description of how the Reclamation Plan will be implemented to meet each applicable requirement of Section 3.1.*

The Operator will carry reclamation to completion with reasonable diligence. Reclamation will be completed within one to two years from completion of mining, but not more than five years from the date the Operator informs the Board or Office that such phase has commenced.

The reclamation is ongoing.

To date: Pond 1 will be backfilled and remains open water for silt storage and fresh water. Pond 2 has been reclaimed approximately 70%, Pond 3 is approximately 80% reclaimed. Pond 4 is being mined and will be complete in the next year. Pond 5 has been disturbed slightly to begin the slurry wall leak test but will be backfilled and left unmined until Pond 4 is complete.

Typically the mining is 3H to 1V and the pond/mining area is reclaimed as the miner continues. Fine grading and revegetation are also ongoing. Pond 2 has been a water storage area for some years and Pond 3 is in final reclamation. Pond 4 should be complete in a year and reclamation will continue shortly thereafter. Pond 5 will be mined after Pond 4 and is completed in a year. Reclamation takes approximately one year.

The range of slopes across the site will be 0.2% to 2% which is very close to the native/historic grade and 3H to 1V side slopes/excavation slopes for the reclaimed water storage reservoirs.

Section 3.1.5 Reclamation Measures Material Handling: Grading will be performed to help control erosion and siltation of the affected lands through phased mining, implementing good operation techniques to handle material as little as possible, and vegetation of stockpiles remaining in place for more than one growing season. Although the use of erosion protection devices is not anticipated, if deemed necessary by the

operator at the time of excavation, silt fence and haybale dams will be installed to prevent erosion. Backfilling and grading will be completed as soon as feasible after the mining process is complete.

Maximum slopes and slope combinations will be compatible with the configuration of surrounding conditions and selected land use. Mining will occur at a slope that is stable. The site will be reclaimed to grades consistent with pre-mining elevations.

The operator will backfill using fill material generated on-site, or imported inert fill generated outside the permit area. If any inert off-site material is used as backfill, a notarized letter will be submitted to the Division as required by Section 3.1.5(9) of the MLRB Construction Material Rules and Regulations.

It is not anticipated that mining will uncover any refuse or acid-forming or toxic producing materials, however if any such materials are encountered the operator will take precaution to handle the materials in a manner that will control unsightliness and protect the drainage system.

Drill or auger holes that are part of the mining operation shall be plugged with non-combustible material, which shall prevent harmful or polluting drainage. Any test pits, soils boring holes, or monitoring wells not located within the mine excavation limits will be plugged as soon as it can be confirmed that they are no longer needed for the operation.

Mined material to be disposed of within the affected area will be handled in such a manner so as to prevent any unauthorized release of pollutants to the surface drainage system. No unauthorized release of pollutants to groundwater shall occur from any materials mined, handled or disposed of within the permit area.

Section 3.1.6 Water-General Requirements: The Operator will comply with applicable Colorado water laws governing injury to existing water rights and with applicable state and federal water quality and dredge and fill laws and regulations.

The operator will develop and comply with a stormwater management plan and will use best management practices (BMPs) to ensure groundwater and surface water are protected to the greatest possible extent. BMPs include schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollution in runoff from the site.

Section 3.1.7 Groundwater - Specific Requirements: The Operator will comply with the applicable standards and conditions for classified and unclassified groundwater.

Section 3.1.8 Wildlife: The mining and reclamation plans have been designed to account for the safety and protection of wildlife on the mine site. The Operator will use concurrent reclamation methods to minimize the impact on wildlife. The proposed reclamation plan may improve wildlife habitat. The proposed seed mix and plantings will create improved cover, foraging, roosting, and nesting areas for wildlife. The water area within the reservoir will serve as habitat for waterfowl and other bird species and the fringes of the reservoir

will be used by mammal, bird, reptile and amphibian species. Control and/or removal of noxious and weedy species during the project and the replacement of desirable graminoid, forb, shrub and tree species during reclamation will result in enhancement of wildlife habitat on the project site.

Section 3.1.9 Topsoiling: Topsoil shall be removed and segregated from other spoil. Topsoil stockpiles shall be stored in places and configurations to minimize erosion and located in areas where disturbance by ongoing mining operations will be minimized. Once stockpiled, topsoil shall be rehandled as little as possible. Stockpiles that will remain in place for more than one growing season will receive vegetative cover, as outlined on the Reclamation Plan Map, as soon as possible to minimize erosion.

Section 3.1.10 Revegetation: In those areas where revegetation is part of the reclamation plan, the land shall be revegetated in a manner that establishes a diverse, effective, and long-lasting vegetative cover that is capable of self-regeneration without continued dependence on irrigation or fertilizer and is at least equal in extent of cover to the natural vegetation of the surrounding area. The proposed seed-mix and plantings for reclamation are outlined on the Reclamation Plan included in Exhibit F of this application.

Section 3.1.11 Buildings and Structures: Please refer to the enclosed Reclamation Plan included in Exhibit F.

Section 3.1.12 Signs and Markers: The Operator will post appropriate signage at the entrance to the mine site. The permit area will be marked by existing fencing, or proximity to existing County roads.

(d) Plans for topsoil segregation, preservation and replacement; for stabilization, compaction and grading of spoil; and for revegetation.

Topsoil will be removed and segregated from other spoil. Topsoil not needed for reclamation may be sold or removed from the site. For reclamation, topsoil will be replaced by a scraper and generally graded with a blade. Grading shall be done in a manner that controls erosion and siltation of the affected land and protects areas outside the affected land from slides and other damage. In addition, backfilling and grading shall be completed as soon as feasible after the mining process.

Final grading will create a final topography that is appropriate for the final land use. For example, grades on the site will be returned to existing (pre-mining) grade. Topsoil will be uniformly placed and spread on areas disturbed by the mining. The minimum thickness shall be 6 inches above the surrounding finished grade, consistent with existing topsoil depths on-site. The topsoil shall be keyed to the underlying and surrounding material by the use of harrows, rollers or other equipment suitable for the purpose.

In those areas where revegetation is part of the reclamation plan, the Operator will revegetate the land in such a manner so as to establish a diverse, effective, and long-lasting vegetative cover that is capable of self-regeneration without continued dependence on irrigation or fertilizer and is at least equal in extent of cover to the natural vegetation of the surrounding area. Seed will be drilled and mulched.

The revegetation seeding and plant list on the Reclamation Plan Map contains the preferred species of grasses, shrubs and trees to be planted.

Seeding will take place once final grading and replacement of topsoil have been completed. Timing of seeding will be consistent with standard horticultural practice for dryland applications - generally between late September and the middle of April to ensure there is adequate moisture for germination.

(e) *A plan or schedule indicating how and when reclamation will be implemented.*
Include:

i. An estimate of the periods of time which will be required for the various stages or phases of reclamation.

Please refer to the Timetable for Mining and Reclamation in Section (e) of Exhibit D.

ii. A description of the size and location of each area to be reclaimed during each phase.

Please refer to the Reclamation Plan Map (Exhibit F).

iii. Outlining the sequence in which each stage or phase of reclamation will be carried out.

Please refer to the Timetable for Mining and Reclamation in Section (e) of Exhibit D.

(f) *A description of:*

i. Final grading – maximum anticipated slope gradient or expected ranges thereof;

The finished slopes of the reservoir will be 3 horizontal to 1 vertical. Any area reclaimed to native grade will match natural topography.

(a) The expected physical appearance of the area of the affected land, correlated to the proposed mining and reclamation timetables. The map must show proposed topography of the area with contour lines of sufficient detail to portray the direction and rate of slope of all reclaimed lands; and - See attached maps.

(b) Portrayal of the proposed final land use for each portion of the affected lands. See the updated maps.

ii. Seeding – types, mixtures, quantities and time of application;

Please refer to the Reclamation Plan Map for the list of plant materials and seeds to be utilized. The operator will seed during the appropriate season to ensure adequate moisture for germination and implement weed controls to allow the grasses to successfully establish. Additional plantings may be installed once the reservoirs are full of water and the grasses are established.

iii. Fertilization –types, mixtures, quantities, and time of application;

There will be no fertilization applied.

iv. Revegetation – types of trees, shrubs, etc.; and

Please refer to the Reclamation and Landscape Plan Maps for the types, quantities and location of trees and shrubs to be planted.

v. Topsoiling – specify anticipated minimum depth or range of depths for those areas where topsoil will be replaced.

Topsoil will be uniformly placed and spread on all areas disturbed by the mining above the anticipated high water line. The minimum thickness shall be 6 inches above the surrounding finished grade.

WEED MANAGEMENT PLAN

Bestway Concrete & Aggregates has a full-time weed manager on staff. This person is responsible for monitoring and controlling noxious weeds as they appear. Bestway Concrete typically prefers to control weeds mechanically, by mowing and/or discing. If necessary, weeds will be killed with a contact herbicide. Bestway Concrete has all of the necessary equipment in house to perform these tasks.

EXHIBIT L - BONDING COST

EXHIBIT L - RECLAMATION COST

Activity	Quantity	Units	Unit Costs	Cost
A. Phase 1 - 100% mined (settling pond)				
1 Backfill Settling Pond (5 acres/10 feet deep)	81,000	CY	\$ 3.00	\$ 243,000.00
			Subtotal	\$ 243,000.00
B. Processing area. Processing equipment is portable and would be				
1 Move serge piles into settling pond	1,000	CY	\$ 0.75	\$ 750.00
2 Remove concrete pad for wash plant	15	CY	\$ 65.00	\$ 975.00
3 Demolish and remove shop	1	LS	\$ 2,000.00	\$ 2,000.00
4 Remove concrete footings for office	8	CY	\$ 65.00	\$ 520.00
5 Remove concrete base for scale	10	CY	\$ 65.00	\$ 650.00
6 Scarify ground	11	Acres	\$ 150.00	\$ 1,650.00
7 Spread 12" topsoil	17,743	CY	\$ 0.75	\$ 13,307.25
8 Seed and Mulch	11	Acres	\$ 900.00	\$ 9,900.00
9 Remove Conveyor Belt & Reclaim	1	LS	\$ 15,000.00	\$ 15,000.00
			Subtotal	\$ 44,752.25
C. Settling Pond and Perimeter Seeding, including Amended Area & shoreline				
1 Seed (all perimeters including 30 foot buffer and amended area)	37.00	Acres	\$ 900.00	\$ 33,300.00
			Subtotal	\$ 33,300.00
D. Slurry Wall @ 100% Installation Cost (\$5 per SF) per DMG Bonding Requirement. Assume 5086 LF * 40 average depth (including 3' key into bedrock)				
Cell 5 Only (Cell 2, 3 & 4 are all approved slurry walls)	203,440	SF	\$ 4.70	\$ 956,168.00
			Subtotal	\$ 956,168.00
E. Rundown Spillways				
Cells 3, 4, and two spillways at Cell 5 (includes haul, placemnet and type II bedding)	5,058	TONS	\$ 65.00	\$ 328,770.00
			Subtotal	\$ 328,770.00
Total Disturbance Costs				\$ 1,277,220.25
Contractor Mobilization (8%)				\$ 102,177.62
Overhead (18.5%)				\$ 236,285.75
Administration (5%)				\$ 80,784.18
Total Disturbance Costs				\$ 1,605,990.25
Indirect Costs				
Overhead & Profit				
Performance Bond (2.02%) - Based on DRMS estimate				\$ 32,441.00
Performance Bond (3.07%) - Based on DRMS estimate				\$ 16,862.90
Job Superintendent (240 hours @ \$75/hr) - Based on DRMS estimate				\$ 18,000.00
Contractor Mob and DeMob (3%) - Based on DRMS estimate				\$ 48,179.71
Contractor Overhead and Profit (10%) - Based on DRMS estimate				\$ 160,599.03
			Subtotal	\$ 276,082.63
Contract Amount (direct + O & P)				\$ 1,882,072.88
Legal, Engineering & Project Management				
Financial warranty processing (legal/related costs) (\$500)				\$ 500.00
Engineering Work and/or contract/bid preparation (4.25%)				\$ 79,988.10
Reclamation management and/or administration (5%) - Based on DRMS estimate				\$ 94,103.64
Contingency (3%)				\$ 48,179.71
			Subtotal	\$ 222,771.45
Total Indirect Costs				\$ 498,854.08
Total Bond Amount				\$ 2,104,844.33

EXHIBIT R - PROOF OF DELIVERY CLERK

STRUCTURE OWNER NOTIFICATIONS AND SIGNED STRUCTURE AGREEMENTS

Bernhardt Gravel Mine Structure Table

Map Number	Structures	Delivered Structure Agreement	Signed
1	VARIOUS BUILDINGS OWNED BY LAND OWNER (BERNHARDT FARMS)		(Property Owner/Pending Delivery)
2	OVERHEAD POWER (PUBLIC SERVICE OF COLORADO)	Y	Y
3	GAS LINES/FACILITY (PDC WELLS, NOBLE WELLS & DCP GASLINES)	Y	Y (all gas companies signed)
4	BUILDINGS (TOWN OF MILLIKEN PROPERTIES)	Y	N
5	GASLINE/FACILITY (BERNHARDT DELBERT LSR TRUST)	Y	Y
6	IRRIGATION DITCH/HILLSBOROUGH DITCH (LITTLE WALKER PROPERTIES OF COLORADO)	Y	N
7	IRRIGATION DITCH/HILLSBOROUGH DITCH (BERNHARDT DELBERT LSR TRUST)	Y	Y
8	HOUSE/BUILDING (STEVEN & KAREN KIELAN)	Y	Y
9	IRRIGATION DITCH/HILLSBOROUGH DITCH (JOHN & SHARON KIELAN)	Y	N
	WCR 25 & ROW (WELD COUNTY PUBLIC WORKS)		
10	WCR 48 & ROW (WELD COUNTY PUBLIC WORKS)	Y	N
	WCR 23 & ROW (WELD COUNTY PUBLIC WORKS)		
11	HOUSE/BUILDING (JERRID KERN & BROOKE WAGNER)	Y	N
12	HILLSBOROUGH DITCH	Y (via email confirmation)	N

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:

Wagner & Keen
23081 WCR 23
Milliken Co 80543 9437



9590 9402 1875 6104 1241 79

2. Article Number (Transfer from service label)

013 2250 0000 7021 4291

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

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X ☐ Agent
☒ Addressee

B. Received by (Printed Name)

Brooke Keen

C. Date of Delivery

8-12-19

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
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

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:

Public Service Company
c/o Richard Grady
1123 W 3rd Ave
Denver Co 80223



9590 9402 1875 6104 1241 93

2. Article Number (Transfer from service label)

013 2250 0000 7021 4277

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

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X ☐ Agent
☒ Addressee

B. Received by (Printed Name)

Robert E. Blum

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
- ☐ Insured Mail Restricted Delivery (over \$500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">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.		<ul style="list-style-type: none">A. Signature X <i>Aurelia Islas</i> <input type="checkbox"/> Agent <input type="checkbox"/> AddresseeB. Received by (Printed Name) <i>Aurelia Islas</i> C. Date of Delivery <i>8-8-19</i>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No	
1. Article Addressed to: <i>DCP</i> <i>clo Ivan Ansel</i> <i>3026 4th Ave</i> <i>Greeley Co 80631</i>		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
2. Article Number (Transfer from service label) 7013 2250 0000 7021 4246		Barcode 9590 9402 1875 6104 1242 23	
PS Form 3811, July 2015 PSN 7530-02-000-9053		Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">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.		<ul style="list-style-type: none">A. Signature X <i>John Kielan</i> <input type="checkbox"/> Agent <input type="checkbox"/> AddresseeB. Received by (Printed Name) C. Date of DeliveryD. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No	
1. Article Addressed to: <i>John & Shaen Kielan</i> <i>23064 WCR 21 3/4</i> <i>Milliken Co 805438206</i>		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
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SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">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.		<ul style="list-style-type: none">A. Signature X <i>Patricia Bernhardt</i> <input type="checkbox"/> Agent <input type="checkbox"/> AddresseeB. Received by (Printed Name) <i>Patricia Bernhardt</i> C. Date of Delivery <i>8/12/19</i>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No	
1. Article Addressed to: <i>Bernhardt Delbert LSR Trust</i> <i>11269 State Highway 60</i> <i>Milliken Co 80543-9311</i>		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
2. Article Number (Transfer from service label) 113 2250 0000 7021 4239		Barcode 9590 9402 1875 6104 1242 30	
PS Form 3811, July 2015 PSN 7530-02-000-9053		Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">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.		<ul style="list-style-type: none">A. Signature X <i>Karen Kielan</i> <input type="checkbox"/> Agent <input checked="" type="checkbox"/> AddresseeB. Received by (Printed Name) <i>Karen Kielan</i> C. Date of Delivery <i>8/9</i>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No	
1. Article Addressed to: <i>Steve & Karen Kielan</i> <i>23085 WCR 23</i> <i>Milliken Co 805439437</i>		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
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PS Form 3811, July 2015 PSN 7530-02-000-9053		Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">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.		<ul style="list-style-type: none">A. Signature X <i>Dan Norton</i> <input type="checkbox"/> Agent <input type="checkbox"/> AddresseeB. Received by (Printed Name) <i>Dan Norton</i> C. Date of Delivery <i>8-5-19</i>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No	
1. Article Addressed to: <i>Noble Energy</i> <i>1625 Broadway</i> <i>Ste 2200</i> <i>Denver Co 80202</i>		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
2. Article Number (Transfer from service label) 13 2250 0000 7021 4314		Barcode 9590 9402 1875 6104 1241 55	
PS Form 3811, July 2015 PSN 7530-02-000-9053		Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">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.		<ul style="list-style-type: none">A. Signature X <i>Jessica Conley</i> <input type="checkbox"/> Agent <input type="checkbox"/> AddresseeB. Received by (Printed Name) <i>Jessica Conley</i> C. Date of Delivery <i>8/9/19</i>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No	
1. Article Addressed to: <i>Weld County Public Works</i> <i>Po Box 758</i> <i>Greeley Co 80632</i>		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
2. Article Number (Transfer from service label) 13 2250 0000 7021 4284		Barcode 9590 9402 1875 6104 1241 86	
PS Form 3811, July 2015 PSN 7530-02-000-9053		Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">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.		<ul style="list-style-type: none">A. Signature X <i>Ty Stewart</i> <input type="checkbox"/> Agent <input checked="" type="checkbox"/> AddresseeB. Received by (Printed Name) <i>Ty Stewart</i> C. Date of DeliveryD. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No	
1. Article Addressed to: <i>Town of Milliken</i> <i>1101 Broad St.</i> <i>Milliken Co 80543</i>		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
2. Article Number (Transfer from service label) 13 2250 0000 7021 4321		Barcode 9590 9402 1875 6104 1241 48	
PS Form 3811, July 2015 PSN 7530-02-000-9053		Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">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.		<ul style="list-style-type: none">A. Signature X <i>D. Milliken</i> <input type="checkbox"/> Agent <input type="checkbox"/> AddresseeB. Received by (Printed Name) C. Date of Delivery <i>8/9/19</i>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No	
1. Article Addressed to: <i>PDC</i> <i>1775 Sheerman St.</i> <i>Ste 3000</i> <i>Denver Co 80203</i>		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
2. Article Number (Transfer from service label) 13 2250 0000 7021 4307		Barcode 9590 9402 1875 6104 1241 62	
PS Form 3811, July 2015 PSN 7530-02-000-9053		Domestic Return Receipt	

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">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.		<ul style="list-style-type: none">A. Signature X <i>Little Walker Properties</i> <input type="checkbox"/> Agent <input type="checkbox"/> AddresseeB. Received by (Printed Name) <i>Little Walker Properties</i> C. Date of DeliveryD. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No	
1. Article Addressed to: <i>Little Walker Properties</i> <i>Po Box 2349</i> <i>Gillette WY 82717-2349</i>		3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
2. Article Number (Transfer from service label) 13 2250 0000 7021 4321		Barcode 9590 9402 1875 6104 1241 31	
PS Form 3811, July 2015 PSN 7530-02-000-9053		Domestic Return Receipt	

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:

Structure Owner DCP Operating Company Name Lewis A. Hagenlock

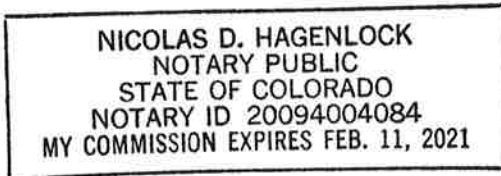
Date Aug. 12, 2019 Title Attorney In Fact

STATE OF Colorado)
) ss.

COUNTY OF Weld)

The foregoing was acknowledged before me this 12th day of August, 2019, by
Lewis D. Hagenlock as Attorney In Fact of DCP Operating Company, LP.

Nicolas D. Hagenlock My Commission Expires: 2/11/2021
Notary Public



NOTARY FOR STRUCTURE OWNER

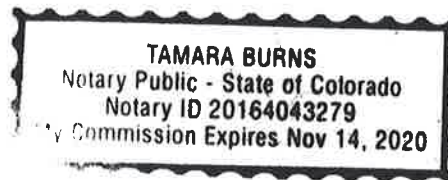
ACKNOWLEDGED BY:

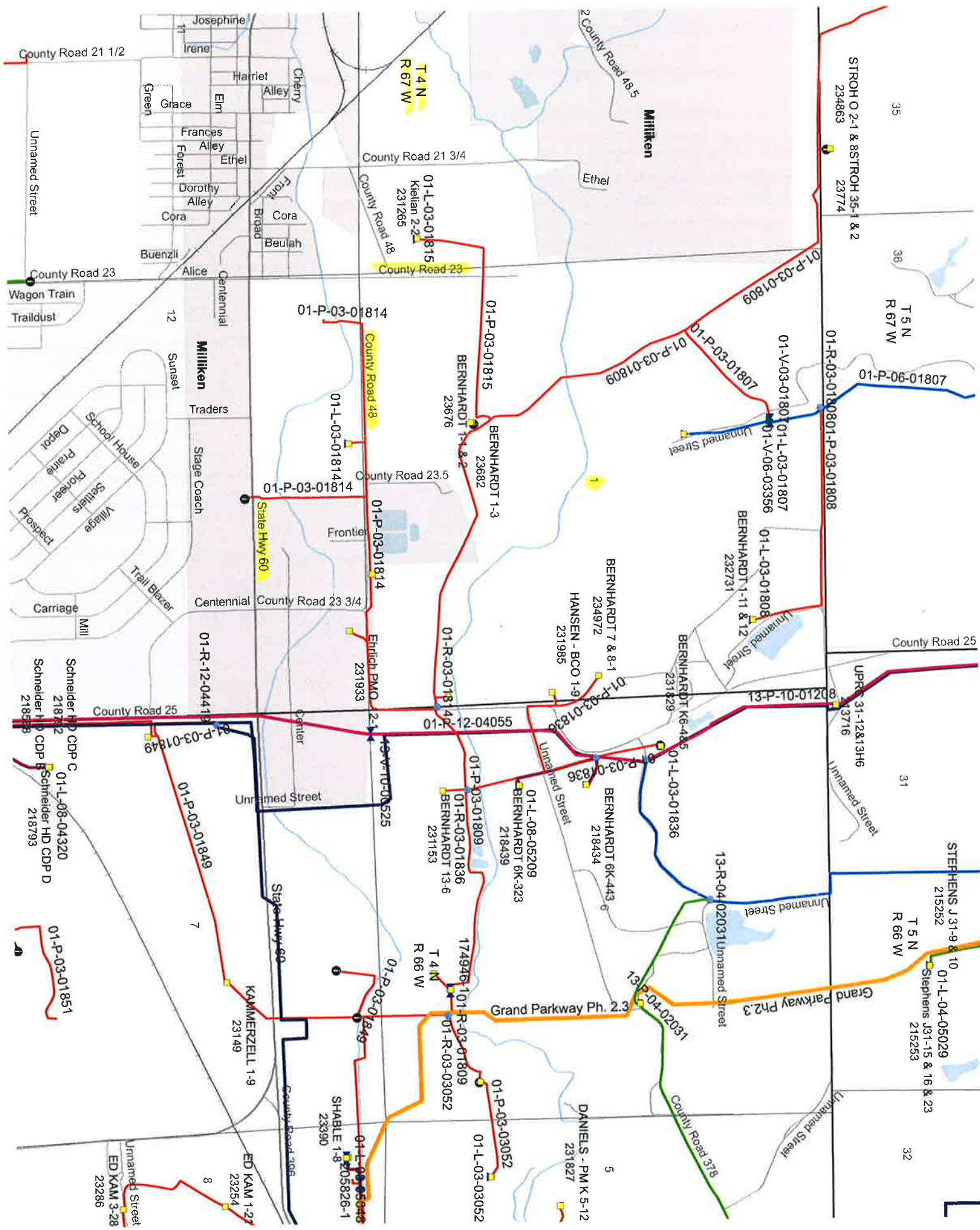
Structure Owner Bernhardt Delbert LSR Name Patricia A. Bernhardt
TRUST
Date 8/21/2019 Title Trustee

STATE OF Colorado)
) ss.
COUNTY OF Weld)

The foregoing was acknowledged before me this 21st day of August, 2019, by
Patricia Bernhardt as Trustee of Bernhardt Delbert LSR Trust

Tamara Burns My Commission Expires: 11.14.20
Notary Public





NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:

Structure Owner Noble Energy, Inc. Name Casey M. Kimble TB
Date 8/19/19 Title Casey M. Kimble
Attorney-In-Fact [Signature]

STATE OF Colorado)
) ss.
COUNTY OF Denver)

The foregoing was acknowledged before me this 19 day of August, 2019, by
Casey M. Kimble as Attorney-In-Fact of Noble Energy, Inc.

Keri J. Miller My Commission Expires: July 11, 2023
Notary Public

KERI J MILLER
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20114042855
MY COMMISSION EXPIRES JULY 11, 2023

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:

Structure Owner

Name

Date

Title

STATE OF

COUNTY OF

) ss.

The foregoing was acknowledged before me this

day of

September, 2019, by

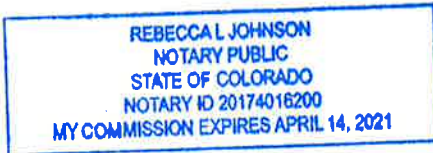
as

Field Land Team Lead of

PDC Energy Inc.

Notary Public

My Commission Expires:



NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:

Structure Owner Public Service Co. of Co. Name Richard J. Grady
Richard J. Grady

Date 8/29/19 Title Manager, Siting and Land Rights,
Right of Way & Permits Department
Public Service Company of Colorado

STATE OF Colorado)
) ss.

COUNTY OF Denver)

The foregoing was acknowledged before me this 29TH day of August, 2019, by
Richard J. Grady as Authorized Agent of Public Service Company of Colorado.

Robert E. Blu, II My Commission Expires: April 22, 2022
Notary Public

ROBERT E. BLU, II
Notary Public
State of Colorado
Notary ID # 20104014057
My Commission Expires 04-22-2022

Andy Rodriguez

From: Margaret Vetter <mlvetter@msn.com>
Sent: Tuesday, August 27, 2019 6:01 AM
To: Andy Rodriguez
Subject: Re: bernhardt mine

Hi Andy,

Yes, I received your e-mail. The contact person is Dean Binder, President of the Extension Irrigation Company. The Cons. Hillsborough is the source of the water going down there but the carrying ditch is the Extension Irrigation.

I did forward the information to him.

Margaret L. Vetter, Sec.
Cons. Hillsborough Ditch Co.
612 Charlotte Street
Johnstown, CO 80534

From: Andy Rodriguez <andy@civilresources.com>
Sent: Monday, August 26, 2019 4:20 PM
To: sauer@skybeam.com <sauer@skybeam.com>; mlvetter@msn.com <mlvetter@msn.com>
Subject: bernhardt mine

Abe and Margaret,

I tried to send a copy of the documents I attached to this email via certified mail but I believe I had an old mailing address for the Hillsborough Ditch. I got your contact info from Jean Lever at the State so I could pass on these documents.

This is in reference to the Bernhardt mine and a requirement from the Division of Mine Reclamation and Safety as the miner is required to submit an amendment to the Bernhardt Mine as they placed a conveyor belt outside of the original mine permit boundary. As a results they are required to revisit the slope stability and structure agreements. I am required to mail or email a copy of the attached info to the structure owners within 200 feet of the mine.

If you guys don't mind could you verify that you received this by replying back to me via email, you are not required to sign anything unless you want to, this is a letter stating the miner will take responsibility if there is damage to the ditch as a result of the mine slopes failing. There will be no changes to the current mining plan and the area will look much the same as it does now.

Any questions please call or email me.

Andy Rodriguez, P.E.
andy@civilresources.com
303 909 0776 (c)
303 833 1416x202 (o)

SPILLWAY DESIGN MEMO

TECHNICAL MEMORANDUM

Bernhardt Spillway Design

TO: DRMS
Bernhardt Gravel Mine Adequacy Review Comments 2

FROM: Civil Resources, LLC

DATE: September 13, 2019

RE: Spillway Design

This memorandum discusses the proposed spillway designs at the Bernhardt Gravel Mine. Reservoirs 2 and 3 have been fully mined out and Reservoir 4 is being mined to date. Reservoir 5 is still very similar to existing/historic conditions. Using floodplain mapping from the Flood Insurance Rate Map indicates that all of the reservoirs associated with the project will be fully submerged during the 100-year flood conditions except Reservoir 2 and the model clearly showed a significant drop across the water surface from west to east through the Site with a less pronounced water surface drop during lesser storms. Subsequently, the inflow spillways proposed were primarily placed near the upstream ends of each facility. The capacity for each spillway is discussed below. The inflow spillways will be protected with riprap in order to deliver flood water in a controlled manner into the respective reservoirs.

- A typical 100-year storm in the Front Range is 3-inches of rainfall per hour. During a storm event the major contributing factors to runoff are travel time, location of the storm and ground cover conditions. For example during the 2013 flood that lead to major flooding was caused by a strong orographic effect as the storm started in the foothills west of the site which resulted in longer travel times. The mountain area tributary to the Big Thompson River received approximately fifteen plus inches of rain over a week. As the flood wave propagated downstream flood water rose more slowly. Should a storm cell "sit" over the site the time to peak will be greater. As a result the site spillways were modeled considering a one-inch per hour rise in flood water and up to a six-inch per hour rise in flood water. The results are presented under each reservoir discussion below, calculation tables are also attached to this memo with a drawing of a typical section. The spillway equation: $Q=CLH^{1.5}$ was used to determine the flow rate over the spillway.

Reservoir 3: 100 percent of Reservoir 3 is within the 100-year floodplain. The following information was considered in designing the spillways and erosion protection:

- A historic drain area exists in the northwest corner of Reservoir 3 as this will direct flows towards the reservoir until fully inundated. The perimeter is relatively consistent in elevation and water will recede through the inflow spillway. The spillway will be set one-foot lower than the existing grade at that point of the reservoir.
- The reservoir is 388 acre-feet in volume and the spillway has 565 cubic feet per second (cfs) capacity at 1 foot of overtopping depth. Each spillway was designed to be able to fill the reservoir so the banks are less susceptible to major washouts. A one-inch per hour rise in flood water would fill the reservoir in under 3 hours, where-as a six inches per hour rise would fill the reservoir in one hour. This is adequate to protect the non-reinforced banks from severe erosion as the reservoir would be full by the time the banks would overtop and potentially erode.

Reservoir 4: 100 percent of Reservoir 4 is within the 100-year floodplain. The following information was considered in designing the spillways and erosion protection:

- A side overflow spillway was placed on the north side of Reservoir 4 adjacent to the river. This spillway will allow water to flow into and out of the reservoir as the invert elevation will be set one-foot lower than the existing grade at that point of the reservoir which is a minimum of one foot below the base flood elevation.
- The reservoir is 299 acre-feet in volume and the spillway has 413 cubic feet per second (cfs) capacity at 1 foot of overtopping depth. Each spillway was designed to be able to fill the reservoir so the banks are less susceptible to major washouts. A one-inch per hour rise in flood water would fill the reservoir in approximately 3.5 hours, where-as a six inches per hour rise would fill the reservoir in two and a half hours. This is adequate to protect the non-reinforced banks from severe erosion as the reservoir would be full by the time the banks would overtop and potentially erode.

Reservoir 5: 100 percent of Reservoir 5 is within the 100-year floodplain. The following information was considered in designing the spillways and erosion protection:

- A side overflow spillway was placed on the west side of Reservoir 5 adjacent to the river. This spillway will allow water to flow into the reservoir. An alternate spillway will also be placed at the southeast end of the reservoir to allow for water to enter and exit the spillway as this reservoir is long in length from west to east. Water will also enter this spillway which will allow for a quicker fill time and greater equalization of flood waters through the reservoir. Both Spillways will be set one-foot lower than the existing grade at that point of the reservoir.
- The reservoir is 680 acre-feet in volume and the spillway has 600 cubic feet per second (cfs) capacity at 1 foot of overtopping depth. Each spillway was designed to be able to fill the reservoir so the banks are less susceptible to major washouts. A one-inch per hour rise in flood water would fill the reservoir in approximately 4.5 hours, where-as a six inches per hour rise would fill the reservoir in under two hours. This is adequate to protect the non-reinforced banks from severe erosion as the reservoir would be full by the time the banks would overtop and potentially erode.

Conclusion

The analysis was completed based on general hydraulic characteristics of the Big Thompson as a flooding source. The pattern of storms is largely unpredictable and therefore the recommended improvements cannot guarantee that the facilities will not be damaged during large-scale storm events.

Reservoir 3
Volume 388 ac-ft

	Fill Time (1" per hour)	Fill Time (2" per hour)	Fill Time (3" per hour)	Fill Time (6" per hour)								
	(hrs)	(hrs)	(hrs)	(hrs)								
0	0	0	0	0								
1	27	76	140	396								
2	103	293	396	1,517								
3	243	690	728	3,576								
4	459	1,302	1,121	6,745								
5	760	2,157	1,566	11,175								
	C	L										
		(ft)										
	2.5	226										
hr	H-1"	H-2"	H-3"	H-6"	Q-1"	Q-1"	Q-2"	Q-2"	Q-3"	Q-3"	Q-6"	Q-6"
	(ft)	(ft)	(ft)	(ft)	(cfs)	(ac-ft)	(cfs)	(ac-ft)	(cfs)	(ac-ft)	(cfs)	(ac-ft)
0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0
1	0.1	0.2	0.3	0.5	14	27	39	76	71	140	200	396
2	0.2	0.3	0.5	1.0	38	76	109	216	200	396	565	1,121
3	0.2	0.5	0.8	1.5	71	140	200	397	367	728	1,038	2,059
4	0.3	0.7	1.0	2.0	109	216	308	612	565	1,121	1,598	3,170
5	0.4	0.8	1.3	2.5	152	301	431	855	790	1,566	2,233	4,430
6	0.5	1.0	1.5	3.0	200	396	567	1,124	1,038	2,059	2,936	5,823
7	0.6	1.2	1.8	3.5	252	499	714	1,416	1,308	2,594	3,700	7,338
8	0.7	1.3	2.0	4.0	307	610	872	1,731	1,598	3,170	4,520	8,965
9	0.7	1.5	2.3	4.5	367	727	1,041	2,065	1,907	3,782	5,393	10,698
10	0.8	1.7	2.5	5.0	430	852	1,219	2,419	2,233	4,430	6,317	12,530
11	0.9	1.8	2.8	5.5	496	983	1,407	2,790	2,577	5,111	7,288	14,455
12	1.0	2.0	3.0	6.0	565	1,120	1,603	3,179	2,936	5,823	8,304	16,471
13	1.1	2.2	3.3	6.5	637	1,263	1,807	3,585	3,310	6,566	9,363	18,572
14	1.2	2.3	3.5	7.0	712	1,411	2,020	4,006	3,700	7,338	10,464	20,755
15	1.2	2.5	3.8	7.5	789	1,565	2,240	4,443	4,103	8,138	11,605	23,018
16	1.3	2.7	4.0	8.0	869	1,724	2,468	4,895	4,520	8,965	12,784	25,358
17	1.4	2.8	4.3	8.5	952	1,889	2,703	5,361	4,950	9,819	14,002	27,772
18	1.5	3.0	4.5	9.0	1,037	2,058	2,945	5,841	5,393	10,698	15,255	30,258

Reservoir 4
Volume 299 ac-ft

	Fill Time (1" per hour)	Fill Time (2" per hour)	Fill Time (3" per hour)	Fill Time (6" per hour)								
	(hrs)	(hrs)	(hrs)	(hrs)								
0	0	0	0	0								
1	20	56	102	289								
2	75	214	289	1,107								
3	178	504	531	2,611								
4	335	951	818	4,925								
5	555	1,575	1,143	8,159								
	C	L										
	2.5	165										
hr	H-1"	H-2"	H-3"	H-6"	Q-1"	Q-1"	Q-2"	Q-2"	Q-3"	Q-3"	Q-6"	Q-6"
	(ft)	(ft)	(ft)	(ft)	(cfs)	(ac-ft)	(cfs)	(ac-ft)	(cfs)	(ac-ft)	(cfs)	(ac-ft)
0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0
1	0.1	0.2	0.3	0.5	10	20	28	56	52	102	146	289
2	0.2	0.3	0.5	1.0	28	56	80	158	146	289	413	818
3	0.2	0.5	0.8	1.5	52	102	146	290	268	531	758	1,503
4	0.3	0.7	1.0	2.0	79	157	225	447	413	818	1,167	2,314
5	0.4	0.8	1.3	2.5	111	220	315	624	576	1,143	1,631	3,234
6	0.5	1.0	1.5	3.0	146	289	414	821	758	1,503	2,143	4,251
7	0.6	1.2	1.8	3.5	184	364	521	1,034	955	1,894	2,701	5,357
8	0.7	1.3	2.0	4.0	224	445	637	1,263	1,167	2,314	3,300	6,546
9	0.7	1.5	2.3	4.5	268	531	760	1,508	1,392	2,761	3,938	7,810
10	0.8	1.7	2.5	5.0	314	622	890	1,766	1,631	3,234	4,612	9,148
11	0.9	1.8	2.8	5.5	362	718	1,027	2,037	1,881	3,731	5,321	10,554
12	1.0	2.0	3.0	6.0	412	818	1,170	2,321	2,143	4,251	6,062	12,025
13	1.1	2.2	3.3	6.5	465	922	1,320	2,617	2,417	4,794	6,836	13,559
14	1.2	2.3	3.5	7.0	519	1,030	1,475	2,925	2,701	5,357	7,640	15,153
15	1.2	2.5	3.8	7.5	576	1,143	1,635	3,244	2,996	5,942	8,473	16,805
16	1.3	2.7	4.0	8.0	635	1,259	1,802	3,574	3,300	6,546	9,334	18,514
17	1.4	2.8	4.3	8.5	695	1,379	1,973	3,914	3,614	7,169	10,222	20,276
18	1.5	3.0	4.5	9.0	757	1,502	2,150	4,264	3,938	7,810	11,138	22,091

Reservoir 5
Volume 680 ac-ft

	Fill Time (1" per hour)	Fill Time (2" per hour)	Fill Time (3" per hour)	Fill Time (6" per hour)								
	(hrs)	(hrs)	(hrs)	(hrs)								
0	0	0	0	0								
1	29	81	149	421								
2	110	311	421	1,611								
3	258	733	773	3,797								
4	487	1,383	1,190	7,163								
5	807	2,291	1,663	11,868								
	C	L										
		(ft)										
	2.5	240										
hr	H-1"	H-2"	H-3"	H-6"	Q-1"	Q-1"	Q-2"	Q-2"	Q-3"	Q-3"	Q-6"	Q-6"
	(ft)	(ft)	(ft)	(ft)	(cfs)	(ac-ft)	(cfs)	(ac-ft)	(cfs)	(ac-ft)	(cfs)	(ac-ft)
0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0
1	0.1	0.2	0.3	0.5	14	29	41	81	75	149	212	421
2	0.2	0.3	0.5	1.0	41	81	116	230	212	421	600	1,190
3	0.2	0.5	0.8	1.5	75	149	213	422	390	773	1,102	2,186
4	0.3	0.7	1.0	2.0	115	229	328	650	600	1,190	1,697	3,366
5	0.4	0.8	1.3	2.5	161	320	458	908	839	1,663	2,372	4,704
6	0.5	1.0	1.5	3.0	212	421	602	1,194	1,102	2,186	3,118	6,184
7	0.6	1.2	1.8	3.5	267	530	758	1,504	1,389	2,755	3,929	7,793
8	0.7	1.3	2.0	4.0	326	647	927	1,838	1,697	3,366	4,800	9,521
9	0.7	1.5	2.3	4.5	389	773	1,106	2,193	2,025	4,017	5,728	11,361
10	0.8	1.7	2.5	5.0	456	905	1,295	2,568	2,372	4,704	6,708	13,306
11	0.9	1.8	2.8	5.5	526	1,044	1,494	2,963	2,736	5,427	7,739	15,351
12	1.0	2.0	3.0	6.0	600	1,189	1,702	3,376	3,118	6,184	8,818	17,491
13	1.1	2.2	3.3	6.5	676	1,341	1,919	3,807	3,515	6,973	9,943	19,722
14	1.2	2.3	3.5	7.0	756	1,499	2,145	4,255	3,929	7,793	11,112	22,041
15	1.2	2.5	3.8	7.5	838	1,662	2,379	4,718	4,357	8,642	12,324	24,444
16	1.3	2.7	4.0	8.0	923	1,831	2,621	5,198	4,800	9,521	13,576	26,929
17	1.4	2.8	4.3	8.5	1,011	2,006	2,870	5,693	5,257	10,427	14,869	29,493
18	1.5	3.0	4.5	9.0	1,102	2,185	3,127	6,203	5,728	11,361	16,200	32,133

RECENT GROUNDWATER MONITORING

[illegible]