



STATE OF
COLORADO

Ebert - DNR, Jared <jared.ebert@state.co.us>

M & G Pit, M-1986-079, SO-03 Application

Andrew Blackford <ablackford@ceiconstructors.com>

Mon, Dec 4, 2017 at 4:25 PM

To: "jared.ebert@state.co.us" <jared.ebert@state.co.us>

Cc: Joe O'Dea <JODea@ceiconstructors.com>, Clay Carlson <ClayCarlson@carlsonland.net>, Environment-Inc <Environment-inc@outdrs.net>

Jared

I dropped the hard copy at your office this afternoon.

Andrew Blackford

Project Manager

T: 303.562.2000 x311

M: 303.472.4978

F: 303.893.1949

ablackford@ceiconstructors.com



We are an EEO Employer



12.4.17 Resubmitted Documents.pdf

6069K

MANN LAKE HOLDINGS, LLC.

2027 West Colfax Ave
Denver, CO 80204
(303) 562-2000
(303) 893-1949 fax

December 4, 2017

Jared Ebert
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80204
jared.ebert@state.co.us

RE: M & G Pit, M-1986-079, Succession of Operators/Permit Transfer Application (SO03)
Notice of Incomplete Application No. 2.

Dear Mr. Ebert,

On October 11, 2017 Mann Lake Holdings, LLC received your letter requesting documentation for the Legal Right to Enter and the Structure Agreement(s) for the transfer of Permit M-1986-079; please find the attached documents.

Item No. 3 – Documentation of Legal Right to Enter

Item No. 4 – Structure Agreement(s)

- Mann Lake Holdings, LLC has included the Structure Agreement(s) that it has received to date.
- Mann Lake Holdings, LLC in collaboration with Steve O'Brian of Environment, Inc. has prepared an Engineering Analysis (EA) outlining how structures will not be disturbed with the mine reclamation operations.

If you have any further documentation as related to these changes, please contact me at 303-472-4978 or via email ablackford@ceiconstructors.com.

Regards,



Andrew P. Blackford
Project Manager

Attachments

Cc: Joseph M. O'Dea, Mann Lake Holdings, LLC
Clay Carlson, Carlson
Steve O'Brian, Environment, Inc.



12460 1st Street
P.O. Box 247
Eastlake, Colorado 80614-0247
Office: 303-457-2966
Fax: 303-280-2978

November 30, 2017

Jared Ebert
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80204

Via e-mail: jared.ebert@state.co.us

RE: M & G Pit, M-1986-079, Succession of Operators/Permit Transfer Application (SO03)
Notice of Incomplete Application No. 2.

Dear Mr. Ebert,

On October 11, 2017 Mann Lake Holdings, LLC received your letter requesting documentation for the Legal Right to Enter for the transfer of Permit M-1986-079.

This letter authorizes Mann Lake Holdings, LLC the legal right to enter the permitted area owned by Parkfield Partners LLC and Old Brighton Road LLC to reclaim the property in accordance with the Permit M-1986-079.

Regards,



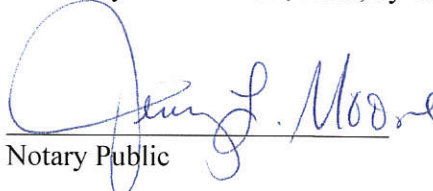
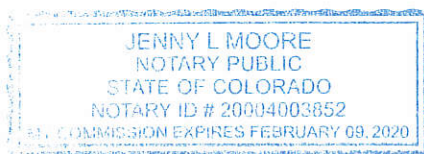
Clay Carlson
Manager

cc: Joseph M. O'Dea, Mann Lake Holdings, LLC
Steve O'Brian, Environment, Inc.

State of Colorado)
)ss.
County of Adams)

The foregoing instrument was acknowledged before me this 4th day of December, 2017, by Clay Carlson as Manager.

My Commission Expires: 02/09/2020



Notary Public

Mann Lake Holding LLC, believes no off site structures will be affected by the reclamation left to be completed at this facility and agrees to not excavate within 200 feet of any structures from this time forward until structure agreements are obtained or a Geotechnical study is completed and approved.

Analysis

All mining operations have ended on this mine and reclamation is nearly complete. No excavation will take place at the mine as it is now actively being reclaimed. The old gravel pit lake on the site is currently being backfilled with clean fill dirt as approved in the reclamation plan. This is allowed in the zone district (Agriculture) and the activity is approved in Adams County under a Conditional Use Permit issued in 2013.

Backfilling operations associated with the site takes place on the surface of the backfilled area that lays from 3 feet above to 10 feet below the surrounding structures. On the areas that are lower then surrounding structures, the slope down from the mining setback is stable and graded 2h to 1v or flatter and reclaimed. In most areas the backfilling activities are more then 200 feet from any structure.

All existing above water slopes were graded 2H to 1V or less except on the fill face and have been stable for at least 10 years. Except where backfilling is taking place the under water slopes are 3h:1v or less. The south perimeter slope is the highest above the filling area and has been graded and revegetated since the 1990's. The closest structure to the most active area is the fence that surrounds the permit area.

The closest point backfilling could take place is in the northwest corner near the stormwater outlet. On the north side, the top of the bank into the lake is approximately 20 feet from the fence and the west side is approximately 45 feet from the fence. The lake surface is 4 feet below the ground surface. The slope from the surface to the waters' edge is approximately 3:1 and is stable. The depth of the lake in this area is approximately 2 feet.

The perimeter of the old lake where backfilling is taking place varies from approximately 225 feet to 740 feet from the fence line. Backfilling is done by piling imported dirt along the edges of the lake and using a loader to push it into the lake. The deepest part of the lake is due east of the main entrance and is approximately 10 feet at this time and ground surface where the lake is the deepest is 4 feet above the water so this means they are filling a 14-foot hole. As the dirt is pushed into the

lake it tends to fan out so the underwater slope is 5:1 or less

In the worst case scenario where the 14 foot tall backfill highwall failed and sloughed off at rate of 5:1 the slope failure would still be 157 feet from the closest structure and the safety factor is 3.24:1. This shows, that should any backfill slope fail, the impacts would not affect the closest structure and therefore cannot affect structures outside the limits of the backfilling area.

Calculations

In the past, Mr. Alan Sorenson reviewed Slope Stability Report prepared for the mine in Colorado and he suggested a simple methodology using the angles of the slopes in question to determine the Safety Factors.

The material in use to backfill is an unconsolidated dirt that has a fairly fine structure. This, along with the lower part of the fill being in water, suggests that the potential to sough off to a shallower rate than sand and gravel prompted using a friction angle (Φ) of 11.31° (5:1). Since backfilling began there have been no observations of bank sloughing on the back filled area. The closest point the fenceline is to the backfill face is 227 feet and the slope angle from the toe of the slope to the fence is 3.53° (θ)

Using this information the safety factors for the slope was calculated using the 11.31° as the friction angle. The Safety Factor is calculated using the formula $FS = \frac{\tan\Phi}{\tan\theta}$, where θ is the slope angle from the toe of the slope to the closest structure (permit line).

SLOPE EVALUATED	CALCULATED SLOPE ANGLE	FACTOR OF SAFETY FOR NATURAL SLOPE ANGLE $\Phi=11.31^\circ$
PROPOSED FILLING SLOPE (½:1)	63.5°	0.1
SLOPE FROM TOE TO CLOSEST STRUCTURE	$3.53^\circ(1)$	3.24

⁽¹⁾ 3.25° angle is calculated using 14 feet slope height and 227 feet horizontal distance from the toe of the fill face to the permit line .

PERMITTEE/STRUCTURE OWNER AGREEMENT
M&G Pit Permit # M-1985-079

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.

Mann Lake Holdings LLC. believes Fulton Irrigating Ditch, CO shall own the following structure(s), located within 200 feet of the permitted mining area SE Corner Fence

Mann Lake Holdings 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. Mann Lake Holdings certifies this agreement as follows:

CERTIFICATION: The Applicant Mann Lake Holdings LLC represented by Joseph M. O'Dea, as the Manager does hereby certify that Fulton Irrigating Ditch, CO 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 M&G Pit.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY:

Permit Applicant: Mann Lake Holdings LLC, 2027 W. Colfax Avenue, Denver CO 80204

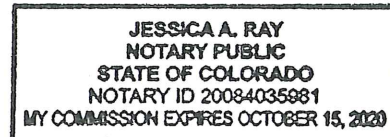
Representative: Joseph M. O'Dea, Manager, 303.562.2000

Signature: [Signature] Date: 10/16/17

STATE OF Colorado)

) ss

COUNTY OF Denver)



The foregoing was acknowledged before me this 16th day of October, 2017, by Joseph M. O'Dea as the Manager of Mann Lake Holdings, LLC.

Notary Public: [Signature] My Commission Expires: October 15, 2020

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:

Structure Owner(s): Fulton Irrigating Ditch Contact name (print): Brice Steele, Sec

Signature: [Signature] Date: 10-16-17

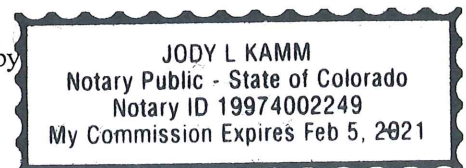
STATE OF Colorado)

) ss

COUNTY OF Adams)

The foregoing was acknowledged before me this 16th day of Oct., 2017, by

Brice Steele



Notary Public: [Signature] My Commission Expires: 2-5-2021

PERMITTEE/STRUCTURE OWNER AGREEMENT
M&G Pit Permit # M-1985-079

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.

Mann Lake Holdings LLC. believes James Sweetman Family Partnership, RLLLP shall own the following structure(s), located within 200 feet of the permitted mining area Fence, Residence, Out Buildings

Mann Lake Holdings 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. Mann Lake Holdings certifies this agreement as follows:

CERTIFICATION: The Applicant Mann Lake Holdings LLC represented by Joseph M. O'Dea, as the Manager does hereby certify that James Sweetman Family Partnership, RLLLP 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 M&G Pit.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY:

Permit Applicant: Mann Lake Holdings LLC, 2027 W. Colfax Avenue, Denver CO 80204

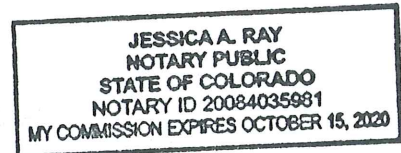
Representative: Joseph M. O'Dea, Manager, 303.562.2000

Signature: [Signature] Date: 10/16/2017

STATE OF Colorado)

) ss

COUNTY OF Denver)



The foregoing was acknowledged before me this 16th day of October, 2017, by Joseph M. O'Dea as the Manager of Mann Lake Holdings, LLC.

Notary Public: [Signature] My Commission Expires: October 15, 2020

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:

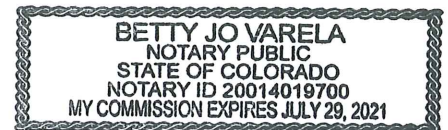
Structure Owner(s): James Sweetman Family Partnership RLLP Contact name (print): Cathy Heydorn

Signature: [Signature] Date: 10-11-17

STATE OF Colorado)

) ss

COUNTY OF Adams)



The foregoing was acknowledged before me this 11th day of October, 2017, by

Cathy Heydorn

Notary Public: [Signature] My Commission Expires: 7-29-21

PERMITTEE/STRUCTURE OWNER AGREEMENT
M&G Pit Permit # M-1985-079

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.

Mann Lake Holdings LLC. believes Parkfield Partners, LLC shall own the following structure(s), located within 200 feet of the permitted mining area Fence

Mann Lake Holdings 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. Mann Lake Holdings certifies this agreement as follows:

CERTIFICATION: The Applicant Mann Lake Holdings LLC represented by Joseph M. O'Dea, as the Manager does hereby certify that Parkfield Partners, 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 M&G Pit.

NOTARY FOR PERMIT APPLICANT

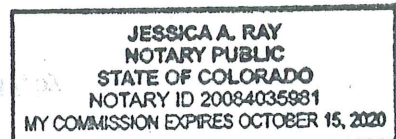
ACKNOWLEDGED BY:

Permit Applicant: Mann Lake Holdings LLC, 2027 W. Colfax Avenue, Denver CO 80204

Representative: Joseph M. O'Dea, Manager, 303.562.2000

Signature: [Signature] Date: 10/6/2017

STATE OF Colorado)
) ss
COUNTY OF Denver)



The foregoing was acknowledged before me this 6th day of October, 2017, by Joseph M. O'Dea as the Manager of Mann Lake Holdings, LLC.

Notary Public: [Signature] My Commission Expires: October 15, 2020

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:

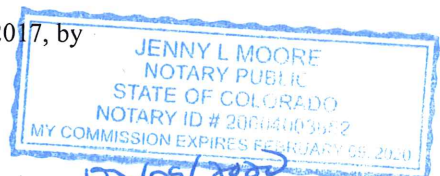
Structure Owner(s): Parkfield Partners LLC Contact name (print): Kent D Carlson

Signature: [Signature] Date: 10-11-17

STATE OF Colorado)
) ss
COUNTY OF Adams)

The foregoing was acknowledged before me this 11th day of Oct, 2017, by

Kent D Carlson



Notary Public: [Signature] My Commission Expires: 02/06/2020

RECEIVED OCT 30 2017

PERMITTEE/STRUCTURE OWNER AGREEMENT
M&G Pit Permit # M-1985-079

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.

Mann Lake Holdings LLC. believes South Adams County Water & Sanitation District shall own the following structure(s), located within 200 feet of the permitted mining area Fence, Waterline and Appurtenances.

Mann Lake Holdings 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. Mann Lake Holdings certifies this agreement as follows:

CERTIFICATION: The Applicant Mann Lake Holdings LLC represented by Joseph M. O'Dea, as the Manager does hereby certify that South Adams County Water & Sanitation District 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 M&G Pit.

NOTARY FOR PERMIT APPLICANT

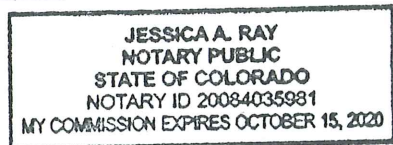
ACKNOWLEDGED BY:

Permit Applicant: Mann Lake Holdings LLC, 2027 W. Colfax Avenue, Denver CO 80204

Representative: Joseph M. O'Dea, Manager, 303.562.2000

Signature: [Signature] Date: 10/6/2017

STATE OF Colorado)
) ss
COUNTY OF Denver)



The foregoing was acknowledged before me this 6th day of October, 2017, by Joseph M. O'Dea as the Manager of Mann Lake Holdings, LLC.

Notary Public: [Signature] My Commission Expires: October 15, 2020

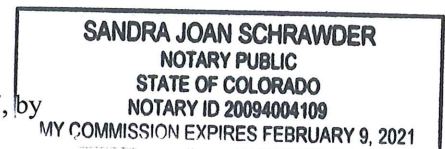
NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:

Structure Owner(s): So. Adams Cty Water Dist Contact name (print): Jim Jones

Signature: [Signature] Date: 10-27-17

STATE OF Colorado)
) ss
COUNTY OF Adams)



The foregoing was acknowledged before me this 27th day of October, 2017, by Jim Jones.

Notary Public: [Signature] My Commission Expires: 2/9/2021

RECEIVED OCT 26 2017

PERMITTEE/STRUCTURE OWNER AGREEMENT
M&G Pit Permit # M-1985-079

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.

Mann Lake Holdings LLC. believes United Power shall own the following structure(s), located within 200 feet of the permitted mining area Underground Electric, Overhead Power Electric Boxes.

Mann Lake Holdings 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. Mann Lake Holdings certifies this agreement as follows:

CERTIFICATION: The Applicant Mann Lake Holdings LLC represented by Joseph M. O'Dea, as the Manager does hereby certify that United Power 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 M&G Pit.

NOTARY FOR PERMIT APPLICANT

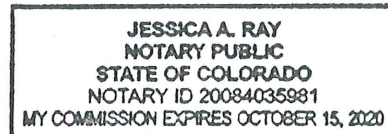
ACKNOWLEDGED BY:

Permit Applicant: Mann Lake Holdings LLC, 2027 W. Colfax Avenue, Denver CO 80204

Representative: Joseph M. O'Dea, Manager, 303.562.2000

Signature: [Signature] Date: 10/6/2017

STATE OF Colorado)
) ss
COUNTY OF Denver)



The foregoing was acknowledged before me this 6th day of October, 2017, by Joseph M. O'Dea as the Manager of Mann Lake Holdings, LLC.

Notary Public: Jessica A. Ray My Commission Expires: October 15, 2020

NOTARY FOR STRUCTURE OWNER

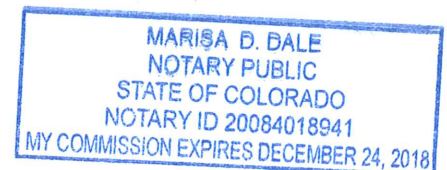
ACKNOWLEDGED BY:

Structure Owner(s): United Power, Inc. Contact name (print): Bryant Robbins

Signature: [Signature] Date: 10/24/17

STATE OF Colorado)
) ss
COUNTY OF Adams)

The foregoing was acknowledged before me this 24th day of October, 2017, by Bryant Robbins.



Notary Public: Marisa D. Dale My Commission Expires: December 24, 2018

RECEIVED NOV 07 2017

PERMITTEE/STRUCTURE OWNER AGREEMENT
M&G Pit Permit # M-1985-079

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.

Mann Lake Holdings LLC. believes Adams County shall own the following structure(s), located within 200 feet of the permitted mining area Traffic Lights.

Mann Lake Holdings 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. Mann Lake Holdings certifies this agreement as follows:

CERTIFICATION: The Applicant Mann Lake Holdings LLC represented by Joseph M. O'Dea, as the Manager does hereby certify that Adams County 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 M&G Pit.

NOTARY FOR PERMIT APPLICANT

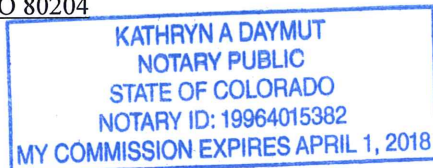
ACKNOWLEDGED BY:

Permit Applicant: Mann Lake Holdings LLC, 2027 W. Colfax Avenue, Denver CO 80204

Representative: Joseph M. O'Dea, Manager, 303.562.2000

Signature: [Signature] Date: 10/6/17

STATE OF Colorado)
) ss
COUNTY OF Denver)



The foregoing was acknowledged before me this 6th day of October, 2017, by Joseph M. O'Dea as the Manager of Mann Lake Holdings, LLC.

Notary Public: [Signature] My Commission Expires: 4-1-2018

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:

Structure Owner(s): Adams County Contact name (print): Ray Gonzales

Signature: [Signature] Date: _____

STATE OF Colorado)
) ss
COUNTY OF Adams)

The foregoing was acknowledged before me this 6th day of November, 2017, by

Ray Gonzales



Notary Public: [Signature] My Commission Expires: 2/27/21

SENT TO STRUCTURE OWNER VIA CERTIFIED MAIL # 7015 1520 0000 1587 7830

APPROVED AS TO FORM
COUNTY ATTORNEY

[Signature]

RECEIVED OCT 30 2017

PERMITTEE/STRUCTURE OWNER AGREEMENT
M&G Pit Permit # M-1985-079

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.

Mann Lake Holdings LLC. believes South Adams County Water and Sanitation District shall own the following structure(s), located within 200 feet of the permitted mining area Non-potable Water, Fence, Hydrants.

Mann Lake Holdings 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. Mann Lake Holdings certifies this agreement as follows:

CERTIFICATION: The Applicant Mann Lake Holdings LLC represented by Joseph M. O'Dea, as the Manager does hereby certify that South Adams County Water and Sanitation District 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 M&G Pit.

NOTARY FOR PERMIT APPLICANT

ACKNOWLEDGED BY:

Permit Applicant: Mann Lake Holdings LLC, 2027 W. Colfax Avenue, Denver CO 80204

Representative: Joseph M. O'Dea, Manager, 303.562.2000

Signature: [Signature] Date: 10/6/17

STATE OF Colorado)

) ss

COUNTY OF Denver)

KATHRYN A DAYMUT
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID: 19964015382
MY COMMISSION EXPIRES APRIL 1, 2018

The foregoing was acknowledged before me this 6th day of October, 2017, by Joseph M. O'Dea as the Manager of Mann Lake Holdings, LLC.

Notary Public: [Signature] My Commission Expires: 4-1-2018

NOTARY FOR STRUCTURE OWNER

ACKNOWLEDGED BY:

Structure Owner(s): So. Adams Cty Wrs Dist Contact name (print): Jim Jones

Signature: [Signature] Date: 10/27/17

STATE OF Colorado)

) ss

COUNTY OF Adams)

SANDRA JOAN SCHRAUDER
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20094004109
MY COMMISSION EXPIRES FEBRUARY 9, 2021

The foregoing was acknowledged before me this 27th day of October, 2017, by

Jim Jones

Notary Public: [Signature] My Commission Expires: 2/9/2021

SENT TO STRUCTURE OWNER VIA CERTIFIED MAIL # 7015 1520 0000 1587 7854