

August 27, 2013

Mr. Peter Hays Environmental Protection Specialist State of Colorado Division of Reclamation, Mining, & Safety 1313 Sherman Street – Room 215 Denver, CO 80203

RE: Loloff Construction, Inc. – Loloff Pit – Technical Revision No. 1 Request (TR-01), File No. M-1985-112, Responses to Adequacy Review Comments

Dear Mr. Hays,

J&T Consulting, Inc. and Loloff Construction, Inc. have reviewed the adequacy review comments. We met with you on August 8, 2013 to discuss the comments to ensure that the responses we are providing in this letter along with revised exhibits would address the comments adequately. Thank you for taking the time to meet with us and discuss the comments as it was very helpful in clarifying the concerns the Division of Reclamation, Mining, and Safety had with the Technical Revision No. 1 Request. The following are our responses to each of the numbered comments you provided in your July 23, 2013, July 30, 2013, and August 5, 2013 review letters:

1. The technical revision was submitted by J&T Consulting, Inc. on behalf of Loloff Construction, Inc. Please provide a signed authorization letter for J&T Consulting, Inc. to perform work and submit material for the Loloff Mine on behalf of Loloff Construction, Inc.

Response:

The authorization letter from Loloff Construction, Inc. is attached.

Rule 6.4.4 Exhibit D – Mining Plan

2. The approved mining plan for the site states the pit will be excavated to a 3H:1V slope from the existing grade to ten (10) feet below the waterline, and at a 2H:1V slope from that point down. The proposed mining states the entire pit slope will be mined at a 3H:1V slope. Please explain how the existing 2H:1V slopes will be backfilled or otherwise established and stabilized at a 3H:1V slope.

Response:

The pit slopes will be mined at a 3H:1V at all locations for the proposed mining. Where the pit has been mined on the northwest corner, the west side, and the southwest corner the slopes will be backfilled with overburden or gravel to get to a 3H:1V slope, however we are getting survey of these slopes conducted the first week of September and we can assess whether or not the existing slopes are at a 3H:1V slope.

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3. Please verify no new manmade structures or easements, including utility easements along Balsam Avenue, have not been constructed within 200 feet of the boundary of the affected lands since the Loloff Mine permit was issued by the Division. Please update Exhibit C – Pre-mining and Mining Plan Map accordingly and submit proof of notice to the new structure or easement owners.

Response:

Survey of the surrounding structures and utilities will occur the first week of September. We will provide an updated Exhibit C once we have determined the locations from the survey.

4. The revised Mine Plan states since reclamation will occur concurrently with mining, it is not anticipated that bedrock material will be stockpiled long-term prior to use if it is used in the reclamation slopes. The revised mining plan states the pit slopes will be mined to the final 3H:1V slope. Please explain why bedrock material will be used to reclaim the pit slopes and provide an estimate of the anticipated amount of bedrock material needed to complete the slope reclamation.

Response:

The Mine Plan has been revised to state the following: Mining of the aggregate will progress down to the underlying bedrock. Reclamation will occur concurrently with mining since the mining slope is at a 3H:1V slope. An estimate of bedrock is not needed since the mining slope will be at a 3H:1V slope and currently there are no plans to use the bedrock material.

5. The revision submittal included calculations to estimate the effects of the dewatering of the pit to address the complaint from Mr. and Mrs. Larry Monroe. Please indicate the impacted Monroe groundwater well on the graphical representation of the estimated cone of depression/radius of influence resulting from the dewatering activities.

Response:

The location of the impacted well has been included in the revised figure.

6. Please commit to providing the Division a copy of the approved well permit for the state.

Response:

JT

The approved well permit from the State Engineer's Office (SEO) is attached. Mr. Loloff participated in a phone conference call with the SEO and a potential objector to the well permit on August 14, 2013 and during that call the objector withdrew their protest so we received the approved well permit on August 19, 2013.

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Rule 6.4.7 Exhibit G – Water Information

- 7. Rule 6.4.7(2) states if the operation is expected to directly affect surface or groundwater systems, you shall:
 - (a) Locate on the map (in Exhibit C) tributary water courses, wells, springs, stock water ponds, reservoirs, and ditches on the affected land and on adjacent lands where such structures may be affected by the proposed mining operations;
 - (b) Identify all known aquifers; and
 - (c) Submit a brief statement or plan showing how water from dewatering operations or from runoff from disturbed areas, piled material and operating surfaces will be managed to protect against pollution of either surface or groundwater (and, where applicable, control pollution in a manner that is consistent with water quality discharge permits), both during and after operation.

Response:

Please refer to the revised Exhibit G and Exhibit G-1. Exhibit G-1 was used to show the well locations rather than showing them on Exhibit C.

8. Please provide an estimate of the project water requirements including flow rates and annual volumes for the development, mining, and reclamation phases of the project.

Response:

The annual volume requirements have been provided in the Substitute Water Supply Plan that is attached.

9. Please indicate the projected amount from each of the sources of water to supply the project water requirements for the mining operation and reclamation.

Response:

The projected amounts from each of the sources of water to supply the project have been provided in the Substitute Water Supply Plan that is attached.

10. The revision states as part of the mitigation plan for recharge Loloff Construction, Inc. is pumping into the Monroe Wetland Pond to recharge the aquifer to mitigate effects of the dewatering of the pit. Please provide a signed agreement between the Operator and the Monroe's allowing the Operator to discharge water into the Monroe pond to recharge the aquifer.

Response:

The agreement is attached.

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11. During the Division's inspection on June 3, 2013, the Operator was discharging water into the ditch located southwest of the site. Please state if water is still being discharged into this structure or if all dewatering discharge is pumped into the Monroe pond. If the ditch in the southwest corner is being used, please provide consent to discharge water into this structure. If water is discharged into a ditch that is unlined, it may be prone to erosion if the discharge rates exceed the carrying capacity of the ditch. The Operator must submit documentation to the Division for review as to the proposed maximum discharge rate into the ditch and specifications as to how much water the ditch can carry without experiencing erosion.

Response:

Water is being discharged into the ditch in the southwest corner of the site. At this location the water backs up in the ditch and into a pipe that flows into the Monroe pond. The pipe that flows to the Monroe pond acts as an equalization between the ditch and the Monroe pond (i.e. when the water level in the Monroe pond goes down the water from the ditch fills the pond, and when the water level in the Monroe pond increases to an elevation at the invert of the pipe or higher the water level equalizes and the flow continues downstream in the ditch). This ditch is not owned by any entity and is a drainage ditch that has historically carried irrigation runoff from the farm field that is north of the site as well as local drainage from the properties to the west and south of the site. The ditch carries flows south to 8th Street into the borrow ditch and ultimately to the Cache La Poudre River.

The ditch is being surveyed the first week of September so that we can provide calculations on the capacity of the ditch. The Operator has placed cobble around the location of the discharge into the ditch to armor this location such that erosion will be mitigated and the ditch will be protected.

12. The revision states Loloff Construction proposes to install a recharge ditch along the west side of the pit to mitigate impacts if there are impacts from the dewatering to the other wells adjacent to the pit that are within 600 feet of the mining limit. Please provide the design criteria for installing the recharge ditch, provide the dimensions and describe how the ditch would be constructed and reclaimed.

Response:

The recharge ditch dimensions and design criteria are attached and included on Exhibit C.

13. Please note the Division will require Loloff Construction to mitigate all impacts to permitted wells affected by the dewatering activities, not just the wells within 600 feet of the mining limit.

Response:

Jт

Loloff Construction, Inc. understands that if wells outside 600 feet of the mining limit are proven to be affected by the mining operation dewatering that Loloff Construction, Inc. would be required to mitigate the impacts.

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14. The revision does not identify monitoring locations along the north, south, and most of the west boundaries of the site. Please commit to installing piezometers along these boundaries.

Response:

Loloff Construction, Inc. has received permission from several well owners and monitor well owners that are adjacent to the north, west, south, and east boundaries of the pit. We would like to use these locations to monitor rather than drilling additional piezometers at this time. Agreements are attached for each well owner and their consent to allow Loloff Construction, Inc. to monitor the groundwater levels in their wells.

15. Please state if all registered alluvial wells within 600 feet were identified based on SEO records and if field inspections conducted to identify ALL wells within 600 feet. Please identify all wells within 600 feet of the pit on Exhibit C – Pre-Mining Plan map.

Response:

All wells within 600 feet have been identified and field inspections were conducted by *Mr. Don Loloff. The well locations are attached in the Exhibit G and Exhibit G-1 map.*

16. The Operator states should levels in the existing wells change by 2-4 feet then Loloff Construction, Inc. will mitigate by recharging at locations along the pit to increase the levels of the groundwater so that the impact from dewatering is minimized. Please provide justification for the proposed 2-4 feet trigger. Typically, a trigger point of 2 feet change from historic ground water levels is acceptable. The Operator must explain any mitigation measures to be implemented and trigger points that would put mitigation measures into effect if the recharging method of mitigation is not effective.

Response:

The Operator is fine with changing the trigger point from 2-4 feet to 2 feet. Other mitigation measures that may be necessary if the recharging method is not effective would be (1) working with the well owners that are affected to re-set their existing pumps to a lower level in order to mitigate any flow impacts to the existing well(s); (2) if the method in (1) is not effective then drilling a new well or deepening the existing well or providing water service from the City of Greeley or North Weld Water.

17. The revision states Mr. Don Loloff is pursuing agreements with the existing well owners within 600 feet of the mining limit of the pit. Please provide the Division with signed copies of the agreements when available or provide evidence the appropriate notice was provided to the well owners.

Response:

The agreements that have been obtained are attached. The other agreements are being negotiated and certified mail was sent to Kohloff and Taylor.

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18. The revision states Mr. Loloff is pursuing agreements to use the existing wells from Mr. Harrell, Mr. and Mrs. Monroe, and Mr. Francis to take groundwater level measurements to monitor the depth of the groundwater adjacent to the pit. Please provide the Division with signed copies of the agreements.

Response:

The agreements that have been obtained are attached. The other agreements are being negotiated and certified mail was sent to Kohloff and Taylor.

19. The revision states Loloff Construction will note the groundwater depths in the Derr Pit monitoring wells, Mr. Harrell's well, Mr. and Mrs. Monroe's well and Mr. Francis's well to monitor these levels throughout the course of the mining. Please commit to providing the Division with a copy of the monthly groundwater levels as a part of the annual report for the site.

Response:

Loloff Construction, Inc. will provide the monthly readings as part of the annual report for the site.

20. Please provide a copy of the agreement between Loloff Construction, Inc. and Broken Arrow Investments, LLC, operator of the Derr Pit, allowing Loloff to monitor groundwater depths in the Derr Pit monitoring wells.

Response:

The agreement is attached.

21. Division staff is reviewing the hydrologic impact model prepared for the Loloff Mine. An additional adequacy review letter may follow pertaining to the hydrologic impact model submitted with the revision.

Response:

Responses to those comments are on included on Page 9 and 10 of this response letter.

Rule 6.4.12 Exhibit L – Reclamation Costs

22. The proposed mining and reclamation plans for the site includes dewatering of the pit, the bond calculation for this site must include costs related to dewatering of the pit to account for the costs incurred by the State of Colorado if water had to be removed from the pit in order to establish the proper reclaimed slopes along the pit wall. Please include an estimate for the dewatering activities in the financial warranty estimate.

Response:

The estimate for dewatering activities for the entire pit is approximately 1,400 acrefeet once it is mined down to bedrock at the 3H:1V slopes for reclamation. Currently the mine is at approximately 40% of this volume based on the previous exposed water surface area. Therefore the estimated dewatering volume for the current 8/27/13

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mining is approximately 560 acre-ft. It would also be possible to breakdown the costs of dewatering into phases which we would like to discuss with you after the surveying is complete.

23. The Division will estimate the cost to reclaim the site based on the information submitted once the Applicant addresses the concerns noted in this letter.

Response: No response.

24. The Loloff Mine is not in compliance with the Division's letter dated April 30, 2010 regarding the long-term groundwater augmentation requirement for the site. On September 6, 2012, the Division, the Loloff's and their representatives met to discuss the situation and determine possible alternatives to achieve compliance for the Loloff Mine. The Operator has not complied with the requirements of the Division's letter to date and has not proposed alternatives to achieve compliance. The Operator must comply with the Office of the State Engineer's requirement for out-of-priority groundwater depletions as part of this technical revision.

The applicant must choose one of the following bonding options to be included in the financial warranty calculation to address the long-term groundwater augmentation requirement for the site:

- a. Backfill the pit to two feet above the groundwater level
- b. Install a slurry wall or clay liner
- c. Provide the Division with documentation from the SEO, which demonstrates the Operator owns a sufficient amount of shares of water to cover the evaporative losses from the exposed groundwater and the said shares have been committed to the SEO should the financial warranty be forfeited and the permit revoked.

Response:

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A response under separate cover from Loloff Construction, Inc.'s legal council will be provided to the Division.

Rule 6.4.19 Exhibit S – Permanent Man-made Structures

Where the mining operation will adversely affect the stability of any significant, valuable and permanent man-made structure located within two hundred (200) feet of the affected land, the applicant may either:

(a) Provide a notarized agreement between the applicant and the person(s) having an interest in the structure, that the applicant is to provide compensation for any damage to the structure; or

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- (b) Where such an agreement cannot be reached, the applicant shall provide an appropriate engineering evaluation that demonstrates that such structure shall not be damaged by activities occurring at the mining operation; or
- (c) Where such structure is a utility, the Applicant may supply a notarized letter, on utility letterhead, from the owner(s) of the utility that the mining and reclamation activities, as proposed, will have "no negative effect" on their utility.
- 25. Please provide the Division evidence the Operator attempted to obtain notarized structure agreements, typically a certified mail receipt, with all owners of structures on and within 200 feet of the affected area at the Loloff Mine prior to performing the submitted engineering evaluation.

Response:

Agreements have been sent to structure and utility owners. Certified mail receipts are attached.

Rule 6.5 – Geotechnical Stability Exhibit

26. Division staff is reviewing the stability analysis prepared for the Loloff Mine. An additional adequacy review letter may follow pertaining to the geotechnical stability section of the revision.

Response:

Responses to those comments are on included on Page 10 and 11 of this response letter.

27. The Overview section of the Slope Stability Report dated July 2013 states the proposed future use for this property is water storage reservoir. The approved post-mine land use for the Loloff Mine is Wildlife Habitat, not Developed Water Resource. If the Operator intends to change the post-mine land use they must submit an amendment application.

Response:

The post-mine land use is not changing and will remain as Wildlife Habitat. The report language has been changed to reflect this.

<u>Hydrology</u>

1. The methodology uses "equilibrium well equations" from Driscoll. The application is for a pit with a 600-foot radius. Please provide additional justification for the use of well equations for a very large (pit) opening.

Response:

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The drawdown calculations have been revised based on the references the DRMS has provided in the adequacy review to estimate the impact to the groundwater

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elevations from the dewatering of the pit. Please see the attached revised calculations.

2. The selected hydraulic conductivity appears to fall into a reasonable range for gravel pit material (clean sand K can range between 100 and 60,000 gal/day/sq-ft). However, the method used is extremely sensitive to this parameter. A quick check using your methodology indicates increasing K to just 1,500 (still well within the range for clean sand) increases the radius of influence by more than 1,000 ft. Please provide justification for the selected hydraulic conductivity or use a value that can be justified.

Response:

The hydraulic conductivity (K_h) has been determined using the current dewatered state of the mine (Case 1). Dewatering is currently being done at a rate of 1,200 gpm, 12 hours per day, for an average dewatering rate of 600 gpm per day (Q). The water level in the pit (h) is currently at a steady state of 12 feet below the historic groundwater level. Using a natural recharge rate (W) of 5% of the average annual precipitation for the Greeley, CO area, the hydraulic conductivity was found to be 255 m/d when h was set to 12 ft and Q was set to 600 gpm. This K_h value has been used in all calculations. Please see the attached revised calculations.

3. The Division does not follow the logic in case 2 for reducing the hydraulic conductivity 33% to account for the recharge being 33% of the pumping rate. Please elaborate on this assumption.

Response:

The drawdown calculations have been revised based on the references the DRMS has provided in the adequacy review to estimate the impact to the groundwater elevations from the dewatering of the pit. Please see the attached revised calculations

4. Please replace the calculation of aquifer drawdown from pit pumping with a calculation using the method described by Marinelli and Niccoli, 2000 (Ground Water, vol. 38, no. 2). Please include calculations for the maximum radius of influence and the expected drawdown at a horizontal distance of 800 feet outside the west side of the pit. The method described in your submittal does not appear to adequately account for aquifer recharge. Figure 7 of Arnold et al, 2003 (USGS Water Resources Investigations Report 02-4267) indicates drawdown at the 800-foot distance would be approximately 10 feet. *Response:*

We are using these references to estimate the impact to the groundwater elevations from the dewatering of the pit. The methodology was used to analyze the radius of influence and drawdown that would result from dewatering of the pit under the current dewatered depth and under full pit dewatered depth. A summary of each analysis is as follows:

1. Current dewatered depth (12 feet below historic groundwater level) a. Case 1:

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- *i.* Maximum radius of influence outside the limit of the pit will be 14,422 feet.
- b. Case 2:
 - *i.* Expected drawdown at a horizontal distance of 800 feet (Monroe Well) outside the limit of the pit will be 4.2 feet.
- c. Case 3:
 - i. Drawdown at the Derr Pit Monitoring Well No. 1, at a horizontal distance of 235 outside the limit of the pit, was calculated to be 5.8 feet. This result was compared to actual monitoring well measurements taken for Derr Pit Monitoring Well No. 1 which show 2.75 feet of groundwater drawdown since June 1, 2013 when dewatering pumping started. <u>Based on this comparison the methodology appears to overestimate the actual drawdown and radius of influence due to the dewatering of the pit that will be seen adjacent to this specific site/location.</u>
- 2. Full dewatered depth (37 feet below historic groundwater level)
 - a. Case 4:
 - *i.* Maximum radius of influence outside the limit of the pit will be 42,040 feet.
 - b. Case 5:
 - *i.* Expected drawdown at a horizontal distance of 800 feet outside the limit of the pit (Monroe Well) will be 18.9 feet
 - c. Case 6:
 - *i.* Horizontal distance of 18,358 feet where a drawdown level of 2 feet will be seen.

Please see the attached revised calculations. The methodology used in the references the DRMS has provided in the adequacy review assumes that groundwater recharge is uniformly distributed across the water table. Using this methodology no valid recharge calculations can be used to estimate the impact of localized recharge at a single location. As previously mentioned Loloff Construction will monitor the wells adjacent to the site and mitigate any adverse impacts to these wells.

Slope Stability Analysis

1. The TR-1 request included changing the mining method to dewater the existing pond to mine under dry conditions at a 3:1 slope. It is my understanding that the final land use will remain wildlife habitat and include a pond. In general, the stability report was well written and adequately addressed the slope stability for the pit during the proposed mining activity described in the TR.

Response: No response.

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2. Balsam Avenue runs along the eastern edge of the site. There are a number of underground utility lines associated with this road alignment. The analysis should be sure to include effects on and from these utilities, including the possibility of water being introduced from a leaking sewer or water line.

Response:

The slope stability analysis does take into effect the structures including the roadway and utilities and that is one of the reasons for mining at a 3H:1V slope to ensure there is an acceptable factor of safety such that the mining would not impact these structures and utilities. Trying to incorporate a leaking sewer or water line in the modeling is not possible because we are looking at gradients in regard to the ground water levels. Also if a pipe is leaking and the leak causes a slope failure that failure is not due to the mining and therefore would not be caused by the mining. We understand the concern and the Operator will conduct inspections on the pit walls during the mining and if there appears to be a leaking pipe the Operator will be sure to contact the utility owners to have them check their pipelines to make sure there is not a leak or that if there is a leak it can be repaired immediately.

3. The water level used in the analysis is approximately 12 feet below the ground surface on the unaffected ground. This may not accurately reflect seasonally high conditions, or conditions after the mine is flooded with water.

Response:

The 12 feet was selected based on previous information from the subsurface investigation. We understand the concerns and have included more calculations to change the depth to 3 feet below the surface for the ground water level. Please see the attached calculations and revised slope stability analysis.

4. The analysis sections are depicting "dry" conditions that would be found during mining while the site is being dewatered. The stability should also be analyzed in "wet" conditions that would represent post-mining conditions for the long term stability.

Response:

The analysis has been updated to include "wet" conditions as well. Please see the attached calculations and revised slope stability analysis.

5. The report includes good recommendations for monitoring the slope stability. However, it may be prudent to modify the inspections outlined in recommendation #1 and #4 on page 5 to a weekly basis for the <u>duration</u> of mining, then for 6 months post-mining.

Response:

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The analysis has been updated to reflect the weekly inspections. Please see the revised slope stability analysis.

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As discussed in this response letter we have addressed as many of the comments as we can at this time and we will continue to address the remaining comments as we receive survey information and agreements from well owners, structure owners, and utility owners.

We would also like to extend the decision date to September 25, 2013 to allow more time to address the remaining comments as well as giving the Division of Reclamation, Mining, and Safety enough time to review.

Sincerely,

J.C. York

J.C. York, P.E. J&T Consulting, Inc.

cc: Loloff Construction, Inc.

Attachments

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- Authorization Letter from Loloff Construction, Inc.
 Drawdown Figure and Dewatering Calculations
 Approved Well Permit from SEO
 Exhibit G and Exhibit G-1
 Revised Exhibit C
 Approved SWSP from the SEO
 Well Owner and Monitoring Agroements

- 7. Well Owner and Monitoring Agreements
- 8. Property and Utility Owner Agreements for Structures and Certified Mail Receipts
- 9. Revised Slope Stability Analysis

August 16, 2013

Mr. Peter Hays Environmental Protection Specialist State of Colorado Division of Reclamation, Mining, & Safety 1313 Sherman Street – Room 215 Denver, CO 80203

RE: Authorization for J&T Consulting, Inc.to perform work and submit materials on behalf of Loloff Construction, Inc.

Mr. Hays:

Loloff Construction, Inc. has retained J&T Consulting, Inc. to assist with our Request for a Technical Revision on the Loloff Mine. Please accept this letter from Loloff Construction, Inc. as our authorization for J&T Consulting, Inc. to perform work and submit materials on behalf of Loloff Construction, Inc.

Sincerely.

Don Loloff, Manager Loloff Construction, Inc.



GREELEY UNC, COLORADO (053553)

Period of Record Monthly Climate Summary

Period of Record : 3/ 1/1967 to 3/31/2013

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	41.9	47.1	56.7	64.9	73.9	84.4	90.3	88.0	79.9	66.8	51.5	41.9	65.6
Average Min. Temperature (F)	15.5	19.8	27.0	34.8	44.1	52.9	58.5	56.3	47.0	35.5	24.7	16.5	36.0
Average Total Precipitation (in.)	0.46	0.37	1.02	1.79	2.43	1.86	1.51	1.36	1.08	1.06	0.75	0.51	14.20
Average Total SnowFall (in.)	5.7	4.3	7.1	4.7	0.8	0.0	0.0	0.0	0.6	3.3	6.7	6.6	39.7
Average Snow Depth (in.)	2	1	0	0	0	0	0	0	0	0	1	1	0

Percent of possible observations for period of record.

Max. Temp.: 100% Min. Temp.: 100% Precipitation: 100% Snowfall: 97.8% Snow Depth: 95.3% Check <u>Station Metadata or Metadata graphics</u> for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu



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RADIUS OF INFLUENCE CALCULATIONS

Reference: "Analytical and Numerical Simulation of the Steady-State Hydrologic Effects of Mining Aggregate in Hypothetical Sand-and Gravel and Fractured Crystalline-Rock Aquifers", L.R. Arnold, W.H. Langer, and S.S. Paschke, U.S. Geological Survey, Water-Resources Investigations Report 02-4267, 2003, pages 6-8.

(Reference attached literature for explanation of methodology & variables)

Equation 2:

$$h = \sqrt{h_p^2 + \frac{W}{K_h} \left[r_i^2 \ln \left(\frac{r}{r_p} \right) - \frac{\left(r^2 - r_p^2 \right)}{2} \right]}$$

Equation 3:

$$\mathbf{Q} = \mathbf{W}\pi \left(r_i^2 - r_p^2\right)$$

Case 1: No Recharge - Overall Radius of Influence (Drawdown Limit)

at Current Dew	atering Dept	<u>:h</u>				
	Variable	Value	Unit	Variable	Value	Unit
	h _P =	1.5	m	h=	3.7	m
	W =	5.0E-05	m/d	h=	12.0	ft
	K _h =	255	m/d			
	r _p =	183	m	Q=	3,290	cu-m/d
	r =	4,580	m	Q=	603	gal/min
	r _i =	4,580	m			

Case 2: No Recharge - Drawdown at 426 m (8	800 ft outside pit wall)(Monroe Well)
at Current Dewatering Depth	

 Variable	Value	Unit	Variable	Value	Unit
h _P =	1.5	m	h=	2.4	m
W =	5.0E-05	m/d	h=	7.8	ft
K _h =	255	m/d	Drawdown=	1.3	m
r _p =	183	m	Drawdown=	4.2	ft
r =	426	m			
r _i =	4,580	m			



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<u>Case 3: No Recharge - Drawdown at 255 m (235 ft outside pit wall)</u> (Derr No. 1 Monitoring Well) at Current Dewatering Depth

Variable	Value	Unit	Variable	Value	Unit
h _P =	1.5	m	h=	1.9	m
W =	5.0E-05	m/d	h=	6.2	ft
K _h =	255	m/d	Drawdown=	1.8	m
r _p =	183	m	Drawdown=	5.8	ft
r =	255	m			
$r_i =$	4,580	m			

Case 4: No Recharge - Overall Radius of Influence (Drawdown Limit)

at Full Dewate	ering Depth					
	Variable	Value	Unit	Variable	Value	Unit
_	h _P =	1.5	m	h=	11.3	m
	W =	5.0E-05	m/d	h=	37.0	ft
	K _h =	255	m/d			
	r _p =	183	m	Q=	26,541	cu-m/d
	r =	13,000	m	Q=	4,868	gal/min
	r _i =	13,000	m			

<u>Case 5: No Recharge - Drawdown at 426 m (800 ft outside pit wall)(Monroe Well)</u> at Full Dewatering Depth

Variable	Value	Unit	Variable	Value	Unit
h _P =	1.5	m	h=	5.5	m
W =	5.0E-05	m/d	h=	18.0	ft
K _h =	255	m/d	Drawdown=	5.8	m
r _p =	183	m	Drawdown=	18.9	ft
r =	426	m			
r _i =	13,000	m			

Case 6: No Recharge - Horizontal Distance at 2 ft Drawdown at Full Dewatering Depth

Variable	Value	Unit	Variable	Value	Unit
h _P =	1.5	m	h=	10.6	m
W =	5.0E-05	m/d	h=	34.9	ft
K _h =	255	m/d	Drawdown=	0.6	m
r _p =	183	m	Drawdown=	2.0	ft
r =	5,780	m			
r _i =	13,000	m			

3-**MW15 MW14 MW13 MW12** MW11 MW10 6MM 8MM MW7 MW6 MW5 MW4 MW3 MW2 TANW Date 14.25 24 08.21 5 11.76 12:50 11 70 150 0 1.80 3.30 , ÝO S october 100 39.65 38.55 32.4 37 017 1042.5042.20 9721 10.70 1270 10.50 11.30 12.15 10.65 N 3 november 5 10,0 2 R 12.40 Indo 9. 25 G.S 5 11.90 10.65 -12.80 17 J N december ñ 2 N 25 25 75 F 5 11.65 P a's 5 0 12 Sit 2.8 Q J anuary ·0 8 6 'y 00 5 00 Monitor Well Static Water Levels Derr Pit, Weld County, CO 3 d à 1.90 1.15 C.L 34.5 0,0 59-32 1.40 N 5 5 245 5 february S 65 6 Ċ 20' S 2 11.7 8. 25 10:10 53.0 シント 10.35 14,45 47 12.8 11.95 50,01 103 IA. S 5 -T The 13 4250 13.1 16.15 395 13,00 11,45 158 5 01.11 12.30 5 13-15 3 1.15 Ŗ 54 11 0F 11 12.8 5/2/13 در ت 13.90 13.204 14,50 12,20 129 0.HI He . Ju 15:95 H.20 13:30 5.7 may F 6/1/13 ILL S N Г 5 J 5 50 in b 10 50. 6 june C 0 1 N. 6.9 j G 2 c + N 20 F ふろ M ž 1 N 1 6 59 5 3 Ś 20 168 august S-S 6.3 4.41 5; P. N 6.0 1.4 5 september WELL TOP ELE 4664.80 4665.10 4635.80 4635.80 4637.00 4638.80 4639.60 4639.90 4637.90 4635.00 4635.30 4636.10 4635.90 4635.40 4635.90

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Depth to Water (Feet to Top of Casing)

BEFORE THE STATE ENGINEER, STATE OF COLORADO

CASE NO. 13-SE-19

ORDER CLOSING CASE AND REMANDING TO STAFF FOR ADMINISTRATIVE ACTION

IN THE MATTER OF AN APPLICATION FOR THE EXTENDED USE OF A GRAVEL PIT WITH PERMIT NO. 74793-F IN WELD COUNTY.

LOLOFF CONSTRUCTION INC., APPLICANT

At the Status Conference held on August 14, 2013, it was discovered that Objector, Hoshiko Farms Incorporated, had one well located more than 600 feet from the proposed well with Permit No. 74793-F. The other well noted in Objector's opposition statement is not owned by Objector. Therefore, the objection was withdrawn. This matter is remanded to Staff for the State Engineer for administrative action and the case is **CLOSED**.

Dated this 14th day of August 2013.

Cough B. S. the

Joseph (Jody) Grantham, Hearing Officer Office of the State Engineer 1313 Sherman Street, Suite 818 Denver, CO 80203 Telephone: (303) 866-3581 Facsimile: (303) 866-3589 Email: jody.grantham@state.co.us

Certificate of Service

I hereby certify that I have duly served the within ORDER CLOSING CASE AND REMANDING TO STAFF FOR ADMINISTRATIVE ACTION to the parties herein by US mail or email at Denver, Colorado, this 14th day of August 2013, addressed as follows:

VIA US MAIL:

Loloff Construction Inc. Don Loloff, President P.O. Box 518 Kersey, CO 80644

Hoshiko Farms Inc. Dennis J. Hoshiko, President P.O. Box 119 Kersey, CO 80644

VIA EMAIL:

Jared M. Dains Applegate Group, Inc. jareddains@applegategroup.com

Doug Seely doug@nocoengineering.com

Joanna Williams & Sarah Brucker Staff for the State Engineer joanna.williams@state.co.us sarah.brucker@state.co.us

Johnth

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Form	n No.	OFFIC	E OF THE	STAT	E ENG	INEER			AU	G 1 9 2012
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PER	MIT TO I	EXPOSE \								
			ISSUANCE	ог тне <u>С(</u>	DNDITIO	NOES NOT	ONFER	A VVATE	ER RIGHT	Page 1 of 2
1)	This well	shall be us	sed in such a way	as to cau	ise no mat	erial injury to e	xisting wa	ater rights.	The issuance o	f this permit
	does not	ensure tha relief in a ci	at no injury will occ ivit court action	our to and	ther veste	d water right or	preclude	another ov	wner of a vested	l water right from
2)	The cons	struction of	this well shall be i	n complia	ance with t	he Water Well	Construc	tion Rules	2 CCR 402-2, u	nless approval
	of a varia	ance has be	een granted by the	e State Bo	bard of Exa	aminers of Wat	er Well C	onstruction	and Pump Inst	allation
3)	Contract	ors in acco d pursuant	rdance with Rule	18. 7 (2) and	(11) for an	existing well (c	uravel nit	nond) in ac	cordance with t	he temporary
	substitut	e water sup	ply plan approved	by the S	tate Engir	ieer on May 28	, 2013, fo	r the Loloff	Pit, Division of	Reclamation,
	Mining &	Safety Per	mit Number M-19	85-112. ate Engin	The well (p	oond) shall not	be operat	ed unless i	it is included in a	a substitute
	supply pl	an for this	pit is currently val	d through	Decembe	er 31, 2013, an	d if it is no	ot extended	l or if a court de	cree is not
	entered t	or a plan fo	or augmentation, o	liversion	of ground	water from this	well mus	t cease imr	nediately.	a adam and
4)	regulatio	is subjecti ns.	to administration t	by the Div	Ision Engl	neer in accorda	ince with	applicable	decrees, statute	es, rules, and
5)	The aver	age annua	l amount of groun	d water to	be appro	priated shall no	t exceed	116.8 acre	-feet with the to	tal surface
	area of the approved	ie propose by the Sta	d ground water po ate Engineer or a j	ond limite	a to 40 acr ugmentati	res, or the amo on approved by	unt(s) allo	wed under er Court, wl	 a substitute wa hichever is less. 	ter supply plan
6)	The use	of ground v	vater, in addition t	o evapora	ation and o	lewatering, is li	mited to 5	5.89 acre-fe	eet retained in 2	00,000 tons of
	mined m	aterial and	5.0 acre-feet used ate Engineer or a l	d for dust plan for a	control, or	the amount(s) on approved by	allowed ut the Wate	under a sut	ostitute water su	pply plan No other use of
	water is a	allowed unl	ess a permit there	for is app	proved.		nio irua	57 OOUN, 117		
7)	The own	er shall ma	rk the well (gravel	pit pond) shall tak	in a consi	picuous place v	vith well p	ermit numl	ber(s) and court	case
8)	A totalizi	ng flow met	ter must be install	ed so as	to measur	e any pumping	from this	gravel pit p	ond and mainta	lined in good
	working	order. Perr	nanent records of	all divers	ions from	the gravel pit p	ond, tona	ge of mine	d product, and t	he surface area
	of ground Engineer	i water exp . upon requ	osure shall be ma est.	Intained	by the well	owner (record	ed at leas	t annually)	and submitted	to the Division
9)	Pursuant	to Rule 10	.1.6 of the Water	Well Con	struction F	Rules, gravel pi	t wells are	e exempt fr	om the minimun	n well
	construct	tion standa	rds except for con	taminatio	n consider	rations as state	d in the F	Rule. The o	wher of the grav	vel pit shall
•	and hou	coory mee	ano una probatilui	.5 to prev	on oond		renng uit	s graver pit	won.	
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SRB			State Engineer	<u></u>	,WI	yk		- Cá	<u>nt Anua</u>	lel-
Rece	eipt No. 3	660134	otate ⊂ngineer	DATE IS	SUED	08-14-2013		EXPIR/	ATION DATE	NA

Receipt No. 3660134

WELL PERMIT NUMBER 77467 - F

Page 2

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT CONDITIONS OF APPROVAL

- 10) The boundaries of the gravel pit pond shall be more than 600 feet from any existing well, completed in the same aquifer, that is not owned by the applicant, excluding those wells whose owners were notified pursuant to CRS 37-90-137(2)(b)(II)(A). Notice was sent to the owners of permit nos. 27480-F, 30562-F, 135883, 223887, 226878-A, 287278, 223885-A, 12332-R, 44673, and API nos. 05-123-12574, 05-123-21870, 05-123-25918, 05-123-25919, and 05-123-30738. One objection was received and subsequently withdrawn (see case no. 13-SE-19).
- 11) Pursuant to Policy 2000-4 of the State Board of Examiners of Water Well Construction and Pump Installation Contractors (Board), no pumping equipment shall be installed in the gravel pit well to withdraw water for any beneficial use, unless a separate written request for a variance has been approved by the Board.

12) Upon issuance of this permit, permit no. 74793-F shall be cancelled by Order of the State Engineer. NOTE: The current SWSP does not authorize any dewatering operations until a Technical Revision is approved by the DRMS to allow such dewatering operations to occur under the operator's DRMS mining permit.

Water Information

Introduction

The existing mining operation is located in the Southeast ¼ of the Northwest ¼ and the South ½ of the Northeast ¼ of the Northwest ¼ of Section 4, Township 5 North, Range 65 West, Sixth P.M., in Weld County. In terms of notable area water features, the existing Loloff Pit site is located 1/8 mile north of the Ogilvy Ditch and 3/8 miles north of the mainstem channel of the Poudre River.

Approximately the southerly 50% of the proposed 55.17-acre permit area (42.69 acres to be mined) is within the current regulatory Poudre River 100-year floodplain. Specifically, the site is located within the Poudre River floodplain Zones AE and X, with 100-year flood depths of one to three feet.

The major 100-year floodplain accommodations at the Loloff Pit operation will include:

- Stockpiling of stripped and mined materials outside the 100-year floodplain to the greatest extent practical, from commencement of the operation;
- Alignment of stockpiles parallel to the estimated 100-year flood flow direction;
- Breaks or gaps between stockpiles to allow floodplain flows through;
- No net import of materials into the 100-year floodplain on the site; and
- Ultimately, placement of mined material stockpiles in the pit bottom as soon as the mine excavation area is large enough to accept them.

The Loloff Pit mining operation itself will consist of sand and gravel production and will impact the Poudre River in the form of depletions due to evaporation of exposed groundwater, and losses associated with mining, primarily dewatering and exported material moisture content in the mine phases MA-I and MA-II.

Mining of the Loloff Pit site is anticipated to last for approximately ten to fifteen years.

The mining operation will extract sand and gravel deposits from the Poudre River aquifer alluvium, and will impact groundwater systems hydraulically connected to the Poudre River. Groundwater monitoring wells have been installed at the Derr Pit which is adjacent to the Loloff Pit on the east side, and a total of three monitor wells will be used to monitor the groundwater levels. An agreement with Broken Arrow Investments, LLC is in place to monitor these locations. Agreements with surrounding land owners including Robert Francis, John Carlson, Brian Harrell, and Sylvia Parker are in place to monitor their existing wells and groundwater levels. Loloff Construction, Inc. is also in the process of negotiating an agreement with Mr. and Mrs. Larry Monroe to monitor their well and ground water levels.



Water Requirements

The annual consumptive use at this site is included in the attached Substitute Water Supply Plan.

Replacement Water

The replacement of consumptive uses will be accounted for in a Substitute Water Supply Plan (SWSP) that is administered by the SEO. This plan is attached.

Surrounding Water Rights

The following index map and table shows the permitted wells within 600 feet of the mining and dewatering operations for this site. The well permit map itself was developed from information obtained from the Colorado Division of Water Resources' (SEO's) latest online AquaMap well permit map search system. Although there may be other wells in the area, they are not registered and permitted with the SEO.

As required by the SEO, a gravel pit well permit is in place for the proposed uses of groundwater at the site. If the proposed use of groundwater at the Loloff Pit site results in material injury to surrounding wells, Loloff Construction will ensure that all necessary actions or measures are taken to address or remedy the injuries.

Water Quality

A CDPS Permit has been submitted to the Colorado Department of Public Health & Environment (CDPH&E), Water Quality Control Division, for the Loloff Pit site. This permit is in place.

Map ID	Permit No.	Name	Address	City	State	Zip
1	44673	RULAND P L (SYLVIA PARKER)	R2 1142 11 AVE	GREELEY	СО	80631
2	421	RULAND BUD				
3	12332	HOSHIKO FARMS INC (WITHDREW OBJECTION ON WELL PERMIT)	PO BOX 119	KERSEY	CO	80644
4	226878	HARRELL ELDON AND PATRICIA (BRIAN HARRELL)	4123 CENTRAL	EVANS	СО	80620
5	287278	HARRELL BRIAN K	288 1ST AVE	GREELEY	CO	80631
6	27480	FRANCIS ROBERT D.	PO BOX 1608	GREELEY	СО	80632
7	135883	FRANCIS ROBERT D.	PO BOX 1608	GREELEY	CO	80632
8	134824	MIDEXCO CONSTRUCTION		GREELEY	CO	80631

Wells Within 600 Feet of Proposed Mining Operations Based on SEO Database



9	223887	KOHLHOFF KARL AND RENATE	71 BALSAM AVE	GREELEY	CO	80631
10	223885	TAYLOR JAMES A AND DIANA	665 BALSAM AVE	GREELEY	СО	80631
11	75865	VARRA COMPANIES INC C/O CHERYL SIGNS PE	109 E 4TH AVE	DENVER	СО	80203
12	63551	AGGREGATE INDUSTRIES WCR INC	PO BOX 337231	GREELEY	CO	80633
13	77467	LOLOFF CONSTRUCTION INC	C/O APPLEGATE GROUP	DENVER	CO	80234
14	44981	ROBERT THOMPSON (MONROE)	817 1ST	GREELEY	CO	80631







DEPARTMENT OF NATURAL RESOURCES



DIVISION OF WATER RESOURCES

John W. Hickenlooper Governor

Mike King Executive Director Dick Wolfe, P.E. Director/State Engineer

May 28, 2013

Mr. Jared Dains, E.I. Applegate Group, Inc. 1499 West 120th Ave., Suite 200 Denver, CO 80234-2759

Re: Loloff Substitute Water Supply Plan (WDID 0302524) Loloff Pit, DRMS Permit No. M-1985-112 (WDID 0303012) Section 4, T5N, R65W, 6th P.M. Water Division 1, Water District 3, Weld County

> Approval Period: January 1, 2013 through December 31, 2013 (AMENDMENT #1) Contact Phone Number for Mr. Dains: 303-452-6611

Dear Mr. Dains:

We have reviewed your letter dated March 27, 2013 requesting approval of a substitute water supply plan ("SWSP") amendment on behalf of Loloff Construction, Inc. ("Loloff" or "Applicant") to cover depletions caused by an existing gravel pit operation. This amended SWSP shall replace, in entirety, the SWSP approved for this site on December 31, 2012. The required renewal fee of \$257 (receipt no.3659577) has been received.

SWSP Operations

The primary purpose of this amendment is to add dewatering operations to reflect a change of mining operation from wet mining to dry mining. Due to the new dewatering activities the exposed ground water will decrease, there will no longer be an intermittent fill concurrent with mining, and water use for dust control will increase. At the time of approval of this SWSP the Applicant's DRMS mining permit did not allow for dewatering. <u>This SWSP does not authorize any dewatering operations until a Technical Revision is approved by DRMS to allow such dewatering operations to occur under the DRMS mining permit.</u>

The Loloff Pit is a gravel pit operation located in the SE¼ of the NW¼ of Section 4, Township 5 North, Range 65 West of the 6th P.M., in Weld County. This SWSP will make replacements to the Cache La Poudre River for depletions resulting from mining operations during the 2013 plan year, and for lagged depletions from past operations at the Loloff Pit. Consumptive uses at the Loloff Pit site include evaporative losses from exposed ground water within the permit boundaries, and operational uses. No mining occurred in 2012 however the operator anticipates that the site will be mined below the water table during 2013. The replacement sources proposed to be utilized in this SWSP are leases with the City of Aurora and the Graham Drainage Ditch Company. The well permit issued for this site (Well permit no. 74793-F)does not authorize dewatering. Therefore, <u>a new well permit is required to be issued prior to the start of dewatering activities.</u>

In accordance with the letter dated April 30, 2010 (copy attached) from the Colorado Division of Reclamation, Mining, and Safety ("DRMS"), all sand and gravel mining operators must comply with the requirements of the Colorado Reclamation Act and the Mineral Rules and

Office of the State Engineer 1313 Sherman Street, Suite 818 • Denver, CO 80203 • Phone: 303-866-3581 • Fax: 303-866-3589 www.water.state.co.us

Regulations for the protection of water resources. The April 30, 2010 letter from DRMS requires that you provide information to DRMS to demonstrate you can replace long term injurious stream depletions that result from mining related exposure of ground water. The Loloff Pit is not in compliance with this requirement. On February 2, 2012 DRMS sent a letter to Loloff Construction outlining two options to bring the pit into compliance through raising the bond amount over a three year period. The 2012 SWSP provided that future SWSPs will not be renewed until documentation has been provided to this office that shows Loloff is complying with either the February 2, 2012 DRMS letter or an alternative plan approved by DRMS. This office is in receipt of a September 7, 2012 letter from DRMS to Loloff documenting the exposed groundwater compliance process. This letter provided the option of Loloff purchasing and committing water shares to the State Engineer's Office or the possibility of reducing the final size of the pond to reduce the overall augmentation requirement and the required bond. These proposals will be evaluated by the Loloff's and a revised plan will be submitted to DRMS for their review. To allow replacements to be made while Loloff works on obtaining exposed aroundwater compliance, this SWSP will be renewed for 2013. Future SWSPs will not be renewed unless Loloff can show a good faith effort in obtaining compliance and document the steps taken and result of this effort.

Depletions

Depletions at the site during this plan period will consist of evaporative losses and operational losses. In 2011, the amount of exposed ground water at the Loloff Pit increased from 10.5 acres to 17.2 acres and remained at 17.2 acres for 2012. It is anticipated that with mining operations and associated dewatering operation in 2013 that the exposed ground water will decrease from 17.2 acres to 2.0 acres by August 1, 2013. Net evaporative depletions were calculated using a gross annual evaporation of 45 inches from the exposed water surface, with a credit of 9.97 inches for effective precipitation. No credit was claimed for ice cover periods. The net depletion of ground water due to evaporation of exposed ground water surface was calculated to be 32.90 acre-feet for this plan year.

Dewatering will occur at the site to allow for dry mining. Ground water pumped for dewatering purposes will be discharged to a drainage ditch that runs along the west border of the site. This drainage ditch generally runs southeast, crosses under Balsam Ave and then under Highway 263, where it turns east and empties into the Ogilvy Ditch. The Applicant is required to ensure and show the dewatering water is released to the Poudre River through the Ogilvy return structure. This SWSP does not authorize the use of any of these conveyance structures; it is the Applicants responsibility to obtain the legal right to use such conveyances and return structures and to provide documentation their water returned to the river.

The operator does not have an end date for the dewatering operation but anticipates the operation will be continuous for at least 5 years. As the pit will refill with ground water once dewatering ceases, this will create a large depletion that must be replaced by the operator. Until the operator has a plan to cover post-pumping depletions, dewatering operations must continue to keep the pit in a dewatered state. As long as the pit is continuously dewatered, the accretions to the stream are assumed to sufficiently offset the lagged depletions from dewatering. However, to properly account for post-pumping depletions <u>all dewatering operations must be equipped with a totalizing flow meter to monitor the monthly dewatering volumes from the site, with the monthly meter reads reported on accounting submittals.</u>

The Applicant projects mining a total of 55,000 tons of aggregate production in 2013. This material will be wet mined below the ground water table and thus assessed a water loss equal to 4% by weight of the material mined, or 1.62 acre-feet. Finally, the Applicant has Mr. Jared Dains, E.I. Loloff SWSP – Amendment #1 May 28, 2013

estimated that a total of 2.77 acre-feet of water will be used for dust control purposes during this plan period. The total evaporative and operational losses during 2013 are 37.28 acre-feet as shown on Table 1.

Depletions at the Loloff Pit do not instantaneously accrue to the Cache La Poudre River, but instead result in a lagged depletion. A stream depletion model based on the Stream Depletion Factor (SDF) technique was used to calculate the lagged depletions to the Cache La Poudre River. An SDF of 60 days was used for the Loloff Pit site. The total lagged depletions for this plan period due to both projected and past consumptive use at the site are estimated to be 38.51 acre-feet, as shown on Table 1.

Replacement Sources

Two replacement sources are proposed to replace depletions from the Loloff Pit. A lease of augmentation water from the City of Aurora will provide replacement water during the non-irrigation season and a lease of augmentation water from the Graham Drainage Ditch Company will supply replacement water during the 2013 irrigation season.

A lease of 21.2 acre-feet of fully consumable water provided by the City of Aurora ("Aurora") will be used to make replacements during the non-irrigation season of January through March, and November through December 2013. The releases will be made from the Metro Waste Water Reclamation Facility (WDID 0200700) located in Denver on the South Platte River approximately 66 miles upstream from the Cache la Poudre confluence. Therefore a 16.5% (0.25% per mile) river transit loss will be assessed on all deliveries. During the winter it is possible for a call to be placed on the Evans Number 2 ditch for a Milton Reservoir call, or a call at the Western, either of which could potentially sweep the river. It is the Applicants responsibility to track the daily call and make arrangements as necessary to ensure this water is bypassed or otherwise delivered to the Cache la Poudre and South Platte River confluence. The District 3 Water Commissioner has confirmed there is no call in the winter for the stretch of the Cache la Poudre River between the Loloff Pit and the confluence with the South Platter River. Therefore as long as the South Platte River does not sweep, the Aurora lease is able to provide replacement water on behalf of the Loloff Pit.

The Applicant has also obtained a lease from the Graham Drainage Ditch Company for 41.9 acre-feet of fully consumable water from the Graham Seepage & Drainage Canal water right (WDID 0301321). This water right was decreed in case no. W-7818 as developed water, not tributary to the South Platte River. The Court found that 2,800 acre-feet of water was developed by the construction, development, and operation of the Graham Seepage & Drainage Canal; however, historically, only 1,330 acre-feet were consumptively used, with 1,470 acre-feet discharged as waste water to the Cache La Poudre River and its tributaries. In the decree entered in case no. W-7818, the Court indicated that it considered the Supreme Court decisions in the cases of Southeastern Colorado Water Conservancy District et al. v. Shelton Farms and Southeastern Colorado Water Conservancy District v. Colorado-New Mexico Land Co., Inc. 187 Colo. 181, 529 P.2d 13212 (1974). Based on the above, this SWSP will only recognize 1,330 acre-feet per year of consumable water. The lease for the Graham Seepage & Drainage Canal water signed on November 8, 2012 and will provide fully consumable water for the period of April 2013 through October 2013 and a copy of the lease is attached to this letter. The fully consumable portion of the water delivered is determined by multiplying measured deliveries by 47.5%. The lease amounts are for fully consumable water, therefore actual deliveries will include additional water to account for the 47.5% factor. The Graham Seep Ditch deliveries are made approximately 4.3 river miles upstream of the estimated point of depletion of the Loloff Pit, therefore a 0.25% per mile transit loss Mr. Jared Dains, E.I. Loloff SWSP – Amendment #1 May 28, 2013

results in 41.45 acre-feet of water available for augmentation. The lease amount is sufficient to cover all depletions during the April through October 2013 timeframe.

Conditions of Approval

I approve the proposed substitute water supply plan in accordance with Section 37-90-137(11), C.R.S., subject to the following conditions:

- This SWSP shall be valid for the period of January 1, 2013 through December 31, 2013, unless otherwise revoked, modified, or superseded by decree. If this plan will not be made absolute by a water court action by the plan's expiration date, a renewal request must be submitted to this office with the statutory fee (currently \$257) no later than November 15, 2013.
- 2. A well permit must be obtained for the current use and exposed surface area of the gravel pit in accordance with §37-90-137(2) and (11), C.R.S. in conjunction with this plan. The provisions of Colorado Revised Statute 37-90-137(2) prohibits the issuance of a permit for a well to be located within 600 feet of any existing well, unless the State Engineer finds that circumstances so warrant after a hearing held in accordance with the procedural rules in 2CCR402-5. This hearing may be waived if you are able to obtain statements from the owners of all wells within 600 feet, verifying that they have no objection to your use of the proposed well. Should a new well permit be denied for reasons of 600 foot spacing, or any other legitimate reason, approval of this substitute supply plan may be cancelled.
- The total surface area of the groundwater exposed at the site must not exceed 17.2 acres from January 2013 through July 2013, and 2.0 acres after July 2013, or result in an evaporative loss at the Loloff Pit greater than 32.90 acre-feet in 2013.
- 4. The annual amount of water used at the Loloff Pit for dust control shall not exceed 2.77 acre-feet and total product mined at the site shall not exceed 55,000 tons resulting 1.62 acre-feet of water lost with the mined aggregate.
- Total consumption at the Loloff Pit must not exceed these aforementioned amounts unless an amendment is made to this plan.
- Approval of this plan is for the purposes as stated herein. Any additional uses for which the water may be used will be allowed only if a new SWSP is approved for those additional uses.
- 7. All releases of replacement water must be sufficient to cover all out-of-priority depletions in time, place, and amount and must be made under the direction and/or the approval of the water commissioner. The release of replacement water may be aggregated to maximize beneficial use. The water commissioner and/or the division engineer shall determine the rate and timing of an aggregated release. The Applicant is required to coordinate with the water commissioner the delivery location of replacement water to ensure out-of-priority depletions are adequately replaced to prevent injury to other water rights. Conveyance loss for delivery of augmentation water is subject to assessment and modification as determined by the water commissioner or division engineer.
- 8. Upon notice and approval by the water commissioner or division engineer the Applicant may sublease excess lease credits to other gravel pit operators. To the extent that the excess credits will be used to replace depletions under other gravel pit SWSPs, such SWSPs must be amended to allow for the use of such leased water. It is the Applicants

Mr. Jared Dains, E.I. Loloff SWSP – Amendment #1 May 28, 2013

responsibility to notify and receive approval from the leasing entity to sublease any excess lease credits. No lease will be allowed in any month where this SWSP produces a negative effect to the river. Any credits resulting from dewatering operations cannot be sold or leased to any other entity. As a condition of subsequent renewals of this substitute water supply plan, the replacement water must be appurtenant to this site until a plan for augmentation is obtained. A copy of this approval letter should be recorded with the county clerk and recorder. All replacement water must be concurrent with depletions in quantity, timing, and location.

- The name, address, and phone number of the contact person who will be responsible for the operation and accounting of this plan must be provided on the accounting forms submitted to the division engineer and the water commissioner.
- Adequate accounting of depletions and replacements must be provided to the division engineer in Greeley (<u>Div1Accounting@state.co.us</u>) and the water commissioner (<u>mark.simpson@state.co.us</u>) on a monthly basis. Submitted accounting shall conform to the Administration Protocol "Augmentation Plan Accounting, Division One – South Platte River" (attached).

In addition, the Applicant shall verify that entities providing replacement water for this plan have included such use on their respective accounting submitted to the Division Engineer. For the duration of this SWSP, those entities are the City of Aurora (Aurora Reuse, WDID 0802593) and the Graham Drainage Ditch Irrigation Company.

- 11. All pumping for dust control purposes shall be measured in a manner acceptable to the division engineer. Permanent records of all diversions must be maintained by the well owner (recorded at least monthly) and submitted to the division engineer on submitted accounting forms.
- 12. If reclamation of the mine site produces a permanent water surface exposing groundwater to evaporation, an application for a plan for augmentation must be filed with the Division 1 Water Court at least three (3) years prior to the completion of mining to include, but not be limited to, long-term evaporation losses. If a lined pond results after reclamation, replacement of lagged depletions shall continue until there is no longer an effect on stream flow. Granting of this plan does not imply approval by this office of any such court application(s).
- 13. Dewatering operations are to be equipped with a totalizing flow meter. Monthly meter reads must be included on submitted accounting. As long as the pit is continuously dewatered at a near constant rate, the accretions to the stream can be assumed to sufficiently offset the lagged depletions from dewatering.
- 14. The operator is required to replace all lagged post-pumping depletions caused by dewatering operations. The operator projects dewatering to occur for at least the next 5 years. Until the operator has a plan to cover post-pumping depletions, dewatering operations must continue to keep the pit in a dewatered state.
- 15. In accordance with the letter dated April 30, 2010 (copy attached) from the Colorado Division of Reclamation, Mining, and Safety ("DRMS"), all sand and gravel mining operators must comply with the requirements of the Colorado Reclamation Act and the Mineral Rules and Regulations for the protection of water resources. The April 30, 2010 letter from DRMS requires that you provide information to DRMS to demonstrate you can replace long term injurious stream depletions that result from mining related

exposure of ground water. The Loloff Pit is not in compliance with this requirement. On September 7, 2012 DRMS sent a letter to Loloff Construction outlining options to bring the pit into compliance. Future SWSPs will not be renewed unless Loloff can show a good faith effort in obtaining compliance and document the steps taken and result of this effort.

- 16. This SWSP does not authorize any dewatering operations until a Technical Revision is approved by DRMS to allow such dewatering operations to occur under their DRMS mining permit.
- 17. This SWSP may be revoked or modified at any time should it be determined that injury to other vested water rights has or will occur as a result of this SWSP. Should this SWSP expire without renewal or be revoked prior to adjudication of a permanent plan for augmentation, all use of ground water must cease immediately.
- 18. In accordance with amendments to §25-8-202(7), C.R.S., and "Senate Bill 89-181 Rules and Regulations" adopted on February 4, 1992, the State Engineer shall determine whether the substitute supply is of a quality to meet requirements of use to senior appropriators. As such, water quality data or analysis may be requested at any time to determine if the water quality is appropriate for downstream water users.
- 19. The decision of the state engineer shall have no precedential or evidentiary force, shall not create any presumptions, shift the burden of proof, or serve as a defense in any pending water court case or any other legal action that may be initiated concerning this plan. This decision shall not bind the state engineer to act in a similar manner in any other applications involving other plans, or in any proposed renewal of this plan, and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicant.

If you have any questions concerning this approval, please contact Joanna Williams in Denver at (303) 866-3581 or Dean Santistevan in Greeley at (970) 352-8712.

Sincerely, 11 comi Jeff Deatherage, P.E. Chief of Water Supply

Attachments: Table 1 (rev. 5/16/2013) Water Lease Agreement (Graham Ditch) Water Lease (City of Aurora) Augmentation Plan Accounting Protocol

cc: Dean Santistevan, Assistant Division Engineer, <u>dean.santistevan@state.co.us</u> 810 9th Street, Suite 200, Greeley, CO 80631; (970) 352-8712

> Mark Simpson, Water Commissioner District 3, mark.simpson@state.co.us 951 Wheatridge Cir., Loveland, CO 80537; (970) 420-9568

Bill Schneider, Water Commissioner District 2, <u>william.schneider@state.co.us</u> 810 9th Street, Ste. 200, Greeley, CO 80631; (970) 352-8712

Division of Reclamation Mining and Safety

JD/jmh: Loloff Pit 2013 SWSP AMENDMENT.docx

AG Job #: 07-154

20.65 Balance Water 0.06 0.39 1.07 1.52 2.76 4.31 4.31 4.34 3.44 0.14 0.17 0.12 0 Greeley 0.00 (N) Lease Gredit Company 41.45 Graham Ditch 3.86 5.44 6.92 7.72 6.92 (W) Replacement Company Amount 41.9 Graham Ditch Lease 7.8 7.8 7.8 7.9 Ξ Lease Credit City of 17.71 Aurora 2.72 5.61 S 1.21 Amount Aurora Clty of Lease 21.2 Ξ m in in 6.7 5.0 Depletions 38.51 Lagged 3.47 4.95 3.40 2.68 2.68 2.60 2.40 2.45 2.81 4.37 5.40 1.79 Ξ 37.28 Total CU 96.0 1.89 2.48 4.26 5.46 8.02 8.85 1.62 0.50 0.48 Ξ Water used Control for Dust 0.30 0.30 0.30 0.30 05.0 05.0 0.00 0.00 20.0 0.30 2.77 9 0:30 Intermittent Fill of Pit 00.0 00'0 0.00 00'0 0.00 0.00 00.0 0.00 0.00 00'0 00'0 00'0 00.0 Depletions Retained In Product Water 1.62 00.00 00'0 00'0 00'0 00'0 51.0 62.0 0.44 0.44 0.29 0.00 00'0 E Aggregate Production 55,000 10,000 15,000 15,000 10,000 On-site (tons) 2,000 0 0 0 0 0 0 0 Surface Area Evaporative 32.90 Losses 0.62 7.57 8.26 3.96 5.16 0.20 0.88 1.38 0.18 9 Exposed (acres) Water 17.2 17.2 17.2 17.2 17.2 17.2 2.0 2.0 17.2 2.0 2.0 (B) All values in oc-ft unless noted Monthly Net 2.92 Evap 06.0 0.44 0.48 0.20 0.10 0.08 11.0 0.14 0.23 0.44 0.31 60.0 EE Total Mar-13 Apr-13 May-13 EI-UNF Aug-13 Sep-13 Oct-13 Et-VON Feb-13 Month E1-UEL Eriul Dec-13

Notes:

per mile miles miles

0.25%

Unit Transit Loss =

City of Aurora Transit Distance = City of Aurora Total Transit Loss = Graham Ditch Transit Distance = Graham Ditch Total Transit Loss =

16.53%

4.3

(A) Monthly Evaporation rates from previous approvals.
(B) Estimated exposed acreage
(C) Monthly Evap rate (Coi A) multiplied by current monthly exposed surface area (Coi B).
(D) Estimated production rate for 2010.
(D) Estimated production rate for 2010.
(F) Assuming 4% of water retained in product.
(F) No intermitten fill of this because the pit is mined in a dewatered state
(G) Estimated water needed for dust control on-site.
(H) Total Consumptive Use (CU) is Coi C + Coi F + Coi G.

(I) CU amount is lagged back to river using a 60 day SDF factor. Lagged estimate includes past consumptive use at the Loloff Pit

(J) Lease from City of Aurora
 (K) Credit from City of Aurora lease after transit loss is assessed
 (L) Lease from Graham Ditch Company
 (M) Credit from Graham Ditch Company lease after transit loss is assessed

(N) Lease from City of Greeley to provide effluent from Wastewater treatment plant which is right in the vicnity of Loloff therefore no transit loss is assessed. (O) Water Balance = (I) + (K) + (M) \cdot (H)

Date Revised: 5/16/2013

Loloff Pit Substitute Water Supply Plan

2013 Water Balance

Table 1

WATER LEASE AGREEMENT (GRAHAM DITCH)

This Water Lease Agreement ("Agreement") Is entered Into this <u>3</u> day of <u>November</u>, 2012 by and between Loloff Construction, Inc., "Lessee" and GRAHAM DRAINAGE DITCH COMPANY ("Ditch Company"), "Lessor".

RECITALS

A. The Ditch Company owns and operates, for the benefit of its shareholders, the Graham Seepage and Drainage Canal and the water right decreed to that Structure in case Na W-7818-74, District Court, Water Division No. 1 ("Graham Ditch"). The Graham Ditch is decreed as a developed water right for up to 2800 acre feet per year. The Graham Ditch originates in Section 27 of Township 7 North, Range 66 West of the 6th P.M., Weld County, Colorado and is capable of delivering water to the Cache La Poudre River at two points in Section 36 of Township 6 North, Range 66 West of the 6th P.M., Weld County, Colorado.

B. Lessee Intends to operate and administer a Substitute Water Supply Plan ('ISWSP"). Lessee desires to lease water temporarily from Lessor until its permanent sources of augmentation water are in place.

C. Lessor is willing to lease to Lessee water delivered from the Graham Ditch to the Cache La Poudre River, and Lessee desires to lease such water, in accordance with the terms and conditions of this agreement.

AGREEMENT

Now, therefore, in consideration of the foregoing recitals, and mutual covenants and agreements herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Lease. Lessor hereby leases and agrees to provide to Lessee up to 41.9 acre feet of fully consumable water from the Graham Ditch (the "Graham Ditch Water") according to the monthly schedule below, subject to the limitations, terms and conditions stated herein.

I values in ac-ft								
	the second		2013					
Apr	May	Jun	Jul	Aug	Sep	Oct	Total	
2.9	3.9	5.5	7.0	7.8	7.8	7.0	41.9	

2. <u>Rent.</u> Lessee shall pay Lessor \$50 for each acre foot of fully consumable Graham Ditch Water that is made available to Lessee in accordance with the measurement and delivery terms set forth in Paragraph 3 of this Agreement and approved by the State Engineer for consumptive use in the SWSP. Within five (5) days following the end of each calendar month, Lessor shall provide Lessee with a written statement indicating the total number of acre feet of Graham Ditch Water made available to Lessee for replacement and augmentation use during that month. Lessee's payment shall be due no later than twenty (20) days following submission of the bill. Lessee shall make all rental payments to the Lessor in care of the Ditch Company, and the Ditch Company shall be responsible for distributing such payments amongst its shareholders according to their pro rata share.

3. <u>Measurement and Delivery</u>. The point of delivery for the Graham Ditch water leased pursuant to this agreement shall be to the Cache La Poudre River at the point where the East Lateral of the Graham Ditch is capable of delivering to the Cache La Poudre River in Section 36 of Township 6 North, Range 66 West of the 6th P.M., Weld County Colorado. Lessor shall make daily metered measurements of deliverles of the Graham Ditch Water and shall provide reports of such deliveries to Lessee on a weekly

or, if required by Lessee, daily basis. Lessee shall have the right, upon prior reasonable notice, to verify the accuracy of the measuring devices utilized by Lessors. The fully consumable portion of said deliveries shall be determined by multiplying the measured deliveries by 47.5%, or by some other factor as required by the State Engineer.

 Term. The term of this agreement shall be from the date of execution of this Agreement until October 31, 2013. Upon expiration of this Agreement, Lessee shall have the right to negotiate terms for extending the lease for another year.

5. Use. Lessee shall be entitled to use the Graham Ditch Water Leased pursuant to this agreement for any and all beneficial uses, including, but not limited to, fully consumable augmentation and replacement.

6. <u>Approval</u>. Lessee shall have the right, at its sole cost and expense, to seek and obtain State Engineer approval of a SWSP, using the Graham Ditch Water as a source of augmentation or replacement water, during the term of this Agreement. Lessor shall not oppose Lessee's SWSP and shall fully cooperate with Lessee in connection with the request(s) by providing such information and assistance as is reasonable requested by Lessee, its water rights counsel, its engineering consultants or the Division Engineer.

7. Warranties and Representations.

- 7.1 Independent Investigation and Review. Lessee acknowledges that it has investigated, obtained and reviewed to its satisfaction whatever information or documents it deemed necessary which relate to or affect the yield and operation of the Graham Ditch and its use of Graham Ditch Water, and it enters into this Agreement based solely in reliance upon its own investigation as to the yield and suitability of the Graham Ditch Water for its purposes. Lessor makes no representations, warrantles, agreements or promises with respect to the yield to lessee or suitability of the Graham Ditch Water for Lessee's purposes.
- 7.2 <u>Full Authority</u>. The undersigned represent that they have full authority to enter into this Agreement on behalf of the respective parties. The parties have taken all actions required and secured the necessary approvals to enter into this Agreement.

8. <u>Assignability</u>. This Agreement shall be binding upon and inure to the benefit of the Lessor and Lessee and their respective successors and assigns.

9. Entire Agreement. This Agreement constitutes the entire agreement between the parties and supersedes all other prior and contemporaneous agreements, representations, and understandings of the parties regarding the subject matter of this Agreement. No supplement, modification or amendment of this Agreement shall be binding unless executed in writing by the parties. No representations or warranties whatever are made by any party to this Agreement except as specifically set forth in this Agreement or in an instrument delivered pursuant to this Agreement.

10. Default Remedies. A default shall be deemed to have occurred if either party breaches its obligations hereunder and fails to cure such breach within 30 days of written notice from the nonbreaching party specifying the breach. Waiver or failure to give notice of a particular default or defaults shall not be construed as condoning or acquiescing to any continuing or subsequent default. In addition to other legal remedies available to it, including specific performance and damages, the non-breaching party shall also have the right to cancel the Agreement for noncompliance with any provision hereunder by giving written notice of cancellation; provided that such party has previously given the other party written notice of such noncompliance and the other party has not cured such noncompliance.

11. <u>Enforcement</u>. This Agreement shall be construed and governed in accordance with the laws of the State of Colorado, and shall be deemed performable in Weld County, Colorado. This Agreement may

be enforced in an action for specific performance, injunctive relief or damages in the District Court, Weld County, Colorado.

12. <u>Headings</u>. All paragraph headings used are for the convenience of the parties and shall have no meaning in the interpretation or effect of this Agreement

13. Notices. All notices and other communications under this Agreement shall be in writing. All such notices and communications and all payments shall be deemed to have been duly given on the date of . service, if delivered and served personally, or served via facsimile (with respect to notices and communications only) on the person to whom notice is given, or on the third day after mailing, if mailed to the party to whom payment and notice is to be given by first class mail, postage prepaid, and properly addressed as follows:

Lessee Loloff Construction, Inc. P.O. Box 518 Kersey, CO 80644 (970) 396-1994

Lessor Graham Drainage Ditch Company 2313 17 Street Greeley, CO 80634 970-352-4980 970-352-0038, fax

Executed to be effective as of the date set forth above.

LOLOFF CONSTRUCTION, INC.

STATE OF COLORADO)) SS.

County of Weld

The foregoing Agreement was acknowledged before me this 8 th day of <u>Novembe</u> 2012 by for John fr

WITNESS my hand and official seal.

GRAHAM DRAINAGE DITCH COMPANY

STATE OF COLORADO).) SS. County of Weld)

The foregoing Agreement was acknowledged before me this 8 day of NovEmBER. 20 12 by July Store DOHN M TODD

WITNESS my hand and official seal.

JULIE STONE NOTARY PUBLIC STATE OF COLORADO

3 of 3

City of Aurora

AURORA WATER

Water Department Water Resources 15151 E. Alameda Parkway, Suite 3600 Aurora, Colorado 80012 Phone: 303-739-7275 www.aurorawater.org



October 30, 2012

Jared Dains Applegate Group, Inc. 1490 West 121st Avenue, Suite 100 Denver, CO 80234

RE: Water Year 2013 Delivery Schedule

Dear Jared:

This letter is in response to your email dated October 26, 2012 requesting a lease letter for water to be delivered to Loloff Construction, Inc. over the 2013 Water Year by Aurora Water. Aurora submits its reuse accounting to the Division of Water Resources on a monthly basis for fully consumable return flows.

I have attached a copy of the daily delivery schedule for 21.1 acre feet for use in Loloff's WY 2013 SWSP. Deliveries are to be made at the Metro Waste Water Reclamation Facility located in Denver. The delivery of water is contingent on the execution of a lease agreement.

Please feel free to contact me if you have any questions or need further information.

Sincerely,

John Murphy Senior Water Resources Engineer Aurora Water

AGREEMENT FOR LEASE OF FIRM DELIVERY OF RECLAIMED WASTEWATER

THIS AGREEMENT ("Agreement") is entered into by and between the CITY OF AURORA, COLORADO, a Colorado municipal corporation of the counties of Adams, Arapahoe and Douglas acting by and through its Utility Enterprise ("Aurora"), whose address is 15151 East Alameda Parkway, Suite 3600, Aurora, CO 80012, and LOLOFF CONSTRUCTION, INC., whose address is P.O. Box 518 Kersey, CO 80644 ("Lessee") (Aurora and Lessee collectively referred to herein as the "Parties").

WITNESSETH:

WHEREAS, Aurora has the right to use, sell, or lease certain of its fully reusable municipal wastewater return flows to the South Platte River ("Reclaimed Wastewater"); and

WHEREAS, such Reclaimed Wastewater is derived from trans-mountain or other reusable sources; and

WHEREAS, Lessee has a use for a certain portion of this Reclaimed Wastewater; and

WHEREAS, Aurora and Lessee desire to enter into this Agreement whereby Aurora shall lease a portion of such Reclaimed Wastewater to Lessee; and

WHEREAS, this Agreement will be of mutual benefit and convenience to Aurora and Lessee; and

WHEREAS, the Aurora Utility Enterprise staff has determined as a precondition to entering this Agreement that Aurora is able to fulfill all exchange and operational obligations that require Reclaimed Wastewater, that it is able to fulfill all existing long-term agreements that require Reclaimed Wastewater and that all other needs of Aurora that may be fulfilled by these sources are met; and

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, and other good and valuable consideration, the adequacy and sufficiency of which is hereby acknowledged, Aurora and Lessee hereby agree as follows:

AGREEMENT

1. <u>General Terms</u>. The duration of this Agreement shall commence on the Effective Date, as defined in Paragraph 21 below, and continue until the last date for delivery of water as provided for on the water delivery schedule attached hereto as **Exhibit A**, such date being not more than five (5) years after the Effective Date. Said Agreement shall be made expressly subject to each of the terms and conditions set forth in this Agreement.

2. <u>Delivery Schedule</u>. Delivery of the Reclaimed Wastewater will be made in accordance with the water delivery schedule set forth and attached hereto as **Exhibit A** and incorporated herein by this reference ("<u>Delivery Schedule</u>"). In no event shall the total amount of Reclaimed

Wastewater delivered exceed the maximum amounts set forth in the Delivery Schedule. As long as Aurora is capable of delivering the Reclaimed Wastewater to the delivery points according to the Delivery Schedule, Lessee will be obligated to pay the per-acre foot charge set forth in Paragraph 8 below regardless of whether or not Lessee uses the Reclaimed Wastewater.

3. Delivery Location.

(a) Delivery Points. Lessee agrees that Aurora shall initially make its delivery of the Reclaimed Wastewater at the outfall of the Metro Wastewater Reclamation District's Robert W. Hite treatment facility ("Hite"). Lessee further agrees that Aurora may, in its sole discretion, satisfy its delivery obligations under this Agreement by delivering the Reclaimed Wastewater at any other delivery point or delivery points on the South Platte River (each of Hite and such other delivery points, hereinafter, a "Delivery Point" and collectively, the "Delivery Points"), provided that such alternative Delivery Points are located within a reach of the South Platte River beginning at or below Hite and continuing downstream to a point at or above the location on the South Platte River that is approximately 80 miles downstream of Hite at the confluence of the Cache la Poudre River and the South Platte River (such location, the "Point of Use"). Lessee acknowledges and agrees that the alternate Delivery Points may include, but are not limited to, other wastewater treatment plants that may be constructed in the future that discharge Reclaimed Wastewater owned by Aurora, the Brighton Ditch Augmentation Stations, the outfall of Walker Reservoir, and the confluence of Sand Creek and the South Platte River. Aurora will bear the responsibility for delivery of the Reclaimed Wastewater to these Delivery Points, and in its sole discretion may determine which of the Delivery Points it will use at any given time. Once Aurora has completed its delivery of the Reclaimed Wastewater hereunder, Lessee shall assume sole liability for any loss, damage, or injury that may occur to persons or property as the direct or indirect result of the control and/or use of said Reclaimed Wastewater by Lessee. The amount of Reclaimed Wastewater needed at the Delivery Points was calculated by Lessee to include any transportation losses, or "shrinkage," from Hite to Lessee's point of use downstream. Lessee also acknowledges the travel time between the alternate Delivery Points and Lessee's Point of Use varies, but that the timing for Aurora's delivery obligations as provided for under the Delivery Schedule shall remain the same regardless of Aurora's use of alternative Delivery Points.

(b) <u>Credit for Avoided Transit Loss</u>. Aurora's obligations with respect to the volume of Reclaimed Wastewater to be delivered under this Agreement are deemed to be satisfied if Aurora makes deliveries in such amounts as if delivered at Hite. Thus, if Aurora elects, in its sole discretion, to make its delivery of any Reclaimed Wastewater under this Agreement at a Delivery Point other than Hite, and if delivery at such alternative Delivery Point(s) results in reduced transit loss, Aurora shall be entitled to retain such avoided transit loss with no credit to Lessee in water, money or otherwise. Aurora shall maintain and provide to Lessee a monthly accounting and report of daily deliveries at the Delivery Point(s). If Aurora elects to deliver some or all of the Reclaimed Wastewater at alternative Delivery Point(s), then the foregoing reports shall include the calculated amount of avoided transit loss and the amount of water physically delivered at such alternative Delivery Point(s). For purposes of calculating any such avoided transit loss, the Parties hereby agree that the volume of Reclaimed Wastewater required to be delivered by Aurora in accordance with the Delivery Schedule shall be discounted by an amount equal to one-half of one percent (0.5%) of such volume during the April through

September irrigation season, or one-fourth of one percent (0.25%) of such volume during the October through March non-irrigation season, for each river mile in distance between Hite and such alternative Delivery Point(s) (such distance calculated to the nearest one-tenth of a mile), or by such other amount as determined by the Division Engineer for Water Division No. 1 (such office or its replacement the "Division Engineer") or as specified in an applicable statute or decree from a court of applicable jurisdiction. The product of this calculation shall represent the amount of avoided transit loss in acre-feet, which Aurora shall be entitled to retain.

4. <u>Source and Quality of Reclaimed Wastewater</u>. The Reclaimed Wastewater to be provided by Aurora under this Agreement shall, at Aurora's discretion, consist of Aurora's reusable municipal return flows to the South Platte River, any fully consumable portion of changed irrigation water rights owned by, or available to Aurora, fully consumable water diverted pursuant to decrees entered in 03CW414, 03CW415 and 06CW104, and any other legal source of Reclaimed Wastewater available to Aurora. Under no circumstances shall this Agreement be interpreted to mean that Aurora must supply potable water should the sources set forth in this paragraph be unavailable. Aurora does not warrant or guaranty any water quality standards with respect to the Reclaimed Wastewater to be delivered as provided for under this Agreement and Lessee hereby waives any such warranty or guaranty.

5. <u>Use of Reclaimed Wastewater</u>. Lessee shall have the right to use and reuse to extinction the Reclaimed Wastewater delivered under this Agreement for water supply purposes, including replacement and exchange purposes in connection with any substitute water supply plan approved by the Colorado State Engineer's Office, and augmentation and exchange purposes in accordance with any augmentation plan decreed by the Colorado Water Court; provided that such use is consistent with the terms of this Agreement and all applicable laws, rules and regulations. Notwithstanding the foregoing provision, however, this entire Agreement shall be void if the Reclaimed Wastewater is used in any manner that benefits United Water and Sanitation District, East Cherry Creek Valley Water and Sanitation District or Farmers Reservoir and Irrigation Company.

6. <u>Water Rights Accounting</u>. Lessee will be solely responsible for any and all reporting and accounting required by the Colorado State Engineer, the Division Engineer for Water Division 1, the Water Commissioner for Water Commissioner District 2, or any other lawful authority after Aurora makes its delivery of the Reclaimed Wastewater as provided for under this Agreement. This responsibility includes, but is not limited to, Lessee's withdrawal of the Reclaimed Wastewater from the South Platte River (if any) and Lessee's use of the Reclaimed Wastewater. In addition to the report requirements set forth in Section 3(b) above, Aurora will provide any and all reporting and accounting required by the Colorado State Engineer, the Division 1 Engineer, or any other lawful authority concerning proof of the reusability of the Reclaimed Wastewater and conveyance of the Reclaimed Wastewater to the Delivery Point(s).

7. <u>Subordination Clause</u>. This Agreement shall be made expressly subordinate to any present or future city use of effluent for purposes of augmentation, exchange, or any other use which is or will be of greater direct benefit to Aurora and the users of its water delivery system, as well as to the water supply obligations which Aurora has incurred or will incur through any of the following: (a) the March 2, 1981, Water Agreement with the City of Arvada, Colorado and any renewals thereof; (b) the October 25, 1993, Effluent Agreement with the State of Colorado,

Division of Parks and Outdoor Recreation and any renewals thereof; (c) its obligation pursuant to the Substitute Water Supply Plan for Upper Cherry Creek Management Association approved March 19, 1998, and any renewals thereof; (d) its obligations pursuant to Water Division 1, Case Nos. 95CW226 & 227, Case No. 99CW158, Case No. 01CW284 and Case No. 02CW341; (e) the April 23, 2001, Agreement for Agreement of Reclaimed Wastewater with Calpine Corporation; (f) the May 20, 2003 Water Rights Purchase and Sale Agreement with the City of Thornton, Colorado; (g) the May 19, 2006, Reusable Water Agreement with the Central Colorado Water Conservancy District, and (h) any and all obligations resulting from any firm delivery annual lease or delivery contract of Reclaimed Wastewater executed prior to the date of this Agreement. The foregoing subordination does not, in and of itself, create an excuse for Aurora's failure to deliver the Reclaimed Wastewater under this Agreement. However, Aurora and Lessee agree that the purpose and effect of the foregoing subordination is to establish a priority among and between Aurora's obligations under this Agreement and Aurora's other obligations with respect to its Reclaimed Wastewater in the event of a *force majeure* event or other delay or interruption in Aurora's delivery of the Reclaimed Wastewater.

8. <u>Consideration</u>. Lessee agrees to pay to Aurora the amount of Three Hundred dollars (\$300.00) per acre-foot ("<u>Unit Rate</u>") of Reclaimed Wastewater delivered under this Agreement. The Unit Rate shall remain constant throughout the term of this Agreement.

9. <u>Payment</u>. Aurora shall bill Lessee for all effluent it will deliver to Lessee during the duration of this Agreement within 30 business days of the Effective Date. All billing shall be done on such forms as designated by Aurora for that purpose. Payment by Lessee shall be due no later than forty-five (45) days after such bill has been issued. If Lessee does not make the required payment by the due date, Aurora may give Lessee a notice of default. If Lessee does not cure the default by making full payment within thirty (30) days of receipt of any notice of default, then Aurora, in addition to pursuing any other remedies available to it, may declare this Agreement terminated.

10. <u>Non-Assignability and No Subleases</u>. Neither Aurora nor Lessee may assign its rights or delegate its duties hereunder without the prior written consent of the other Party. Lessee may not sublease the Reclaimed Wastewater to which it is entitled pursuant to this Agreement without the permission of Aurora, which permission Aurora may grant or withhold at its discretion.

11. <u>Successors and Assigns</u>. This Agreement and the rights and obligations created hereby shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns, if any are allowed. The Parties intend that Aurora shall not incur any liability other than those liabilities directly running to Aurora or assigns permitted under this Agreement if any. Lessee therefore covenants and agrees to indemnify, save and hold harmless Aurora from all liability, cost or expense of any kind, including Aurora's costs of defense to any other party arising in connection with or relating in any way to the execution, delivery or performance of any allowed assignment or any related document by the parties thereto or to the consummation of any transaction in connection with such documents.

12. <u>No Rights Conferred</u>. Except as otherwise provided in this Agreement, the Parties acknowledge that all Reclaimed Wastewater leased hereunder is intended for the present and future use of Aurora. It is further understood and agreed to by the Parties that this Agreement

shall confer no rights in such Reclaimed Wastewater upon Lessee, nor shall any future needs of Lessee for water enable Lessee to make claim against Aurora for any of Aurora's Reclaimed Wastewater, other water or water rights. Lessee further acknowledges the statutory prohibition against vesting of a right for a continued lease expressed in CRS § 31-35-201 applies in these circumstances.

13. <u>No Opposition to Aurora Water Court Matters</u>. From the date of execution of this Agreement through the conclusion hereof, Lessee agrees that neither it nor any successors, if any are allowed, will oppose Aurora in any Colorado Water Court applications filed by Aurora.

14. <u>Aurora Right to Request Reuse</u>. The Parties hereto acknowledge that hydrologic and other conditions may exist wherein Lessee may not need all or a portion of the Reclaimed Wastewater flow available to it under this Agreement. Aurora may contact Lessee, not more frequently than once per day, to determine if any of the Reclaimed Wastewater leased hereunder will not be needed.

15. <u>Entire Agreement of the Parties</u>. This Agreement represents the entire agreement of the Parties and neither Party has relied upon any fact or representation not expressly set forth herein. All prior and contemporaneous conversations, negotiations, possible alleged agreements, representations, covenants and warranties concerning the subject matter hereof, are merged in this Agreement.

16. <u>Amendment</u>. This Agreement may be amended, modified, changed, or terminated in whole or in part only by written agreement duly authorized and executed by the Parties hereto.

17. <u>Enforcement</u>. The Parties agree that this Agreement may be enforced in law or in equity for specific performance, injunctive, or other appropriate relief, including damages, as may be available according to the laws of the State of Colorado. It is specifically understood that, by executing this Agreement, each Party commits itself to perform pursuant to the terms hereof, and that any breach hereof resulting in any recoverable damages shall not thereby cause the termination of any obligations created by this Agreement unless such termination is requested by the Party not in breach hereof.

18. **Failure to Perform Due to Force Majeure**. Subject to the terms and conditions in this Paragraph, no Party to this Agreement shall be liable for any delay or failure to perform under this Agreement due solely to conditions or events of *force majeure*, as that term is specifically defined herein; provided that: (i) the non performing Party gives the other Party prompt written notice describing the particulars of the occurrence of the *force majeure*; (ii) the suspension of performance is of no greater scope and of no longer duration than is required by the *force majeure* event or condition; and (iii) the non-performing Party proceeds with reasonable diligence to remedy its inability to perform and provides weekly progress reports to the other Party describing the actions taken to remedy the consequences of the *force majeure* event or condition. As used herein *force majeure* shall mean any delay or failure of a Party to perform its obligations under this Agreement caused by events beyond the Party's reasonable control, and without the fault or negligence of the Party, including, without limitation A) changes in state or federal law or administrative practice concerning, water rights administrative practice concerning the

reuse of reclaimed wastewater through leases to others for use at locations other than Aurora, Colorado, including, but not limited to, challenges to retained dominion and control, C) acts of God, D) sudden actions of the elements such as floods, earthquakes, hurricanes, or tornadoes, E) sabotage, F) vandalism beyond that which can be reasonably prevented by the Party, G) terrorism, H) war, I) riots, J) fire, K) explosion, L) severe cold or hot weather, M) snow, N) drought [a condition more severe than that which occurred in 2002 in the South Platte River Basin or any basin from which the Reclaimed Wastewater originates] O) other extreme weather conditions, P) blockades, Q) insurrection, R) strike, slow down or labor disruptions (even if such difficulties could be resolved by conceding to the demands of a labor group); S) actions by federal, state, municipal, or any other government or agency (including but not limited to, the adoption or change in any rule or regulation or environmental constraint imposed by federal, state or local government bodies) but only if such requirements, actions, or failures to act prevent. or delay performance, T) inability, despite due diligence, to obtain required licenses, permits or approvals, and, U) changes of law relating to financial obligations, revenues and budgetary matters concerning Colorado local governments and their enterprises. In the event a force majeure event or condition prevents Aurora from delivering all or part of the agreed upon amounts of Reclaimed Wastewater to Lessee, Aurora shall refund all advance payments made for that water not delivered within sixty (60) days of the conclusion of the force majeure event or the cancellation of the Agreement pursuant to the remaining provisions of this Paragraph. In no event will any delay or failure of performance caused by any conditions or events of force majeure extend this Agreement beyond its stated term. In the event any delay or failure of performance on the part of the Party claiming force majeure continues for an uninterrupted period of more than one hundred twenty (120) days from its occurrence or inception as noticed pursuant to this Paragraph, the Party not claiming force majeure may, at any time following the end of such one hundred twenty (120) day period, terminate this Agreement upon written notice to the Party claiming force majeure, without further obligation except as to costs and balances incurred prior to the effective date of such termination.

19. Sole Obligation of Utility Enterprise.

(a) This Agreement shall never constitute a general obligation or other indebtedness of the City of Aurora (the "City"), or a multiple fiscal year direct or indirect debt or other financial obligation whatsoever of the City within the meaning of the Constitution and laws of the State of Colorado or of the Charter and ordinances of the City.

(b) In the event of a default by Aurora's Utility Enterprise of any of its obligations under this Agreement, Lessee shall have no recourse for any amounts owed to it against any funds or revenues of the City except for those revenues derived from rates, fees or charges for the services furnished by, or the direct or indirect use of, the Water System and deposited in the Water Enterprise Fund, as the terms "Water System" and "Water Enterprise Fund" are defined in City Ordinance No. 2003-18, and then only after the payment of all operation and maintenance expenses of the Water System and all debt service and reserve requirements of any bonds, notes, or other financial obligations of the Utility Enterprise secured by a pledge of the net revenues of the Water Enterprise Fund. Notwithstanding any language herein to the contrary, nothing in this Agreement shall be construed as creating a lien upon any revenues of the Utility Enterprise or the City.

20. Miscellaneous.

(a) <u>Intent of Agreement</u>. This Agreement is intended to describe the rights and responsibilities of and between the named Parties and is not intended to, and shall not be deemed to confer rights upon any persons or entities not named as Parties, nor to limit in any way the powers and responsibilities of Aurora, Lessee, or any other entity not a party hereto.

(b) <u>Effect of Invalidity</u>. If any portion of this Agreement is held invalid or unenforceable for any reason by a court of competent jurisdiction as to either Party or as to both Parties, the entire Agreement will terminate.

(c) <u>Waiver of Breach</u>. Waiver of breach of any of the provisions of this Agreement by either Party shall not constitute a continuing waiver of any subsequent breach by said Party of either the same or any other provision of this Agreement.

(d) <u>Multiple Originals</u>. This Agreement may be simultaneously executed in any number of counterparts, each one of which shall be deemed an original, but all of which constitute one and the same Agreement.

(e) <u>Headings for Convenience</u>. Headings and titles contained herein are intended for the convenience and reference of the Parties only and are not intended to confine, limit, or describe the scope of intent of any provision of this Agreement.

(f) <u>Recordation</u>. Following the execution of this Agreement, the Parties may cause this Agreement to be recorded with the Clerk and Recorder's Office of such county or counties in Colorado as they may desire.

(g) <u>Notice</u>. All notices, requests, demands, or other communications (collectively, "<u>Notices</u>") hereunder shall be in writing and given by (i) established express delivery service which maintains delivery records requiring a signed receipt, (ii) hand delivery, or (iii) certified or registered mail, postage prepaid, return receipt requested to the Parties at the following address, or at such other address as the Parties may designate by Notice in the above manner.

To Aurora:	City of Aurora 15151 East Alameda Parkway, Suite 3600 Aurora, CO 80012-1555 Attn: Director, Aurora Water	
with copy to	City of Aurora 15151 East Alameda Parkway, Suite 5300 Aurora, CO 80012-1555 Attn: City Attorney	
with copy to	Brownstein Hyatt Farber Schreck, LLP 410 17 th Street, Twenty Second Floor Denver, CO 80202 Attn: Andrew L. Meyers, Esq.	

To Lessee:

Loloff Construction, Inc. Don Loloff P.O. Box 518 Kersey, CO 80644 (970) 396-1994

Notices shall be effective (x) the next day following the date sent by an established express delivery service which maintains delivery records requiring a signed receipt, (y) upon receipt by the addressee of a hand delivery, or (z) three days following the date of mailing via certified or registered mail, postage prepaid, return receipt requested.

(h) <u>Non-Business Days</u>. If any date for any action under this Agreement falls on a Saturday, Sunday or a day that is a "holiday" as such term is defined in Rule 6 of the Colorado Rules of Civil Procedure, then the relevant date shall be extended automatically until the next business day.

(i) <u>Commissions and Fees</u>. Each Party shall be solely responsible for the payment of any and all real estate commissions or other commissions or fees that it incurs with respect to this Agreement.

(j) <u>Governing Law and Venue</u>. This Agreement and its application shall be construed in accordance with the law of the State of Colorado. Should it be necessary to initiate court proceedings concerning this Agreement, the Parties agree that venue shall be in the District Court for Arapahoe County, Colorado.

(k) <u>No Attorneys' Fees</u>. In the event of any litigation, mediation, arbitration or other dispute resolution process arising out of or related to this Agreement each Party agrees to be responsible for its own attorneys' and other professional fees, costs and expenses associated with any such proceedings.

(I) <u>No Construction Against Drafter</u>. This Agreement was drafted by Aurora with review and comment from the attorney for Lessee. Accordingly, the Parties agree the legal doctrine of construction against the drafter will not be applied should any dispute arise concerning this Agreement.

21. <u>Effective Date</u>. The "Effective Date" of this Agreement shall be the date it is signed by the Director of Aurora Water.

IN WITNESS WHEREOF, the Parties hereto have duly executed this Agreement as of the date first above written.

CITY OF AURORA, COLORADO, ACTING BY AND THROUGH ITS UTILITY ENTERPRISE

Marshalf Brown, Director, Aurora Water

11/14/12

Date

APPROVED AS TO FORM FOR AURORA:

Stev Sims, Special Water Counsel

11-Date

Christine McKenney, Assistant City Attorney

Date

12009113 ACS#

STATE OF COLORADO)) ss COUNTY OF ARAPAHOE)

The foregoing instrument was acknowledged before me this $\underline{14}$ day of $\underline{Nouenbe}(2012, by Marshall Brown, Director, acting on behalf of the Utility Enterprise of the City of Aurora, Colorado.$

5 Droigiai Witness my hand and official seal. Notary Public My commission expires: NOTAR + PUBLIC OF BEAL OF COLORING 1.28.3 OFCO in the country of Commission Expires

LESSEE & OLOFF CONSTRUCTION INC.

Don Loloff, General Manager

11-26-2012 Date

STATE OF COLORADO) ss. COUNTY OF Weld)

The foregoing Agreement was acknowledged before me this 36 + day of Movember, 2012, by Don Loloff, of Loloff Construction, Inc.

Witness my hand and official seal. <u>Elsei L Daele</u> Notary Public My commission expires: <u>6/10/2013</u>

(SEAL)

EXHIBIT A DELIVERY SCHEDULE

CALENDAR YEAR 2013

(ACRE-FEET)

Loloff Construction	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Total
Consumptive Use	2.8	2.6	2.6	0	0	0	0	0	0	0	5.6	4.2	17.7
Transit Loss	0.5	0.5	0.5	0	0	0	0	0	0	0	1.1	0.8	3.5
Total Release	3.3	3.1	3.1	0	0	0	0	0	0	0	6.7	5	21.2

ADMINISTRATION PROTOCOL Augmentation Plan Accounting Division One – South Platte River

This protocol establishes the accounting and reporting process required to enable the division engineer's office to confirm that depletions from all out-of-priority diversions are being replaced so as to prevent injury to vested water rights. The accounting must comport with established "cradle to grave" accounting standards, which allow an audit of the information to track exactly how the data is manipulated as it is translated from raw input data to the resultant impact on the river. While this protocol is subordinate to any decreed language addressing specific accounting requirements, it generally addresses the minimum requirements of such accounting.

The accounting must use the standard convention where a depletion is "negative" and an accretion or other replacement source is "positive". The sum of the impacts will then result in either a "negative" or "positive" impact on the stream.

Wells in plans that have a negative stream impact must provide additional replacement water, curtail pumping or both until the impact is no longer negative. Plans with a negative stream impact that fail to curtail pumping will be ordered to stop pumping until such time as the projected impact of the wells is no longer negative.

- Accounting must be submitted electronically to the water commissioner (call 970-352-8712 to obtain email address) and division engineer at Div1Accounting@state.co.us within 30 days of the end of the month for which the accounting is being submitted.
- The accounting must provide the contact information including name and address for:
 - a. the owner(s) of each well
 - b. the person responsible for submitting the accounting
 - c. the plan administrator and/or the plan attorney.
- All input data must be in one location, such as an "Input" worksheet, etc. The accounting must show all pumping. Input data includes the information listed below.
 - a. The required input data for each well is:
 - the monthly meter reading for wells that use a presumptive depletion factor (PDF) to determine the associated consumptive use (CU); or
 - ii. the <u>monthly CU in acre-feet</u> (AF) for wells that have a decree or approved SWSP that allows the wells to use a water balance methodology to determine the CU of the well. The analysis used to determine the CU must be included with the accounting.
 - Wells that are decreed as an alternate point of diversion (APOD) to a surface water right <u>must report pumping on a daily</u> <u>basis</u> if any of the diversion during the month is claimed as being "in priority". (See Administration Protocol – APOD Wells for more details.)

Administration Protocol - Augmentation Plan Accounting Revised March 19, 2009

- The well meter serial readings for each meter shall be included if there is more than one meter on a well.
- Each recharge site must comply with the Administration Protocol -Recharge and must report the:
 - i. daily volume in AF diverted into the site;
 - ii. monthly volume in AF released from the site;
 - iii. monthly net evaporative loss in AF;
 - iv. volume of water in AF remaining at the end of the month.
- c. The accounting must identify each source of fully consumable replacement water actually delivered to the location impacted by the depletions. To demonstrate the water was actually delivered to the required location will require the following information:
 - the originating source of the water, date released and volume of water released;
 - ii. transportation losses to point of diversion or use, if any, using stream loss factors approved by the water commissioner;
 - iii. the volume of water actually delivered on a daily basis past any surface water diversion that was sweeping the river as corroborated by the water commissioner.

(See Administration Protocol – Delivery of Water for more details on delivering water.)

- d. For each source of replacement water that has been "changed" for use as a source of augmentation, such as changed reservoir shares, ditch bypass credits or credits from dry-up, etc., the following input information must be reported:
 - the basis and volume of the return flow obligation;
 - the location the changed water was historically used; this will be the location used to determine the timing of the return flow impact on the river.
- The accounting must include a monthly projection of the plan's operation at least through March 31 of the next calendar year.
- 5. The accounting must include all input and output files associated with modeling the delayed impact of diversions. The output from the modeling must report to a summary table that shows, by month, the ongoing depletions associated with pumping, return flow obligations, etc. and accretions from recharge operations.
- A net impact summary must show the out-of-priority depletions, accretions from each recharge site, volume of replacement water actually delivered to the location of the depletions and the resultant net impact on <u>a daily basis</u>. If necessary, the net impact must be done by river reach.

While modeling may use a monthly step function to determine the depletions from pumping and accretions from recharge, the monthly result must then be divided by the number of days in the month in order to simulate a daily impact, as water rights are administered on a daily and not monthly basis.

Administration Protocol - Augmentation Plan Accounting Revised March 19, 2009 Replacement water must be provided such that the **daily net impact** (using the simulated daily numbers from the modeling) **is not negative**. If a well is out-of-priority for 15 days during a month, replacement must be made only for the 15 days the well is out-of-priority. The replacement must be made, however, on a daily basis as opposed to, for instance, making an aggregated release equal to the volume of the out-of-priority depletions. Likewise, the simulated daily accretion will only count toward replacing the depletion on the days the well is out-of-priority. The accretions that report to the river when the well is in priority cannot be used to replace the out-of-priority depletions.

The accretions that impact the river when the well is in priority are not considered "excess" unless the cumulative net impact of the well is not negative for the entire irrigation year to date. (The irrigation year for this purpose is April 1 thru the following March 31.) Until such time as the cumulative net impact is not negative, the accretions must simply be released to the river and cannot be leased to other plans or recaptured. Plans that show a positive cumulative net impact are still required to make replacements on a daily basis; the cumulative analysis only effects whether or not accretions reporting to the river when the well is in priority are considered "excess" and are, therefore, able to be recaptured.

- 7. The basis for determining that the depletions are out-of-priority must be clearly established and all steps in the calculation included in the accounting. The analysis may be done, unless otherwise limited by decree, for each well or groups of wells, provided the most junior water right associated with the group of wells is used as the reference water right for the group's out-of-priority status.
- Accounting must include actual information for the irrigation year through the month for which the accounting is being submitted AND projections of the plan operation through March 31 of the next calendar year.
- The following naming convention must be used for all files submitted pursuant to item 1:

"PlanWDID_YYMMDD"

where: PlanWDID is the WDID assigned by the division engineer's office YYMMDD corresponds to the date the accounting is submitted.

As an example, the assigned WDID for the former GASP plan was 0103333. If accounting using Excel® was submitted for that plan on May 15, 2004, the file name would be:

"0103333_040515.xls"

The name of the file must be in the subject line of the email.

10. All accounting must be reported using the WDID for the structure, at a minimum. Other information such as well name, permit number, etc. may also be included as desired. <u>All wells must be decreed by the water court, permitted by the state</u> <u>engineer or included in a decreed plan for augmentation</u>. Unregistered and undecreed wells cannot, in the opinion of the division engineer, be effectively administered because of the need to know the location, allowable diversion rate and use of the well - information that is only available from the decree or permitting process.

> Administration Protocol - Augmentation Plan Accounting Revised March 19, 2009

- 11. If a well is covered in multiple SWSP's or augmentation plans, the monthly meter readings must be the same in the accounting for each plan covering the subject well. The accounting for every plan covering the well shall state the proportionate pumping amount covered by each plan to assure all out-of-priority depletions are replaced.
- 12. The following additional accounting is required for sources of replacement water used for more than one plan. The water right owner of the replacement water is responsible for accounting for the total replacement amount and how much each plan is using of that total amount. The accounting for portions of the replacement water by other users must match the accounting of the water right owner. The amount of replacement water used by the water right owner and other users together shall not exceed the total replacement amount available.

(See Administration Protocol – Use Of Unnamed Sources For Replacement for additional requirements concerning required notice and approval of sources of replacement not specifically described in a SWSP or augmentation plan)



CONSENT AND RELEASE AGREEMENT

This Consent and Release Agreement is made this 26 day of Aqq_2 . 2013 between Lawrence and Lois Monroe (collectively referred to as "Monroe") and Lotoff Construction ("Loloff").

RECITALS

Monroe owns the parcel of land in Weld county, located at 369 East 8th Street, Greeley, CO 80631. A well operated under Colorado Division of Water Resources Well Permit No. 44981 is located on the Monroe parcel (the "Well");

Loloff Construction owns the parcel of land in Weld County, located north of 8th Avenue on Balsam Avenue, which is inumediately east of the Monroe parcel, and shares a common boundary;

The parties desire to use water produced by dewatering from the Loloff parcel to fill the pond which exists on the Monroe parcel, along its eastern boundary, which in turn may be beneficial in maintaining the level of the Well.

The parties recognize the benefit to allowing Loloff to monitor the water level in the Wellon a monthly basis.

Now, therefore, for good and valid consideration, the receipt and sufficiency of which all parties acknowledge, the parties agree to the following:

Monroe grants permission to Loloff or his authorized representative, including a representative of Mill from Mining, LLC, to enter onto the Monroe parcel to monitor the water level in the Well. This will be done on a monthly basis so long as weather and other environmental factors allow access, and will continue until reclamation of the Loloff mine has been completed.

2. Monroe grants to Loloff the right to pump water onto the Monroe parcel into the existing pond through the existing culvert from the ditch on the Loloff property. Loloff shall at all traces oranization water itow into ishuroe a pond to with take all reasonable efforts-to ensure that the pond has sufficient water to allow it to act as a recharge area for the purposes of maintaining localized water table where its anishibility of water produced by deviate into the fifth, sourt hold of the set

3 Monroe releases Loloff and its representatives, and specifically including representatives of Mill from Mining, from any liability or other consequences of pumping water from the Loloff parcel onto the Monroe parcel as described above except 1 oloff and its agents, invites, and puests shall be hable for any regigent, intentional or other conduct causing damages to Monroe. Ecoloff shall be liable downey damages caused to Monroe's crops, teal estate, water or water quality by fooloff or their employees contractors agents or other performing services for boloff.

4 Loloff releases Monroe from any liability or other consequences associated from granting permission to Loloff or his representatives drawn to the Loloff parcel to monitor the existing domestic stock Well.

5. The rights granted by this Consent and Release Agreement, together with the obligationassociated with this Agreement, shall be binding upon any successors, pssigns or subsequent transferors of either the Monroe parcel or the Loloff parcel, it being the intent of the parties that the obligations contained in this agreement run with the land, and act as an encumbrance upon both respective parcels.

6 Lufoll or its assistances and successors in interest shall a all times obtain and manuain all constraint deviatering permits required by the State of Colorado Department of Public Dealth and Environment and my other percentaneousl agencies for their deviatories project, and shall provide require 1. dependent of the borne upper and constalling request from Monoto.

Dated this & day of / aa .2013

Lawrence Monroe

Lois Monroe

e Ence

Loloff Construction: By: Don Loloff As: President

\$14X117160n0175hpreement dog

Brian K Harrell 238 1st Avenue Greeley, Colorado 80632

July 3, 2013

RE: Well Protection/Water Level Monitoring Agreement

Mr. Harrel:

Loloff Construction Inc.(Loloff) has a Weld County (County) Use by Special Review Permit, and a State of Colorado Division Of Reclamation, Mining, and Safety (DRMS) Reclamation Permit to allow sand and gravel mining on a property that is near the following shallow well(s) located on your property:

Permit #	Use
226878-A	Domestic/Livestock

Loloff acknowledges your concern for maintaining the capacity of your well(s), and hereby offers to monitor the water depth and capacity of your well(s) at Loloff expense, to determine if the well(s) is (are) adversely affected by mining and reclamation operations.

Loloff agrees to begin monthly monitoring of water depth in your well(s) and to continue monitoring until reclamation is completed. By your signature below, your acknowledge Loloffs commitment to monitor and mitigate any adverse impacts to your well(s) attributed to Loloffs mining and reclamation activities, and grant permission for Loloff to commence said monitoring.

Construction me. Sincere

Loloff Construction

Property Owner

7-12-13

Date

7-12-13 Date



John Carlson 340 E "C" Street Greeley, Colorado 80631

July 3, 2013

RE: Well Protection/Water Level Monitoring Agreement

Mr. Carlson::

Loloff Construction Inc.(Loloff) has a Weld County (County) Use by Special Review Permit, and a State of Colorado Division Of Reclamation, Mining, and Safety (DRMS) Reclamation Permit to allow sand and gravel mining on a property that is near the following shallow well(s) located on your property:

Stack

Har Permit # 421 - WCB Receipt C620421

Loloff acknowledges your concern for maintaining the capacity of your well(s), and hereby offers to monitor the water depth and capacity of your well(s) at Loloff expense, to determine if the well(s) is (are) adversely affected by mining and reclamation operations.

Loloff agrees to begin monthly monitoring of water depth in your well(s) and to continue monitoring until reclamation is completed. By your signature below, your acknowledge Loloffs commitment to monitor and mitigate any adverse impacts to your well(s) attributed to Loloffs mining and reclamation activities, and grant permission for Loloff to commence said monitoring.

Sincerely Toff Construction In

Property Owner

Date

Date



Robert Francis PO Box 843 Greeley, Colorado 80632

July 3,2013

RE: Well Protection/Water Level Monitoring Agreement

Mr. Francis

Loloff Construction Inc. (Loloff) has a Weld County (County) Use by Special Review Permit, and a State Of Colorado Division Of Reclamation, Mining, and Safety (DRMS) Reclamation Permit to allow sand and gravel mining on a property that is near the following shallow well(s) located on your property:

Permit#	Date
30562	Irrigation
135883	Domestic
26555A	Stock

Loloff acknowledges your concern for maintaining the capacity of your well(s), and hereby offers to monitor the water depth and capacity of your well(s) at Loloff expense, to determine if the well(s) is (are) adversely by mining and reclamation operations.

Loloff agrees to begin monthly monitoring of water depth in your well(s) and to continue monitoring until reclamation is completed. By your signature below, your acknowledg Loloffs commitment to monitor and mitigate any adverse impacts to your wells attributed to Loloffs mining and reclamation activities; and grant permission for Loloff to commence said monitoring.

Sincerel Loloff Construction, Inc

Property Owner

Date Aug 2013 01 Aug 21/3



Sylvia Parker 211 North Balsam Avenue Greeley, Colorado 80631

July 3, 2013

RE: Well Protection/Water Level Monitoring Agreement

Ms. Parker:

Loloff Construction Inc.(Loloff) has a Weld County (County) Use by Special Review Permit, and a State of Colorado Division Of Reclamation, Mining, and Safety (DRMS) Reclamation Permit to allow sand and gravel mining on a property that is near the following shallow well(s) located on your property:

	Permit #
	44673
Receipt	4 9064412

Loloff acknowledges your concern for maintaining the capacity of your well(s), and hereby offers to monitor the water depth and capacity of your well(s) at Loloff expense, to determine if the well(s) is (are) adversely affected by mining and reclamation operations.

Loloff agrees to begin monthly monitoring of water depth in your well(s) and to continue monitoring until reclamation is completed. By your signature below, your acknowledge Loloffs commitment to monitor and mitigate any adverse impacts to your well(s) attributed to Loloffs mining and reclamation activities, and grant permission for Loloff to commence said monitoring.

Sincerely,

Loloff Construction Inc

Property Owner

Date

Use

Domestic/Stock

-30-2013



Broken Arrow Investments, LLC Attn: Mr. Doug Derr 699 North 1st Avenue Greeley, Colorado 80631

August 26, 2013

Re: Water Level Monitoring Agreement

Mr. Derr:

Loloff Construction (Loloff), has a Weld County (County) Use by Special Review Permit; and a State of Colorado Division of Reclamation, Mining, and Safety (DRMS) Reclamation Permit to allow sand and gravel mining on a property that is near the monitoring well(s) located on the Derr Pit mine.

Loloff is requesting to monitor groundwater levels in your existing monitor wells on the west side of the Derr Pit. The Division of Reclamation, Mining, and Safety has requested an agreement between Loloff Construction, Inc. and Broken Arrow Investments, LLC granting permission for Loloff to commence said monitoring. By signing below Broken Arrow Investments, LLC grants Loloff Construction, Inc. permission to monitor ground water levels at the monitoring wells on the west side of the Derr Pit.

Sincerely Loloff Construction

Broken Arrow Investments, LLC

0.0

<u>5-26-2</u>015 Date **8/3**2/13



August 26, 2013

Dust & Dirt Excavating, LLC 699 N 1st Avenue Greeley, Colorado 80631

Re: Agreement for Compensation for Damage to Structures within 200 feet of mining activities

To Whom It May Concern:

Loloff Construction, Inc. has a Weld County (County) Use by Special Review Permit AMUSR- 690, and a State of Colorado Division of Reclamation, Mining, and Safety (DRMS) Reclamation Permit M1985-112 to allow sand and gravel mining on property within 200 feet of structures located on your property. The Colorado Mined Land Reclamation Act provides protection for your property, and specific protection for your structures located within 200 feet of the mining activities.

DRMS Permit requires a notarized agreement between the permit holder and owners of structures within 200 feet, providing compensation for any damage to the structure; or preparation of an engineering evaluation acceptable to the DRMS, demonstrating that such structures shall not be damaged by the mining activities if an agreement cannot be reached.

Loloff Construction, Inc. has had an engineering evaluation performed to determine acceptable setbacks from their proposed mining permit boundary and mining limit to structures adjacent to the mining. The proposed mining slopes and setbacks were analyzed using the XSTABL v5.105a computer program. XSTABL was designed to analyze the slope stability of earth embankments subjected to several critical situations that may occur during the life of the embankment. The procedure searches for circular shear failures and automatically searches for the lowest safety factor. 2,000 separate failure surfaces were analyzed for each case. The required minimum safety factors are based on the current standards used by the Colorado State Engineer's Office (SEO) for high hazard embankment dams, and industry accepted standards for the evaluation of embankments during construction. The safety factors attained using the setbacks shown on the attached Mining Plan are greater than the required safety factors specified by the SEO for an earth embankment during construction, and an earth embankment subjected to earthquake loading, based on the United States Geological Survey earthquake peak acceleration factors for the area. This evaluation indicates that damage to structures adjacent to the mining should not occur, even during earthquake conditions, which are very unlikely to be present.

Dust & Dirt Excavating, LLC RE: Agreement for Compensation for Damage to Structures within 200 feet of mining activities - 2 -

With this letter, Loloff Construction, Inc. requests your authorization to conduct mining and reclamation activities within 200 feet of the structures located on your property. In return for this authorization, Loloff Construction, Inc. agrees to provide fair compensation for any damage to your structure(s) resulting from its mining and reclamation activities. Your notarized signature below grants permission for Loloff Construction, Inc.to conduct mining and reclamation activities within 200 feet of your structure(s), and acknowledges Loloff Construction, Inc.'s commitment to provide compensation for any damages to said structure(s) caused by Loloff Construction, Inc.'s mining and reclamation activities.

Sincerely;

Don Loloff, Manager

Loloff Construction, Inc.

Dust & Dirt Excavating, LLC

Date

The foregoing instrument was acknowledged before me thi TONTO thee Notary Public ANICE T My Commission Expires NOTAR 0 PUBLIC Of Colorado

Loloff Construction, Inc.

P.O. Box 518

Kersey, Colorado 80644



U.S. Postal Service	U.S. Postal Service CERTIFIED MAIL RECEIPT (Domestic Mail Only: No Insurance Coverage Provided)
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