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June 21, 2019

Via email: megan.sullivan@state.co.us

Megan Sullivan
Colorado Division of Water Resources
1313 Sherman St., Room 818
Denver, CO 80203

Re: Substitute Water Supply Plan Renewal for United Companies' Colona Gravel Pit

Dear Megan,

Wright Water Engineers, Inc. (WWE), on behalf of Oldcastle Southwest Group, Inc., d/b/a United Companies (United), is requesting a two-year renewal for the Colona Gravel Pit Substitute Water Supply Plan (SWSP), which expires September 30, 2019. A payment for $257 from United will be made under separate cover for the SWSP renewal fee. The following sections of this renewal request detail the mining operation at the Colona Gravel Pit and the associated water depletions.

CURRENT OPERATION

United is using wet mining techniques at the Colona Gravel Pit. Based on aerial photography from September 2017 there were approximately 9.6 acres of exposed groundwater (see Figure 1).

WATER DEPLETIONS

Currently, depletions at the Colona Gravel Pit are occurring as a result of evaporation from the exposed groundwater, water used for dust suppression, and water filling the pit due to material removal. Appendix A is a sample accounting sheet to record the actual depletions.

Evaporative Depletions – Years One and Two of Plan Period

Based on information from United, the anticipated water surface area of the ponds for years one and two of this plan period is 11.3 acres. This acreage is estimated based on an existing 9.6 acres of water surface area plus 1.7 acres of anticipated expansion of exposed pit water surface area (See Figure 1).

The total acreage of 11.3 surface acres for years one and two of this plan makes evaporative depletions for both years the same. Should the water surface area expand over 11.3 surface acres during the plan period, adjustments will be made accordingly using the existing replacement supplies for the additional depletions.

For months when the average monthly temperature has historically been less than 32 degrees Fahrenheit, WWE assumes the pit is iced over and no evaporation occurs (see Table 1, Column 7). After accounting for ice, the calculated unit evaporation rate at the Colona Gravel Pit is 2.55 feet per year (see Table 1, Column 8). Multiplying the net unit evaporation by the exposed water surface area on a monthly basis gives a total annual evaporative depletion of 28.87 acre-feet per year (AF/yr) (see Table 1, Column 9).

Dust Suppression Depletions – Years One and Two of Plan Period

Based on conversations with United, water is used for dust suppression during the months of March through November. Currently, United uses 5,400 gallons of water per day, 5 days per week for dust suppression. This equates to 0.4 AF/month or 3.3 AF/yr of water depletions (see Table 2, Column 2).

Depletions from Water Filling the Pit

United is responsible for depletions caused by water filling the pit from material removal. The water depletions are calculated according to the amount of material removed from the pit, including calculation of water removed from the tributary stream system by the "first fill" or "intermittent fill" of the gravel pit. The volume of water in first fill is calculated according to the General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits, updated April 1, 2011, as follows:

$$\mathbf{V_{fif} = V_{mm} \times (1 - porosity) - V_{lp}}, \text{ where}$$

$\mathbf{V_{fif}}$ = Volume of water in first fill or intermittent fill
$\mathbf{V_{mm}}$ = The net increase in the volume of "mined material" below the water table that has been filled with groundwater
Porosity = The ratio of the pore volume to the total volume of the mined material
$\mathbf{V_{lp}}$ = Volume of water calculated as lost in product for "Not Washed" gravel

Mining production is conservatively estimated at 82,450 tons for each year of this SWSP and is distributed evenly from October to March (6 months). Based on the removal of 13,742 tons of material per month and a volume of 1.8 tons of material per cubic yard, WWE calculates a monthly volume of mined material below the water table filled by groundwater (V_{mm}) of 4.7 AF/month, or 28.4 AF/year (see Table 2, Column 3). Assuming a 25 percent pore volume porosity and a 4 percent volume of water lost in product for "Not Washed" gravel, the volume of water in first fill or intermittent fill (V_{fif}) is 3.1 AF/month, or 18.9 AF/year (see Table 2, Column 5).

Total Depletions

Depletions at the Colona Gravel Pit are occurring as a result of evaporation from the exposed groundwater, dust suppression, and water filling the pit due to material removal. The total depletions are 55.8 AF/yr (see Table 2). The total depletions at the Colona Gravel Pit for this plan period are reduced from the previous SWSP modification request letter (dated October 3, 2018), in order for the Colona Gravel Pit to operate within the maximum allowable depletions of 55.8 AF/yr, specified in *Conditions of Approval* of Well Permit No. 77837-F (see Appendix E).

Lagged Depletions

Depletions that occur due to mining at the Colona Pit have a lagged effect on the Uncompahgre River. WWE used the Glover Stream Depletion Method to determine the lagged effect, assuming that the depletion rate from the river has reached a steady state. The lagged depletions are shown in Table 2, Column 7 (see Appendices B1 and B2 for the lagging analysis).

WATER SUPPLY AND REPLACEMENT SOURCES

Historical Consumptive Use Credits

United owns 2.5 shares in the Ouray Ditch, which were previously used for the irrigation of 29.2 acres. WWE performed a historical consumptive analysis, which is in a previous Colona Gravel Pit SWSP renewal letter. The historical consumptive use credits total 49.1 AF/yr.

River Administration

For this analysis, records from the dry year of 2002 are used to approximate when river administration may occur. During the irrigation season, the dates of calls in 2002 on the Uncompahgre River were used. During the non-irrigation season, when the streamflow in the Gunnison River near the Redlands Canal was less than 750 cfs in 2002, it is conceivable that there could be administration. Out-of-priority depletions are determined by multiplying the total lagged depletions times the percent of the month the river was under administration based on the 2002 records.

The available historical stream depletion, based on analysis of historical diversions, consumptive use, and return flow patterns is calculated in Table 3. The historical stream depletions are subtracted from the out-of-priority depletions on a monthly basis to determine the amount of remaining out-of-priority depletions that require replacement water. Based on this analysis, the total out-of-priority depletions are 12.83 AF/yr (see Table 3). Out of the 12.83 AF/yr out-of-priority depletions, 11.12 AF occur outside of the irrigation season and are susceptible to a call from the Redlands Power Canal and the remaining 1.71 AF/yr out-of-priority depletions occurs during the irrigation season and are susceptible to Administration from the M&D Canal.

Replacement Water

As mentioned previously, the total out-of-priority lagged depletions at the Colona Gravel Pit for this SWSP renewal equals 12.83 AF/yr. To cover these depletions, United has two contracts; the first is with the U.S. Bureau of Reclamation (USBR) for releases from Blue Mesa Reservoir of up to 13 AF/yr, and the second is with Tri-County Water Conservancy District (TCWCD) for releases during the irrigation season (April through October) from Ridgeway Reservoir of up to 4 AF/yr. United plans to replace the 11.12 AF/yr of non-irrigation season out-of-priority depletions with releases from Blue Mesa Reservoir, and the remaining 1.71 AF/yr of irrigation season out-of-priority depletions with releases from Ridgeway Reservoir.

Transit losses must be considered in delivery of replacement water from Blue Mesa Reservoir and Ridgeway Reservoir to the point of depletion near the Colona Gravel Pit. For this SWSP renewal, a transit loss of 8.9 percent is applied for water delivered from Blue Mesa Reservoir, and a transit loss of 1.65 percent is applied for water delivered from Ridgeway Reservoir.

During the non-irrigation season, a call could potentially originate from the Redlands Canal, downstream of the confluence of the Uncompahgre and Gunnison rivers. To account for the 8.9 percent transit loss, United will need to release 12.21 AF/yr from Blue Mesa Reservoir to cover the non-irrigation season out-of-priority depletions of 11.12 AF/yr (see Table 4, Column 2).

During the irrigation season (April through October), United will need to release 1.74 AF/yr from Ridgeway Reservoir, after accounting for the 1.65 percent transit loss, to cover the irrigation season out-of-priority depletions of 1.71 AF/yr (see Table 4, Column 3).

In summary, United's existing contracts with the USBR and TCWCD for releases of water from Blue Mesa Reservoir and Ridgeway Reservoir are adequate to cover potential out-of-priority depletions caused by operations at the Colona Gravel Pit.

Should it be needed, United has an additional contract with the USBR for releases of up to 5 AF/yr from Blue Mesa Reservoir. If production at the Colona Gravel Pit increases to a level that exceeds these contracted amounts, the contracts will be re-negotiated. However, this plan is written using a conservative case of 82,450 tons per year of material removed and is not expected to be exceeded during the plan period. The water lease contracts are included in Appendix D.

The Colona Gravel Pit has been issued a well permit for a pond area of 16.5 surface acres, which exceeds the projected surface area of 11.3 acres in this SWSP (see Appendix E).

Very truly yours,

WRIGHT WATER ENGINEERS, INC.

By _____
Peter R. Foster, P.E.
Vice-President

By _____
Ben Von Thaden
Hydrologist

cc: Peter Siegmund, Vice-President, United Companies (w/ attachments)
Tyra Monger, Environmental Specialist, United Companies

Attachments:

Figure 1.	Existing and Future Pond Surface Area
Table 1.	Evaporation Calculation
Table 2.	Operational Water Depletions
Table 3.	Out-of-Priority Depletions
Table 4.	Out-of-Priority Depletions and Replacement Supply
Appendix A.	Sample Accounting Sheet
Appendix B.	Glover Analysis
Appendix C.	2013 SWSP Approval Letter
Appendix D.	United Water Lease Contracts with Tri-County and USBR
Appendix E.	Well Permit 77837-F

FIGURES

Date: 6/21/2019 Document Path: P:\061-052\000 - Colona\Mapping\Figure 1 - Colona Pond Surf - 2019 SWSP Renewal_10.2.mxd

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MONTROSE COUNTY, COLORADO

COLONA PIT - 2017 EXPOSED PIT POND SURFACE AREA AND ANTICIPATED SURFACE AREA FOR 2019 SWSP

PRIVILEGED AND CONFIDENTIAL INFORMATION

OLDCASTLE

PROJECT NO. 061-052.000

FIGURE 1

TABLES

Table 1
Evaporation Calculation
United Companies - Colona Gravel Pit SWSP

Groundwater exposed	11.3	acres (max expected area for 2017-2019 operations)
Gross Evaporation	43	inches (from NOAA Technical Report NWS 33)
Precipitation Station	Montrose 2 and Ridgway	

Month	Monthly Evaporation Distribution	Gross Evaporation	Average Year Precipitation	Effective Precipitation	Net Unit Evaporation	Net Unit Evaporation	Average Temperature	Net Unit Evaporation	Total Evaporation
	(%)	(inches)	(inches)	(inches)	(inches)	(feet)	(°F)	(feet)	(acre-feet)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	3.00	1.29	0.66	0.46	0.83	0.07	25.40	0.00	0.00
February	3.50	1.51	0.64	0.45	1.05	0.09	30.40	0.00	0.00
March	5.50	2.37	1.15	0.81	1.56	0.13	38.64	0.13	1.47
April	9.00	3.87	1.17	0.82	3.05	0.25	46.02	0.25	2.87
May	12.00	5.16	1.26	0.88	4.28	0.36	54.82	0.36	4.03
June	14.50	6.24	0.82	0.58	5.66	0.47	63.56	0.47	5.33
July	15.00	6.45	1.49	1.04	5.41	0.45	69.06	0.45	5.09
August	13.50	5.81	1.77	1.24	4.57	0.38	67.02	0.38	4.30
September	10.00	4.30	1.63	1.14	3.16	0.26	58.86	0.26	2.98
October	7.00	3.01	1.31	0.92	2.09	0.17	47.64	0.17	1.97
November	4.00	1.72	1.19	0.83	0.89	0.07	35.70	0.07	0.84
December	3.00	1.29	0.66	0.46	0.83	0.07	25.90	0.00	0.00
Annual	**100.00**	**43.00**	**13.76**	**9.63**	**33.37**	**2.78**		**2.55**	**28.87**

Notes:
(1) From SEO's Guidelines (2/28/95) for sites with elevation less than 6,500 ft.
(2) Annual value from NOAA Technical Report NWS 33.
(3) Weighted average annual precipitation data from NOAA recording stations at Montrose 2 (1982-2006, 60%) and Ridgway (1982-2006, 40%).
(4) Equals Column (3) x 0.70.
(5) Column (2) - Column (4).
(6) Column (5) / 12.
(7) Weighted average monthly temperature data from NOAA recording stations at Montrose 2 (1982-2006, 60%) and Ridgway (1982-2006, 40%).
(8) If Column (7) is less than 32 then equals zero, if greater than 32 equals Column (6).
(9) Column (8) x number of exposed groundwater surface acres.

Table 2.
Operational Water Depletions
United Companies - Colona Gravel Pit SWSP

Month	Evaporation from Exposed Groundwater	Depletions from Dust Suppression	Net Increase in the Volume of "Mined Material" Below the Water Table that has been Filled with Ground Water (V_{mm})	Volume of Water Calculated as Lost in Product for "Not Washed" Gravel (V_{lp})	Depletions from Groundwater Filling the Pit Accounting for First Fill (V_{fif})	Total Depletions	Lagged Total Depletions
	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
January	0.0	0.0	4.7	0.4	3.1	3.5	4.4
February	0.0	0.0	4.7	0.4	3.1	3.5	4.3
March	1.5	0.4	4.7	0.4	3.1	5.4	4.3
April	2.9	0.4	0.0	0.4	0.0	3.6	4.5
May	4.0	0.4	0.0	0.4	0.0	4.8	4.4
June	5.3	0.4	0.0	0.4	0.0	6.1	4.6
July	5.1	0.4	0.0	0.4	0.0	5.9	5.0
August	4.3	0.4	0.0	0.4	0.0	5.1	5.0
September	3.0	0.4	0.0	0.4	0.0	3.7	4.9
October	2.0	0.4	4.7	0.4	3.1	5.9	4.7
November	0.8	0.4	4.7	0.4	3.1	4.7	5.0
December	0.0	0.0	4.7	0.4	3.1	3.5	4.8
Annual	**28.9**	**3.3**	**28.4**	**4.9**	**18.9**	**55.8**	**55.8**

Notes:

(1) See Table 1, Column (9).

(2) Based on 5,400 gallons of water applied per day, 5 days per week, March through November.

(3) Equals V_{mm} from No. 14 of the *General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits (Updated April 1, 2011).* Based on removal of 13,741.7 tons of material per month from October through March and equals: (13,741.7 tons) / (1.8 tons/yd^3) x (27 ft^3/yd) / (43,560 ft^3/AF).

(4) Equals V_{lp} from No. 14 of the General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits (Updated April 1, 2011), which equals (13,741.7 tons * 2,000 lbs/ton) x 0.04 / (62.4 lbs/ft3) / (43,560 ft3/AF).

(5) Equals V_{fif} from No. 14 of the *General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits (Updated April 1, 2011),* which equals [Column (3) x (1 - porosity) - Column (4)], where porosity equals 25 percent.

(6) Equals Columns (1) + (2) + (4) + (5).

(7) Equals the total depletions (Column (6)) to the Uncompahgre River lagged based on the Glover Analysis. Lagged depletions assume that the depletion rate from the river has reached steady state and all depletions occur within one year of pumping, where transmissivity = 50,000 gallons per day per foot, specific yield = 0.15, distance to river = 2,000 feet, and distance to no-flow boundary = 5,000 feet.

Table 3.
Out-of-Priority Depletions
United Companies - Colona Gravel Pit SWSP

Month	Demands			Return Flows					Depletions					
	Pro-Rata Diversions	Pro-Rata Headgate Delivery	Dry-Up HCU	Total Return Flows	Surface Water Return Flows	Groundwater Return Flows	Lagged Groundwater Return Flows	Lagged Total Return Flows	Lagged Historical Stream Depletions	Total Lagged Operational Depletions	Difference between Historical Depletions and Operation Depletions	Unmet Operational Depletions and Delayed Return Flow Obligation	Percent of Month Out-of-Priority	Out-of-Priority Depletions
	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(%)	(acre-feet)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
January	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	-1.4	4.4	5.8	5.8	0%	0.0
February	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	-1.2	4.3	5.5	5.5	0%	0.0
March	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	-1.1	4.3	5.4	5.4	74%	4.0
April	1.1	1.0	0.5	0.5	0.3	0.3	1.0	1.2	-0.2	4.5	4.7	4.7	37%	1.7
May	14.8	13.3	6.7	6.7	3.3	3.3	1.2	4.5	8.8	4.4	-4.4	0.0	100%	0.0
June	26.3	23.6	11.8	11.8	5.9	5.9	2.0	7.9	15.7	4.6	-11.1	0.0	100%	0.0
July	30.0	27.0	13.5	13.5	6.7	6.7	3.0	9.7	17.2	5.0	-12.3	0.0	100%	0.0
August	23.0	20.7	10.4	10.4	5.2	5.2	3.6	8.7	12.0	5.0	-6.9	0.0	100%	0.0
September	12.5	11.2	5.6	5.6	2.8	2.8	3.5	6.3	5.0	4.9	-0.1	0.0	30%	0.0
October	1.5	1.4	0.7	0.7	0.3	0.3	2.8	3.2	-1.8	4.7	6.5	6.5	0%	0.0
November	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	-2.1	5.0	7.1	7.1	10%	0.7
December	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	-1.7	4.8	6.4	6.4	100%	6.4
Annual Total	**109.2**	**98.3**	**49.1**	**49.1**	**24.6**	**24.6**	**24.5**	**49.1**	**49.2**	**55.8**	**6.6**	**41.4**		**12.8**

Notes:

(1) Calculated based on the HCU, 50 percent irrigation efficiency and 10 percent ditch loss. Equals Column (2) / 0.9.
(2) Column (3) x 2 to account for 50 percent irrigation efficiency.
(3) Based on results of Blaney-Criddle Analysis for Ridgway (40%) and Montrose (60%) Climate Stations and Alfalfa Crop Type.
(4) Column (2) - Column (3).
(5) Column (4) x 50% surface water return flows.
(6) Column (4) x 50% groundwater return flows.

(7) Lagged groundwater return flows based on results of Glover Analysis where transmissivity = 50,000 gallons per day per foot, specific yield = 0.15, distance to river = 2,000 feet, and distance to no-flow boundary = 5,000 feet. Assumes steady state depletion and all depletions.
(8) Column (5) + Column (7).
(9) Column (2) - Column (8). Negative values indicate net inflows to the stream.
(10) Table 2, Column (7).
(11) Column (10) - Column (9). Negative values indicate net inflows to the stream.
(12) If Column (11) is greater than zero, then Column (11), otherwise zero.

(13) For irrigation season (April -Oct), equals percentage of days per month the Uncompahgre River was on call in 2002. For non-irrigation season, equals percentage of days per month in 2002 that Gunnison River flow fell below 750 cfs as measured at USGS stream gage station near Grand Junction.
(14) Column (12) x Column (13).

Table 4.
Out-of-Priority Depletions and Replacement Supply
United Companies - Colona Gravel Pit SWSP

Month	Out-of-Priority Lagged Depletions	Replacement Water Source	
		Blue Mesa Reservoir	Ridgway Reservoir
	(acre-feet)	(acre-feet)	(acre-feet)
	(1)	(2)	(3)
January	0.00	0.00	
February	0.00	0.00	
March	3.99	4.38	
April	1.71		1.74
May	0.00		0.00
June	0.00		0.00
July	0.00		0.00
August	0.00		0.00
September	0.00		0.00
October	0.00		0.00
November	0.71	0.77	
December	6.43	7.06	
Annual	**12.83**	**12.21**	**1.74**

Notes:
(1) Table 3, Column 14.
(2) Blue Mesa Reservoir augmentation supply from November through March, includes 8.9% transit loss.
(3) Ridgway Reservoir augmentation supply from April through October, includes 1.65% transit loss.

APPENDICES

Appendix A

Sample Accounting Form

APPENDIX A
Sample Accounting Sheet
United Companies - Colona Gravel Pit SWSP

Month	Evaporation from Exposed Groundwater	Depletions from Dust Suppression	Depletions from Groundwater Filling the Pit Accounting for First Fill	Total Depletions	Total Lagged Depletions	Percent of Month Out-of-Priority	Water Supplied from Blue Mesa and Ridgway Reservoir
	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(%)	(acre-feet)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
Annual							

Notes:

(1) Based on the unit evaporation from Table 1 and a water surface area of _____.

(2) Based on measured water pumped from pit used for dust control.

(3) Based on _____ tons of material removed with a density of 1.8 tons per yd^3 of material. Equals (___ tons of material) / (1.8) x (27) / (43,560). Then accounting for volume of groundwater in first fill, equals: volume of material mined below the water table that has been filled with groundwater x (1 - porosity) - volume of water lost in product for "Not Washed" gravel, where porosity equals 25% and volume of water lost in product for "Not Washed" gravel equals 4%.

(4) Total of Columns (1) through (3).

(5) Equals Column (5) lagged using the glover analysis for this SWSP.

(6) Equals (number of days per month river is under administration) / (total number of days of month). Data from CDWR records.

(7) Equals Column (5) x Column (6), then multiplied to account for transit losses (8.9% for Blue Mesa, 1.65% for Ridgway Reservoir).

Appendix B
Glover Analysis

APPENDIX B1
Glover Analysis - Lagged Depletions
United Companies - Colona Gravel Pit SWSP

Project Data Summary	
Aquifer Option:	Option No. 2
Transmissivity (gpd/ft):	50,000
Specific Yield:	0.15
Distance X (ft):	2,000
Distance W (ft):	5,000

Pumping Schedule			Pumping Summary		Depletion Summary		
Date	Pumping Period (months)	Pumping Rate (gpm)	Volume Pumped This Period (acre-feet)	Cumul. Volume Pumped (acre-feet)	Depletion Rate (gpm)	Volume of Depletion (acre-feet)	Volume of Depletion This Period (acre-feet)
10/1/2017	1	26.41	3.55	3.55	5.93	0.33	0.33
11/1/2017	2	26.41	3.55	7.10	10.32	1.45	1.12
12/1/2017	3	40.07	5.38	12.48	15.95	3.19	1.74
1/1/2018	4	27.01	3.63	16.11	17.15	5.47	2.28
2/1/2018	5	35.71	4.80	20.91	19.77	7.93	2.45
3/1/2018	6	45.30	6.09	27.00	24.35	10.87	2.95
4/1/2018	7	43.62	5.86	32.86	27.39	14.37	3.50
5/1/2018	8	37.73	5.07	37.93	28.23	18.13	3.76
6/1/2018	9	27.80	3.74	41.67	26.81	21.85	3.72
7/1/2018	10	43.78	5.88	47.55	29.72	25.60	3.74
8/1/2018	11	35.28	4.74	52.30	30.44	29.68	4.08
9/1/2018	12	26.41	3.55	55.84	28.73	33.67	4.00
10/1/2018	13	26.41	3.55	59.39	27.72	37.46	3.78
11/1/2018	14	26.41	3.55	62.94	27.34	41.15	3.70
12/1/2018	15	40.07	5.38	68.33	30.23	44.98	3.83
1/1/2019	16	27.01	3.63	71.96	29.46	49.05	4.06
2/1/2019	17	35.71	4.80	76.76	30.48	53.04	3.99
3/1/2019	18	45.30	6.09	82.84	33.70	57.33	4.29
4/1/2019	19	43.62	5.86	88.71	35.57	62.01	4.67
5/1/2019	20	37.73	5.07	93.78	35.38	66.79	4.79
6/1/2019	21	27.80	3.74	97.51	33.07	71.41	4.62
7/1/2019	22	43.78	5.88	103.40	35.19	75.94	4.53
8/1/2019	23	35.28	4.74	108.14	35.23	80.71	4.77
9/1/2019	24	26.41	3.55	111.69	32.92	85.31	4.60
10/1/2019	25	26.41	3.55	115.24	31.39	89.62	4.31
11/1/2019	26	26.41	3.55	118.79	30.55	93.78	4.16
12/1/2019	27	40.07	5.38	124.17	33.03	98.01	4.23
1/1/2020	28	27.01	3.63	127.80	31.91	102.43	4.41
2/1/2020	29	35.71	4.80	132.60	32.62	106.73	4.30
3/1/2020	30	45.30	6.09	138.69	35.58	111.29	4.56
4/1/2020	31	43.62	5.86	144.55	37.21	116.20	4.91
5/1/2020	32	37.73	5.07	149.62	36.81	121.20	4.99
6/1/2020	33	27.80	3.74	153.36	34.32	126.00	4.80
7/1/2020	34	43.78	5.88	159.24	36.29	130.68	4.69
8/1/2020	35	35.28	4.74	163.98	36.19	135.59	4.91
9/1/2020	36	26.41	3.55	167.53	33.76	140.31	4.72
10/1/2020	37	26.41	3.55	171.08	32.12	144.73	4.41
11/1/2020	38	26.41	3.55	174.63	31.19	148.98	4.25
12/1/2020	39	40.07	5.38	180.02	33.59	153.29	4.32
1/1/2021	40	27.01	3.63	183.65	32.40	157.78	4.49
2/1/2021	41	35.71	4.80	188.44	33.05	162.14	4.36
3/1/2021	42	45.30	6.09	194.53	35.95	166.76	4.62
4/1/2021	43	43.62	5.86	200.40	37.54	171.72	4.96
5/1/2021	44	37.73	5.07	205.47	37.10	176.75	5.03
6/1/2021	45	27.80	3.74	209.20	34.58	181.59	4.84
7/1/2021	46	43.78	5.88	215.09	36.51	186.31	4.72
8/1/2021	47	35.28	4.74	219.83	36.38	191.24	4.94
9/1/2021	48	26.41	3.55	223.38	33.93	195.99	4.74

APPENDIX B2
Glover Analysis - Lagged Return Flows
United Companies - Colona Gravel Pit SWSP

Project Data Summary	
Aquifer Option:	Option No. 2
Transmissivity (gpd/ft):	50,000
Specific Yield:	0.15
Distance X (ft):	2,000
Distance W (ft):	5,000

Pumping Schedule			Pumping Summary		Depletion Summary		
Date	Pumping Period (months)	Pumping Rate (gpm)	Volume Pumped This Period (acre-feet)	Cumul. Volume Pumped (acre-feet)	Depletion Rate (gpm)	Volume of Depletion (acre-feet)	Volume of Depletion This Period (acre-feet)
10/1/17	1	2.23	0.30	0.30	0.50	0.03	0.03
11/1/17	2	0.00	0.00	0.30	0.37	0.10	0.07
12/1/17	3	0.00	0.00	0.30	0.22	0.13	0.04
1/1/18	4	0.00	0.00	0.30	0.16	0.16	0.02
2/1/18	5	0.00	0.00	0.30	0.13	0.18	0.02
3/1/18	6	0.00	0.00	0.30	0.11	0.19	0.02
4/1/18	7	2.23	0.30	0.60	0.60	0.23	0.04
5/1/18	8	24.55	3.30	3.90	5.96	0.62	0.38
6/1/18	9	43.90	5.90	9.80	14.23	1.95	1.33
7/1/18	10	49.85	6.70	16.50	21.10	4.34	2.39
8/1/18	11	38.69	5.20	21.70	23.16	7.37	3.02
9/1/18	12	20.83	2.80	24.50	20.61	10.35	2.98
10/1/18	13	2.23	0.30	24.80	15.08	12.78	2.43
11/1/18	14	0.00	0.00	24.80	11.26	14.52	1.75
12/1/18	15	0.00	0.00	24.80	9.18	15.89	1.36
1/1/19	16	0.00	0.00	24.80	7.83	17.02	1.14
2/1/19	17	0.00	0.00	24.80	6.79	18.00	0.98
3/1/19	18	0.00	0.00	24.80	5.92	18.86	0.85
4/1/19	19	2.23	0.30	25.10	5.68	19.63	0.77
5/1/19	20	24.55	3.30	28.40	10.41	20.65	1.02
6/1/19	21	43.90	5.90	34.30	18.12	22.54	1.89
7/1/19	22	49.85	6.70	41.00	24.50	25.42	2.88
8/1/19	23	38.69	5.20	46.20	26.13	28.88	3.45
9/1/19	24	20.83	2.80	49.00	23.21	32.23	3.36
10/1/19	25	2.23	0.30	49.30	17.35	34.99	2.75
11/1/19	26	0.00	0.00	49.30	13.25	37.02	2.03
12/1/19	27	0.00	0.00	49.30	10.92	38.63	1.61
1/1/20	28	0.00	0.00	49.30	9.36	39.99	1.36
2/1/20	29	0.00	0.00	49.30	8.12	41.16	1.17
3/1/20	30	0.00	0.00	49.30	7.09	42.18	1.02
4/1/20	31	2.23	0.30	49.60	6.70	43.10	0.92
5/1/20	32	24.55	3.30	52.90	11.30	44.25	1.15
6/1/20	33	43.90	5.90	58.79	18.90	46.26	2.00
7/1/20	34	49.85	6.70	65.49	25.18	49.24	2.98

Pumping Schedule			Pumping Summary		Depletion Summary		
Date	Pumping Period (months)	Pumping Rate (gpm)	Volume Pumped This Period (acre-feet)	Cumul. Volume Pumped (acre-feet)	Depletion Rate (gpm)	Volume of Depletion (acre-feet)	Volume of Depletion This Period (acre-feet)
8/1/20	35	38.69	5.20	70.69	26.73	52.77	3.54
9/1/20	36	20.83	2.80	73.49	23.73	56.21	3.43
10/1/20	37	2.23	0.30	73.79	17.81	59.03	2.82
11/1/20	38	0.00	0.00	73.79	13.65	61.12	2.09
12/1/20	39	0.00	0.00	73.79	11.27	62.78	1.66
1/1/21	40	0.00	0.00	73.79	9.66	64.18	1.40
2/1/21	41	0.00	0.00	73.79	8.39	65.39	1.21
3/1/21	42	0.00	0.00	73.79	7.32	66.44	1.05
4/1/21	43	2.23	0.30	74.09	6.90	67.39	0.95
5/1/21	44	24.55	3.30	77.39	11.48	68.57	1.18
6/1/21	45	43.90	5.90	83.29	19.05	70.60	2.03
7/1/21	46	49.85	6.70	89.99	25.32	73.60	3.00
8/1/21	47	38.69	5.20	95.19	26.85	77.15	3.56
9/1/21	48	20.83	2.80	97.99	23.84	80.60	3.45
10/1/21	49	2.23	0.30	98.29	17.90	83.43	2.83
11/1/21	50	0.00	0.00	98.29	13.73	85.54	2.10
12/1/21	51	0.00	0.00	98.29	11.34	87.21	1.67
1/1/22	52	0.00	0.00	98.29	9.72	88.62	1.41
2/1/22	53	0.00	0.00	98.29	8.44	89.83	1.22
3/1/22	54	0.00	0.00	98.29	7.37	90.89	1.06
4/1/22	55	2.23	0.30	98.59	6.94	91.85	0.95
5/1/22	56	24.55	3.30	101.89	11.51	93.03	1.18
6/1/22	57	43.90	5.90	107.79	19.08	95.06	2.03
7/1/22	58	49.85	6.70	114.49	25.35	98.07	3.00
8/1/22	59	38.69	5.20	119.69	26.87	101.63	3.56
9/1/22	60	20.83	2.80	122.49	23.86	105.08	3.45
10/1/22	61	2.23	0.30	122.79	17.92	107.91	2.84
11/1/22	62	0.00	0.00	122.79	13.75	110.02	2.10
12/1/22	63	0.00	0.00	122.79	11.36	111.69	1.67
1/1/23	64	0.00	0.00	122.79	9.74	113.10	1.41
2/1/23	65	0.00	0.00	122.79	8.45	114.32	1.22
3/1/23	66	0.00	0.00	122.79	7.38	115.38	1.06
4/1/23	67	2.23	0.30	123.09	6.95	116.34	0.95
5/1/23	68	24.55	3.30	126.39	11.52	117.52	1.18
6/1/23	69	43.90	5.90	132.29	19.09	119.55	2.03
7/1/23	70	49.85	6.70	138.99	25.35	122.56	3.00
8/1/23	71	38.69	5.20	144.19	26.88	126.12	3.56
9/1/23	72	20.83	2.80	146.99	23.87	129.57	3.45
10/1/23	73	2.23	0.30	147.29	17.93	132.41	2.84
11/1/23	74	0.00	0.00	147.29	13.75	134.51	2.10
12/1/23	75	0.00	0.00	147.29	11.36	136.19	1.67

Appendix C

2017 SWSP Approval Letter

COLORADO
Division of Water Resources
Department of Natural Resources

October 30, 2018

Mr. Peter R. Foster, P.E.
Wright Water Engineers, Inc.
1666 N. Main Avenue, Suite C
Durango, Colorado 81301

RE: Colona Gravel Pit, Substitute Water Supply Plan
DRMS File No. M-94-005
SE¼ Section 36, T48N, R9W, and NE¼ Section 1, T47N, R9W, New Mexico P.M.
Water Division 4, Water District 41, Montrose County
SWSP ID: 4974

Approval Period: October 1, 2017 through September 30, 2019
Contact Phone Number for Mr. Peter Foster: 970-259-7411
Contact Email address for Mr. Peter Foster: pfoster@wrightwater.com

Dear Mr. Foster:

We have received your letters of August 15, 2017 and October 3, 2018, requesting a renewal of the substitute water supply plan (SWSP) of Oldcastle Southwest Group, Inc., d/b/a United Companies ("Applicant"), for its Colona Gravel Pit Operation in accordance with § 37-90-137(11), C.R.S., for the period October 1, 2017 through September 30, 2019. The applicant shall be responsible for compliance with this plan, but the State Engineer's Office ("SEO") may also pursue the landowner for eventual compliance. The required fee of $257 for the renewal of this SWSP has been submitted (receipt no. 3681262).

SWSP OPERATIONS

The Colona Gravel Pit Operation consists of a gravel mine that will be reclaimed as an unlined pond. Currently the area of exposed ground water at the site is estimated to be approximately 9.6 acres; the area of exposure is expected not to exceed 11.3 acres during this plan period. Aggregate production at the site is estimated conservatively to be 100,000 tons per year, distributed evenly from October to March, for each year of the proposed two-year approval period. Product below the ground water table will be removed via "wet mining" techniques; thus, dewatering of the pit will not occur and is not approved herein.

The Applicant operates the gravel pit under well permit no. 77837-F, which was issued January 17, 2014, during a previous SWSP approval period. Permit no. 77837-F allows an average annual ground water appropriation of 55.8 acre-feet, composed of evaporative losses from 16.5 acres of exposed ground water, based on the plans for final buildout, plus water removed with the mined product and water used for dust suppression. The proposed operation plan for this SWSP

renewal includes dust suppression, expansion of ground water exposure up to 11.3 acres, and increase of aggregate production up to 100,000 tons per year.

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 DRMS letter identifies four approaches to satisfy this requirement. In accordance with approach no. 1, you have indicated that a bond has been obtained for $165,351.00 through the Division of Reclamation, Mining, and Safety ("DRMS"). Additionally, in accordance with approach no. 4, you have provided an affidavit dated May 23, 2011 that dedicates 1.0 share of Ouray Ditch water as replacement water solely for this SWSP and for as long as there are depletions at this gravel pit site or until such time as another replacement source is obtained. A copy of the affidavit is attached to this letter. For the purposes of this SWSP, this affidavit will be accepted for dedication to this plan; however, if the State Engineer determines that a different affidavit or dedication process is necessary to assure proper dedication of the shares, additional information may be required prior to future SWSP approvals.

This SWSP request is for a gravel mine located on land owned in part by the Applicant and in part by another landowner. In the case where the operator is not the sole landowner, before any groundwater is exposed on land not owned by the operator, an agreement must be obtained between the operator and the other landowner (or whoever is the responsible party) and their successors to identify who is responsible for the operation and continuance of the substitute water supply plan and future augmentation requirements after mining is complete. The agreement must be recorded with the county clerk and recorder and must be a binding document with the title to the property. A copy of the agreement must be submitted to the SEO with any request for renewal of the SWSP.

DEPLETIONS

Depletions at the Colona Pit will occur as a result of evaporation from exposed ground water, dust suppression, water removed with the mined product, and water filling the gravel pit as a result of material removal ("first fill"). Anticipated net depletions for each year of the proposed renewal period total 58.0 acre-feet, consisting of 28.87 acre-feet of evaporative losses from 11.3 acres of exposed ground water, 3.3 acre-feet used for dust suppression, 2.9 acre-feet of water lost with the mined product associated with 100,000 tons of aggregate and 22.9 acre-feet for ground associated with the first fill, as shown in the attached Table 2. Since the anticipated net depletions due to ground water exposure and aggregate production will exceed the 55.8 acre-feet/year allowed under permit 77837-F**, a new well permit is required to be obtained**. No groundwater will be used for equipment washing, concrete production, reclamation, or any other purpose.

Net evaporative depletions were calculated using a gross annual evaporation of 43.0 inches from the exposed water surface, with a credit of 9.6 inches for effective precipitation. Based on monthly average temperatures reported for the Montrose 2 and Ridgeway weather stations, ice cover was assumed for the months of December, January, and February; therefore, no evaporative consumptive use was charged for those months. For the purposes of this SWSP, the Applicant shall replace the net evaporative depletions from the exposed ground water surface area that may occur during the assumed ice cover period (December through February) for any time that the pit is not completely covered by ice. The net depletion of ground water due to evaporation from the 11.3

acres of exposed ground water was calculated to be 28.9 acre-feet for each plan year, as shown on the attached Table 1.

The Applicant has estimated that 5,400 gallons of water per day will be used for dust suppression, five (5) days per week for the period of March to November. This results in a total of 3.3 acre-feet of water used for dust suppression each year, as shown on the attached Table 2.

Water consumption by the mining operation will also include water removed from the tributary stream system by the "first fill" of the gravel pit and water lost with the mined product. An estimated 16,667 tons of aggregate will be removed monthly from the Colona Pit during the period of October through March each year of the two-year approval period. The water lost with the mined product is estimated at 0.5 acre-feet per month during the October through March period. The "first fill" is the water that fills the gravel pit and occupies the volume previously occupied by the removed sand and gravel. For the Colona Pit, the "first fill" was estimated based on 100,000 tons of aggregate production per year multiplied by the percentage gravel matrix (75%, assuming a porosity of 25% and a density of the material of 1.8 ton/cubic-yard) and then subtracting the volume of water lost with the mined product for "Not Washed" gravel. Based on the above, the water removed by the "first fill" was determined to be 3.8 acre-feet per month during the October through March period.

A Glover stream depletion model was used to calculate lagged depletions to the Uncompahgre River, assuming steady state conditions. The following parameters were used in the model: transmissivity (T) = 50,000 gallons per day per foot; specific yield (SY) = 0.15; distance from the centroid of the pit to the river (X) = 2,000 feet; and distance from the aquifer boundary through the pit to the river (W) = 5,000 feet. Total annual lagged depletions were calculated to be 67.2 acre-feet each year of the two-year approval period, as shown in Table 2.

REPLACEMENT WATER

The primary source of replacement water for this pit during the irrigation season of April through October is consumptive use credits from the dry-up of 29.2 acres historically irrigated by 2.5 shares in the Ouray Ditch (see Table 1, March 27, 2009 for the water rights dedicated to the dry-up plan). Based on Ouray Ditch diversion records, assuming a ditch loss of 10% and an irrigation efficiency of 50%, the average annual historical stream depletion associated with the Applicant's 2.5 shares is estimated to be about 49.2 acre-feet per year, as shown in the attached Table 3. A portion of the water diverted to irrigate the 29.2 acres property historically accrued to the Gunnison River in a form of surface and ground water return flow. You have completed a delayed depletion analysis to determine the amount and timing of the ground water return flow. According to this analysis it was determined that 50 percent of the total return flow accrues to the Uncompahgre River as surface return flow within the same month as the diversion and 50 percent accrues to the Uncompahgre River as ground water return flow. The timing of the ground water return flows was lagged to the Uncompahgre River using the Glover method with the following aquifer parameters: X = 2,000 feet, W = 5,000 feet, S=0.15, and T = 50,000 gpd/ft. After applying the 2.5 shares of Ouray Ditch water, there will be 43.5 acre-feet of uncompensated depletions. However, out-of-priority depletions, determined based on the percentage of days the Gunnison River fell below 750 cfs during the year 2002 (worst case scenario), total 13.6 acre-feet (Table 3, column 14).

A water lease (copy attached) from the Tri-County Water Conservancy District (Tri-County) for reservoir releases of 1.89 acre-feet per year of fully consumable water from Ridgway Reservoir

will be used to supplement the consumptive use credits for the month of April. A 1.65% transit loss will be applied to all deliveries from Ridgway Reservoir as specified in Column 3 of your Table 4.

The proposed source of replacement water for this pit during the non-irrigation season of November through March is fully consumable water released from Blue Mesa Reservoir by the U.S. Bureau of Reclamation. The Applicant has two contracts (copies attached) for Blue Mesa water, one for 5.0 acre-feet and another for 13.0 acre-feet. An 8.9% transit loss will be applied to all deliveries from Blue Mesa Reservoir as specified in Column 2 of your Table 4.

CONDITIONS OF APPROVAL

I hereby approve the proposed SWSP in accordance with § 37-90-137(11), C.R.S., subject to the following conditions:

1. This SWSP shall be valid from October 1, 2017 through September 30, 2019 unless otherwise revoked or superseded by a decree. If this SWSP will not be made absolute by a water court action by the SWSP expiration date, a renewal request must be submitted to this office with the statutory fee (currently $257) no later than **August 1, 2019**.
2. For each year of the renewal period, the total area of exposed groundwater shall not exceed 11.3 acres and the total consumptive use of the mining operation shall not exceed 58.0 acre-feet, of which 28.9 acre-feet is due to evaporative losses, 2.9 acre-feet is lost with the mined product associated with 100,000 tons of aggregate, 22.9 acre-feet associated with the "first fill", and 3.3 acre-feet to water use for dust suppression. Any increases in depletions must be submitted to this office as an amendment to this SWSP.
3. Well permit no. 77837-F was issued for the maximum exposed surface area in the pit of 16.5 acres, 10.3 acre-feet of water lost with the mined aggregate and 3.3 acre-feet of water used for dust control. Since the ground water appropriation limit of 55.8 acre-feet annually in the existing permit is exceeded in both years of the SWSP approval period**, a new well permit must be obtained for the pit**. The provisions of § 37-90-137(2), C.R.S. 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 SWSP will be cancelled.
4. Approval of this SWSP is for the purposes as stated herein. Any additional uses of water will be allowed only if a new SWSP is approved for those additional uses. If it is anticipated that the total exposed groundwater surface area will exceed the approved amounts, a new SWSP must be obtained prior to such expansion.
5. All pumping for dust control shall be measured in a manner acceptable to the Division Engineer.
6. Replacement water is to be supplied from the Ouray Ditch and Ridgway Reservoir during the irrigation season and from Blue Mesa Reservoir for the non-irrigation season, and will be released/delivered according to the schedule included in Table 4 of this plan, subject to modification by the Division Engineer or Water Commissioner. Transit losses may be modified, as determined necessary, by the Division Engineer

pursuant to § 37-80-102(7) and § 37-83-104, C.R.S.

7. Replacement water shall be made available to cover all out-of-priority depletions in time, place and amount and shall be made available under the direction and/or approval of the Water Commissioner. The replacement water that is the subject of this plan cannot be sold or leased to any other entity. As a condition of subsequent renewals of this SWSP, the replacement water must be appurtenant to this site until a plan for augmentation is obtained. All replacement water must be concurrent with depletions in quantity, timing, and locations.

8. The water attributable to the Applicant's 2.5 shares in the Ouray Ditch may not be used elsewhere or for any other purpose during the term of this plan.

9. All deliveries of replacement water shall be measured in a manner acceptable to the Division Engineer.

10. The Applicant has agreed to dedicate the historical consumptive credit from irrigation of the site with 1 share of the Ouray Ditch to long-term replacement requirements in the unforeseen event, or events, which would lead to the abandonment of the pit. Note that such dedication does not relieve the Applicant from the requirement to obtain a water court approved plan for augmentation to replace depletions to the stream system in time, place and amount. Notwithstanding this dedication, in the event that mining operations cease absent a water court approved plan for augmentation, the pit must be backfilled to at least two feet above the highest recorded ground water table elevation at the pit.

11. The Applicant shall perform an inspection and provide verification that the land associated with the changed water right in this SWSP has been removed from irrigation during the term of this SWSP. Verification of dry-up must be in the form of an affidavit signed by an individual with personal knowledge of the dry-up for the entire irrigation season for each parcel of land associated with the change of water right in this SWSP. The affidavit for the 2018 irrigation season must be provided to the Division Engineer by **December 15, 2018**. For the 2019 irrigation season, the affidavit must be provided by the expiration date of this SWSP (**September 30, 2019**), unless modified by a subsequent SWSP approval.

    The historical consumptive use attributed to the changed surface water right(s) under this SWSP shall not include ground water contributions. As a result, the historical consumptive use ("HCU") credit calculated for the subject water right to be changed by this SWSP shall be reduced by any ongoing sub-irrigation from ground water. In order to ensure the required dry-up conditions exist during the approval period of this SWSP, and to ensure no sub-irrigation from ground water is occurring, the Applicant shall provide records of monthly monitoring of depth to ground water for all land associated with the change of water right in this SWSP. Information regarding depth to ground water may be provided using existing irrigation wells, existing or new monitoring wells, or piezometers located on the dried-up fields. Applicant may utilize wells or piezometers located within ¼ mile of each field provided that the Applicant can demonstrate the depth to ground water information available off-site is representative of the depth to ground water on the dried-up land. The Applicant shall modify its accounting to reduce the amount of the calculated HCU that may be claimed in this SWSP according to the table below. Measurements taken at the start of each month will determine the necessary reduction in credit to be applied during the following month. The Applicant may use another methodology upon review and prior approval by the State Engineer and Division Engineer. (Construction of

monitoring holes/wells, or piezometers requires that permits or notices be obtained as described in Table 1 of the Water Well Construction Rules.)

Depth to Ground Water (Feet)	Percent Reduction in Calculated HCU[1]	
	Native Grass	Alfalfa
1	85%	100%
2	50%	90%
3	30%	75%
4	20%	50%
5	15%	35%
6	10%	20%
7	5%	15%
8	0%	10%

[1] Adapted from *EVAPOTRANSPIRATION AND AGRONOMIC RESPONSES IN FORMERLY IRRIGATED MOUNTAIN MEADOWS, South Park, Colorado*, March 1, 1990; Revised September 1, 1991.

12. 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 with the accounting form to the Division Engineer and Water Commissioner.

13. The applicant shall maintain daily records of all diversions, replacement, and the amount of water used for each particular purpose. The applicant shall provide a report of these records to the Division Engineer, Bob Hurford, and the Water Commissioner, Scott King (both at PO Box 456, Montrose, CO, 81402, telephone 970-249-6622), on a monthly basis, or other interval acceptable to both of them. The applicant shall also provide an annual report to the Division Engineer and the Water Commissioner by November 15th, which summarizes diversions and replacements made pursuant to this plan. Accounting forms are subject to modification and approval by the division engineer (a proposed accounting form, Appendix A, is attached). Flowrates shall be reported in cfs and volumes in acre-feet.

14. Before any exposure of ground water due to gravel mining may proceed on the portion of the property that is owned by a private landowner and leased to the Applicant, an agreement between the Applicant and the landowner (or whoever is the responsible party) and their successors to identify who is responsible for the operation and continuance of the SWSP and future augmentation requirements after mining is complete. Such an agreement will have to be recorded with the county clerk and recorder and be a binding document with the title to the property. A copy of the agreement must be submitted to the SEO with any request for renewal of the SWSP.

15. If reclamation of the mine site will produce a permanent water surface exposing groundwater to evaporation, an application for a plan for augmentation must be filed with the Division 4 Water Court at least three years prior to the completion of mining to include, but not be limited to, long-term evaporation losses and lagged depletions. 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).

16. The State Engineer may revoke this SWSP or add additional restrictions to its operation if at any time the State Engineer determines that injury to other vested water rights has occurred or will occur as a result of the operation of this SWSP. Should this SWSP expire without renewal or be revoked prior to adjudication of a permanent plan for augmentation, all excavation of product from below the water table, and all other use of water at the pit, must cease immediately.

17. 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 if the substitute supply is of a quality to meet requirements of use to which the senior appropriation receiving the substituted supply has normally been put. As such, water quality data or analyses may be requested at any time to determine if the requirements of use of the senior appropriator are met.

18. 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 defense in any water court case or any other legal action that may be initiated concerning this SWSP. 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.

Please contact Mike Bender in Denver at (303) 866-3581, or Bob Hurford, Division Engineer, in Montrose at (970) 249-6622, if you have any questions concerning this approval.

Sincerely,

Jeff Deatherage, P.E.
Chief of Water Supply

Attachments: Figure 1 – Exposed Groundwater Area
Table 1 – Evaporation Calculation
Table 2 – Operational Water Depletions
Table 1, March 27, 2009 – Water Rights Pro Rata Dedication
Table 3 – Out-of-Priority Depletions
Table 4 – Out-of-Priority Depletions and Replacement Supply
Appendix A – Sample Accounting Sheet
Appendix B1 – Glover Analysis – Year One
Affidavit dated May 23, 2011 – Water Rights Dedication
DRMS letter dated April 30, 2010
Water Lease Contracts for Ridgeway Reservoir and Blue Mesa Reservoir

Cc: Bob Hurford, Division Engineer
Scott King, Water Commissioner, District 41
Division of Reclamation, Mining and Safety

JD/GMB: Colona Pit SWSP 17-19.doc

Appendix D

United Contracts with Tri-County and USBR for Reservoir Releases

CONTRACT BETWEEN THE UNITED STATES OF AMERICA, TRI-COUNTY WATER CONSERVANCY DISTRICT, AND Old Castle SW Group dba United Companies of Mesa County FOR THE SALE AND USE OF DALLAS CREEK PROJECT INDUSTRIAL WATER

THIS CONTRACT made this 24 ~~25~~ day of ~~August~~ September, 2008 between the UNITED STATES OF AMERICA, acting by and through the Bureau of Reclamation, Department of the Interior, pursuant to the provisions of Federal Reclamation Laws, particularly the Act of April 11, 1956 (70 stat. 105), TRI-COUNTY WATER CONSERVANCY DISTRICT, organized under the laws of the State of Colorado, with its principal place of business at Montrose, Colorado, hereinafter referred to as the District, and Old Castle SW Group dba United Companies of Mesa County (United Companies),, hereinafter referred to as the "Buyer".

WITNESSETH:

WHEREAS, the District has entered into a contract with the United States of America dated January 14, 1977, hereinafter referred to as the Government-District contract (No. 7-07-40-L0273), for repayment of certain costs of construction of the works of the Dallas Creek Project hereinafter referred to as the "Project", by means of which Project water will be delivered for irrigation, municipal, industrial and other uses, and

WHEREAS, the Buyer desires to contract for and purchase an allotment of Project industrial water,

NOW, THEREFORE, in consideration of the mutual and dependent covenants herein contained, the parties agree as follows:

PROJECT WATER AND CONTRACT TERM

1. The District agrees and hereby obligates itself to sell and the Buyer agrees and hereby obligates itself to purchase industrial water of the Project totaling 4.0 acre feet on an annual basis. This augmentation water is purchased and released to offset depletions in the Uncompahgre River basin from domestic and industrial use.

2. This Contract shall be in force and effect through 2049, the repayment term established by the Government-District contract. At such time as the repayment obligation of the District to the United States under the Government-District Contract is paid in full, the Buyer has the option of renewing this Contract at a price to be agreed upon between the District and the Buyer.

3. During the term of this Contract, any purchases of water in addition to the water purchase pursuant to Paragraphs 1 and 2 shall be accomplished by amendment to this Contract.

PRICE AND TERMS OF PAYMENT

4. The purchase price per acre foot to be paid the District by the Buyer shall be at the current rate in accordance with District Operating Policy. All payments for water shall be paid annually as hereinafter set forth.

5. In addition thereto, the Buyer shall pay the District a fair proportionate amount of the operation, maintenance, and replacement costs of the Project attributable to M&I use. Such amount shall be determined each year by the District. The District's determination shall be final subject only to review by the Courts. The District shall estimate such fair proportionate amount in advance each year based on the Buyer's water purchase obligation with respect to all M&I water purchase obligations each year. If such estimate is more or less than the cost thereof, an appropriate adjustment will be made in the annual amount for the year following the year for which the estimate was made. This obligation to make OM&R payments shall continue as long as the Buyer purchases water from the District.

6. The first annual payment to the District shall be made upon the execution of this contract and thereafter the annual payments shall be made to the District on or before the 15th day of January of each year. If payment is not received by the District by said 15th day of January, then this contract is cancelled.

7. The Buyer shall meet the annual installments due the District hereunder as provided in Title 37, Article 45 of the Colorado Revised Statutes and particularly in accordance with the provisions of Sections 131 and 132 thereof.

8. The Buyer shall not be charged directly or indirectly for any costs incurred by the District pursuant to Section 20 of the Government-District contract so as long as the Buyer is current in its payments hereunder.

POINT OF DELIVERY OF PROJECT WATER

9. The Project water purchased hereunder by the Buyer shall be measured and delivered at the outlet works of Ridgway Reservoir as directed by the State of Colorado. The District shall be responsible for measurement and release of augmentation water and records shall be made available to all concerned. It shall not be the responsibility of the District to provide facilities to convey water from such point or points of delivery to the place of use.

DEFAULT AND PENALTY

10. No Project water shall be delivered to or for the Buyer until payment is made in full. The provisions of this article are not exclusive and shall not prevent the District from exercising any other remedy given by this Contract or by law to collect or enforce the collection of any payments due under the terms of this Contract.

11. If the District is unable to deliver water to the Buyer from the Project without fault on the part of the District, the District shall make available to the Buyer that proportionate amount of any other water supplies it may have during such period as the Buyer's purchase of industrial Project water bears to the total amount of Project industrial water for which the District is then paying the United States under its said repayment obligation.

12. If the District or other purchasers of Project water from the District default in their payments to the United States, the District agrees to continue to supply the Buyer its share of Project water if permitted to do so by the United States as long as the Buyer is not in default of its payments due hereunder, which payments the District shall pay over to the United States on its repayment obligation.

WATER SHORTAGES

13. In the event of a Project water shortage caused by drought, hostile diversion, prior or superior claims, or other causes not within the control of the District, nor resulting from its negligence, no liability shall accrue against the District or the United States, or any of their officers, agents or employees, or either of them for any damage, direct or indirect, arising therefrom; and the payment to the District provided for herein shall not be reduced because of any such shortage or damage. If there should be any shortage of water, water allotted pursuant to this contract shall be abated along with supplies to irrigation prior to the reduction of deliveries of water for municipal purposes. The District shall include appropriate provisions to this effect in contracts with other users of industrial and irrigation water.

AIR AND WATER POLLUTION

14. The Buyer shall comply with all air and water pollution requirements as set forth in the Government-District Contract.

USE OF PROJECT WATER

15. Except as hereinafter provided all Project water herein sold to the Buyer shall be used for industrial use within or through facilities or upon lands owned or served by the Buyer, provided, however, that all lands which receive benefits from said water shall be situated within the boundaries of the District. The Project water shall be beneficially used for the purposes and in the manner herein specified and as specified in the Government-District Contract. The Buyer shall be entitled to use said water within a legal water supply plan, substitution or exchange or change of water right, including a plan for augmentation. This sale of water is made for the exclusive benefit of the Buyer and shall not inure to the benefit of any successors or assigns of the Buyer without prior specific approval of the District.

COMPLIANCE WITH GOVERNMENT-DISTRICT CONTRACT AND FEDERAL AND STATE LAWS AND REGULATIONS

16. This Contract and the sale of water pursuant thereto and the performance of all provisions of this Contract are subject to all applicable conditions and provisions of the Government-District Contract, the laws of the State of Colorado and the laws of the United States of America.

REPEAL OR AMENDMENT OF LAW OR GOVERNMENT-DISTRICT CONTRACT

17. In the event of material amendment or repeal of the Federal Reclamation law or the Colorado Statutes relative to Water Conservancy Districts or the Government-District contract, the Buyer and District agree to negotiate amendments of this Contract in accordance therewith.

BOOKS, RECORDS AND REPORTS

18. Each party shall make available to the other its books, records and reports pertaining to this Contract and transactions thereunder.

REMEDIES UNDER CONTRACT NOT EXCLUSIVE--WAIVERS

19. Nothing contained in this Contract shall be construed as in any manner abridging, limiting, or depriving the District or the Buyer of any means of enforcing any remedy, either at law or in equity, for the breach of any of the provisions hereof which it would otherwise have. Any waiver at any time by either party to this Contract of its rights with respect to a default, or any matter arising in connection with this Contract, shall not be deemed to be a waiver with respect to any subsequent default or matter.

AUTHORIZATION AND EFFECTIVE DATE

20. This Contract shall become effective upon the approval and authorization thereof by the Board of Directors of the District acting by Resolution and the execution thereof by the Buyer.

EXECUTED the date first above written.

TRI-COUNTY WATER CONSERVANCY DISTRICT

By: _____ President

ATTEST:

_____
Secretary

BUYER

By: Brent Kerr - United Co.

ATTEST:

Angela McCarren

APPROVED:

_____
Office of the Solicitor
Intermountain Region

UNITED STATES OF AMERICA

_____
Regional Director, Upper Colorado Region

CERTIFICATE

The undersigned Secretary of the Tri-County Water Conservancy District hereby certifies that the following Resolution was duly adopted by the Board of Directors of Tri-County Water Conservancy District at a regular meeting held on September 24, 2008 at the District office in Montrose, Colorado:

RESOLVED: That the Board of Directors of Tri-County Water Conservancy District hereby approves, authorizes, and ratifies the entering into a contract with Old Castle SW Group for the sale and use of Dallas Creek Project industrial water which contract provides for sale and purchase of a total of 4 acre-feet annually; authorizing and directing the President and the Secretary to sign and execute this contract; and hereby ratifies said contract and the signing and execution thereof.

Dated this 24th day of September, 2008.

Secretary
Tri-County Water Conservancy District

Contract No. 05-WC-40-480
Amendment 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLORADO RIVER STORAGE PROJECT
WAYNE N. ASPINALL STORAGE UNIT

LONG-TERM WATER SERVICE CONTRACT BETWEEN
THE UNITED STATES
and
UNITED COMPANIES

THIS CONTRACT, made this 25 day of AUGUST, 2010, pursuant to the Act of Congress approved June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto, and particularly pursuant to the Colorado River Storage Project Act approved April 11, 1956 (70 Stat. 105), between THE UNITED STATES OF AMERICA, hereinafter referred to as the United States, represented by the officer executing this contract, his duly appointed successor or his duly authorized representative, hereinafter referred to as the Contracting Officer, and UNITED COMPANIES, hereinafter referred to as the Contractor,

WITNESSETH:

WHEREAS, the following statements are made in explanation:

WHEREAS (b) shall read as follows:

The Contractor has requested a water service contract for 13.0 acre-feet of industrial water stored in Blue Mesa Reservoir.

NOW, THEREFORE, in consideration of the mutual and dependent covenants herein contained, the parties hereto agree as follows:

1. Article 2. DELIVERY OF WATER shall read as follows:
   (a) The Contracting Officer, during the term of this contract shall release water, not to exceed 13.0 acre-feet at the outlet works of Blue Mesa Dam.

2. Article 3. RATE AND METHOD OF PAYMENT FOR WATER shall read as follows:
   (c) For each annual payment thereafter, the United Sates will bill the Contractor and the Contractor agrees to pay for 13.0 acre-feet at the current rate charged for such water. Payments shall be made annually by February 1.

3. All other terms and conditions within Contract No. 5-WC-40-480 (Contract) shall remain in effect for the term of the Contract.

IN WITNESS WHEREOF, the parties hereto have caused this contract to be duly executed as of the day and year first written above.

UNITED STATES OF AMERICA

Regional Director
Bureau of Reclamation

Approved:

Office of the Regional Solicitor

CONTRACTOR

By: Peter J. Stegmund

UNITED COMPANIES
ACKNOWLEDGMENT

State of Colorado)
) ss.
County of Mesa)

On this 20th day of July, 2010, personally appeared before me Peter J. Sigmund who being by me duly sworn did say that he is the Vice President of Oldcastle SW Group, Inc. dba United Companies and that the within and foregoing instrument was signed in behalf of said Company, pursuant to authority delegated to him by said Company, for the use and benefit of said Company.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed by official seal the day and year first above written.

(SEAL)

Notary Public in and for the
State of: Colorado

Residing at: 2674 Foxen Ct.
Grand Junction, CO 81506

My commission expires: 01/04/2012

Contract No. 07-WC-40-290

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLORADO RIVER STORAGE PROJECT
WAYNE N. ASPINALL STORAGE UNIT

LONG-TERM WATER SERVICE CONTRACT BETWEEN
THE UNITED STATES
and
OLDCASTLE SW GROUP dba
UNITED COMPANIES OF MESA COUNTY
(UNITED COMPANIES)

THIS CONTRACT, made this 24 day of September, 2007, pursuant to the Act of Congress approved June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto, and particularly pursuant to the Colorado River Storage Project Act approved April 11, 1956 (70 Stat. 105), between THE UNITED STATES OF AMERICA, hereinafter referred to as the United States, represented by the officer executing this contract, his duly appointed successor or his duly authorized representative, hereinafter referred to as the Contracting Officer, and United Companies, hereinafter referred to as the Contractor,

WITNESSETH:

WHEREAS, the following statements are made in explanation:

(a) The United States has constructed Blue Mesa Dam and Reservoir as a unit of the Colorado River Storage Project, for the furnishing of water for irrigation, municipal, and other beneficial uses; and

(b) The Contractor has requested a water service contract for 5.0 acre-feet of municipal and industrial water stored in Blue Mesa Reservoir; and

(c) The Contractor's point of use shall be in SE1/4 of the SE1/4, SW1/4 of the SE1/4 and the SE1/4 of the SW1/4 of Section 36 in Township 48 North, Range 9 West and NE1/4 of the NE1/4 Section 1 in Township 47 North, Range 9 West, New Mexico PM; and

(d) The Contractor desires a water supply stored at Blue Mesa Dam for augmentation of depletions resulting from evaporation, dust control and material removal on gravel mining operations pursuant the Contractor's plan of augmentation has been applied for with the District Court in Water Division 4.

NOW, THEREFORE, in consideration of the mutual and dependent covenants herein contained, the parties hereto agree as follows:

1. TERM OF CONTRACT

(a) This contract shall be effective for 40 years from the date of execution.

(b) The Contractor may terminate this contract at any time.

(c) Termination as above provided shall be accomplished by written notice by the Contractor to the United States as provided in Article 8 below, at least 1 year prior to the date of such termination.

(d) Upon failure of the Contractor to perform its obligations under this contract, the United States will notify the Contractor in writing of the intent to terminate this agreement. The said Notice of Termination shall specify each failure of the Contractor, and shall further provide that the Contractor may, within a 90-day period from the date of said notice, present a detailed program to correct such deficiencies, and the United States shall review and reasonably accept such corrections and thereby waive the termination notice.

2. DELIVERY OF WATER

(a) The Contracting Officer, during the term of this contract shall release water, not to exceed 5.0 acre-feet at the outlet works of the Blue Mesa Dam.

(b) Requests for the release of water under this contract, from Blue Mesa Reservoir shall be made by the Colorado Division of Water Resources, Water Division 4 Engineer by calling the Water Management Group at the Western Colorado Area Office of the Bureau of Reclamation at (970) 248-0652 or (970) 248-0600.

(c) The Contractor shall have no holdover storage rights in Blue Mesa Reservoir from year to year. Any water purchased hereunder not called for by the end of each calendar year shall become integrated with the water supply for all purposes of the Blue Mesa Reservoir and be available for all purposes at that time.

3. RATE AND METHOD OF PAYMENT FOR WATER

(a) The Contractor agrees to pay annually to the United States for the quantity of water for which it has contracted, whether or not the water is actually released from Blue Mesa Reservoir.

The payment rate for municipal water will be reviewed and adjusted annually in accordance with the Debt Servicing Methodology used for the Colorado River Storage Project. An adjustable charge for operation and maintenance (O&M) expenses, currently at a rate of $1 per acre-foot, will be added annually to the municipal rate. The 2007 Colorado River Storage Project municipal water rate has been set at $74.72 per acre-foot plus $1.00 per acre-foot for O&M expenses.

(b) The first annual payment in the amount of $378.60 for 5.0 acre-feet of water shall be made by the Contractor upon execution of the contract.

(c) For each annual payment thereafter, the United States will bill the Contractor and the Contractor agrees to pay for 5.0 acre-feet at the current rate charged for such water. Payments shall be made annually by February 1.

(d) All payments from the Contractor to the United States under this contract shall be by the medium requested by the United States on or before the date payment is due. The required method of payment may include checks, wire transfers, or other types of payment specified by the United States.

(e) Payment received by the United States for the sale of water under this contract shall be credited pursuant to Section 5 of the Colorado River Storage Project Act.

4. CHARGES FOR DELINQUENT PAYMENTS

(a) The Contractor shall be subject to interest, administrative, and penalty charges on delinquent payments. If a payment is not received by the due date, the Contractor shall pay an interest charge on the delinquent payment for each day the payment is delinquent beyond the due date. If a payment becomes 60 days delinquent, in addition to the interest charge, the Contractor shall pay an administrative charge to cover additional costs of billing and processing the delinquent payment. If a payment is delinquent 90 days or more, in addition to the interest and administrative charges, the Contractor shall pay a penalty charge for each day the payment is delinquent beyond the due date, based on the remaining balance of the payment due at the rate of 6 percent per year. The Contractor shall also pay any fees incurred for debt collection services associated with a delinquent payment.

(b) The interest charge rate shall be the greater of either the rate prescribed quarterly in the Federal Register by the Department of the Treasury for application to overdue payments or the interest rate of 0.5 percent per month. The interest charge rate will be determined as of the due date and remain fixed for the duration of the delinquent period.

(c) When a partial payment on a delinquent account is received, the amount received shall be applied first to the penalty charges, second to the administrative charges, third to the accrued interest, and finally to the overdue payment.

5. GENERAL OBLIGATION--BENEFITS CONDITIONED UPON PAYMENT

(a) The obligation of the Contractor to pay the United States as provided in this contract is a general obligation of the Contractor notwithstanding the manner in which the obligation may be distributed among the Contractor's water users and notwithstanding the default of individual water users in their obligation to The Contractor.

(b) The payment of charges becoming due pursuant to this contract is a condition precedent to receiving benefits under this contract. The United States shall not make water available to the Contractor through the Colorado River Storage Project, Aspinall Storage Unit facilities during any period in which the Contractor is in arrears in the advance payment of water rates due the United States. The Contractor shall not deliver water under the terms and conditions of this contract for lands or parties that are in arrears in the advance payment of water rates as levied or established by the Contractor.

6. MEASUREMENT AND RESPONSIBILITY FOR DISTRIBUTION

(a) The water to be released for the Contractor shall be measured by facilities of the United States and delivered into the Gunnison River at the outlet works of Crystal Dam. The Contractor shall suffer all distribution and administration losses from the point of such delivery to the place of use.

(b) The Contractor shall hold the United States harmless on account of damage or claim of damage of any nature whatsoever, including property damage, personal injury, or death arising out of or connected with the control, carriage, handling, use, disposal, or distribution of such water by the Contractor.

(c) This contract and all water taken pursuant hereto shall be subject to and controlled by the Colorado River Compact, dated November 24, 1922, and proclaimed by the President of the United States June 25, 1929, the Boulder Canyon Project Act approved December 21, 1928, the Boulder Canyon Project Adjustment Act of July 19, 1940, the Upper Colorado River Basin Compact dated October 11, 1948, the Mexican Water Treaty of February 3, 1944, and the Colorado River Basin Project Act of September 30, 1968, Public Law 90-537.

(d) In the event water available to the Contractor is required to be curtailed under and by reason of the provisions of the foregoing acts, including the reaching of maximum use of water allotted to the State of Colorado, no liability shall attach to the United States for such curtailment, and the Contractor agrees to reduction of the amount of water taken hereunder as the Secretary determines necessary to comply with the provisions of said acts.

7. UNITED STATES NOT LIABLE FOR WATER SHORTAGE--ADJUSTMENTS

On account of drought, errors in operation, or other causes, there may occur at times a shortage during any year in the quantity of water released at the request of the Contractor by the United States pursuant to this contract through and by means of the project, and in no event shall any liability accrue against the United States or any of its officers, agents, or employees for any damage direct or indirect, arising therefrom. In any year in which there may occur such a shortage, the United States reserves the right to apportion the available water supply among the Contractor and others entitled, under existing and future contract(s), to receive water from the same project water supply all in a manner to be prescribed by the Contracting Officer.

8. NOTICES

Any notice, demand, or request authorized or required by this contract other than as addressed in Article 2 (b) above shall be deemed to have been given on behalf of the Contractor when mailed, postage prepaid, or delivered to the Regional Director, Upper Colorado Region, Bureau of Reclamation, 125 South State Street, Room 6107, Salt Lake City, Utah 84138-1102 to the attention of UC-445 and on behalf of the United States when mailed, postage prepaid, or delivered to the Contractor at 2273 River Road, Grand Junction CO 81505 to the attention of Mr. Brent Kerr, Project Manager. The designation of the addressee or the address may be changed by notice given in the same manner as provided in this article for other notices.

9. ASSIGNMENT LIMITED--SUCCESSORS AND ASSIGNS OBLIGATED

The provisions of this contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this contract or any right or interest therein by either party shall be valid until approved in writing by the other party.

10. STANDARD CONTRACT ARTICLES

The standard contract articles applicable to this contract are listed below. The full text of these standard articles is attached hereto as Addendum "A" and by this reference made a part thereof.

A. CONTINGENT UPON APPROPRIATION OR ALLOTMENT OF FUNDS
B. BOOKS, RECORDS, AND REPORTS
C. RULES, REGULATIONS, AND DETERMINATIONS
D. PROTECTION OF WATER AND AIR QUALITY
E. OFFICIALS NOT TO BENEFIT
F. EQUAL EMPLOYMENT OPPORTUNITY

G. COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS
H. CERTIFICATION OF NONSEGREGATED FACILITIES

11. CONTRACT DRAFTING CONSIDERATIONS

Articles 1 through 11 of this Contract have been drafted, negotiated, and reviewed by the parties hereto, each of whom is sophisticated in the matters to which this Contract pertains, and no one party shall be considered to have drafted the stated articles.

IN WITNESS WHEREOF, the parties hereto have caused this contract to be duly executed as of the day and year first written above.

UNITED STATES OF AMERICA

Regional Director
Bureau of Reclamation

Approved:

Office of the Regional Solicitor

CONTRACTOR

By:

ADDENDUM "A "

A. CONTINGENT UPON APPROPRIATION OR ALLOTMENT OF FUNDS

The expenditure or advance of any money or the performance of any obligation of the United States under this contract shall be contingent upon appropriation or allotment of funds. Absence of appropriation or allotment of funds shall not relieve the Contractor from any obligations under this contract. No liability shall accrue to the United States in case funds are not appropriated or allotted.

B. BOOKS, RECORDS, AND REPORTS

The Contractor shall establish and maintain accounts and other books and records pertaining to administration of the terms and conditions of this contract, including the Contractor's financial transactions; water supply data; project operation, maintenance, and replacement logs; project land and rights-of-way use agreements; the water users' land-use (crop census), land-ownership, land-leasing, and water-use data; and other matters that the Contracting Officer may require. Reports shall be furnished to the Contracting Officer in such form and on such date or dates as the Contracting Officer may require. Subject to applicable Federal laws and regulations, each party to this contract shall have the right during office hours to examine and make copies of the other party's books and records relating to matters covered by this contract.

C. RULES, REGULATIONS, AND DETERMINATIONS

(a) The parties agree that the delivery of water or the use of Federal facilities pursuant to this contract is subject to Federal reclamation law, as amended and supplemented, and the rules and regulations promulgated by the Secretary of the Interior under Federal reclamation law.

(b) The Contracting Officer shall have the right to make determinations necessary to administer this contract that are consistent with the expressed and implied provisions of this contract, the laws of the United States, the State of Colorado and the rules and regulations promulgated by the Secretary of the Interior. Such determinations shall be made in consultation with the Contractor.

D. PROTECTION OF WATER AND AIR QUALITY

(a) Project facilities used to make available and deliver water to the Contractor shall be operated and maintained in the most practical manner to maintain the quality of the water at the highest level possible as determined by the Contracting Officer: *Provided, That* the United States does not warrant the quality of the water delivered to the Contractor and is under no obligation to furnish or construct water treatment facilities to maintain or improve the quality of water delivered to the Contractor.

(b) The Contractor shall comply with all applicable water and air pollution laws and regulations of the United States and the State of Colorado: and shall obtain all required permits or licenses from the appropriate Federal, State, or local authorities necessary for the delivery of water by the Contractor; and shall be responsible for compliance with all Federal, State, and local water quality standards applicable to surface and subsurface drainage and/or discharges generated through the use of Federal or Contractor facilities or project water provided by The Contractor within the Contractor's Project Water Service Area.

E. OFFICIALS NOT TO BENEFIT

No Member of or Delegate to the Congress, Resident Commissioner, or official of the Contractor shall benefit from this contract other than as a water user or landowner in the same manner as other water users or landowners.

F. EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this contract, The Contractor agrees as follows:

(a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, disability, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, disability, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.

(b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, disability, or national origin.

(c) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Contracting Officer, advising the labor union or workers' representative of The Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(e) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Contracting Agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In the event of The Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and The Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965 or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The Contractor will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however,* that in the event The Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, The Contractor may request the United States to enter into such litigation to protect the interests of the United States.

G. COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS

(a) The Contractor shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112, as amended), the Age Discrimination Act of 1975 (42 U.S.C. 6101, *et seq.*), Title II of the Americans with Disabilities Act of 1990 if the entity is a State or local government entity [Title III if the entity is a non-government entity], and any other applicable civil rights laws, as well as with their respective implementing regulations and guidelines imposed by the U.S. Department of the Interior and/or Bureau of Reclamation.

(b) These statutes require that no person in the United States shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving financial assistance from the Bureau of Reclamation on the grounds of race, color, national origin, disability, or age. By executing this contract, The Contractor agrees to immediately take any measures necessary to implement this obligation, including permitting officials of the United States to inspect premises, programs, and documents.

(c) The Contractor makes this agreement in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property discounts, or other Federal financial assistance extended after the date hereof to the Contractor by the Bureau of Reclamation, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Contractor recognizes and agrees that such Federal assistance will be extended in reliance on the representations and agreements made in this article and that the United States reserves the right to seek judicial enforcement thereof.

(d) Complaints of discrimination against the Contractor shall be investigated by the Contracting Officer's Office of Civil Rights.

H. CERTIFICATION OF NONSEGREGATED FACILITIES

The Contractor hereby certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments and that it does not permit its employees to perform their services at any location under its control where segregated facilities are maintained. It certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments and that it will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Employment Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, disability, or otherwise. The Contractor further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions of the Equal Employment Opportunity clause; that it will retain such certifications in its files; and that it will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT
FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding $10,000, which is not exempt from the provisions of the Equal Employment Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually). Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

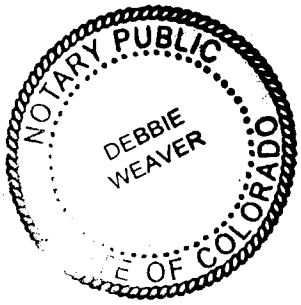
UNITED COMPANIES
ACKNOWLEDGMENT

State of Colorado)
) ss.
County of Mesa)

On this 28th day of August, 2007, personally appeared before me Kyle Alpha who being by me duly sworn did say that he is the Operations Manager of Oldcastle SW Group Inc. dba United Companies of Mesa and that the within and foregoing instrument was signed in behalf of said Company, pursuant to authority delegated to him by said Company, for the use and benefit of said Company.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed by official seal the day and year first above written.

(SEAL)



Debbie Weaver
Notary Public in and for the
State of: Colorado

Residing at: 577 Village Way
Grand Jct. Co 81503

My commission expires: 3-29-11

Appendix E Well

Permit No. 77837-F

Form No.
GWS-25

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

EXST

WELL PERMIT NUMBER 77837 -F -
DIV. 4 WD 41 DES. BASIN MD

APPLICANT

OLD CASTLE SW GROUP INC
DBA UNITED COMPANIES OF MESA C
PO BOX 3609
GRAND JUNCTION, CO 81502-

(970) 243-4900

APPROVED WELL LOCATION
MONTROSE COUNTY
1/4 1/4 Section 36
Township 48 N Range 9 W New Mex P.M.

DISTANCES FROM SECTION LINES
Ft. from Section Line
Ft. from Section Line

UTM COORDINATES (Meters,Zone:13,NAD83)
Easting: Northing:

CHANGE/EXPANSION OF USE OF AN EXISTING WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.

3) Approved pursuant to CRS 37-90-137 (2) and (11) for operation of an existing well (gravel pit pond) in accordance with the temporary substitute water supply plan approved by the State Engineer on November 26, 2013, for the Colona Gravel Pit, Division of Reclamation, Mining and Safety Permit Number M-1994-005. The well (pond) shall not be operated unless it is included in a substitute water supply plan approved by the State Engineer or a plan for augmentation approved by the Water Court. The water supply plan for this pit is currently valid through September 30, 2015, and if it is not extended or if a court decree is not entered for a plan for augmentation, diversion of ground water from this well must cease immediately.

4) Approved for the change/expansion of use of an existing well (gravel pit pond) constructed and operated under well permit no. 66447-F. Upon issuance of this permit, well permit no. 66447-F shall be cancelled by Order of the State Engineer.

5) The average annual amount of ground water to be appropriated shall not exceed 55.8 acre-feet with the total surface area of the proposed ground water pond limited to 16.5 acres or the amounts covered under a water court-approved plan of augmentation or substitute water supply plan approved by the State Engineer, whichever is less. No other use of water is allowed unless a permit therefor is approved..

6) The use of ground water is limited to 42.2 acre-feet of evaporative loss, 3.3 acre-feet of water used for dust suppression, and 10.3 acre-feet of water lost with the mined product, or the amounts covered under a water court-approved plan for augmentation or substitute water supply plan approved by the State Engineer, whichever is less. No other use of water is allowed unless a permit therefor is approved.

7) The owner shall mark the well (gravel pit pond) in a conspicuous place with well permit number(s) and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings.

8) Pursuant to Policy 2000-4 (as amended October 1, 2002) of the State Board of Examiners of Water Well Construction and Pump Installation Contractors (Board), the minimum construction standards in Rule 10 of the Water Well Construction Rules shall be waived for gravel pit ground water ponds except compliance with Rule 10.1 and its subsections 10.1.2, 10.1.4, 10.1.6 and Rule 10.2 and its subsection 10.2.1 is required. The owner of the gravel pit shall take necessary means and precautions to prevent contaminants from entering the gravel pit ground water pond.

9) Pursuant to Policy 2000-4 (as amended October 1, 2002) of the Board, the disinfection standards of Rule 15 of the Water Well Construction Rules shall be waived and the water well construction report requirement of Rule 17 shall be waived, except compliance with Rules 17.1.4, 17.3, and 17.4 is required. The site plan and cross section drawings required by Rule 17.1.4 shall include the date ground water was first exposed in the gravel pit.

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, except for well permit no. 71675, for which a signed spacing waiver has been received from the well owner, and those wells for which the owners of record were sent notice in accordance with the provisions of CRS 37-90-137(2)(b)(II)(A) and for which no response was received by the Colorado Division of Water Resources within the time set forth in said notice.

11) Pursuant to Policy 2000-4 (as amended October 1, 2002) of the 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) This well is subject to administration by the Division Engineer in accordance with applicable decrees, statutes, rules, and regulations.

APPROVED
GMB

Dick Wolfe
State Engineer

R. Michael Bender
By

Receipt No. 3661046 DATE ISSUED 01-17-2014 EXPIRATION DATE 01-17-2015