



State of Utah

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Department of
Environmental Quality

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DIVISION OF WATER QUALITY
Erica Brown Gaddis, PhD
Director

February 11, 2020

Mr. B. Kirk Nicholes, Environmental Specialist
Alton Coal Development, Inc.
463 North 100 West, Suite 1
Cedar City, Utah 84720

Subject: **Approval of Salinity Offset Plan for the Alton Coal Facility
UPDES Permit No. UT0025992**

Dear Mr. Nicholes:

The Division of Water Quality (DWQ) is in receipt of your plan entitled; "**2019 Colorado River Salinity Offset Program Participation Plan, Alton Coal Development, Inc.**" submitted via email on January 29, 2020 (Plan). Upon review of the Plan, DWQ has determined that it meets the salinity offset provision requirements in Part I.D.1 of your UPDES permit referenced above. Therefore, the Salinity Offset Program Participation Plan as submitted and attached hereto is hereby approved.

The Plan will be included with the Alton Coal UPDES permit file and along with all of the requirements, conditions and limitations of the existing UPDES permit, remain in full force and effect. Subsequent to the Plan approval, DWQ will propose a separate Funding Agreement to account for the salinity-offset credits to be purchased as appropriate.

Thank you for your continued compliance efforts in protecting Utah's Water Quality. If you have any questions with regards to this matter, please contact Jeff Studenka of this office at (801) 536-4395 or jstudenka@utah.gov.

Sincerely,

Erica Brown Gaddis, PhD
Director

EBG:MG:JAS:cjh

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Kirk Nicholes, Environmental Specialist
Alton Coal Development, Inc.

Enclosure: Salinity Offset Plan (DWQ-2020-002982)

cc: Amy Clark, EPA Region VIII
Jeremy Roberts, SW Utah District Health Department
Paul Wright, DEQ District Engineer
Steve Christensen, Division of Oil Gas & Mining
Mark Quilter, Utah Department of Agriculture and Food

DWQ-2020-002844

2019 Colorado River Salinity Offset Program Participation Plan

Alton Coal Development, Inc.

Introduction

Alton Coal Development, Inc. (ACD), operates the Coal Hollow Mine (CHM) that hold an active Utah Pollutant Discharge Elimination Systems (UPDES) Individual Permits for discharging intercepted groundwater and/or storm water runoff to waters of the State. The UPDES permit program is operated by the Utah Department of Environmental Quality's Division of Water Quality (DWQ). Because the receiving waters for all of these facilities are ultimately tributary to the Colorado River, the UPDES permits also incorporate Colorado River Basin Salinity Control Forum (CRBSCF) salinity standards and relevant implementation policies.

The UPDES individual Permit for this facility is listed below.

FACILITY	UPDES PERMIT No.	RECEIVING WATER
Coal Hollow Mine	UT0025882	Lower Robinson Creek, Sink Valley Wash and Kanab Creek

This permit incorporates a CRBSCF requirement that limits salt load to no more than one ton/day. Salt load is a function of the quantity (rate) of water discharged and its total dissolved solids (TDS) concentration. All water that has been discharged historically at the CHM is groundwater that has been intercepted during mining and stormwater runoff. The groundwater must be pumped out of mine workings in order to maintain a safe and viable mine operation.

DWQ and the CRBSCF recognize that neither the quantity nor quality of groundwater intercepted by the mine can be easily controlled. They also recognize that discharging intercepted groundwater is a different situation than discharging many other industrial wastewaters. One of the CRBSCF implementation policies that apply to intercepted groundwater is to allow salt offset. The DWQ administers a Colorado River Salinity Offset Program wherein salinity credits can be purchased as offsets against UPDES-permitted discharges. This program enables mines to continue to operate when salt load limits cannot be met. The Individual UPDES permit for facility stipulate that if the TDS load limit cannot be met, participation in the Offset Program must be pursued.

Therefore, ACD plans to participate in the program by funding a salinity offset project. This will generate TDS credits so that mine operations can continue. The following information describes how ACD proposes to meet those.

Discharge History

The Salinity Offset Program operates on a ton-for-ton basis. This means that offset needs (over the above and allowable one ton/day) must be estimated for each facility using existing or

projected discharge rate and TDS concentration data. The Coal Hollow facilities and their discharge history is briefly described below.

Coal	Hollow	Mine
<p>The Coal Hollow Mine has been operating since 2010. Originally, the mine was covered by the UPDES General Permit for Coal Mine Discharges. Currently, it is covered under an individual UPDES Permit (#UT0025992), with a permit term from September 1, 2016 through July 31, 2018. There are nine permitted discharge points for this facility located on two separate leases, the South Private Lease (SPL) and the North Private Lease (NPL) : For the SPL, Outfall 001 is located immediately downstream from the sediment pond1 that collects all surface runoff from the mine surface facilities; Outfall 001B is located immediately downstream of Pond 1B that collects all surface runoff from the mine access road not collected by Pond 1; Outfall 002 is located immediately downstream of Pond 2 that collects surface runoff from the primary haulage roads and soil stockpiles at the SPL; Outfall 003 immediately downstream of Pond 3 that collects surface runoff and discharges intercepted groundwater from the mine workings; Outfall 004 is located immediately downstream of Pond 4 that collects surface runoff and discharges intercepted groundwater from the mine workings in the southern portion of the SPL; Outfall 005 immediately downstream of Pond 5 that collects surface runoff from pits 1-3 of the NPL; Outfall 006 immediately downstream of Pond 6 that collects surface runoff from pits 4-8 of the NPL; and Outfall 007 immediately downstream of Pond 7 that collects surface runoff from pits 9- 21 and discharges intercepted groundwater from mine workings. Outfall 008 has never been built. The receiving stream for discharges from Outfalls 001-003 is Lower Robinson Creek, which is tributary to Kanab Creek. The receiving stream for Outfall 004 is the Sink Valley Wash, which is a tributary to Kanab Creek. The receiving stream for Outfall 005-007 is to unnamed ephemeral streams that are tributary to Kanab Creek. All discharges have been intermittent, dependent on storm related events and/or intercepted ground water from open pit mining.</p>		

The Coal Hollow Mine has been in operation since November of 2010, in the 110 months of operation there have been only 4 months with reported discharge in excess of the allowable one ton/day. February 2017 with 2,139 lbs/day, August 2018 with 2,479 lbs/day and both April and May 2019 with 16,377 and 17,882 lbs/day respectively. The February 2017 and April/May 2019 events were related to springtime runoff and the August 2018 after a rain event.

Offset Plan Elements

ACD, after discussions with DWQ staff, proposes to participate in the Salinity Offset Program by contributing monies to the state's special revenue Salinity Offset Fund. This alternative has been chosen over the other potential mechanism for obtaining salt offset credits – that of designing, constructing, and implementing and offset project. Funds provided by ACD will be used to finance salinity reduction projects that will be provided to result in a ton-for-ton salt reduction.

As the Coal Hollow Mine discharge history shows that the mine not only discharges intermittently but, also infrequently, ACD proposes that the funding amount be based off of Table 1, Summary of All Discharges from the Coal Hollow Mine in 2019 for the current excesses, and that future excesses be similarly tabulated and invoiced at the end of each calendar year

The unit costs that DWQ will assess to ACD will be according to the salinity-control unit in which the discharges are located. The Coal Hollow Mine is in the Lower Colorado River Basin's Kanab Unit.

Plan Monitoring Schedule

In addition to the routine monitoring and reporting via Discharge Monitoring Reports (DMRs) that is currently required for each of the UPDES permits, ACD will also need to closely track its use of salt discharges in excess of the one ton per day. The basis for this tracking will be the average daily TDS load for each month, which is reported as tons per day on the monthly DMRs. In addition to the facility submitting DMRs each month, ACD will submit a tracking spreadsheet to DWQ each month. The spreadsheet will be similar to the one attached to this plan. It will include an accounting of the salt discharges in excess of the one ton per day by the facility for the current month; a cumulative, running total of salt discharges up to and including the current month.

The tracking spreadsheet will be evaluated regularly by ACD and by DWQ as it will be an attachment to the monthly DMR forms for the facility, which is to be submitted by the 28th of each month. ACD and DWQ will review on at least an annual basis beginning in Quarter 4 2019, the salt discharges to. When and if discharges of salt in excess of the one ton per day become more frequent, a renewed assessment of purchasing future salt credit needed by ACD will be undertaken. ACD understands that the cost of any additional needed credits will be based upon cost data in effect at the time, which is likely to be greater than the cost basis for credits purchased under this current plan.

Program Costs and Payment Schedule

The total cost for ACD to participate in 2019 in the Salinity Offset Program by purchasing salt offset credits will be determined by DWQ and assigned upon approval of this agreement.

ACD will contribute this dollar amount to the state's special revenue Salinity Offset Fund based upon the terms set forth in a Funding Agreement to be developed by ACD and DWQ. Upon written request to DWQ to exercise this provision, ACD will contribute this dollar amount to the state's special revenue Salinity Offset Fund based upon the terms set forth in a Funding Agreement to be developed by ACD and DWQ.

Table 1

Summary of All Discharges from Coal Hollow Mine in 2019

Month Ending	Outfall	Parameter	Permit Limit mg/L	Reported Measure mg/L	Discharged		flow @Sampling (gpm)	Total Discharge	lbs TDS	Total Tons for month	Average Tons per day of discharge	Tons exceeding 1 ton/day limit	Number of days	Monthly Total Tons over limit of 1 ton /day	Yearly Total Tons over limit of 366/year	Reason for Discharge
					From	To										
1/31/2019	7	TDS	120	1580	1/4/2019	1/31/2019		1,968,000	25,950	12.97	0.47	0.00	27.3	0	13.0	Dewatering Wells
2/28/2019	1	TDS	120	776	2/26/2019	2/28/2019	0.022	96	1	0.00	0.00	0.00	3.0	0	0.0	snow melt/rain events
2/28/2019	3	TDS	120	1010	2/17/2019	2/28/2019	50	822,000	6,929	3.46	0.30	0.00	11.4	0	3.5	snow melt/rain events
2/28/2019	7	TDS	120	1460	2/1/2019	2/28/2019	50	2,016,000	24,564	12.28	0.44	0.00	28.0	0	12.3	Dewatering Wells
3/31/2019	1	TDS	120	448	3/1/2019	3/21/2019	1.6	24,004	90	0.04	0.00	0.00	20.4	0	0.0	snow melt/rain events
3/31/2019	1B	TDS	120	1060	3/5/2019	3/21/2019	1.2	26,965	239	0.12	0.01	0.00	15.9	0	0.1	snow melt/rain events
3/31/2019	2	TDS	120	512	3/4/2019	3/26/2019	1.1	33,032	141	0.07	0.00	0.00	21.8	0	0.1	snow melt/rain events
3/31/2019	3	TDS	120	1010	3/1/2019	3/31/2019	50	2,232,000	18,813	9.41	0.30	0.00	31.0	0	9.4	snow melt/rain events
3/26/2019	4	TDS	120	468	3/5/2019	3/26/2019	0.002	31,832	124	0.06	0.00	0.00	21.0	0	0.0	snow melt/rain events
3/31/2019	5	TDS	120	1830	3/5/2019	3/16/2019	7	111,410	1,701	0.85	0.08	0.00	10.8	0	0.8	snow melt/rain events
3/31/2019	7	TDS	120	1390	3/1/2019	3/31/2019	50	2,232,000	25,891	12.95	0.42	0.00	31.0	0	12.9	Dewatering Wells, snow melt/rain events (started large pumps 4/1/2019)
4/30/2019	3	TDS	120	856	4/1/2019	4/30/2019	50	1,974,000	14,102	7.05	0.26	0.00	27.4	0	7.1	snow melt/rain events
4/30/2019	7	TDS	120	1100	4/1/2019	4/30/2019	1200	51,840,000	475,888	237.94	7.93	6.93	30.0	208	237.9	Dewatering Wells, snow melt/rain events (started large pumps 4/1/2019)
5/31/2019	7	TDS	120	1240	5/1/2019	5/23/2019	1200	38,736,000	400,852	200.43	8.94	7.94	22.4	178	200.4	large pump had run from 4/1/2019 to 5/23/2018 April's sample was below 1200, Mays slightly above
6/30/2019	3	TDS	120	1520	6/3/2019	6/11/2019	50	573,000	7,269	3.63	0.46	0.00	8.0	0	3.6	3.37 inches rain in may were pumped from pit 10 sump to pond 3

Total Tons:	386	501
Cost /credit:	TBD	TBD
Total Cost:	#VALUE	#VALUE
or		
Total Tons:	135	
Cost /credit:	TBD	
Total Cost:	#VALUE	