

FACT SHEET/STATEMENT OF BASIS
CONSOLIDATION COAL COMPANY
UPDES PERMIT NO. UT0022616
STORM WATER PERMIT NO. UTR000000
PERMIT RENEWAL
MAJOR INDUSTRIAL

RESPONSIBLE OFFICIAL	OPERATOR CONTACT	FACILITY CONTACT
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DESCRIPTION OF FACILITY

Consolidation Coal Company (Consol) owns and operates an underground coal mine located 4 miles south of the town of Emery in Emery County, Utah, Township 22 South, Range 6 East. In addition to the mine, Consol has a small blending plant to size the coal and a truck loading area at the facility.

In 2009, the Emery Mine produced about 1.2 million short tons of coal. However, due to poor market conditions, the mine is currently idle. In order to keep the mine viable, Consol must continue to dewater the mine. Consol has been continually pumping and discharging intercepted groundwater from the mine since the early 1980's.

SUBSTANTIVE PERMIT CHANGES

During the last permit cycle, site specific Total Dissolved Solids (TDS) and sulfate standards were adopted for Quitchupah Creek (*Utah Administrative Code R317-2-14*). The site specific TDS standard is 3,800 mg/L provided that the in-stream sulfate concentration does not exceed 2,000 mg/L. This is the first sulfate standard in the State of Utah. The new standard allows for a higher TDS concentration in Consol's effluent while being protective of the existing livestock watering agricultural use by limiting sulfate concentrations. Sulfate is the primary constituent of TDS that is toxic to ruminants.

The effluent flow limit has been increased to 1.5 MGD from 1.0 MGD in the previous permit. Due to the increase in loading from the facility, Consol has completed an ADR Level II Review as required in *UAC R317-2-3.5a*.

The monitoring frequency for Total Suspended Solids (TSS), TDS and Iron has been increased to weekly from bi-monthly in the renewal permit because of the increase in flow in the renewal permit.

The effluent limit for Iron is more stringent in the renewal permit than in the previous permit and is based upon the wasteload analysis (WLA). The previous permit limited Iron to a daily max of 2.1 mg/L.

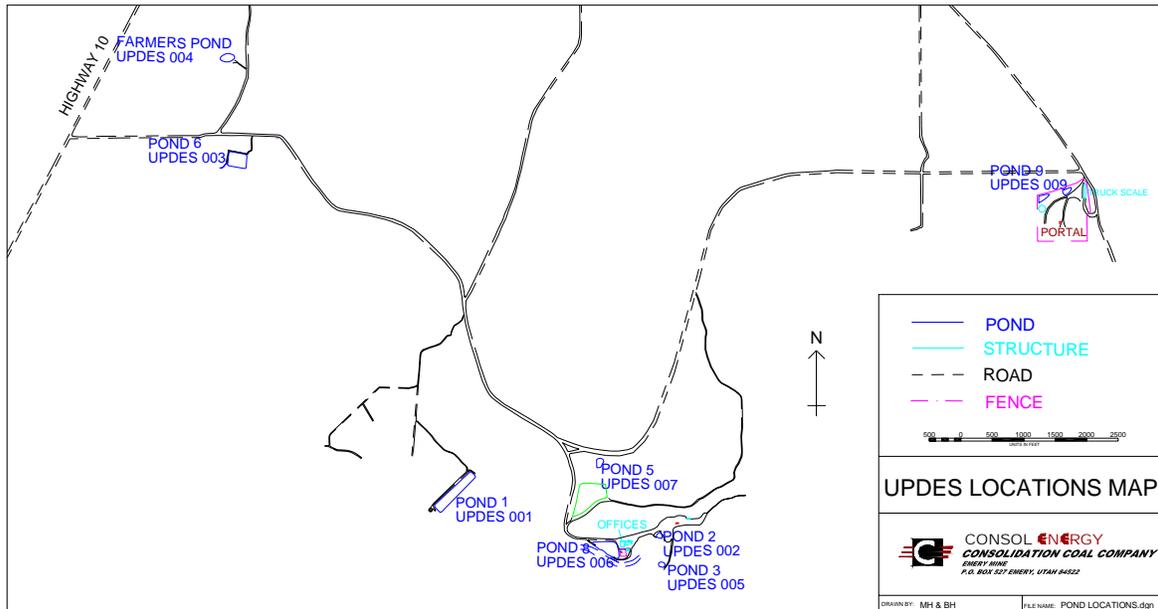
The previous permit contained a TDS load limit as allocated in the Muddy Creek TMDL, approved August 4, 2004. The load limit was based upon outdated facility data and WQ Standards which are no longer valid. The renewal permit does not contain an effluent load limit for TDS. However, because the renewal permit contains effluent limits for both flow and TDS concentration, it will have a de facto load limit and will be sufficiently protective.

DESCRIPTION OF DISCHARGES

Consol is authorized to discharge intercepted groundwater and storm water from the following outfalls:

<u>Outfall Number</u>	<u>Description of Discharge Point</u>
001	Discharge of mine water at latitude 38° 51'' 38' and longitude 111° 16'' 09' from Sediment Pond #1.
002	Discharge of storm water at latitude 38° 51'' 34' and longitude 111° 15'' 24' from Sediment Pond #2.
003	Discharge of mine water at latitude 38° 52'' 33' and longitude 111° 16'' 53' from Sediment Pond #6.
004	Discharge of mine water at latitude 38° 52'' 48' and longitude 111° 16'' 51' from Sediment Farmers Pond.
005	Discharge of storm water at latitude 38° 51'' 34' and longitude 111° 15'' 23' from Sediment Pond #3.
006	Discharge of storm water at latitude 38° 51'' 32' and longitude 111° 15'' 30' from Sediment Pond #3.
007	Discharge of storm water at latitude 38° 51'' 45' and longitude 111° 15'' 45' from Sediment Pond #5.
008	Slurry emergency discharge at latitude 38° 51'' 45' and longitude 111° 16'' 15' from proposed Sediment Pond #7.
009	Discharge of storm water at latitude 38° 52'' 30' and longitude 111° 14'' 08' from Sediment Pond #9.

Location of UPDES discharge points:



Included in the addendum are three years of self-monitoring data. The data demonstrates that the facility has a history of noncompliance with the effluent flow limit and TDS concentration effluent limit. However, during the last permit cycle, Consol was under a compliance schedule to allow time for the facility to construct treatment facilities to meet a new TDS effluent limit included in the previous permit and to coordinate permitting issues with the Division of Oil Gas and Mining. The facility met the intent of the compliance schedule. It is anticipated that Consol will be able to comply with all of the effluent limits in the renewal permit.

Over the last three years, Consol has discharged from Outfalls 001 and 003 only. There has not been enough accumulated storm water to discharge from any of the storm water settling ponds for over 10 years. Historically, discharges from this facility have been exclusively comprised of intercepted groundwater from the mine area.

Outfall 008 has not been developed to date. There is no plan to construct the proposed outfall in the near future. However, this outfall is identified in a plan for future activities maintained by the Division of Oil Gas and Mining. Therefore, it is included as an outfall in this renewal permit.

RECEIVING WATERS AND STREAM CLASSIFICATION

All discharges flow into Quitcupah Creek, a tributary of Muddy Creek. The receiving water is classified as 2B, 3C, and 4 (*Utah Administrative Code (UAC) R317-2-13.1*).

- 2B Protected for secondary contact recreation such as boating, wading, or similar uses.
- 3C Protected for non-game fish and other aquatic life, including the necessary aquatic organisms in their food chain.

4 Protected for agricultural uses including irrigation of crops and stock watering.

BASIS FOR EFFLUENT LIMITATIONS

The daily maximum TSS effluent limit is based on *40 CFR 434*. The monthly and weekly average TSS and pH effluent limitations are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. The Oil and Grease limitation is based on best professional judgment (BPJ). The storm water settleable solids effluent limit of 0.5 ml/L is applicable only during storm events less than 10-year, 24-hour storm events and is based on *40 CFR 434 Coal Mining Point Source Category*.

The iron effluent limit is based upon the WLA and is more stringent than the 7.0 mg/L as per the applicable categorical limit, *40 CFR 434 Coal Mining Point Source Category*.

The effluent limits for TDS and sulfate are based upon the WLA. However, the TDS effluent limit is 25% less than the value in the WLA to preserve some of the assimilative capacity in Quitchupah Creek. Based on historical self monitoring data, Consol will be able to comply with this effluent limit.

The permit effluent limitations are as follows:

Parameter	Effluent Limitations a/b/				
	Max Monthly Avg.	Max Weekly Avg.	Daily Min	Daily Max	Annual Max
Flow, MGD	1.5				
Total Suspended Solids, mg/L	25	35		70	
Total Dissolved Solids, mg/L	4,766				
Sulfate, mg/L	3,366				
Iron, mg/L				1.4	
Oil & Grease, mg/L				10	
pH, SU			6.5	9.0	

a/ See definitions Part V.I. for definition of terms.

b/ There shall be no visible sheen or floating solids or visible foam in other than trace amounts. There shall be no discharge of sanitary wastes.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are based on the Utah Division of Water Quality’s *Monitoring, Recording and Reporting Guidelines*. The permit will require reports to be submitted monthly on Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period.

Self-Monitoring and Reporting Requirements ^{a/}			
Parameter	Frequency	Sample Type	Units
Total Flow	Weekly	Measured	MGD
TSS	Weekly	Grab/Composite	mg/L
TDS	Weekly	Grab/Composite	mg/L
TDS ^{b/}	Monthly	Calculated	tons
Sulfate	Weekly	Grab/Composite	mg/L
Iron	Weekly	Grab/Composite	mg/L
Oil & Grease	Weekly	Visual	Yes/No
Oil & Grease ^{c/}	Monthly	Grab	mg/L
pH	Weekly	Grab	SU
WET, Acute Biomonitoring ^{d/}	Annually ^{e/}	Composite	Pass/Fail

^{a/} See definitions Part V.I. for definition of terms.

^{b/} Cumulative totals for this parameter shall be reported on the monthly Discharge Monitoring Reports.

^{c/} Required only if sheen is observed.

^{d/} WET monitoring required only at Outfalls 001, 003, 004, 008 which discharge mine water.

^{e/} Monitoring frequency will be annually while mine is idle and quarterly at commencement of mining activities.

STORM WATER REQUIREMENTS

This permit authorizes storm water discharges through the designated outfalls listed above. Storm water from haul roads, access roads, railroad spurs, sidings and internal haulage lines, conveyor belts, chutes, aerial tramway haulage areas, equipment storage and maintenance yards, coal handling buildings and structures, and inactive coal mines and related areas are permitted under the storm water provision of the permit. The permit includes requirements to address storm water, other than for active mining areas, in a storm water pollution prevention plan. Consol must continue to maintain storm water BMP's and update and maintain their current storm water pollution prevention plan.

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring)*.

Authority to require effluent biomonitoring is provided in *Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3* and *Water Quality Standards, UAC R317-2-5* and *R317 -2-7.2*.

Consol is a major industrial facility that discharges intercepted groundwater, in which toxicity is not likely to be present. Acute Whole Effluent Toxicity (WET) testing was completed in 2006 using effluent from Outfalls 001 and 003. No toxicity was found. Based on these considerations, Consol will be required to monitor WET annually while the mine is not operational and quarterly upon commencement of mining activities. The permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the effluent during this permit cycle.

COLORADO RIVER BASIN SALINITY CONTROL FORUM

The Colorado River Basin Salinity Control Forum (CRBSCF) controls TDS loading in the Colorado River watershed as authorized in *UAC R317-2-4*. The CRBSCF generally allows 1 ton/day or 366 tons/year unless exempted under special conditions as demonstrated according to the CRBSCF Policy entitled, “*2011 Review, Water Quality Standards for Salinity, Colorado River System.*”

Consol provided information on January 12, 1984, that allowed an exemption to discharge a TDS load greater than the 1 ton/day or 350 tons/year, according to the CRBSCF policy at that time. Since the initial 1984 assessment, both the policy and mining activities have changed. Consol revisited the applicability of their exemption from the CRBSCF policy in a letter dated August 28, 2006. For this permit cycle, Consol will be required to reevaluate and submit a justification to DWQ for exemption from the CRBSCF policy within one year from the effective date of the renewal permit. If Consol can successfully demonstrate that the exemption is still applicable, then the exemption will continue in this permit. Otherwise, the re-opener provision in the permit will be exercised and the permit will be modified to include a TDS load limit and/or salinity offset provisions as per the CRBSCF policy.

ANTIDEGRADATION LEVEL II REVIEW

Antidegradation Reviews are intended to insure that waters that have better quality than required by the standards are not degraded unless the degradation is necessary for important social or economic reasons.

Consol has completed an Antidegradation Level II Review for discharges to Quitchupah Creek. This document is included as an addendum to this FSSOB.

These documents are part of the UPDES Permit Application and are available for review.

The DWQ concurs with the findings of the Antidegradation Level I (compliance with water quality standards) and Antidegradation Level II Reviews.

PERMIT DURATION

It is recommended that this permit be effective for a duration of five (5) years.

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Utah Division of Water Quality

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