Official Draft Public Notice Version **February 18, 2014**
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FACT SHEET STATEMENT OF BASIS (FSSOB)
ENERGY WEST TRAIL MOUNTAIN MINE
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)
PERMIT NUMBER: UT0023728
MINOR INDUSTRIAL RENEWAL

FACILITY CONTACTS

Facility Contact:	Guy Davis	Responsible Official:	Ken Fleck
Position:	Mine Analyst	Position:	Manager of Geo. and Env. Affairs
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DESCRIPTION OF FACILITY

Facility Name:	Energy West Trail Mountain Mine
Mailing Address:	15 North Main Huntington, Utah 84528
Physical Location:	Approximately twelve miles northwest of Orangeville, Utah in Emery County, near the Cottonwood/Wilberg Mine.
Coordinates:	Latitude: 39°19'00", Longitude: 111°11'20".
Classification (SIC):	*1222 - Bituminous Coal Underground Mining (NAICS 212112)*

Energy West (a subsidiary of PacifiCorp) Trail Mountain Mine is an underground coal mining operation which ceased operation in 2001. The portals have been sealed and there has been no mining activity since that time. None of the Outfalls have discharged nor are presently discharging. It is not known exactly when the mine will resume operation, but a permit is necessary in case the mine does begin operation in the next five years.

DESCRIPTION OF DISCHARGE

Outfall	Description
001	Sedimentation pond for surface water runoff during storm events. Discharge would be into Cottonwood Canyon Creek Drainage. This discharge is located at latitude 39°19'00" and longitude 111°11'20".
002	Mine water discharge (inactive) to Cottonwood Canyon Creek Drainage. This discharge is located at latitude 39°19'03" and longitude 111°11'25".

The mine has been inactive since 2001 and it is not known when the mine will become active again. Cottonwood Canyon Creek is a tributary of Cottonwood Creek.

RECEIVING WATERS AND STREAM CLASSIFICATION

As taken from *Utah Administrative Code (UAC) R317-2-12.7*, Cottonwood Canyon Creek is classified as 1C, 2B, 3A and 4.

Class 1C	-Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water.
Class 2B	-Protected for secondary contact recreation such as boating, wading, or similar uses.
Class 3A	-Protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.
Class 4	-Protected for agricultural uses including irrigation of crops and stock watering.

BASIS FOR EFFLUENT LIMITATIONS

In accordance with regulations promulgated in *40 Code of Federal Regulations (CFR) Part 122.44* and in *UAC R317-8-4.2*, effluent limitations are derived from technology-based effluent limitations guidelines, Utah Secondary Treatment Standards (*UAC R317-1-3.2*) or Utah Water Quality Standards (*UAC R317-2*). A waste load analysis was completed and is included as Appendix I of this FSSOB. In cases where multiple limits have been developed, those that are more stringent apply. In some cases (such as for TSS) multiple limits have been used. In cases where no limits are applicable, Best Professional Judgment (BPJ) was used.

1. Trail Mountain discharge meets the EPA definition of "alkaline mine drainage." As such, it is subject to the technology based effluent limitations in *40 CFR Part 434.45*. Technology based limits used in the permit are listed below.

    a. Total suspended solids (TSS) daily maximum limit (70 mg/L) for surface sedimentation ponds only.

    b. For discharges composed of surface water or mine water commingled with surface water, *40 CFR Part 434.63* allows alternate effluent limits to be applied when discharges result from specific runoff events, detailed below and in the permit. Trail Mountain has the burden of proof that the described runoff events occurred.

        i. For runoff events (rainfall or snowmelt) less than or equal to a 10-year 24-hour precipitation event, settleable solids shall be substituted for TSS and shall be limited to 0.5 milliliters per liter (ml/L). All other effluent limitations must be achieved concurrently, as described in the permit.

        ii. Any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period greater than the 10-year, 24-hour

precipitation event (or snowmelt of equivalent volume) may comply with the following limitation instead of the otherwise applicable limitations:

Pollutant or pollutant property	Effluent limitations
pH	6.5-9.0 at all times.

2) For surface sedimentation ponds (Outfall 001) the TSS 30-day and 7-day averages are based on Utah Secondary Treatment Standards.

3) For mine water discharges the TSS is based upon information contained within the Antidegradation II analysis which is attached. From Table 3-1 on page 3-3 background data as taken from "Cottonwood Canyon Creek, 1 mile above Outfall 001(average 2007 – 2012) is listed as 19 mg/L. This value will be rounded to 20 mg/L and used as the thirty day average effluent limit for TSS in the mine discharge. The seven day average effluent limit for TSS will be 30 mg/L.

4) Daily minimum and daily maximum limitations on pH are derived from Utah Secondary Treatment Standards and Water Quality Standards.

5) Total dissolved solids (TDS) are limited according to Water Quality Standards (which are subject to TMDL requirements) and policies established by the Colorado River Basin Salinity Control Forum. TDS are limited by both mass loading and concentration requirements as described below:

    a. Since discharges from Trail Mountain eventually reach the Colorado River, TDS mass loading is limited according to policies established by the Colorado River Basin Salinity Control Forum (Forum), as authorized in *UAC R317-2-4* to further control salinity in the Utah portion of the Colorado River Basin. On February 28, 1977 the Forum produced the *"Policy for Implementation of Colorado River Salinity Standards through the NPDES Permit Program"* (Policy), with the most current subsequent triennial revision dated October 2011. Based on Forum Policy, provisions can be made to remove TDS by treatment, salinity off-set projects, or whatever mechanism(s) the Company can develop to account for any TDS loading in excess of the permit requirement. The TDS loading required by the salinity forum and the proposed permit, is one ton per day as a sum from all discharge points, unless the average concentration of TDS is 500 mg/L or less. If the concentration of TDS at an Outfall is less than 500 mg/L as a thirty day average, no loading limit applies for that Outfall. The one ton per day loading limit applies only to those Outfalls exceeding 500 mg/L as a thirty day average. Those Outfalls exceeding 500 mg/L as a thirty day average, collectively, need to meet the one ton

per day limit. If one ton per day cannot be achieved the permittee will be required to remove salinity/TDS in excess of one ton per day by developing a treatment process, participating in a salinity off-set program, or developing some type of mechanism to remove the salinity/TDS. The selection of a salinity control program must be approved by the Director of the Division of Water Quality and implemented within one year of the effective date of the permit.

b. Concentration requirements of the permit for salinity/TDS are based on the irrigation and stock watering requirements for Class 4 waters of the State and the wasteload allocation. The wasteload allocation indicated that as part of the West Colorado River Watershed TMDL, a specific permit limit of 1136 mg/L is required for the Trail Mountain Mine in order to be protective of downstream uses. Therefore, a daily maximum of 1136 mg/L TDS shall not be exceeded at Outfalls 001 and 002.

6) Oil and Grease are limited to 10 mg/L by BPJ, as this is consistent with other industrial facilities statewide.

7) The iron limitation is based upon the wasteload allocation which reflects the State Water Quality Standard of 1.0 mg/L for dissolved iron (*UAC R317-2 Table 2.14.2*) and will be included in the permit as 1.0 mg/L as total iron, and shall apply to each of the discharge points.

8) Based on the fact that Trail Mountain has Outfalls which discharges to a Class 1C stream a level II ADR is required for these discharge points. The Level II review was completed and received by the Division of Water Quality on November 18, 2013. The Level II submission received DWQ certification and approval on November 19, 2013 and is attached to this FSSOB.

EFFLUENT IMITATIONS, SELF-MONITORING, AND REPORTING REQUIREMENTS

The effluent limitations and monitoring requirements for Outfalls 001and 002 shall be as outlined below. Effluent self-monitoring requirements are based on BPJ. Reports shall be made via NetDMR or on Discharge Monitoring Report (DMR) forms and are due 28 days after the end of the monthly monitoring period.

Effluent Characteristics	Effluent Limitations				Monitoring Requirements	
	30 Day Average	7 Day Average	Daily Minimum	Daily Maximum	Sample Frequency	Sample Type
Flow, [1]MGD a/	0.5/0.072	[2]NA	NA	NA	Monthly	Measured
TSS, mg/L b/	25	35	NA	70	Monthly	Grab
TSS, mg/L c/	20	30	NA	NA	Monthly	Grab
Total Iron, mg/L	NA	NA	NA	1.00	Monthly	Grab
Oil & Grease, mg/L d/	NA	NA	NA	10	Monthly	Grab
TDS, mg/L	NA	NA	NA	1136	Monthly	Grab
TDS, lbs/day e/	NA	NA	NA	2000	Monthly	Grab
pH, standard units	NA	NA	6.5	9.0	Monthly	Grab
Sanitary Waste f/	NA	NA	NA	None	Monthly	Visual
Oil and Grease, floating solids, visible foam, d/	NA	NA	NA	None	Monthly	Visual

[1] *MGD: million gallons per day* [2] *NA: not applicable*

a/ The thirty day average flow shall not exceed 0.5 MGD for Outfall 002 and 0.072 MGD for Outfall 001.

b/ These limitations apply only to Outfall 001.

c/ These limitations apply only to Outfall 002.

d/ In addition to monthly sampling for oil and grease, a visual inspection for oil and grease, floating solids, and visible foam shall be performed monthly at all Outfalls. There shall be no sheen, floating solids, or visible foam in other than trace amounts.

e/ The TDS concentration shall not exceed 1136 mg/L as a daily maximum limit at Outfalls 001and 002. No tons per day loading limit will be applied at a specific Outfall, if the concentration of TDS in the discharge is equal to or less than 500 mg/L as a thirty-day average. However, if the 30-day average concentration exceeds 500 mg/L at any Outfall, then the permittee cannot discharge more than 1 ton per day as a sum from all discharge points over 500 mg/L as a thirty day average. If the permittee cannot achieve one ton per day as a sum from all applicable Outfalls, the permittee will be required to remove salinity/TDS in excess of one ton per day by developing a treatment process, participating in a salinity off-set program, or developing some type of mechanism to remove the salinity/TDS. The selection of a salinity control program must be approved by the Director of the Division of Water Quality and implemented within one year of the effective date of the permit.

f/ There shall be no discharge of sanitary waste and visual observations performed at least monthly shall be conducted.

SIGNIFICANT CHANGES FROM PREVIOUS PERMIT

A flow limit was added to this renewal permit for Outfalls 001 and 002. TSS effluent limitations have been changed for the mine discharge. This renewal permit contains a TDS concentration limitation and an iron limitation of 1.0 mg/L for both Outfalls.

STORM WATER REQUIREMENTS

The storm water requirements are based on the UPDES Multi-Sector General Permit (MSGP) for Storm Water Discharges for Industrial Activity, General Permit No. UTR000000. All sections of the MSGP that pertain to discharges from coal mining facilities have been included and sections which are redundant or do not pertain have been deleted.

The permit requires the preparation and implementation of a storm water pollution prevention plan for all areas within the confines of the coal facility. Required elements of this plan are:

1) Development of a pollution prevention team,
2) Development of drainage maps and material stockpiles,
3) An inventory of exposed material,
4) Spill reporting and response procedures,
5) A preventative maintenance program,
6) Employee training,
7) Certification that storm water discharges are not mixed with non-storm water discharges,
8) Compliance site evaluations and potential pollutant source identification, and
9) Visual examinations of storm water discharges.

This plan is required to be maintained on-site to reflect current site conditions and made available for review upon request and/or inspections.

PRETREATMENT REQUIREMENTS

This facility does not discharge process wastewater to a sanitary sewer system. Any process wastewater that the facility may discharge to the sanitary sewer, either as a direct discharge or as a hauled waste, is subject to federal, state, and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable federal general pretreatment regulations found in 40 CFR 403, the state's pretreatment requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

BIOMONITORING REQUIREMENTS

As part of a nationwide effort to control toxic discharges, biomonitoring requirements are being included in permits for facilities where effluent toxicity is an existing or potential concern. In Utah, this is done in accordance with the *State of Utah Permitting and Enforcement Guidance*

Document for Whole Effluent Toxicity Control (Biomonitoring (2/1991)). Authority to require effluent biomonitoring is provided in *UAC R317-8, Utah Pollutant Discharge Elimination System* and *UAC R317-2, Water Quality Standards*.

Trail Mountain is categorized as a minor industrial facility, whose discharges are not anticipated be toxic. However, since the mine has been idle for a number of years, although not required by the permit, it would be appropriate to take at least one sample to check for acute toxicity after resumption of mining operations. This is required to be done by most mines at permit renewal time. If the sample shows no acute toxicity, any reasonable potential for toxicity would be greatly reduced and no WET limits or testing would be required. A toxicity reopener provision remains included in the permit so that WET testing and WET limitation requirements can be incorporated at any time if determined to be appropriate in the future.

PERMIT DURATION

As stated in *UAC R317-8-5.1(1)*, UPDES permits shall be effective for a fixed term not to exceed five (5) years.

Drafted by Mike Herkimer
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Utah Division of Water Quality
December 12, 2012
November 25, 2013

ATTACHMENTS (included in the public notice package)

I. Waste Load Analysis
II. ADR II application and review and certification by DWQ personnel

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DWQ-2013-007666