

**FACT SHEET/STATEMENT OF BASIS
OAKLEY CITY
RENEWAL PERMIT: DISCHARGE, BIOSOLIDS & STORM WATER
UPDES PERMIT NUMBER: UT0020061
UPDES BIOSOLIDS PERMIT NUMBER: UTL-020061
MINOR MUNICIPAL**

FACILITY CONTACTS

Person Name:	Bob Johnson
Position:	Operator
Facility Name:	Oakley City Wastewater Treatment Plant
Mailing Address:	P.O Box 129 Oakley City, Utah 84055-0400
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Actual Address:	4449 Millrace Road Oakley City, Utah 84055

DESCRIPTION OF FACILITY

The Oakley City Wastewater Treatment Plant (OCWTP) is a Membrane Bioreactor (MBR) treatment plant with a design capacity of 0.25 MGD. The facility serves the City of Oakley, located in Summit County, with a current population of just over 900. The facility consists of a 2 mm screen and compactor, grit removal, aeration basin, MBR for microfiltration and ultraviolet disinfection. The outfall location is at latitude 40°42'34" and longitude 111°17'59" and discharges directly to the Weber River.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

The renewal permit contains an effluent limit for dissolved oxygen during the summer months. The limit of 5.0 mg/L is based upon the Wasteload Allocation (WLA). The renewal permit also contains an effluent limit for flow of 0.25 MGD, which is the peak flow of the OCWTP. In addition, the permit contains monthly monitoring requirements for total phosphorus and quarterly monitoring requirements for Total Kjeldahl Nitrogen, nitrate, nitrite and ammonia.

DISCHARGE

DESCRIPTION OF DISCHARGE

Oakley City reports self-monitoring results on Discharge Monitoring Reports (DMRs) on a monthly basis. A summary of self monitoring data for the last three years is attached. The data demonstrates that the facility has a good compliance history with only one effluent limit violation during this timeframe.

<u>Outfall</u>	<u>Description of Discharge Point</u>
002	Located at latitude 40°42'34" and longitude 111°17'59"; 50 feet east of the treatment facility on Millrace Road (1000 W).

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge is to the Weber River which is classified as 1C, 2B, 3A, and 4 (in that segment) according to *Utah administrative Code (UAC) R317-2-6 and R317-2-13.4*:

- 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

Limitations on total suspended solids (TSS), biochemical oxygen demand (BOD₅), E. coli, pH and percent removal for BOD₅ and TSS are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. The dissolved oxygen (DO) limitation is based upon the WLA. The oil and grease limitation is based on best professional judgment (BPJ). The permit limitations are:

Parameter	Effluent Limitations			
	Maximum Monthly Average	Maximum Weekly Average	Daily Minimum	Daily Maximum
Total Flow, MGD	0.25	NA	NA	NA
BOD ₅ , mg/L	25	35	NA	NA
BOD ₅ Min. % Removal	85	NA	NA	NA
TSS, mg/L	25	35	NA	NA
TSS Min. % Removal	85	NA	NA	NA
E. Coli, No/100mL	126	158	NA	NA
Oil & Grease, mg/L	NA	NA	NA	10.0
pH, Standard Units	NA	NA	6.5	9.0
DO, mg/L <u>a/</u>	NA	NA	5.0	NA

NA – Not Applicable.

a/ Effluent limit applies only during the summer months: July, August and September.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are the same as in the previous permit. The permit will require reports to be submitted monthly and quarterly, as applicable, on Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period.

Self-Monitoring and Reporting Requirements <u>a/</u>			
Parameter	Frequency	Sample Type	Units
Total Flow <u>b/c/</u>	Continuous	Recorder	MGD
BOD ₅ , Influent <u>d/</u> Effluent	Monthly	Grab	mg/L
	Monthly	Grab	mg/L

TSS, Influent <u>d</u> / Effluent	Monthly Monthly	Grab Grab	mg/L mg/L
Total Phosphorus	Monthly	Grab	mg/l
E. Coli, No/100mL	Monthly	Grab	No./100mL
Oil & Grease <u>e</u> / pH	Monthly Monthly	Grab Grab	mg/L SU
DO, mg/L	Monthly	Grab	mg/L
Total Kjeldahl Nitrogen	Quarterly	Grab	mg/L
Nitrate	Quarterly	Grab	mg/L
Nitrite	Quarterly	Grab	mg/L
Ammonia	Quarterly	Grab	mg/L

- a/ See Definitions, *Part VII*, of Permit for definition of terms.
- b/ Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.
- c/ If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
- d/ In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.
- e/ Sample when sheen is visible.

BIOSOLIDS

DESCRIPTION OF TREATMENT AND DISPOSAL

The OCWTP biosolids report for calendar year 2011 was received on January 9, 2012. The report states the OCWTP disposed of 10.7 dry metric tons (DMT) of wastewater solids in 2011 at the Summit County Landfill. The wastewater solids were stabilized during the MBR process with an average retention time of over 60 days. The wastewater solids from the MBR process were de-watered with a screw press and passed a paint filter test before it was hauled to the landfill for disposal.

SOLIDS MONITORING REQUIREMENTS

Under *40 CFR 503* solids are not required to be monitored for heavy metals content or pathogen reduction if the solids are disposed in a landfill.

LANDFILL MONITORING

Paint Filter Test

Under *40 CFR 258*, landfill monitoring requirements, the solids will need to pass a paint filter test before the solids are disposed of in a landfill. If the solids do not pass a paint filter test, the solids cannot be disposed in a landfill.

Vector Attraction Reduction Monitoring

Under *40 CFR 503.33*, the solids need to meet a method of vector attraction reduction (VAR). Since the solids will be disposed of at the Summit County Landfill, Oakley City will need to ensure that the solids are covered daily with soil or another approved material. If the solids are not covered daily, the solids cannot be disposed in the landfill.

Minimum Frequency of Monitoring	
Amount of Solids Disposed Per Year	Monitoring Frequency
> 0 to < 290, DMT	Once per year

Since the OCWTP is not expected to produce more than 290 DMT of solids per year, the OWCTP will be required to monitor at least once per year for a paint filter test.

RECORD KEEPING

The record keeping requirements from *40 CFR 503.17* are included under *Part III.F* of the permit. Since the solids are disposed in a landfill the records need to be retained for a minimum of five years.

REPORTING

The OCTP needs to submit an annual solids report as required in *40 CFR 503.18*. This report is to include the results of all solids monitoring performed in accordance with *Part III.C* of the permit, information on management practices, solids treatment, and certifications. This report is due no later than February 19 of each year. Each report is for the previous calendar year.

STORM WATER

STORMWATER REQUIREMENTS

The *Utah Administrative Code (UAC) R-317-8-3.9* requires storm water permit provisions to include the development of a storm water pollution prevention plan for waste water treatment facilities if the facility meets one or both of the following criteria.

1. waste water treatment facilities with a design flow of 1.0 MGD or greater, and/or,
2. waste water treatment facilities with an approved pretreatment program as described in *40CFR Part 403*,

The OCWTP does not meet either of the above criteria; therefore this permit does not include storm water provisions. However, the permit does include a storm water re-opener provision.

PRETREATMENT REQUIREMENTS

The permittee has not been designated for pretreatment program development because it does not meet conditions which necessitate a full program. The flow through the plant is less than five (5) MGD, there are no categorical industries discharging to the treatment facility, industrial discharges comprise less than 1 percent of the flow through the treatment facility, and there is no indication of pass through or interference with the operation of the treatment facility such as upsets or violations of the POTW's UPDES permit limits.

Although the permittee does not have to develop a State-approved pretreatment program, any wastewater discharges to the sanitary sewer are subject to Federal, State and local regulations. Pursuant to *Section 307* of the *Clean Water Act*, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in *40 CFR 403* and the State

Pretreatment Requirements found in *UAC R317-8-8*.

An industrial waste survey (IWS) is required of the permittee as stated in Part II of the permit. The IWS is to assess the needs of the permittee regarding pretreatment assistance. The IWS is required to be submitted within sixty (60) days after the issuance of the permit. If an Industrial User begins to discharge or an existing Industrial User changes their discharge, the permittee must resubmit an IWS no later than sixty days prior to the introduction or change as stated in Part II of the permit.

It is recommended that the permittee perform an annual evaluation of the need to revise or develop technically based local limits for pollutants of concern, to implement the general and specific prohibitions *40 CFR, Part 403.5(a)* and *Part 403.5(b)*. This evaluation may indicate that present local limits are sufficiently protective, need to be revised or should be developed. It is required, as per *UAC R317-8-8.8(4)(c)*, that the permittee submit for review and public notice any local limits that are developed to the Division of Water Quality for review.

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 (WET) 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*.

The permittee is a minor municipal discharger that will be contributing a small volume of effluent to the existing stream flow, in which toxicity is not likely to be present. Based on these considerations, there is no reasonable potential for toxicity in the permittee's discharge (*per State of Utah Permitting and Enforcement Guidance Document for WET Control*). As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, 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 discharge.

TOTAL MAXIMUM DAILY LOAD

The OCWTP discharges into the Weber River and subsequently to Echo Reservoir, which is on Utah's 303(d) list of impaired waters. Specifically, Echo Reservoir's Class 3A beneficial use (protected for cold-water species of game fish and other cold-water aquatic life, including the necessary aquatic organisms in their food chain) has been identified as impaired due to low DO and high total phosphorus (TP) concentrations.

As required by the Clean Water Act, a Total Maximum Daily Load (TMDL) study must be developed for Echo Reservoir. The TMDL is currently underway, and will address the low DO and high TP conditions identified during the Division of Water Quality's assessment process for waters of the state. As such, monthly TP monitoring will be required in order to characterize the TP in OCWTP's effluent. However, any TP loading limit set forth in the TMDL will not go into effect until 1) Oakley City begins to approach its load allocation identified in the TMDL, or 2) the OCWTP UPDES Permit is renewed, whichever comes first.

ANTIDEGREDATION REVIEW

Antidegradation Reviews are intended to ensure 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.

Oakley has completed an Antidegradation Level II Review for discharges to the Weber River, a Class 1C drinking water source. This document is part of the UPDES Permit Application and is available for review.

The Level II Review demonstrated that the facility is being renewed without any changes to flow or concentrations and that the plant is necessary for economic and social growth of the serviced community.

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

PERMIT DURATION

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

Drafted by
Kim Shelley, Discharge
Mark Schmitz, Biosolids
Kari Lundeen, TMDL
Utah Division of Water Quality

PUBLIC NOTICE

Began:
Ended:
Public Noticed in