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**FACT SHEET STATEMENT OF BASIS
CASTLE VALLEY SPECIAL SERVICE DISTRICT
HUNTINGTON WASTEWATER TREATMENT PLANT
UPDES PERMIT NUMBER: UT0021296
MINOR MUNICIPAL RENEWAL PERMIT**

FACILITY CONTACT AND INFORMATION

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DESCRIPTION OF FACILITY AND DISCHARGE

The Castle Valley Special Service District's (CVSSD) Huntington City wastewater treatment facility (Huntington facility) is located about two miles southeast of Huntington, Utah, in Emery County. The Huntington facility has a design capacity of 800,000 gallons per day (0.8 MGD) with the average monthly design flow of 400,000 gallons per day (0.4 MGD). The lagoon system consists of 6 lagoon cells with a total area of 34.8 acres. The first lagoon cell is mechanically aerated with three sand filters that follow the six lagoon cells in series. The discharge is from a pipe near the southeast corner of the lagoon system and is referred to as Outfall number 001. The discharge is to Huntington Creek at latitude 39°18'46" and longitude 110°55'15".

RECEIVING WATERS AND STREAM CLASSIFICATION

The discharge flows into Huntington Creek which is tributary to Cottonwood Creek, which drains to the San Rafael River and the Colorado River. Huntington Creek is classified according to *Utah Administrative Code (UAC) R317-2-13.1(b)* as follows:

- Class 2B -protected for secondary contact recreation (boating, wading and similar uses).
- Class 3C -protected for non-game fish and other aquatic life, including the necessary aquatic organisms in their food chain.
- Class 4 -protected for agricultural uses including irrigation of crops.

BASIS FOR EFFLUENT LIMITATIONS

Limitations on carbonaceous 5-day biochemical oxygen demand (CBOD₅), seasonal ammonia limitations, dissolved oxygen, total chlorine residual and total flow are water quality limited and taken from the waste load analysis. CBOD was used in the waste load allocation because the model took into account nitrogenous oxygen demand when it calculated ammonia nitrogen limitations. Total suspended solids, E. coli and pH are based upon current Utah Secondary Treatment Standards, *Utah Administrative Code (UAC) R317-1-3*. Oil and Grease limitations are based on best professional judgment in the event that an oil or grease sheen is visually observed.

The 2010 303(d) list identified Huntington Creek as impaired for selenium. As a result a reasonable potential analysis for selenium was completed and indicated that there is no reasonable potential for selenium to contribute chronic toxicity. However, because selenium is on the 303(d) list selenium shall be monitored in the effluent.

Discharges from the Huntington facility eventually reach the Colorado River, which places it in the guidance of the Colorado River Basin Salinity Control Forum (CRBSCF). Total dissolved solids (TDS) are limited in loading by the CRBSCF and in February 1977 they produced the “Policy For Implementation of Colorado River Salinity Standards Through the NPDES Permit Program” (Policy). This Policy is still in effect and under Part II (Municipal Discharges) it states, “...Requirements for establishing incremental increases may be waived in those cases where the incremental salt load reaching the main stem of the Colorado River is less than one ton per day or 366 tons per year.” The Huntington facility is an intermittent discharger, discharging less than 366 tons per year total TDS. The effluent will be limited to a maximum discharge of 1.0 ton per day or 366 tons per year of TDS. It is the responsibility of the permittee to maintain annual TDS loading information and upon request the permittee shall submit to the Executive Secretary the annual TDS loading information.

The TDS concentration limit of 4800 mg/L is based upon the approved Total Maximum Daily Load (TMDL) study for the San Rafael watershed (which includes Huntington Creek), in which a site specific criterion was developed for TDS and can be found in Table A-12 of the document entitled, “Price River, San Rafael River, and Muddy Creek TMDLs for Total Dissolved Solids, West Colorado Watershed Management Unit, Utah”, EPA Approval Date: August 4, 2004.

EFFLUENT LIMITATIONS & SELF MONITORING AND REPORTING REQUIREMENTS

Based on previous monitoring data, the permittee is expected to be able to continue to comply with the following effluent limitations upon future discharges:

Parameter	Effluent Limitations			
	Maximum Monthly Average	Maximum Weekly Average	Daily Minimum	Daily Maximum
CBOD ₅ , mg/L	30	NA	NA	65
CBOD ₅ Min. % Removal	65	NA	NA	NA
TSS, mg/L	45	65	NA	NA
TSS Min. % Removal	65	NA	NA	NA
E. Coli, No./100mL	126	158	NA	NA
TRC, mg/L, a/	NA	NA	NA	0.04
Ammonia mg/L:				
Summer (July – Sept.)	3.5	NA	NA	8.6
Fall (Oct. - Dec.)	5.3	NA	NA	7.4
Winter (Jan. – March)	5.6	NA	NA	6.9
Spring (April – June)	5.4	NA	NA	8.7
TDS, mg/L	NA	NA	NA	4800
TDS, tons/day/year, b/	NA	NA	NA	1.0/366
pH, Standard Units(SU)	NA	NA	6.5	9.0
Dissolved Oxygen, mg/L	NA	NA	5.0	NA
Total Effluent Flow, MGD	0.4	NA	NA	0.8
Oil & Grease, mg/L, c/	NA	NA	NA	10

NA – Not Applicable

mg/L – milligrams per liter

MGD – million gallons per day

-Discharge monitoring report (DMR) forms shall be submitted monthly and are due 28 days after the end of the monitoring period and shall include the following self-monitoring and reporting information:

Self-Monitoring and Reporting Requirements			
Parameter	Frequency	Sample Type	Units
Total Flow	Continuous	Recorder	MGD
CBOD5, Influent Effluent	Twice Monthly	Grab	mg/L
	Twice Monthly	Grab	mg/L
TSS, Influent Effluent	Twice Monthly	Grab	mg/L
	Twice Monthly	Grab	mg/L
E. Coli	Twice Monthly	Grab	No./100mL
NH3-N	Twice Monthly	Grab	mg/L
TRC, a/	Daily, only if chlorinating	Grab	mg/L
Dissolved Oxygen	Twice Monthly	Grab	mg/L
TDS, b/	Twice Monthly	Grab	mg/L, tons/day/year
pH	Twice Monthly	Grab	SU
Selenium	Monthly	Grab	mg/L
Oil & Grease, c/	Twice Monthly	Visual, Grab	Yes/No, mg/L

a/ TRC shall be analyzed only if the effluent is chlorinated.

b/ In addition to the total dissolved solids (TDS) effluent concentration limitation, TDS effluent loading is limited to one-ton/day. If the one-ton/day effluent loading limitation cannot be met, then the permittee is limited to 366-tons/year total TDS effluent loading from the facility. It is the responsibility of the permittee to maintain annual TDS loading information and upon request the permittee shall submit to the Director the annual TDS loading information.

c/ Screening for the presence of oil and grease shall be a visual test. If any oil and/or grease sheens are observed visually, then a sample of the effluent must be taken and this sample shall not exceed 10 mg/L.

WASTE LOAD ANALYSIS AND ANTIDEGRADATION REVIEW

Effluent limitations are also derived using a waste load analysis (WLA), of which a summary is appended to this fact sheet statement of basis. The WLA incorporates Secondary Treatment Standards, Water Quality Standards, Antidegradation Reviews (ADR), as appropriate and designated uses into a water quality model that projects the effects of discharge concentrations on receiving water quality. Effluent limitations are those that the model demonstrates are sufficient to meet State water quality standards in the receiving waters. During this UPDES renewal permit development, a WLA and ADR were performed. An ADR Level I review was performed and concluded that an ADR Level II review was not required. The WLA indicates that the existing effluent limitations should be sufficiently protective of water quality, in order to meet State water quality standards in the receiving waters. The potential discharge was evaluated and determined not to cause a violation of State Water Quality Standards in downstream receiving waters.

SIGNIFICANT CHANGES FROM PREVIOUS PERMIT

Permit limits for the thirty day average and daily maximum flow have been added along with seasonal limits for ammonia. In addition CBOD is limited instead of the standard BOD (includes carbonaceous and nitrogenous demand) and monitoring for selenium has been added to the permit. All other permit

provisions remain unchanged.

STORM WATER REQUIREMENTS

Wastewater treatment facilities, which includes treatment lagoons, are required to comply with storm water permit requirements if they meet one or both of the following criteria,

1. The facility has an approved pretreatment program as described in *40 CFR Part 403*.
2. The facility has a design flow of 1.0 MGD or greater.

The Huntington City lagoons facility does not meet either of the criteria; therefore a storm water permit is not required at this time. However, a storm water re-opener provision is included in the permit should a storm water permit be needed in the future, following proper administrative procedures as per *UAC R317-8*.

PRETREATMENT REQUIREMENTS

CVSSD has not been designated for a pretreatment program development because it does not meet conditions which necessitate a full program. The flow through the plant is less than one (1) MGD, and there are no categorical industries discharging to the plant.

Although CVSSD does not have a State-approved pretreatment program, any wastewater discharges to the sanitary sewer by industrial users are subject to Federal, State and local pretreatment regulations. Pursuant to *Section 307* of the *Clean Water Act*, CVSSD 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 CVSSD as stated in Part II of the permit. The IWS is to assess the needs of CVSSD 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 CVSSD must resubmit an IWS no later than sixty days following the introduction or change as stated in Part II of the permit.

It is recommended that CVSSD 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 that CVSSD submit any local limits that are developed to the Division of Water Quality for review and if needed public notice.

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)*. 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 intermittent discharging facility with no industrial users on the system to date. Discharges will continue to be from domestic sources only, which contributes a small volume of effluent when compared to the existing stream flows, in which toxicity is neither an existing concern, nor likely to be present in the discharge. 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 future discharges.

BIOSOLIDS MANAGEMENT REQUIREMENTS

The State of Utah has adopted the 40 CFR 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. However, since this facility is a lagoon, there is not any regular sludge production. Therefore 40 CFR 503 does not apply at this time. In the future, if the sludge needs to be removed from the lagoons and is disposed in some way, the Division of Water Quality must be contacted prior to the removal of the sludge to ensure that all applicable state and federal regulations are met.

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, Environmental Scientist
Utah Division of Water Quality
October 8, 2014

ADDENDUM TO STATEMENT OF BASIS FACT SHEET – WASTE LOAD ALLOCATION

Waste load allocation is attached.