

**FACT SHEET STATEMENT OF BASIS
CITY OF EPHRAIM
NEW PERMIT: DISCHARGE
UPDES PERMIT NUMBER: UT0025984
MINOR MUNICIPAL**

FACILITY CONTACTS

Person Name:	Chad Parry
Position:	Public Works director
Phone Number:	435-283-4631
Facility Name:	Ephraim City
Mailing and Facility Address:	5 South Main Ephraim City, Utah 84627
Telephone:	435-283-4631

DESCRIPTION OF FACILITY

The Ephraim City treatment facility (Ephraim) consists of a seven (7) cell lagoon system located west of Ephraim and east of the San Pitch River which is the receiving stream during discharge periods. During non-discharge periods the facility will land apply effluent to fields adjacent to the lagoons. The land application activity will be addressed under different authority than the UPDES program. Ephraim manages isolated fields adjacent to the lagoons for land application of effluent for disposal. Ephraim plans to install a chlorine disinfection system at the outfall to properly disinfect the effluent before discharge. The lagoon system is located near 39°22'32.3" north latitude and 111°37'48.2" west longitude.

DISCHARGE

The Ephraim Lagoons are currently operated as total containment lagoons, but as a result of growth in the area and at Snow College the facility can no longer guarantee total containment during colder and/or wetter years. Ephraim will discharge to a segment of the San Pitch River that is 303(d) listed as impaired for total dissolved solids (TDS). A TMDL was completed and approved for the San Pitch River on November 18th 2003. The TMDL requirements apply during the critical season from March through September. As a result, Ephraim can be granted permission to discharge to the San Pitch during the non-critical season.

An anti-degradation review and facility plan completed for the facility indicates that the most feasible and economical alternative choice for Ephraim is a facility that land applies from March through November and allows a discharge to the San Pitch from December through February. Ephraim has been working towards finalizing all the facility changes required to allow for the land application activities, and preparing for future discharges.

DESCRIPTION OF DISCHARGE

Ephraim has not had a need for a discharge permit in the past. Consequently, there is no previous discharge monitoring data available. They are expected to achieve the discharge limits for this permit.

Outfall
001

Description of Discharge Point
Located at latitude 39°22'32.3" and longitude 111°37'48.2" through the lagoon overflow pipe and disinfection system to a ditch, then travels one mile to empty into the San Pitch River.

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge from the lagoons is through the lagoon overflow pipe and disinfection system to an unnamed ditch that flows around the lagoons and travels a mile to flow into the San Pitch River. The San Pitch River is classified 2B, 3C, 3D and 4 at this location according to *Utah Administrative Code (UAC) R317-2-13*.

- Class 2B -Protected for secondary contact recreation such as boating, wading, or similar uses.
- Class 3C -Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain
- Class 3D -Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, 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 TDS limits are based on the water quality standard for the receiving stream. The Dissolved Oxygen based on the Waste Load Allocation (WLA). The oil and grease is based on best professional judgment (BPJ).

PERMIT LIMITATIONS:

Parameter	Effluent Limitations			
	Monthly Average	Weekly Average	Minimum	Maximum
Flow, MGD				
Dec. 1-Feb. 28	NA	NA	NA	1.94
Mar. 1 – Nov. 30	NA	NA	NA	0
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	126	157	NA	NA
DO, mg/L	NA	NA	5.0	NA
TRC, mg/L	0.116	NA	NA	0.219
TDS, mg/L	NA	NA	NA	1200
Oil & Grease, mg/L	NA	NA	NA	10
pH, Standard Units	NA	NA	6.5	9.0

NA – Not Applicable.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following are the self-monitoring requirements for this new 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 *a			
Parameter	Frequency	Sample Type	Units
Total Flow *b, *c	Continuous	Recorder	MGD
BOD ₅ , Influent Effluent	2 X Weekly	Grab	mg/L
	2 X Weekly	Grab	mg/L
TSS, Influent Effluent	2 X Weekly	Grab	mg/L
	2 X Weekly	Grab	mg/L
E-Coli, No./100mL	2 X Weekly	Grab	No./100mL
Total Dissolved Solids, mg/L	Monthly	Grab	mg/l
Dissolved Oxygen, mg/L	2 X Weekly	Grab	mg/l
Ammonia, mg/L	Monthly	Grab	mg/l
pH	2 X Weekly	Grab	SU
TRC*d	Daily	Grab	mg/L
Oil & Grease	Monthly	Grab	mg/L
Metals *e	Yearly	Grab/Composite	mg/L
Total Toxic Organics	1 st , 3 rd , and 5 th Year of the Permit Cycle	Grab	mg/l

Metals Monitoring *e			
Parameter	Sample Type	Frequency	Units
Total Arsenic	Composite	Yearly	mg/L
Total Cadmium			
Total Chromium			
Total Copper			
Total Cyanide			
Total Lead			
Total Mercury	Composite/Grab		
Total Molybdenum	Composite		
Total Nickel			
Total Selenium			
Total Silver			
Total Zinc			

*a See Definitions, *Part VIII*, of Permit for definition of terms.

*b Flow measurements of 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 Only sample when disinfection is being used

*e Metals are sampled on a frequency that is less than a facility of this size would normally be required. Due to the seasonal nature of the discharge the frequency is reduced. If the seasonal nature is discontinued, and they are allowed to discharge year round, the frequency will be adjusted to reflect the change.

Land Application Requirements

Land application activities for Ephraim will require monitoring of the effluent that is going to be applied to the land. The requirements are listed in the table below.

Routine Monitoring Requirements		
Parameters	Measurement Frequency	Sample Type
Flow, (GPD)	Weekly	Continuous
E-Coli.	Monthly	Grab
Total Inorganic Nitrogen (NH ₄ +NH ₃ +NO ₂ +NO ₃)	Monthly	Grab
Irrigated Acreage	Monthly	Estimated

BIOSOLIDS (SEWAGE SLUDGE)

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.

STORM WATER

STORMWATER 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 Ephraim facility fits one of these criteria for exclusion from a UPDES Storm Water Permit by a No Exposure Certification. The facility only recently became required to submit a No Exposure Certification. They have submitted a No Exposure Certification for coverage during this permit cycle and have met all requirements. Therefore, no storm water permitting requirements will be required at this time.

PRETREATMENT REQUIREMENTS

Ephraim City 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 Ephraim City 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 following 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 that the permittee submit for review any local limits that are developed to the Division of Water Quality. If local limits are developed they must be public noticed.

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 reasonable potential analysis for this facility in regards to toxicity is not deemed sufficient to require biomonitoring or whole effluent toxicity (WET) limits because there are no present or anticipated industrial dischargers on the system nor are there any anticipated for the duration of this permit. The waste discharge is anticipated to be household waste only. Therefore, WET limits and testing are not required in this permit; however the permit will contain a WET reopener provision.

PERMIT DURATION

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

Drafted by
Daniel Griffin, Discharge
Michael George, Storm Water
Jennifer Robinson, Pretreatment
Utah Division of Water Quality

ADDENDUM TO FSSOB

A public notice for the draft permit was published in The Sanpete Messenger on March 13, 2013.