



STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

Colleen Cripps, Ph.D., Acting Administrator

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Permittee Name:

Tonopah Public Utilities
P.O. Box 151
Tonopah, NV 89049

Permit Number:

NEV00026

Location:

Tonopah Public Utilities - Wastewater Treatment Facility
Cemetery Road, Esmeralda County, NV
Approximately 2 miles WNW of Tonopah
Latitude: 38° 04' 21" N, Longitude: 117° 15' 59" W
T3N, R42E, Section 33 MDB&M

Discharge Outfalls:

- 001:** Flow Control Structure No. 5
- 002:** Sampling port at the Water Truck Fill Stand
Latitude: 38° 04' 29" N, Longitude: 117° 14' 58" W
T3N, R42E, Section 34 MDB&M

General: Tonopah Public Utilities (TPU) has applied for the renewal and modification of groundwater discharge permit NEV00026. TPU proposes to continue discharging treated wastewater effluent to groundwater of the State via percolation.

TPU operates an Advanced Integrated Wastewater Pond System (AIWPS) located in Esmeralda County, 1.75 miles northwest of the town of Tonopah. The AIWPS receives domestic and light commercial wastewater from approximately 2,800 residents and 1,200 sewer connections. The AIWPS facility includes a grit removal chamber, a self-cleaning auger screen, a Parshall flume; one 60-mil High Density Polyethylene (HDPE) lined anaerobic pretreatment pond (APP), approximately 0.4 acre in area; and three 60-mil HDPE lined aerated facultative treatment ponds (AFPs), each approximately 1.1 acres in area.

Wastewater travels through the ponds in series, beginning with primary settling and digestion in the APP. Continued clarification and additional BOD removal are achieved in the remaining three AFPs. Waste sludge discharged from the APP is discharged to four (4) on-site sludge drying beds prior to disposal in a landfill. Secondary treated effluent is discharged from the AFPs to eight (8) on-site rapid infiltration basins (RIBs). The AIWPS is designed to treat a maximum flow of 0.60 million gallons per day (MGD).

TPU has notified the Division of their intention to begin a two phase improvement project which will allow the export of treated effluent for reuse.

Phase I improvements, which have been submitted to and approved by the Division's Technical, Compliance, and Enforcement branch, include the addition of a filtration pump station, chlorine contact basin, 50-micron filtration plant, up to 7,750 feet of 6 and 8 inch PVC piping, a 4,500 gallon holding tank, and a water truck fill stand. Phase I treated effluent is expected to meet reuse Category D requirements (NAC 445A.2768) and is to be used for dust control, construction related activities, or other Category D approved uses. Phase I improvements are expected to be completed by the end of 2012.

Phase II improvements, which are not expected to begin construction before the expiration of the renewed permit, will add a 25-micron filter to the filtration plant, increase chlorine dosage, add two treated effluent storage facilities (ponds and/or tanks), and add additional export pipelines. Phase II treated effluent is expected to meet reuse Category B requirements (NAC 445A.2764) and is to be used for irrigation of local parks and landscaping, or other Category B approved uses.

The construction of Phase II improvements will be considered a major treatment plant modification and will require submittal of a new application.

Effluent discharged to the RIBs will be required to meet the Division's secondary treatment standards for pond systems. Effluent delivered for reuse to the truck fill stand, and future irrigation export pipeline, will be required to meet the Division's reuse standards for CBOD₅, TSS, and pH (NAC 445A.275), as well as the reuse standards for fecal coliform (NAC 445A.276).

Flow: The facility's requested daily maximum flow rate is 0.499 million gallons per day (MGD). 30-day average flows reported during the previous four quarter period (January - December 2011) ranged between 0.28 and 0.31 MGD. Maximum Phase I flow to the truck stand is estimated to be 0.033 MGD.

Site Groundwater: Depth to groundwater in the area is reported to be in excess of 200 feet below ground surface. Due to the depth to groundwater, monitoring wells will not be required. Groundwater directional flow at the treatment plant is reported to be to the west. The future use of treated effluent for irrigation purposes will be assessed on a location-specific basis and monitoring wells may be required at these locations.

Receiving Water Characteristics: Current and proposed discharges are to groundwater of the State via percolation.

Well Head and Drinking Water Supply Protection: The treatment plant, drying beds, RIBs, and water truck fill stand are not located within a Drinking Water Protection Area. The facilities are not located within a Wellhead Protection Area established for any well sources.

Corrective Action Sites: There are no Bureau of Corrective Actions remediation sites within a one-mile radius of the facility.

Proposed Effluent Limitations: Discharge to the infiltration basins and water truck fill stand shall be limited and monitored according to the following tables.

- Sampling locations:
- i. Parshall Flume
 - ii. 001 - Flow Control Structure No. 5
 - iii. 002 - Sampling port at the Water Truck Fill Stand

Table 1: General Discharge Limitations

Parameter		Discharge Limitations		Monitoring Requirements		
		30 - Day Average	Daily Maximum	Sampling Locations	Measurement Frequency	Sample Type
Influent	Flow (MGD)	Monitor & Report	0.499	i	Continuous	Measurement
	CBOD ₅ (mg/L)	Monitor & Report		i	Monthly	Composite
	TSS (mg/L)	Monitor & Report		i	Monthly	Composite
Effluent	CBOD ₅ (mg/L)	45		ii	Monthly	Discrete
	TSS (mg/L)	90		ii	Monthly	Discrete
	Total Nitrogen (mg/L)	Monitor & Report		ii	Quarterly	Discrete
APP Pond Freeboard (feet)		≥2		Pond #1	Weekly	Measurement
AFP Pond Freeboard (feet)		≥3		Ponds #2, #3, #4	Weekly	Measurement

Table 2: Discharge Limitations to the Truck fill Stand

Parameter		Discharge Limitations		Monitoring Requirements		
		30 - Day Average	Daily Maximum	Sampling Locations	Measurement Frequency	Sample Type
Flow (MGD)		Monitor & Report		iii	Continuous	Measurement
CBOD ₅ (mg/L)		30		iii	Monthly	Discrete
TSS (mg/L)		30		iii	Monthly	Discrete
pH (Standard Units)		6.0 - 9.0		iii	Monthly	Discrete
Fecal Coliform cfu or mpn/100 ml		---	400	iii	Monthly	Discrete

MGD: Million Gallons per Day CBOD₅: 5-day Carbonaceous Biochemical Oxygen Demand
mg/L: Milligrams per Liter TSS: Total Suspended Solids
APP: Anaerobic Pretreatment Pond AFP: Aerated Facultative Pond
cfu: Colony Forming Units mpn/100ml: Most probable number per 100 milliliters

Rationale for Permit Requirements

- **Flow:** Flow is tracked to ensure that the design capacity of the treatment plant is not exceeded.
- **CBOD₅:** The Division requires the monitoring of influent and effluent 5-day Carbonaceous Biochemical Oxygen Demand (CBOD₅ or Inhibited BOD), as an indication of treatment plant performance. The Division's secondary treatment standards for CBOD₅ in pond system effluent are 30 mg/L and 45 mg/L, for the 30-day average and daily maximum values, respectively. Effluent is monitored monthly; therefore, the 30-day average limit will be the same as the daily maximum limit. The current permit requires the influent and effluent to be sampled on a monthly basis.
- **TSS:** The Division's secondary treatment standard for Total Suspended Solids (TSS) in pond system effluent is 90 mg/L. The current permit requires the influent and effluent to be sampled on a monthly basis.
- **Total Nitrogen:** This constituent has been added to the permit to monitor and assess the amount of nitrogen being discharged to the RIBs and to the water truck fill stand. Quarterly monitoring will be required.
- **Freeboard:** The Division requires a freeboard depth of 2' for treatment ponds smaller than 1 acre in area, and a freeboard depth of 3' for ponds greater than 1 acre in area.

Truck Fill Stand:

- **Flow:** Flow is tracked to monitor the discharge to the truck fill station.
- **CBOD₅:** The Division's general requirements for the reuse of treated effluent require a 30-day average CBOD₅ level of 30 mg/L or less. Monthly monitoring will be required.
- **TSS:** The Division's general requirements for the reuse of treated effluent require a 30-day average TSS level of 30 mg/L or less. Monthly monitoring will be required.
- **pH:** The Division's general requirements for the reuse of treated effluent require that pH levels remain between 6.0 and 9.0 Standard Units. Monthly monitoring will be required.
- **Fecal Coliform:** Phase I, Category D, treated effluent is required to meet a daily maximum of 400 c.f.u./mpn per 100 milliliters. Monthly monitoring will be required.

Schedule of Compliance: The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications that the Administrator may make in approving the schedule of compliance:

- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.

- b. By **MMM DD, 2012**, (60 days from permit issuance) the Permittee shall submit two (2) copies of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The submitted O&M Manuals shall address any changes in the operational procedures and equipment used at the permitted facility that are not addressed in the O&M Manual that was approved by the Division in August of 2007. O&M Manuals shall be compiled in accordance with appropriate sections of WTS-2, *“Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant”*.

If no updates or revisions are required, the Permittee shall submit a letter by the above due date stating that there have been no changes to the previously approved O&M Manual.

- c. At least 60 days prior to operation of the water truck fill stand, the Permittee shall submit two (2) copies of additional sections of the O&M Manual addressing operation and maintenance of equipment associated with the water truck fill stand.
- d. At least 60 days prior to operation of the water truck fill stand, the Permittee shall submit two (2) copies of an Effluent Management Plan (EMP) for review and approval by the Division. The EMP shall be compiled in accordance with appropriate sections of WTS-1B, *“General Design Criteria for Preparing an Effluent Management Plan”*. The EMP shall be prepared and stamped by a Nevada Registered Professional Engineer with comprehensive knowledge of the project.

Before implementing changes to an approved O&M Manual or EMP, the Permittee shall submit proposed changes to the Division for review and approval.

All schedule of compliance submittals and evidence of compliance documents shall be submitted to the Bureau of Water Pollution Control at the address listed below:

**Division of Environmental Protection
Bureau of Water Pollution Control
901 S. Stewart Street, Suite 4001
Carson City, Nevada 89701**

Proposed Determination: The Division has made the tentative determination to renew the proposed permit for a period of five (5) years.

Procedures for Public Comment: The Notice of the Division’s intent to renew a groundwater discharge permit authorizing this facility to discharge secondary treated effluent to groundwater of the State of Nevada for a five-year period, subject to the conditions contained within the permit, is being sent to the **Reno Gazette-Journal** and **Tonopah Times-Bonanza** for publication.

The Notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **April 16, 2012 by 5:00 P.M.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Prepared by: Arthur Marr, P.E.

Date: March, 2012