

Nevada Division of Environmental Protection
Fact Sheet (pursuant to NAC 445A.236)

Permittee: Tahoe Reno Industrial Center General Improvement District
9476 Double R Blvd Ste A
Reno NV 89521

Permit No.: NEV2000502

Facility: Wastewater Treatment Plant
145 Britain Way
McCarran 89434
Storey County
Latitude: 39° 33' 30" N
Longitude: 119° 30' 00" W
T20N R22E S34

General: The permit accompanying this fact sheet is for the wastewater treatment plant serving the Tahoe Reno Industrial Center, a new industrial park in the Truckee River Canyon, east of Reno. The plant, which has been in operation since February 2002, consists of headworks, two sequencing batch reactors (SBRs), aerated digester, chlorine contact basin, and three sludge drying beds. The plant will be expanded in phases as the park grows. Discharge is to a clay lined storage reservoir that will serve a landscape irrigation system in the future when flows increase. Park rules administered by the GID require pretreatment of industrial wastewater, although to date the influent has been more domestic in nature.

Receiving Water Characteristics: Data from the four monitoring wells installed for this plant are summarized in the table below.

Tahoe Reno Industrial Center GID Wastewater Treatment Plant Average of Quarterly Monitoring Well Samples Feb. 2002 through Mar. 2006				
Parameter	MW#1	MW#2	MW#3	MW#4
Nitrate - N, mg/l	7.76	0.19	2.54	1.36
Total Nitrogen, mg/l	7.84	0.23	2.62	1.37
TDS, mg/l	1271	342	197	219
Depth to Groundwater, ft	36	75	186	150

MW#1 is located near the treatment plant, and the Truckee River, which accounts for the relatively shallow groundwater depth there. MW#3, situated in an upland location near the effluent storage reservoir, shows the largest depth to groundwater. The elevated nitrate concentration at MW#1 has been attributed to the ranch that previously existed in that area.

Four public water system wells exist in this area, all located near the river in the upstream direction, and in excess of 7000 ft from the effluent storage reservoir.

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Bases for Permit Requirements: The following two tables, taken from the permit, contain the monitoring requirements and limits.

Table I.A.1.a

Parameter mg/l except as noted		Discharge Limitations		Monitoring Requirements ¹		
		Monthly Average ²	Daily Maximum ³	Sample Locations	Measurement Frequency	Sample Type
Flow, MGD (before expansion) ⁴		0.350	m & r	ii	continuous	meter
Flow, MGD (after expansion) ⁴		1.2	3.0	ii	continuous	
Irrigation reuse, gpd		m & r		iii	continuous	meter
Construction reuse, gpd		m & r		iv	continuous	meter
BOD	Influent		m & r	i	monthly	composite
	Effluent		30	ii	monthly	composite
	% removal		85	calculate from i and ii		
TSS	Influent		m & r	i	monthly	composite
	Effluent		30	ii	monthly	composite
	% removal		85	calculate from i and ii		
Nitrogen Species as N	Total		10	ii	monthly	discrete
	Kjeldahl		m & r	ii	monthly	discrete
	Nitrate		m & r	ii	monthly	discrete
	Nitrite		m & r	ii	monthly	discrete
Fecal coliform, CFU/100 ml		2.2	23	ii	weekly	discrete
pH, s.u.			6.0 - 9.0	ii	monthly	discrete
Priority pollutants ⁵ , ug/l			m & r	ii	annual ⁶	discrete

m & r = monitor and report, i = influent, ii = effluent, iii = irrigation system, iv = truck fill

1. See Part I.B.1.b for analytical requirements.
2. Report average daily flow and average weekly fecal coliform for each month.
3. Report maximum daily flow, maximum weekly fecal coliform, and single monthly value for parameters sampled monthly, for each month.
4. Phase 2 Expansion
5. See Attachment A
6. Sample shall be collected in 4th quarter (Oct - Dec).

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Table I.A.1.b.i: Monitoring Wells MW#1, MW#2, MW3#, and MW#4

Parameter mg/l except as noted	Limitation	Frequency	Sample Type
Total Nitrogen	10 mg/l	Quarterly	Discrete
Nitrate as Nitrogen	m & r	Quarterly	Discrete
Nitrite as Nitrogen	m & r	Quarterly	Discrete
Kjeldahl Nitrogen	m & r	Quarterly	Discrete
Chloride	m & r	Quarterly	Discrete
TDS	m & r	Quarterly	Discrete
Depth to groundwater, ft	m & r	Quarterly	field measurement
Groundwater elevation, ft	m & r	Quarterly	Calculate

Discharge characterizations discussed below are based on an examination of the entire data set; Feb. 2002 through March 2006.

FLOW

0.35 MGD AS 30 DAY AVERAGE

Flow limits are generally set at plant capacity. The existing (original) plant capacity is 0.35 MGD. Phase 2 expansion plans are currently being finalized to expand to 1.2 MGD by the addition of two SBRs, a digester, additional sludge drying beds, and a discharge equalization basin.

BIOCHEMICAL OXYGEN DEMAND (BOD) AND TOTAL SUSPENDED SOLIDS (TSS)
30 mg/l

Although the secondary limits established by the U.S. EPA for these parameters are 30 mg/l as a monthly average and 45 mg/l as a daily maximum, the monthly sampling interval specified by the permit precludes determining an average, so the 30 mg/l limits have been applied as maximum, or discrete, values. The submitted data has met this criteria with the exception of June 2006 for TSS, and August 2002 and November 2005 for BOD.

NITROGEN SPECIES AS NITROGEN

TOTAL NITROGEN: 10 mg/l

OTHERS SPECIES: Monitor & Report

The numerical limit is a conservative application of the drinking water standard for nitrate, that has been applied to both the discharge and monitoring wells. This precludes excessive ammonia discharges that could later result in a nitrate violation. Since total nitrogen is calculated from the sum of separate analyses for nitrate, nitrite, and Kjeldahl nitrogen the permit requires reporting of those

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species as well. The Kjeldahl portion consists of the organic and ammonia fractions.

FECAL COLIFORM

MONTHLY AVERAGE: 2.2 CFU/100 ML
DAILY MAXIMUM: 23 CFU/100 ML

These limits correspond to the Class B reuse category defined at NAC 445A.276. The sampling frequency was changed from monthly to weekly so that a monthly average could be obtained; this is especially important since the monthly average limit is an order of magnitude lower than the daily maximum.

PH

6.0 TO 9.0 STANDARD UNITS

This is a standard limit for most permits.

PRIORITY POLLUTANTS

REPORT RESULTS OF ANNUAL SAMPLE

The priority pollutant list, compiled by the U.S. EPA in response to Section 307 of the Clean Water Act, consists of 126 substances: organic chemicals including pesticides, metals, dioxin, cyanide, and asbestos. The list is given at 40 CFR Part 131 Section 36, 40 CFR Part 123 Appendix A, and Attachment A of the permit. As the list encompasses a wide range of chemicals used in or resulting from manufacturing processes, the annual scan is intended to detect any unknown industrial inputs and to serve as a check on the pretreatment program.

Changes from Previous Permit

The permit accompanying this fact sheet is a renewal of the original permit, which was issued on October 4, 2000. The major changes are as follows. Please see previous section for additional details

FLOW: The flow limit increases from 0.35 to 1.2 MGD upon completion of the Phase 2 expansion.

BOD AND TSS: The monthly average 30 mg/l limit has been applied as a single value, and the 45 mg/l limit dropped.

FECAL COLIFORM: The sampling frequency has been increased from monthly to weekly.

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TOTAL NITROGEN AND NITRATE AS NITROGEN: The previous permit had 10 mg/l discharge limits for both species, and a 10 mg/l nitrate as nitrogen limit for the monitoring wells. Total nitrogen was reported for the wells. The nitrate limits have been replaced with 10 mg/l total nitrogen limits, and the nitrite and Kjeldahl fractions are now to be reported as well.

PRIORITY POLLUTANTS: The list has been added as Attachment A.

Compliance Issues There have been no significant compliance issues regarding the operation of this facility.

Schedule of Compliance The Permittee is required to meet the effluent limitations upon issuance of the permit.

Procedures for Public Comment The Notice of the Division's intent to renew water pollution control permit NEV2000502 authorizing continued operation of the wastewater treatment plant serving the Tahoe Reno Industrial Center GID, subject to the conditions of the permit, is being sent to the **Reno Gazette Journal** 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 publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline by which all written comments are to be postmarked or hand delivered to the Division is 5:00 PM Tuesday October 24, 2006.

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

Proposed Determination: The Division has made the tentative determination to renew the proposed discharge permit for a five year term.

Prepared by: Robert J. Saunders
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Bureau of Water Pollution Control
September 12, 2006