

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET
(Pursuant to NAC 445A.236)

Permittee Name: Paradise Valley Sewer District
P.O. Box 25
Paradise Valley, NV 89426

Permit Number: NEV89011

Location: Paradise Valley Wastewater Treatment Facility (WWTF)
¾ mi. S of Paradise Valley, Humboldt County, NV
Latitude: 41° 28' 57"N, Longitude: 117° 31' 56"W
Township 42N, Range 39E, NW¼ of Section 36

Wellhead Protection Area: The Paradise Valley WWTF is located within the 6,000 feet, Drinking Water Protection Area 4, of a non-transient, non-community well (elementary school) and two transient wells (community center and park). The wellhead capture zones for these supply wells have not been delineated (modeled) and input into the NDEP i-Map application. Paradise Valley is not supplied by a community supply well. Individual residences supply their own drinking water with private wells.

General: NDEP received an application to modify and renew the discharge permit on 7/28/08. The Paradise Valley WWTF was upgraded in fall '07 to address unlined treatment ponds. The upgraded WWTF includes: 5,000-gallon capacity septic tank (primary treatment), ½-acre HDPE-lined facultative treatment pond (secondary treatment) and 2-acre percolation basin. Adjacent to the upgraded WWTF, are the original unlined facultative treatment pond and percolation basin (west-end), originally constructed in 1975 and now abandoned. The Paradise Valley WWTF services approximately 70 connections, some of which are presently unoccupied or occupied only intermittently, e.g., hunting season on weekends. Total population in the valley, including farms (individual septic systems), are 293 residents (source: Internet). Predominant economy is farming and ranching. As of the last site inspection on 3/19/08, the commercial connections were few and included a small bar and general store. Institutional connections included a community center and elementary school (40 students). Wastewater flow is considered domestic in origin.

Flow: Permitted flow capacity with the '07 upgrade is 0.005 MGD (5,000 GPD). This is equivalent to daily full-time use by 50 capita (100 GPCD). Instantaneous flow is periodically assessed by reading a non-recording staff (head) gage located inside the Palmer-Bowlus flume. The daily average flow indicated 0.0025 MGD (2,500 GPD) over the past five years.

Receiving Water Characteristics: The monitoring well (MW-1) was installed in 2004 and is located 250 ft south and down gradient from the treatment pond. Average depth to groundwater is shallow (11 ft bgs). Groundwater flow is to the south following the Cottonwood Creek drainage. The local water table is influenced seasonally by creek flow and flood irrigation practices.

Five-Year DMR Analysis:

- *CBOD*: Influent averaged 176 mg/l. Effluent averaged 23 mg/l. The facility upgrade was designed to meet the 45 mg/l daily maximum standard.
- *TSS*: Influent averaged 120 mg/l. Effluent averaged 45 mg/l.
- *pH*: Effluent averaged 8.4 SU indicating algae growth from CO₂ uptake in the pond.
- *Groundwater*: Four years of data since well installation indicate the following average levels: nitrate - 0.4 mg/l and total nitrogen (TN) – 0.7 mg/l.

Rationale for Permit Requirements: Sampling is quarterly to demonstrate secondary treatment standards for effluent and maintaining groundwater quality. The design capacity (< 10,000 GPD) exempts a certified operator (NAC 445A.286). However, the community contracts with a certified operator for sampling, monitoring and DMR preparation. Locally, a community volunteer coordinates general upkeep and O&M tasks.

Proposed Effluent Limitations and Special Conditions:**Table 1: Plant Discharge Limitations¹**

| PARAMETER | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|--|-----------------------|---------------|-------------------------|--------------------------|
| | 30-Day Average | Daily Maximum | Measurement Frequency | Sample Type |
| Flow, gal/day (Influent) | 5,000 | M&R | Quarterly | Discrete (Flume Reading) |
| CBOD, mg/L (Influent) | | M&R | Quarterly | Discrete |
| CBOD, mg/L (Effluent) | | 45 | Quarterly | Discrete |
| TSS, mg/L (Influent) | | M&R | Quarterly | Discrete |
| TSS, mg/L (Effluent) | | 90 | Quarterly | Discrete |
| pH, Std. Units (Effluent) | | 6.0 – 9.0 | Quarterly | Discrete |
| Scum, Sludge & Liquid Level Depths, feet or inches (Each Compartment) ² | | M&R | Twice/Year ³ | Discrete |

1. If no effluent is discharged into a percolation pond, indicate “No Effluent Discharge” on DMR.
2. Pump septic tank when scum + sludge ≥ 50% of the compartment’s overall operating depth.
3. Sampling period occurs in the second and fourth quarters.

Table 2: Groundwater Monitoring (MW-1)

| PARAMETER | GROUNDWATER LIMITATIONS | MONITORING REQUIREMENTS | |
|---------------------------|-------------------------|-------------------------|-------------------|
| | | Measurement Frequency | Sample Type |
| TDS, mg/L | Monitor & Report | Quarterly | Discrete |
| Chlorides, mg/L | Monitor & Report | Quarterly | Discrete |
| Nitrate as N, mg/L | Monitor & Report | Quarterly | Discrete |
| Total Nitrogen as N, mg/L | 10.0 | Quarterly | Discrete |
| Depth to Groundwater, ft | Monitor & Report | Quarterly | Field Measurement |
| Groundwater Elevation, ft | Monitor & Report | Quarterly | Field Measurement |

1. Groundwater samples shall be taken only after purging at least three (3) well volumes of groundwater from the monitoring well.

Schedule of Compliance: The engineer's Construction Quality Assurance letter was received 4/10/08. The revised Operations and Maintenance (O&M) Manual was approved 7/30/08. In the facility's response letter to the inspection report, dated 5/23/08, the facility indicated it would have completed abandonment of the west treatment pond (unlined), including sludge removal and weed burning, by fall 2008. Thus, the Permittee shall submit the following item to the Division for review and approval (**all compliance deliverables shall be addressed to the attention of the Compliance Coordinator, Bureau of Water Pollution Control**):

- Within ninety (90) days of the permit's issuance date (due date of **Weekday, Month Day, Year**), the Permittee shall submit documentation, including photographs, that the abandoned west treatment pond was decommissioned in accordance with WTS-20, including weed and sludge removal. The disposal location of the sludge removed from this pond shall be specified in the accompanying cover letter.

Procedures for Public Comment: The Notice of the Division's intent to issue (renew) a discharge permit for the Paradise Valley WWTF, subject to the conditions contained within the permit is being sent to the **Humboldt Sun** and **Reno Gazette -Journal** for publication. The notice is also being posted on the Division's website for public notices and e-mailed to interested parties on the Division's Public Notice receipt notification 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 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 **Monday, January 12, 2009, 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.

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

Prepared by: Mark A. Kaminski, P.E., Technical Services Branch
Staff Engineer III
Bureau of Water Pollution Control

Date: December 8, 2008