



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: OROVADA GENERAL IMPROVEMENT DISTRICT
P.O. BOX 134
OROVADA, NV 89425

Permit Number: NS0090006

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: OROVADA WASTEWATER TREATMENT FACILITY, HUMBOLDT
1/2 MILE WEST OF U.S HWY 95 NORTH - KUNKLE LANE, OROVADA, NV
89425
LATITUDE: 41.562222, LONGITUDE: -117.800833
TOWNSHIP: 43 N, RANGE: 37 E, SECTION: 34

| Outfall / Well Num | Outfall / Well Name | Location Type | Well Log Num | Latitude | Longitude | Receiving Water |
|--------------------|------------------------|------------------|--------------|-----------|-------------|-----------------|
| 001 | TREATMENT POND #1 | External Outfall | | 41.561777 | -117.801549 | GROUNDWATER |
| 002 | TREATMENT POND #2 | External Outfall | | 41.561785 | -117.802436 | GROUNDWATER |
| 003 | EFFLUENT | External Outfall | | 41.561110 | -117.801992 | GROUNDWATER |
| INF | INFLUENT | Internal Outfall | | 41.562222 | -117.800833 | GROUNDWATER |
| MW1 | MONITORING WELL - MW-1 | Monitoring Well | | 41.560424 | -117.803256 | GROUNDWATER |

Permit History/Description of Proposed Action

The Permittee, Orovada General Improvement District, has applied for the renewal of groundwater discharge permit NS0090006 for the Orovada wastewater treatment facility (WWTF) located a 1/2 mile west of U.S. Hwy 95 North, on Kunkle Lane in Orovada, Humboldt County, Nevada. The Permittee proposes to continue to discharge secondary treated wastewater to groundwater of the State.

The permit was last issued on April 12, 2011, and expired on April 11, 2016; the permit has been administratively continued since.

Facility Overview

The WWTF serves the Orovada General Improvement District. The WWTF has a 30-day average design treatment capacity of 0.02 million gallons per day (MGD). Influent wastewater first goes through a flume before entering Pond #1 for primary treatment. From Pond #1, the wastewater goes to Pond #2 for further facultative secondary treatment. Both ponds are lined with high-density polyethylene (HDPE). The secondary treated effluent then flows to two rapid infiltration basins (RIBs) for discharge to groundwater of the State.

Outfall Summary

Outfall INF - Influent

Outfall 001 - Treatment Pond #1

Outfall 002 - Treatment Pond #2

Outfall 003 - Effluent

Outfall MW1 - Monitoring Well, down gradient

Facility Upgrades since last issued permit

The facility was upgraded with an additional treatment pond (Pond #2). It and the existing pond were lined with HDPE. A second RIB was constructed as part of the project.

Solids Handling

Sludge is removed from Pond #1 and Pond #2 and disposed of as needed in accordance with plans submitted to the Nevada Division of Environmental Protection.

Effluent Management and Reuse

The treated effluent is not currently reused as reclaimed water.

Design Flow (and basis) and Measurement & Current Capacity

The permit has a design treatment capacity of 0.02 MGD. The average flow between 2019 and 2023 was 0.01 MGD.

Pretreatment Program

The facility does not meet federal Environmental Protection Agency's (EPA) guidelines requiring them to have a pretreatment program.

Operations & Maintenance (O&M) Manual status

The Permittee will need to submit an updated O&M Manual by February 28, 2025.

Effluent Characterization

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from the years 2019 to 2023, was reviewed as part of this permit renewal process. The influent flow has not been high enough to cause Pond #2 to discharge to the RIBs before it evaporates; therefore, there is no effluent data to characterize.

Pollutants of Concern

Pollutants of concern are any pollutant, or parameters, that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological conditions of the receiving water. Common pollutants of concern for wastewater treatment plants that use waste stabilization ponds include 5-day carbonaceous biochemical oxygen demand (CBOD5), total suspended solids (TSS), and pH. Pollutants of concern in the groundwater include chloride, total nitrogen, and total dissolved solids (TDS).

Receiving Water

The receiving water for treated effluent is groundwater of the State via percolation in two RIBs. Groundwater is reported to be approximately 167 ft. below ground surface. Discharges in compliance with the permit are not expected to negatively impact groundwater.

Compliance History

There were no discharge discrepancies noted during the previous permit term.

Proposed Effluent Limitations

The discharge shall be limited and monitored by the Permittee as specified below:

WWTP Discharge Limitations Table for Sample Location 003 (Effluent) To Be Reported Quarterly

| Discharge Limitations | | | | Monitoring Requirements | | | |
|--|----------------------------------|----------|--|-------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| pH, maximum | Daily Maximum | | <= 9 Standard Units (SU) | Effluent Gross | 003 | Quarterly | DISCRT |
| pH, minimum | Daily Minimum | | >= 6 Standard Units (SU) | Effluent Gross | 003 | Quarterly | DISCRT |
| Solids, total suspended | Quarterly Average | | <= 90 Milligrams per Liter (mg/L) | Effluent Gross | 003 | Quarterly | DISCRT |
| Solids, suspended percent removal | Quarterly Minimum ^[1] | | >= 65 Percent (%) | Effluent Gross | 003 | Quarterly | CALCTD |
| BOD, carbonaceous, 05 day, 20 C | Daily Maximum | | <= 60 Milligrams per Liter (mg/L) | Effluent Gross | 003 | Quarterly | DISCRT |
| BOD, carbonaceous, 05 day, 20 C | Quarterly Average | | <= 40 Milligrams per Liter (mg/L) | Effluent Gross | 003 | Quarterly | DISCRT |
| BOD, carb-5 day, 20 deg C, percent removal | Quarterly Minimum ^[1] | | >= 65 Percent (%) | Effluent Gross | 003 | Quarterly | CALCTD |

Notes (WWTP Discharge Limitations Table):

1. Quarterly Average Minimum

WWTP Discharge Limitations Table for Sample Location Inf (Influent) To Be Reported Monthly

| Parameter | Discharge Limitations | | | Monitoring Requirements | | | |
|-----------|--------------------------------|--|---------------|-------------------------|------------|-----------------------|-------------|
| | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Flow rate | Daily Maximum | <= 0.02 Million Gallons per Day (Mgal/d) | | Raw Sewage Influent | INF | Continuous | METER |
| Flow rate | 30 Day Average | M&R Million Gallons per Day (Mgal/d) | | Raw Sewage Influent | INF | Continuous | METER |
| Flow rate | Rolling Average ^[1] | M&R Million Gallons per Day (Mgal/d) | | Raw Sewage Influent | INF | Continuous | METER |

Notes (WWTP Discharge Limitations Table):

1. The rolling average flow rate shall be calculated using the 12 previous months' 30-day average flow rate.

WWTP Discharge Limitations Table for Sample Location Inf (Influent) To Be Reported Quarterly

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---------------------------------|-------------------|----------|---------------------------------|-------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Solids, total suspended | Quarterly Average | | M&R Milligrams per Liter (mg/L) | Raw Sewage Influent | INF | Quarterly | DISCRT |
| Solids, total suspended | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Raw Sewage Influent | INF | Quarterly | DISCRT |
| BOD, carbonaceous, 05 day, 20 C | Quarterly Average | | M&R Milligrams per Liter (mg/L) | Raw Sewage Influent | INF | Quarterly | DISCRT |
| BOD, carbonaceous, 05 day, 20 C | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Raw Sewage Influent | INF | Quarterly | DISCRT |

Groundwater Monitoring Wells Table for Sample Location Mw1 (Monitoring Well) To Be Reported Quarterly^[1]

| Parameter | Discharge Limitations | | | Monitoring Requirements | | | |
|---|-----------------------|---------------|-----------------------------------|-------------------------|------------|-----------------------|-------------|
| | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Depth to water level ft below landsurface | Daily Minimum | M&R Feet (ft) | | Groundwater | MW1 | Quarterly | VISUAL |
| Nitrogen, total | Daily Maximum | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW1 | Quarterly | DISCRT |
| Nitrogen, nitrate total (as N) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW1 | Quarterly | DISCRT |
| Chloride (as Cl) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW1 | Quarterly | DISCRT |
| Solids, total dissolved | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Groundwater | MW1 | Quarterly | DISCRT |

Notes (Groundwater Monitoring Wells Table):

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

Ponds / Rapid Infiltration Basins for Sample Location 001 (Treatment Pond #1) To Be Reported Quarterly

| Discharge Limitations | | | | Monitoring Requirements | | | |
|-----------------------|---------|----------|----------------|---------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Freeboard | Minimum | | >= 2 Feet (ft) | Internal Monitoring Point | 001 | Quarterly | VISUAL |

Ponds / Rapid Infiltration Basins for Sample Location 002 (Treatment Pond #2) To Be Reported Quarterly

| Discharge Limitations | | | | Monitoring Requirements | | | |
|-----------------------|---------|----------|----------------|---------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Freeboard | Minimum | | >= 2 Feet (ft) | Internal Monitoring Point | 002 | Quarterly | VISUAL |

Ponds / Rapid Infiltration Basins for Sample Location 002 (Treatment Pond #2) To Be Reported Once During The Permit Term^[1]

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---|---------------|----------|---------------------------------|-------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Alkalinity, bicarbonate (as CaCO ₃) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Alkalinity, total (as CaCO ₃) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Aluminum, total (as Al) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Antimony, total (as Sb) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Arsenic, total (as As) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Barium, total (as Ba) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Beryllium, total (as Be) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Cadmium, total (as Cd) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Calcium, total (as Ca) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Chloride (as Cl) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Chromium, total (as Cr) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| | | | M&R | | | | |

Ponds / Rapid Infiltration Basins for Sample Location 002 (Treatment Pond #2) To Be Reported Once During The Permit Term^[1]

| Discharge Limitations | | | | Monitoring Requirements | | | |
|--|---------------|----------|---------------------------------|-------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Copper, total (as Cu) | Daily Maximum | | Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Fluoride, total (as F) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Iron, total (as Fe) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Lead, total (as Pb) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Magnesium, total (as Mg) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Manganese, total (as Mn) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Mercury, total (as Hg) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Nitrite plus nitrate total 1 det. (as N) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Nitrogen, total | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| pH, maximum | Daily Maximum | | M&R Standard Units (SU) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| pH, minimum | Daily Minimum | | M&R Standard Units (SU) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Potassium, total (as K) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |

Ponds / Rapid Infiltration Basins for Sample Location 002 (Treatment Pond #2) To Be Reported Once During The Permit Term^[1]

| Discharge Limitations | | | | Monitoring Requirements | | | |
|--------------------------------------|---------------|----------|---------------------------------|-------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Selenium, total (as Se) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Silver, total (as Ag) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Sodium, total (as Na) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Sulfate, total (as SO ₄) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Thallium, total (as Tl) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Solids, total dissolved | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Zinc, total (as Zn) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |
| Hydrocarbons, total petroleum | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 002 | Once Per Permit Term | DISCRT |

Notes (Ponds / Rapid Infiltration Basins):

- All analyses are for dissolved fraction.

Summary of Changes From Previous Permit

The previous Outfall 001 was renamed to Outfall INF.

The previous Outfall 002 was renamed to Outfall 003.

The previous Outfall 003 was renamed to Outfall MW1.

Two new outfalls, Outfall 001 and Outfall 002, were added; these represent treatment Pond #1 and treatment Pond #2, respectively. Freeboard monitoring with the limit of 2 ft. has been added to Outfall 001 and Outfall 002.

The Permittee is required to sample for the Nevada Division of Environmental Protection's (Division) Profile 1 pollutants once during the permit term to ensure groundwater is not being degraded.

The limit for CBOD5 has been changed from 45 mg/L quarterly maximum to 60 mg/L quarterly maximum to conform to the equivalent to secondary treatment standards.

The requirement to sample the influent for CBOD5 and TSS has been added.

The effluent limit of greater than 65% removal of CBOD5 and TSS has been added to conform to the equivalent to secondary treatment standards.

Technology Based Effluent Limitations

Technology based effluent limitations (TBELs) are required as promulgated by the United States (U.S) EPA for Publicly Owned Treatment Works (POTWs). The following limits are based on the equivalent to secondary treatment standards as allowed by the Code of Federal Regulation (CFR) Title 40, Section 133, and which has been adopted by the state of Nevada:

- CBOD5 - The daily maximum is limited to 60 mg/L; the quarterly average is limited to 40 mg/L; and the percent removal is limited to greater than 65%.
- TSS - The quarterly average is limited to 90 mg/L and the percent removal is limited to greater than 65%.
- pH - pH is limited to a daily maximum of 9.0 S.U. and a daily minimum of 6.0 S.U.

Water Quality Based Effluent Limitations

Water quality based effluent limitations are not applicable to this permit.

Proposed Water Quality Based Effluent Limits (monthly/weekly/daily)

Water quality based effluent limitations are not applicable to this permit.

Basis for Effluent Limitations

There are currently no specific water quality standards that have been formally adopted by the State for groundwater. However, the Division has the discretion to implement effluent limitations outside water quality standards per Nevada Administrative Code (NAC) 445A.243, which states, "In establishing an effluent limitation to carry out the policy of this State set forth in NRS 445A.305, consideration must be given to, but is not limited by, the following: ...(2) the need for standards that specify by chemical, physical, biological or other characteristics the extent to which pollution by various substances will not be tolerated." The constituents listed in Profile I have been vetted by the Division and have been included in groundwater discharge permits for many years as a means of regulating groundwater quality. Per Nevada Revised Statute (NRS) 445A.490, "No permit may be issued which authorizes any discharge or injection of fluids through a well into any waters of the State: ...(3) which would result in the degradation of existing or potential underground sources of drinking water." The requirement to monitor the effluent for all Profile I pollutants (excluding weak acid dissociable cyanide and uranium) once per permit term is included to evaluate the quality of the effluent and determine whether the effluent has the potential to impact the receiving water. Total petroleum hydrocarbons are required to be monitored due to the commercial/industrial facilities that are connected to the wastewater treatment facility.

Anti-backsliding

To prevent backsliding, effluent limitations in this permit are as stringent as those in the previous permit, except where they have been updated to conform to standards.

Antidegradation

The Division has developed an antidegradation regulation that is applied on a statewide basis, and which meets the statutory requirements of Nevada's water pollution control law found at NRS 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at Title 40 in the CFR § 131.12.

The objective of the Division's antidegradation regulation is to prevent degradation of Nevada's surface waters and maintain the unique attributes and special characteristics and water quality associated with high quality waters.

As this permit is for discharges to groundwater, and not surface water, the new antidegradation rule is not applicable. There are currently no specific water quality standards that have been formally adopted by the State for groundwater; however, data reviewed during the renewal process does not indicate the potential for degradation of the groundwater from the effluent discharged within the compliance limits of the proposed permit.

Special Conditions

There are no special conditions for this permit.

SA – Special Approvals / Conditions Table

| |
|---|
| There are no Special Approval / Condition items |
|---|

Discharges From Future Outfalls/ Planned Facility Changes

There are no planned future outfalls or planned facility changes.

Corrective Action Sites

There are no Bureau of Corrective Action remediation sites located within a one-mile radius of the wastewater treatment facility.

Wellhead Protection Program

The outfalls are not located within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a public water system (PWS) well, nor a Wellhead Protection Area, which represents an approximate 10-year capture zone of a PWS well. The discharge is not anticipated to affect any PWS wells based on the distance to the nearest well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

| Item # | Description | Due Date |
|--------|---|-----------|
| 1 | The Permittee shall submit two copies (one electronic and one hard copy) of an updated Operation and Maintenance (O&M) Manual to the Division for review and approval. The manual shall be prepared in accordance with the Division’s WTS2 guidance document: Minimum Information Required for an Operation and Maintenance Manual. | 2/28/2025 |

Deliverable Schedule:

DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

| Item # | Description | Interval | First Scheduled Due Date |
|--------|----------------|-----------|--------------------------|
| 1 | Quarterly DMRs | Quarterly | 1/28/2025 |
| 2 | Annual Report | Annually | 1/28/2025 |

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being mailed to interested persons on our mailing list and will be posted on our website at <https://ndep.nv.gov/posts>. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **10/24/2024**, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX 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 determined 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 issue/re-issue the proposed 5-year permit.

Prepared by: **Bonnie Hartley**
 Date: **9/20/2024**
 Title: **Staff II, Associate Engineer**