



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., Administrator

FACTSHEET (pursuant to NAC 445A.236)

Permittee Name: VALLEY HEIGHTS MOAPA LLC
1235 FLYNN RD.
CAMARILLO, CA - 93012

Permit Number: NS2001518 - [New]

Location: VALLEY HEIGHTS WASTEWATER TREATMENT FACILITY, CLARK
3719 RIVER HEIGHTS LN., LOGANDALE, NV - 89021
LATITUDE: 36.608711, LONGITUDE: -114.4785
TOWNSHIP: T15S, RANGE: R67E, SECTION: S22

| Outfall / Well Num | Outfall / Well Name | Location Type | Well Log Num | Outfall City | Outfall State | Outfall Zip | Outfall County | Latitude | Longitude | Receiving Water |
|--------------------|---------------------------|------------------|--------------|--------------|---------------|-------------|----------------|-----------|-------------|-----------------|
| 001 | RAPID INFILTRATION BASINS | External Outfall | | LOGANDALE | NV | 89021 | CLARK | 36.6125 | -114.4750 | GROUNDWATER |
| MW1 | MONITORING WELL 1 | Monitoring Well | | LOGANDALE | NV | 89021 | CLARK | 36.609167 | -114.478889 | GROUNDWATER |
| MW2 | MONITORING WELL 2 | Monitoring Well | | LOGANDALE | NV | 89021 | CLARK | 36.608825 | -114.479008 | GROUNDWATER |
| MW3 | MONITORING WELL 3 | Monitoring Well | | LOGANDALE | NV | 89021 | CLARK | 36.608625 | -114.479261 | GROUNDWATER |

General:

Valley Heights Moapa LLC owns and operates the Valley Heights Wastewater Treatment Facility (VHWWTF), serving the Valley Heights subdivision in Logandale, Clark County, Nevada. The VHWWTF can serve up to 97 homes in the subdivision and began operation during the third quarter of 2008. Domestic wastewater from the subdivision is treated in a Mar-Wood extended aeration and aerobic digestion package treatment plant. The facility is equipped with a manually cleaned bar screen in the headworks to remove large inorganic material and debris. The Mar-Wood plant, designed to treat up to 26,000 gallons per day of domestic wastewater to secondary treatment standards, is modified to provide denitrification of treated effluent. Treated effluent is discharged to four (4) rapid infiltration basins (RIBs), each having bottom dimensions of 30 feet by 42 feet.

Discharge Characteristics:

Since August 2008, flow has remained below the permitted limit (average flow of 1,200 gallons per day) as has biochemical oxygen demand (BOD) and pH. Total suspended solids (TSS) exceeded the permit limit once, and total nitrogen exceeded the permit limit on multiple occasions. VHWWTF has attributed the total nitrogen exceedances to the low flow resulting from the subdivision being just partially developed. The renewed permit includes the requirement to draft and implement a nitrogen reduction plan.

Receiving Water:

Groundwater below the site is encountered at approximately 53 feet below ground surface (bgs). Initial testing at the site for rapid infiltration basin (RIB) design indicates groundwater flow direction in the water table aquifer is north by northeast. Groundwater samples indicated there are 3.14 mg/l of total nitrogen, 94.5 mg/l of chloride, and 800 mg/l of total dissolved solids (TDS) in the groundwater. Discharges in accordance with this permit are not expected to degrade the quality of the groundwater.

Summary of Changes From Previous Permit:

See the Special Approval/Conditions Table.

Proposed Effluent Limitations:

NDEP proposes the following permit limitations and monitoring requirements:

Groundwater Monitoring Wells Table for Sample Location Mw1 (Monitoring Well) To Be Reported Quarterly

| Parameter | Discharge Limitations | | | Monitoring Requirements | | | |
|---|-----------------------|---------------|-----------------------------------|-------------------------|------------|-----------------------|------------------|
| | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | S a m p l e Type |
| Nitrogen, total | Value | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW1 | Quarterly | DISCRT |
| Chloride (as Cl) | Value | | M&R Milligrams per Liter (mg/L) | Groundwater | MW1 | Quarterly | DISCRT |
| Solids, total dissolved | Value | | M&R Milligrams per Liter (mg/L) | Groundwater | MW1 | Quarterly | DISCRT |
| Depth to water level ft below landsurface | Value | M&R Feet (ft) | | Groundwater | MW1 | Quarterly | DISCRT |

Groundwater Monitoring Wells Table for Sample Location Mw2 (Monitoring Well) To Be Reported Quarterly

| Parameter | Discharge Limitations | | | Monitoring Requirements | | | |
|---|-----------------------|---------------|-----------------------------------|-------------------------|------------|-----------------------|------------------|
| | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | S a m p l e Type |
| Depth to water level ft below landsurface | Value | M&R Feet (ft) | | Groundwater | MW2 | Quarterly | DISCRT |
| Nitrogen, total | Value | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW2 | Quarterly | DISCRT |
| Chloride (as Cl) | Value | | M&R Milligrams per Liter (mg/L) | Groundwater | MW2 | Quarterly | DISCRT |
| Solids, total dissolved | Value | | M&R Milligrams per Liter (mg/L) | Groundwater | MW2 | Quarterly | DISCRT |

Groundwater Monitoring Wells Table for Sample Location Mw3 (Monitoring Well) To Be Reported Quarterly

| Parameter | Discharge Limitations | | | Monitoring Requirements | | | |
|---|-----------------------|---------------|-----------------------------------|-------------------------|------------|-----------------------|------------------|
| | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | S a m p l e Type |
| Depth to water level ft below landsurface | Value | M&R Feet (ft) | | Groundwater | MW3 | Quarterly | DISCRT |
| Nitrogen, total | Value | | <= 10 Milligrams per Liter (mg/L) | Groundwater | MW3 | Quarterly | DISCRT |
| Chloride (as Cl) | Value | | M&R Milligrams per Liter (mg/L) | Groundwater | MW3 | Quarterly | DISCRT |
| Solids, total dissolved | Value | | M&R Milligrams per Liter (mg/L) | Groundwater | MW3 | Quarterly | DISCRT |

Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall) To Be Reported Monthly^[1]

| Parameter | Discharge Limitations | | | Monitoring Requirements | | | |
|-------------------------|-----------------------|--|-----------------------------------|-------------------------|------------|-----------------------|-------------|
| | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Flow rate | 30 Day Average | <= 0.0265 Million Gallons per Day (Mgal/d) | | Effluent Gross | 001 | Continuous | METER |
| BOD, 5-day | 30 Day Average | | <= 30 Milligrams per Liter (mg/L) | Effluent Gross | 001 | Monthly | COMPOS |
| BOD, 5-day | Daily Maximum | | <= 45 Milligrams per Liter (mg/L) | Effluent Gross | 001 | Monthly | COMPOS |
| Solids, total suspended | 30 Day Average | | <= 30 Milligrams per Liter (mg/L) | Effluent Gross | 001 | Monthly | COMPOS |
| Solids, total suspended | Daily Maximum | | <= 45 Milligrams per Liter (mg/L) | Effluent Gross | 001 | Monthly | COMPOS |
| Nitrogen, total | 30 Day Average | | <= 10 Milligrams per Liter (mg/L) | Effluent Gross | 001 | Monthly | DISCRT |
| Nitrogen, total | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Effluent Gross | 001 | Monthly | DISCRT |
| pH, minimum | Monthly Minimum | | >= 6 Standard Units (SU) | Effluent Gross | 001 | Monthly | DISCRT |
| pH, maximum | Monthly Maximum | | <= 9 Standard Units (SU) | Effluent Gross | 001 | Monthly | DISCRT |

Notes (Ponds / Rapid Infiltration Basins):

1. When only one sample is taken per month, that sample may be used as the 30-day average as well as the daily maximum.

Special Conditions:

SA – Special Approvals / Conditions Table

| Item # | Description |
|--------|---|
| 1 | Per item number 4 in the Schedule of Compliance, if total nitrogen remains below the permitted 30-day average of 10.0 mg/L for a one year period, beginning six months after the permit is issued, the Permittee may request to have the monitoring well requirements waived. |

Flow:

The 30-day average flow limit is 0.0265 million gallons per day.

Corrective Action Sites:

There are no Bureau of Corrective Actions remediation sites located within one (1) mile of this facility.

Wellhead Protection Program:

The VHWWTf is not located within an established wellhead protection zone. The facility is within the 6000-foot drinking water protection area around Moapa Valley Water District wells, which are located northwest of the VHWWTf site.

Schedule of Compliance:

SOC – Schedule of Compliance Table

| Item # | Description | Due Date |
|--------|---|-----------|
| 1 | The Permittee shall submit two (2) copies of an updated Operations and Maintenance (O&M) Manual, signed and stamped by a Nevada Registered Professional Engineer or other qualified person, for Division review and approval. If no updates have been made, the Permittee shall submit a letter stating so. | 6/19/2013 |
| 2 | The Permittee shall submit a nitrogen reduction plan detailing the process by which the facility will maintain an effluent total nitrogen level within the permitted 30-day average of 10.0 mg/L. | 6/19/2013 |
| 3 | The total nitrogen in the effluent shall be within the permitted 30-day average of 10.0 mg/L. | 9/21/2013 |
| 4 | If total nitrogen remains below the permitted 30-day average of 10.0 mg/L for one year, the Permittee may request that the Division waive the monitoring well requirements. | 9/21/2014 |
| 5 | If total nitrogen has not remained below the permitted 30-day average of 10.0 mg/L for one year, the existing, or new, monitoring wells must be drilled to a depth at which groundwater can be sampled. | 3/23/2015 |

Deliverable Schedule:

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

| Item # | Description | Interval | First Scheduled Due Date |
|--------|-------------------|-----------|--------------------------|
| 1 | Quarterly Reports | Quarterly | 4/28/2013 |
| 2 | Annual Reports | Annually | 1/28/2014 |

Procedures for Public Comment:

The Notice of the Division's intent to reissue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Las Vegas Review Journal, Moapa Valley Progress** 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 until 5:00 P.M. **3/15/2013**, 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 to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.650.

Proposed Determination:

The Division has made the tentative determination to issue / re-issue the proposed 5-year permit.

Prepared by: **Peter Lassaline**

Date: **8/13/2012**

Title: **Environmental Scientist**