



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: BENTLY RANCH
P.O. BOX 127
MINDEN, NV - 89423

Permit Number: NS2002505

Location: KIRMAN TRACT FIELD, DOUGLAS
3000 HEYBOURNE ROAD, MINDEN, NV - 89423
LATITUDE: 39.058333, LONGITUDE: -119.766667
TOWNSHIP: 14N, RANGE: 20E, SECTION: 17, 20, 29

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	IRRIGATION	External Outfall		MINDEN	NV	89423	DOUGLAS	39.058333	-119.766667	GROUNDWATER
MW1	MW1	Monitoring Well		MINDEN	NV	89423	DOUGLAS	39.058333	-119.766667	GROUNDWATER
MW2	MW2	Monitoring Well		MINDEN	NV	89423	DOUGLAS	39.058333	-119.766667	GROUNDWATER

General:

This permit renewal allows Bently Ranch to continue discharging treated effluent for flood irrigation of an approximately 247-acre portion of the Kirman Tract Field (KTF), a 1,560-acre agricultural field located in northern Douglas County, east of the Carson River. The tertiary-treated, denitrified, and disinfected effluent is supplied by the North Valley Wastewater Treatment Facility (NVWWTF), as authorized under permit NS0060025.

The effluent is delivered via the NVWWTF irrigation 24-inch diameter transmission pipeline and is delivered directly to the irrigation system mainline. The delivery system includes a double valve control system, with one valve controlled by Bently Ranch and the other controlled by the NVWWTF. A magnetic flowmeter is installed in the delivery line between the two valves. Effluent is conveyed via the underground mainline, which varies from 15 to 24 inches in diameter, to the irrigation laterals, which also vary between 15 to 24 inches in diameter and are installed at ¼ mile intervals along the mainline. Irrigation water is distributed using low head valves along the length of the lateral lines.

Groundwater from a well owned by Bently Ranch is used for supplemental irrigation purposes. Water is supplied from a well west of the irrigation site to an on-site 120,000 gallon storage tank, which is constructed with an air gap to prevent backflow. Fresh water is fed into the system by pump as needed.

Appropriate tail-water and emergency containment measures are in place. Should irrigation water accumulate within the tail-water collection area at the northwest perimeter of the tract, the collected fluid will be pumped back into the mainline and dispersed to the fields for uniform coverage. Restrictions on irrigation of frozen or saturated soils will be applied, minimizing standing water in the fields.

Discharge Characteristics:

The NVWWTF supplies tertiary-treated, disinfected, denitrified reclaimed water that meets Category C quality (NAC 445A.276).

Receiving Water:

The receiving water is groundwater of the State. Average values for groundwater monitoring parameters reported between the first quarter of 2010 and the fourth quarter of 2014 are listed below.

MW1

Depth to Groundwater: 7 feet below ground surface (bgs)

Total Dissolved Solids: 732 mg/L

Chloride: 85 mg/L

Total Nitrogen: 1.9 mg/L

Phosphorus: 0.46 mg/L

MW2

Depth to Groundwater: 7 feet bgs

Total Dissolved Solids: 826 mg/L

Chloride: 48 mg/L

Total Nitrogen: 0.7 mg/L

Phosphorus: 1.25 mg/L

Summary of Changes From Previous Permit:

The daily maximum fecal coliform limit has been changed from 23 CFU/100mL to 240 CFU/100mL, and the 30-day average fecal coliform limit has been changed from 2.2 CFU/100mL to 23 CFU/100mL; these limits have been changed to reflect the quality of the reclaimed water supplied by the NVWWTF.

The requirement to report the total effluent volume applied annually has been removed; the irrigation flow rate limit of 6.5 million gallons per day (MGD) has been retained.

The requirement to report the annual nitrogen loading has been removed; nitrogen loading calculations are included in the Effluent Management Plan.

The requirement to monitor and report the groundwater elevation has been removed.

The requirement to monitor and report the concentration of nitrate in the groundwater has been removed; nitrate is a component of total nitrogen, which is limited to a maximum concentration of 10 mg/L.

Due to the new naming conventions at the Nevada Division of Environmental Protection (NDEP), Bureau of Water Pollution Control, the permit number has been changed from NEV2002505 to NS2002505. This change does not reflect a change in the type of permit being issued.

Proposed Effluent Limitations:

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

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	Sample Type
Chloride (as Cl)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Nitrogen, total	Quarterly Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Depth to water level ft below landsurface	Quarterly Maximum	M&R Feet (ft)		Groundwater	MW1	Quarterly	VISUAL ^[1]
Solids, total dissolved	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT
Phosphorus, total (as P)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW1	Quarterly	DISCRT

Notes (Groundwater Monitoring Wells Table):

1. Field measurement

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	Sample Type
Chloride (as Cl)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Nitrogen, total	Quarterly Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Phosphorus, total (as P)	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT
Depth to water level ft below landsurface	Quarterly Maximum	M&R Feet (ft)		Groundwater	MW2	Quarterly	VISUAL ^[1]
Solids, total dissolved	Quarterly Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	MW2	Quarterly	DISCRT

Notes (Groundwater Monitoring Wells Table):

1. Field measurement

Re-use Discharge Limitations Table for Sample Location 001 (Irrigation) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Daily Maximum	<= 6.5 Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
BOD, carbonaceous, 05 day, 20 C	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	001	Weekly	COMPOS
Solids, total suspended	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	001	Weekly	COMPOS
Solids, total suspended	30 Day Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	001	Weekly	COMPOS
BOD, carbonaceous, 05 day, 20 C	30 Day Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	001	Weekly	COMPOS
Coliform, fecal, colony forming units	Daily Maximum		<= 240 Colony Forming Units per 100ml T (CFU/100mL)	Effluent Gross	001	Weekly	DISCRT
Coliform, fecal, colony forming units	30 Day Average		<= 23 Colony Forming Units per 100ml T (CFU/100mL)	Effluent Gross	001	Weekly	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Weekly	DISCRT
Nitrogen, total	30 Day Average		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Weekly	DISCRT

Re-use Discharge Limitations Table for Sample Location 001 (Irrigation) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	001	Weekly	DISCRT
pH, minimum	Daily Minimum		>= 6.0 Standard Units (SU)	Effluent Gross	001	Weekly	DISCRT

Rationale for Permit Requirements:

The permit limits and monitoring requirements have been established to prevent degradation of the receiving water.

Fecal Coliform:

Daily Maximum ≤ 240 CFU/100mL

30-Day Average ≤ 23 CFU/100mL

Special Conditions:

Substantial compliance with the current permit is a condition of permit renewal.

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

Flow:

Daily Maximum Flow Rate \leq 6.5 MGD

Corrective Action Sites:

There is one Bureau of Corrective Actions (BCA) remediation site (2-000075) located within one mile of the KTF. The BCA has indicated that it does not anticipate continued reuse activities to affect remediation activities at this site.

Wellhead Protection Program:

The KTF is not located within a Wellhead Protection Area or a Drinking Water Protection Area.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit an updated Effluent Management Plan (EMP) to the Division. The EMP shall be prepared and wet-stamped by a Nevada Registered Professional Engineer in accordance with guidance document <i>WTS-1B: General Criteria for Preparing an Effluent Management Plan</i> .	7/28/2016

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly Discharge Monitoring Report	Quarterly	7/28/2016
2	Annual Report	Annually	1/28/2017

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 sent to the **Reno Gazette Journal, The Record Courier** 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. **3/1/2016**, 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.605.

Proposed Determination:

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

Prepared by: **Alan Pineda**

Date: **1/21/2016**

Title: **Staff I Associate Engineer**