



**FACTSHEET**  
**(pursuant to NAC 445A.236)**

**Permittee Name:** OASIS GOLF CLUB  
  
100 PALMER LN  
MESQUITE, NV 89027

**Permit Number:** NS0096016

**Permit Type:** GROUNDWATER DISCHARGE

**Designation:** GROUNDWATER

**New/Existing:** EXISTING

**Location:** OASIS GOLF CLUB, CLARK  
701 TURTLEBACK ROAD, MESQUITE, NV 89027  
LATITUDE: 36.820516, LONGITUDE: -114.075423  
TOWNSHIP: 13 S, RANGE: 71 E, SECTION: 3, 4, 8 & 9

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	GOLF COURSE	External Outfall		36.822274	-114.070855	GROUNDWATER

**Permit History/Description of Proposed Action**

The Permittee, Oasis Golf Club, has applied for the renewal of Permit NS0096016 for the Oasis Golf Club, located at 701 Turtleback Road, in Clark County, Nevada. The Permittee proposes to continue to use reclaimed water to irrigate golf course landscaping and fill associated pond areas falling within the courses' boundaries.

This permit was first issued on January 8, 1997. The most recent permit was issued on June 15, 2017, and expired on June 14, 2022; the permit has been administratively continued since.

**Facility Overview**

The Oasis Golf Course is comprised of two 18-hole courses, Palmer and Canyon Courses, with common areas encompassing approximately 192 acres total. The golf courses are irrigated with reclaimed water supplied by the Mesquite Wastewater Reclamation Facility (MWRF Permit NS0040011) and supplemented with Virgin River water delivered via an irrigation canal by the Mesquite Irrigation Company.

Reclaimed water is delivered from Mesquite's Wastewater Reclamation Facility via a 12-inch diameter pipe to three polyethylene lined reservoirs, being Canyon's Effluent Reservoirs No. 2 and 15, along with Palmer's Effluent Reservoir No. 12. The reclaimed water is then pumped into multiple reservoirs, each equipped with a pump station, where the water is commingled, at certain times of the year, with irrigation water from Virgin River owned by the Mesquite Irrigation Company. The reclaimed water is pumped from the reservoirs and through the delivery systems for applied irrigation use throughout the two courses. There are thirteen polyethylene lined reservoirs total – eight being ornamental only, along with five having the pump station installations (described above), three stations being in Canyon Golf Course and two stations in Palmer Golf Course. The MWRF supplies Category B re-use water per NAC 445A.276. The Oasis Golf Club's golf courses can be provided up to 3.2 million gallons per day (MGD) from the MWRF. The long

term average discharge, during the past five years, has been only 0.77 MGD.

The site's Reclaimed Water Management Plan (RWMP) (formerly known as an Effluent Management Plan) was last reviewed and approved by the Division in December of 2019. The Technical, Compliance, and Enforcement (TCE) Branch of the Bureau of Water Pollution Control requires RWMPs be updated every two (2) permit cycles which equates to every ten (10) years; therefore, an updated RWMP is not needed at this time. Future RWMPs shall follow guidance document, WTS1B General Design Criteria for Preparing a Reclaimed Water Management Plan.

### **Outfall Summary**

Outfall 001 – This outfall is for the discharge of reclaimed water for irrigation of the golf course.

### **Effluent Characterization**

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from July 2019 to July 2024, was reviewed as part of this permit renewal process. The long-term average discharge flow rate for Outfall 001 was 0.77 million gallons per day (MGD). The daily maximum discharge flow rate for Outfall 001 is limited to 1.33 MGD. There were no reported exceedances for this limit.

The MWRP provides tertiary treated, denitrified, and disinfected reclaimed water which meets Category B bacteriological quality per Nevada Administrative Code (NAC) 445A.276 to the Oasis Golf Club; therefore, the reclaimed water should meet, at a minimum, a daily maximum fecal coliform of 23 colony forming units (CFU) / 100 mL and a 30-day geometric mean of 2.2 CFU / 100 mL. The long-term average for the daily maximum fecal coliform reported by MWRP was 28 CFU / 100 mL., with several exceedances observed during July 2019 - July 2024 reporting period. While diagnosing the exceedances the treatment plant discovered a malfunctioning Oxidationreduction potential meter providing false oxygen data, increased UV disinfection (set to highest rate) and changed the sampling point to the Jensen Park booster pump station (before point of use). These actions have returned the Mesquite WTF into compliance with their permit.

The 5-year average for the maximum total nitrogen was 5.09 mg/L. No exceedances were reported.

### **Pollutants of Concern**

Pollutants of concern are any pollutants or parameters that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological condition of the receiving water. Common pollutants of concern for denitrified reclaimed water are fecal coliform and nitrogen.

### **Receiving Water**

Receiving water is groundwater of the State. The depth to groundwater at the site varies from 5 feet to 9 feet below ground surface (bgs). No adverse effects are expected to occur as a result of this effluent reuse.

### **Compliance History**

The golf courses were in compliance during the July 2019 to July 2024 reporting period.

### **Proposed Effluent Limitations**

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

### Re-use Discharge Limitations Table for Sample Location 001 (Land Application Site) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Coliform, fecal general <sup>[1]</sup>	Daily Maximum		<= 23 Colony Forming Units per 100ml T (CFU/100mL) <sup>[2]</sup>	Prior to Reuse	001	Weekly	DISCRT
Coliform, fecal general <sup>[1]</sup>	30 Day Geometric Mean		<= 2.2 Colony Forming Units per 100ml T (CFU/100mL) <sup>[2]</sup>	Prior to Reuse	001	Weekly	DISCRT
Flow rate	Daily Maximum	<= 1.33 Million Gallons per Day (Mgal/d)		Prior to Reuse	001	Daily	METER
Flow rate	30 Day Average	<= 0.619 Million Gallons per Day (Mgal/d)		Prior to Reuse	001	Daily	METER
Nitrogen, total <sup>[1]</sup>	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Prior to Reuse	001	Weekly	DISCRT

#### Notes (Re-use Discharge Limitations Table):

1. Sample results may be obtained from the Mesquite Wastewater Reclamation Facility (Permit NS0040011).
2. CFU or MPN/100 mL.

**Re-use Discharge Limitations Table for Sample Location 001 (Land Application Site) To Be Reported Annually**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Nitrogen, total	Annual Mass Loading	M&R Pounds per Year (lb/yr) <sup>[2]</sup>		Prior to Irrigation	001	Annual	CALCTD
Nitrogen, total <sup>[3]</sup>	Minimum Value		M&R Percent (%)	Prior to Irrigation	001	Annual	CALCTD

Notes (Re-use Discharge Limitations Table):

- 2. To be reported as pounds per acres per year (lbs/acre/year).
- 3. Report the percentage of nitrogen uptake.

**Summary of Changes From Previous Permit**

The area of applied use is limited to Oasis Golf Course. Whereas, Conestoga Golf Club and Marilyn Redd Park were originally stated as "end users" on this system as was described under the "General" heading on the previous Fact Sheet dated May 2017. This was confirmed by Travis Anderson, City Engineer, for the City of Mesquite through an email generated by Ken Haffey, P.E., Division of Water Resources.

The permit has been revised to the original permitted amounts being 0.619 MGD (30-day average) and 1.33 MGD (daily maximum) from the 3.2 MGD (30-day average) and 3.5 MGD (daily maximum) as stated on the (now expired) permit issued June 15, 2017. This revision was confirmed and approved by Scott Polychronis via email dated 9/26/2024.

The flow total was removed from the Re-Use Discharge Limitations Table under the permit based on current Division reporting requirements.

Nitrogen, total was changed to a Daily Maximum (from a monthly maximum) with a Discrete sampling type in the Re-Use Discharge Limitations Table under the permit.

The Effluent Discharge Limitations Table, under the permit, was updated with an additional reporting requirement for Nitrogen uptake under the Nitrogen, total parameter. Refer to Footnote 3.

**Technology Based Effluent Limitations**

Technology based effluent limitations are not applicable to this permit.

**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**

Required parameters are monitored to ensure effluent reuse requirements are maintained (NAC 445A.275, 445A.276) and groundwaters of the State are protected.

The proposed permit establishes the requirement to report fecal coliform to assess the quality of reclaimed water being applied for the protection of human health and the environment.

The proposed permit retains the requirement to report the annual mass loading for nitrogen to ensure

groundwater of the State is not being degraded.

The proposed permit establishes the requirement to report the total nitrogen uptake to ensure groundwater of the State is not being degraded.

### **Anti-backsliding**

To prevent backsliding, effluent limitations in re-issued permits are required to be as stringent as those in the previous permit. Based on the information provided, none of the effluent limitations were changed to a less restrictive limit.

### **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 Nevada Revised Statute (NRS) 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at Title 40 in the Code of Federal Regulations (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 reclaimed water discharged within the compliance limits of the proposed permit based on the level of treatment performed at the MWRF.

### **Special Conditions**

There are no Special Approval/Condition Items associated with this permit.

#### SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items
---

### **Discharges From Future Outfalls/ Planned Facility Changes**

The Permittee does not anticipate discharges from any future outfalls or any other changes to the facility.

### **Corrective Action Sites**

There are two active Bureau of Corrective Action (BCA) sites located within a one-mile radius of the discharge location. The sites (8-000132 and 8-000478) are monitoring wells for site remediation for either benzene or gasoline. It is not anticipated that the discharge of reclaimed water at the Oasis Golf Course will negatively affect the active BCA site.

### **Wellhead Protection Program**

The nearest Public Water Supply (PWS) well is located approximately 400 feet to the southeast of the golf course. There are more PWS wells located to the west and north. The golf course is located within a Drinking Water Protection area, which is defined by a 3,000-foot radius around the well. The golf course is not located in a Wellhead Protection Area, which represents an approximate 10-year capture zone of a well. The risk of contamination is minimal as the wells are over 1000 feet deep and are in a confined aquifer.

**Schedule of Compliance:**

SOC – Schedule of Compliance Table

There are no Schedule of Compliance items
---

**Deliverable Schedule:**

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly Reports	Quarterly	1/28/2025
2	Annual Reports	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. **11/16/2024**, 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: **Melissa Marr**

Date: **10/11/2024**

Title: **Staff II Engineer**