



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: LUCKY STAR GOLF, LLC
2905 E. ARROWCREEK PARKWAY
RENO, NV 89511

Permit Number: NS0097004

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: THE CLUB AT ARROWCREEK, WASHOE
2905 E. ARROWCREEK PARKWAY, RENO, NV 89511
LATITUDE: 39.40705590, LONGITUDE: -119.822197
TOWNSHIP: 18 N, RANGE: 19 E, SECTION: 14, 23, 24, 26

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	ARROWCREEK	Land Application Site		39.40705590	-119.822197	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, Lucky Star Golf, LLC, has applied for the renewal of Permit NS0097004 for the Club at Arrowcreek (Arrowcreek), located at 2905 E. Arrowcreek Parkway, in Reno, within Washoe County, Nevada. The Permittee proposes to continue to use reclaimed water to irrigate golf course landscaping and fill the associated lined pond falling within Arrowcreek’s site boundary.

This permit was first issued on October 16, 1997. The most recent permit was issued on January 1, 2016 and expired on December 31, 2020; the permit has been administratively continued since.

Facility Overview

Arrowcreek is composed of a clubhouse and two (2) 18-hole golf courses, being the Legend and Challenge, putting and driving range greens, along with common areas that encompass approximately 160 acres total. The golf course is irrigated with reclaimed water supplied by the South Truckee Meadows Water Reclamation Facility (STMWRF, permit NS0040024).

When the golf courses are open, with the season normally spanning the months of April through October, reclaimed water is brought into the Arrowcreek site via connection to the STMWRF’s reclaimed water transmission system, diverting from STMWRF’s Huffaker Reservoir, where it is combined with raw water from either Thomas Creek and/or Whites Creek, in the chlorine contact basin, to meet dry season water (irrigation) demands. The Arrowcreek site receives reclaimed water through a dedicated pipeline owned by Washoe County. Reclaimed and/or a combination of fresh and reclaimed water is stored on-site in a two-million-gallon storage tank located west of the clubhouse. A retention basin is located below the tank to capture the reclaimed water in the event of a release. The basin is sized to capture the entire volume of the storage tank to prevent runoff of reclaimed water into dwellings.

Reclaimed water from the tank is pumped from the main pump station, into the distribution system, to provide spray or drip irrigation for the turf grass and landscaped areas, respectively, along with filling the pond.

The Arrowcreek site's Reclaimed Water Management Plan (RWMP) (formerly known as an Effluent Management Plan) was last reviewed and approved by the Division on October 31, 2016. 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; thus, an updated RWMP is due by November 3, 2026, per Mark Kaminski's letter, of the TCE Branch, dated February 8, 2018.

Outfall Summary

Outfall 001 – This land use application outfall, being the onsite storage tank, for the discharge of reclaimed water for irrigation within Arrowcreek's boundary.

Effluent Characterization

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from November 2019 to October 2024, was reviewed as part of this permit renewal process. The long-term average discharge flow rate for Outfall 001 was 0.68 million gallons per day (MGD). The daily maximum discharge flow rate for Outfall 001 is limited to 1.70 MGD. There were no reported exceedances for this limit.

The STMWRF provides tertiary treated, denitrified, and disinfected reclaimed water which meets Category A bacteriological quality per Nevada Administrative Code (NAC) 445A.276 to Arrowcreek; therefore, the reclaimed water should meet, at a minimum, daily maximum fecal coliform of 23 colony forming units (CFU) / 100 mL and a 30-day geometric mean of 2.2 CFU / 100 mL.

If the reclaimed water is Category A then the reclaimed water should meet, at a minimum, a daily maximum 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 was 39.90 CFU / 100 mL, with nine exceedances that occurred being June 2020, December 2022, April 2023, August 2023, October 2023, February 2024, June 2024, and September 2024.

For the same reporting period, the average daily maximum for total nitrogen was 3.62 mg/L (milligrams per liter).

Reclaimed water may be blended with creek water at STMWRF to meet seasonal irrigation demands.

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 total coliform and total nitrogen.

Receiving Water

The receiving water is the groundwater underlying the reuse sites. Groundwater in the area ranges approximately between 90 and 200 feet below ground surface (BGS). No adverse effects are expected to occur as a result of this reclaimed water reuse.

Compliance History

Arrowcreek was in substantial compliance during the November 2019 to October 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 (Arrowcreek - Land Application Site) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Coliform, total general ^[1]	30 Day Geometric Mean		<= 2.2 Colony Forming Units per 100ml T (CFU/100mL) ^[2]	Prior to Reuse	001	Weekly	DISCRT
Coliform, total general ^[1]	Daily Maximum		<= 23 Colony Forming Units per 100ml T (CFU/100mL) ^[2]	Prior to Reuse	001	Weekly	DISCRT
Flow rate	30 Day Average	<= 1.5 Million Gallons per Day (Mgal/d)		Prior to Reuse	001	Continuous	METER
Flow rate	Daily Maximum	<= 1.7 Million Gallons per Day (Mgal/d)		Prior to Reuse	001	Continuous	METER
Nitrogen, total ^[1]	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Prior to Reuse	001	Weekly	DISCRT

Notes (Re-use Discharge Limitations Table):

1. Sample results to be obtained from STMWRF (Permit NS0040024) and reported by Permittee. Reclaimed water quality shall be in accordance with the limits set forth in Permit NS0040024.
2. CFU / 100 mL or MPN / 100 mL.

Re-use Discharge Limitations Table for Sample Location 001 (Arrowcreek - 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 ^[1]	Annual Mass Loading	M&R Pounds per Year (lb/yr) ^[2]		Prior to Reuse	001	Annual	CALCTD
Nitrogen, total ^[3]	Minimum Value		M&R Percent (%)	Prior to Reuse	001	Annual	CALCTD

Notes (Re-use Discharge Limitations Table):

- Cumulative Annual Nitrogen Applied (pounds/acre/year). This includes all sources of nitrogen applied (e.g., fertilizer, etc.).
- To be reported as pounds per acre per year (lbs/acre/year, refer to Page 20 of WTS-1B: General Criteria for Preparing a Reclaimed Water Management Plan. This formula is below:
Effluent N Applied = (MGD Applied x Effluent N Conc. (mg/L) x 8.34 x # days/mo.) ÷ # Acres.
- Report the percentage of nitrogen uptake. Refer to Technical Sheets WTS-1B: General Criteria for Preparing a Reclaimed Water Management Plan and WTS-1C: Nutrient Management for Reuse & Biosolids Sites.

Summary of Changes From Previous Permit

Coordinates were updated based on a Latitude (Lat) and Longitudinal (Long) application:
Facility coordinates were revised to show true facility location at 2905 Arrowcreek Parkway, Reno, NV being: Lat 39.41233320°, Long -119.8104296°.

Outfall 001 coordinates were revised to show actual location of outfall, located west of clubhouse and being at the storage tank: Lat 39.4070559°, Long -119.8221972°.

The following was either added to, revised, or removed from, the Reuse Discharge Limitation Table to be Reported Monthly:

- Coliform, total general – the colony forming units for both base parameters for the “Daily Maximum” and the “30-Day Geometric Mean” were updated to bacteriological Category A numbers being 23 (daily max.) and 2.2 (geometric mean).
- Nitrogen, total – with the “Daily Maximum” base was revised to “10 Milligrams per Liter (mg/L)” from originally being “Monitoring & Reporting (M&R) Milligrams per Liter (mg/L)”.
- Nitrogen, total – with the “30-Day Average” base was removed to be consistent with current Division reporting requirements.
- Footnote 2 was added stating, “CFU / 100 mL or MPN / 100 mL.”(Most Probable Number).

The following was either added to, revised, or removed from, the Reuse Discharge Limitation Table to be Reported Annually:

- Nitrogen, total – with a “Minimum Value” and a “M&R” concentration, a “Percentage” concentration unit, was added.
- The following footnotes were added:

Footnote 1 stating, “Cumulative Annual Nitrogen Applies (pounds/acre/year). This includes all sources of nitrogen applied (e.g., fertilizer, etc.)

Footnote 2 stating, “To be reported as pounds per acre per year (lbs/acre/year), refer to Page 20 of WTS-1B: General Criteria for Preparing a Reclaimed Water Management Plan. This formula is below:

Effluent N Applied = (MGD Applied x Effluent N Conc. (mg/l) x 8.34 x # days/mo.) / # Acres.”

Footnote 3 stating, “Report the percentage of nitrogen uptake. Refer to Technical Sheets WTS-1B: General Criteria for Preparing a Reclaimed Water Management Plan and WTS-1C Nutrient Management for Reuse & Biosolids Sites.”

The two active Bureau of Corrective Actions (BCA) remediation sites originally listed in the previous permit issued in 2013 have been removed. Based on discussions with BCA personnel, the first site, D-001267, was a case that was never formally open, and was cleaned up, with no further action needed. The other site, D-00142, was remediated and no further action is needed.

The submittal requirement for the Reclaimed Water Management Plan (RWMP) is utilizing the specific due date stated in Mark Kaminski's letter, being November 3, 2026, and not the standard timeframe granted upon permit issuance.

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

Total coliform is required to be monitored to assess the quality of reclaimed water being applied and for the protection of human health and the environment.

The proposed permit establishes the requirement to report the total nitrogen applied 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

None of the proposed permit limits were changed to a less restrictive limit compared to those in the previous permit.

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.

Special Conditions

Not Applicable. There are no special approvals or conditions for this permit.

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

Discharges From Future Outfalls/ Planned Facility Changes

The Permittee anticipates no discharges from any future outfalls or planned facility changes.

Corrective Action Sites

No Bureau of Corrective Actions (BCA) remediation sites will be impacted by the discharge from this facility.

Wellhead Protection Program

There are multiple Public Water Supply (PWS) well located approximately 90 to 2200 feet away from the outfall placing the well in a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well and in a Wellhead Protection Area (WHPA), which represents an approximate 10-year capture zone of a well. The well is drilled within an unconfined aquifer at a depth of 600 to 770 feet. The well have a sanitary seal at 50 to 395 feet, a static water level depth of 101 to 369 feet and the screen depth is 250 to 750 feet. The recent chemical history of the wells shows no issue of concern. The wells are at minimal risk based on the well structure and chemical history.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two (2) copies (one hard copy and one electronic copy) of a Reclaimed Water Management Plan (RWMP) to the Division for review and approval. The RWMP shall follow guidance document WTS-1B: General Design Criteria for Preparing a Reclaimed Water Management Plan.	11/3/2026

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	7/28/2025
2	Annual Report	Annually	1/28/2026

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. **3/1/2025**, 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: **1/22/2025**

Title: **Staff II Engineer**