FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: CHIMERA GOLF CLUB LLC

901 OLIVIA PARKWAY
HENDERSON, NV 89011

Permit Number: NS2001503

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: CHIMERA GOLF CLUB, CLARK
901 OLIVIA PARKWAY, HENDERSON, NV 89011
LATITUDE: 36.07867710, LONGITUDE: -114.967027
TOWNSHIP: T21S, RANGE: R63E, SECTION: S32

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	GOLF COURSE	External Outfall		36.07874430	-114.964665	GROUNDWATER
002	MW1	Monitoring Well		36.079202	-114.965343	GROUNDWATER
003	MW2	Monitoring Well		36.08040950	-114.966037	GROUNDWATER
004	MW3	Monitoring Well		36.08585580	-114.972496	GROUNDWATER
005	MW4	Monitoring Well		36.08574310	-114.971901	GROUNDWATER

Permit History/Description of Proposed Action

The Permittee, Chimera Golf Club LLC, has applied for the renewal of Permit NS2001503 for the Chimera Golf Club (CGC), located at 901 Olivia Parkway, in Henderson, within 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 course's boundary.

This permit was first issued on November 20, 2001. The most recent permit was issued on April 1, 2014, and expired on March 31, 2019; the permit has been administratively continued since.

Facility Overview

The CGC is composed of a clubhouse, 18-hole golf course, driving range, and support facilities with common areas encompassing approximately 150 acres total. The golf course is irrigated with reclaimed water supplied by the Kurt R. Segler Water Reclamation Facility (KRSWRF), which discharges to the Northeast Reclaimed Water Distribution System (NERWDS), under KRSWRF permit NS0080003, then into a reclaimed water transmission main for applied use at various reuse sites throughout Henderson.

The reclaimed water is brought into the CGC via connection to the City of Henderson's reclaimed water transmission main. A 12-inch diameter PVC lateral conveys the reclaimed water onto the site and discharges into the Upper Lake. The reclaimed water flows from the Upper Lake to the Lower Lake. Both irrigation lakes have borders reinforced with concrete and are lined with polyvinyl chloride (PVC) covered

with shotcrete (a wet- or dry-mix mortar, with a fine aggregate, equal to or less than 7/8 inch, that is sprayed directly onto an area with compressed air). Aeration devices are used to prevent algae growth in both irrigation lakes.

Water is pulled from the Lower Lake via a pump station and into the distribution system consisting of a centralized irrigation control system, pump stations, distribution lines, backflow prevention devices, sprinklers and drip lines, with irrigation occurring at night.

The site's Reclaimed Water Management Plan (RWMP) (formerly known as an Effluent Management Plan) was last reviewed and approved by the Division on May 5, 2023. 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.

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

Outfall 002 - This is a cross-gradient monitoring well (MW1) for sampling the following parameters on a quarterly basis: Depth to water level (feet below the land surface), Total Nitrogen, and Water level relative to mean sea level.

Outfall 003 - This is a cross-gradient monitoring well (MW2) for sampling the following parameters on a quarterly basis: Depth to water level (feet below the land surface), Total Nitrogen, and Water level relative to mean sea level.

Outfall 004 - This is a downgradient monitoring well (MW3) for sampling the following parameters on a quarterly basis: Depth to water level (feet below the land surface), Total Nitrogen, and Water level relative to mean sea level.

Outfall 005 - This is a downgradient monitoring well (MW4) for sampling the following parameters on a quarterly basis: Depth to water level (feet below the land surface), Total Nitrogen, and Water level relative to mean sea level.

Effluent Characterization
Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from December 2019 to November 2024, was reviewed as part of this permit renewal process. The long-term average discharge flow rate for Outfall 001 was 0.96 million gallons per day (MGD). The daily maximum discharge flow rate for Outfall 001 is limited to 1.22 MGD. There were nine reported exceedances for this limit being April, June, July, August, September and October of 2020, April 2021, along with April and July of 2022.

The KRSWRF and NERWDS provide tertiary treated, partially denitrified, disinfected reclaimed water which meets Category B bacteriological quality per Nevada Administrative Code (NAC) 445A.276 to the Chimera 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 was 1.08 CFU / 100 mL.

For the same reporting period, the average monthly maximum for total nitrogen was 12.85 mg/L. For additionial information regarding the high levels of nitrogen reported, please refer to the Basis for Effluent Limitations section for additional informatin.

Outfall 002 (MW1) had the following average reported parameters during the past 5 years:
Depth: 5.26 Feet
Nitrogen, total: 17.81 mg/L
Water Elevation: 1557.81 Feet

Outfall 003 (MW2) had the following average reported parameters during the past 5 years:
Depth: 24.19 feet
Nitrogen, total: 13.66 mg/L
Water Elevation: 1555.77 Feet

Outfall 004 (MW3) had the following average reported parameters during the past 5 years:
Depth: 2.60 Feet
Nitrogen, total: 22.58 mg/L
Water Elevation: 1521.11

Outfall 005 (MW4) had the following average reported parameters during the past 5 years:
Depth: 5.64 Feet
Nitrogen, total: 23.96 mg/L
Water Elevation: 1520.58 Feet

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 total nitrogen.

Receiving Water
Receiving water is groundwater of the State. Depth to groundwater at the site is between 3 feet to 36 feet below ground surface (bgs). No adverse effects are expected to occur because of this effluent reuse. But due to the depth to groundwater, monitoring wells were required with continued reporting under this permit renewal.

Compliance History
The facility was in substantial compliance during the December 2019 to November 2024 reporting period.

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

Groundwater Monitoring Wells Table for Sample Location 002 (Monitoring Well Mw1) To Be Reported Monthly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	002	Monthly	DISCRT
Depth to water level ft below landsurface[1]	Daily Minimum	M&R Feet (ft)		Groundwater	002	Monthly	INSITU
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	002	Monthly	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	002	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	002	Monthly	DISCRT
Water level relative to mean sea level[2]	Daily Maximum	M&R Feet (ft)		Groundwater	002	Monthly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (static water level), ft.
2. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location 003 (Monitoring Well Mw2) To Be Reported Monthly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Monthly	DISCRT
Depth to water level ft below landsurface[1]	Daily Minimum	M&R Feet (ft)		Groundwater	003	Monthly	INSITU
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Monthly	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	003	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	003	Monthly	DISCRT
Water level relative to mean sea level[2]	Daily Maximum	M&R Feet (ft)		Groundwater	003	Monthly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (static water level) ft.
2. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location 004 (Monitoring Well Mw3) To Be Reported Monthly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Monthly	DISCRT
Depth to water level ft below landsurface[1]	Daily Minimum	M&R Feet (ft)		Groundwater	004	Monthly	INSITU
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Monthly	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	004	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Monthly	DISCRT
Water level relative to mean sea level[2]	Daily Maximum	M&R Feet (ft)		Groundwater	004	Monthly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (static water level), ft.
2. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location 005 (Monitoring Well Mw4) To Be Reported Monthly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Monthly	DISCRT
Depth to water level ft below landsurface[1]	Daily Minimum	M&R Feet (ft)		Groundwater	005	Monthly	INSITU
pH	Value		M&R Standard Units (SU)	Groundwater	005	Monthly	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Monthly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	005	Monthly	DISCRT
Water level relative to mean sea level[2]	Daily Maximum	M&R Feet (ft)		Groundwater	005	Monthly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater (static water level), ft.
2. Groundwater elevation above mean sea level (AMSL).

Re-use Discharge Limitations Table for Sample Location 001 (Golf Course - External Outfall) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	001	Continuous	METER
Flow rate	Daily Maximum	<= 1.22 Million Gallons per Day (Mgal/d)		Prior to Reuse	001	Continuous	METER
Coliform, fecal general[1]	30 Day Geometric Mean		<= 2.2 Most Probable Number per 100ml T (MPN/100mL)[2]	Prior to Reuse	001	Weekly	DISCRT
Coliform, fecal general[1]	Daily Maximum		<= 23 Most Probable Number per 100ml T (MPN/100mL)[2]	Prior to Reuse	001	Weekly	DISCRT
Nitrogen, total[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Reuse	001	Weekly	DISCRT

Notes (Re-use Discharge Limitations Table):

1. Sample results to be obtained from KRSWRF (Permit NS0080003) and reported by the Permittee. Reclaimed water quality shall be in accordance with the limits set forth in Permit NS0080003.
2. CFU or MPN/100 ml.

Re-use Discharge Limitations Table for Sample Location 001 (Golf Course - External Outfall) 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[2]	Minimum Value		M&R Percent (%)	Prior to Reuse	001	Annual	CALCTD

Notes (Re-use Discharge Limitations Table):

1. 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
2. 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

Outfall 001 coordinates were revised to show actual location of the outfall being:
Lat. 36.0787443, Long. -114.9646650.

Outfall 002 coordinates were revised to show actual location of the monitoring well (MW1) being:
Lat. 36.0792020, Long. –114.9653435.

Outfall 003 coordinates were revised to show actual location of the monitoring well (MW2) being:
Lat. 36.0804095, Long. -114.9660378.

Outfall 004 coordinates were revised to show actual location of the monitoring well (MW3) being:
Lat. 36.0858558, Long. -114.9724966.

Outfall 005 coordinates were revised to show actual location of the monitoring well (MW4) being:
Lat. 36.0857431, Long. -114.9719011.

The Nitrogen, total parameter, for the “30-Day Average” was removed from the Reuse Discharge Limitations Table for Sample Location 001 (Golf Course) To Be Reported Monthly, to allow the permit to match current Divisional reporting standards for applied reclaimed water reuse at golf courses.

The two Coliform parameters were updated under the Reuse table to reflect the actual number of colony forming units per 100 milliliters for both the "30-Day Geometric Mean" base, being 2.2 CFU/100mL, and the "Daily Maximum" base, being 23 colony forming units per 100 mL.

A Reuse Discharge Limitations Table (Reported Yearly) for Outfall 001 was added to allow for permit to match current Divisional reporting standards.

A “Total Nitrogen” measurement parameter was added with an "Annual Mass Loading" base, a “Monitor and Report (M & R) Pounds per Year (lb/yr) quantity unit, a “Prior to Reuse" monitoring location, an “Annual” measuring frequency, and a “Calctd” sample type.

A second "Total Nitrogen" measurement parameter was added with a "Minimum Value" base, a “M & R Percent” (%) concentration, a "Prior to Irrigation" monitoring location, an "Annual" measuring frequency, and a "Calctd" sample type.

The following associated footnotes were added to the Reuse Table described above for annualized reporting:
1. 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

2. 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.

Added additional parameters to MW - Groundwater Monitoring Wells Table to adhere to current Division reporting requirements.

Chloride, with a “Daily Maximum” base, a “M&R Milligrams per Liter” concentration, a “Groundwater” monitoring location, a “Monthly “ measurement frequency, and a “Discrt” sample type.

pH, with a “Daily Maximum” base, a “M&R Standard Units” concentration, a “Groundwater” monitoring location, a “Monthly “ measurement frequency, and a “Discrt” sample type.

Solids, total dissolved, with a “Daily Maximum” base, a “M&R Milligrams per Liter (mg/L)” concentration, a “Groundwater” monitoring location, a “Monthly “ measurement frequency, and a “Discrt” sample type.

Due to the recent review and approval of the Reclaimed Water Management Plan (05/23), the requirement under the Schedule of Compliance Table, under the previous issued permit renewal, was deleted due to the submittal requirement being fulfilled.

Under the Special Approvals/Conditions Table, the requirement for each quarter, being that the Permittee shall submit a document confirming adherence to the approved EMP (reclaimed water management plan). This document shall be signed and contain the following certification: "I certify that, for each month during the previous quarterly reporting period, all operational procedures and calculated application rates outlined in the approved Effluent Management Plan were adhered to," was removed.

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)
Proposed water quality based effluent limitations are not applicable to this permit.

Rationale for Permit Requirements

Basis for Effluent Limitations
Fecal 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.

The treated effluent supplied by KRSWRF has lower total nitrogen concentrations than the receiving

groundwaters of the State. Therefore, degradation of groundwaters of the State is not likely. A letter dated December 27, 2002, from Mactec Engineering and Consulting, shows the average nitrogen level to be approximately 22 mg/L prior to any applied irrigation done by the golf course.

A review of the reported nitrogen numbers, taken at the monitoring wells, spanning an 11-year period, showed a downward trend, with a slight increase a couple of years ago, with levels plateauing the past four years. There are some occasional variations, but it appears that the golf course has been cognizant of the amount of nitrogen they are applying to the greens to allow for consistent numbers to be maintained. The first 2 monitoring wells are cross-gradient to the average elevation of the course, with MW-3 and MW-4 downgradient. There are additional monitoring wells uphill from the course, with the topography gaining elevation as one moves in a southerly direction. The City of Henderson owns a monitoring well, under Well Log 103923, south of the golf course, approximately 70 feet higher in elevation than the course, with the Nevada Environmental Response Trust owning a monitoring well directly south of the course, under Well Log 130667, which gives two viable options for upgradient information gathering should the nitrogen levels become questionable.

Anti-backsliding

Antibacksliding is not only for removing, or lessening, limits, it can also apply to the removal, or lessening, of the sampling frequency. The removal of the 30-day average nitrogen sampling and reporting requirement is considered backsliding. Although the permit will not be less restrictive with the removal of the 30day average nitrogen sampling and reporting requirement, the daily maximum nitrogen limit is now 10 mg/L, which is more restrictive than the requirement to monitor and report for the 30-day average.

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

See the Special Approvals and Conditions Table.

SA – Special Approvals / Conditions Table

Item #	Description
1	The requirements in Section B.MW.3., are not applicable to this permit. The treated effluent supplied by KRSWRF has lower total nitrogen concentrations than the receiving groundwaters of the State. Therefore, degradation of groundwaters of the State is not likely. A letter dated December 27, 2002, from Mactec Engineering and Consulting, had shown the average nitrogen level to be approximately 22 mg/L prior to any applied irrigation by the golf course. A review of the reported nitrogen numbers, taken at the monitoring wells, spanning an 11-year period, showed a downward trend, with a slight increase a couple of years ago, with levels plateauing the past four years. There are some occasional variations, but it appears that the golf course has been cognizant of the amount of nitrogen they are applying to the greens to allow for consistent numbers to be maintained.

Item #	Description

Discharges From Future Outfalls/ Planned Facility Changes
There are currently no planned discharges from future outfalls or facility changes.

Corrective Action Sites
There is one active Bureau of Corrective Actions (BCA) site located within a one-mile radius of the discharge location. The site (H-000999) has a confirmed release of metals, within the soil at a prior landfill location, to the northeast of the golf course. It is not anticipated that the discharge of reclaimed water at the Chimera Golf Club will negatively affect the active BCA site.

Wellhead Protection Program
The outfalls are not located within a Wellhead Protection Area, which represents an approximate 10-year capture zone of a well, or within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well.

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 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. **4/21/2025,** 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 Hanson**
Date: **3/13/2025**
Title: **Staff II Engineer**