



NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
Underground Injection Control Program

UIC PROJECT FACT SHEET

(pursuant to NAC 445A.874)

Project Name: Nugget Casino Resort Tower 2 - dewatering effluent discharge to drain-field
UIC Permit ID: UNEV2002202
Permittee Name: Nugget Casino Resort LLC
Parent Corporation: Century Casinos Inc.
Permit Type: Underground Injection Control Individual Permit
Injection Well Type: UIC Class V Injection Well (drain-field)
Injection Fluid: GAC-treated dewatering stream
Authorized Wells: One (1) subsurface infiltration field
Permit Issued: 3/31/2003, 11/9/2009, 4/20/2017, 4/17/2025
Permitting Action: Renewal of permit with revisions
Date of Action: May 9, 2025
Associated Permits: NEV96000 (Effective 1996-2002; Replaced by UNEV2002202)

Location of Discharge

Facility Address: 1100 Nugget Avenue, Sparks, Nevada 89431

Geodetic Location: 39°32'00" N, 119°45'39.88" W (WGS84)

Public Land Survey System coordinates (T,R,S): NE¼ of NW¼ of Section 8, T19N, R20E (MDB&M)

County: Washoe County

The discharge is groundwater collected from a basement dewatering system and subsequently treated by Granular Activated Charcoal (GAC) filtration prior to discharge into a drain-field (UIC Class V injection well) ~580 feet west of Tower 2. Since 2003, concentrations of perchloroethylene (PCE), and tetrachloroethylene in the discharged fluid ranged from below their detection limits to as high as 3.8 micrograms per liter (µg/l), reported in February 2007. Trichloroethylene (TCE) and total petroleum hydrocarbon (TPH) levels have remained below their detection limits since 2003. Nitrate as nitrogen concentration ranges from approximately 1-13 milligram per liter (mg/l). Chloroform, a potential disinfection byproduct from drinking- and waste-water treatment, has also been detected and is treated by the GAC filtration process.

Synopsis

5/9/2025: Public Notice: Notice of Decision to renew revised UIC permit UNEV2002202.

5/9/2025: Permit renewed with revisions.

3/6/2025: Public comment period closed; comments received.

2/4/2025: Public Notice of renewal application posted with draft permit for 30-day comment period.

4/1/2023: Change of ownership from Marnell Gaming, LLC to Century Casinos Inc.

4/20/2017: Permit renewed/reissued. No changes to the operation of the dewatering and injection system or to the monitoring and sampling requirements.



2012-2017: The system has operated at flows of 10-55 gallons per minute under gravity flow conditions. Chloroform and Tetrachloroethene were still detected in the influent and treated by the GAC filtration system.

5/6/2016: Change of Ownership from Sheltie Op Co. Inc. to Marnell Gaming LLC.

12/13/2013: Change of Ownership from John Ascuaga to Sheltie Op Co Inc.

Facility Overview

The applicant operates a basement dewatering system to service Nugget Casino Resort - Tower #2, located at 1100 Nugget Avenue in Sparks. Water collected in the basement sump is treated and discharged through a drain-field to groundwater (waters of the State of Nevada). The drain-field is located in the Nugget parking lot west of 14th St., ~580 ft. west of Tower #2.

Due to the change in UIC Program regulations for the definition of an injection well to include any subsurface fluid distribution system as a Class V injection well, the Nugget was issued an Underground Injection Control (UIC) permit for the drain-field dewatering system in 2003 - formerly covered under Groundwater Discharge permit NEV96000, effective from 1996 to 2002.

Pollutants of Concern

Environmental impacts from this operation include the potential discharge of aqueous PCE, TCE, TPH, chloroform (wastewater disinfectant byproduct), and nitrates in the dewatering system effluent to groundwater below a drain-field hydraulically upgradient of the sump system. To mitigate these potential impacts, the Permittee has installed a treatment system upstream of the drain-field to remove particulates, volatile organic compounds (VOC's), and petroleum hydrocarbons. The system consists of a Harmsco Hurricane Particulate Filter for solids removal in addition to a series of two 2000-pound GAC filters for VOC removal. The carbon media in each of the GAC filters was removed and replaced by Waterlink Barnebey Sutcliffe on April 25, 2000, and again during the third quarter of 2007 by Calgon Carbon Corporation. A sampling program to monitor discharged water is presented in the Sampling and Monitoring section of the permit (Part I.A.3).

The dewatering/collection system consists of perforated piping adjacent to the exterior side of the building perimeter footings and below the basement slab. Water collected in the subsurface piping is gravity drained to a basement sump containing two, alternating, 100-gallon per minute (gpm), float-activated sump pumps. The sump pumps transfer the water to an activated carbon treatment system and then to boost pumps located in the Nugget parking facility sump on the west side of 14th street, and then to the infiltration field. The GAC filters are alternated on a routine basis to optimize the service life of the media. To optimize conveyance efficiency, effluent is directed to a second sump equipped with booster pumps to lift effluent to an infiltration field located west of 14th Street. Monitoring equipment includes an in-line totalizing flow meter on the influent side of the GAC filters, and two sampling ports situated on the influent and effluent side of the GAC filters, respectively.

The primary disposal site, a 40-foot square infiltration field, was constructed with a closed loop perforated pipe system. The booster pumps were designed to deliver the effluent to a distribution box with essentially no residual pressure. The water infiltrates through 4 ½ feet of drain rock, underlain with native coarse sands and gravels.

If the flow rate entering the sump exceeds 200 gpm, the 100 gpm pumps will be replaced with two 750 gpm pumps. An emergency by-pass valve to the City of Sparks storm drain system was installed with a separate totalizing flow meter and seal. Average monthly flow rates have ranged from 4 - 102 gallons per minute (gpm) since 2003, with higher rate occurred during month of October 2008.

Available documents: The O&M Manual (January 1997) on file at NDEP is out dated. The Manual will be updated as required in Part I.A.6 of the permit to meet the revised monitoring requirements and address potential replacement of current sump pumps with higher volume (e.g., 750 gpm) pumps.



Receiving Groundwater

Shallow groundwater in the area is known to contain PCE, TCE, TPH, chloroform, and nitrates. Analyses of groundwater samples collected during construction-dewatering activity indicated the presence of PCE ≤ 25 $\mu\text{g/l}$, and nitrate (as nitrogen) ≤ 29 mg/l . Since January 1996, the local depth to groundwater around the tower was approximately 13 to 20 feet below ground surface. Groundwater in the surrounding area is assumed to flow southward toward the Truckee River.

Numerous drinking water and irrigation wells surround the site. The nearest drinking water well is located approximately $\frac{1}{4}$ -mile west of the Nugget. Five wells—four drinking water wells and one irrigation well—are located between $\frac{1}{4}$ - and $\frac{1}{2}$ -mile of the site to the northwest, west, and southwest.

Flow

2003-2016: 4-102 gpm (typical)

Discharge volume is variable with rates rarely exceeding 200 gpm. A potential maximum flow rate of 1,500 gpm could occur if groundwater elevations significantly increase due to cessation of groundwater remediation operations at the Sparks Marina (formerly Helms Pit) and significant precipitation events affecting the hydrologic basin and/or severe flooding on property. If the rate of flow entering the sump exceeds 200 gpm, and the 100 gpm pumps is ever replaced with two 750 gpm pumps, the Permittee is required to notify and obtain approval from NDEP for the change to higher-volume pumps.

Determination

The Division has made the tentative determination to renew the proposed permit—with revisions to the terms and conditions of the permit previously in effect—for the 5-year permit term.

Rationale for Permit Requirements

Monitoring of physical and chemical parameters of the injection fluid and receiving groundwater is required to ensure that the level of treatment being provided is sufficient to satisfy concentration limits for dissolved constituents based on state and federal primary and secondary Drinking Water Standards, and to ascertain whether design capacity is being approached.

Proposed Effluent Limitations, Schedule of Compliance, and Special Conditions

The schedule of compliance is found in Parts I.B.1 - I.B.3 of the permit. No special conditions have been set forth in the permit. Prior to discharge to the infiltration field, the treatment system effluent will be monitored according to the following schedule and effluent limitations presented below, and reported semi-annually:



Table 1. Monitoring Requirements

<u>Monitoring Parameters</u>	<u>Sampling Location/List</u>	<u>Discharge Limitations</u>	<u>Monitoring Requirements</u>	
			<u>Frequency</u>	<u>Sample Type</u>
Flow (gal, gpm)	Main Pipeline (Attachment 2, Fig. 1) Flow Meter <u>FM1</u> ¹ (Attachment 2, Fig. 2)	200 gpm (30-day average)	Daily	Meter
Bypass Flow (gal, gpm)	Bypass Pipeline (Attachment 2, Fig. 1) Flow Meter <u>FM2</u> ² (Attachment 2, Fig. 2)	Monitor & Report	Daily	Meter
Volatile Organic Compounds ¹	Sample Port	Drinking Water Standards	Monthly	Discrete
Nitrate as Nitrogen ²	Sample Port	Monitor & Report	Semi-annually	Discrete
Drain-field depth to water table ² (ft below ground surface)	Drain-field Piezometer	Monitor & Report	Quarterly ³	Discrete
Monitoring well depth to water table ² (ft below ground surface)	Monitoring Well	Monitor & Report	Quarterly ³	Discrete

Notes:

1. EPA Method 8260B.
2. Sample and monitor during the same calendar month or week.
3. If the treatment system discharge exceeds one-half of the design capacity of the drain-field, the monitoring frequency will be increased to weekly for 1 month. If monitoring data reported for this period indicates proper operation, then the measurement frequency will be reduced back to quarterly.

Last Updated: Andrew Kowler, 2/4/2025 & 5/8/2025

Updated: Russ Land, 03/2017

Originally Prepared: Russ Land & My-Linh Nguyen, 09/2009