



# STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

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## FACT SHEET

(pursuant to NAC 445A.236)

**Permittee Name:** Nevada Department of Corrections (NDOC)  
3955 W. Russell Road  
Las Vegas, NV 89118

**Permit Number:** NEV80002

**Location:** Southern Nevada Correctional Center & Jean Conservation Camp  
#2 Prison Rd., Jean, NV 89019 (Clark County)  
Latitude: 35° 46' 9"N, Longitude: 115° 19' 22"W  
Township 25S, Range 59E, SW ¼ Section 13

**General:** The Nevada Department of Corrections operates Southern Nevada Correctional Center (SNCC), a medium-security men's prison (design capacity, 600 inmates), and Jean Conservation Camp (JCC), a minimum-security women's conservation camp (design capacity, 250 inmates), which are co-located due east of the Jean Airport. The total population at both of the Jean facilities was 157 inmates in December 2011. The permit is also being modified to allow SNCC-JCC to discharge partially-treated effluent from their primary ponds to the Goldstrike Hotel & Gambling Hall package treatment plant (Goldstrike) for further treatment and discharge under Goldstrike's permit (NEV87006). The Rapid Infiltration Basins (RIBs) will only be used in emergency situations when Goldstrike cannot take the partially treated effluent.

The original wastewater treatment system consisted of two asphalt-lined facultative ponds, built in 1973 (ponds 1 & 2). Ponds 3 & 4, also asphalt lined, were added in 1986. No aeration devices were used. Ponds 1-3 were rectangular and occupied an area of 1.3 acres per pond (182 ft × 315 ft). Pond 4 was triangular and was approximately 0.9 acres. The ponds had 6:1 side slopes and a maximum depth of 7 ft. (bottom of pond to top of berm). WTS 5, *Guidance Document for Design of Wastewater Treatment Ponds*, specifies minimum freeboards of 3 feet and 2 feet for ponds > 1 acre and ≤ 1 acre in size, respectively. Each facultative pond was designed to discharge to its own RIB. RIBs 1-4 covered an area of 1.5 acres each (445 ft × 148 ft). Phase I and Phase II modifications were approved by the Technical Services Branch of the Bureau of Water Pollution Control on April 2, 2004 and September 26, 2005 respectively. These modifications involved enlarging (ponds 1-3 from 1.3 acres to 1.76 acres; pond 4 from 0.9 acres to 1.3 acres), deepening (to 9 feet), and lining (60-mil High Density Polyethylene (HDPE)) of the treatment ponds (ponds 1 & 2: Phase I; ponds 3 & 4: Phase II). The Phase I and Phase II modifications were completed in May 2006. This increased the operation capacity of the facility from 0.065 million gallons per day (MGD) to 0.144 MGD. Mechanical aeration devices were installed in ponds 1 & 3 in October 2010.

**Corrective Actions Sites:** There are no Bureau of Corrective Actions sites within one mile of this facility.

**Well Head and Drinking Water Supply Protection:** A Wellhead Protection Area has not been established. This facility is within the 3,000-foot Drinking Water Protection Area, and vulnerability ranking is not available for the well. Discharge in accordance with the permit is not anticipated to negatively affect ground water in the area.

**Flow:** According to the 4<sup>th</sup> quarter 2011 Discharge Monitoring Report, the average daily influent flow was reported to be 0.015 MGD (30-day average). Based on the inmate population, this value represents approximately 100 gallons per capita per day.

**Receiving Water Characteristics:** The receiving water for effluent is the groundwater of the State via percolation in RIBs 1-4. The depth to groundwater in Jean has been reported to be 365 ft. bgs (Well Log # 4294). The nearest domestic drinking water well is located 1,800 feet upgradient of the ponds/RIBs and is operated by the Las Vegas Valley Water District. This well supplies potable water to the facility. Based on the depth to groundwater and the upgradient distance to the supply well, groundwater monitoring wells are not required at this time.

**Discharge Characteristics:** The table below shows the effluent characteristics observed from June, 2007 through December, 2011. The exceedances will no longer be of concern, as the partially treated effluent will be sent to Goldstrike for further treatment.

**Table 1: Discharge Characteristics**

Parameters and Units	Permit Limit	Average	Maximum	Number of Exceedances
Influent Flow (MGD)	0.144	0.035	0.102	0
Population	Monitor & Report	298	830	0
Effluent pH (Standard Units)	Between 6.0 & 9.0	8.37	9.41	3
Effluent CBOD <sub>5</sub> (mg/L)	45	50	97	4
Effluent TSS (mg/L)	90	65	88	0

**Proposed Effluent Limitations and Special Conditions:**

**Table 2: Plant Discharge Limitations**

Parameter	Discharge Limitations		Monitoring Requirements	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, MGD (Influent)	Monitor & Report		Continuous	Flow Meter
Flow, MGD (Outfall 001)	Monitor & Report		Continuous	Flow Meter
Flow, MGD (Outfall 002)	Monitor & Report		Continuous	Flow Meter
Total Effluent Flow, MGD (001+002)	0.144	0.216	Continuous	Calculation
BOD <sub>5</sub> , mg/L (Outfall 001)	-----	45	Quarterly	Discrete
TSS, mg/L (Outfall 001)	90		Quarterly	Discrete
pH, Std. Units (Outfall 001)	Between 6.0 & 9.0		Quarterly	Discrete

**Schedule of Compliance:**

The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications, which the Administrator may make in approving the schedule of compliance.

- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
- b. Within sixty (60) days of the permit issuance date (**MM DD, 2012**), the Permittee shall submit two copies of a new Operations & Maintenance (O&M) Manual for the wastewater treatment facility wet stamped by a Nevada licensed Professional Engineer.

**Special Conditions:** The Permittee shall include a report of the Inmate Population count with the quarterly reports.

**Rationale for Permit Requirements:** The Division’s rationale for the proposed monitoring conditions is as follows:

- *Flow:* Flow is tracked to ensure that the design capacity of the treatment facility is not exceeded.

- ***CBOD***: The Division's secondary-treatment Carbonaceous Biochemical Oxygen Demand standard for ponds is 45 mg/L for the daily maximum value.
- ***TSS***: The Division's secondary-treatment standard for Total Suspended Solids (TSS) in pond system effluent is 90 mg/L.
- ***pH***: The Division requires the pond effluent to meet a pH limitation of between 6.0 and 9.0 standard units.

**Procedures for Public Comment**: The notice of the Division's intent to issue (renew) a permit authorizing the facility to discharge facultative pond effluent to groundwater of the State via RIB percolation, subject to the conditions contained within the permit, is being sent to the **Las Vegas Review-Journal** 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 for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all written comments are to be postmarked (via mail) or transmitted to the Division via fax or e-mail is **September 24, 2012 by 5:00 P.M.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator 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 determines 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 renew the proposed groundwater discharge permit for a period of five (5) years.