

## NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

### FACT SHEET

(Pursuant to NAC 445A.236)

**Permittee Name:** U.S. Department of Interior  
National Park Service - Lake Mead National Recreation Area  
601 Nevada Way  
Boulder City, NV 89005

**Facility:** Callville Bay Water Treatment Plant (WTP)  
560 Screech Owl Road  
Callville Bay (Las Vegas), NV 89124

**Permit Number:** NEV2004515

**Location:** The facility is located approximately 10 air miles east of Las Vegas Bay, within the Lake Mead National Recreation Area

Latitude: 36° 08' 28" N  
Longitude: 114° 43' 51" W

Township 21 South, Range 65 East, Section 9

**Flow:** Current Operational Flow is 0.002 MGD. (30-Day Average)

#### **Corrective Actions Sites**

There are no Bureau of Corrective Actions (BCA) remediation sites located within a one-mile radius of the permitted facility.

#### **Well Head and Drinking Water Supply Protection:**

The facility is within approximately 3000' of a surface water intake (NV0002506)

#### **General:**

The Permittee operates a micro filtration water treatment facility which draws raw water from the Lake Mead water intake barge structure into the plant raw water storage tank. Raw water is pumped from the tank, passing through screens and into the 0.2 micron membrane modules (24 membrane filters) of the micro filtration system for treatment. Product water is collected in the clearwell, disinfected with calcium hypochlorite and pumped to the 100,000 or the 300,000 gallon steel potable water storage tanks and from there into the distribution system. Backwash is achieved with a reverse flow of 95 psi compressed air through the membrane modules. The backwash water is discharged to an area for enhancement of desert riparian vegetation. The plant is designed to meet State and Federal water quality requirements and for protection against *giardia cysts* and *cryptosporidium oocysts*. **The Permittee is required to monitor the backwash discharge.**

#### **Flow:**

The treatment system has a design capacity of 0.011 MGD 30-day average, and 0.025 MGD daily

**FACT SHEET**  
**NEV2004515 / NPS Callville Bay WTP**  
**Page 2 of 4**

maximum. The requested flow limits for the current permit renewal 5 year time frame for the backwash flows is 0.011 MGD (30-day average) and 0.025 MGD (daily maximum). Backwash discharges occur at 422 GPM for each cycle. Current operational flows are at 0.002 MGD (30-day average) and 0.010 MGD (daily maximum). The plant is automated with cycles of operation monitored by the water treatment plant operator.

**Receiving Water Characteristics:**

The receiving waters are the groundwaters of the State of Nevada. Depth to groundwater is unknown. The Callville Bay well maintained a static water level for many years until the dramatic drop in lake level (from about 1220' to 1100' between 2002 and 2009). It appears the hydraulic connectivity of the shallow groundwater at this location may have been primarily due to infiltrated lake water, and with the extreme drop in lake elevation, the previous static water level dropped below the bottom of the well, and remains at this time at an unknown depth. No adverse effects are expected as a result of this discharge.

**Proposed Effluent Limitations and Monitoring Requirements**

The discharge from the facility shall be monitored and limited by the following:

**TABLE I. Discharge Limitations**

<b><u>PARAMETERS</u></b>	<b><u>EFFLUENT DISCHARGE LIMITATIONS</u></b>		<b><u>MONITORING REQUIREMENTS</u></b>	
	<b>30 Day Ave.</b>	<b>Daily Max.</b>	<b>Measurement Frequency</b>	<b>Sample Type</b>
Flow (MGD)	0.011	0.025	Monthly	Meter/Calculate <sup>1</sup>
Total Dissolved Solids (mg/L)	1000	1000	Monthly	Discrete
Total Suspended Solids (mg/L)	Monitor and Report		Monthly	Discrete

(1) The total flow in gallons per month shall be determined from the flows recorded in the plant Operations Log. This information shall be reported quarterly, as required by this permit.

Discharge Monitoring Reports are to be submitted by the Permittee to NDEP at the following address.

Nevada Division of Environmental Protection  
 Bureau of Water Pollution Control  
 Compliance Coordinator  
 901 South Stewart Street, Suite 4001  
 Carson City, NV 89701

**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

**FACT SHEET**  
**NEV2004515 / NPS Callville Bay WTP**  
**Page 3 of 4**

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. By **August 20, 2010**, the Permittee, or its representative, shall submit for approval an updated Operations and Maintenance (O & M) manual. The document shall be prepared by the Certified Water Treatment Plant Operator, and reviewed by the National Park Service Utility Systems Manager prior to submission.
- c. All compliance deliverables shall be submitted to both addresses listed below:

Mr. Nadir Sous  
Nevada Division of Environmental Protection

Compliance Coordinator  
Nevada Division of Environmental Protection

Las Vegas Office  
2030 E. Flamingo Road Suite 230  
Las Vegas, NV 89119

Bureau of Water Pollution Control  
Stewart Street, Suite 4001  
Carson City, NV 89701

**Procedures for Public Comment:**

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to the groundwater of the State of Nevada, subject to the conditions contained within the permit, is being sent to the **Las Vegas Review-Journal** for publication. The notice is being emailed to interested persons on our email list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator. **All comments must be received by NDEP by 5:00 pm, May 17, 2010.**

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 determined to be appropriate. All public hearings must be conducted to 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 reissue the permit for a period of five (5) years, subject to effluent and monitoring limitations.

**FACT SHEET**  
**NEV2004515 / NPS Callville Bay WTP**  
**Page 4 of 4**

**Rationale for Permit Requirements**

The limitations and monitoring requirements are intended to provide for appropriate reuse of treated effluent, to minimize the possibility of adverse impact to groundwaters of the State, and to alert those persons who might have contact with treated effluent to its presence at the facility.

Prepared by: Michele Reid  
April 2010