



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: GREAT BASIN NATIONAL PARK
100 GREAT BASIN NATIONAL PARK
BAKER, NV - 89311

Permit Number: NS0087068

Location: GREAT BASIN NATIONAL PARK, WHITE PINE
2635 W. HWY 488, BAKER, NV - 89311
LATITUDE: 39.006395, LONGITUDE: -114.213648
TOWNSHIP: 13 N, RANGE: 69 E, SECTION: 10

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	NORTH POND 1	External Outfall		BAKER	NV	89311	WHITE PINE	39.016944	-114.210833	ZERO DISCHARGE
002	SOUTH POND 2 - EFFLUENT	External Outfall		BAKER	NV	89311	WHITE PINE	39.016944	-114.210833	ZERO DISCHARGE
003	LEAK DETECTION WELL - NORTH	Monitoring Well		BAKER	NV	89311	WHITE PINE	39.006772	-114.214267	GROUNDWATER
004	LEAK DETECTION WELL - SOUTH	Monitoring Well		BAKER	NV	89311	WHITE PINE	39.005961	-114.212787	GROUNDWATER
005	INFLUENT FLOW - FLUME	Internal Outfall		BAKER	NV	89311	WHITE PINE	39.016944	-114.210833	POND 1 AND/OR POND 2

General:

The Great Basin National Park (GBNP) Wastewater Treatment Facility (WWTF) is located 5 miles west of the Town of Baker, and about 2000 feet upstream from Lehman Creek. The WWTF is designed to biologically treat domestic sewage of up to 0.0375 million gallons per day (MGD) maximum flow with 0.024 MGD average flow, using two Hypalon-lined (60 ML-HDPE) facultative ponds operated either in series or in parallel. The WWTF influent consists of wastewater generated in the service area, GBNP staff headquarters, pit toilets from the campgrounds, and an RV/Trailer dump station. The aeration process is a low intensity system creating non-turbulent mixing to allow a large portion of the solids to settle to the lagoon bottom for eventual anaerobic digestion. Evaporation takes place in both the facultative ponds. The facility has been in substantial compliance with the current permit. Monitoring and reporting for leakage will be done using the leak detection wells located adjacent to each of the two facultative ponds. When leakage is detected, additional sampling and monitoring shall be adapted at designated testing and sampling sites.

Discharge Characteristics:

Discharge into the ponds consists of septage from multiple sources from within the GBNP and their service area. Under normal operating conditions, the facultative ponds shall remain treatment system with zero discharge to the ground.

Receiving Water:

None. In case of pond leakage, effluent may be received to waters of the State of Nevada. Groundwater in the general area has been measured to be occurring at greater than 60 feet below ground surface.

Summary of Changes From Previous Permit:

On careful consideration of monitoring data from the past few permit periods as well as the general location relative to the ponds, monitoring of three creek sites located between 0.6 km to 2.45 km, as well as monitoring well cluster currently being sampled at 120 feet below ground level are deemed no longer necessary, as such are removed from the outfall list.

Pond monitoring has been revised to monthly monitoring of free board, quarterly monitoring of Total Nitrogen, pH, and 5-day Biological Oxygen Demand, and alternate year sludge depth measurement.

Outfalls 003 and 004 shall be used as leak detection wells only . As such both these outfalls are renamed , and shall be monitored monthly.

Use of terms Cell #1 and Cell #2 will now be discontinued and replaced with Pond 1 and Pond 2 respectively.

Following current naming conventions of NDEP , the permit is re-identified with permit number NS0087068.

Requirement to submit M&R using NetDMR is included as a special condition.

Proposed Effluent Limitations:

Discharge to the facultative ponds is limited to 0.0375 MGD daily maximum flow and 0.024 MGD 30-day average flow.

WWTP Discharge Limitations Table for Sample Location 005 (Internal Outfall) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Daily Maximum	<= 0.0375 Million Gallons per Day (Mgal/d)		Raw Sewage Influent ^[1]	005	Daily	VISUAL ^[2]
Flow rate	30 Day Average	<= 0.024 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	005	Daily	VISUAL

Notes (WWTP Discharge Limitations Table):

1. Manhole with Palmer Bowlus flume.
2. Visual/calculate.

Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall) To Be Reported Quarterly^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
pH	Value		M&R Standard Units (SU)	Effluent Gross	001	Quarterly	CMPGRB
Solids, total suspended	Maximum Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	CMPGRB
BOD, 5-day	Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	CMPGRB
Nitrogen, total	Maximum Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	CMPGRB
Freeboard	Minimum		>= 2 Feet (ft)	See Footnote	001	Monthly	VISUAL

Notes (Ponds / Rapid Infiltration Basins):

1. BOD₅, TSS, N, and pH samples to be collected in the alternating corners of Pond 1 (001).

Ponds / Rapid Infiltration Basins for Sample Location 001 (External Outfall) To Be Reported Biannually (Every Two Years)^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Sludge/Solids, depth	Arithmetic Mean	M&R Feet (ft)		See Footnote	001	Once Every 2 Years	VISUAL
Depth of pond or reservoir in feet	Arithmetic Mean	M&R Feet (ft)		See Footnote	001	Once Every 2 Years	VISUAL

Notes (Ponds / Rapid Infiltration Basins):

1.
 1. The Permittee shall use a method approved by NDEP to determine the sludge depth in its ponds. The plan for monitoring the sludge depths shall be submitted with O&M Manual.
 2. When sludge depths average 20-percent of the total depth of the pond(s), the Permittee shall submit to NDEP a plan to remove the sludge within two years.
 3. The Permittee shall report the depth of the pond and depth of sludge.
 4. The Permittee shall test the sludge depths at various spots in the pond that have been approved by NDEP.
 5. The Permittee shall sample the sludge depths during the 3rd quarter.

Ponds / Rapid Infiltration Basins for Sample Location 002 (External Outfall) To Be Reported Quarterly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
pH	Value		M&R Standard Units (SU)	Effluent Gross	002	Quarterly	CMPGRB ^[1]
Solids, total suspended	Maximum Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	CMPGRB
BOD, 5-day	Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	CMPGRB
Nitrogen, total	Maximum Single Sample		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	CMPGRB
Freeboard	Minimum Value		>= 2 Feet (ft)	See Footnote	002	Monthly	VISUAL

Notes (Ponds / Rapid Infiltration Basins):

1. BOD(5day), TSS, N, and pH samples to be collected in the alternating corners of Pond 2(002).

Ponds / Rapid Infiltration Basins for Sample Location 002 (External Outfall) To Be Reported Biannually (Every Two Years)^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Sludge/Solids, depth	Arithmetic Mean	M&R Feet (ft)		See Footnote	002	Once Every 2 Years	VISUAL
Depth of pond or reservoir in feet	Arithmetic Mean	M&R Feet (ft)		See Footnote	002	Once Every 2 Years	VISUAL

Notes (Ponds / Rapid Infiltration Basins):

1.
 1. The Permittee shall use a method approved by NDEP to determine the sludge depth in its ponds. The plan for monitoring the sludge depths shall be submitted with O&M Manual.
 2. When sludge depths average 20-percent of the total depth of the pond(s), the Permittee shall submit to NDEP a plan to remove the sludge within two years.
 3. The Permittee shall report the depth of the pond and depth of sludge.
 4. The Permittee shall test the sludge depths at various spots in the pond that have been approved by NDEP.
 5. The Permittee shall sample the sludge depths during the 3rd quarter.

Ponds / Rapid Infiltration Basins for Sample Location 003 (Leak Detection Well - North) To Be Reported Monthly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Outfall observation, visual, y/n response	Positive Results	M&R Pass=0 Fail=1 (pass/fail) ^[1]		Groundwater	003	Monthly	VISUAL

Notes (Ponds / Rapid Infiltration Basins):

1. Leak detection wells are expected to be dry under normal operating conditions of the ponds, as such please report Pass (value 0) when the well is dry.

Ponds / Rapid Infiltration Basins for Sample Location 004 (Leak Detection Well - South) To Be Reported Monthly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Outfall observation, visual, y/n response	Positive Results	M&R Pass=0 Fail=1 (pass/fail) ^[1]		Groundwater	004	Monthly	VISUAL

Notes (Ponds / Rapid Infiltration Basins):

1. Leak detection wells are expected to be dry under normal operating conditions, as such please report Pass (value 0) when dry.

Rationale for Permit Requirements:

Outfalls are either removed or revised for parameters based on the DMR data from the past several renewal periods as well as in view of the determination of redundancy of sampling.

As the ponds are single lined, monthly leak detection well monitoring is mandated to ensure any potential upset to the pond system be detected promptly.

Addition of free board and sludge depth monitoring as permit requirement is deemed necessary for long term efficient pond management.

The monitoring proposed by this permit is consistent with practices at similar facilities, to protect groundwater quality.

Special Conditions:

SA – Special Approvals / Conditions Table

Item #	Description
1	Within 1 year of permit issuance, all DMRs shall be submitted electronically through the Nevada NetDMR website : https://netdmr.ndep.nv.gov/netdmr/public
2	Following current permit naming conventions of NDEP, the permit number has been changed to NS0087068.
3	This permit renewal is conditioned upon substantial compliance with the current permit conditions as well as the revisions and / or modifications as applicable.

Reasonable Potential Analysis and Antidegradation Review:

In the event of any unexpected upset to the GBNP WWTF, existing well cluster which can be sampled at 60ft, 120 ft, and 150 ft below ground surface in conjunction with previously designated creek site locations is expected to serve as sampling point(s) to assess and affirm that impact on groundwaters of the State is contained and mitigated.

Flow:

is limited to a 30-day average of 0.024 MGD with a daily maximum limit of 0.0375 MGD.

Corrective Action Sites:

There are no corrective action sites within 5 km radius of the facultative ponds.

Wellhead Protection Program:

The facility is not within a Wellhead Protection capture zone. There are no community water supply wells within 6000 feet of the facility.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	Permittee shall submit a revised Operations and Maintenance manual.	3/1/2017

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	4/28/2017
2	Annual Report	Annually	1/28/2018

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 sent to the **The Ely Times, 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 until 5:00 P.M. **12/8/2016**, 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 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 issue / re-issue the proposed 5-year permit.

Prepared by: **sharada Maligireddy**

Date: **11/3/2016**

Title: **Staff Engineer**