



STATE OF NEVADA

Department of Conservation & Natural Resources

Brian Sandoval, Governor

Leo M. Drozdzoff, P.E., Director

DIVISION OF ENVIRONMENTAL PROTECTION

Colleen Cripps, Ph.D., Administrator

FACTSHEET (pursuant to NAC 445A.236)

Permittee Name: US FISH & WILDLIFE SERVICE
LAHONTAN NATIONAL FISH HATCHERY, 710 HWY 395
GARDNERVILLE, NV - 89410

Permit Number: NS0060043

Location: LAHONTAN NATIONAL FISH HATCHERY, DOUGLAS
710 HIGHWAY 395, GARDNERVILLE, NV - 89410
LATITUDE: 38.886944, LONGITUDE: -119.698889
TOWNSHIP: 12N, RANGE: 20E, SECTION: 23

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	EMERGENCY OVERFLOW	External Outfall		GARDNERVILLE	NV	89410	DOUGLAS	38.886887	-119.699874	ALLERMAN CANAL
002	SETTLING BASINS	External Outfall		GARDNERVILLE	NV	89410	DOUGLAS	38.886890	-119.699736	ALLERMAN CANAL
003	COMBINED DISCHARGE FROM OUTFALLS 001 AND 002	Sum		GARDNERVILLE	NV	89410	DOUGLAS	38.886890	-119.699736	ALLERMAN CANAL

General:

Lahontan National Fish Hatchery has requested a major modification to discharge permit NS0060043. Lahontan National Fish Hatchery is adding a chlorination/dechlorination system to ensure the complete disinfection of water discharged from the facility's Quarantine Building. The Permittee intends to use sodium hypochlorite for chlorination and sodium thiosulfate for dechlorination. The Quarantine Building will treat no more than 100 gallons per minute (gpm). The treated water will mix with the overall discharge water flowing to the settling basin. The system has been designed so that if the dechlorination system fails, the effluent total residual chlorine levels will remain within the permitted limits. Prior to discharge from the settling basin to the Allerman Canal, the water will be required to meet a total residual chlorine concentration of 0.1 mg/L or less.

Lahontan National Fish Hatchery raises Lahontan cutthroat trout and distributes them to area lakes. The Lahontan National Fish Hatchery complex includes 36 concrete production raceways, 24 production tanks, 31 brood tanks, and 27 fry (hatchling) tanks. There are two discharge locations to the Allerman Canal associated with this facility, outfall 001 and outfall 002. Outfall 001 is used to discharge excess stormwater that may accumulate during extreme weather events. This outfall is also available, if needed, as a diversion point during construction activities. Outfall 002 is used as the primary discharge point for spent hatchery water.

Lahontan National Fish Hatchery recycles approximately 60%-80% of the process water used at their facility. The facility receives first pass and makeup water from any of five available production wells. The well water is passed through a series of stripping towers and an ultraviolet (UV) disinfection system to remove pathogens that may be present. The treated groundwater then flows to a junction box for distribution to the various tanks and raceways on the property. Spent process water is collected in a re-use sump where it can be pumped to the reuse system for additional treatment, or sent to either of two adjacent settling basins.

Water sent to the reuse system is routed through a clinoptilolite bio-filter and the UV disinfection system for nitrogenous waste removal and pathogen destruction prior to re-use. Spent process water that is not recycled is sent to the settling basins to allow fish feces and unconsumed food to settle out before it is discharged to the Allerman Canal through outfall 002. The settling basins are drained every two (2) months, and accumulated solids are discharged to a clay-lined aerated lagoon. This lagoon is cleaned and relined approximately every 10 years.

Discharge Characteristics:

The discharge from Lahontan National Fish Hatchery is comprised mainly of spent hatchery water. During a typical year, the facility uses approximately 55 gallons of Formalin for fungus protection and one to two kilos of MS-222 (tricaine methanesulfonate) for sedation purposes. These products have been approved by the U.S. Food & Drug Administration for fish hatchery use. In addition, Lahontan National Fish Hatchery uses approximately 60 pounds of Virkon Aquatic for general disinfection of hatchery equipment, and once each year, the facility chlorinates the raceways and reuse system.

Following startup of the new disinfection system, the Quarantine Building will also be using approximately 4.8 gallons per day of sodium hypochlorite (chlorination) and 2.1 gallons per day of sodium thiosulfate (dechlorination) when the system is operating at full capacity. This process will treat a maximum of 100 gpm, and treated water will mix with the waste water flowing to the Settling Basin before flowing to the Allerman Canal.

Receiving Water:

Groundwater of the state via percolation and irrigation re-use from the Allerman Canal.

Summary of Changes From Previous Permit:

This permit modification will authorize the Permittee to use sodium hypochlorite for chlorination and sodium thiosulfate for dechlorination of water leaving the Quarantine Building. It will also require the Permittee to monitor the discharge for residual chlorine on a monthly basis.

Proposed Effluent Limitations:

The discharge shall be limited and monitored by the Permittee as specified in the following tables:

NS OTHER - Discharge Limitations Table 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	S a m p l e Type
Flow rate	90 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
BOD, 5-day	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	COMPOS
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	COMPOS
Phosphorus, total (as P)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	COMPOS
Solids, total suspended	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	COMPOS
pH, minimum	Quarterly Minimum [2]		>= 6.0 Standard Units (SU)	Effluent Gross	001	Quarterly	DISCRT
pH, maximum	Quarterly Maximum [2]		<= 9.0 Standard Units (SU)	Effluent Gross	001	Quarterly	DISCRT

Notes (NS OTHER - Discharge Limitations Table):

1. If no discharge occurs during the reporting period, enter "No Discharge" on the Discharge Monitoring Report for that quarter.
2. If only one sample is taken during the monitoring period, enter the result as both the quarterly minimum and quarterly maximum.

NS OTHER - Discharge Limitations Table for Sample Location 002 (External Outfall) To Be Reported Monthly

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	S a m p l e Type
Chlorine, total residual	Value		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	002	Monthly	INSTAN

NS OTHER - Discharge Limitations Table for Sample Location 002 (External Outfall) To Be Reported Quarterly^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	S a m p l e Type
Flow rate	90 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	002	Continuous	METER
BOD, 5-day	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	COMPOS
Nitrogen, total	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	COMPOS
Phosphorus, total (as P)	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	COMPOS
Solids, total suspended	Value		M&R Milligrams per Liter (mg/L)	Effluent Gross	002	Quarterly	COMPOS
pH, minimum	Quarterly Minimum [2]		>= 6.0 Standard Units (SU)	Effluent Gross	002	Quarterly	DISCRT
pH, maximum	Quarterly Maximum [2]		<= 9.0 Standard Units (SU)	Effluent Gross	002	Quarterly	DISCRT

Notes (NS OTHER - Discharge Limitations Table):

1. If no discharge occurs during the reporting period, enter "No Discharge" on the Discharge Monitoring Report for that quarter.
2. If only one sample is taken during the monitoring period, enter the result as both the quarterly minimum and quarterly maximum.

NS OTHER - Discharge Limitations Table for Combined Discharge From Outfalls 001 And 002^[1]

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	30 Day Average	<= 3.0 Million Gallons per Day (Mgal/d)		Effluent Gross	003	Continuous	METER
Flow rate	Daily Maximum	<= 4.5 Million Gallons per Day (Mgal/d)		Effluent Gross	003	Continuous	METER

Notes (NS OTHER - Discharge Limitations Table):

1. If no discharge occurs during the reporting period, enter "No Discharge" on the Discharge Monitoring Report for that quarter.

Rationale for Permit Requirements:

Testing for residual chlorine is required to allow the Permittee and the Division to monitor the amount of chlorine discharged to the Allerman Canal.

Special Conditions:

SA – Special Approvals / Conditions Table

There are no Special Approval / Condition items

Flow:

The Permittee has requested a 30-day average flow of up to 3.0 million gallons per day.

Corrective Action Sites:

There are no NDEP Bureau of Corrective Actions remediation sites within a one mile radius of this facility.

Wellhead Protection Program:

This facility is located just outside of the 3,000 foot buffer zone and within the 6,000 foot buffer zone of two (2) public water supply wells ranked as highly vulnerable. The facility is not located within an established wellhead capture zone.

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 Reports	Quarterly	4/28/2013
2	Annual Report	Annually	1/28/2014

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 Record Courier and Reno Gazette 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. **8/8/2014**, 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: **Peter Lassaline**

Date: **6/24/2014**

Title: **Environmental Scientist**