



A division of the
Nevada Department of Conservation & Natural Resources

NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

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FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: CLARK COUNTY WATER RECLAMATION DISTRICT
5857 E FLAMINGO RD
LAS VEGAS, NV 89122

Permit Number: NS0040038

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: SEARCHLIGHT WASTEWATER TREATMENT FACILITY, CLARK
1 MILE SOUTH OF SEARCHLIGHT, SEARCHLIGHT, NV 89046
LATITUDE: 35.457587, LONGITUDE: -114.908876
TOWNSHIP: 29 S, RANGE: 63 E, SECTION: 2 MDB&M

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	POND #1	Internal Outfall		35.457199	-114.908436	GROUNDWATER
002	POND #2	Internal Outfall		35.457170	-114.907464	GROUNDWATER
003	POND #3	Internal Outfall		35.456320	-114.908334	GROUNDWATER
004	POND #4	Internal Outfall		35.456343	-114.907188	GROUNDWATER
EFF	EFFLUENT TO POND #5	External Outfall		35.455778	-114.908011	GROUNDWATER
INF	INFLUENT	Intake Structure		35.457602	-114.908597	NOT APPLICABLE

Permit History/Description of Proposed Action

The Permittee, Clark County Water Reclamation District, has applied for the renewal of Permit NS0040038 for the Searchlight Wastewater Treatment Facility (WWTF), located approximately one mile south of Searchlight, within Clark County, Nevada. The Permittee proposes to continue discharging equivalent-to-secondary treated effluent to either an onsite rapid infiltration basin (RIB) or via evaporation from their tertiary treatment facultative pond.

This permit was first issued July 21, 1992. The most recent permit was issued on January 1, 2017, and expired on December 31, 2021; the permit has been administratively continued since.

Facility Overview

Searchlight is an unincorporated town located in Clark County, Nevada. At the 2020 census, it had a population of 445 people. Treatment of the domestic sewage is done using a four-pond facultative treatment system, with the WWTF located approximately one mile south of Searchlight. Most of the residences and businesses on the west side of US highway 95 discharge via an 8-inch gravity main to the lift station, which handles two-thirds of the town's sewage flow. The town's original collection system also

includes 100 manholes and six miles of vitrified clay pipe gravity and force mains in 4-inch, 6-inch, and 8-inch diameter length of clay pipe.

Domestic sewage is piped to the meter vault, located the WWTF, via an 8-inch gravity main. The treatment system is made up of primary treatment Ponds 1 and 2 which are twin 1.2-acre, asphalt-lined facultative ponds operated in series. Facultative lagoons naturally organize themselves into three distinct treatment zones - Aerobic Zone (Top Layer): Contains dissolved oxygen provided by sunlight, atmospheric re-aeration, and microalgae. Aerobic and facultative bacteria break down dissolved organic matter here. Anoxic/Intermediate Zone: A middle layer with limited to no oxygen that serves as a transition between the aerobic and anaerobic layers. Anaerobic Zone (Bottom Layer): A dark, oxygen-free zone where settled solids (sludge) are digested by anaerobic bacteria, producing methane, carbon dioxide, and other byproducts. Pre-settled effluent, from the primary treatment ponds, can be discharged into Ponds 3 and 4, where additional facultative treatment occurs, and from which the treated wastewater is allowed to evaporate, with solids remaining on the bottom and are removed as needed. During high influent flows, the treatment facility has the option of discharging from Ponds 3 and 4 to Pond 5, a 2.8-acre rapid infiltration basin (RIB), with Hypalon-lined sides and a scarified bottom.

Current facility conditions:

During the 2025 site inspection, Pond 1 was serving as the primary treatment pond, Pond 2 was the secondary treatment pond, and Pond 3 was operating as the tertiary (terminal) pond within which evaporation was occurring, with Ponds 4 and 5 offline.

The biosolids are intermittently removed and taken to the municipal landfill in Laughlin.

Outfall Summary

Outfall INF - This internal outfall is for measuring and monitoring the incoming domestic sewage entering the WWTF.

Outfall 001 - This internal outfall is for measuring Pond 1's freeboard.

Outfall 002 - This internal outfall is for measuring Pond 2's freeboard.

Outfall 003 - This internal outfall is for measuring Pond 3's freeboard.

Outfall 004 - This internal outfall is for measuring Pond 4's freeboard.

Outfall 005 - This outfall was deleted at the request of the Permittee.

Outfall EFF - This external outfall is for measuring and monitoring the treated effluent being discharged to the RIB.

Facility Upgrades since last issued permit

There have been no facility upgrades since the last issued permit.

Solids Handling

Biosolids are removed and hauled to the municipal landfill in Laughlin.

Effluent Management and Reuse

The equivalent-to-secondary treated effluent either evaporates, with minimal seepage through the pond liner to the groundwater, or is discharged into Pond #5 (RIB) for percolation into the ground. There is no reuse.

Design Flow (and basis) and Measurement & Current Capacity

The permitted flow based on the original design criteria is limited to a quarterly flow rate of 0.09 million gallons per day (Mgal/d), with the average reported quarterly flow rate being 0.04 Mgal/d.

Based on the reported flow rate, the plant is at 45% capacity.

Pretreatment Program

The Searchlight WWTF does not meet the federal Environmental Protection Agency's (EPA's) guidelines requiring them to have a pretreatment program.

Operations & Maintenance (O&M) Manual status

The Searchlight WWTF's Operation & Maintenance Manual (O&M Manual) was last reviewed and approved by the Division on August 2, 2018. The Technical, Compliance and Enforcement Branch of the Bureau of Water Pollution Control requires O&M Manuals to be updated every ten (10) years from the time of the last approved O&M Manual, with an updated O&M Manual due on September 1, 2028.

Effluent Characterization

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from January 2020 to March 2026, was reviewed as part of this permit renewal process.

The following averages were taken from reporting period stated above:

Notes:

mg/L = Milligrams per Liter

Mgal/d = Million Gallons per Day

BOD5 = Biochemical Oxygen Demand, 5-Day

TDS = Total Dissolved Solids

TSS = Total Suspended Solids

Outfall INF (Influent):

Flow Rate: 0.04 mg/d

BOD5: 246.47 mg/L

TSS: 206.83 mg/L

Outfall 001 (Facultative Pond 1):

Freeboard: 3.43 Feet

Outfall 002 (Facultative Pond 2):

Freeboard: 3.35 Feet

Outfall 003 (Facultative Pond 3):

Freeboard: 2.55 Feet

Outfall 004 (Facultative Pond 4):

Freeboard: 3.46 Feet

Outfall 005 (RIBs):

No parameters added. During this renewal, flow rate to be reported during any potential discharge events to the RIBs.

Outfall EFF:

No parameters reported as the treatment train stops at Pond 3 from which the treated effluent typically evaporates prior to discharge to the RIBs.

Removal rates were not determined since the treated effluent typically evaporates before it can be discharged to the RIBs.

Pollutants of Concern

Pollutants of concern are any parameters that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological condition of the receiving water. Common pollutants of concern for the reclaimed water are BOD5, Fecal Coliform, Total Nitrogen, pH, and TSS, along with potential

inorganic chemicals and metals (Profile 1 contaminants).

Receiving Water

The receiving water is groundwater of the state of Nevada. Reported depth to groundwater in the area near the WWTF is greater than 200 feet below ground surface. There are currently no monitoring wells required due to the depth to groundwater.

Compliance History

The facility was found to in compliance during the period reviewed (January 2020 through March 2026).

Proposed Effluent Limitations

The discharge shall be limited and monitored by the Permittee as specified below:

WWTP Discharge Limitations Table for Sample Location Effluent (To Pond #5 (Rib) - External Outfall) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	EFF	Quarterly	CALCTD
Flow rate	Quarterly Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	EFF	Quarterly	CALCTD
BOD, 5-day ^[2]	Daily Maximum		<= 65 Milligrams per Liter (mg/L)	Effluent Gross	EFF	Quarterly	DISCRT ^[1]
BOD, 5-day ^[2]	Quarterly Average ^[3]		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	EFF	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Quarterly	DISCRT
pH, maximum	Daily Maximum		<= 9.0 Standard Units (SU)	Effluent Gross	EFF	Quarterly	DISCRT
pH, minimum	Quarterly Minimum		>= 6.0 Standard Units (SU)	Effluent Gross	EFF	Quarterly	DISCRT
Solids, total suspended ^[2]	Daily Maximum		<= 135 Milligrams per Liter (mg/L)	Effluent Gross	EFF	Quarterly	DISCRT ^[1]
Solids, total suspended ^[2]	Quarterly Average ^[3]		<= 90 Milligrams per Liter (mg/L)	Effluent Gross	EFF	Quarterly	DISCRT
BOD, 5-day, percent removal	Quarterly Minimum ^[4]		>= 65 Percent (%)	Effluent Gross	EFF	Quarterly	CALCTD
Solids, suspended percent removal	Quarterly Minimum ^[4]		>= 65 Percent (%)	Effluent Gross	EFF	Quarterly	CALCTD

Notes (WWTP Discharge Limitations Table):

1. Permittee may submit a composite sample in lieu of a discrete sample.
2. Sampling should be done concurrently with the influent (Outfall INF) sampling to determine exact removal rates achieved for Biochemical Oxygen Demand, 5-day, and Total Suspended Solids.

3. To be calculated.
4. Quarterly Minimum Average.

WWTP Discharge Limitations Table for Sample Location Effluent (To Pond #5 (Rib) - External Outfall) To Be Reported Once During The Permit Term

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Alkalinity, bicarbonate (as CaCO ₃)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Alkalinity, total (as CaCO ₃)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Aluminum, dissolved (as Al)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Antimony, dissolved (as Sb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Arsenic, dissolved (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Barium, dissolved (as Ba)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Beryllium, dissolved (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Cadmium, dissolved (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Calcium, dissolved (as Ca)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Chromium, dissolved (as Cr)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
			M&R				

WWTP Discharge Limitations Table for Sample Location Effluent (To Pond #5 (Rib) - External Outfall) To Be Reported Once During The Permit Term

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Copper, dissolved (as Cu)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Iron, dissolved (as Fe)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Magnesium, dissolved (as Mg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Manganese, dissolved (as Mn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Mercury, dissolved (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Potassium, dissolved (as K)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Selenium, dissolved [as Se]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Silver, dissolved (as Ag)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
			M&R				

WWTP Discharge Limitations Table for Sample Location Effluent (To Pond #5 (Rib) - External Outfall) To Be Reported Once During The Permit Term

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Sodium, dissolved (as Na)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Sulfate, total (as SO ₄)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Thallium, dissolved (as Tl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Cyanide, free available	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	EFF	Once Per Permit Term	DISCRT

WWTP Discharge Limitations Table for Sample Location Influent (Intake Structure) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
BOD, 5-day ^[2]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Quarterly	DISCRT
Flow rate	Quarterly Average ^[3]	<= .09 Million Gallons per Day (Mgal/d)		Raw Sewage Influent ^[1]	INF	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Raw Sewage Influent	INF	Continuous	METER
BOD, 5-day	Quarterly Average ^[3]		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Quarterly	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Quarterly	DISCRT
Solids, total suspended	Quarterly Average ^[3]		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	INF	Quarterly	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Palmer Bowlus flume.
2. Sampling should be done concurrently with the effluent (Outfall EFF) sampling to determine exact removal rates achieved for Biochemical Oxygen Demand, 5-day, and Total Suspended Solids.
3. To be calculated.

Ponds / Rapid Infiltration Basins for Sample Location 001 (Pond #1 - Internal Outfall) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Freeboard	Quarterly Minimum		>= 2.0 Feet (ft)	Internal Monitoring Point	001	Quarterly	DISCRT

Ponds / Rapid Infiltration Basins for Sample Location 002 (Pond #2 - Internal Outfall) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Freeboard	Quarterly Minimum		>= 2.0 Feet (ft)	Internal Monitoring Point	002	Quarterly	DISCRT

Ponds / Rapid Infiltration Basins for Sample Location 003 (Pond #3 - Internal Outfall) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Freeboard	Quarterly Minimum		>= 1.0 Feet (ft)	Internal Monitoring Point	003	Quarterly	DISCRT

Ponds / Rapid Infiltration Basins for Sample Location 004 (Pond #4 - Internal Outfall) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Freeboard	Quarterly Minimum		≥ 1.0 Feet (ft)	Internal Monitoring Point	004	Quarterly	DISCRT

Summary of Changes From Previous Permit

Under Limit Sets, the Outfall Limit Set Name was updated to match the Discharge Location Outfall Name descriptions.

Under the INF Outfall, To Be Reported Quarterly, the following parameters and footnotes were added:

ADDED – BOD, 5-day, with a “Daily Maximum” Base, a “M&R Milligrams per Liter (mg/L)” Concentration, a “Raw Sewage Influent” Monitoring Location, a “INF” Sample Location, and a “DisCRT” Sample Type.

ADDED – Solids, total suspended, with a “Daily Maximum” Base, a “M&R Milligrams per Liter (mg/L)” Concentration, a “Raw Sewage Influent” Monitoring Location, a “INF” Sample Location, and a “DisCRT” Sample Type.

ADDED – Footnotes 2 and 3.

2. Sampling should be done concurrently with the effluent (Outfall EFF) sampling to determine exact removal rates achieved for Biochemical Oxygen Demand, 5-day, and Total Suspended Solids.

3. To be calculated.

Under Outfall EFF, To be Reported Quarterly, the following parameters were either added, changed, deleted:

DELETED – BOD, 5-day, with a “Quarterly Maximum” Base.

DELETED – Solids, total suspended, with a “Quarterly Maximum” Base.

ADDED – BOD, 5-day, with a “Quarterly Average” Base, a “45 Milligrams per Liter (mg/L)” Concentration, a “Effluent Gross” Monitoring Location, a “EFF” Sample Location, a “Quarterly” Measurement Frequency, and a “DisCRT” Sample Type.

ADDED - BOD, 5-day, with a “Daily Maximum” Base, a “65 Milligrams per Liter (mg/L)” Concentration, a “Effluent Gross” Monitoring Location, a “EFF” Sample Location, a “Quarterly” Measurement Frequency, and a “DisCRT” Sample Type.

ADDED - Nitrogen, total (as N), with a “Daily Maximum” Base, a “M&R Milligrams per Liter (mg/L)” Concentration, a “Effluent Gross” Monitoring Location, a “EFF” Sample Location, a “Quarterly” Measurement Frequency, and a “DisCRT” Sample Type.

ADDED – Solids, Total Suspended, with a “Quarterly Average” Base, a “45 Milligrams per Liter (mg/L)” Concentration, a “Effluent Gross” Monitoring Location, a “EFF” Sample Location, a “Quarterly” Measurement Frequency, and a “DisCRT” Sample Type.

ADDED – Solids, Total Suspended, with a “Daily Maximum” Base, a “65 Milligrams per Liter (mg/L)” Concentration, a “Effluent Gross” Monitoring Location, a “EFF” Sample Location, and a “DisCRT” Sample Type.

ADDED – BOD, 5-day, percent removal with a “Quarterly Minimum Average” Base, a “ ≥ 65 Percent (%)”

Concentration, a "Effluent Gross" Monitoring Location, a "EFF" Sample Location, a "Quarterly" Measurement Frequency, and a "Calctd" Sample Type.

ADDED – Solids, suspended percent removal, with a "Quarterly Minimum Average" Base, a " ≥ 65 percent (%)" Concentration, a "Effluent Gross" Monitoring Location, a "EFF" Sample Location, a "Quarterly" Measurement Frequency, and a "Calctd" Sample Type.

CHANGED – pH Maximum, from a "Quarterly Maximum" Base to a "Daily Maximum" Base, with the remaining monitoring requirements being unchanged from the previous permit.

CHANGED – pH Minimum, from a "Quarterly Minimum" Base to a "Daily Minimum" Base, with the remaining monitoring requirements being unchanged from the previous permit.

ADDED – Footnotes 2, 3, and 4.

2. Sampling should be done concurrently with the effluent (Outfall INF) sampling to determine exact removal rates achieved for Biochemical Oxygen Demand, 5-day, and Total Suspended Solids.

3. To be calculated.

4. Quarterly Minimum Average.

ADDED – Outfall EFF, To Be Reported Once During the Permit Term, along with the following parameters:

ADDED – Constituents of concern, with a "Daily Maximum" Base, a "M&R Milligrams per Liter" Concentration, a "Effluent Gross" Monitoring Location, a "EFF" Sampling Location, a "Once Per Permit Term" Sample Type, and a "Discret" Sample Type.

Under the SOC – Schedule of Compliance Table the following compliance plan due date and description was added:

The Permittee shall submit two copies (one hard copy and one electronic copy) of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The O&M Manual shall follow Division's guidance document, WTS-2 Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant, and be prepared and wet stamped by a licensed, qualified Nevada engineer (P.E.).

Due Date: 8/02/2028.

Under SA/C - Special Approvals/Conditions Table, the following items were added:

ADDED - Item 3. Section C.9. Proper disposal of solids, sludges, filter backwash, or other pollutants removed in the course of treatment shall be further described in the O&M Manual.

ADDED - Item 4. Section 16.8 is not applicable to this permit.

ADDED - Item 5. Under Section C27, reference to signatory authorization should be Section C.26, not C.25.

Under the DLV- Deliverable Schedule for Reports, Plans, and Other Submittals the following compliance schedule item was added or deleted.

DELETED – Annual DMRs.

ADDED – Once During the Permit Term DMRs, with a "Compliance Schedule" Event Code, a "Once during the permit term" Deliverable Interval, and a "7/28/2031" First Scheduled Due Date.

Technology Based Effluent Limitations

The following technology based effluent limitations (TBELs) are based on equivalent to secondary treatment. The U.S. EPA published federal equivalent to secondary treatment standards under Title 40 of the Code of Federal Regulations (CFR) Section 133.105, based on an evaluation of performance data for

Publicly Owned Treatment Works (POTWs) practicing a combination of physical and biological treatment. Facilities primarily using biological treatment technologies, such as trickling filters or waste stabilization ponds, can achieve significant reductions in BOD5 and TSS, but might not consistently achieve the secondary treatment standards for these parameters. Because of this, the U.S. EPA promulgated regulations at 40 CFR Section 133.105 that includes alternative standards that apply to facilities using equivalent to secondary treatment. As allowed by 40 CFR 133, the Division has adopted these standards for groundwater discharges from facilities using equivalent to secondary treatment. Additionally, the Division uses a daily maximum limit in place of the 7-day average limit.

The following equivalent to secondary treatment standards are applicable to this permit:

BOD5: The daily maximum threshold is limited to 65 mg/L. The quarterly average threshold is limited to 45 mg/L.

The federal regulations also allow states to adjust the maximum allowable TSS concentration for waste stabilization ponds, upwards from those specified in the secondary treatment standards, to conform to TSS concentrations achievable with waste stabilization ponds. The approved alternate TSS requirement in the state of Nevada is 90 mg/L as a 30-day average, implemented as an average quarterly limit. Furthermore, the daily maximum TSS limit was calculated using a factor of 1.5 times the average monthly limitation ($90 \text{ mg/L} \times 1.5 = 135 \text{ mg/L}$).

TSS: The daily maximum threshold is limited to 135 mg/L. The quarterly average threshold is limited to 90 mg/L.

pH daily maximum threshold is limited to 9.0 standard units (S.U.) and the daily minimum limit is 6.0 S.U., based on EPA standards for this parameter.

The following performance standards for POTWs with equivalent to secondary treatment standards have also been included in the permit:

BOD5 percent removal standard, based on a minimum quarterly average, must meet a minimum limit is 65%.

TSS percent removal standard, based on a minimum quarterly average, must meet minimum limit is 65%.

Limits Based on Facility's Design Criteria Review:

Quarterly average permitted influent flow rate is limited to $\leq 0.09 \text{ Mgal/d}$.

Daily maximum permitted influent flow rate is limited to $\leq \text{M\&R Mgal/d}$.

Water Quality Based Effluent Limitations

Water quality-based effluent limitations are not applicable to this permit.

Proposed Water Quality Based Effluent Limits (monthly/weekly/daily)

Proposed water quality-based effluent limits are not applicable to this permit.

Basis for Effluent Limitations

There are currently no specific water quality standards that have been formally adopted by the State for groundwater. However, the Division has the discretion to implement effluent limitations outside water quality standards per Nevada Administrative Code (NAC) 445A.243, which states, "In establishing an effluent limitation to carry out the policy of this State set forth in Nevada Revised Statutes (NRS) 445A.305, consideration must be given to, but is not limited by, the following: ... (2) the need for standards that specify by chemical, physical, biological or other characteristics the extent to which pollution by various substances will not be tolerated." The constituents listed in the parameters of concern have been vetted by the Division and have been included in groundwater discharge permits for many years as a means of regulating

groundwater quality. Per NRS 445A.490, "No permit may be issued which authorizes any discharge or injection of fluids through a well into any waters of the State: (3) which would result in the degradation of existing or potential underground sources of drinking water."

Other Required Water Quality Monitoring:

Quarterly influent and effluent monitoring requirements for BOD5 and TSS are included to assess treatment performance of the lagoons. A quarterly sampling frequency for BOD5 and TSS is sufficient for determining compliance with the applicable effluent limitations and is consistent with the Division's policy.

The requirement to monitor the effluent for parameters of concern once per permit term is included to evaluate the quality of the effluent and determine whether the effluent has potential to impact the receiving water. Although cyanide is not expected to be present in the effluent, the proposed permit requires the Permittee sample these constituents once during the permit term as they are included in the parameters of concern and they have not been sampled for before.

EPA has an equivalent to secondary treatment standards established value range for pH of 6.0 S.U. through 9.0 S.U., which the Division has applied to protect underground sources of drinking water. Raw domestic wastewater inherently has variable pH. Additionally, some wastewater treatment processes can increase or decrease wastewater pH, which, if not properly controlled, could cause exceedances outside of the reference value range. Therefore, the proposed permit establishes effluent limitations for pH of 6.0 S.U. as a daily minimum and 9.0 S.U. as a daily maximum. A quarterly sampling frequency for pH is sufficient for determining compliance with effluent limitations for pH and is consistent with the Division's policy.

Anti-backsliding

None of the proposed permit limits were changed to a less restrictive limit compared to those in the previous permit.

Antidegradation

The Division has developed an antidegradation regulation that is applied on a statewide basis, and which meets the statutory requirements of Nevada's water pollution control law found at NRS 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at 40 CFR § 131.12. The objective of the Division's antidegradation regulation is to prevent degradation of Nevada's surface waters and maintain the unique attributes and special characteristics and water quality associated with high-quality waters.

As this permit is for discharges to groundwater, and not surface water, the new antidegradation rule is not applicable.

Special Conditions

See the Special Approvals/Conditions Table below:

SA – Special Approvals / Conditions Table

Item #	Description
1	The Permittee shall keep the O&M Manuals, operator logs, and a copy of this permit at the Laughlin Wastewater Reclamation Facility rather than at the Searchlight Wastewater Treatment Plant.
2	Should there be an overtopping of a pond boundary, NDEP may revert the freeboard requirement back to the 2.0 foot requirement.
3	Section C.9. Proper disposal of solids, sludges, filter backwash, or other pollutants removed in the course of treatment shall be further described in the O&M Manual.
4	Section 16.8 is not applicable to this permit.
5	Under Section C27, reference to signatory authorization should be Section C.26, not C.25.

Discharges From Future Outfalls/ Planned Facility Changes

There are no planned discharges from future outfalls or facility changes.

Corrective Action Sites

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

Wellhead Protection Program

The outfalls are not located within a Wellhead Protection Area, which represents an approximate 10-year capture zone of a well, or within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a public water system (PWS) well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two copies (one hard copy and one electronic copy) of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The O&M Manual shall follow Division's guidance document, WTS-2 Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant, and be prepared and wet stamped by a licensed, qualified Nevada engineer (P.E.).	8/2/2028

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	1/28/2027
2	Once During the Permit Term DMRs	Once during the permit term	7/28/2031

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 mailed to interested persons on our mailing list and will be posted on our website at <https://ndep.nv.gov/posts>. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **9/28/2026**, 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 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 issue/re-issue the proposed 5-year permit.

Prepared by: **Melissa Hanson**

Date: **8/20/2026**

Title: **Staff II Engineer**

SEARCHLIGHT WASTEWATER TREATMENT FACILITY AND COLLECTION SYSTEM OPERATION AND MAINTENANCE MANUAL

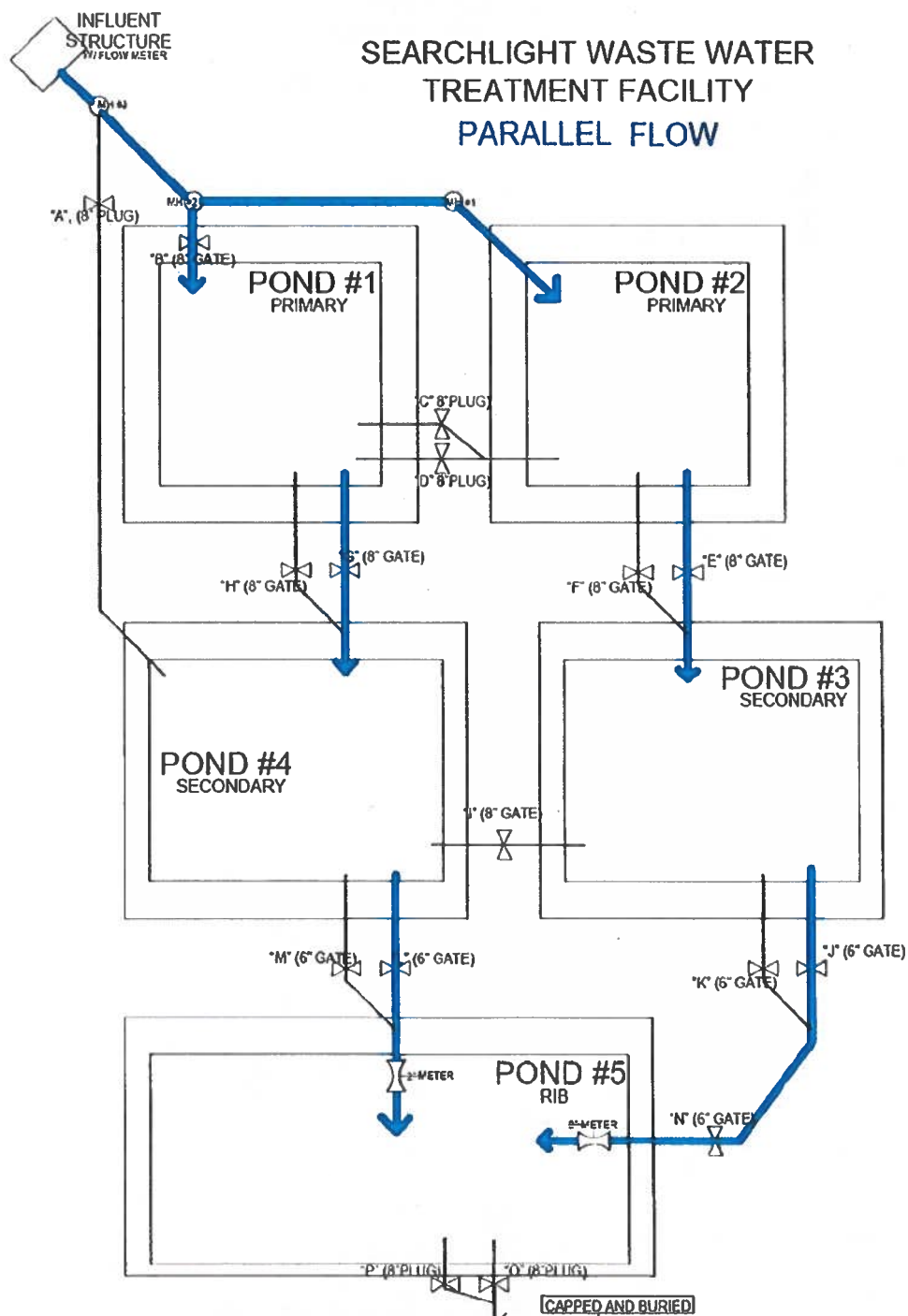


Figure IV.3 – SWTf Parallel Operation

SEARCHLIGHT WASTEWATER TREATMENT FACILITY AND COLLECTION SYSTEM OPERATION AND MAINTENANCE MANUAL

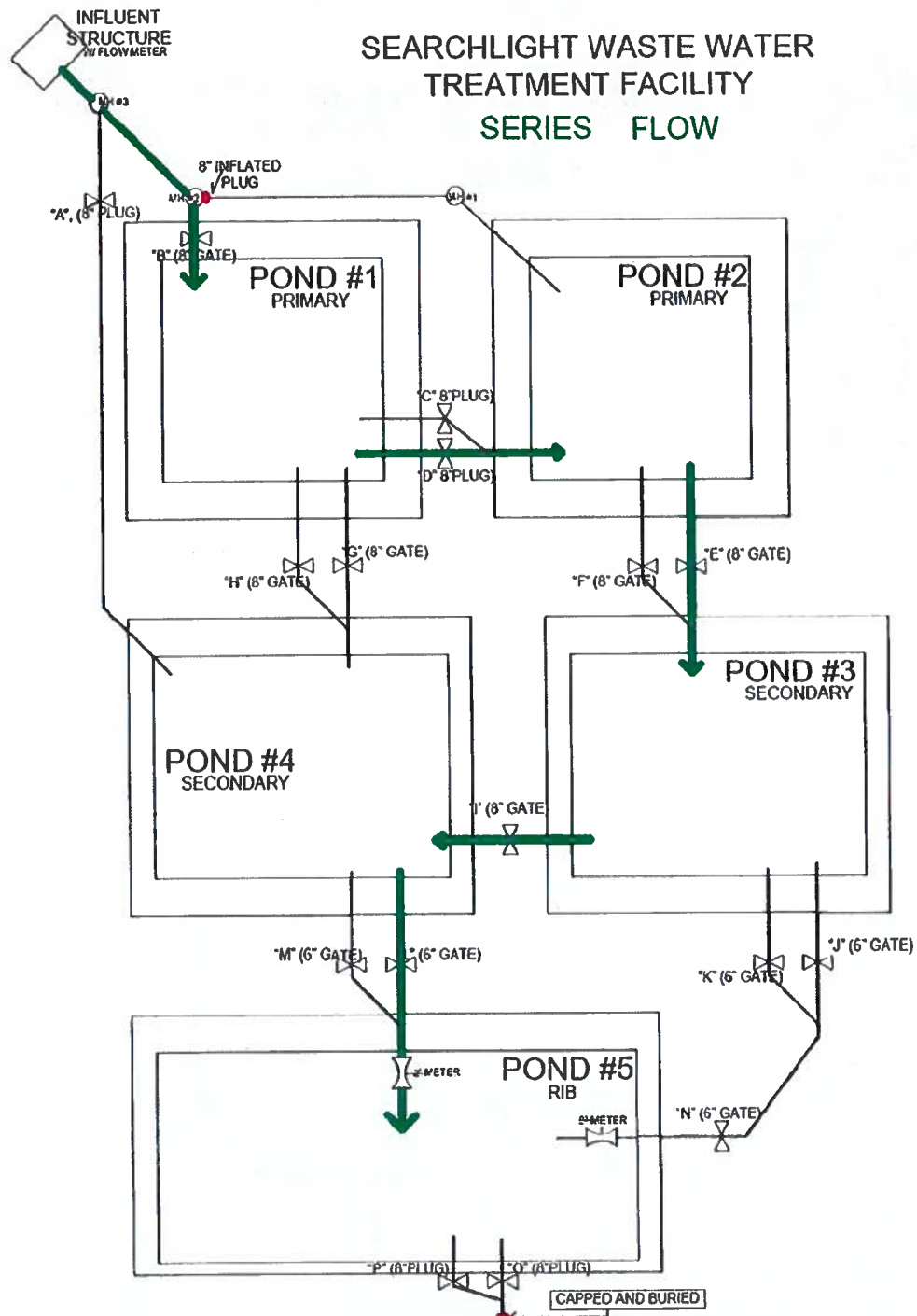


Figure IV.2 - Series Operation

Searchlight WWTF

Lagoons 1-4 & RIB 5

Legend
Flume

Flume



Google Earth

Image © 2025 Airbus

600 ft