

FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: CITY OF MESQUITE

10 EAST MESQUITE BOULEVARD
MESQUITE, NV 89027

Permit Number: NS0040011

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: CITY OF MESQUITE WATER RECLAMATION FACILITY, CLARK
600 RIVERSIDE ROAD, MESQUITE, NV 890207
LATITUDE: 36.79245830, LONGITUDE: -114.090583
TOWNSHIP: 13 S, RANGE: 71 E, SECTION: 20

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
002	ABBOTT WASH DETENTION BASIN	External Outfall		36.79	-114.09	GROUNDWATER
003	PULSIPHER WASH DETENTION BASIN	External Outfall		36.79	-114.09	GROUNDWATER
004	JENSEN PARK	External Outfall		36.79	-114.09	GROUNDWATER
005	HAFEN LANE PARK	External Outfall		36.79	-114.09	GROUNDWATER
006	WASTEWATER TREATMENT FACILITY IRRIGATION	Land Application Site		36.7920	-114.09	GROUNDWATER
007	TRUCK FILL FOR DUST SUPPRESSION	Land Application Site		36.70	-114.09	GROUNDWATER
008	JOHN DEER DR. AND PIONEER BLVD.	Land Application Site		36.79	-114.09	GROUNDWATER
009	WOODBURY PARK	Land Application Site		36.79	-114.09	GROUNDWATER
010	DESERT ROSE PARK	Land Application Site		36.79	-114.09	GROUNDWATER
012	MARILYN REDD PARK	Land Application Site		36.79	-114.09	GROUNDWATER
013	MESQUITE TECHNOLOGY & COMMERCE CENTER RETENTION BASIN	Land Application Site		36.79	-114.09	GROUNDWATER
014	DOWNGRADIENT MONITORING WELL - MW-1	Monitoring Well		36.795390	-114.088307	GROUNDWATER
015	DOWNGRADIENT MONITORING WELL - MW-2	Monitoring Well		36.794567	-114.088296	GROUNDWATER
016	DOWNGRADIENT MONITORING WELL - MW-3	Monitoring Well		36.793073	-114.088312	GROUNDWATER
017	DOWNGRADIENT MONITORING WELL - MW-4	Monitoring Well		36.793080	-114.087366	GROUNDWATER
018	DOWNGRADIENT MONITORING WELL - MW-5	Monitoring Well		36.794686	-114.086790	GROUNDWATER
019	DOWNGRADIENT MONITORING WELL - MW-6	Monitoring Well		36.796548	-114.087493	GROUNDWATER
01A	OASIS GOLF COURSE (#NS0096016)	Land Application Site		36.7920	-114.09	GROUNDWATER

01B	FALCON RIDGE GOLF COURSE (#NS200512)	Land Application Site		36.7920	-114.09	GROUNDWATER
01F	CONESTOGA GOLF COURSE (#NS2008510)	Land Application Site		36.79	-114.09	GROUNDWATER
020	INFLUENT	Internal Outfall		36.79	-114.09	NOT APPLICABLE
021	EFFLUENT	External Outfall		36.79	-114.09	GROUNDWATER
022	SUM - TOTAL OF ALL FLOWS	Sum		36.79	-114.09	NOT APPLICABLE

Permit History/Description of Proposed Action

The Permittee, City of Mesquite, has applied for the renewal of Permit NS0040011 for the Mesquite Water Reclamation Facility (Mesquite WRF), at 600 Riverside Road, in Mesquite, within Clark County, Nevada. The Permittee proposes to continue discharging tertiary-treated reclaimed water for irrigation of various golf courses and parks, onsite irrigation at the Mesquite WRF, and a truck fill stand (for dust control).

This permit was first issued on October 10, 1996. The most recent permit was issued on April 1, 2016, and expired on March 31, 2021; the permit has been administratively continued since.

Facility Overview

The Mesquite WRF is located south of Mesquite and is designed to treat domestic and commercial sewage to meet tertiary standards of treatment. The Mesquite WRF treatment system includes an activated sludge oxidation ditch, secondary clarifier, disk filtration, disinfection, and solids dewatering. This activated sludge system is designed to accomplish nitrification/denitrification by cyclical operation of aerobic and anoxic stages. Denitrified, filtered, disinfected Category A bacteriological quality, per Nevada Administrative Code (NAC) 445A.276, reclaimed water is discharged offsite for landscape irrigation at various golf courses and municipal parks and is also provided at an onsite truck fill stand (dust control suppression).

Wastewater is conveyed to the Mesquite WRF via a 30" diameter gravity main line and two lift stations (Sunset Greens lift station (LS) and Main LS). Sunset Greens' LS is located on the west side of Mesquite and collects mostly residential sewage. The lift station utilizes two submersible pumps in a wet well that is dosed with degreaser to control fats, oils, and grease. Sunset Greens LS pumps wastewater to the Main LS located on Jensen Drive. The Main LS utilizes a lined wet well with variable frequency drive (VFD) controlled submersible pumps and a natural gas backup generator. Septage is also accepted at this facility and is delivered via trucks.

Wastewater enters the Mesquite WRF, through the headworks, via two 24-inch sewage interceptors. Next, the influent travels through three raw sewage influent gates and screw lift pumps. After the influent is lifted by the screws, the plant operates in gravity mode, with the influent flowing to two flex-screen rotating disk debris removal systems. The screw lifts and rotating disks are operated alternately monthly. Wastewater then flows through a grit separator equipped with air lift pumps and a grit classifier. Screened debris is fed to an auger press for dewatering and dumped into a 2-yard bin and removed from the site weekly. The headworks uses a passive carbon air filtration system to control odors.

The screened influent flows to one of the two oxidation ditches, each having a 2.5 million gallons per day (Mgal/d) capacity, with the second, identical oxidation ditch treatment train being added in 2009 for additional treatment capacity or maintenance. The oxidation ditch operates in anaerobic, pre-anoxic, aerobic, post anoxic, and reaeration sectors, for extended aeration plug flow biological nutrient removal (BNR) of nitrogen via anoxic and aerobic selector zones. Submerged impellers enable anoxic mixing.

The oxidation ditch effluent flows to the four (70-foot diameter) secondary clarifiers, two for each oxidation ditch treatment train. Rotary brushes keep the overflow weirs clean. Waste activated sludge (WAS) is sent to the solids dewatering building.

Treated clarifier effluent flows over a weir and through a set of 10-micron rotating disc filters for further treatment. The disk filtration is essentially a pretreatment step in advance of ultra-violet (UV) and chlorine disinfection. Four covered UV lamp banks are used for primary disinfection, and sodium hypochlorite is dosed for further disinfection to meet the 2.2 total coliform forming unit per 100 milliliters (CFU/100mL)

standard for Category A bacteriological quality reuse (NAC 445A.276).

The reuse water system is very extensive, utilizing booster pumps, several storage ponds, and distribution lines. The Pulsipher Wash Detention Basin (Outfall 003) has a capacity of 12.0 million gallon, and is unlined, and the Abbot Wash Detention Basin (Outfall 002) has a capacity of 9.0 million gallon, and is partially concrete-lined, with both being used for golf course irrigation. Three golf courses in the area utilize the reclaimed water, as does the City of Mesquite to irrigate soccer fields and parks throughout the city.

WAS from the secondary clarifiers is dewatered in belt filter presses. Belt press filtrate is drained and recycled through the oxidation ditch. Dosing with polymer enhances sludge dewatering, producing a filter cake with 16%-18% solids. About 30 tons per month of dried biosolids are sent to the landfill.

A review of the documents on file do not show a Reclaimed Water Management Plan currently on file, so the following requirement was added to the permit:

The Permittee shall submit two (2) copies (one hard copy and one electronic copy) of a Reclaimed Water Management Plan (RWMP) to the Division for review and approval. The RWMP shall follow the Division's guidance document, WTS-1B General Design Criteria for Preparing a Reclaimed Water Management Plan and be prepared and wet stamped by a licensed, qualified Nevada professional engineer (P.E.). And shall be due on December 1, 2026.

Outfall Summary

Outfall 002 - This external outfall is for the measuring of treated wastewater discharged into Abbott Wash Detention Basin.

Outfall 003 - This external outfall is for the measuring of treated wastewater discharged into Pulsipher Wash Detention Basin.

Outfall 004 - This land application outfall is for measuring the reclaimed water being discharged to the City of Mesquite's Jensen Park.

Outfall 005 - This land application outfall is for measuring the reclaimed water being discharged to the City of Mesquite's Hafen Lane Park.

Outfall 006 - This land application site outfall is for measuring the reclaimed water being used onsite for irrigation at the Mesquite WRF.

Outfall 007 - This land application site outfall is for measuring the reclaimed water sent to the truck fill station for dust suppression use.

Outfall 008 - This land application site outfall is for measuring discharges to John Deere Drive and Pioneer Boulevard.

Outfall 009 - This land application site outfall is for measuring discharges to City of Mesquite's Woodbury Park.

Outfall 010 - This land application site outfall is for measuring discharges to City of Mesquite's Desert Rose Park.

Outfall 011 - This land application site outfall was removed from the permit as the park is now connected to potable water and no longer receives reclaimed water.

Outfall 012 - This land application site outfall is for measuring discharges to City of Mesquite's Marilyn Redd Park.

Outfall 013 - This land application site outfall is for measuring discharges to the Mesquite Technology & Commerce Center retention basin.

Outfall 014 - This downgradient (from the Mesquite WRF) monitoring well outfall (MW-1) is used for monitoring groundwater quality and is located north of the Mesquite field application site (with portions used for the Mesquite Heritage Garden).

Outfall 015 - This downgradient (from the Mesquite WRF) monitoring well outfall (MW-2) is used for monitoring groundwater quality and is located west of the Mesquite field application site (with portions used for the Mesquite Heritage Garden).

Outfall 016 - This downgradient (from the Mesquite WRF) monitoring well outfall (MW-3) is used for monitoring groundwater quality and is located south of the Mesquite field application site (with portions used for the Mesquite Heritage Garden).

Outfall 017 - This downgradient (from the Mesquite WRF) monitoring well outfall (MW-4) is used for monitoring groundwater quality and is located south of the Mesquite field application site (with portions used for the Mesquite Heritage Garden).

Outfall 018 - This downgradient (from the Mesquite WRF) monitoring well outfall (MW-5) is used for monitoring groundwater quality and is located east of the Mesquite field application site (with portions used for the Mesquite Heritage Garden).

Outfall 019 - This downgradient (from the Mesquite WRF) monitoring well outfall (MW-6) is used for monitoring groundwater quality and is located north of the Mesquite field application site (with portions used for the Mesquite Heritage Garden).

Outfall 01A - This land application site outfall is for measuring the reclaimed water being discharged to Oasis Golf Course (permit NS0096016).

Outfall 01B - This land application site outfall is for measuring the reclaimed water being discharged to the Falcon Ridge Golf Course (permit NS2005012).

Outfall 01C- This land application site outfall was removed from this permit, at the request of the Permittee, and has no associated infrastructure installed.

Outfall 01D - This land application site outfall was removed from this permit, at the request of the Permittee, and has no associated infrastructure installed.

Outfall 01E - This land application site outfall was removed from the permit, at the request of the Permittee, and has no associated infrastructure installed.

Outfall 01F - This external outfall is for measuring the reclaimed water being discharged to the Conestoga Golf Course (permit NS2008510).

Outfall 020 - This internal outfall is for measuring and monitoring the influent entering the Mesquite WRF.

Outfall 021 - This external outfall is for monitoring of the treated effluent that is being discharged to the various sites.

Outfall 022 - This sum outfall is for measuring the total flow rate for Outfalls 002 through 013.

Facility Upgrades since last issued permit

There have been no facility upgrades, since the 2009 expansion, done to the Mesquite WRF.

Solids Handling

Using belt filter presses, the WAS is dewatered, with the filtrate being drained and pumped to the oxidation ditch influent, with the dewatered WAS producing a filter cake with approximately 18% solids. The solids are then dried and sent to the landfill for disposal.

Effluent Management and Reuse

Reclaimed water, being of Category A bacteriological quality per NAC 445A.276, is discharged to groundwater of the State via export pipelines to either the Abbott Wash Reservoir, Pulsipher Wash Reservoir, Jensen Park, Hafen Lane Park, onsite irrigation at the Mesquite WRF, a truck fill stand (for dust control), other approved sites, Woodbury Park, Desert Rose Park, Marilyn Redd Park, the Mesquite Technology and Commerce Center Retention Basin, Oasis Golf Course (permit NS0096016), Falcon Ridge Golf Course (permit NS2000512), and Conestoga Gold Course (permit NS2008510).

Design Flow (and basis) and Measurement & Current Capacity

The Mesquite WRF's effluent was originally permitted with an average 30-day flow rate of 3.5 Mgal/d and a daily maximum flow rate of 3.7 Mgal/d. With the expansion in 2009, and addition of the second oxidation ditch, the flow rates were updated to a 30-day flow rate of 6.0 Mgal/d and a daily maximum flow rate of 12.9 Mgal/d. There were no exceedances of these limits.

The average daily maximum flow rate reported for Outfall 020 (Influent) was 2.22 Mgal/d and was permitted for monitor and report (M&R) Mgal/d.

Based on the effluent flow rates reported, the WRF is at approximately 18% capacity.

Pretreatment Program

The facility 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 Mesquite WRF Operation and Maintenance (O&M) Manual was last reviewed and approved in May 2011. The Technical, Compliance, and Enforcement Branch, of the Bureau of Water Pollution Control, requires O&M Manuals to be updated every ten (10) years, with an updated O&M Manual being due on December 1, 2026.

Effluent Characterization

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from January 2021 to December 2025, was reviewed as part of this permit renewal process. The Mesquite WRF discharges tertiary-treated, denitrified, and disinfected wastewater to several golf courses, parks, reservoirs, onsite irrigation, and dust control in the local Mesquite area.

The following reported averages were taken from January 2021 to December 2025 reporting period:

Abbreviations:

CBOD5 – Carbonaceous Biochemical Oxygen Demand, 5-day

CFU/100mL – Colony Forming Units per 100 milliliters

Depth – Depth to water level feet below land surface

TDS – Total Dissolved Solids

TPH – Total Petroleum Hydrocarbons

TSS – Total Suspended Solids

Water Level - Water level relative to mean sea level

mg/L – Milligrams per Liter

Mgal/d – Million Gallons per Day

S.U. – Standard Units

ug/L – Micrograms per Liter

Outfall 020 – Influent

Flow Rate: 2.22 Mgal/d

Outfall 021 – Effluent

CBOD5: 6.81 mg/L

Total Coliform: 23.09 CFU/100mL (monthly max.)
Flow Rate: 2.09 Mgal/d
Nitrogen, total: 7.62 mg/L
pH: 7.50 S.U.
TSS: 4.29 mg/L

Outfalls 002, 003, 011, 013, 01C, 01D, and 01E:
Flow Rate: No Discharge

Outfall 004:
Flow Rate: 0.01 Mgal/d

Outfall 005:
Flow Rate: 0.029 Mgal/d

Outfall 006:
Flow Rate: 0.004 Mgal/d

Outfall 007:
Flow Rate: 0.006 Mgal/d

Outfall 008:
Flow Rate: 0.051 Mgal/d

Outfall 009:
Flow Rate: 0.007 Mgal/d

Outfall 010:
Flow Rate: 0.002 Mgal/d

Outfall 014 (Monitoring Well MW-1):
Chloride: 467.8 mg/L
Depth: 22.38 Feet
Nitrogen: 31.15 mg/L
TDS: 3,210 mg/L

Outfall 015 (Monitoring Well MW-2):
Chloride: 499.8 mg/L
Depth: 16.98 Feet
Nitrogen: 1.44 mg/L
TDS: 3,316.5

Outfall 016 (Monitoring Well MW-3):
Chloride: 414.3 mg/L
Depth: 18.745 Feet
Nitrogen: 1.12 mg/L
TDS: 2,785.5 mg/L

Outfall 017 (Monitoring Well MW-4):
Chloride: 493 mg/L
Depth: 114.13 Feet
Nitrogen: 0.84 mg/L
TDS: 2,578.36 mg/L

Outfall 018 (Monitoring Well MW-5):

Chloride: 251.15 mg/L

Depth: 20.40 Feet

Nitrogen: 0.75 mg/L

TDS: 2,259 mg/L

Outfall 019 (Monitoring Well MW-6):

Chloride: 425.4 mg/L

Depth: 20.88 Feet

Nitrogen: 6.06 mg/L

TDS: 2,764.5 mg/L

Outfall 01A:

Flow Rate: 1.13 Mgal/d

Outfall 01B:

Flow Rate: 1.17 Mgal/d

Note: The Virgin River's naturally high TDS are primarily driven by the region's unique geology, evaporation, and low water flows. As the river winds toward Mesquite and Lake Mead, it acts as a natural salt and mineral loader. Key factors contributing to the high TDS include:

- **Natural Geology:** The river flows through vast areas of limestone, gypsum, and ancient Colorado Plateau formations. As the water washes over these minerals, it dissolves salts, calcium, and magnesium from the riverbed.
- **Evaporation:** The arid desert climate of southern Utah and Nevada causes high rates of evaporation. As the water volume decreases, the concentration of dissolved minerals remaining in the river steadily increases.
- **Seasonal and Human-Induced Low Flows:** During hot months or periods of drought, natural river flows drop and human consumptive use (municipal and agricultural diversions) increases. Less water in the river means the salts and sediments become highly concentrated.
- **Mineral Springs:** Localized natural features, such as Dixie Hot Springs (in southwestern Utah and 50 miles away from Mesquite), feed heavily mineralized and salty groundwater directly into the river.

Pollutants of Concern

Pollutants of concern are any pollutants or 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 wastewater treatment plants are CBOD5, Total Coliform, Chloride, Nitrogen, pH, along with potential inorganic chemicals and analytes.

Receiving Water

The receiving water is groundwater of the State. The depth to groundwater is an average of 41 feet below ground surface, with a few variations of up to 170 feet, within the Clark County portion of Hydrographic Basin 222, Virgin Valley.

Compliance History

The facility has been in compliance during the time reviewed, with the exception of late reporting of the previous quarter, and high levels of nitrogen reported at Monitoring Well MW-1.

Proposed Effluent Limitations

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

WWTP Discharge Limitations Table for Sample Location 020 (Internal Outfall - Headworks) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	<= 6.0 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	020	Continuous	METER
Flow rate	Daily Maximum	<= 12.9 Million Gallons per Day (Mgal/d)		Raw Sewage Influent	020	Continuous	METER
BOD, carbonaceous, 05 day, 20 C ^[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	020	Weekly	DISCRT
BOD, carbonaceous, 05 day, 20 C	Monthly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	020	Weekly	DISCRT
Solids, total suspended ^[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	020	Weekly	DISCRT
Solids, total suspended	Monthly Average		M&R Milligrams per Liter (mg/L)	Raw Sewage Influent	020	Weekly	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Sampling should be done concurrently with the effluent (Outfall 021) sampling to determine actual removal rates achieved for Carbonaceous Biochemical Oxygen Demand, 5-day (CBOD5) and Total Suspended Solids (TSS).

WWTP Discharge Limitations Table for Sample Location 021 (External Outfall- Effluent) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	021	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	021	Continuous	METER
BOD, carbonaceous, 05 day, 20 C ^[2]	Daily Maximum		<= 40 Milligrams per Liter (mg/L)	Effluent Gross	021	Weekly	DISCRT
BOD, carbonaceous, 05 day, 20 C	Monthly Average		<= 25 Milligrams per Liter (mg/L)	Effluent Gross	021	Weekly	DISCRT
Coliform, total general	Daily Maximum		<= 23 Colony Forming Units per 100ml T (CFU/100mL) ^[1]	Effluent Gross	021	Weekly	DISCRT
Coliform, total general	Monthly Average		<= 2.2 Colony Forming Units per 100ml T (CFU/100mL) ^[1]	Effluent Gross	021	Weekly	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	021	Weekly	DISCRT
pH, maximum	Daily Maximum		<= 9 Standard Units (SU)	Effluent Gross	021	Weekly	DISCRT
pH, minimum	Daily Minimum		>= 6 Standard Units (SU)	Effluent Gross	021	Weekly	DISCRT
Solids, total suspended ^[2]	Daily Maximum		<= 45 Milligrams per Liter (mg/L)	Effluent Gross	021	Weekly	DISCRT
Solids, total suspended	Monthly Average		<= 30 Milligrams per Liter (mg/L)	Effluent Gross	021	Weekly	DISCRT
Solids, suspended percent removal	Monthly Average Minimum		>= 85 Percent (%)	Effluent Gross	021	Monthly	CALCTD
BOD, carb-5 day, 20 deg C, percent removal	Monthly Average Minimum		>= 85 Percent (%)	Effluent Gross	021	Monthly	CALCTD

Notes (WWTP Discharge Limitations Table):

1. CFU or MPN/100 ml.
2. Sampling should be done concurrently with the influent (Outfall 020) sampling to determine actual removal rates achieved for Carbonaceous Biochemical Oxygen Demand, 5-day (CBOD5) and Total Suspended Solids (TSS).

WWTP Discharge Limitations Table for Sample Location 021 (External Outfall - Effluent) 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	021	Once Per Permit Term	DISCRT
Alkalinity, total (as CaCO ₃)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Aluminum, dissolved (as Al)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Antimony, dissolved (as Sb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Arsenic, dissolved (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Barium, dissolved (as Ba)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Beryllium, dissolved (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Cadmium, dissolved (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Calcium, dissolved (as Ca)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Chloride (as Cl) ^[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Chromium, dissolved (as Cr)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
			M&R				

WWTP Discharge Limitations Table for Sample Location 021 (External Outfall - Effluent) 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	021	Once Per Permit Term	DISCRT
Fluoride, total (as F) ^[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Iron, dissolved (as Fe)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Magnesium, dissolved (as Mg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Manganese, dissolved (as Mn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Mercury, dissolved (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Potassium, dissolved (as K)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Selenium, dissolved [as Se]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Silver, dissolved (as Ag)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
			M&R				

WWTP Discharge Limitations Table for Sample Location 021 (External Outfall - Effluent) 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	021	Once Per Permit Term	DISCRT
Sulfate, total (as SO ₄) ^[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Thallium, dissolved (as Tl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Uranium, natural, total ^[1]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Cyanide, weak acid, dissociable	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	021	Once Per Permit Term	DISCRT

Notes (WWTP Discharge Limitations Table):

1. Samples must be collected and analyzed for the dissolved fraction.

Groundwater Monitoring Wells Table for Sample Location 014 (Downgradient Monitoring Well - Mw-1) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	014	Quarterly	DISCRT
Depth to water level ft below landsurface ^[1]	Daily Minimum	M&R Feet (ft)		Groundwater	014	Quarterly	VISUAL
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	014	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	014	Quarterly	DISCRT
Water level relative to mean sea level ^[2]	Daily Maximum	M&R Feet (ft)		Groundwater	014	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater.
2. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location 015 (Downgradient Monitoring Well - Mw-2) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	015	Quarterly	DISCRT
Depth to water level ft below landsurface ^[1]	Daily Minimum	M&R Feet (ft)		Groundwater	015	Quarterly	VISUAL
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	015	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	015	Quarterly	DISCRT
Water level relative to mean sea level ^[2]	Daily Maximum	M&R Feet (ft)		Groundwater	015	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater.
2. Groundwater elevation above mean sea level.

Groundwater Monitoring Wells Table for Sample Location 016 (Downgradient Monitoring Well - Mw-3) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	016	Quarterly	DISCRT
Depth to water level ft below landsurface ^[1]	Daily Minimum	M&R Feet (ft)		Groundwater	016	Quarterly	VISUAL
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	016	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	016	Quarterly	DISCRT
Water level relative to mean sea level ^[2]	Daily Maximum	M&R Feet (ft)		Groundwater	016	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater.
2. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location 017 (Downgradient Monitoring Well - Mw-4) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	017	Quarterly	DISCRT
Depth to water level ft below landsurface ^[1]	Daily Minimum	M&R Feet (ft)		Groundwater	017	Quarterly	VISUAL
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	017	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	017	Quarterly	DISCRT
Water level relative to mean sea level ^[2]	Daily Maximum	M&R Feet (ft)		Groundwater	017	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater.
2. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location 018 (Downgradient Monitoring Well - Mw-5) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	018	Quarterly	DISCRT
Depth to water level ft below landsurface ^[1]	Daily Minimum	M&R Feet (ft)		Groundwater	018	Quarterly	VISUAL
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	018	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	018	Quarterly	DISCRT
Water level relative to mean sea level ^[2]	Daily Maximum	M&R Feet (ft)		Groundwater	018	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater.
2. Groundwater elevation above mean sea level (AMSL).

Groundwater Monitoring Wells Table for Sample Location 019 (Downgradient Monitoring Well - Mw-6) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	019	Quarterly	DISCRT
Depth to water level ft below landsurface ^[1]	Daily Minimum	M&R Feet (ft)		Groundwater	019	Quarterly	VISUAL
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	019	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	019	Quarterly	DISCRT
Water level relative to mean sea level ^[2]	Daily Maximum	M&R Feet (ft)		Groundwater	019	Quarterly	CALCTD

Notes (Groundwater Monitoring Wells Table):

1. Depth to groundwater.
2. Groundwater elevation above mean sea level (AMSL).

Re-use Discharge Limitations Table for Sample Location 002 (External Outfall Abbott Wash Detention Basin) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	002	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	002	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 003 (External Outfall - Pulsipher Wash Detention Basin) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	003	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	003	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 004 (External Outfall - Jensen Park) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	004	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	004	Continuous	METER

**Re-use Discharge Limitations Table for Sample Location 005 (External Outfall - Hafen Lane Park)
To Be Reported Monthly**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	005	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	005	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 006 (Land Application Site - Water Reclamation Facility Irrigation) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	006	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	006	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 007 (Land Application Site - Truck Fill Station) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	007	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	007	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 008 (Land Application Site - John Deere Dr. And Pioneer Blvd.) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	008	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	008	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 009 (Land Application Site - Woodbury Park) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	009	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	009	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 010 (Land Application Site - Desert Rose Park) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	010	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	010	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 012 (Land Application Site - Marilyn Redd Park) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	012	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	012	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 013 (Land Application Site - Mesquite Technology & Commerce Center Retention Basin) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	013	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	013	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 01A (Land Application Site - Oasis Golf Course) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	01A	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	01A	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 01B (Land Application Site - Falcon Ridge Golf Course) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	01B	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	01B	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 01F (Land Application Site - Conestoga Golf Course) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	01F	Continuous	METER
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	01F	Continuous	METER

Re-use Discharge Limitations Table for Sample Location 022 (Sum Of Outfalls 002 Thru 013) To Be Reported Monthly^[1]

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Monthly Average	M&R Million Gallons per Day (Mgal/d)		See Footnote	022	Monthly	CALCTD
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		See Footnote	022	Monthly	CALCTD

Notes (Re-use Discharge Limitations Table):

1. Totals should be calculated from each individual outfall's flow rates reported.

Summary of Changes From Previous Permit

CHANGED - Abbott Wash Storage Basin to Abbott Wash Detention Basin.

CHANGED - Pulsipher Wash Storage Basin to Pulsipher Wash Detention Basin.

DELETED – Outfall 011, Mesquite Regional Park, as they are now connected to the municipal system for their irrigation needs.

Deleted – Outfalls 01C (Wolf Creek Golf Course), 01D (Coyote Willows Golf Course), and 01E (Casa Blanca Golf Course). At the request of the Permittee (Bill Tanner), these outfalls were removed based on no infrastructure being installed to allow for delivery.

Updated the coordinates for the monitoring wells to the actual locations, based on the land surveyor's signed affidavit. The coordinates are as follows:

MW-1: Lat. 36.796539, Long. -114.088307

MW-2: Lat. 36.794564, Long. -114.088296

MW-3: Lat. 36.793073, Long. -114.088312

MW-4: Lat. 36.79308, Long. -114.087366

MW-5: Lat. 36.794686, Long. -114.08679

MW-6: Lat. 36.796548, Long. -114.087493

Under Outfall 020 (Influent), To Be Reported Quarterly, the following parameters were added:

ADDED – BOD, carbonaceous, 05 day, 20 C, with a “Daily Maximum” Base, an “M&R Milligrams per Liter (mg/L)” Concentration, a “Raw Sewage Influent” Monitoring Location, a “020” Sample Location, a “Monthly” Measurement Frequency, and a “Discrt” Sample Type.

ADDED – BOD, carbonaceous, 05 day, 20 C, with a “Monthly Average” Base, an “M&R Milligrams per Liter (mg/L)” Concentration, a “Raw Sewage Influent” Monitoring Location, a “020” Sample Location, a “Monthly” Measurement Frequency, and a “Discrt” Sample Type.

ADDED – Solids, total suspended, with a “Daily Maximum” Base, an “M&R Milligrams per Liter (mg/L)” Concentration, a “Raw Sewage Influent” Monitoring Location, a “020” Sample Location, a “Monthly”

Measurement Frequency, and a "Discret" Sample Type.

ADDED – Solids, total suspended, with a "Monthly Average" Base, an "M&R Milligrams per Liter (mg/L)" Concentration, a "Raw Sewage Influent" Monitoring Location, a "020" Sample Location, a "Monthly" Measurement Frequency, and a "Discret" Sample Type.

ADDED – Footnote 1.

1. Sampling should be done concurrently with the effluent (Outfall 021) sampling to determine actual removal rates achieved for Carbonaceous Biochemical Oxygen Demand, 5-day (CBOD5) and Total Suspended Solids (TSS).

Under Outfall 021 (Effluent), To Be Reported Monthly, the following parameters were added:

ADDED – BOD, carb-5 day, 20 C, percent removal, with a "Monthly Average Minimum" Base, an " ≥ 85 Percent (%)" Concentration, a "Effluent Gross" Monitoring Location, a "021" Sample Location, a "Monthly" Measurement Frequency, and a "Calcd" Sample Type.

ADDED – Solids, suspended percent removal, with a "Monthly Average Minimum" Base, an " ≥ 85 Percent (%)" Concentration, a "Effluent Gross" Monitoring Location, a "021" Sample Location, a "Monthly" Measurement Frequency, and a "Calcd" Sample Type.

Added – Footnote 2.

2. Sampling should be done concurrently with the influent (Outfall 020) sampling to determine actual removal rates achieved for Carbonaceous Biochemical Oxygen Demand, 5-day (CBOD5) and Total Suspended Solids (TSS).

CHANGED – All parameters from a "Monthly Maximum" Base to a "Daily Maximum" Base, with the remaining reporting requirements being unchanged. This includes CBOD5, Coliform (Total General), pH Maximum, and TSS.

CHANGED -Nitrogen, total, with a "Monthly Average" Base to a "Daily Maximum" Base, with the remaining reporting requirements being unchanged.

Changed – pH, minimum, from a "Monthly Minimum" Base to a "Daily Minimum" Base, with the remaining reporting requirements being unchanged.

CHANGED – CBOD5, with a "Daily Maximum" Base from a "45 Milligrams per Liter (mg/L)" Concentration to a "40 Milligrams per Liter (mg/L)" to match State-adopted EPA 7-day average limits for that parameter.

CHANGED – CBOD5, with a "Monthly Average" Base from a "30 Milligrams per Liter (mg/L)" Concentration to a "25 Milligrams per Liter (mg/L)" to match State-adopted EPA 30-day average limits for that parameter.

ADDED - Outfall 021 (Effluent), To Be Reported Once During the Permit Term, with the following parameters and footnote:

ADDED - Profile 1, with dissolved fractions, with a "Daily Maximum" Base, a "M&R Milligrams per Liter (mg/L)" Concentration, a "Effluent Gross" Monitoring Location, a "021" Sample Location, and a "Discret" Sample Type.

ADDED - Footnote 1.

1. Samples must be collected and analyzed for the dissolved fraction.

Under Outfalls 014 – 019 (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6), To Be Reported Quarterly, the following additions or changes were done:

CHANGED – All parameters, were changed from a “Quarterly Maximum” Base to a “Daily Maximum” Base, with the remaining reporting requirements being unchanged. This includes Chloride, Nitrogen, and TSS.

CHANGED – Depth to water level ft below landsurface, with a “Quarterly Maximum” Base to a “Daily Minimum” Base and a “Discret” Sample Type to a “Visual” Sample Type, with the remaining monitoring requirements being unchanged.

ADDED – Water level relative to mean sea level, with a “Daily Maximum” Base, a “M&R Feet (ft)” Quantity Unit, a “Groundwater” Monitoring Location, a “014, 015, 016, 017, 018, or 019” Sample Location, a “Quarterly” Measurement Frequency, and a “Calculated” Sample Type.

ADDED – Footnote 2.

2. Groundwater elevation above mean sea level (AMSL).

Under SOC – Schedule of Compliance Table:

DELETED – Item 1. Two copies of the Operations and Management statement.

CHANGED – Item 2 to Item 1.

CHANGED – (Now) Item 1 from:

“Two copies of the revised Effluent Management Plan (EMP) updating information on the entities receiving treated effluent for reuse provided by the Mesquite WRF, including amounts and locations, shall be submitted to NDEP's Bureau of Water Pollution Control's Technical, Compliance and Enforcement Branch for review.”

TO:

“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 and be prepared and wet stamped by a licensed, qualified Nevada engineer (P.E.).”

Due Date: 12/01/2026

ADDED – Item 2. Reclaimed Water Management Plan.

The Permittee shall submit two (2) copies (one hard copy and one electronic copy) of a Reclaimed Water Management Plan (RWMP) to the Division for review and approval. The RWMP shall follow the Division's guidance document WTS-1B General Design Criteria for Preparing a Reclaimed Water Management Plan and be prepared and wet stamped by a licensed, qualified Nevada professional engineer (P.E.).

Due Date: 12/01/2026

Technology Based Effluent Limitations

Technology based effluent limitations (TBELs) are required as promulgated by the United States (U.S.) EPA for Publicly Owned Treatment Works (POTWs). The following limits are based on secondary treatment standards as allowed by the Code of Federal Regulation (CFR) Title 40, Section 133, and which has been adopted by the State of Nevada. U.S. EPA published federal secondary treatment standards at 40 CFR 133 based on an evaluation of performance data for POTWs practicing a combination of physical and biological treatment. Performance is measured by monitoring biodegradable organics, suspended solids in the effluent, and ensuring pH remains within regulatory limits. Federal secondary treatment standards are defined under 40 CFR 133 for maximum CBOD5 as a 30-day average of 25 mg/L and a 7-day average of 40 mg/L and for maximum TSS as a 30-day average of 30 mg/L and a 7-day average of 45 mg/L. In addition to describing the minimum levels of effluent quality attainable by secondary treatment, 40 CFR 133.102 states that the 30-day average percent removal of CBOD5 and TSS shall not be less than 85%. The Division has adopted these standards for discharges from treatment facilities, and has applied the same 7-day average thresholds as daily maximum effluent limits for CBOD5 and TSS.

The following performance standards for POTWs with secondary treatment standards have been included

in the permit:

CBOD5: Monthly average limit: ≤ 25 mg/L; Daily maximum limit: ≤ 40 mg/L.

TSS: Monthly average limit: ≤ 30 mg/L; Daily maximum limit: ≤ 45 mg/L.

pH: Daily Maximum: ≤ 9.0 Standard Units

pH: Daily Minimum ≥ 6.0 Standard Units

Limits Based on Secondary Treatment Standards:

CBOD5 Percent removal: ≥ 85 percent.

TSS: Percent removal: ≥ 85 percent.

Permitted Limits Based on the Facility's Design Criteria Review:

30-day average flow rate for influent is limited to ≤ 6.0 Mgal/d.

Daily maximum flow rate for influent is limited to ≤ 12.9 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)

Water quality based effluent limitations 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 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 requirement to monitor the effluent for Profile 1 pollutants 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 and uranium are not expected to be present in the effluent, the permit requires the Permittee to sample these constituents once per permit term because they are included in the Profile 1 list and have not been previously tested.

The constituents listed in Profile 1 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."

Influent and Effluent Monitoring Requirements:

Weekly influent and effluent monitoring for CBOD5 and TSS are included to assess the treatment performance of the Mesquite WRF. A weekly sampling frequency for CBOD5 and TSS is sufficient for determining compliance with the applicable effluent limitations. Percent removal requirements for CBOD5 and TSS are established in the permit as quarterly average minimums of 85%, based on tertiary treatment standards.

Some wastewater treatment processes can increase or decrease wastewater pH; therefore, weekly monitoring for pH is included in assessing compliance with effluent limits of 6.0 S.U. as a daily minimum and

9.0 S.U. as a daily maximum.

Other Required Water Quality Monitoring:

The requirement to sample the effluent for total coliform, prior to irrigation, is for the protection of the environment and human health.

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 Nevada Revised Statute (NRS) 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at Title 40 in the Code of Federal Regulations (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. There are currently no specific water quality standards that have been formally adopted by the State for groundwater, however, data reviewed during the renewal process does not indicate the potential for degradation of the groundwater from the treated wastewater discharged within the compliance limits of the proposed permit.

For the discharge to the Abbot Wash and Pulsifer Wash Detention Basins, both being surface water of the State, Nevada's antidegradation regulation is applicable. 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 Nevada Revised Statute (NRS) 445A.520 and NRS 565 and is consistent with the federal antidegradation policy found at Title 40 in the CFR section 131.12. The objective of the Division's antidegradation regulation is to prevent degradation of Nevada's surface water and maintain the unique attributes and special characteristics and water quality associated with high-quality waters. This objective is achieved through the implementation of procedures to ensure that water is protected from regulated activities that have the potential to degrade the water quality. The regulation uses four (4) tiers of antidegradation protection. Tier 1 protects water quality for beneficial uses of the water on a parameter-by-parameter basis. Tier 2 protects high-quality waters where data show the water quality is better than levels needed to protect beneficial uses (on a parameter-by-parameter basis). Tier 2.5 and Tier 3 protect water quality and the special characteristics of waterbodies designated with the beneficial uses of "extraordinary, ecological, aesthetic or recreation value" (NAC 445A.122). The Division will conduct an antidegradation review only when a permit application is submitted for a new or expanding point source discharge to a surface water or for a new or altered zone of mixing.

Since the proposed renewal of this permit does not include a new, or expanding, point source discharge; or, a new or altered zone of mixing, the antidegradation review is not required.

Special Conditions

See the Special Approvals / Conditions below:

SA – Special Approvals / Conditions Table

Item #	Description
1	The Permittee must file for a modification to the permit, to add any future reuse sites, prior to the site receiving any reclaimed water.

Discharges From Future Outfalls/ Planned Facility Changes

There are no planned future outfalls or facility changes.

Corrective Action Sites

There are two (2) active contaminant plumes that fall within a one-mile radius of the Mesquite WRF (8-000132, Benzene and 8-000478, Petroleum Free Product), within the I-15 highway corridor. Based on the characteristics of benzene, known for clinging to soil and degrading, and the free product, with the removal of the source causing movement to stop, the Bureau of Corrective Actions (BCA) has reviewed the information and determined that based on the distance from these sites to the Mesquite WRF, and their small plume sizes, they do not have any concerns with the renewal of this permit.

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 PWS well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two (2) 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 and be prepared and wet stamped by a licensed, qualified Nevada engineer (P.E.).	12/1/2026
2	The Permittee shall submit two (2) copies (one hard copy and one electronic copy) of a Reclaimed Water Management Plan (RWMP) to the Division for review and approval. The RWMP shall follow the Division's guidance document WTS-1B General Design Criteria for Preparing a Reclaimed Water Management Plan and be prepared and wet stamped by a licensed, qualified Nevada professional engineer (P.E.).	12/1/2026

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**

Oxidation ditch method

