FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: TRUCKEE MEADOWS WATER AUTHORITY

1355 CAPITAL BLVD
RENO, NV 89502

Permit Number: NS2025503

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: NEW

Location: ADVANCED PURIFIED WATER FACILITY, WASHOE
APN 55038003, RENO, NV 89506
LATITUDE: 39.712290, LONGITUDE: -119.884806
TOWNSHIP: 21, RANGE: 19, SECTION: 33

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	IRRIGATION AT AMERICAN FLAT FARM SITE	External Outfall		39.712290	-119.884806	GROUNDWATER
002	MISCELLANEOUS DISCHARGES ASSOCIATED WITH MAINTENANCE ACTIVITIES	External Outfall		39.642760	-119.864780	GROUNDWATER
003	FINISHED WATER INJECTION TANK PRIOR TO INJECTION	External Outfall		39.712264	-119.886550	GROUNDWATER

Permit History/Description of Proposed Action
The Permittee, Truckee Meadows Water Authority (TMWA), has applied for a new groundwater discharge permit, NS2025503, for discharges from their proposed Advanced Purified Water Facility (APWF) located at the intersection of Lear Boulevard and Military Road in Reno, Nevada.

Facility Overview
The Permittee, along with the City of Reno, have joined together to identify, understand, and implement water practices such as exploring ways to conserve and extend the use of existing water resources, consider long-term water resource and water quality management issues, help protect the integrity of regional watersheds, and develop technologies and practices that sustain the quality of life. An outcome of the joint effort is the proposed APWF. The APWF is an indirect potable reuse (IPR) / groundwater recharge initiative that poses to produce 2 million gallons per day (MGD) of Category A+ (Nevada Administrative Code (NAC) 445A.2761) advanced purified water which will ultimately be introduced into TMWA's potable water distribution system.

To achieve this, the proposed APWF will first receive tertiary, and disinfected, treated effluent from the Reno-Stead Water Reclamation Facility (RSWRF). The effluent will undergo further treatment (see Attachment A for flow schematic) via ozone disinfection to achieve oxidation of unregulated constituents and bulk organics; coagulation / flocculation of fine suspended solids to precondition the ozonated water; biological activated carbon filtration (BACF) for the removal of bulk organics, unregulated constituents, and pathogens; granular activated carbon (GAC) for the removal of total organic carbon, regulated contaminants

and unregulated constituents; Per- and Polyfluoroalkyl Substances (PFAS) treatment; and ultraviolet (UV) disinfection to provide pathogen inactivation.

After treatment, and during the testing phase, Category A bacteriological quality water (NAC 445A.2762) will be conveyed from the APWF, through a high-density polyethylene (HDPE) pipe to an agricultural field (a.k.a., American Flat Farm) located off of American Flat Road for use as irrigation water via center pivot. The farm consists of approximately 245 acres where either alfalfa or grass hay will be grown. The testing phase will be used to fine tune the treatment system at the APWF. After this testing phase is completed, the advanced treated water will be directed to a Finished Water Injection Tank where Category A+ bacteriological quality water will be stored prior to injection into an outlying aquifer at the American Flat site for further testing and monitoring. Once all testing phases are complete, the stored water from the aquifer will be extracted and be introduced into TMWA's potable water distribution system. Coverage under this permit is for the discharge of treated effluent to the American Flat Farm site for irrigation and for discharges associated with maintenance activities at the APWF. An Underground Injection Control (UIC) permit will be applied for at a later date for the injection of the treated water into the outlying aquifer.

Outfall Summary
Outfall 001 – This outfall is for the discharge of treated effluent for the use of irrigation.

Outfall 002 – This outfall is for the discharge of treated effluent during maintenance activities at the APWF.

Outfall 003 – This outfall is for the discharge of treated effluent from the Finish Water Injection Tank.

Effluent Characterization
Reclaimed water from the RSWRF will be sent to the proposed APWF via a transfer pump station. Reclaimed water from RSWRF is tertiary treated, denitrified, and disinfected and meets Category A bacteriological quality per NAC 445A.276. The reclaimed water will undergo further treatment at the APWF.

As the proposed APWF has not been constructed yet, there have been no discharges; therefore, an effluent characterization of the treated water is not currently available. However, the Permittee proposes that the APWF will be able to treat the water to meet National Primary Drinking Water Standards and Nevada's Secondary Maximum Contaminant Levels prior to the point of discharge.

Pollutants of Concern
Pollutants of concern are any pollutant, or parameter, that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological conditions of the receiving water. A common pollutant of concern of Category A reclaimed water is total coliform and nitrogen. Pollutants of concern for Category A+ reclaimed water are enteric viruses, *Giardia lamblia cyst* and *Cryptosporidium oocyst*.

Receiving Water
Receiving water is groundwater of the State. Depth to groundwater at the American Flat Farm site is greater than 100 feet below ground surface (bgs).

Compliance History
As this is a new permit, there is no compliance history to report.

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

Re-use Discharge Limitations Table for Sample Location 001 (Irrigation At American Flat Farm Site) To Be Reported Monthly[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	<= 2.0 Million Gallons per Day (Mgal/d)		Prior to Irrigation	001	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Prior to Irrigation	001	Continuous	METER
Coliform, total general	Daily Maximum		<= 23 Colony Forming Units per 100ml T (CFU/100mL)[2]	Prior to Irrigation	001	Weekly	DISCRT
Coliform, total general	30 Day Geometric Mean		<= 2.2 Colony Forming Units per 100ml T (CFU/100mL)[2]	Prior to Irrigation	001	Weekly	DISCRT

Notes (Re-use Discharge Limitations Table):

1. If no discharge takes place from this outfall during the reporting period, enter No Data Indicator (NODI) Code "C" (No Discharge) in NetDMR.
2. CFU / 100 mL or MPN / 100 mL.

Re-use Discharge Limitations Table for Sample Location 002 (Miscellaneous Discharges Associated With Maintenance Activities) To Be Reported Monthly[1]

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	002	Daily When Discharging	CALCTD
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	002	Daily When Discharging	CALCTD

Notes (Re-use Discharge Limitations Table):

1. If no discharge takes place from this outfall during the reporting period, enter No Data Indicator (NODI) Code "C" (No Discharge) in NetDMR.

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Monthly[1]

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	003	Continuous	METER
Flow rate	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Effluent Gross	003	Continuous	METER
Coliform, total general	Daily Maximum		<= 23 Colony Forming Units per 100ml T (CFU/100mL)[2]	Effluent Gross	003	Weekly	DISCRT
Coliform, total general	30 Day Geometric Mean		<= 2.2 Colony Forming Units per 100ml T (CFU/100mL)[2]	Effluent Gross	003	Weekly	DISCRT

Notes (Re-use Discharge Limitations Table):

1. If no discharge takes place from this outfall during the reporting period enter No Data Indicator (NODI) Code "C" (No Discharge) in NetDMR.
2. CFU / 100 mL or MPN / 100 mL.

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
1,1-Dichloroethylene	Daily Maximum		<= 0.007 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
1,1-Dichloropropene (Dichloropropenes)	Daily Maximum		<= 0.087 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
1,1,1-Trichloroethane	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
1,1,2-Trichloroethane	Daily Maximum		<= 0.005 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
1,2-Dichlorobenzene (O-Dichlorobenzene)	Daily Maximum		<= 0.4 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
1,2-Dichloroethane	Daily Maximum		<= 0.005 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
1,2-Dichloropropane	Daily Maximum		<= 0.005 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
1,2,4-Trichlorobenzene	Daily Maximum		<= 0.07 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
1,3-Dichlorobenzene (M-Dichlorobenzene)	Daily Maximum		<= 0.4 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
1,4-Dichlorobenzene (P-Dichlorobenzene)	Daily Maximum		<= 0.075 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
2-Methyl-4,6-Dinitrophenol (4,6-Dinitro-2-Methylphenol)	Daily Maximum		<= 0.013 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
			<=				

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
2,3,7,8-Tetrachlorodibenzo-p-dioxin	Daily Maximum		0.00000001 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
2,4-Dichlorophenol	Daily Maximum		<= 3.1 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
2,4-Dichlorophenoxyacetic Acid (2 4-D)	Daily Maximum		<= 0.07 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
2,4-Dinitrophenol (Dinitrophenols)	Daily Maximum		<= 0.07 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
2,4,5-TP(silvex) acids/salts, whole water sample	Daily Maximum		<= 0.01 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Acrolein	Daily Maximum		<= 0.32 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Alachlor	Daily Maximum		<= 0.002 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Aldrin	Daily Maximum		<= 0 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Alkalinity, bicarbonate (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Aluminum, total (as Al)	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
			<= 0.006				

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Antimony, total (as Sb)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Arsenic, total (as As)	Daily Maximum		<= 0.01 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Asbestos	Daily Maximum		<= 7.0 Fibers per Liter (Fib/L)	Effluent Gross	003	Quarterly	DISCRT
Atrazine	Daily Maximum		<= 0.003 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Barium, total (as Ba)	Daily Maximum		<= 2.0 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Benzene	Daily Maximum		<= 0.005 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Benzo(a)pyrene	Daily Maximum		<= 0.0002 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Beryllium, total (as Be)	Daily Maximum		<= 0.004 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Bis(2-chloroisopropyl) ether	Daily Maximum		<= 0.0347 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Boron, total recoverable	Daily Maximum		<= 0.75 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Bromate	Daily Maximum		<= 0.01 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Cadmium, total (as Cd)	Daily Maximum		<= 0.005 Milligrams per Liter	Effluent Gross	003	Quarterly	DISCRT

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
			(mg/L)				
Calcium, total (as Ca)[3]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Carbofuran	Daily Maximum		<= 0.04 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Carbon Tetrachloride (Tetrachloromethane (Carbon Tetrachloride))	Daily Maximum		<= 0.005 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Chlordane (tech mix. and metabolites)	Daily Maximum		<= 0.002 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Chloride (as Cl)	Daily Maximum		<= 400 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Chlorite	Daily Maximum		<= 0.02 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Chromium, total (as Cr)	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
cis-1,2-Dichloroethylene	Daily Maximum		<= 0.07 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Color, apparent (unfiltered sample)	Daily Maximum		<= 15 Color - Platinum Cobalt Unit (col unit (pc))	Effluent Gross	003	Quarterly	DISCRT
Copper, total recoverable	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Cyanide, free available	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Dalapon	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
DDT	Daily Maximum		<= 0 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Di(2-ethylhexyl) adipate	Daily Maximum		<= 0.4 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Di-2-ethylhexyl phthalate	Daily Maximum		<= 0.006 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Dibromochloropropane	Daily Maximum		<= 0.0002 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Dibutyl phthalate	Daily Maximum		<= 34 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Dichloromethane	Daily Maximum		<= 0.005 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Dieldrin	Daily Maximum		<= 0 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Diethyl phthalate	Daily Maximum		<= 350 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Dimethyl phthalate	Daily Maximum		<= 313 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Dinoseb	Daily Maximum		<= 0.007 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
			<= 0.02				

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Diquat	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Endosulfan, total	Daily Maximum		<= 0.075 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Endothall	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Endrin	Daily Maximum		<= 0.002 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Ethylbenzene	Daily Maximum		<= 0.7 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Ethylene dibromide	Daily Maximum		<= 0.00005 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Fluoranthene (Fluoranthene (Polynuclear Aromatic Hydrocarbon))	Daily Maximum		<= 0.042 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Fluoride, total (as F)	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Foaming agents	Daily Maximum		<= 0.5 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Glyphosate, total	Daily Maximum		<= 0.7 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Haloacetic acids [HAA5]	Daily Maximum		<= 0.06 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
			<= 0.0004				

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Heptachlor	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Heptachlor epoxide	Daily Maximum		<= 0.0002 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Hexachlorobenzene	Daily Maximum		<= 0.001 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Hexachlorocyclopentadiene	Daily Maximum		<= 0.05 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Iron, total (as Fe)	Daily Maximum		<= 0.6 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Isophorone	Daily Maximum		<= 5.2 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Lead, dissolved (as Pb)	Daily Maximum		<= 0.015 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Lindane	Daily Maximum		<= 0.0002 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Magnesium, total (as Mg)	Daily Maximum		<= 150 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Manganese, total (as Mn)	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Mercury, total (as Hg)	Daily Maximum		<= 0.002 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
			<= 0.04				

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Methoxychlor	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Mirex	Daily Maximum		<= 0 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Monochlorobenzenes	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Nickel, total (as Ni)	Daily Maximum		<= 0.0134 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Nitrobenzene	Daily Maximum		<= 20 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Nitrogen, nitrite total (as N)	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Odor [Threshold Number]	Daily Maximum		<= 3.0 # Threshold Number (threshold #)	Effluent Gross	003	Quarterly	DISCRT
Oxamyl	Daily Maximum		<= 0.2 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Pentachlorophenol	Daily Maximum		<= 0.001 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
			<= 0.000004				

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Perfluorooctanesulfonic acid	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Perfluorooctanoic Acid	Daily Maximum		<= 0.000004 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
pH, maximum	Daily Maximum		<= 8.5 Standard Units (SU)	Effluent Gross	003	Quarterly	DISCRT
pH, minimum	Daily Minimum		>= 6.5 Standard Units (SU)	Effluent Gross	003	Quarterly	DISCRT
Phenol	Daily Maximum		<= 3.5 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Picloram	Daily Maximum		<= 0.5 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Polychlorinated biphenyls (PCBs)[4]	Daily Maximum		<= 0.0005 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Potassium, total (as K)[3]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Selenium, total (as Se)	Daily Maximum		<= 0.02 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Silver, total (as Ag)	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Simazine	Daily Maximum		<= 0.004 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Sodium, total (as Na)[3]	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Solids, total dissolved	Daily Maximum		<= 1000 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Styrene, total	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Sulfate (as S)	Daily Maximum		<= 500 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Tetrachloroethylene	Daily Maximum		<= 0.005 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Thallium, total (as Tl)	Daily Maximum		<= 0.002 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Toluene	Daily Maximum		<= 1.0 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Toxaphene	Daily Maximum		<= 0.003 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
trans-1,2-Dichloroethylene	Daily Maximum		<= 0.1 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Trichloroethylene	Daily Maximum		<= 0.005 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Trihalomethane, tot.[5]	Daily Maximum		<= 0.08 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	CALCTD
Uranium, natural, total	Daily Maximum		<= 0.03 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
			<= 0.002				

Re-use Discharge Limitations Table for Sample Location 003 (Finished Water Injection Tank Prior To Injection) To Be Reported Quarterly[1][2]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Vinyl Chloride (Chloroethylene (Vinyl))	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Xylene[6]	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Zinc, dissolved (as Zn)	Daily Maximum		<= 2.0 Milligrams per Liter (mg/L)	Effluent Gross	003	Quarterly	DISCRT
Outfall observation,visual, y/n response[7]	Value		<= 0 Pass=0 Fail=1 (pass/fail)	Effluent Gross	003	Quarterly	DISCRT

Notes (Re-use Discharge Limitations Table):

1. If no discharge takes place from this outfall during the reporting period, enter No Data Indicator (NODI) Code "C" (No Discharge) in NetDMR.
2. Toxic materials list (NAC 445A.1236), Profile 1, and primary (NAC 445A.4525) and secondary maximum contaminant levels (MCLs) (NAC 445A.455). Since some of the toxic materials, Profile 1, primary and secondary MCL constituents overlap, the most stringent limit from each list was selected.
3. Analysis is for the dissolved fraction.
4. Total polychlorinated biphenyls.
5. The standard for trihalomethanes is the sum of the concentration of bromodichloromethane, dibromochloromethane, tribromomethane (i.e., bromoform), and trichloromethane (i.e., chloroform).
6. Total xylenes.
7. For each technology used to reach a log reduction of 12, 10, and 10 for enteric virus, *Giardia lamblia*, and *Cryptosporidium*, respectively, the Permittee shall report whether the applicable technology performed in accordance with operational objectives. A value of "0" equates to technology operating at spec and a value of "1" equates to the technology operating off spec. See Special Approvals / Conditions Item #3 for further information.

Summary of Changes From Previous Permit

As this is a new permit, there is no summary of changes to report.

Technology Based Effluent Limitations

For industrial (and other non-municipal) facilities, technology-based effluent limitations (TBELs) require a minimum level of treatment of pollutants for point source discharges based on available treatment technologies, while allowing the discharger to use any available control technique to meet the limits. TBELs are derived by national effluent limitation guidelines (ELGs) and standards established by the United State Environmental Protection Agency (EPA), and / or using one's best professional judgement (BPJ) on a case-by-case basis in the absence of national guidelines and standards. As there are no ELGs for advanced water treatment systems, the Division will be utilizing its BPJ by implementing effluent limitations per NAC 445A.243 (see the Water Quality Based Effluent Limitations section of the Fact Sheet for further information).

Water Quality Based 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 NRS 445A.305, consideration must be given to, but is not limited by, the following: (1) the effect of the discharge on the receiving waters and its beneficial use. (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." Furthermore, per Nevada Revised Statute (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...". Additionally, per NRS 445A.415, ""Waters of the State" means all waters situated wholly or partly within or bordering upon this State, including but not limited to 1. All streams, lakes, ponds, impounding reservoirs, marshes, water courses, waterways, wells, springs, irrigation systems and drainage systems; and 2. All bodies or accumulations of water, surface and underground, natural or artificial."

Although Nevada does not have water quality standards for groundwater, due to the Permittee's end goal of injecting the advanced treated water into the aquifer, water quality requirements found at NAC 445A.27612 are applicable. Therefore, the proposed permit includes limits for constituents found in the National Primary Drinking Water regulations as well as for constituents found in Nevada's secondary drinking water standards.

The proposed permit establishes the requirement to sample for total coliform, per NAC 445A.276, to assess the quality of reclaimed water being supplied for irrigation and for the protection of human health and the environment.

The requirement to sample for toxic materials listed in NAC 445A.1236 have been included in the proposed groundwater discharge permit. Furthermore, the requirement to sample for Profile 1 pollutants has been established. 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. The municipal or domestic supply, as well as the irrigation, beneficial use standards listed under the toxic materials list are included. The municipal or domestic supply beneficial use is included as groundwater is considered an existing or potential source of drinking water. The irrigation beneficial use is included as the treated water will be used for irrigation purposes at the American Flat Fields. Additionally, since some of the Profile 1, toxic materials, and the primary and secondary drinking water constituents overlap, the most stringent limit from each list was selected and incorporated into the permit.

Effluent limits have been rounded to the nearest whole number.

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

The proposed permit establishes the requirement to sample for constituents listed in the national primary and Nevada's secondary drinking water standards once a quarter to determine compliance with NAC 445A.27612.

The proposed permit establishes the requirement to sample for total coliform. Weekly sampling is deemed sufficient to determine compliance with the permit limit.

The proposed permit establishes the requirement to sample toxic materials as listed at NAC 445A.1236. Quarterly sampling is deemed appropriate to collect and analyze water quality data.

Basis for Effluent Limitations

The proposed permit establishes the requirement to sample for Profile 1 constituents. Quarterly sampling is deemed appropriate to collect and analyze water quality data.

The proposed permit establishes a daily maximum discharge flow limit of 2.0 MGD based on the facility's design criteria.

Anti-backsliding

To prevent backsliding, effluent limitations in reissued permits are required to be as stringent as those in the previous permit. As this is a new permit, anti-backsliding requirements are not applicable.

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.

Special Conditions
Refer to the Special Conditions / Approvals Table.

SA – Special Approvals / Conditions Table

Item #	Description
1	Final (100%) design plans for the APWF shall be submitted to the Division, for review and approval, prior to the start of construction.
2	State of Nevada Administrative Code (NAC) 445A.289 classifies an Indirect Potable Reuse Facility as a Class IV Wastewater Plant. The APWF is being designed and is intended to operate with the same provisions as a drinking water facility. The Division recognizes that wastewater and/or water treatment operators are experienced and trained in the operation of the employed treatment technologies. Until the State of Nevada Administrative Code is amended, either water or wastewater certification is acceptable. The minimum grades of certification of operators for the APWF (Class IV Plant) is a wastewater or water treatment Grade IV supervisor and Grade III assistant supervisor (NAC 445A.290). Per NAC445A.290(2), any person, other than a supervisor or assistant supervisor, who is working as an operator of the APWF must be certified as at least a Grade I wastewater or water treatment operator.
3	Upon first knowledge of off-spec quality water being injected into the aquifer, the Permittee shall notify the Division immediately. Additionally, a written report shall be submitted to the Division within five (5) days of the event and a value of "1" shall be entered for the "Outfall observation, visual y/n response" parameter in the quarterly table for Outfall 003 for the quarter the event occurred.
4	Compliance reports shall be submitted to the Division to demonstrate that the applicable technology performed in accordance with operational objectives for each quarter. The reports shall be uploaded to the Nevada NetDMR website.
5	The Permittee shall provide a summary of the facility's operations, including any diversions back to the facility or to another outfall, other than through the injection site, in the annual report which shall be uploaded to the Nevada NetDMR website.

Discharges From Future Outfalls/ Planned Facility Changes
The Permittee proposes to inject the advanced treated water to an outlying aquifer after validation testing is complete. This activity will be covered under a separate permit through the Division's UIC program.

Corrective Action Sites
There are no Bureau of Corrective Actions (BCA) sites located within a one-mile radius of the discharge location; the American Flat Farm site.

Wellhead Protection Program
The nearest Public Water System (PWS) well is located approximately 1.75 miles south of the American Flat Farm site. There are additional PWS wells located to the south, southeast, and southwest. The proposed discharge location is not located within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well. Furthermore, there are no Wellhead Protection Areas, which represent an approximate 10-year capture zone of a well, in the vicinity of the discharge. The discharge is not anticipated to affect any PWS wells due to the distance of the wells.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	All Discharge Monitoring Reports (DMRs) shall be submitted electronically through the Nevada NetDMR website https://netdmr.ndep.nv.gov/netdmr/public/home/htm.	7/28/2026
2	Within 90 days of the APWF start-up period, the Permittee shall submit to the Division, for review and approval, two (2) copies (one hard copy and one electronic copy) of an Operations and Maintenance (O&M) Manual. The O&M Manual shall be stamped, dated, and signed by a Nevada registered Professional Engineer. The O&M Manual shall also be prepared in accordance with WTS-2: Minimum Information Required for an Operation and Maintenance Manual.	11/1/2029
3	Within 90 days of the APWF start-up period, the Permittee shall submit to the Division, for review and approval, two (2) copies (one hard copy and one electronic copy) of a Reclaimed Water Management Plan (RWMP). The RWMP shall be stamped, dated, and signed by a Nevada registered Professional Engineer. The RWMP shall also be prepared in accordance with WTS-1B: *General Criteria for Preparing a Reclaimed Water Management Plan.*	11/1/2029
4	Within in 30 days of start-up, the Permittee shall provide to the Division certification that construction of the APWF has been substantially completed.	1/1/2030
5	The Permittee shall submit to the Division, for review and approval, proposed templates for compliance reports, for each technology used to reach a log reduction of 12, 10, and 10 for enteric virus, Giardia lamblia, and Cryptosporidium, respectively.	11/1/2029

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly Discharge Monitoring Reports	Quarterly	7/28/2026
2	Annual Report (See section C.1.2. of the Permit)	Annually	1/28/2027

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. **4/29/2026,** a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

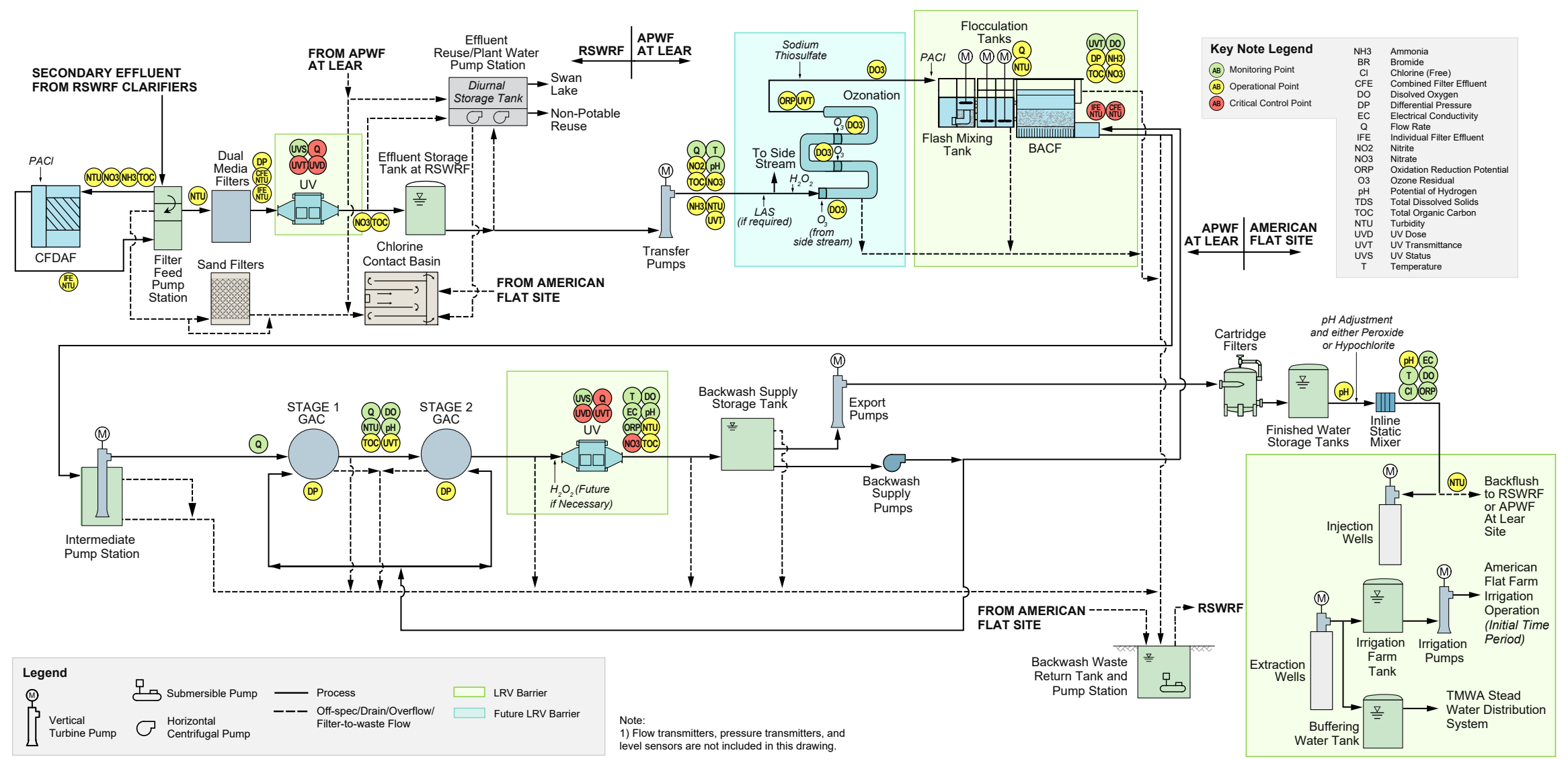
A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate 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: **Bonnie Hartley**
Date: **3/27/2026**
Title: **Staff II, Associate Engineer**


SECONDARY EFFLUENT FROM RSWRF CLARIFIERS
FROM APWF AT LEAR
Effluent Reuse/Plant Water Pump Station
Diurnal Storage Tank
Swan Lake
Non-Potable Reuse
RSWRF
APWF AT LEAR
Sodium Thiosulfate
Ozonation
Flocculation Tanks
Flash Mixing Tank
BACF
To Side Stream
LAS (if required)
O_3 (from side stream)
H_2O_2
PACl
CFDAF
Dual Media Filters
UV
Effluent Storage Tank at RSWRF
Chlorine Contact Basin
Transfer Pumps
Filter Feed Pump Station
Sand Filters
FROM AMERICAN FLAT SITE
APWF AT LEAR
AMERICAN FLAT SITE
Key Note Legend
Monitoring Point
Operational Point
Critical Control Point
NH3 Ammonia
BR Bromide
Cl Chlorine (Free)
CFE Combined Filter Effluent
DO Disolved Oxygen
DP Differential Pressure
EC Electrical Conductivity
Q Flow Rate
IFE Individual Filter Effluent
NO2 Nitrite
NO3 Nitrate
ORP Oxidation Reduction Potential
O3 Ozone Residual
pH Potential of Hydrogen
TDS Total Dissolved Solids
TOC Total Organic Carbon
NTU Turbidity
UVD UV Dose
UVT UV Transmittance
UVS UV Status
T Temperature
Intermediate Pump Station
STAGE 1 GAC
STAGE 2 GAC
UV
H_2O_2 (Future if Necessary)
Backwash Supply Storage Tank
Backwash Supply Pumps
Export Pumps
Cartridge Filters
pH Adjustment and either Peroxide or Hypochlorite
Finished Water Storage Tanks
Inline Static Mixer
Backflush to RSWRF or APWF At Lear Site
Injection Wells
American Flat Farm Irrigation Operation (Initial Time Period)
Irrigation Farm Tank
Irrigation Pumps
Extraction Wells
Buffering Water Tank
TMWA Stead Water Distribution System
FROM AMERICAN FLAT SITE
RSWRF
Backwash Waste Return Tank and Pump Station
Legend
Vertical Turbine Pump
Submersible Pump
Horizontal Centrifugal Pump
Process
Off-spec/Drain/Overflow/ Filter-to-waste Flow
LRV Barrier
Future LRV Barrier
Note:
1) Flow transmitters, pressure transmitters, and level sensors are not included in this drawing.