

**NEVADA DIVISION OF ENVIRONMENTAL PROTECTION**

**FACT SHEET**

(pursuant to NAC 445A.236)

**Permittee Name:** Washoe County Dept. of Regional Parks and Open Space  
 2601 Plumas Street  
 Reno, Nevada 89509

**Location:** Spanish Springs, Nevada 89436

Reuse location	Outfall 001: Site 1		Outfall 2: Site 2		Outfall 3: Site 3	
		Desert Winds Park 105 Ember Drive Spanish Springs, NV 89436		Eagle Canyon Park 400 Eagle Canyon Drive Spanish Springs, NV 89436		Gator Swamp Park 255 Egyptian Way Spanish Springs, NV 89436
<b>LAT</b>	39° 38' 27.35" N	39.6409306°	39° 38' 42.25" N	39.6450694°	39° 39' 15.70" N	39.6543611°
<b>LON</b>	119° 43' 13.10" W	-119.7203056°	119° 43' 15.80" W	-119.7210556°	119° 42' 47.80" W	-119.7132778°
<b>S, T, R</b>	SE4, S34, T21N, R20E, MDBM		NE4, S34, T21N, R20E, MDBM		SW4, S26, T21N, R20E, MDBM	

Reuse location	Outfall 4: Site 4		Outfall 5: Site 5			
		Lazy 5 Park 7100 Pyramid Highway Spanish Springs, NV 89436		Sky Ranch Park 8900 La Posada Drive Spanish Springs, NV 89436		
<b>LAT</b>	39° 37' 12.10" N	39.6200278°	39° 38' 15.85" N	39.6377361°		
<b>LON</b>	119° 43' 20.15" W	-119.7222639°	119° 42' 41.30" W	-119.7114722°		
<b>S, T, R</b>	NE4, S10, T20N, R20E, MDBM		SW4, S35, T21N, R20E, MDBM			

**Permit Number:** NEV2004501

**General:**

The Permittee proposes to manage the use of treated effluent at a total of five parks to dispense treated effluent under the terms and conditions of this permit and the approved Effluent Management Plan (EMP). The five parks are located in Spanish Springs having a total of 91.25 acres, of which 75 are irrigated. The parks receive tertiary treated, denitrified and disinfected reuse water from the City of Sparks supplied by the Truckee Meadows Water Reclamation Facility (TMWRF, Permit #NEV2003506) for dust control, soil conditioning, spray irrigation of turf grasses, trees and other landscape plant materials as well as drip and hand irrigation. The TMWRF reclaim bacteriological water quality supplied to each site meet NAC 445A.276 reuse Category B requirements for human contact with effluent through chlorination processes. The reuse effluent supply is denitrified below 10 mg/l Total Nitrogen. All reuse operations shall be conducted and operated in accordance with the approved Effluent Management Plan (EMP) and permit conditions.

**Flow:**

The applicant requested permit discharge flow limits at 0.590 MGD 30-Day Average Flow and at 0.590 MGD Daily Maximum Flow to serve the five park sites receiving reuse water. The permit requires the reuse water quantity to be monitored and reported. All effluent applied shall be done in accordance with the approved EMP for each individual site. The monthly maximum is limited to highest usage month determined from consumptive use balance plus 10% allowance for agronomic factors beyond permittee's control and in accordance with the EMP. The annual application volume is limited to a maximum of 258.1 Acre-Feet per year (84.1 million gallons per year) in the permit based on all the parks combined EMP agronomic demand. The City of Sparks conveys the TMWRF reuse water by agreement to the permittee with a delivery cap of 111.56 Acre-Feet per year (35.35 million gallons per year). However, this delivery cap may be negotiated by the parties up to the EMP projected agronomic use rate limit without permit modification. Permittee shall notify the Division in writing if the issued permit flow limits are changed by the supplier.

**Discharge Characteristics:**

TMWRF discharge is tertiary treated, disinfected, and denitrified domestic and industrial wastewater that meets state

reuse category B requirements for bacteriological quality. TMWRF reports effluent characteristics as follows in Table 1 below. This treated effluent water quality data is supplied by TMWRF to individual users who hold active permits to reuse and discharge the TMWRF reclaim water. Reports from TMWRF have shown consistent achievement of effluent discharge limits.

**Table 1: TMWRF Effluent Limits and Performance**

Parameter	Permit Limit (30-day Avg)	2008 annual average
Biochemical Oxygen Demand - 5 Day, Uninhibited, mg/L	20	2.5
Total Suspended Solids, mg/L	20	1.3
Total Dissolved Solids, mg/L	Monitor & Report	392
pH, standard unit	$6.5 \leq \text{pH} \leq 8.5$	7.5
Total Nitrogen as N, mg/L	10	1.6
Fecal Coliform, cfu or MPN per 100 ml	< 2.2	< 2.2

**Well Head and Drinking Water Supply Protection:**

Outfalls for this permit associated with Public Water System (PWS) Well Head Protection Areas (WHPA) and Drinking Water Protection Areas (DWPA) are summarized in the following table:

Out fall	PWS No.	Public Water System	Well ID	Within WHPA	Within DWPA well radius		
					1,000 ft	3,000 ft	6,000 ft
001	NV0001085	Desert Springs Utility Co.	3, 4	NA	--	X	X
	NV0004082	Spring Creek Water Co.	2	NA	--	X	X
002	NV0001085	Desert Springs Utility Co.	4	NA	--	X	X
	NV0001085	Desert Springs Utility Co.	3	NA	--	--	X
	NV0001086	Sky Ranch Water Service Corp.	1, 2	NA	--	--	X
	NV0004082	Spring Creek Water Co.	1, 2	NA	--	--	X
003	NV0001086	Sky Ranch Water Service Corp.	2	NA	--	X	X
004	NV0001085	Desert Springs Utility Co.	1	NA	--	X	X
005	NV0001085	Desert Springs Utility Co.	3	NA	--	X	X
	NV0001086	Sky Ranch Water Service Corp.	1	NA	--	X	X
	NV0004082	Spring Creek Water Co.	1, 2	NA	X	X	X

Depth to groundwater in the vicinity varies. Treated effluent provided for reuse is denitrified with averages less than 3 mg/l total nitrogen concentration and when applied in accordance with the approved Effluent Management Plan (EMP), no adverse affects to groundwater due to flows is expected. Groundwater monitoring wells are not required for any site in this permit.

**Proposed Limitations:**

The reclaim water supply made available to the permittee for reuse from the TMWRF averages less than 3 mg/l total nitrogen concentration, and is disinfected by chlorination processes. The Fecal Coliform limitation is set at the NAC 445A.276 bacteriological water quality requirement for reuse Category B of 2.2 CFU or MPN/100 ml, 30-day average. Therefore, in accordance with NAC 445A.2764, control of public access to the area of use is required; and, to the fullest extent possible, use is to be conducted in a manner so that human contact with spray irrigation cannot reasonably be expected to occur.

Proposed limitations are set to verify the constituent composition of effluent discharges and control application and operational parameters to protect groundwater conditions.

During the period beginning on the effective date of this permit and lasting until the permit expires, the Permittee is authorized to discharge treated wastewater effluent at the five individual Spanish Springs park sites identified on page one. Flow monitoring shall be recorded at each park site. Reclaimed water quality shall be in accordance with the limits set forth in NEV2003506 for the Truckee Meadows Water Reclamation Facility.

Discharge shall be monitored and reported by Permittee in accordance with limitations specified in Table 2.

**Table 2 – Discharge Limitations**

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS <sup>1</sup>			
	30-Day Average	Daily Maximum	Site Location	Measurement Frequency	Sample Type	
001-005: Total reclaim flow	MGD	0.590	0.590	1, 2, 3, 4, 5	Continuous	Flow meter
	MGM <sup>2</sup>	Monitor & Report <sup>2</sup>	--	1, 2, 3, 4, 5	Continuous	Flow meter
001: Site 1 [Desert Winds]	MGD	0.300	Monitor & Report	1	Continuous	Flow meter
	MGM <sup>2</sup>	Monitor & Report <sup>2</sup>	--	1	Continuous	Flow meter
002: Site 2 [Eagle Canyon]	MGD	3.600	Monitor & Report	2	Continuous	Flow meter
	MGM <sup>2</sup>	Monitor & Report <sup>2</sup>	--	2	Continuous	Flow meter
003: Site 3 [Gator Swamp]	MGD	0.900	Monitor & Report	3	Continuous	Flow meter
	MGM <sup>2</sup>	Monitor & Report <sup>2</sup>	--	3	Continuous	Flow meter
004: Site 4 [Lazy 5]	MGD	11.700	Monitor & Report	4	Continuous	Flow meter
	MGM <sup>2</sup>	Monitor & Report <sup>2</sup>	--	4	Continuous	Flow meter
005: Site 5 [Sky Ranch]	MGD	1.200	Monitor & Report	5	Continuous	Flow meter
	MGM <sup>2</sup>	Monitor & Report <sup>2</sup>	--	5	Continuous	Flow meter
001-005: Annual Application Volume <sup>3</sup> AF/year		258.1 (See permit Part I.B.5)		1, 2, 3, 4, 5	Cumulative to date	Flow meter
Fecal Coliform <sup>4</sup> cfu, mpn per 100 ml		2.2	23	Supply <sup>4</sup>	Weekly	Discrete
MGD: Million Gallons per Day MGM: Million Gallons per Month	cfu: Colony Forming Unit mpn: Most Probable Number	ml: milliliter AF: Acre Feet [volume]				

1. See Part I.D. of permit for additional information on sampling, testing, reporting, monitoring and definitions related to requirements.
2. Report the total usage per each calendar month. Monthly maximum limited to highest usage month determined from consumptive use balance + 10% allowance for agronomic factors beyond permittee's control and in accordance with permit Part I.B.5 requirements.
3. Submit with 4th Quarter Discharge Monitoring Report along with results required by permit Part I.B.5, if needed. 258.1 AF/yr = 84.1 MG/yr. City of Sparks authorized delivery cap is 111.56 AF per year (36.35 MG/y); however, this delivery cap may be negotiated by the parties up to the Effluent Management Plan projected agronomic use rate limit of 258.1 AF per year (84.1 MG/y) without permit modification.
4. Sample results to be obtained from NEV2003506 and reported by Permittee. Bacteriological quality (Coliform) limitation is set to meet NAC 445A.276 reuse Category B requirement for human contact with effluent reclaim water. Weekly sampling during effluent application periods.

Monitoring requirements may be satisfied by data collected by the Truckee Meadows Water Reclamation Facility [NEV2003506]. Discharge Monitoring Reports are to be submitted by the Permittee. Copies of backup data or water quality calculation summaries are to be maintained at the reuse site.

#### **Rationale for Permit Requirements:**

**Flow:** Flow is limited by the volume of treated effluent requested for application, and as long as the nitrogen budgets presented in the approved EMP are observed and annually balanced, the flow rate or volume of water requested can be authorized. TMWRF denitrifies effluent provided for reuse with averages less than 3 mg/l total nitrogen concentration and when applied in accordance with the approved EMP, no adverse affects to groundwater due to flows is expected.

**Fecal Coliform:** The concentration of fecal coliform in treated wastewater discharged for reuse is restricted in accordance with NAC 445A.276 for a zero-distance buffer zone with controls in place for public access. The limit of 2.2 cfu/100 ml is met by TMWRF for the protection of human health.

**Schedule of Compliance**

The Permittee shall implement and comply with the provisions of the following schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the Schedule of Compliance.

- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
- b. The Permittee shall maintain and revise, as necessary, the Effluent Management Plan (EMP) sections for each site keeping all information required by I.B of the permit current. Within one hundred twenty (120) days of permit effective date, **Month XX, 2009**, the Permittee shall submit the current EMP for the TMWRF reclaimed water use site(s) for review and approval by the Division. The submitted EMP sections shall include any change made to the EMP needed to comply with this permit issued and material in accordance with permit Part I.B.3., since the last Division approved edition.
- c. The Permittee shall submit first time use cross-connection control inspection documentation as required by permit Part I.B.14 within 14 days of acceptance by local water purveyor. Effluent use is not authorized without Division approval of first time use cross-control documentation. The Permittee shall submit current cross-connection control inspection and local water purveyor acceptance documentation as required by permit Part I.B.14 annually with the fourth quarter DMR.
- d. Prior to initiating any change to an approved EMP or approved system plans, in accordance with permit Part I.B.1 or Part I.B.2, a revision requesting such change must be prepared by a qualified professional and submitted to the Compliance Coordinator. The Permittee, or designated representative, shall adequately address all comments and concerns relating to the Division's review of a revised EMP or system plan. **The Permittee shall not initiate any change to an approved EMP or approved system plan without Division review and approval.**
- e. If permittee re-negotiates the authorized daily delivery and/or annual effluent supply with the permittee's supplier or conveyor, permittee shall inform the Division of the newly negotiated supply limit in writing within 14 days of adopting the agreement/contract between the parties. If such agreement/contract exceeds this permit's authorized daily or annual effluent application limit, the permittee shall request a permit modification and update the approved EMP. Permittee, as the individual permit end user of TMWRF reuse water shall be responsible for any necessary modification to said individual permit and/or, if necessary, obtaining a temporary permit issued by the Division to address the change.
- f. **All compliance deliverables shall be submitted to the compliance coordinator identified in permit Part I.D.2.d.**

**Determination:**

The Division has made the determination to issue the proposed permit for a five-year (5) period.

**Procedures for Public Comment:**

The Notice of the Division's intent to issue the permit authorizing the facility to discharge to the groundwater of the State of Nevada subject to the conditions contained within the permit is being sent to the **Reno Gazette Journal** for publication. The notice is being mailed to interested persons on the NDEP-BWPC mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of the publication of the public notice. All comments must be received by 5:00 pm local time on Friday July 31, 2009. 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 or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Prepared by: E. Samuel Stegeman, P.E.  
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