

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

F A C T S H E E T
(pursuant to NAC 445A.236)

Permittee Name: Coyote Springs Water Resources General
Improvement District
1001 Valley View Boulevard
Las Vegas, Nevada 89153

Permit Number: NEV2007501

Description of Discharge

Location: Coyote Springs Water Reclamation Facility (WRF)
11502 State Route 168
Coyote Springs, Nevada 89037

Clark County, Nevada

Latitude 36° 23' 20"N; Longitude 114° 55' 26"W.
Section 23, T. 13S., R. 63E., MDB&M

General: The Permittee has applied for a permit for an initial 0.020 MGD wastewater treatment plant for Phase I of the project and for a 2.1 MGD wastewater treatment plant for Phase II of the project which is owned by the Coyote Springs Water Resource General Improvement District (CSWRGID), and will be operated by the Clark County Water Reclamation District. The two facilities are designed to discharge treated effluent from the CSWRF to groundwaters of the state via approved reuse spray and drip irrigation on golf course I initially and on golf course II as it is developed and flows increase. Other irrigated sites may include common areas, parks and streetscapes. Effluent is also authorized for construction use and dust control onsite. Two HDPE lined storage ponds, 2.6 acres and 6.5 acres in size, are to be located at the WRF to supply treated effluent supplemented and blended with raw water (discharged to the storage lakes via an air-gap) to the golf course irrigation lakes 1A and 6A for irrigation. A third lined pond is proposed to be constructed when flows reach 1.25 MGD, and will be approximately 19 acres in size.

The proposed Phase I and Phase II WRF facilities will utilize an activated sludge process for treatment, and each will include a membrane bioreactor designed to treat up to 0.020 MGD and 2.10 MGD of domestic wastewater respectively to meet 10 mg/l BOD and 10 mg/l TSS and less than 10 mg/l Total Nitrogen as N. The plant will produce a tertiary treated effluent that is denitrified and disinfected to meet Category B effluent (NAC 445A.425) 2.2 MPN/CFU/100 ml fecal coliform. The facility will be operated in accordance with the terms and conditions of the permit and the Division approved Operations and Maintenance Manual (O & M) for each WRF. Discharges will be to the onsite lined effluent storage ponds (Outfall 001), and pumped to approved effluent storage lake 1A and or 6A on the golf course for reuse supply.

Each plant will consist of a headworks with automatic coarse screening, a flow meter, grit removal facilities, followed by fine 2mm screening, a splitter box, flow equalization basin(s), and the membrane bioreactor (MBR) basin(s), with permeate directed to the chlorine contact basins, dechlorination facilities and to the effluent pump station and flow meter for delivery to reuse, or effluent storage. Sludge removed from the MBR basins will be pumped to an aerobic digester from which the waste sludge will be directed to a sludge dewatering system (belt filter press) for disposal in the Apex landfill. Grit and screenings will also be disposed in the landfill.

The smaller Phase I plant is expected to be completed and in operation by the late Summer of 2008. Once operational, treated effluent will be stored in the first of three onsite storage ponds, or distributed to the golf course irrigation ponds, or utilized for approved irrigation and or construction water uses.

Other approved reuse sites/facilities will be added as minor modifications to the permit. The final plans for the Phase II plant have been approved, however, the plans for the Phase I plant have only recently been approved by the Division.

Flow: The Coyote Springs Phase I plant facility has a flow limit of 0.02 MGD (30-day average). The permanent Phase II facility will have a 2.10 MGD flow limit (30-day average). It is anticipated that following the next permit period, or later, in response to growth, a future expansion of the facility will be required in about 10 years, when a third Phase expansion of the facility will, upon approval, be constructed to treat a projected increase in flow to 4.20 MGD.

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

<u>PARAMETERS</u>	<u>DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>30-day Ave.</u>	<u>Daily Max</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
INFLUENT FLOW:				
Phase I	0.020 MGD	0.08 MGD	Continuous	Meter
Phase II	2.10 MGD	9.70 MGD	Continuous	Meter
TOTAL EFFLUENT FLOW:				
Outfall 001: (Onsite storage ponds)				
Phase I	M & R MGD	M & R MGD	Continuous	Meter
Phase II	M & R MGD	M & R MGD	Continuous	Meter
Outfall 002 (storage lake 1A)	Monitor and Report		Monthly	Meter
Outfall 003 (storage lake 6A)	Monitor and Report		Monthly	Meter

INFLUENT BOD ₅ :	M & R mg/L	M & R mg/L	Monthly	Composite
INFLUENT TSS:	M & R mg/L	M & R mg/L	Monthly	Composite

OUTFALL 001

EFFLUENT BOD ₅ :	10 mg/L	15 mg/L	Monthly	Composite
TOTAL SUSPENDED SOLIDS:	10 mg/L	15 mg/L	Monthly	Composite
AMMONIA as N:	M & R mg/L	M & R mg/L	Monthly	Composite
NITRATE AS N:	M & R mg/L	M & R mg/L	Monthly	Composite
TOTAL NITROGEN as N:	10 mg/L	M & R mg/L	Monthly	Composite
pH:	Between 6.0 and 9.0 SU		Monthly	Discrete
TOTAL COLIFORM:	2.2 CFU/MPN/ 100 ml	23 CFU/MPN 100 ml	Monthly	Discrete

Note: M & R = Monitor and Report CFU = colony forming units
 MPN = most probable number ml = milliliter MGD = million gallons
 per day SU = standard units mg/L = milligrams per liter

Receiving Water Characteristics: The receiving water is the groundwater of the State of Nevada. Based on historic data, the groundwater ranges from 352 to 438 feet measured in three nearby wells, and it is potable. Drinking water in this service area will be provided from a municipal supply with arsenic removal as needed, and chlorinated to meet State Drinking Water regulation.

Procedures for Public Comment:

The notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwaters of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Las Vegas Review Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of the newspaper publication of the public notice by MM/DD, 2007. 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 U.S. 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 scheduled by the Administrator must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines 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 the proposed permit for a five (5) year period. The facility is currently under construction under the terms and conditions of permit No. TNEV2006371.

Schedule of Compliance and Special Conditions

- a. The Permittee shall achieve compliance with the effluent limitations within three months of start up of operations, after issuance of the permit.
- b. An Operations and Maintenance Manual (O & M) stamped and signed by a Nevada Registered Engineer shall be submitted to the Division for review and approval within 60 days both of construction completion of each plant, and after each plant is operational. A Sludge Management Plan shall also be included in the O & M Manual. If sludge is disposed to locations other than approved landfill sites, said plan must also address Part 40 CFR Section 503 of the federal regulations.
- c. A letter of Certification wet-stamped by a Nevada Registered Professional Engineer stating that all plant elements have been constructed in accordance with Division approved plans for each facility shall be submitted to the Division within 30 days of completion of each plant's construction. A copy of the as-builts for each new plant facility and its related infrastructure shall also be included with the Certification.
- d. Any backwash waters from the G.I.D.'s water treatment plant discharged to the WRF for groundwater discharge/reuse shall meet drinking water standards for Arsenic.

Rationale for Permit Requirements:

Monitoring is required to assess the level of treatment being provided, to determine when design capacity is being approached and to ensure that groundwaters of the State are not degraded.

Prepared by: Icyl C. Mulligan
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