NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET

(Pursuant to NAC 445A.236)

Permittee Name: Goldfield Utilities
P.O. Box 155
Goldfield, NV 89013

Permit Number: NEV40030

Location: Goldfield Wastewater Treatment Facility (WWTF)
233 Crook St, Goldfield NV 89013 (Esmeralda County)
Latitude: 37° 43' 46" N, Longitude: 117° 14' 17" W
Elevation: 5,563 ft ASL
Township 2S, Range 42E, S½ SW¼ Section 26

Corrective Actions Sites: There is no Bureau of Corrective Actions remediation site located within a one-mile radius of the Goldfield WWTF.

Wellhead Protection Area: The Goldfield WWTF is not located within 6,000 ft of a Drinking Water Protection Area (DWPA #4) or a wellhead capture zone for any public supply well.

General: Esmeralda County Public Works operates the Goldfield Utilities WWTF in the Town of Goldfield (pop. 448). As of the last NDEP inspection in 2007, an equivalent of 270 residential connections was being serviced by the WWTF. The Goldfield WWTF, constructed in 1987, consists of a battery-operated flow meter at the head works, twin clay-lined facultative treatment ponds (0.9 acre surface area × 3 ft max. operating depth), which are operated individually in monthly rotation, and a common percolation-evaporation disposal basin or RIB (1.6 acres surface area). For this permit renewal, the county's engineer (Lumos & Associates) has proposed a two phase facility upgrade scheduled for construction in 2009-10. Submitted design plans for the first phase indicate deepening and lining of the west pond and dividing the disposal basin into two compartments. Ahead of Phase 1 construction, the west pond is currently offline for drying and sludge removal. Phase 2 (plans pending) will propose upgrade of the east pond, in similar fashion to Phase 1, installation of a down gradient monitoring well and completion of a crossover distribution pipe between the RIB compartments. The engineer's design allows the upgraded ponds to be operated individually, in series or in parallel flow. Phase 1 design calculations supports secondary treatment performance with one pond operational at a design flow of 0.0243 MGD per pond. The upgrade project follows completion of the collection system overhaul several years ago and accomplishes sludge removal, reduces weed growth potential, increases operating depth and minimizes seepage with an HDPE liner.

Flow: The existing flow averaged 0.018 MGD or 67 GPD per connection. The facility justified this low flow based on water conservation, collection system rehabilitation and limited use of some of the town's buildings and residences. With both ponds upgraded and operated in parallel flow, available capacity would be 0.0486 MGD or 180 GPD per connection. Without an economic stimulus to the local economy, wastewater demand growth is considered flat for the next five years. With the east pond in service, the available 0.045 MGD treatment capacity is halved to 0.0225 MGD until completion of the upgrade project since the west pond is offline.

DMR Analysis:

Flow: Averaged 0.018 MGD and is expected stable for the next five years.

Influent: CBOD and TSS levels averaged 170 and 200 mg/l, respectively. Upon abandonment of a former industrial connection in 2005 (i.e. Decommissioning, LLC Heap Leach Pad), influent flow discharged after that abandonment date into the Goldfield collection system is considered domestic (sanitary) wastewater in composition. Commercial connections (e.g. restaurants, bars) in Goldfield are limited. The Division approves the facility design only for domestic strength wastewater with no industrial connections unless documentation of an appropriate pre-treatment program is provided.

Effluent: With pond seepage loss and monthly rotation, effluent discharge into the RIB has been minimal and last noted occurring in late winter 2004 to produce sufficient measurable quantity of effluent for lab analysis. The 2004 sampling event reported CBOD and TSS levels of 95 and 78 mg/l, respectively. The CBOD effluent level of 95 mg/l exceeded the daily maximum standard of 45 mg/l presumably from the low operating depth inherent in the present pond design, which is a maximum of 3 ft total, including sludge storage. The new design corrects this limitation by providing 9 ft total operating depth in the upgraded ponds.

Receiving Water Characteristics: The RIB footprint is located in the SW¼ Section 26 of Township 2S, Range 42E. In this quarter section, two existing well logs are listed with the State Engineer and indicate respective depths to groundwater of 36 and 70 ft below ground surface. Based on Division monitoring policy, the local groundwater depth of less than 200 ft requires installation of a monitoring well no further than 250 ft down gradient (NNE) of the WWTF.

Schedule of Compliance: The Permittee shall submit the following item to the Division for review and approval **(all compliance deliverables shall be addressed to the attention of the Compliance Coordinator, Bureau of Water Pollution Control)**:

- The Permittee shall notify the Division in writing no more than fourteen (14) calendar days following construction completion of the WWTF upgrade project.
- Prior to construction of the Phase 2 portion of the facility upgrade project, the Permittee shall submit plans and receive the Division's approval for any proposed construction work in Phase 2.
- Within thirty (30) days following construction of the WWTF upgrade project, the Permittee shall submit a copy of the engineer's Construction Quality Assurance (CQA) letter indicating that the treatment facility was constructed in accordance with the approved design plans. The CQA letter shall be wet stamped and signed by a Nevada Professional Engineer (P.E.).
- Within thirty (30) days following construction of the WWTF upgrade project, the Permittee shall submit a copy of the as-built design plans wet stamped and signed by a Nevada Professional Engineer (P.E.).
- Within ninety (90) days following construction of the WWTF upgrade project, the Permittee shall submit an updated copy of an Operations & Maintenance (O&M) Manual for the facility, prepared in accordance with the Division's WTS-2 guidance: *Minimum Information*

Required for an Operations and Maintenance Manual. This document shall be wet stamped and signed by a Nevada Professional Engineer (P.E.).

Proposed Effluent Limitations and Special Conditions:

The proposed permit conditions include quarterly influent, effluent and groundwater sampling under the supervision of a Grade 1 (or higher) certified WW Operator. This monitoring schedule presumes treatment and disposal of domestic (sanitary) wastewater with no remaining industrial dischargers following abandonment of the Decommissioning, LLC facility discharge in 2005.

Table 1: Plant Discharge Limitations

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, GPD (Influent)	22,500 (Existing East Pond)		Continuous	Flow Meter
	24,300 (Phase 1 Completion)			
	48,600 (Phase 2 Completion)			
CBOD, mg/L (Influent)	-	M&R	Quarterly	Discrete
CBOD, mg/L (Effluent)	-	45	Quarterly	Discrete
TSS, mg/L (Influent)	-	M&R	Quarterly	Discrete
TSS, mg/L (Effluent)	-	90	Quarterly	Discrete
pH, Std. Units (Effluent)	-	6.0 – 9.0	Quarterly	Discrete

Table 2: Groundwater Monitoring (MW-1)

PARAMETER	GROUNDWATER LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Daily Maximum	Sample Type
TDS, mg/L	-	M&R	Quarterly	Discrete
Chlorides, mg/L	-	M&R	Quarterly	Discrete
Nitrate as N, mg/L	-	M&R	Quarterly	Discrete
Total Nitrogen as N, mg/L	-	10.0	Quarterly	Discrete
Depth to Groundwater, ft	-	M&R	Quarterly	Field Measurement

Procedures for Public Comment: The Notice of the Division's intent to issue (renewal and modification) this discharge permit, subject to the conditions contained within the permit is being sent to the **Tonopah Times-Bonanza & Goldfield News** and **Las Vegas Review-Journal** newspapers for publication. The notice is also being electronically mailed to interested persons on the Division's public notification mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **Friday, July 10, 2009, by 5:00 P.M. PST.**

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 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 (renewal and modification) of the proposed discharge permit for a period of five (5) years.

Prepared by: Mark A. Kaminski, P.E.
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Technical Services Branch
NDEP Bureau of Water Pollution Control

Date: June 3, 2009