

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Applicant: TM Bench Ranch
Thomas and Meridee Wiley
12830 Carson Highway
Fallon, Nevada 89406

Permit: NEV2002504 - Major Modification

Location: TM Bench Ranch Wildlife and Soil Enrichment Project
12830 Carson Highway
Fallon, Churchill County, Nevada 89406
Latitude: 39° 30' 14" N
Longitude: 118° 59' 33" W
Township 19 N, Range 27 E, Sections 18 and 19 MDB&M

General: The Applicant proposes to land apply domestic septage and grease trap material provided by Shamrock Services Portable Toilets (SSPT) to eighty acres of nutrient deficient agricultural land at the 150-acre TM Bench Ranch, a.k.a. Tom Wiley Farm, west of Fallon, Churchill County, Nevada. SSPT is a licensed septage hauler and is required to maintain this license to transport domestic septage and grease trap material to the facility.

The Applicant is currently authorized to accept domestic septage and grease trap material from A-1 Septic and Drain Service; Valley Septic, Sewer, and Drain; Bonanza Septic Service; Environmental Resources Inc., dba Easy Rooter Plumbing; and Budget Septic Service. As part of this permit modification, authorization to land apply material supplied by Waters Vacuum Truck Service, Inc. will be terminated.

The site is owned by Thomas A. and Meridee R. Wiley and is flood irrigated. The Permittee will be restricted to the use of approximately fifteen acres of the forty-acre Assessor's Parcel Number 007-191-26 on an annual rotational basis in conjunction with the permitted forty-acre portion of parcel 007-191-27. The fifteen acres eligible for land application may be rotated within the forty-acre parcel 007-191-26 with proper documentation. The septage must be screened to remove solids before the septage can be land applied. The septage must be incorporated into the soil within 6 hours of being land applied. A crop must be planted to uptake the nitrogen that is contained in the septage within one year of application. The application rate of domestic septage will be based on the nitrogen demand of the crop to be planted. To reapply domestic septage and grease trap material to cropland, the crop must be harvested and the crop yield analyzed. Grazing does not meet this requirement.

The Applicant has installed a 10,000-gallon, steel, above ground storage tank and is authorized to install a second tank. The maximum permitted domestic septage and grease trap material storage volume at this site is 20,000 gallons.

Receiving Water Characteristics: The groundwater is reported to be at a depth of approximately 60 feet below ground surface in the Applicant's on-site domestic supply well. The former NEV2002504 Permittee reported the groundwater to be of good quality with the following concentrations: total dissolved solids 492 mg/L, nitrate 0.1 mg/L, chloride 19 mg/L, and a pH of 8.07 SU. Based on a single analysis with a limited list of analytes, the shallow groundwater at this site met drinking water standards, except the secondary standard for manganese.

In November 2003, elevated total soluble salts concentrations ranging from 2,884 to 3,604 ppm were identified in the four drinking water wells nearest the site. Total soluble salts is a common analysis of livestock water and is similar to total dissolved solids. The nitrate concentration in all four wells was less than the 1 ppm detection level. The water in these four wells was also analyzed for electrical conductivity and pH.

Groundwater monitoring is not required for domestic septage beneficial use sites.

Characteristics: Only domestic septage and grease trap material may be land applied under this permit. Domestic septage is defined as either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not

include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater.

Flow: The application rate, in gallons of domestic septage and grease trap material per acre per year, shall be based on the nitrogen needs of the crop to be grown. If the crop is Sudangrass at a yield of 10 tons per acre, as proposed, with an annual nitrogen demand of 328 pounds per acre, domestic septage and grease trap material may be applied at a maximum rate of 126,000 gallons per acre per year. Permits for the land application of domestic septage do not include flow limitations.

Proposed Septage Use Requirements:

- Septage use must meet all of the requirements of 40CFR section 503, Standards for the Use or Disposal of Sewage Sludge.
- Domestic septage shall not be applied to land if the depth to groundwater is less than 3 feet.
- Domestic septage shall not be applied to land within 100 feet of any public roadway or within 600 feet of any residence.
- Domestic septage shall not be applied within 200 feet of a drinking water well not defined as a public water system.
- Domestic septage shall not be applied within 1,000 feet of a public water system well.
- Domestic septage shall not be applied within 50 feet of an irrigation well that has been sealed per Nevada Administrative Code (NAC) 534.380.
- Domestic septage shall not be applied within 200 feet of an irrigation well that is not sealed or cannot be documented as sealed per NAC 534.380.
- Domestic septage shall not be applied within 50 feet of any irrigation or drainage ditch, swale, intermittent stream, creek, river, wetland, lake, or other surface water.
- All land application sites shall be fenced and posted with warning signs stating "DOMESTIC SEPTAGE APPLIED, NO TRESSPASSING".
- Equipment to incorporate the domestic septage into the soil shall be on the site and in operating condition before septage is land applied.
- Food crops shall not be grown on land that has had domestic septage applied within the past five (5) years.
- The domestic septage shall be land applied at a uniform rate by means of a spray bar, splash plate, or similar method approved by the Division.
- The domestic septage shall be screened through a ¾-inch or finer screen to remove solids from the septage prior to land application. Solid material removed from the septage shall be disposed of in an approved landfill. The Permittee has been conditionally authorized to continue to use a 5/16-inch by 1½-inch screen. If plastics or other man-made materials are observed on the soil surface during site inspections, the Permittee will be required to remove the inappropriate material from the soil and to reduce the screen size opening prior to land applying additional septage.
- Grease trap material shall be mixed with domestic septage at a rate of one part grease trap material to at least three parts domestic septage, by volume, before it is land applied.
- Material pumped from portable toilets, holding tanks, or similar devices where the material is unlikely to have been anaerobically digested, shall be land applied at a rate one-sixth of the domestic septage application rate.
- All tanks used for storage at the beneficial use site shall be permanently labeled to identify the contents of the tank, the Permittee, the Permittee's phone number, and the Permittee's address.

-All tanks storing domestic septage shall be inspected daily for leakage. Documentation of the inspections shall be maintained in a bound logbook at the facility. Leaking tanks shall be immediately evacuated and removed from service until all leaks have been repaired.

Schedule of Compliance: The Permittee shall implement and comply with the provisions of the 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. The Permittee shall implement and/or execute the following scheduled compliance requirements:

- a. Upon the effective date of this permit, the Permittee shall achieve compliance with the reuse limitations.
- b. Within thirty (30) days of the permit modification effective date, the Permittee shall submit a revised Operations and Maintenance (O&M) Manual covering the beneficial use and storage of the domestic septage to the Division for review and approval. The revised O&M Manual shall include, but is not limited to, sections on how domestic septage and grease trap material are blended for land application, how portable toilet waste is tracked, how crop yields are monitored, and how future septage application rates will be adjusted, if actual crop yield(s) does/do not meet the crop yield(s) that was/were used to determine the septage application rate(s).
- c. At least forty-eight (48) hours prior to transporting any storage tank to the beneficial use site, the Permittee shall notify the Division.
- d. At least forty-eight (48) hours prior to removing any storage tank from the beneficial use site, the Permittee shall notify the Division.

Rationale for Permit Requirements: Permit requirements are necessary to protect the public health and prevent the land application site from becoming a public nuisance and a source of groundwater pollution.

Proposed Determination: The Division has made the tentative determination to issue the proposed permit modification for the remainder of the five (5) year term of the original permit, through September 23, 2007.

Procedures for Public Comment: The Notice of the Division's intent to issue a 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 **Lahontan Valley News/Fallon Eagle Standard** 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 publication of the public notice in the newspaper. The date and time by which all written comment must be postmarked or transmitted to the Division via facsimile or e-mail is 5:00 P.M. January 3, 2005. 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 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.

Prepared by: Bruce Holmgren
November 2004