California Regional Water Quality Control Board
North Coast Region

MONITORING AND REPORTING PROGRAM NO. R1-2008-0037

FOR

FOSTER's GROUP
Asti Winery
ON-SITE WASTEWATER TREATMENT SYSTEM
Sonoma County

FLOW MEASUREMENT

Constituent	Location	Units	Type of Sample	Frequency
Effluent Flow (from pressurized effluent lines)	EFF-1 and EFF-2	Gallons per day	Continuous	Daily

All flow measurement devices shall be tested annually in June and their accuracy verified. Verification shall be submitted with the January monitoring report. Alternative means to determine wastewater flow may be used upon approval by the Regional Water Board Executive Officer. Maximum Daily Effluent Flowrate shall not exceed its design capacity of 2250 gallons per day. Average Weekly Flowrate, on a Monday through Sunday basis, shall not exceed 1650 gallons per day.

INFLUENT CHARACTERISTICS

Influent samples shall be obtained from waste water entering the Recirculation-Blend tank of the AdvanTex Treatment System, Location INF-1. Quarterly samples shall be taken in January, April, June, and October concurrent with effluent sampling. Results shall be compared to, and not exceed, the Average or Maximum Concentration shown in the table below. All influent data for a calendar year shall be presented in a tabular fashion. Date, time and name of sampler shall be recorded.

Constituent	Location	Units	Type of Sample	Average Concentration[1] mg/L	Maximum Concentration[1] mg/L
Biochemical Oxygen Demand	INF-1	mg/L	Grab	150	250
Total Suspended Solids	INF-1	mg/L	Grab	40	75
Nitrate	INF-1	mg/L	Grab	-	-
Total Kjeldahl Nitrogen	INF-1	mg/L	Grab	65	75
Grease and Oil	INF-1	mg/L	Grab	20	25

WASTE WATER TREATMENT

The Discharger shall monitor treatment system performance quarterly. Quarterly samples shall be taken in January, April, June, and October. Samples shall be taken from the effluent sample taps located on the pressurized effluent lines leading from the sump at the Main Station to the leachfield, Locations EFF-1 or EFF-2.

Constituent	Location	Units	Type of Sample
Biochemical Oxygen Demand	EFF-1 or 2	mg/L	Grab
Total Suspended Solids	EFF-1 or 2	mg/L	Grab
Nitrate	EFF-1 or 2	mg/L	Grab
Ammonia	EFF-1 or 2	mg/L	Grab

Each quarterly report shall present all data for a calendar year in a tabular fashion and evaluate long term and seasonal performance. Treatment removal rates shall be calculated and all influent and effluent data for a calendar year presented in a tabular fashion. Date, time and name of sampler shall be recorded. The system will be operated such that nitrate concentrations, measured at EFF-1 or EFF-2, do not exceed 28 mg/L.

SYSTEM MAINTANENCE

1. Within 45 days issuance of a final operating permit by the County of Sonoma, the Discharger shall provide evidence that a qualified service provider will maintain and service the disposal system. A qualified service provider shall be retained for the operating life of the system. In the event service providers are changed, the Discharger shall notify the Regional Water Board within thirty days of the transfer. Each quarterly report shall certify that a qualified service provider is contracted and shall include the name of such provider.

[1] AdvanTex Design Criteria Manual dated 5/03

2. Within 45 days of issuance of a final operating permit by the County of Sonoma, the Discharger shall provide an emergency response plan describing alarm notifications, on-call staff, and emergency notification procedures including responsibilities of Asti Winery.

3. Within 45 days of issuance of a final operating permit by the County of Sonoma, the Discharger shall submit a copy of the site–specific Maintenance Manual prepared by Orenco and any additional parameters necessary to evaluate loading rates to, and operations of, the AdvanTex Unit.

4. The Discharger shall conduct visual inspections of all septic tanks, pre-treatment equipment, cleanouts, and lift station, no less than quarterly. In addition, System Maintenance, required by the site-specific Orenco Operations and Maintenance Manual, shall be conducted quarterly. Quarterly reports shall include:

   a. Evaluation of loading rates to, and operations of, the AdvanTex Unit in relation to design specification. Present all current and historical information in a tabular form for evaluation.
   b. System adjustments and cleaning.
   c. Significant repairs.
   d. Completed Orenco's Field Maintenance Form, Field Sampling Form and Maintenance Checklist. A description of all system maintenance as required.

5. Disposal areas shall be inspected no less than monthly to record any odors, evidence of surfacing effluent, or other signs of malfunction or improper operation. Inspection of the disposal areas will include the south and east hillslopes along Asti Post Office Road and Old Redwood Highway, as well as the northern hillslope extending to the drainage course.

6. Leachfield observation wells shall be inspected quarterly. Depth of water shall be measured. Information shall be tabulated in a chart of date, time vs. depth of water to assess any trends. Annually in January, the Discharger shall evaluate this information, report any potential problems with individual leachlines and any adjustments made.

GROUND WATER MONITORING

The purpose of ground water monitoring is to determine satisfactory performance of the on-site wastewater treatment and disposal systems and to determine compliance with quality objectives for ground water in the vicinity of the on-site wastewater disposal system. The ground water monitoring program shall be as follows:

1. Monitoring Locations

   Ground water monitoring wells shall consist of a minimum of two monitoring wells 60 feet downgradient of the disposal field and at least one upgradient well to measure background water quality. Wells shall be screened to capture both summer and winter water tables, conditional upon the underlying stratigraphy. The wells are in addition to those required by

Sonoma County. Additional monitoring wells shall be added to the monitoring network as needed.

2. Ground Water Gradient

Ground water elevations shall be used to determine the ground water gradient. Gradients calculations shall be submitted and direction shown in degrees and shall be plotted on scaled map showing local and disposal system features. The gradients shall be compared to the location of the monitoring wells and the well locations evaluated to determine if they are in a suitable location. Ground water velocity shall be calculated and a time of travel to the nearest downgradient well determined. After one year, gradient determinations shall be made quarterly concomitant with groundwater sampling.

3. Monitoring Schedule

Ground water samples shall be collected from monitoring wells at least quarterly and analyzed for the following constituents:

Constituent	**Units**	**Type of Sample**	**Frequency**
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly
Nitrate	mg/L	Grab	Quarterly
Total and Fecal Coliform Bacteria	MPN/ 100 ml	Grab	Quarterly
Ground Water Elevation	Feet	Measurement	Quarterly

SEPTIC TANK MONITORING

Septic tanks and sumps shall be inspected and pumped as described below. An inspection is not required during the year a septic tank is pumped. Documentation of inspection and pumping shall be included in the January monitoring report.

Parameter	**Units**	**Type of Minimum Measurement**	**Inspection Frequency**
Sludge depth and scum thickness in each compartment of each septic tank	Inches	Staff Gauge	Annually
Distance between bottom of scum layer and bottom of outlet device	Inches	Staff Gauge	Annually
Distance between top of each sludge layer and bottom of outlet device	Inches	Staff Gauge	Annually

Septic tanks shall be pumped when any one of the following conditions exist or may occur before the next inspection:

a. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment; or,
b. The scum layer is within three inches of the outlet device; or,
c. The sludge layer is within eight inches of the outlet device.

COMPLIANCE REPORTING

In the event of any:

- Exceedance of Daily Maximum or Average Weekly Flowrates.
- System upset.
- Surfacing effluent.
- Nitrate concentrations at monitoring location EFF-1 or EFF-2 exceeding 28 mgL.
- Elevated, or increasing, groundwater levels within leach field trench observations ports.

The Discharger or his authorized representative shall contact the Regional Water Board within 24 hours of detection to report the occurrence and potential corrective actions. Written description of the event shall be provided within 5 calendar days.

REPORTING

During the first year of operation, the Discharger shall submit quarterly reports. Reports shall be submitted by January 15, April 15, July 15, and October 15. After one year, with concurrence of the Executive Officer, the discharge may petition for a reduction in monitoring and reporting frequency. The report shall include, at a minimum, the following:

1. *A Letter of Transmittal*: Each report shall be submitted with a letter of transmittal. This letter shall include the following:

    a. Identification of facility: Name, address, Order number, and WDID number;
    b. Date of report and monitoring period;
    c. Identification of all violations of permit conditions found during the monitoring period;
    d. Details of the violations: parameters, magnitude, test results, frequency, and dates;
    e. The cause of the violation;
    f. Discussion of corrective actions taken or planned to resolve violations and prevent recurrence, and dates or time schedule of action implementation;
    g. Other relevant information including, but not limited to, incidents of wastewater treatment and collection system equipment failure, results of visual observations, and reports of wastewater spills or surfacing effluent;

h. Authorized signature and certification statement.

2. *Results of Analyses and Observations*

a. All analysis or measurements conducted pursuant to the County of Sonoma Code and Standards.
b. The results of flow monitoring (in gallons per day) for each day of the quarter. For periods of no discharge, the monitoring reports shall indicated no discharge;
c. Any observations indicating spills, surfacing effluent, equipment malfunction or inundation of the disposal system by flood waters;
d. Tabulations of all required analyses, including parameter, sample date and time, sample station, and test result;
e. The date and results of the required internal visual inspection of septic tanks and, when applicable, the volume of waste pumped from individual tanks; and
f. If the Discharger monitors any pollutant at the locations designated in the Permit more frequently than is required by the Permit, the results of such monitoring shall be included in the calculation and reporting of any values required in the discharge monitoring report.
g. Documentation of employee training and development of written plan to prevent discharge of non-domestic waste into the disposal system.

3. *Annual Evaluation*

In January of each year, the Discharger shall present an evaluation of the previous year's data, system performance in relation to design capacity, system maintenance, and a review of noncompliance, design exceedances and system alterations.

4. *Report Submittal*: Copies of each monitoring report shall be mailed to:

North Coast Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

Dave Donovan
Well and Septic Division
Sonoma County Permit Resource Management Department
2550 Ventura Ave.
Santa Rosa, CA 95403

Ordered by: _____

Robert R. Klamt
Interim Executive Officer

March 11, 2008