

**STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION  
81 Higuera Street, Suite 200  
San Luis Obispo, California 93401**

**WASTE DISCHARGE REQUIREMENTS ORDER NO. 01-070**

Waste Discharger Identification No. 3 272075001

Adopted at the July 13, 2001 Meeting

For

**GREAT AMERICAN WINERIES, INCORPORATED  
COASTAL CYPRESS CORPORATION  
CHATEAU JULIEN WINE ESTATE  
Monterey County**

The California Regional Water Quality Control Board, Central Coast Region (Board), finds;

**SITE OWNER AND LOCATION**

1. On December 8, 2000, Robert S. Brower Sr. submitted a Report of Waste Discharge in accordance with Section 13260 of the California Water Code. The Report of Waste Discharge was submitted on behalf of Great American Wineries, Incorporated and the Coastal Cypress Corporation for the Chateau Julien Wine Estate. For purposes of this order, Great American Wineries, Incorporated, and the Coastal Cypress Corporation are hereafter referred to as the "Discharger" and the Chateau Julien Wine Estate is hereafter referred to as the "Facility". The Report of Waste Discharge was filed for authorization to continue discharging wastes generated at the Chateau Julien Wine Estate, which is located at 8940 Carmel Valley Road, about 5 miles east of Highway 1 (Attachment A provides a vicinity map).

**PURPOSE OF ORDER**

2. The objectives of this order are to:
  - permit the discharge of winery process wastewater and sanitary wastewater;
  - review and revise effluent limitations; and
  - review and revise the monitoring program to evaluate impact to water quality.

**SITE/FACILITY DESCRIPTION**

**General Facility Description**

3. The Discharger grows grapes, produces and stores wine, bottles wine, offers tasting, and holds events on two parcels that occupy nearly 14 acres. The Facility includes several acres of vineyards, a main chateau, parking lot, bottling facility, wine processing equipment, a winemakers residence, and a barrel house (Attachment B provides a Facility Layout diagram). The main Chateau houses a tasting room, gift shop, wine processing equipment, office space, and event space.

**Industrial Wastewater**

4. Chateau Julien Winery - The winery produces an industrial waste stream from wine processing activities. Maximum flow occurs during the peak-processing (crush) season of September through November. Sub-flows originate from boilers, coolers, water softeners, bottling, equipment and floor washing/disinfecting, and barrel washing. In addition to grapes and small quantities of agricultural chemicals, the winery uses the following materials:

Material	Quantity	Use
Soda Ash	500 lbs/year	Sanitation
Chlorine	30 gal/year	Sanitation
Salt	N/A	Ion exchange water softening
Citric Acid	300 lbs/year	Cooling tower conditioning

5. Multiple winery process effluent samples were taken during the 2000 crush and non-crush seasons. The crush season results, averaged between all samples, are as follows:

Total Dissolved Solids	1,804 mg/L
Total Suspended Solids	142 mg/L
Sodium	110 mg/L
Chloride	128 mg/L
Sulfate	289 mg/L
pH	5.03
Boron	0.4 mg/L
Total Kjeldahl Nitrogen	13.2 mg/L
Nitrate (as N)	1.1 mg/L
Total Nitrogen	16 mg/L

The average and maximum applied BOD<sub>5</sub> loading to the spreading basins (0.43 acres) for the 2000 crush season was 66 and 147 lbs/acre/day, respectively.

6. Solid wastes generated from the winery consist primarily of grape skins, seeds, and stems. The solids are separated and delivered to a sanitary landfill.
7. Chai Barrel House - The Chai Barrel House produces an industrial waste stream from limited wine processing activities. The Discharger uses a septic tank and leachfield system to process the Chai Barrel House's industrial wastewater. That system was designed to accommodate a monthly average flow of 700 gallons per day.

#### Sanitary Wastewater

8. Sanitary wastewater produced at both the Winery and Chai Barrel House is discharged to separate septic tank/leachfield systems, which are permitted with the Monterey County Health

Department. Both systems were designed to accommodate a monthly average flow of 700 gallons per day. Separate septic tank/leachfield systems serve two residences on the Facility property.

#### Winery Process Wastewater Treatment Design and Current Capacity

9. Treatment of the winery's process wastewater consists of mechanical removal of solids, limited gravity separation, and disposal into five equally sized spreading basins. The original treatment method had pH neutralization prior to disposal in the spreading basins. The discharger has ceased pH neutralization. The facility and disposal areas are shown on Attachment B of this Order.
10. The winery's original process wastewater treatment system is based upon a peak flow of 3,125 gallons-per-day (gpd) during the crush season, an average flow of 1,500 gpd during the crush season, and a non-crush season average flow of 733 gpd. Because crush season can last 16 weeks, the annual average design flow should be 1,000 gpd. The spreading basins cover 19,000 square feet (0.43 acres). In the original 1982 design, the necessary treatment surface area of the spreading basins was doubled to allow for rainfall loading, maintenance, and cleaning of the beds. The original design calls for wastewater to be applied to one of the five spreading basins in a single dose one time per week and then rotated to the next basin. Currently, the Discharger loads one basin for seven days, then rests that basin for twenty-eight days.
11. The Discharger recently installed devices to measure actual effluent flow to the spreading basins. Based upon past water usage and limited effluent flow measurements, the winery discharges up to 2,550 gallons-per-day (gpd) of winery process wastewater during crush season. Average process wastewater flows are 1,570 gpd during crush season, and 670 gpd during non-crush season.

**Geology**

12. The discharge areas are located on relatively flat topography and consist of the following soil types:

- Winery Spreading Basins - Pico fine sandy loam, is well drained, has moderately rapid permeability, and is strongly calcareous with a pH ranging from 7.4 to 8.4. Percolation tests performed in the vicinity of the spreading basins in 1982 indicated soil percolation rates of 2.0 to 12 inches per hour.
- Sanitary Wastewater Percolation Fields - Lockwood shaly loam, which is well drained with moderately slow permeability, and tends to be strongly acidic with a pH of 4.9 to 7.2.
- Near the Carmel River - Tujunga fine sand, which is excessively drained, having rapid permeability, and pH ranging from 6.1 to 7.8.

**Surface and Groundwater**

13. Regional Groundwater Conditions - The site is located on the alluvial plain of the Carmel Valley aquifer. The Carmel Valley aquifer is an unconfined alluvial aquifer, consisting of a permeable mix of boulders, gravels, and silt overlying bedrock. The aquifer is heavily used by residents in the Valley, golf courses, and by California-American Water Company for water supply. The aquifer extends to 135 feet below ground surface at the southern portion of the Chateau Julien property. According to the Monterey Peninsula Water Management District and EPA's STORET database, ground water in the general area of Chateau Julien has the following characteristics:

Parameter	Level
Specific Conductance*	545-1141 µmhos/cm
Sodium	39-94 mg/L
Chloride	35-103 mg/L
Sulfate	66-434 mg/L
pH	6.6-7.8
Nitrate (as NO <sub>3</sub> )	<1-2 mg/L

\* This specific conductance range translates to an approximate total dissolved solids concentration range of 300 to 856 mg/L.

- 14. According to the 1982 *Carmel Valley Wastewater Study*, by James M. Montgomery Engineers, "To the west of Robinson Canyon, the soils and bedrock which form the watershed (in which Chateau Julien Winery is located) are a significant source of total dissolved solids. Therefore, increased total dissolved solids concentrations observed downstream of Robinson Canyon, Portrero Canyon, Roach Canyon, Martin Canyon, and Hatton Canyon are significantly impacted by natural sources."
- 15. Localized Ground Water Conditions - Depth to ground water in the vicinity of the discharge ranges from 16 to 29 feet. Groundwater moves in a southwesterly direction toward the Carmel River. Five ground water monitoring wells were installed in June and November 2000 to assess impacts of discharged winery process wastewater on underlying ground water. Samples taken from two of the monitoring wells during the crush and non-crush season gave the following results:

Well: MW-1	Location: Up-gradient of spreading basins	
	Non-crush season (avg.)	Crush Season (avg.)
<b>Parameter</b>		
Total Dissolved Solids	1,350 mg/L	1,430 mg/L
BOD <sub>5</sub>	2 mg/L	<1 mg/L
Sodium	170 mg/L	180 mg/L
Sulfate	435 mg/L	410 mg/L
pH	7.0	7.0
Nitrate (as N)	1 mg/L	1 mg/L

Well: MW-4	Location: Immediately down-gradient of most southern spreading basin	
Parameter	Non-crush season 2000-2001 (avg.)	Crush Season 2000 (avg.)
Total Dissolved Solids	1,100 mg/L	1,050 mg/L
BOD <sub>5</sub>	2 mg/L	<1 mg/L
Sodium	140 mg/L	160 mg/L
Sulfate	330 mg/L	275 mg/L
pH	6.5 mg/L	6.5
Nitrate (as N)	2.5 mg/L	2.0 mg/L

Although MW-1 is located upgradient of the spreading basins, total dissolved solids levels in MW-1 are not solely representative of background total dissolved solids levels in ground water beneath the winery wastewater system spreading basins. Well drilling information indicates that the bottom four feet of screened section of MW-1 is located within sandstone marine deposits. This lithology imparts elevated total dissolved solids levels in MW-1. No other monitoring wells at the facility are located within this lithology. All other monitoring wells terminate in young alluvium, closer to the higher quality underflow of the Carmel River.

Total dissolved solids ground water limitations established in this Order are based on a comparison of monitoring data from the Facility with background data, protection of ground water beneficial uses, and the Secondary Maximum Contaminant Level of 1,000 mg/L.

16. Water Supply - The facility uses on-site ground water for its processes. All ground water supply wells are separated from wastewater disposal areas by greater than 150 feet (see Attachment "B"). There is also an emergency and firewater connection to a California-American Water Company water line. The results of testing the on-site water supply well show the following water quality:

Total Dissolved Solids	790 mg/L
Sodium	87 mg/L
Chloride	110 mg/L
Sulfate	231 mg/L

Since water supply wells EW-1 and EW-2 are located directly downgradient of the winery wastewater spreading basins, a reasonable potential exists that total dissolved solids levels in those wells may be elevated by long-term discharges of waste at the winery wastewater spreading basins.

17. Surface Water - The nearest water body is the Carmel River. It is located approximately 700 feet south of the spreading basins.

#### Beneficial Uses

18. The Basin Plan lists the following as beneficial uses of Carmel River:
- Municipal & Domestic Water Supply
  - Agricultural Water Supply
  - Industrial Process Supply
  - Ground Water Recharge
  - Water Contact Recreation
  - Non-Contact Water Recreation
  - Wildlife Habitat
  - Cold Fresh Water Habitat
  - Warm Fresh Water Habitat
  - Migration of Aquatic Organisms
  - Spawning, Reproduction, and/or Early Development
  - Preservation of Biological Habitats of Special Significance
  - Rare, Threatened, or Endangered Species
  - Freshwater Replenishment
  - Commercial and Sport Fishing
19. Present and anticipated beneficial uses of ground water in the vicinity of the discharge include:
- Municipal & Domestic Water Supply,
  - Agricultural Water Supply
  - Industrial Process Supply, and
  - Industrial Service Supply.

**CHANGES TO ORDER**

20. The proposed order now requires/contains:
- a) samples be analyzed by a certified laboratory;
  - b) industrial and sanitary wastewater flows be measured with a flow meter;
  - c) more specific flow limitations;
  - d) organic loading rate effluent limitations;
  - e) effluent chloride limitation;
  - f) specific ground water limitations for constituents of concern;
  - g) spreading basin operating specifications;
  - h) ground water and spreading basin soil monitoring;
  - i) nonpoint source pollution control measures, and;
  - j) provision for installation of additional ground water monitoring well(s).
21. The following limitations have been changed in the proposed order.
- a) The existing total dissolved solids effluent limitation is now a ground water limitation of 1000 mg/L;
  - b) The sulfate effluent limitation has been raised from 250 mg/L to 325 mg/L;
  - c) The existing nitrate ground water limitation has been lowered from 10 mg/L to 8 mg/L;
  - d) The existing pH effluent limitation has been changed to a ground water limitation, based upon the available buffering capacity of the soil column comprising the spreading basins;
  - e) The existing freeboard limitation has been changed to a maximum depth of wastewater in the spreading basins;

**MONITORING PROGRAM**

22. Monitoring and Reporting Program (MRP) 01-070 is a part of the proposed Order. The MRP requires routine water supply, effluent, ground water, and spreading basin soils monitoring to verify compliance and protection of ground water quality.

**BASIN PLAN**

23. The Water Quality Control Plan, Central Coast Basin (Basin Plan) was adopted by the Board on November 19, 1989, and approved by the State Board on August 16, 1990. The Board approved amendments to the Basin Plan on February 11, 1994, and September 8, 1994. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State waters.

**CEQA**

24. These waste discharge requirements are for an existing facility and are exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.) in accordance with Section 15301, Article 19, Chapter 3, Division 6, Title 14 of the California Code of Regulations.

**EXISTING ORDERS/GENERAL FINDINGS**

25. *Pollution Abatement in the Fruit and Vegetable Industry* (U.S. Environmental Protection Agency Publication No. 625/3-77-0007) recommends that organic loadings be less than 100 lb BOD<sub>5</sub>/acre/day to control nuisance odors. *Natural Systems for Waste Management and Treatment* (Reed et al. 1995) indicates that land treatment systems with organic loadings that occasionally exceed 300 lb BOD<sub>5</sub>/acre/day have successfully avoided odor problems by using adequate drying times between applications.
26. The 1982 *Carmel Valley Wastewater Study* recommended a rate of wastewater application of 200 to 300 gallons per day per acre in sub-basin 28 of the Carmel Valley watershed. The recommendations are codified into Monterey County regulations. Since the Facility lies in each of these ranges, the required maximum wastewater application rate is 250 gallons per day per acre.
27. Some constituents of wastewater do not decay rapidly in the subsurface. These substances are commonly referred to as "conservative

substances". Assimilation into ground water is often required to attenuate initially elevated levels of conservative substances. The Carmel Valley aquifer has some limited assimilative capacity for these substances. In order to allow assimilation to occur, compliance with ground water limitations for TDS and pH may be evaluated an appropriate distance downgradient of some wastewater disposal areas.

28. This discharge is exempt from the requirements of *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005 et seq., (hereinafter Title 27). The exemption, pursuant to Section 20090(b), is based on the following:
- a) The Board is issuing waste discharge requirements;
  - b) The discharge complies with the Basin Plan;
  - c) The wastewater does not need to be managed according to Title 22, CCR, Division 4.5, Chapter 11, as a hazardous waste.
29. The discharge has been regulated by Waste Discharge Requirements Order No. 83-41, adopted by the Board on July 15, 1983. The Board had not previously regulated the discharge.
30. The discharge authorized in this permit is expected to maintain receiving water quality and associated beneficial uses of the receiving waters. Discharge in accordance with limitations and specifications of this permit is not expected to degrade water quality. Accordingly, this permit is consistent with the requirements of State Water Resources Control Board Resolution No. 68-16 (commonly called the anti-degradation policy).
31. Discharge of Waste is a privilege, not a right, and authorization to discharge is conditional upon the discharge complying with provisions of Division 7 of the California Water Code and any more stringent effluent limitations necessary to implement water quality control plans, to protect beneficial uses, and to prevent

nuisance. Compliance with this Order should assume this and mitigate any potential adverse changes in water quality due to discharge.

32. On April 18, 2001, the Board notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with a copy of the proposed Order and an opportunity to submit written views and comments.
33. After considering all comments pertaining to this discharge during a public hearing on July 13, 2001, this Order was found consistent with the above findings.

**IT IS HEREBY ORDERED**, pursuant to authority in Section 13263 of the California Water Code, Great American Wineries, Incorporated and the Coastal Cypress Corporation, its agents, successors, and assigns may discharge wastewater from the Chateau Julien Wine Estate, providing compliance is maintained with the following:

(Note: Other prohibitions and conditions, definitions, and the method of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements" dated January 1984.)

Throughout these requirements footnotes are listed to indicate the source of requirements specified. Requirement footnotes are as follows:

BP = Basin Plan  
 BPJ = Best Professional Judgement  
 CWC = California Water Code  
 MCR = Monterey County Regulations

#### A. PROHIBITIONS

1. Discharges not specifically regulated under this permit are prohibited.<sup>BPJ</sup>
2. Discharge of uncontaminated storm waters to spreading basin areas is prohibited unless adequate capacity is available.<sup>BPJ</sup>
3. Creation of a condition of pollution, contamination, or nuisance, as defined by

Section 13050 of the California Water Code (CWC), is prohibited.<sup>CWC</sup>

4. Discharge of domestic effluent to the winery wastewater spreading basin system is prohibited.
5. Discharges shall be at least 150 feet from any domestic water supply well.
6. The discharge of radioactive substances is prohibited.<sup>BP</sup>
7. Discharge of water softener brine waste is prohibited after October 13, 2001.<sup>BPJ</sup>

**B. SPECIFICATIONS**

**Effluent Limitations**

1. Discharge of wine process wastewater shall not exceed a peak flow of 3,125 gpd, or exceed an annual average flow of 1,000 gpd.<sup>MCR, BPJ</sup>
2. Wastewater discharged to the spreading basins shall not exceed the following limits. Compliance shall be based on a 30-day average.<sup>BPJ</sup>

Constituent	Limit (30 day average)
Sulfate	325 mg/L
Sodium	200 mg/L
Chloride	225 mg/L

3. Process wastewater discharged to the spreading basins shall not exceed a seven-day average of 100 lbs BOD<sub>5</sub>/acre/day or a maximum of 300 lbs BOD<sub>5</sub>/acre/day.<sup>BPJ</sup>
4. Discharge of domestic sanitary wastewater to any septic tank shall not exceed 700 gpd.<sup>MCR</sup>

**Groundwater Limitations**

5. The discharges shall not cause the pH value in the ground water down gradient of the disposal area to be depressed below 6.5 nor raised above 8.5. Compliance shall be based on the average of concurrent measurements of pH in MW-4 and EW-1, and with approval of the Executive Officer, one onsite ground water monitoring

well, located downgradient of the disposal area, between MW-4 and EW-1.<sup>BPJ</sup>

6. The discharges shall not cause total dissolved solids in ground water downgradient of the disposal area to exceed the following:

Limit	Effective
1,200 mg/L	after July 13, 2001
1,100 mg/L	after July 13, 2002
1,000 mg/L	after July 13, 2003

Compliance shall be based on the average of concurrent measurements of total dissolved solids in MW-4 and EW-1, and with approval of the Executive Officer, one onsite ground water monitoring well, located downgradient of the disposal area, between MW-4 and EW-1.<sup>BPJ</sup>

7. The discharges shall not cause nitrate concentrations in the ground water down gradient of the disposal area to exceed 8 mg/L (as N).<sup>BPJ</sup>
8. The discharges shall not cause a significant increase of mineral constituent concentrations in underlying ground waters.<sup>BP</sup>
9. The discharges shall not cause concentrations of chemicals and radionuclides in ground water to exceed limits set forth in Title 22 of the California Code of Regulations.<sup>BP</sup>

**Spreading Basin Operating Specifications**

10. The spreading basins shall be operated in a regular rotating sequence, with a rotation frequency not less than weekly. That is, each spreading basin will receive no more than one week of process wastewater discharge before the discharge is rotated to the next basin.<sup>BPJ</sup>
11. The spreading basin bed slope shall be maintained to ensure proper overland flow and prevent standing water. The process wastewater shall be discharged to the spreading basin in a manner that distributes wastewater uniformly across the entire spreading basin surface area.<sup>BPJ</sup>
12. The discharge shall not cause the soil's buffering capacity to be exceeded, nor be depressed below a pH of 5.<sup>BPJ</sup>

13. Wastewater contained in spreading basins shall be no deeper than 4 inches.<sup>BPJ</sup>

#### Sanitary System Operations Specifications

14. Sanitary wastewater shall remain within the designated disposal (leachfield) areas and shall remain underground at all times.<sup>BP</sup>
15. The dual leachfield system shall be operated in a regular rotating sequence, with a rotation frequency not less than annually.<sup>BPJ</sup>
16. Precautions should be taken to minimize the discharge of materials not easily decomposed, and of excessive amounts of chemical compounds into the septic system.<sup>BPJ</sup>

#### Solids/Solid Waste Control

17. Wine processing solids shall be separated and delivered to a sanitary landfill or other alternative approved by the Executive Officer.<sup>BPJ</sup>
18. Solids accumulation in the septic tanks shall be measured annually and the appropriate tank cleaned when it appears (a) the bottom of the scum layer will be within 4 inches of the bottom of the outlet device before the next scheduled inspection or (b) the sludge level will be within 10 inches of the outlet device before the next scheduled inspection.<sup>BPJ</sup>
19. Solids cleaned from tanks shall be disposed of at a septage receiving facility approved by the Executive Officer.<sup>BPJ</sup>

#### Storm Water Control

20. Extraneous surface drainage shall be diverted away from the spreading basins unless adequate capacity is available.<sup>BPJ</sup>

#### Nonpoint Source Control

21. As condition of this permit, management practices shall be implemented on the vineyards and processing facilities to prevent sediments, nutrients, herbicides, pesticides, and other constituents of concern from entering waters of the state. Examples of management practices aimed at sediment reduction include, but are not limited to, cover

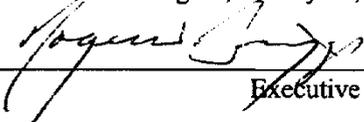
crops, water bars, rolling dips, etc. Similar types of management practices exist for reducing nutrients, herbicides, pesticides, and other constituents of concern.<sup>BPJ</sup>

#### C. PROVISIONS

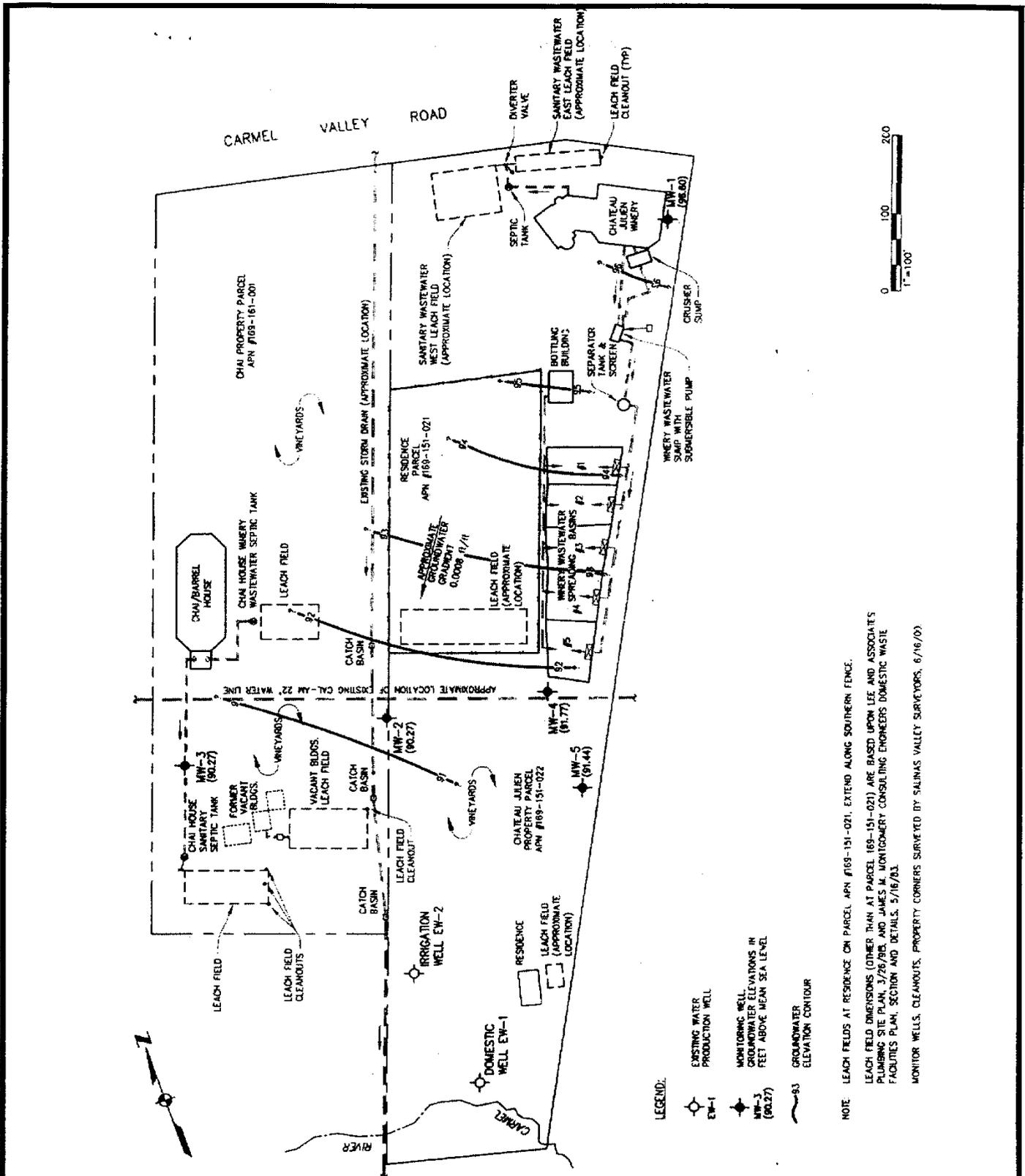
1. Discharger shall submit by **September 14, 2001**, a work plan for Executive Officer approval for installation of additional ground water monitoring well(s). The well(s) shall be placed in a location(s) that are representative of local background ground water quality at the Facility and free from influences of controllable sources of ground water pollution. The well(s) shall be installed by **December 14, 2001**, and shall be incorporated into Monitoring and Reporting Program No. 01-070 immediately upon installation and development.
2. Discharger shall, submit a Wastewater Operations and Maintenance Manual for Executive Officer approval that includes sampling procedures in accordance with Monitoring and Reporting No. 01-070 by **December 14, 2001**. The Manual and a copy of this Order shall be kept at the Facility at all times.
3. The requirements prescribed by this Order (No. 01-070) supersede requirements prescribed by Order No. 83-41, which were adopted by this Board on July 15, 1983. Order No. 83-41, Waste Discharge Requirements for Coastal Cypress Corporation, Chateau Julien Winery, is hereby rescinded.
4. Discharger shall comply with "Monitoring and Reporting Program No. 01-70", as specified by the Executive Officer.
5. The public shall be excluded from wastewater treatment and disposal areas.
6. Discharger shall comply with all relevant sections of the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements" dated January 1984.

7. Pursuant to Title 23, Division 3, Subchapter 9, of the California Code of Regulations, the Discharger must submit a written report to the Executive Officer not later than **March 15, 2011** addressing:
- a) Whether there will be changes in the continuity, character, location, or volume of the discharge; and,
  - b) Whether, in their opinion, there is any portion of the Order that is incorrect, obsolete, or otherwise in need of revision.

I, **Roger W. Briggs, Executive Officer**, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on July 13, 2001.

  
\_\_\_\_\_  
Executive Officer





Attachment "B" - WDR Order No. 01-070  
 Facility Map with November 2000 Ground Water Gradient  
 Chateau Julien Wine Estate, Carmel Valley, California





# California Regional Water Quality Control Board

## Central Coast Region



**Terry Tamminem**  
Secretary for  
Environmental  
Protection

Internet Address: <http://www.swrcb.ca.gov/~rwqcb3>  
895 Acrovista Place, Suite 101, San Luis Obispo, California 93401  
Phone (805) 549-3147 • FAX (805) 543-0397

**Arnold  
Schwarzenegger**  
Governor

December 15, 2003

Mr. Robert Brower  
Coastal Cypress Corporation  
8940 Carmel Valley Road  
Carmel, CA 93923

Dear Mr. Brower:

### REVISED MONITORING AND REPORTING PROGRAM NO. 01-070, CHATEAU JULIEN WINERY, MONTEREY COUNTY

We've reviewed your November 2003 monitoring report and requested changes to Waste Discharge Requirements Order No. 01-0170. Your requested changes to Monitoring and Reporting Program No. 01-0170 are reasonable and appropriate. Attached is revised Monitoring and Reporting Program No. 01-0170, which is effective immediately. Water supply monitoring is reduced from semiannually to annually, groundwater monitoring is reduced from quarterly to semiannually, triggered groundwater monitoring is eliminated, and reporting frequency is decreased from semiannually to annually.

We do not see a basis at this time to reopen Waste Discharge Requirements Order No. 01-070 and increase the total dissolved solids groundwater limitation (Specification No. 6). We will continue to track trends in groundwater salinity downgradient of your wastewater disposal areas.

If you have any questions, please feel free to contact **Scott Phillips** at (805) 549-3550 or **Harvey Packard** at (805) 542-4639.

Sincerely,

  
Roger W. Briggs  
Executive Officer

File: Coastal Cypress Corporation, Chateau Julien Winery  
S:\WB\Coastal Watershed\Staff\Thompson\Regulated Facilities\WDR\Chateau Julien\Transmittal Revised MRP.doc

cc:

Mr. Robert Chrobak  
Kennedy/Jenks Consultants  
622 Folsom Street  
San Francisco, CA 94107

**California Environmental Protection Agency**



Recycled Paper

**STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-5411**

**MONITORING AND REPORTING PROGRAM NO. 01-070**

Waste Discharger Identification No. 3 272075001

Revised December 12, 2003

For

**GREAT AMERICAN WINERIES, INCORPORATED  
COASTAL CYPRESS CORPORATION  
CHATEAU JULIEN WINE ESTATE  
Monterey County**

Samples and measurements taken for the purpose of monitoring shall be taken during periods of peak loading conditions, according to the following schedule:

**WATER SUPPLY MONITORING**

Representative samples of the winery water supply shall be collected and analyzed as follows:

Constituent	Units	Sample Type	Minimum Sampling and Analyzing Frequency
Total Dissolved Solids	mg/L	grab	Annually in October
Chlorides	mg/L	grab	" "
Nitrate (as N)	mg/L	grab	" "
Sodium	mg/L	grab	" "
Sulfate	mg/L	grab	" "
Boron	mg/L	grab	" "
Electrical Conductivity	µmhos/cm	grab	" "
pH	--	grab	" "

**PROCESS WASTEWATER MONITORING**

Representative samples of the Chateau Julien process wastewater discharged to the spreading basins shall be collected and analyzed as follows:

Constituent	Units	Sample Type	Minimum Sampling and Analyzing Frequency
Start and End of Crush	dates	--	Annually
Duration of Crush	days	counted	Annually
Flow <sup>a</sup>	gpd	metered	Weekly
pH <sup>b</sup>	pH units	grab	Weekly

<sup>a</sup> Flow will be measured at discharge point to the separator tank, prior to the spreading basins.

<sup>b</sup> Samples shall be collected at discharge point to the spreading basins.

Constituent	Units	Sample Type	Minimum Sampling and Analyzing Frequency
Biochemical Oxygen Demand (BOD <sub>5</sub> ) <sup>b</sup>	mg/L	grab	Every two weeks for the duration of crush <sup>c</sup> , and monthly for the remainder of year
Organic Loading Rate <sup>b</sup>	lbs BOD <sub>5</sub> /acre/day	calculated	Every two weeks for the duration of crush <sup>c</sup> , and monthly for the remainder of year
Total Dissolved Solids <sup>b</sup>	mg/L	grab	Monthly
Volatile Solids <sup>b</sup>	mg/L	grab	Monthly
Fixed Solids <sup>b</sup>	mg/L	grab	Monthly
Chloride <sup>b</sup>	mg/L	grab	Monthly
Total Kjeldahl Nitrogen (as N) <sup>b</sup>	mg/L	grab	Monthly
Ammonia (as N) <sup>b</sup>	mg/L	grab	Monthly
Nitrate (as N) <sup>b</sup>	mg/L	grab	Monthly
Sodium <sup>b</sup>	mg/L	grab	Monthly
Sulfate <sup>b</sup>	mg/L	grab	Monthly
Boron <sup>b</sup>	mg/L	grab	Monthly

#### GROUND WATER MONITORING

Ground water samples shall be collected from all representative upgradient and downgradient monitoring wells (MW-1 through MW-5, and any others installed as part of Provision C.1) and analyzed as follows:

Constituent	Units	Sample Type	Minimum Sampling and Analyzing Frequency
Depth to ground water	feet below top of casing	measured	Semi-Annually
Ground water elevation	feet above mean sea level	measured	" "
pH	pH units	grab	" "
Total Dissolved Solids	mg/L	grab	" "
Volatile Solids	mg/L	grab	" "
Fixed Solids	mg/L	grab	" "
BOD <sub>5</sub>	mg/L	grab	" "
Nitrate (as N)	mg/L	grab	" "
Chloride	mg/L	grab	" "
Sodium	mg/L	grab	" "
Sulfate	mg/L	grab	" "
Boron	mg/L	grab	" "

**SPREADING BASINS SOILS MONITORING**

The Discharger shall establish two representative soil profile monitoring locations within and outside the disposal area: one in the disposal area, and one outside the disposal area, which is representative of background conditions. The Discharger shall select sampling locations with the concurrence of Board staff and submit identified sample locations on a map no less than **45 days prior** to the first sampling event. The samples shall be collected and analyzed for at least the following constituents:

Constituent	Unit	Sample Depths	Frequency
Soil pH	pH units	6 inches, 2 ft., 4 ft., 6 ft	Annually in November, after the start of crush
Buffer pH	mg/kg as CaCO <sub>3</sub>	6 inches, 2 ft., 4 ft., 6 ft	Annually in November, after the start of crush
Total Alkalinity	mg/kg as CaCO <sub>3</sub>	6 inches, 2 ft., 4 ft., 6 ft	Annually in November, after the start of crush
Total Organic Carbon	% dry weight	6 inches, 2 ft., 4 ft., 6 ft.	Annually in November, after the start of crush

**SPREADING BASINS MONITORING**

Discharger shall inspect and document the condition of spreading basins at least once per week. Notations shall be made in a bound log book and include observations on whether ponding water, soil clogging, odors, insects, or other potential nuisance conditions are present. The incident shall be promptly investigated and remedied. A record shall be kept of dates and nature of observations and corrective actions taken. A summary of the entries made in the log during each month (including weekly standing water thickness) shall be submitted with each semi-annual monitoring report.

**SEPTIC SYSTEM MONITORING**

Solids accumulation in all septic tanks shall be measured annually and the appropriate tank cleaned when it appears (a) the bottom of the scum layer will be within 4 inches of the bottom of the outlet device or (b) the sludge level will be within 10 inches of the outlet device before the next scheduled inspection. Influent to septic tanks shall be monitored using a permanent flow-metering device according to the following schedule:

Parameter	Units	Sample Type	Minimum Sampling and Analyzing Frequency
Chateau Julien Winery Sanitary System (30-day average)	gpd	metered	Monthly
Chai Barrel House Sanitary System Flow (30-day average)	gpd	metered	Monthly
Sludge depth and scum thickness in each compartment of each tank*	feet	staff gauge	Annually (by April of each year)

\* If annual pumping is done submittal of the pumping record will take the place of the measurement noted above.

The leachfield areas shall be inspected each month to evaluate adequate system operation and compliance with this Order. Switching of leachfields shall be logged and submitted with the May 30<sup>th</sup> semi-annual report. Semi-annual reports shall include a summary of monthly observations and flow data in tabular format.

**SOLID WASTE DISPOSAL**

A summary of estimated volumes and disposal locations of screenings, tank residues and solids removed from the spreading basins shall be included with each monitoring report.

**CHEMICAL USAGE MONITORING**

A summary of volumes and types of any chemicals used at the winery and adjacent fields (wine processing, grape growing, facility cleaning, etc.) shall be included with each monitoring report.

**NONPOINT SOURCE MANAGEMENT MEASURES**

A summary of types, locations, and number of management practices used to reduce/eliminate nonpoint sources of pollution at the winery and in adjacent fields (wine processing, grape growing, facility cleaning, etc.) shall be included with each monitoring report.

**REPORTING**

The Discharger shall report monitoring data and information as required in this Monitoring and Reporting Program and as required in the Standard Provisions and Reporting Requirements. Reports shall be prepared annually with the reports due by the 30<sup>th</sup> of November each year. All reports shall be reviewed and signed by a licensed civil engineer or geologist. All monitoring reports shall be submitted to the California Regional Water Quality Control Board, Central Coast Region, and the Monterey County Department of Health, Division of Environmental Health. Reports may be sent to the following addresses:

California Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401

Monterey County Department of Health,  
Division of Environmental Health  
1270 Natividad Road  
Salinas, CA 93906

All semi-annual monitoring reports shall include the following:

1. All data collected and calculated, all analytical reports from a state-certified laboratory, and all observations made during the previous two quarters. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in a manner that clearly illustrates whether the discharge complies with waste discharge requirements. If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report. Such increased frequency shall be indicated on the discharge monitoring report.
2. Graphs of the laboratory analytical data for all ground water samples taken from each well. Each such graph shall plot the concentration of one or more waste constituents over time for a given monitoring well, at a scale appropriate to show trends or variations in water quality. The graphs shall plot each datum,

rather than plotting mean values. For any given constituent or parameter, the scale for the background plots shall be the same as that used to plot downgradient data;

3. A comprehensive discussion of the compliance record, and the result of any corrective actions taken or planned that may be needed to bring the Discharger into full compliance with the waste discharge requirements.

In addition to the above, the following shall be included with each May 30<sup>th</sup> semiannual monitoring report:

4. An annual soil monitoring report that includes an appropriate analysis based on discharge constituents, soil pH and buffer pH (i.e., lime requirement) capacities within the disposal area. The report shall demonstrate that (a) the resulting effect of the discharge on soil pH will not exceed the buffering capacity of the soil profile, and (b) it does not cause or contribute to cause waste constituents and their decomposition byproducts to leach into and degrade ground water. All soil monitoring reports submitted must be prepared and certified by a certified soil scientist with experience in industrial food-processing wastewater land disposal.
5. Hydrographs showing ground water elevation data in each well over time. The hydrographs should be presented at a scale of values appropriate to show trends or variations in ground water elevation.
6. A map containing isocontour lines of ground water elevation beneath the Facility, for the sampling event closest to the end of the crush season. The map shall clearly denote the direction and gradient of localized ground water flow.

ORDERED BY

*Bradley A. Hageman*  
Executive Officer

*12/18/03*

Date

S:\WB\Coastal Watershed\Staff\MThompson\Regulated Facilities\WDR\Chateau Julien\Revised MRP 01-070.doc