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California Regional Water Quality Control Board Central Valley Region

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30 November 2007

Mr. Enrico Bariani
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CERTIFIED MAIL
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NOTICE OF APPLICABILITY OF RESOLUTION NO. R5-2003-0106 BARIANI OLIVE OIL PROCESSING FACILITY, YOLO COUNTY

Regional Water Board staff has reviewed your 24 April 2004 Report of Waste Discharge (RWD) to apply for coverage under Regional Water Board Resolution No. R5-2003-0106, the *Waiver of Waste Discharge Requirements for Small Food Processors, Including Wineries, Within the Central Valley Region*. The RWD included an \$872 filing fee. The Yolo County Planning Commission certified a Negative Declaration and issued a Use Permit for the facility on 14 October 2004. Bariani Olive Oil, LLC submitted additional information to complete the RWD on 12 October 2005, but the project was delayed until the summer of 2007. Regional Water Board staff inspected the facility on 9 November 2007 during the last stage of equipment installation.

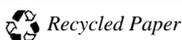
Resolution No. R5-2003-0106 (a copy of which is enclosed) is a conditional waiver of waste discharge requirements for small food processors. Based on the information you have submitted, the discharge described in the RWD satisfies the general and specific conditions of Resolution No. R5-2003-0106 for the amount of olives that will be processed and the volume of wastewater and residual solids that will be produced.

Discharge Description

Bariani Olive Oil, LLC (Discharger) owns and operates the Bariani Olive Oil processing facility at 30400 County Road 16 near Zamora, Yolo County (APN 054-230-16). The facility will process up to 1,100 tons of olives per year to make olive oil. The processing season is typically no more than two months long, and usually begins in late October or early November.

The Discharger's facility comprises approximately 132 acres of farmland with a 30,000 square foot processing building. All processing operations will be conducted indoors or under a roofed outdoor area on the north side of the processing building. Approximately half of the parcel was planted with olive trees in 2007, and the other half will be planted in 2008, as shown on the enclosed Site Plan. The onsite olive grove is not expected to produce fruit until 2010, and full productivity of 1,100 tons per year will not be reached until the trees are 25 years old. Therefore, olives may also be trucked to the facility from other olive groves.

California Environmental Protection Agency



Harvested olives will be weighed on a truck scale prior to processing. The olives will be transported by conveyor belt to a rotary screen to remove gross twigs, leaves, and dirt. The olives will then be rinsed with fresh water to remove residual soil and processed through a machine that crushes the pits and the pulp. These processes take place outdoors under a roofed shed at the north end of the processing building. The crushed olives will then be pumped indoors for further crushing and grinding in the paste-making machinery. The paste will be pumped to a series of centrifuges where the oil will be separated from the paste. The oil will be removed from the centrifuges and packaged for sale. The residual paste, which consists of olive pulp and skins (husk), crushed pits, and non-oil liquid from the olives will be transported by a screw auger to a 5,000-gallon reinforced concrete sump on the west side of the building. The sump has two compartments, which allow the paste to be screened to remove the crushed pits. The pits will be placed in bins for off-site disposal, and the remaining paste will be land applied in the olive grove as a soil amendment. The Discharger estimates that approximately 680 tons of paste will be land applied each year when full production is reached. Based on published references, the RWD characterized the paste as follows:

<u>Parameter</u>	<u>Result</u>
Moisture content	50 to 65%
pH	5.19
Total nitrogen	0.97%
Total organic carbon	42.2%
Carbon to nitrogen ratio	46.6

The olive rinse water will be recycled through a 1,000-gallon stainless steel basin. When the water becomes too muddy, it will be exchanged for fresh water. The muddy rinse water will be stored in a 3,000-gallon polyethylene tank on the west side of the building. The Discharger estimates that approximately 4,000 gallons of this rinse water will be generated each week for eight weeks per year. Flows will be estimated by counting the number of times the storage tank is filled each processing season. Olive rinse water characterization data was not provided in the RWD, and the Discharger will collect characterization data during the first three years of operation.

The olive processing equipment will be cleaned at the end of the processing season and after any breaks in processing, such as those due to rains interrupting the harvest. Sodium bicarbonate powder will be used a scouring agent to clean the stainless steel equipment, and it will then be rinsed with fresh water. This equipment wash water will flow to the concrete sump, where it can be mixed with residual paste, if any, or pumped to the wastewater storage tank. The Discharger estimates that approximately 15 pounds of sodium bicarbonate will be used per year, and that each cleaning cycle will generate 200 gallons of cleaning wastewater (for a total of less than 1,000 gallons per year). The Discharger states that no other chemicals are used for cleaning or processing, and that the facility does not have any boilers, cooling systems, water softeners, or water purification systems that might generate saline wastes.

Initially, olive oil removed from the centrifuges will be stored in stainless steel tanks and transported to another facility for bottling. However, the facility will ultimately have an on-site

bottling system. The system will use pre-sterilized bottles, and only sodium bicarbonate and fresh water will be used to clean the bottling equipment.

Olive rinse water, equipment wash water, and residual paste will be applied to the on-site olive grove using a small tractor-hauled tank applicator. The wastewater storage tank is large enough to contain at least four days of wastewater and will be drained as often as necessary. The paste sump is large enough to contain about one day's production of process residuals, and several land application trips with the small tank applicator will be required each day to maintain operations. The Discharger's Wastewater Disposal Operation and Maintenance Plan provides details of water loadings, as well as operational practices that appear adequate to protect both groundwater and surface water quality. Nutrient and salinity loadings from the wastewater are not known at this time, but are expected to be minimal based on the processes described above. The nitrogen content of the paste is expected to be about one percent by dry weight. Based on a proposed application rate of 4 to 6 tons per acre per year and a 50 percent moisture content, the total nitrogen loading from the paste is estimated to be approximately 70 pounds per acre per year.

Conditional Waiver

Based on the information submitted in the RWD and subsequent information provided by the Discharger, the discharge as described above satisfies the general and specific conditions of Resolution No. R5-2003-0106 for the projected volume of wastewater and process solids produced. Therefore, this letter serves as formal notice that Resolution No. R5-2003-0106 is applicable and waste discharge requirements for this facility are waived.

The waiver is conditional and Bariani Olive Oil, LLC must comply with the conditions set forth in Sections C and D of Resolution No. R5-2003-0106. **Please read these conditions carefully and ensure that all operations personnel understand them.**

Site-Specific Conditions

In addition to the Specific Conditions set forth in Section C of Resolution No. R5-2003-0106, Bariani Olive Oil, LLC must also comply with the following site-specific conditions:

1. The facility shall not process more than 1,100 tons of olives per year.
2. The volume of wastewater generated shall not exceed 33,000 gallons per year.
3. The amount of residual paste (minus pits) shall not exceed 700 tons.
4. No waste shall be discharged or land applied within 100 feet of any surface water drainage feature that conveys storm water runoff outside of the property boundary.
5. Wastes shall be applied only in areas that have been planted with olive trees or other crops that will be harvested and removed from the site.
6. The Discharger shall comply with the Monitoring and Reporting Program No. R5-2007-0832, (enclosed) which replaces Monitoring and Reporting Program No. R5-2003-0106. Monitoring and Reporting Program No. R5-2007-0832 requires that you submit a Monthly Report for each month during which waste is generated, and an Annual Report **1 February** of each year.

7. Bariani Olive Oil, LLC has not applied for coverage under the *General Permit for Discharges of Storm Water Associated with Industrial Activities*. This is a separate permit that may be required for the facility. By **15 December 2007**, Bariani Olive Oil, LLC must submit either an application for coverage under the *General Permit for Discharges of Storm Water Associated with Industrial Activities* or a Notice of Non-Applicability, as appropriate. Information about the industrial storm water permit program can be found on our website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/index.html.
You may contact Nova Clemenza at (916) 464-4647 or by e-mail at nclemenza@waterboards.ca.gov if you have any questions about the storm water permit.

If the discharge violates the terms or conditions of the waiver, the Regional Water Board may take enforcement action, including assessment of administrative civil liability. If the facility processes more than 1,100 tons of olives per year, the annual volume of wastewater increases beyond 33,000 gallons per year, or the methods of wastewater and/or solids disposal change from those described in the RWD, you must submit a new RWD. Please note that the waiver will expire on **11 July 2008**, at which time you must submit a new RWD with a filing fee to apply for coverage under a new the waiver, or cease the discharge.

If you have any questions, please call Anne Olson at (916) 464-4740.

PAMELA C. CREEDON
Executive Officer

Enc: Resolution No. R5-2003-0106
Monitoring and Reporting Program No. R5-2007-0832
Site Plan

cc w/o enc: Nova Clemenza, CVRWQCB, Rancho Cordova
Bruce Sarazin, Yolo County Environmental Health Department, Woodland
Craig Baracco, Yolo County Planning Department, Woodland
Arnold Sargent, Woodland

Mr. Enrico Bariani
Bariani Olive Oil, LLC

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30 November 2007

Arnold Sargent
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Woodland, CA 95695

SITE PLAN
BARIANI OLIVE OIL, LLC
30400 COUNTY ROAD 16
YOLO COUNTY



Reference: MapQuest, Inc. (<http://www.mapquest.com/maps>)