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PLANNING + PERMITTING + PROJECT MANAGEMENT

March 8, 2012

VIA EMAIL Sean Trippi <Sean.Trippi@CountyofNapa.org>

Mr. Sean Trippi
Napa County Planning Department
1195 Third Street, Suite #210
Napa, CA 94558

Re: Summary of Measures taken by Cliff Lede Vineyards to Improve Facility Resource Efficiency

Dear Sean:

As requested by you, and in support of our recently-submitted Use Permit Modification application, the following is a summary of measures taken by Cliff Lede Vineyards (CLV) to reduce the consumption of natural resources and generation of greenhouse gas (GHG) by their facilities:

- Use of potassium-based winery chemicals to improve water quality in wastewater ponds and subsequent irrigation.
- Modifications to the MOOG barrel washing system which afforded a 62% reduction in water usage (rate reduced from 16 gal/min to 6 gal/min)
- Installation of sap flow sensors to measure vine water use and minimize irrigation
- Extensive use of reclaimed winery process water for vineyard and landscaping irrigation.
- Purchase and introduction of a steam-based cleaning system for tanks and barrels
- Purchase and installation of a variable-speed air compressor (a \$6-10,000/yr energy savings)
- Installation and operation of photovoltaic solar panel system
- Recycling of grape lees for nutrient re-input to vineyard soils

Note that these measures have yielded an approximately 50% reduction in water usage by the winery. Specifically, during the most recent production periods, CLV winery has used water at a rate of approximately seven gallons of water per gallon of finished wine (7 gal water/gal wine). As recently as four years ago, the winery used approximately 14 gal water/gal wine). Winery water usage is anticipated to drop further once the production facility fully initiates a steam-based (rather than liquid water based) cleaning regimen. Although that reduction cannot be quantified at this time, CLV expects to realize at least a 30-40 reduction in water use associated with cleaning activities.

Please call me if you have any questions.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'G. Monteverdi', with a stylized flourish at the end.

George H. Monteverdi, Ph.D.
Monteverdi Consulting, LLC

cc: Richard Hall, Cliff Lede Vineyards