ANALYTICAL ENVIRONMENTAL SERVICES
1801 7TH STREET, SUITE 100
SACRAMENTO, CA 95811
(916) 447-3479 | FAX (916) 447-1665
www.analyticalcorp.com

TECHNICAL MEMORANDUM

TO: Brian Bordona and Laura Anderson, County of Napa

FROM: Trenton Wilson, Senior Project Manager

DATE: November 29,2016

RE: Walt Ranch Water Quality Monitoring Plan Summary

Brambletree Associates, LTD (Brambletree) requested that Analytical Environmental Services (AES) prepare a program to perform water quality monitoring for the Milliken Creek Watershed in response to the City of Napa's (City's) April 4, 2016 comment letter (Comment Letter) from the Water General Manager on the Final EIR for the Walt Ranch vineyard development project (Project). AES, Brambletree representatives, and the City Water General Manager met on two occasions and held several conference calls to discuss the sampling methodology including timing, constituents to be sampled, and corrective action measures to be implemented through the Water Quality Monitoring Program (Program). The Program is intended to provide information concerning the existing nutrient concentrations and seasonal fluctuations within Milliken Creek, to establish baseline (pre-project implementation) threshold values, to determine the contribution of nutrients from Project implementation, and to take corrective actions when baseline threshold values are exceeded. The program provides quantitative data as to whether or not the operation contributes to the nutrient levels within Milliken creek, thereby Milliken Reservoir. The Program will assist the City in determining if the Project is contributing to any identified water quality issues within the Milliken Reservoir, a source of drinking water for City residents, such as algal blooms. The Program also requires corrective action measures should the monitoring indicate such contributions are occurring from the Project.

Under the Program, baseline and operational water quality samples will be collected upstream and downstream of the Walt Ranch property, as well as from locations along the tributaries on the Walt Ranch property that feed Milliken Creek. Samples will be taken prior to Project construction (baseline samples) and during Project implementation (operational samples) at milestones equivalent to total planting percentages of approved blocks within the Milliken Creek watershed portion of the Project (within one year of 33 percent, 66 percent, and 100 percent of the approved vines having been planted). For both baseline and operations water quality sampling, manual samples shall be taken at least three times during the winter period (October 1-April 30) with at least one sample being taken for each of the following events/periods:

- Within 48 hours after the first significant rain event (defined as 0.25 or more inches of rainfall within 24 hours) of the wet season (October 1 to April 30);
- Within the period January 1 through January 31; and
- Within the period May 1 through May 30.
- Conditional: Within the period May 30 through September 30, one additional sample shall be taken if a significant rain event occurs.

After the completion of baseline sampling, the City Water General Manager and Brambletree shall meet to establish thresholds for each constituent, based on this baseline data. These thresholds will incorporate the variability in the sample values due to the following variables; sample site, sample timing, sampling error, Milliken Reservoir samples, and annual variability observed in the Milliken Reservoir historic data. Once the operational sampling milestones are met, operational sample results will be compared to the baseline thresholds to determine if planting operations are adversely impacting water quality within Milliken Creek. Under the Program, if any baseline threshold is exceeded, Brambletree shall examine the BMPs it is implementing to control discharge of water from the Project site. Brambletree shall try to identify the actual or suspected cause of the baseline threshold exceedance, and shall either modify relevant BMPs or add one or more new BMPs in order to eliminate the cause of the exceedance(s). Brambletree shall make every effort to complete the BMP review within 72 hours of notification of the baseline threshold exceedance. Brambletree shall provide the City Water General Manager with a Corrective Action Memorandum describing its BMP review and modification(s) within 30 days after receiving a sample test result exceeding a baseline threshold for a constituent parameter.

Sample constituents were selected from the Comment Letter and during subsequent meetings between AES, Brambletree, and the City Water General Manager. The constituents include nutrients along with additional basic water parameters (pH and temperature) and non-organic pesticides (if applied during operation):

- Temperature
- Specific conductance (conductivity)
- Dissolved Oxygen
- pH
- Phosphate
- Ammonia
- Sulfate
- Turbidity*
- Non – Organic Pesticides (readily-identifiable constituent representative of all pesticide applied)

The final constituent list was approved in August and included in the final version of the Program approved by the City Water General Manager. Should non-organic pesticides be applied (for example, if required by a regulating agency), Brambletree will include an appropriate sampling methodology to identify if the applied pesticide is impacting Milliken creek.

If analytical data from the Project sampling data is below the threshold levels the sampling requirement may be concluded upon two years after each development stage of the Project, with a minimum of four years of monitoring should development stages be implemented simultaneously. If future monitoring performed by the City indicates runoff from Project operations is causing an exceedance of a Threshold, then the monitoring and reporting requirements by Brambletree shall resume for an additional two-year period. If unexpected site discharge due to draining of a pond, production of agricultural tailwater or site run-off caused for any reason other than natural rainfall is observed in otherwise dry/non-discharge period (typically May – October), immediate monitoring of such discharge must commence.

The final Program as summarized above was approved by the City Water General Manager via email dated August 10, 2016.