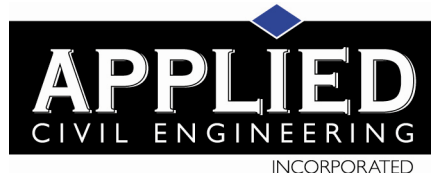




# Onsite Sanitary Wastewater Disposal Feasibility Study



April 25, 2025

Job No. 24-125

Kim Withrow, REHS  
Environmental Health Division  
Napa County Planning, Building and Environmental Services Department  
1195 Third Street, Suite 210  
Napa, CA 94559

Re: Onsite Sanitary Wastewater Disposal Feasibility Study for the  
Piazza Del Dotto Winery Use Permit Modification Application  
7466 St. Helena Highway, Napa, California  
LLA 2106 Adjusted Parcel A (Former APNs 031-120-038 & -028)  
PI8-00143-MOD

Dear Ms. Withrow:

At the request of Del Dotto Vineyards we have evaluated the sanitary wastewater flows associated with the proposed Use Permit Modification. A previous study was prepared by Guadalupe Chavarria. Mr. Chavarria passed away in 2024 and we are taking over as the Engineer of Record for the civil engineering portions of this project. The winery is currently serviced by a subsurface drip type sanitary wastewater system and a hold and haul process wastewater system. Mr. Chavarria's previous reports outlined the adequacy of the existing sanitary wastewater's system ability to handle the sanitary wastewater flows associated with this proposal and we generally agree with his findings. The remainder of this report outlines our analysis. We prepared a separate report addressing the process wastewater disposal needs for this project and therefore process wastewater is not addressed in this report.

Existing development on the property includes vineyards, groundwater wells, access roads, parking, a winery tasting room building, caves and the related access and utility infrastructure typical of this type of agricultural and winery development.

The Use Permit Modification application under consideration proposes the following characteristics pertinent to the winery process wastewater analysis:

- Wine Production:
  - 75,000 gallons of wine per year (increase from 48,000 gallons per year)
  - Crushing, fermenting, aging and bottling
- Employees:
  - 17 full-time and 2 part-time

- Marketing Plan:
  - Daily Tours and Tastings by Appointment
    - 120 visitors per week day maximum
    - 130 visitors per weekend day maximum
  - Marketing Events Type #1 – Annual Customer Party
    - 1 per year
    - 300 guests maximum
    - Food prepared offsite by catering company
    - Portable toilets used for restrooms
  - Marketing Events Type #2 – Winery Marketing Event
    - 2 per year
    - 49 guests maximum
    - Food prepared in onsite kitchen
  - Marketing Events Type #3 – Winery Marketing Event
    - 1 per year
    - 100 guests maximum
    - Food prepared offsite by catering company
    - Portable toilets used for restrooms
  - Marketing Events Type #4 – Winery Marketing Event
    - 6 per year
    - 120 guests maximum
    - Food prepared offsite by catering company
    - Portable toilets used for restrooms

As noted above all events with 100 or more guests will be catered and food will be prepared offsite and portable restrooms will be used.

Please see the attached site plan for approximate locations of existing and proposed facilities. The remainder of this letter describes the existing sanitary wastewater disposal system design capacities, peak flows associated with the proposed changes in use and our analysis and recommendations related to the existing sanitary wastewater disposal systems' ability to handle the anticipated wastewater flows.

#### Existing Winery Sanitary Wastewater Disposal System

The current winery sanitary wastewater system consists of a series of septic tanks and pretreatment with disposal being via an existing subsurface drip type septic system. The design capacity is 1,500 gallons per day according to design documents. The design capacity includes an allowance for a residence but no residence has been built and connected to the system so the full capacity is available for the winery sanitary wastewater needs.

### Proposed Winery Sanitary Wastewater Design Flows

The peak sanitary wastewater flow from the winery is calculated based on the number of winery employees, the number of daily visitors for tastings and the number of guests attending scheduled marketing events. In accordance with Table 4 of the Napa County “Regulations for Design, Construction, and Installation of Alternative Sewage Treatment Systems” we have used a design flow rate of 15 gallons per day per employee and 3 gallons per day per visitor for tastings. Table 4 does not specifically address design wastewater flows for guests at marketing events. For marketing events that will have catered meals that are prepared offsite we have estimated 5 gallons of wastewater per guest assuming there will be no food preparation or cleanup onsite. For events with meals prepared onsite we have used 15 gallons of wastewater per guest, similar to a restaurant. All events with more than 100 guests will be catered and utilize portable toilets and therefore are not included in this analysis. Based on these assumptions, the peak winery sanitary wastewater flows are calculated as follows:

#### Employees

Peak Sanitary Wastewater Flow = 19 employees X 15 gpd per employee

Peak Sanitary Wastewater Flow = 285 gpd

#### Daily Tastings

Peak Sanitary Wastewater Flow = 130 visitors per day X 3 gallons per visitor

Peak Sanitary Wastewater Flow = 260 gpd

#### Marketing Events Type 2 (2 per year)

Peak Sanitary Wastewater Flow = 49 guests X 15 gallons per guest

Peak Sanitary Wastewater Flow = 735 gpd

#### Total Peak Winery Sanitary Wastewater Flow

In order to manage the peak sanitary wastewater flows to the disposal field portable toilets will be used for all events with more than 100 guests in attendance. Therefore, the worst-case peak winery sanitary wastewater flow is calculated based on 17 employees and a marketing event for 49 people. The peak flow for this scenario is calculated as follows:

Total Peak Winery Sanitary Wastewater Flow = 285 gpd + 260 gpd + 735 gpd

*Total Peak Winery Sanitary Wastewater Flow = 1,280 gpd*

#### Sanitary Wastewater System Capacity

As noted above, the existing sanitary wastewater system capacity is 1,500 gallons per day.

### Proposed Design Flow vs Existing Capacity

The predicted Peak Winery Sanitary Wastewater Flow for the proposed winery operational characteristics (1,280 gpd) is less than the design capacity of the existing sanitary wastewater disposal system (1,500 gpd).

### Recommendations

The predicted Peak Winery Sanitary Wastewater Flow is less than the capacity of the existing sanitary wastewater system. Therefore, no design adjustments are needed to accommodate the proposed use permit modification characteristics.

### Reserve Area

The original design of the sanitary wastewater system includes the 200% reserve area required by County code.

### Summary

The calculations presented above illustrate that the sanitary wastewater flows associated with the proposed Use Permit Modification will not exceed the capacity of the existing sanitary wastewater system.

We trust that this provides the information you need to process the subject Use Permit Modification. Please feel free to contact us at (707) 320-4968 if you have any questions.

Sincerely,

Applied Civil Engineering Incorporated

By:

*Michael R. Muelrath*

Michael R. Muelrath RCE 67435  
Principal



Copy:

Dave Del Dotto and Mike Burgess, Del Dotto Vineyards (via email)

Enclosures:

Site Plan



