"L"

Stormwater Control Plan Report

Bonny's Vineyard P22-00002
Planning Commission Hearing Date
December 18, 2024

CMP Civil Engineering & Land Surveying Inc.
1607 Capell Valley Road
Napa, CA 94558
(707) 266-2559
Cameron@CMPEngineering.com
CMPEngineering.com

Stormwater Control Report

for the proposed winery named

Bonny's Vineyard

1555 Skellenger Lane

Napa, CA 94558

APN: 032-200-080

Prepared By:

CMP Civil Engineering & Land Surveying Inc.

1607 Capell Valley Road

Napa, CA 94558

(707) 266-2559

Date: 8/15/2022

A: Project Data

Property Owner	Meyer Family Enterprises
Project Name	Bonny's Vineyard
Application Submittal Date	12/15/2021
Project Location	1555 Skellenger Lane, Napa, CA
Project Phase #	NA
Project Type	New Winery Use Permit Application
Total Project Site Area (ac)	4.72 ac
Total New and Replaced Impervious Surface Area (sf)	51,520 sf
Total Pre-Project Impervious Surface Area (sf)	19,495 sf
Total Post-Project Impervious Surface Area (sf)	51,520 sf

B: Project Setting

-Project Location & Description
This project is located at 1555 Skellenger Lane, Napa County, California. The project involves the construction of a new winery building, an expansion of the existing driveway and the construction of new parking areas to serve the winery.

-Existing Site Features and Conditions
The winery and associated improvements are to be constructed adjacent to existing grassy vineyards. The site is relatively flat with slopes of 5% or less. The winery improvements have been designed to drain to the vineyards. The vineyard ground has existing local depressions of 1" or deeper. The density of these depressions is estimated at 50% coverage.

-Opportunities, Constraints and Design Strategies for Stormwater Control
Because the site is surrounded by grassy vineyards and is low sloped, there are no obvious site constraints with regard to stormwater control, aside from ensuring the stormwater drains to the vineyards. The site lends itself to low velocity sheet flow over the impervious areas and into the surrounding grassy vineyards. The surrounding vineyards are low sloped with local depressions of 1" or deeper at an estimated density of 50%. Thus, the strategy will be to allow all runoff to sheet flow off the driveway and parking areas and then sheet flow along its natural drainage pattern through the grassy vineyard. Overall this is an ideal design with minimal impact.

C: Drainage Areas, Design and Calculations

-Areas
Below is a table showing the Drainage Management Areas (DMA):

DMA Name or #	Surface Type & Description	Area (sf)
1	Portion of asphalt driveway and parking area. Drains to BRF-1.	26,080
2	Winery building roof area and a portion of asphalt driveway and parking area. Drains to BRF-2.	25,440

Below is a table showing the Bio-Retention Facilities (BRF):

BRF Name or #	Surface Type & Description	Area (sf)
1	Existing grassy vineyard that DMA-1 drains into.	57,977
2	Existing grassy vineyard that DMA-2 drains into.	55,615

-Design
The runoff from DMA-1 & 2 will sheet flow into the respective BRF-1 & 2. BRF-1 & 2 are existing low sloped grassy vineyards with local depressions of 1" or deeper at an estimated density of 50%.

-Calculations
DMA-1 is 26,080 square feet. BRF-1 must be able to retain a volume of water 1" deep over an area of 26,080 square feet. Thus BRF-1 must retain (26,080sf x 1" x 1'/12") = 2,173 cubic feet of water. BRF-1 is 57,977 square feet and has local depressions of 1" or deeper at an estimated density of 50%. Thus its retention capacity is (57,977sf x 50% x 1" x 1'/12") = 2,415 cubic feet of water. Based on this calculation, BRF-1 is capable of retaining the required amount of runoff.

DMA-2 is 25,440 square feet. BRF-2 must be able to retain a volume of water 1" deep over an area of 25,440 square feet. Thus BRF-2 must retain (25,440sf x 1" x 1'/12") = 2,120 cubic feet of water. BRF-2 is 55,615 square feet and has local depressions of 1" or deeper at an estimated density of 50%. Thus its retention capacity is (55,615 x 50% x 1" x 1'/12") = 2,317 cubic feet of water. Based on this calculation, BRF-2 is capable of retaining the required amount of runoff.

D: Potential Pollutant Sources and Source Control Measures

Potential Pollutant Source	Permanent Source Control	Operational Source Control
Farming and winery equipment	Equipment posing a significant source of pollutants will be stored inside.	The site will be regularly inspect for said equipment and any found will be moved to an appropriate storage area.
Fertilizer & Pesticides	All bulk fertilizer and pesticides will be used and stored in an appropriate manner.	The site will be regularly inspected for improperly stored fertilizers and pesticides and any found will be moved to an appropriate storage area.
Refuse	All trash and recyclables will be stored in appropriate containers and disposed of properly.	The site will be regularly inspected for refuse and any found will be placed into appropriate containers.

E: Stormwater Facility Maintenance

-Ownership and Responsibility for Maintenance in Perpetuity
Maintenance of stormwater facilities will be the responsibility of the property owner and will be performed by the owner or owner's subordinates as part of routine maintenance of buildings,

grounds and landscaping. The applicant has reviewed the Napa County, standard agreement regarding the maintenance of stormwater facilities and commits to execute any necessary agreements prior to completion of construction. Current owner accepts responsibility for interim operation and maintenance of stormwater treatment and flow-control facilities until such time as this responsibility is formally transferred to a subsequent owner.

-Summary of Maintenance Requirements for Each Stormwater Facility
The Bio-Retention Facility's will be inspected on a regular basis for debris or refuse. Any found will be removed immediately. The Bio-Retention facility's will be inspected for any concentration of runoff resulting in rilling after significant rainfall events. A significant rain event is one that produces ½" of rainfall within a continuous 24 hour period. Any rilling found will be repaired in a way that disperses the concentrated flow back to sheet flow. Vegetation will be maintained on the Bio-Retention Facility at all times. Any denuded areas will be reseeded.

F: Construction Checklist

Source or Treatment Control	Plan Sheet #
Verify DMA-1 drains to BRF-1 as shown on plan	4
Verify DMA-2 drains to BRF-2 as shown on plan	4

G: Certifications

The preliminary design of stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the current edition of the BASMAA *Post-Construction Manual.*