Date: 01/14/2021

To: San Luis Obispo County
Department of Planning and Building
976 Osos St #200
San Luis Obispo, CA 93401

Subject: Water Demand Analysis – Clos Solene Winery, 2040 Niderer Road, Paso Robles, CA 93446

Walsh Engineering has been retained to identify the net water demand for the proposed improvements to Clos Solene Winery at 2040 Niderer Road in Paso Robles.

The winery will be expanding its existing facility and existing tasting room which currently is entitled to produce 5,000 cases per year to increase production to 10,000 cases per year. In addition to the increased wine production, a relocation and small expansion of the tasting room is proposed. This will increase patrons by approximately 30% from 145 patrons per week to 190 patrons per week. At full build out and max production employment at the new facility is anticipated to increase by 4 additional employees in addition to the 6 current full-time employees. Site improvements will consist of wine cave construction, new tasting room, drive aisle, parking, native landscaping surrounding the tasting room, and associated utility improvements. The site improvements currently proposed overlap 97,802 square feet of existing vineyard which will be removed to facilitate the new construction.

By removing the portion of existing vineyard as part of the proposed construction, it can be clearly demonstrated that there will be no increase of water use associated with winery project. The reduction in the existing vineyard area as part of the winery project will result in reduced groundwater pumping.

Tables 1 and 2 on the following pages show both the annual and monthly water savings associated with this approach. The monthly process wastewater totals are based on the typical seasonal distribution of water demands in a small winery. Table 1 includes landscape irrigation estimates which are tabulated in Tables 3, 4, and 5. The landscape irrigation estimates include conservative plant factors for moderate water use plants and low water use plants which may overestimate the use given that native plantings have currently been selected on the planting plan. Vineyard irrigation estimates are based on the available groundwater management benchmark data for Paso Robles wineries.

Please let me know if you have any questions, or if you need more information.

Thank you,

Matthew R. Walsh, PE, QSD/P
Principal Engineer

Attachments: Annual Water Demand Estimate, Monthly Winery Demand Estimate, Landscape Irrigation Demand Estimate, Preliminary Removal Plan (Vineyard)

Annual Water Demand Estimate

Project: Clos Solene Winery
Project Address/APN: 2040 Niderer Road, Paso Robles, CA 93446
Date: 1/14/2021

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1108 GARDEN STREET, SUITE 202-204 SAN LUIS OBISPO, CA 93401

Table 1. Annual Water Estimates

Use	Quantity	Rate	Gross Demand (gallons/year)	Gross Demand (AFY)	Return Rate (Recycled or Recharged)	Net Demand (AFY)
New Wine Production	5,000	Added cases per year @ 10 gallons per case (Existing production is 5,000 cases/year with future production at 10,000 per year)	50,000	0.153		0.153
New Tasting Room [1]	45	Estimated new patrons per week @ 5 gal/patron	11,700	0.036	80%	0.007
New Employees [2]	4	Estimated Full time new employees @ 10 gpd/employee x 365 days	14,600	0.045	80%	0.009
New Landscape [3] (see attached)	0.176	Estimated 0.176 acres @ 0.291 AFY/Acre	94,696	0.291		0.291
Total			170,996	0.525		0.460
Existing Vineyard Removal [4] (see attached)	2.245	Acres vineyard removal @ 1.25 AFY/acre	-914,419	-2.806		-2.806
Net Water Demand (Reduction)			-743,424	-2.281		-2.346

Notes:

1. Existing tasting room has seen up to 85 patrons on peak day for weekend and estimated 10 patrons on average for the remaining 6 days of the week, resulting in 145 patrons per week. The new tasting room is anticipated to increase activity by 30% to 190 patrons per week (by appointment only with maximum of 100 patrons per day). Calculaton is 190 - 145 = 45 new patrons.
2. Existing winery and tasting room employees approximately 6 people full time. New winery and tasting room falities will employee an estimated 10 people total. Calculation of new employee is 10-6 = 4 new employees.
3. Per Planting Plan prepared by Signum dated 12/24/2020, new ornamental landscape area = 7,680 sf. Existing Lawn Landscape is approximated at = 4,290 sf. Existing ornamental landscape is approximated at 14,060 sf.
4. Vineyard planting gross demand is 15 inches per year, resulting in 1.25 ft/year as published for Paso Robles per source: Tommy Gong County Clerk and Annette Ramirez Deputy Clerk. "Ordinance No. 3308". Amendment to Title 22 Land Use Ordinance, Exhibit F.

Monthly Winery Demand Estimate

Project: Clos Solene Winery
Project Address/APN: 2040 Niderer Road, Paso Robles, CA 93446
Date: 1/14/2021

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Table 2. Monthly Analysis of Proposed Winery Demand (Not Including Domestic Uses)

Month	% of Total	Estimated Wine Production Demand (gal)	Average Daily Demand (gal)
Jan	2.50%	1,250	40
Feb	2.50%	1,250	40
Mar	5.50%	2,750	89
Apr	9.00%	4,500	145
May	8.50%	4,250	137
Jun	4.00%	2,000	65
Jul	4.00%	2,000	65
Aug	12.50%	6,250	202
Sep	18.50%	9,250	298
Oct	16.00%	8,000	258
Nov	12.00%	6,000	194
Dec	5.00%	2,500	81
Total [1]	100.00%	50,000	

Notes:
1. Estimated annual demand from Table 1 = 50,000 gal/year

Landscape Irrig. Demand Estimate

Project: Clos Solene Winery
Project Address/APN: 2040 Niderer Road, Paso Robles, C
Date: 1/14/2021

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Table 3. New Landscape Areas		
Special Landscape Area (SLA)[1]		
Edible Plants/Garden Area	0	sq. ft.
Area Irrigated with Recycled Water	0	sq. ft.
Water Feature with Recycled Water	0	sq. ft.
Total of Special Landscape Area	0	sq. ft.
Landscape Area (LA) – New or Substantially Rehabilitated[1]		
Irrigated Turf	0	sq ft.
Mulched Tree Area (irrigated)	322	sq ft.
Mulched Shrub Area (irrigated)	7344	sq ft.
Annuals (irrigated)	0	sq ft.
Future Landscape Areas (future areas to be planted and irrigated)	0	sq ft.
Water features (e.g. fountains)	0	sq ft.
Total of Landscape Area	7666	sq ft.
[1] *Landscape area means all the planting areas, turf areas, and water features in a landscape design plan. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious and non-pervious hardscapes, and other non-irrigated areas designated for non-development such as open spaces and existing native vegetation.*		
Total Landscape Area (SLA + LA):	7666	sq. ft.
	0.176	acres

Reference Evapotranspiration (ETo): 49.00
Project Type (Residential or Non-Res.): Non-Residential

Table 4. Landscape Irrigation Water Analysis							
Hydrozone # and Planting Description [1]	Plant Factor (PF) [6]	Irrigation Method [2]	Irrigation Efficiency (IE) [3]	ETAF (PF/IE)	Landscape Area (sq.ft.)	ETAF x Area	Estimated Total Water Use (ETWU) [4]
Regular Landscape Areas							
Hydrozone #1 Trees at Parking Lot	0.6	drip	0.81	0.74	500	370	11,252
Hydrozone #2 Trees at Tasting Room Courtyard	0.6	drip	0.81	0.74	250	185	5,626
Hydrozone #3 Shrub Assorted Native Plantings at Tasting Room/Parking	0.3	drip	0.81	0.37	6,916	2,561	77,818
						0	0
						0	0
						0	0
						0	0
Totals					7,666	3,117	
					(A)	(B)	
Special Landscape Areas							
None	n/a			1		0	0
None	n/a			1		0	0
None	n/a			1		0	0
Totals					0	0	
					(C)	(D)	
ETWU Total (gallons/year):							94,696
ETWU Total (Ac. Ft./Year):							0.291
Maximum Allowed Water Allowance (MAWA, gallons/year): [5]							104,832

okay

Notes:

[1] *Hydrozone #/Planting Description*
e.g.: 1) Front Lawn
2) Low Water Use Plantings
3) Medium Water Use Plantings

[2] *Irrigation Method*
Overhead Spray or Drip

[3] *Irrigation Efficiency*
0.75 for Spray Head
0.81 for Drip

[4] *ETWU (Annual Gallons Required = ETo x 0.62 x ETAF x Area*

[5] *MAWA (Annual Gallons Allowed) = (ETo) (o.62) [(ETAF x LA) + ((1 – ETAF) x SLA)]*
Where 0.62 is a conversion factor for acre-inches per acre per year to gallons per square foot per year. LA is the total landscape area in square feet. SLA is the total special landscape area in square feet. ETAF for MAWA is .55 for residential areas and .45 for non-residential areas (different from the ETAF for ETWU) .

[6] *The plant factor ranges from 0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.*

Table 5. ETAF Calculations					
Regular Landscape Areas			All Landscape Areas		
Total ETAF x Area	(B)	3,117	Total ETAF x Area	(B + D)	3,117
Total Area	(A)	7,666	Total Area	(A + C)	7,666
Average ETAF	B / A	0.407	Sitewide ETAF	(B + D) / (A + C)	0.407

okay for residential

okay for non-residential

The average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

PARCEL 2
43-PM-38
1960 NIDERER ROAD
APN: 026-342-034
KIM LINDBERY

[S89°24'00"E 2699.91'-43/PM/38(CALC)]
S 87°51'06" E 2700.14'

1575.47' [1575.30'-31/PM/54]

WATER TANK AREA

PARCEL 2
40-PM-26
2270 NIDERER ROAD
APN: 040-041-010
TERRY SAUNDERS

S89°57'57"E 2704.29'-31/PM/54

PARCEL 1
40-PM-26

AREA CALCULATION:
VINEYARD REMOVAL: 97,802 SF

0 40' 80'
SCALE: 1" = 40'

811 Know what's below. Call811 before you dig.

NOTE: UTILITIES SHOWN WERE PLOTTED FROM OBSERVED EVIDENCE AND PLANS OBTAINED FROM UTILITY PROVIDERS. EXACT LOCATIONS AND QUANTITIES MAY VARY. THE CONTRACTOR SHALL CALL 811 FOR UTILITY LOCATING SERVICES PRIOR TO EXCAVATION AND USE EXTREME CAUTION WHEN EXPOSING UTILITIES. ANY DAMAGE TO EXISTING UTILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

NO.	DATE	REVISIONS

WALSH ENGINEERING
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GUILLAUME FABRE
CLOS SOLENE WINERY
2040 NIDERER ROAD, PASO ROBLES CA 93446

REGISTERED PROFESSIONAL ENGINEER
MATTHEW R. WALSH
C 79026
CIVIL
STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

DESIGNED BY:	DAP
CHECKED BY:	KDG
APPROVED BY:	KDG
DATE:	10/09/2020

PRELIMINARY REMOVAL PLAN

SHEET
1 OF 1