

Project Greenhouse Gas Emissions and Reductions Summary

The Napa County Climate Action Plan requires that staff calculate the GHG emissions of all discretionary projects in the year 2020 assuming "business as usual" (BAU) conditions, and that applicants reduce those emissions by 38%. The required 38% reduction in GHG emissions can be achieved through a combination of state level policies and programs, County level policies and programs, on-site project level actions and contributions to a GHG reduction incentive fund. This sheet contains results of calculations completed to demonstrate that the project has achieved the required 38% reduction target in 2020.

Project Name:	Tamber Bey Vineyards	Target Build-Out Year:	2020
Project Summary	19,382 s.f. winery production building, 688 s.f tasting room, 6,250 sf parking lot and driveways; 4 FTE, 20 t&t/day, installation of a 33 kw solar system, one electrical charging station.		

(MT CO2e)

A. PROJECT'S BAU EMISSIONS IN 2020

	262
Energy	221
Mobile	37
Water & Wastewater	-
Solid Waste	5
Land use Change	-

B. PROJECT'S TARGET EMISSIONS REDUCTIONS IN 2020

Target Emissions - 38% BAU Emissions

100

C. GHG REDUCTIONS FROM STATE LEVEL PROGRAMS

	15
Energy	7
Mobile	8
Other	TBD
Land Use Change	-

D. GHG REDUCTIONS FROM LOCAL PROGRAMS AND PROJECT LEVEL ACTIONS

	12
Energy	12
Mobile	-
Other	-
Land Use Change	-

Total Stock at 100 years (Reference):

E. TOTAL GHG REDUCTIONS IDENTIFIED

State + Local + Project (D + E); Compare to Box C above

27

F. ADDITIONAL GHG REDUCTION OR MITIGATION REQUIRED

Balance of reductions needed to reach target (C-G)

73

Checklist of Voluntary Greenhouse Gas Emission Reduction Measures



A Tradition of Stewardship
A Commitment to Service

An addendum to the Entitlement Application and a supplement for Initial Studies as required by CEQA

PROJECT NAME	Tamber Bay Winery
PROJECT ADDRESS	1251 Tubbs Lane, Calistoga CA 94515
APPLICANT	Riechers Spence & Assoc/Bruce Fenton
CONTACT INFO	bfenton@rsacivil.co m (707)252-3301
	email phone

	yes	no	I don't know
1 Have you designed to U.S.G.B.C.™ LEED™ or Build It Green™ standards? If yes, please include a copy of their required spreadsheets.	<input checked="" type="checkbox"/>		
2 Do you have an integrated design team? if yes, please list: _____	<input checked="" type="checkbox"/>		

3 SITE DESIGN

3.1 Does your design encourage community gathering and is it pedestrian friendly?	<input checked="" type="checkbox"/>		
3.2 Are you building on existing disturbed areas?	<input checked="" type="checkbox"/>		
3.3 Landscape Design			
3.31 native plants?			
3.32 drought tolerant plants?			
3.33 Pierce Disease resistant planting?			
3.34 Fire resistant planting?			
3.35 Are you restoring open space and/or habitat?			
3.36 Are you harvesting rain water on site?			
3.37 planting large trees to act as carbon sinks?			
3.38 using permeable paving materials for drive access and walking surfaces?			
3.4 Does your parking lot include bicycle parking?			
3.5 Do you have on-site waste water disposal?			
3.6 Do have post-construction stormwater on site detention/filtration methods designed?			
3.7 Have you designed in harmony with existing natural features, such as preserving existing trees or rock outcroppings?	<input checked="" type="checkbox"/>		
3.8 Does the project minimize the amount of site disturbance, such as minimizing grading and/or using the existing topography in the overall site design (such as cave design)?	<input checked="" type="checkbox"/>		
3.9 Is the structure designed to take advantage of natural cooling and passive solar aspects?	<input checked="" type="checkbox"/>		

4 ENERGY PRODUCTION & EFFICIENCY

4.1 Does your facility use energy produced on site? If yes, please explain the size, location, and percentage of off-set: <u>33 KW (2000 sf) roof mounted solar panels, 25-40% offset</u>	<input checked="" type="checkbox"/>		
4.2 Does the design include thermal mass within the walls and/or floors?		<input checked="" type="checkbox"/>	
4.3 Do you intend to commission the performance of the building after it is built to ensure it performs as designed?			<input checked="" type="checkbox"/>
4.4 Will your plans for construction include:			
4.41 High density insulation above Title 24 standards?	<input checked="" type="checkbox"/>		
4.42 Zones for heating and cooling to provide for maximum efficiency?	<input checked="" type="checkbox"/>		
4.43 Energy Star™ or ultra energy efficient appliances?		<input checked="" type="checkbox"/>	
4.44 A "cool" (lightly colored or reflective) or a permeable/living roof?		<input checked="" type="checkbox"/>	
4.45 Timers/time-outs installed on lights (such as the bathrooms)?	<input checked="" type="checkbox"/>		
If yes, please explain: _____			

5 WATER CONSERVATION

5.1 Does your landscape include high-efficiency irrigation?		<input checked="" type="checkbox"/>	
5.2 Does your landscape use zero potable water irrigation?		<input checked="" type="checkbox"/>	
5.3 Is your project in the vicinity to connect to the Napa Sanitation reclaimed water?		<input checked="" type="checkbox"/>	
5.4 Will your facility use recycled water?	<input checked="" type="checkbox"/>		
5.41 If no, will you prepare for it by pre-installing dual pipes and/or purple lines?			
5.5 Will your plans for construction include:			
5.51 a meter to track your water usage?		<input checked="" type="checkbox"/>	
5.52 ultra water efficient fixtures and appliances?	<input checked="" type="checkbox"/>		
5.53 a continuous hot water distribution method, such as an on-demand pump?			<input checked="" type="checkbox"/>
5.54 a timer to insure that the systems are run only at night/early morning?	<input checked="" type="checkbox"/>		

		yes	no	I don't know
6 MATERIAL RECYCLING				
6.1	Are you using reclaimed materials? If yes, what and where: _____		X	
6.2	Are you using recycled construction materials-		X	
	6.21 finish materials?			
	6.22 aggregate/concrete road surfaces?			X
	6.23 fly ash/slag in foundation?			X
6.3	Will your contractor be required to recycle and reuse construction materials as part of your contract?	X		
6.4	Does your facility provide access to recycle-	X		
	6.41 Kitchen recycling center?	X		
	6.42 Recycling options at all trash cans?	X		
	6.43 Do you compost green waste?	X		
	6.44 Provide recycling options at special events?	X		
7 NATURAL RESOURCES				
7.1	Will you be using certified wood that is sustainably harvested in construction?	X		
7.2	Will you be using regional (within 500 miles) building materials?		X	
7.3	Will you be using rapidly renewable materials, such as bamboo?		X	
7.4	Will you apply optimal value engineering (studs & rafters at 24" on center framing)?	X		
7.5	Have you considered the life-cycle of the materials you chose?	X		
8 INDOOR AIR QUALITY				
8.1	Will you be using low or no emitting finish and construction materials indoors-			
	8.11 Paint?	X		
	8.12 Adhesives and Sealants?	X		
	8.13 Flooring?	X		
	8.14 Framing systems?	X		
	8.15 Insulation?	X		
8.2	Does the design allow for maximum ventilation?			
8.3	Do you plan for a wood burning fireplace (US EPA Phase II certified)?		X	
8.4	Does your design include daylighting, such as skylights?	X		
9 TRANSPORTATION DEMAND MANAGEMENT				
9.1	After your project is complete, will you offer your employees incentives to carpool, bike, or use transit?	X		
9.2	After your project is complete, will you allow your employees to telecommute or have alternative work schedules?	X		
9.3	Does your project include design features that encourage alternatives modes of transportation, such as preferred parking for carpooling, ridesharing, electric vehicles? secured bicycle parking, safe bicycle access? loading zones for buses/large taxi services?	X		
9.4	How close is your facility to public transportation? <u>1 mile</u>			
10	Are there any superior environmental/sustainable features of your project that should be noted? _____ _____			
11	What other studies or reports have you done as part of preparing this application? 1 _____ 2 _____ 3 _____ 4 _____			
12	If your project involves an addition or modification to an existing building, are you planning to improve energy conservation of existing space (such as insulation, new windows, HVAC, etc.)? If yes, please describe: _____		X	
13	Once your facility is in operation, will you: 13.1 calculate your greenhouse gas emissions? 13.2 Implement a GHG reduction plan? 13.3 have a written plan to reduce your vehicle miles traveled of your operations and employee's commute?		X	
			X	
				X
14	Does your project provide for education of green/sustainable practices? If yes, please describe: _____	X		
15	Any comments, suggestions, or questions in regards to the County's efforts to reduce greenhouse gases? _____ _____			

Form filed out by: _____

Please feel free to include additional sheets of paper as necessary.

Checklist of Voluntary Greenhouse Gas Emission Reduction Measures

Data Requirement of Operational Characteristics for Residential, Commercial, or Industrial Projects

The Napa County Climate Action Plan requires that staff calculate the GHG emissions of all discretionary projects assuming “business as usual” (BAU), and that applicants reduce those emissions by 38%. This checklist identifies the data needed to complete the required calculations and allows applicants to select the emissions reduction measures they wish to use. Applicants may retain consultants to prepare their own calculations if desired. Default calculations will be based on the URBEMIS and Bay Area Air Quality Management District’s BGM model, as well as standard factors for vegetation removal and retention/replacement.

Contact Information:

Name of project: Tamber Bey Vineyards
Project address & APN: 017-160-010
Project contact name: Jeff Redding
Project contact e/mail: jreddingaicp@comcast.net
Project contact phone: (707) 255-7375

Part A: Business As Usual (BAU)

1. Input for new construction or operations (or change in land use type)

Land Use Type	# of units	Square Footage removed	Square Footage Added	Total Daily Vehicle Trips		Population	
				Mon-Fri	Sat & Sun	# of visitors	# of employees
Dwelling unit							
Warehouse							
Wine Production			18101	9	8		1
Tasting Room			688	12	14	20	2
Retail							
Office							
Other (please explain): Converted from existing use		18789					
Total			18789	21	22	20	3

Refer to Table 3-1 of the BAAAQMD CEQA Guidelines (2011) for other precursor screening levels

2. Site Development

	Acres removed	Acres planted
Vegetation type		
Coniferous Forest	0	
Oak Woodland	0	
Riparian Woodland	0	
Shrub	0	
Vineyard	0	
Other (See note 1)	0	35,000
Already Developed area (i.e. asphalt)	0	
Total acres of land	0	

1 Selected plantings areas established to receive recycled water - See RSA water balance

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New Site Improvements	Amount	Unit
Caves	0	Square feet
Grading	0	Square feet
Roads	3,530	Square feet
Parking	0	Square feet
Hardscape (anything paved)	2,720	Square feet
Landscape	35,000	Square feet
<i>Total square footage of site improvements</i>	6,250	
Size of new or expanded wastewater lagoons	0	Square feet
Amount of new or increased use of groundwater	141,000	Gallons per year

1 Selected plantings areas established to receive recycled water - See RSA water balance

Part B: Emission Reduction Measure

	amount	unit	yes	no
Operations				
1	If the project is a winery is your existing winery a Napa Certified Green Winery?			
2	If you are a new winery, have you applied to be a Napa Certified Green Winery?			X
3	Do you intend to recycle more than what the local landfill provides, if so what percentage of reduction. Explain: On site composting of organic nutrients		X	
		15%		
Mobile Vehicle Trips				
4	Does the facility have alternative fuel vehicles in fleet, such as electrical vehicles or alternative fleet? If yes, what percentage of fleet?			X
		%		
5	Does your project have bicycle access and parking?		X	
6	Does the employer have a employee transportation demand management plan with		%	X
7	Does the employer sponsor a van/pool shuttle for visitors? If yes, what percentage of visitation will		%	X
8	Is the project requesting a parking reduction, if yes what percentage?		%	X
1	Does the parking lot provide a charging station for electrical vehicles? If yes, how many?			X
Energy Use and Generation				
2	Has the facility already installed renewable energy on-site since 2005? If yes, how much?			X
		KW hrs.		
3	Does the proposal include installation of renewable energy on-site? If yes, how much?		X	
		33 KW (2,000 sf solar panels)		
Building and Construction				
4	Do you intend to build to Cal Green* Tier 2 standards?		TBD	

Checklist of Voluntary Greenhouse Gas Emission Reduction Measures

5	Do you intend to build to Cal Green* Tier 3 standards?				X
6	Do you have areas such as a cave, or natural cooling, passive solar that will exceed 2005 Title 24 standards? Explain:				X
	If so, how many square feet?		Sq. Ft.		
	What is the percent reduction of 2005 Title 24 standards for that portion?		%		
7	If the project is a winery, does it propose any				
	If so, ho many annual kilowat hours saved?		KW hrs.		
Site Development					
8	Does the project intend to restore degraded habitat?				X
	If so, how many acres?		acres		
9	Does the landscape plan include the planting of more than 6 shade trees within 40 feet of the southside or 60 feet of the westside?				X
	If so, how many trees?		trees		
10	Will the project replace more than a 2:1 ratio of trees on site, and if so how many additional?		trees		X
	What specie?				
Water & Wastewater					
11	Does the project connect to a munipical water source?				X
12	Will the project rely on an onsite well?			X	
13	How many gallons of water per day is dedicated to domestic water use?	450	g/day		
14	How many gallons of water per day is dedicated to landscape?	800	g/day		
15	Will the project connect to municipal sanitary sewer system?				X
16	Will the project connect to municipal reclaimed water?				X
16	Will the project have an on-site septic system?			X	
17	If so, how big are the proposed lagoons?		sq. ft.		
18	Will the project have it's own treatment system? If so, explain: Mound for septic and aerated treatment unit on benefecial water reuse for winery process waste			X	
	Other, Please explain: _____ _____ _____				