Planning

Cover Sheet

APŅ	032-080-039-000
Permit #	278586
Program	USE
DocType	ENVR
Street #	
Street Name	
Year	·





JAMES H. HICKEY

Director

NAPA COUNTY

CONSERVATION — DEVELOPMENT AND PLANNING DEPARTMENT

1195 THIRD STREET, ROOM 210 FILED MAPA, CALIFORNIA 94559-3093 AREA CODE 707/253-4416 MAY 28 1986

JANICE F. NORTON NAPA COUNTY CLERK D.I. BELLO

D - 1052

NOTICE OF DETERMINATION

TO:

() OFFICE OF PLANNING AND RESEARCH 1400 TENTH STREET, ROOM 121 (X) COUNTY CLERK
COUNTY OF NAPA

	SACRAMENTO, CA. 95814
PROJECT TIT	LE: Whitbread of Calif/ FILE # U-278586) W. Hill Wine Co.
To establis tasting and east of the	CRIPTION AND LOCATION: h a 450,000 gallons per year winery with no public tours or to construct related waste disposal ponds located on 856 acres terminus of Soda Canyon Road in Foss Valley within an Aw District Parcels #'s 32-080-05, 14 and 30)
SEE MITIGAT	ION MEASURES IN FILE.
	ADVISE THAT THE NAPA COUNTY () BOARD OF SUPERVISORS, (X) CONSER- ELOPMENT AND PLANNING COMMISSION, () HAS APPROVED THE PROJECT AND MADE THE FOLLOWING ONS ON May 7, 1986
	THE PROJECT () WILL, (X) WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.
(AN () ENVIRONMENTAL IMPACT REPORT, (X) NEGATIVE DECLARATION WAS PREPARED FOR THIS PROJECT PURSUANT TO THE PROVISIONS OF CEQA. A COPY OF THIS DOCUMENT MAY BE EXAMINED AT THE OFFICE OF THE NAPA COUNTY CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT.
	STATEMENT OF OVERRIDING CONSIDERATIONS () WAS, (X) WAS NOT LOOPTED FOR THIS PROJECT.

BY Suffer Wirector

NAPA COUNTY CONTACT PERSON:

DATE: 1/04 23, 1986

DATE REQUIVED 5/28/86

POSTED FROM 5/28 TO 7/2

DATE RETURNED JUL - 2 1986

JAMES 0'LOUGHLIN (707) 253-4416



JAMES H. HICKEY

Director

NAPA COUNTY

CONSERVATION — DEVELOPMENT AND PLANNING DEPARTMENT

1195-THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092

AREA CODE 707/253-4416 FILED

JAMES O'LOUGHLIN (707) 253-4416 MAY 28 1986

D-1052

NOTICE OF DETERMINATION

JANICE F. NORTON NAPA COUNTY CLERK

BY: D.I. BELLO

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	A STATEMENT OF OVERRIDING CONSIDERATIONS () WAS, (X) WAS NOT ADOPTED FOR THIS PROJECT.

NAPA COUNTY CONTACT PERSON:

TAMES H HICKEY Director

DATE: 1/104 23, 1986

PROPOSED . NEGATIVE DECLARATION

The County of Napa has determined that the following project would not have a significant effect on the environment. Documentation supporting this determination is on file for public inspection at the Napa County Conservation, Development and Planning Department offices, 1195 Third St., Room 210, Napa, California 94559. For further information, contact the Napa County Environmental Protection Section at (707) 253-4416.

WHITBREAD OF CALIF. (WM. HILL WINE CO.) #U-278586

Request to establish a 450,000 gallon/year winery of 103,000 square feet with no public tours or tasting and to construct related waste disposal ponds located on 856 acres east of the terminus of Soda Canyon Rd. in Foss Valley (AP #32-080-05, 14 & 30)

Mitigation measures included in the proposed project are as follows:

(SEE SIGNED MEASURES AFFIXED TO ATTACHED INITIAL STUDY IN FILE)

DATE: March 25, 1986

BY ORDER OF

JAMES H. HICKEY

Director - Napa County Conservation, Development and Planning Department

COUNTY OF NAPA CONSERVATION, DEVELOPMENT AND PLANNING DEPARTMENT 1195 Third St., Rm. 210 Napa, California 94559 (707) 253-4416/4376

INITIAL STUDY

PROJECT NAME: Whitbread of Calif. (Wm. Hill Wine Co.)

FILE NO: #U-278586

PROJECT DESCRIPTION: Request to establish a 450,000 gallon/year winery of 103,000 square feet with no public tours or tasting and to construct related waste disposal ponds located on 856 acres east of the terminus of Soda Canyon Rd. in Foss Valley (AP #32-080-05, 14 & 30)

JURISDICTIONAL BACKGROUND: Public Plans and Polices

Based on an initial review completed by the Environmental Protection Section, the following findings were made for the purpose of the Initial Study and do not constitute a final finding by the County in regard to the question of consistency.

			1110	110	M/ IX
s	the	project consistent with:			
	a)	Regional and Subregional Plans and Policies?	X		
	b)	LAFCOM Plans and Policies?			X
	c)	The County General Plan?	$\overline{\mathbf{x}}$		
	d)	Appropriate City General Plans?			X
	e)	Adopted Environmental Plans and Goals of the		. ——	
		Community?	X		
	f)	Pertinent Zoning?	$\overline{\mathbf{x}}$	*********	

Responsible Agencies

ENVIRONMENTAL SETTING: Nearly level to steeply sloping area (slopes 2.5% to 50%) at elevation 1440 to 1960 feet MSL, located on the southwestern side of Foss Valley. Soils consist of Aiken, Bale, Hankright/Rock Oatcrop; Maxwell and Perkins with slow to very rapid runoff and slight to high erosion hazard. The winery site is shown as slight to moderate erosion hazard. Landslide indications on the property do not appear to threaten the building site. Vegetation consists of vineyard, and annual grasses, shrubs, oaks and possibly digger pine. Existing and surrounding land uses include vineyard, rural residential, open, watershed and habitat.

			MENTAL EFFECTS:
		Norma]	lly Significant Individual Impacts
YES	МО	Con	-1\
	<u>x</u>	1.	ology) Exposure of new site users to substantial life and/or property
			hazards from geologic processes (eg., severe settlement, sliding, faulting, intense seismically induced ground shaking, seismically-induced ground failures, etc.).
	<u>x</u>	2.	Exposure of existing area occupants to substantially increased life and/or property hazards from geologic processes.
- ************************************	<u>:X</u>	3.	Damage, destruction or burial of any unique or scientifically important geologic or geomorphologic feature.
		(Me	teorology)
ntaritismenteris-	<u>X</u>	4.	Substantial modification of climatic or microclimatic conditions (eg., temperature, rainfall, wind, shadow patterns, etc.).
		(Hyd	drology)
etterrine en en	<u>X</u> .	5.	Exposure of new site users to substantial life and/or property hazards from flooding (eg., stream flooding, tsunamis, seiches, dam or levee failure, etc.).
	<u> </u>	6.	Exposure of existing area occupants to substantially increased life and/or property hazards from flooding.
<u>X</u>		7.	Substantial temporary construction period increase in erosion and/or sedimentation.
X	X	9.	Substantial permanent increase in erosion and/or sedimentation. Substantial depletion of groundwater resources or significant interference with groundwater recharge.
		(Wa	ter Quality)
	X	10.	
<u> </u>	$\frac{x}{x}$	11. 12.	Substantial degradation of the quality of groundwater supplies.
	,	(Ail	r Quality)
	<u>X</u>		Exposure of new site users to substantial health hazards from breathing polluted air.
	<u>X</u> .	14.	
	$\frac{x}{x}$	15.	
	X	16.	Exposure of new site users or existing area occupants to annoyance from dust and/or highly objectionable odors.
		(No:	ise)
X		17.	Exposure of new site users to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.

* Mitigated (see Mitigation Measures below)
o Cumulatively Significant Only

YES	no	
	<u> </u>	18. Exposure of existing area occupants to health hazards from noise levels in excess of those recognized as necessary to protect public health and welfare.
	<u>X</u>	19. Exposure of people to high construction noise levels for substantial periods of time.
	X	20. Exposure of existing area occupants to annoyance from substantially increased ambient noise levels.
		(Ecosystem)
	<u>x</u>	21. Substantial reduction in the number of a rare or endangered species of plant or animal or damage or restriction of the habitat of such a species.
	<u>x</u>	22. Destruction of or substantial damage to a unique, scarce, or particularly productive biological area (eg., marshes, riparian galleries, vernal pools, etc.).
	¥	23. Substantial reduction in habitat for plants, fish, and/or wildlife.
	$\frac{X}{X}$	24. Substantial modification in the number or diversity of plant or
		animal species present.
	<u>X</u>	25. Substantial interference with the movement of a resident or migratory fish or wildlife species.
		(Social)
	X	26. Disruption or division of an established community.
	$\frac{x}{x}$	27. Displacement of a large number of people.
		(Aesthetic)
	<u>X</u>	28. Blockage or substantial degradation of important public or private views.
* <u>X</u>		29. Exposure of new site users or existing area occupants to annoyance from increased nighttime light levels or glare.
	<u> </u>	30. Creation of a litter problem.
		(Cultural)
	<u>X</u>	31. Destruction of or substantial damage to a recognized archaeological site.
	<u> </u>	32. Destruction of or substantial damage to the historical character of a recognized historical structure, facility, or feature.
deliterative (The	<u>x</u>	33. Elimination of or conflict with the established recreational, educational, religious, or scientific uses of the project site or surrounding properties.
		(Traffic)
<u>X</u>		34. Exposure of new site users to substantial life and/or property hazards from traffic accidents.
<u>X</u>	***************************************	35. Exposure of the existing users of the roads providing access to the project site to substantially increased life and/or property hazards from traffic accidents.
<u> </u>	***************************************	36. Exposure of the users of the roadways providing access to the project site to annoyance from noticably increased traffic congestion.

YES	МО	
<u>X</u>	enterenterente e	37. Increase in traffic on the roadways providing access to the project site which is substantial in relation to the existing traffic load and capacity of the street system.
	<u> </u>	38. Creation of a substantial local parking problem.
		(max 2 and a
	X	(Energy) 39. Increase in the demand for energy which is substantial in relation to the existing energy demands of the area.
	X	40. Creation of a facility or development which will use fuel or energy
distributio	<u>x</u>	in a wasteful manner. 41. Creation of a facility or development which will use substantially higher than average amounts of fuel or energy for transportation purposes.
		(Public Health)
<u> </u>	***************************************	42. Exposure of new site users to substantial health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
	X	43. Exposure of existing area occupants to substantially increased health hazards from contaminated drinking water, inadequately treated sewage and/or insect or rodent pests.
X	-	44. Exposure of new site users to substantial life and/or property hazards from fire.
-	X	45. Exposure of existing area occupants to substantially increased life and/or property hazards from fire.
	X	46. Exposure of new site users to substantial life and/or property hazards from air crashes.
	<u>x</u>	47. Exposure of existing area occupants and/or existing air or heliportusers to substantially increased life and/or property hazards from
ii	<u>X</u>	air crashes. 48. Exposure of new site users or existing area occupants to substantial annoyance from insect or rodent pests.
	X	(Community Services) 49. Increase in the demand for a community service (eg., sewer, water, fire portection, schools, etc.) which is substantial in relation to
	-	the currently existing uncommitted capacity of the agency involved to provide such a service.
	•	
		(Commercial Resources)
-	<u>X</u> ,	50. Perclusion of the development of aggregate, rock product, or mineral resources of current or potential importance.
	<u>X</u>	51. Removal of a substantial amount of agricultural or grazing land from current or potential production.
	,	(Fiscal)
********	X	52. Creation of a development to which it would cost the community substantially more to provide services than it would return in taxes.
		(Growth Induction)
cuta constant	X	53. Induction of substantial residential, commercial, or industrial development.

Initial Study Page 5

Mandato	ory Findings of Significa	nce			
		•	YES NO		
Does a) . b) c) d)	substantially reduce cause a fish or wildling levels, threaten reduce the number or plant or animal or elperiods of California Have the potential to of long-term, environ Have possible environ limited but cumulative Have environmental effects on human bein	mental effects which are individually	tage X dverse X X		
#35 & 3 reduce to be p The win Date re of Publ	practice. Discussion (Optional) 6 - The applicant states the traffic on Soda Cany rocessed locally, reduciery is not to have publication upon is from U.S. S	that the development of the winery on Rd. by allowing the grapes grown ing the gondolla trips which would other tours or tasting. oil Conservation Service (7 & 8), Nag County Dept. of Environmental Health	will actually in Foss Valley herwise occur. pa County Dept.		
MITIGATIO	N MEASURES:				
	d By Applicant As Part o	f Project			
DETERMINA Agency	TION: Staff Participating in t	he Initial Study:			
Res	ource Evaluation:	JAMES O'LOUGHLIN . Da	ate: Mar. 4, 1986		
Sit	e Review By:	Da	ate:		
Pla	Planning/Zoning Review By: Date:				

Initial Study Page 6

On the	basis of this preliminary e	valuation:		
	I find that the project COUL	D NOT have a signif	icant effect on the environ-	•
	ment, and adoption of a NEGA	TIVE DECLARATION is	recommended.	
X	I find that although the proon the environment, there wi because the mitigation measu project. Adoption of a MITI	11 not be a significes described above	cant effect in this case have been added to the	•
1	recommended.			
	I find the proposed project ment, and an ENVIRONMENTAL I	· · · · · · · · · · · · · · · · · · ·		
		÷ .		
DAŢĘ:	March 25, 1986	BY:	JAMES O'LOUGHLIN	

WHITBREAD OF CALIFORNIA

TRAFFIC REALTED ISSUES. 3/13/1986

SIZE COMPARISON WITH MONDAVI:

Note that Mondavi has public tours and tastings which significantly increases the traffic to their winery.

	GALLONS	CASES	
MONDAVI:	1,200,000	450,000	
WHITBREAD:	490,000	185,000	

ESTIMATED TRAFFIC ON SODA CANYON ROAD:

(One Semi takes 2	4 pallets, or	1344	cases)	TRIPS/YR	
DELIVERIES-	CASES /TRUCK	AVG.		APPL'N	ESTIMATE
GLASS	1,300				150
CASES	1,000				185
TOTAL				780	255
				,	
OTHER-					

	NUMBER	MONTHS		
EMPLOYEES	20		3	
	15	1	9	
AVG	16.25	1	2	4, 225

TRADE/PRIVATE			`
(SILVERADO HAS	800/YR)	5,200	2,000



NAPA COUNTY

JAMES H. HICKEY Director

CONSERVATION — DEVELOPMENT AND PLANNING DEPARTMENT

1195 THIRD STREET, ROOM 210 • NAPA, CALIFORNIA 94559-3092 AREA CODE 707/253-4416

March 19, 1986

William Hill, President WILLIAM HILL WINE COMPANY P.O. Box 3989 Napa, Ca. 94558

SUBJECT: Use Permit #278586

Dear Mr. Hill:

Enclosed is a preliminary copy of the proposed Mitigation Measures for your information and comment.

Thank you for your assistance.

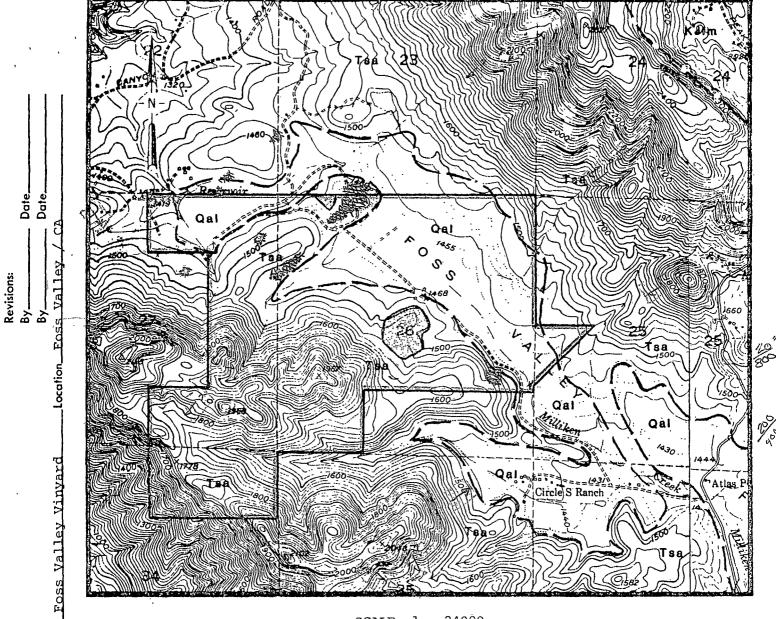
Very truly yours,

JAMES O'LOUGHLIN

Senior Planner - Environmental Protection Section

ames Oloughlun

JO:m1:7c Enclosure



SCALE 1 : 24000

VINICITY AND GENERALIZED GEOLOGIC MAP

Qal alluvium

andesitic to basaltic

Tsa lava flows of the Sonoma Volcanics.

KJfm graywacke and metagraywacke of the Franciscan Complex

- - geologic contact

building envelopes

surveyed sensitive areas.

REFERENCES:

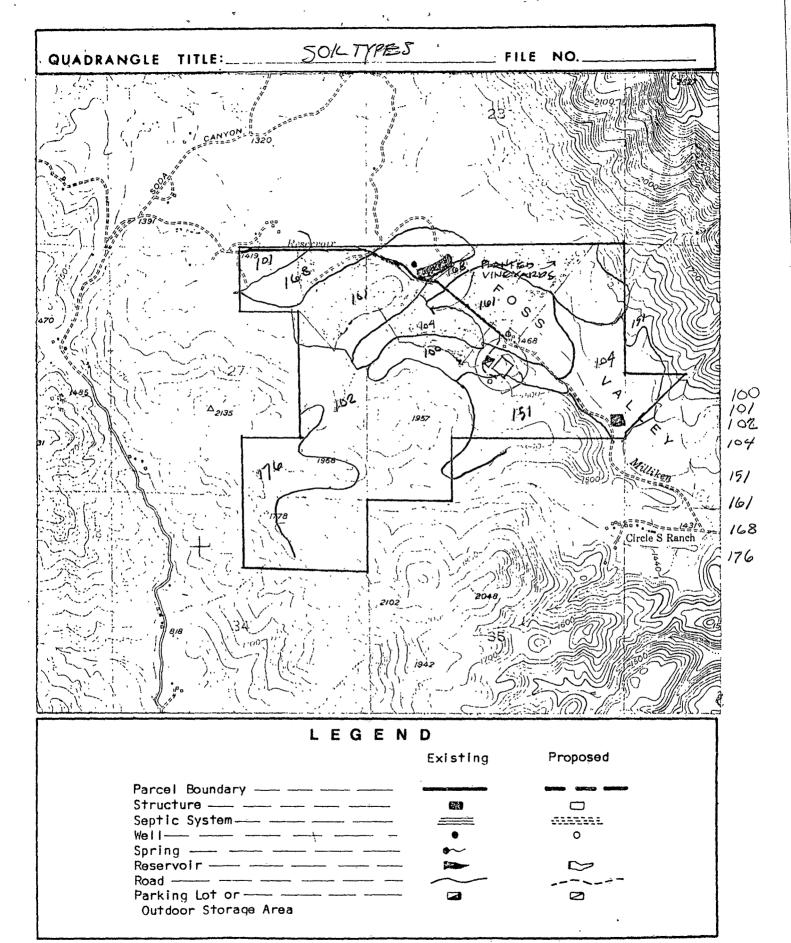
Name H

Job Number_111-5-A

By_id_Checked By_

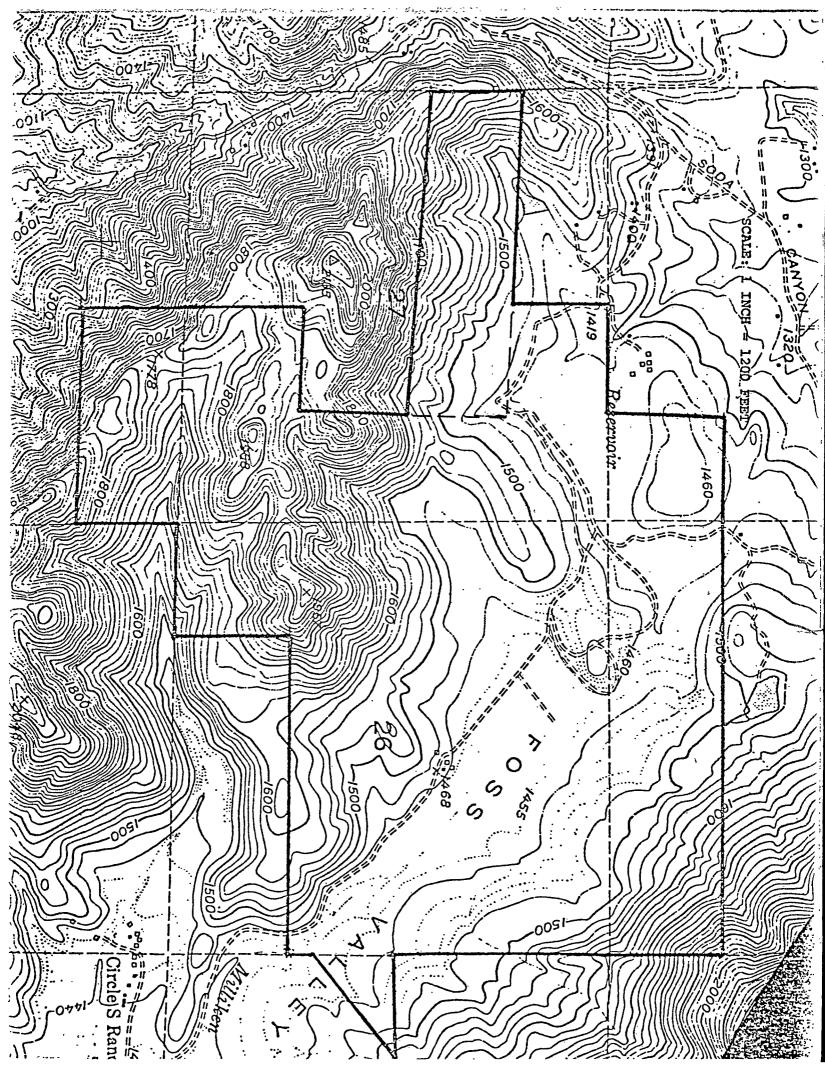
Geology: Fox and others, 1973

Base Map: U.S.G.S., 7½ min. topo. map, Yountville, 1951.



Dec 179

	TYPE	#	RUNI	ERO	VEG.
	AIKEN	100	Med.	Stight	pond pins out , a gover, brush
٠, ,	H	101	и	Modi	4
	#	102	Repud	<i>U</i>	u
-	BACE	104	Slow	slight	Oak, a graces
1	HAMBRIGHT (ources)	151	Mad-Ropid	stight-Mod.	a grows, forker, rake
-	MAXWELL	161	slow	slight	Typine, forwerd, w. outer, other amund
	PERKINS	168	1/04	stight	ocksgraes
	ROCK OUTCROP	176	Viropid	high	shall shum, sturted trees
معيد مد		,			



SOURCES OF INITIAL STUDY INFORMATION WHITBREAD - 11-2-78586

INITIAL STUDY QUESTION #

Previous EIR # or Survey

GEOLOGY

Napa County Environmental Sensitivity Maps

1NA, 2NA, 3NA

U.S. Geological Survey Miscellaneous Field Studies Maps MF-480, MF-483, MF-484, MF-831.

San Francisco Bay Region Environment and Planning Study Basic Data Contribution 9.

State Division of Mines and Geology, Alquist-Priolo Special Study Zone Maps.

California Division of Mines and Geology Seismic Safety Information Map 72-4.

METEOROLOGY

4_NA

Ambient air quality standards, project air quality standards and sensitive receptors from Bay Area Air Quality Management District.

HYDROLOGY

Napa County Environmental Sensitivity Maps

5<u>NA</u>, 6<u>NA</u>

Napa County Flood Insurance Rate Map.

7/, 8/

Resource Conservation District

WATER QUALITY & HYDROLOGY

9<u>NA</u>, 10<u>NA</u>, 11<u>NA</u>

Regional Water Quality Control Board, California Dept. of Fish and Game and Napa County Department of Environmental Health policies and ordinances.

AIR QUALITY

13<u>NA</u>, 14,<u>NA</u>, 15<u>NA</u>

Bay Area Air Quality Management District - Professional opinions derived in accordance with current standards of professional practice.

NOISE

Napa County Environmental Sensitivity Maps

17 V, 18N/9, 19 N/9, 20 N/A

Napa County Department of Environmental Health policies and ordinances. Professional opinions derived in accordance with current standards of professional practice Appendix G, Section (P) - Traffic Noise Maps from Caltrans and "increase substantially the ambient noise levels for adjoining areas."

ECOSYSTEM

Napa County Environmental Sensitivity Maps *

21NA, 22NA,

23 NA, 24NA, 25 NA

State Department of Fish and Game and California Native Plant Society reference material on rare and endangered species. Napa County Zoning and population distribution Maps.

SOCIAL

26/NA, 27 NA

Professional opinions derived in accordance with current standards of professional practice.

AESTHETIC

28八十

U.S. Geological Topographic Maps of Napa County - CEQA Appendix G, Section (b) aesthetics.

29 V, 30 NA

Professional opinions derived in accordance with current standards of professional practice in light and litter assessment and control in Appendix G,

Section (e) litter.

CULTURAL

Napa County Environmental Sensitivity Maps

31 NA

Professional opinions on location of archeological

sites and Appendix K - CEQA.

Napa County Environmental Sensitivity Maps

32<u>NA</u>

Napa County Historic Resources Inventory and

Appendixes G & K - CEQA.

33 NA

Napa County General Plan.

TRAFFIC

35 L, 36 L

Caltrans Trip End Generation Model - Progess Reports.

Napa County Environmental Sensitivity Maps

Dept. of Public Works Traffic Count Maps.

Napa County Code Parking Standards.

ENERGY

39NA, 40NA, 41NA

Professional opinions derived in accordance with current standards of professional energy use assessment practices. CEQA Appendix G - Sections (N) and (0).

PUBLIC HEALTH

43 NA, 48NA

Regional Water Quality Control Board, Calif. Dept. of Fish and Game and Napa County Department of Environmental Health policies and ordinances.

Napa County Environmental Sensitivity Maps

44 1, 45 NA

Ordinances and policies of the California Department of Forestry.

46 NA, 47 NA

Maps of airport approach zones and clear zones and exensions thereof.

COMMUNITY SERVICES

49NA

Napa County General Plan and Comments from agencies providing community services and the Local Agency Formation Commission.

COMMERCIAL RESOURCES

50 NA

Napa County General Plan and SMARA EIR No. 7 of the State Mining and Geology Board regarding regionally significant construction aggragate sources.

51 NA

Resource Conservation District maps and zoning and General Plan Maps.

FISCAL

52 NA

Agencies providing public services.

GROWTH INDUCTION

53 NA

Comments from other sections and agencies.

"NA"

Not Applicable - Project does not have potential to cause significant adverse affect in this area.

ENVIRONMENTAL IMPACT ASSESSMENT WHITBREAD OF CALIFORNIA, INC.

PROPOSED WINERY

APPLICATION FOR USE PERMIT

U-488687, MARCH 10, 1987

AND

PROPOSED WINERY

APPLICATION FOR USE PERMIT EXTENSION

U-278586, MAY 6, 1987

ORIGINAL FILED FEBRUARY 20, 1986

FLETCHER BENTON AND SUPPORTING NEIGHBORS PREPARED FOR:

3398 Soda Canyon Road

Napa, CA 94558

PREPARED BY: GODDARD & GODDARD ENGINEERING

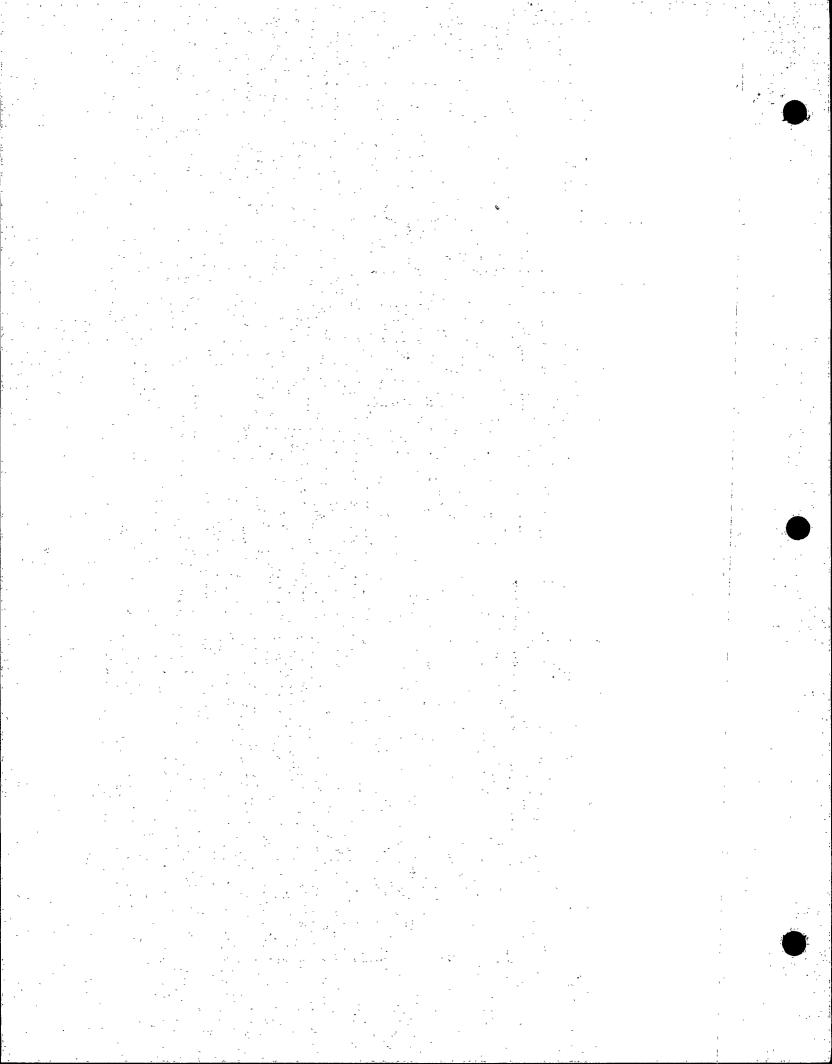
P.O. Box 1096

Upper Lake, CA 95485 (707) 275-0238

DATE: June 11, 1987

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REFERENCES

APPENDIX A

ENVIRONMENTAL IMPACT ASSESSMENT, WHITBREAD OF CALIFORNIA, INC.

PROPOSED WINERY APPLICATION FOR USE PERMIT # U-488687, MARCH 10, 1987

PROPOSED WINERY APPLICATION FOR USE PERMIT EXTENSION

U-278586, MAY 6, 1987 ORIGINAL FILED FEBRUARY 20, 1986

- 1.0 EXECUTIVE SUMMARY OF SIGNIFICANT ENVIRONMENTAL IMPACTS :
- 1.1 PROJECT DESCRIPTION AND LOCATION

Whitbread of California has proposed a large 1,178 acre vineyard/winery complex in a rural setting, 6.5 miles up the narrow and winding Soda Canyon Road. This narrow mountain road climbs 1,425 feet from the Napa Valley floor with the last mile to the summit averaging 12% grade with a twisting pitch up to 20% grade. The project area in its rural mountainous setting is 10.5 miles north of the city of Napa.

- 1.2 SIGNIFICANT ENVIRONMENTAL IMPACT SUMMARY
- 1.2.1 GEOLOGY, SEISMICITY, AND SOILS
 SIGNIFICANT ENVIRONMENTAL IMPACTS
- o The project area's volcanic geology and proximity to major faults are estimated to yield at least one very strong ground shaking during the economical life of the proposed winery.
- o Erodibility and porosity of the local soils range from low to high. Attempts to seal the reservoir located in the N 1/2 of the NW 1/4 of Section 27 as shown in Figure 4 have failed

even with commercial Bentinite. Given the soil types and history of pond seepage, the proposed winery waste ponds located in the SE 1/4 of the SE 1/4 of Section 22 as shown in Figure 4 adjacent to Rector Creek may allow winery wastes to enter the domestic water supplies of neighbors and move toward Rector drinking water reservoir.

- The proposed new winery site elevation is about 1,600 ft up an average slope of 17% with exposed rock escarpments behind and above the site rising to 2,135 ft elevation. No engineering geology study was available to assess the suitability of the new proposed winery and caves site as to seismicity or soil stability. Potential impacts could be seismic instability of the rock escarpment leading to rock slides during earthquakes, soil erosion and instability for building foundations, and poor integrity for safe cave construction.
- o There is a potential during cave drilling that the hydrologic integrity of the groundwater may be jeopardized due to interference with groundwater flows. The potential impact is discussed in detail under Water Resources Potential Impacts

 Section 8.3. This potential could lead to contamination

 and/or loss of neighboring and winery groundwater supplies.

1.2.2 BIOLOGICAL RESOURCES

SIGNIFICANT ENVIRONMENTAL IMPACTS

o Vineyard land clearing operations have already impacted riparian corridors on unnamed tributaries to Rector Creek.

Increased loss of wildlife habitat will occur as land clearing operations to develop reservoirs and the 700 acres of vineyards continue. Potential impacts will be loss of riparian corridors and wetland springs along creek tributaries which wildlife use as habitat and watering areas.

1.2.3 WATER RESOURCES

SIGNIFICANT ENVIRONMENTAL IMPACTS

- o Land clearing and vineyard development, reservoir and water diversion development projects, the proposed winery, caves, stockpiling of excavated cave material, and waste ponds will increase sedimentation transport into Rector and Milliken Creeks.
- Operation of the proposed winery complex will require some 20% more groundwater than the combined use by nearby Soda Canyon residents. Groundwater availability for winery and agricultural use may be limited due to riparian water rights which protect "natural" domestic use over "artificial" agricultural or industrial use. A potential impact to the proposed winery and agricultural operation exists if an insufficiency of groundwater supplies develops which inhibits Whitbread's groundwater use.
- o Present permitted diversion of 400 acre-feet/year from Milliken Creek and requested diversion of 301 acre-feet/year from Rector Creek may reduce groundwater recharge for the neighboring 48 parcels and some 80 Soda Canyon residents.

- The proposed cave drilling and construction activities have the potential to interrupt neighboring domestic groundwater supplies and/or to allow winery pollutants to enter directly into those supplies. Residential domestic wells in the area have been drilled through volcanic bedrock containing basaltic materials. The source of the groundwater encountered for users on this type of groundwater resource has not been identified but pumping tests have indicated that it is probably not derived from local surface percolation. year-round spring in a riparian corridor destroyed by land clearing operations not far from the newly proposed winery caves may indicate hydraulic connection to the neighboring residences' groundwater supply. If this is the case, merely drilling the caves may destroy the hydraulic continuity to the groundwater supply and may at worst cause catastrophic loss of the neighbors' groundwater supplies. Since the volcanic area is interlaced by pumice and broken basaltic materials, their porosity could allow direct contamination from winery operations conducted within the caves to enter the neighbors' groundwater supply.
- o Winery waste will contain toxic and harmful cleaning agents and agricultural chemicals which, given the history of soil pond porosity, poses a serious liquid solid waste problem.

 This complex and documented problem is extensively developed in the Water Resources Section 7.2.2.
- o Agricultural chemicals used in the vineyards are toxic and potentially harmful to the environment if allowed to enter

surface runoff or if carried by groundwater recharge into domestic water supplies. This complex and documented problem is extensively developed in the Water Resources Section 7.2.2.

1.2.4 CLIMATOLOGY AND AIR RESOURCES

SIGNIFICANT ENVIRONMENTAL IMPACTS

o The recent increase in agricultural activity plus the proposed increase will continue to produce major quantities of dust and periodic pesticide drift. The intensive land conversion, and proposed winery and reservoir construction over the next several years will continue to produce considerable quantities of dust. As these programs decrease, the developed 700 acres of vineyard will continue to produce dust from usual agricultural operations and increased quantities of agricultural chemicals emissions.

1.2.5 NOISE

SIGNIFICANT ENVIRONMENTAL IMPACTS

Noise from construction and land conversion will continue for several years in the project area. While signed mitigation measures address this issue, Whitbread is clearly not following the directives. For example, on Sunday June 7, 1987 at 1400 hrs a Whitbread project water truck with a faulty or very deficient muffler system produced over 70 dBA and interrupted normal conversation at a neighbors' patio. The truck was being used to water roads to the proposed new winery site.

- o It is estimated that automobiles starting and leaving at the new proposed winery site during evening hours will produce intrusive sound levels (10 dBA over ambient) due to the elevated and exposed location of the proposed new winery site and the location of their access road which borders neighboring property.
- o Proposed winery operation, expanded agricultural activities, and necessary trucking operations will severely degrade the low rural ambient noise level.

1.2.6 CULTURAL RESOURCES

SIGNIFICANT ENVIRONMENTAL IMPACTS

o Archaeological site disturbance and destruction is a distinct possibility due to the scale of the proposed construction and land conversion activities. A Department of Water Rights' staff archaeologist concluded that several significant Cultural Resources were located within the project area.

1.2.7 LAND USE AND VISUAL RESOURCES

SIGNIFICANT ENVIRONMENTAL IMPACTS

o Figures 2, 3 and 4 demonstrate that the present and proposed projects will result in significant visual impacts. Families who have lived in the area for many years are seeing their area converted from mixed chapparal and oak woodland to commercial vineyards and potentially to a large winery, intrusive in this mountain setting. Moving and stationary lights will also be an adverse impact.

1.2.8 SOCIOECONOMIC AND PUBLIC FACILITIES SIGNIFICANT ENVIRONMENTAL IMPACTS

- o Many socioeconomic factors are being disrupted and an air of divisiveness in the community is developing due to the Whitbread projects.
- o Individual acceptance and enjoyment of the low intensity rural lifestyle of the Soda Canyon community is being disrupted by the necessity of the Whitbread project for rural resources in short supply such as use of Soda Canyon Road for heavy transport, groundwater, housing, and fast medical, police, and fire protection.

1.2.8 TRAFFIC AND CIRCULATION PATTERNS SIGNIFICANT ENVIRONMENTAL IMPACTS

- o The commuting and truck traffic due to agricultural workers is already causing significant impacts.
- o At the planned 700 acre vineyard size, agricultural workers' commuting, and trucking in agricultural supplies, added to the further development of residences in the area, will result in severe congestion of Soda Canyon Road traffic especially since this traffic is in the opposite direction to the normal commute traffic from the area to the Napa Valley.
- o The proposed winery workers, winery visitors, and the 700 acre vineyard worker traffic will lead to increased congestion, especially since it moves in the opposite to normal commuting from the area. An estimated average of 4 semi-truck tractor loads (40,000 lb/load) will travel the

Soda Canyon Road per day.

- o The required empty bottle trips to the winery will amount to about 157 loaded semi-truck tractors/year (1,200 cases/load).
- o The required trips from the proposed winery to retail outlets will amount to about 157 loaded semi-truck tractors/year (full loads with 1,200 cases/load)
- o The proposed winery will require approximately 780 supplies by truck traffic per year (15 per week).

1.2.9 CUMULATIVE IMPACTS

SIGNIFICANT ENVIRONMENTAL IMPACTS

- Cumulative effects of competition for limited groundwater supplies.
- o Cumulative effects of competition for limited traffic and circulation along Soda Canyon Road.
- o Cumulative effects of competition for limited surface runoff which is required to maintain groundwater recharge.
- 1.3 NAPA COUNTY CEQA GUIDELINES FOR IMPLEMENTATION

 The significant environmental impacts summarized above are of great concern to those living in quiet undisturbed rural settings throughout the rimland and mountains of Napa Valley. It is hoped that this environmental assessment will aid the Napa County Conservation, Development and Planning Department's review of the two issues before them, namely the extension of the previously granted Whitbread winery permit and the Whitbread

request for the new winery location. The agencies and individuals contacted are listed in Appendix A.

This assessment has attempted to study all aspects of the Whitbread project in total, estimating impacts for the full buildout of the vineyard/winery complex. However it is only one beginning step in the process of asking and answering the appropriate environmental questions. In the consultant's opinion, sufficient questions of significant environmental concern have been raised that a CEQA Environmental Impact Review of the total project is indicated.

According to the Napa County CEQA Guidelines (Intent of the General Provisions, Section 100), it is their intent to:

- o incorporate environmental impact analysis into the planning process;
- o develop and maintain a master environmental data system to be utilized in the review of individual projects; and
- o focus environmental review on substantive issues, possible mitigation measures and reasonable alternatives.

The application of this step of the Environmental Review process to the Whitbread project will assist in responding to and mitigating many of the impacts discussed in this assessment.

Napa County has led California in requiring the EIR process for wineries and the consultant hopes that it will continue to utilize the process.

2.0 INTRODUCTION AND ENVIRONMENTAL IMPACT ASSESSMENT GOALS
Concerned and alarmed by recent construction activities, citizens
neighboring the Whitbread of California, Inc. vineyard at the
end of Soda Canyon Road asked GODDARD & GODDARD ENGINEERING to
conduct an independent review of the potential environmental
impacts of the Whitbread proposed Foss Valley winery. Little
activity had occurred near to the residents until recently when
Whitbread's land acquisitions were completed, land clearing
commenced and when Whitbread decided to build the winery near to
the adjoining residences.

Activities until recently are shown in Figure 1 which is a typical view from the homes near the end of Soda Canyon Road toward the original proposed winery. Since this original winery location was beyond the 300 foot notification boundary, the 80 plus family members near the end of Soda Canyon Road had no notification of the Whitbread's February 20, 1986 winery use permit application.

When land clearing and the decision of Whitbread to build a 450,000 gallon per year winery on their newly acquired land surfaced last month, direct environmental impacts to the residences became all too apparent. The new proposed winery site is shown in Figures 2 and 3 with the approximate location and scale of the approach road, winery complex and cave zone area. The topography, water sheds, water courses, project element locations and proximity of neighbors is shown in Figure 4.

3.0 PROPOSED PROJECT DESCRIPTION AND LOCATION

Whitbread of California has proposed a large vineyard/winery complex on 1,178 acres, 6.5 miles up the narrow and winding Soda Canyon Road. This narrow mountain road climbs 1,425 feet from the Napa Valley floor with the last mile to the summit averaging 12% grade with a twisting pitch up to 20% grade. Winery workers will add some 20 trips per day added to the 700 acre vineyard worker traffic. An estimated average of 4 semi-truck tractor loads (40,000 lb/load) will travel the Soda Canyon Road per day.

The proposed project is 10.5 miles north of the city of Napa via the Silverado Trail and Soda Canyon Road located in Foss Valley, elevation 1,400 feet, in the rugged mountains east of the Napa Valley. The size of the proposed winery is 3.7 times the average Napa Valley winery size or within 30% of the size of the ten largest Napa Valley wineries (Napa Valley Foundation/ESA, 1984).

The scale of the proposed project is detailed by the following information:

- o 450,000 gallon/year (185,000 cases/year) winery
- o 34,000 square feet floor area
- o 36,000 square feet of caves
- o employ 20 full time workers
- o divert and store 301 acre-feet per year from Rector Creek
- o divert and store 600 acre-feet in a new 28 acre reservoir
- o expand present grape acreage from 170 to 700 acres
- o construct winery waste facilities for 3,600,000 gallons/year
- o construct domestic waste facilities for 255,500 gallons/year

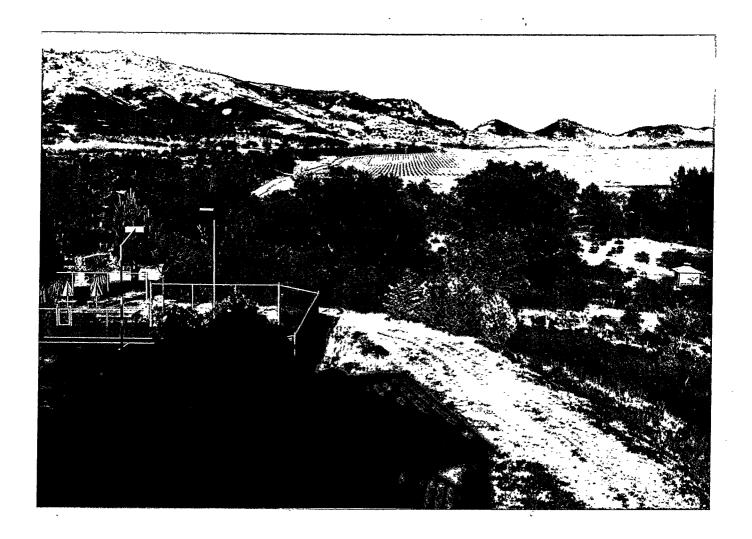


Figure 1. Typical View From Neighbors To Whitbread of California Original Proposed Project Area.

- o construct 50,000 gallon capacity water supply system
- o winery groundwater annual average 3,375,000 gallon/year (7.5 gallons water per gallon wine)
- o winery groundwater peak fall harvest 18,500 gallons/day (twice daily average during harvest)
- o required cooperage trips to winery 157 /year (empty bottles) (1,200 cases/load)
- o required trips from winery to retail outlets 157/year (full loads with 1,200 cases/load)
- o approximate winery supplies by truck traffic 780/year

3.1 PROJECT CONSTRUCTION

The proposed Whitbread project will entail construction work both at the old winery site and at the new with scheduled completion to occur January 15, 1989. Concurrent with the proposed winery construction work, work will continue on increasing the vineyard size from 170 acres to 700 acres, the Rector Creek water diversion project, and the construction of the new 600 acre-foot 28 acre reservoir.

3.2 PROJECT WORK FORCE

The project work force will include vineyard workers, the 20 projected winery workers, and the construction workers. The scope of project activities over the next several years will necessitate a varying work force with an estimated 35 commuting workers.

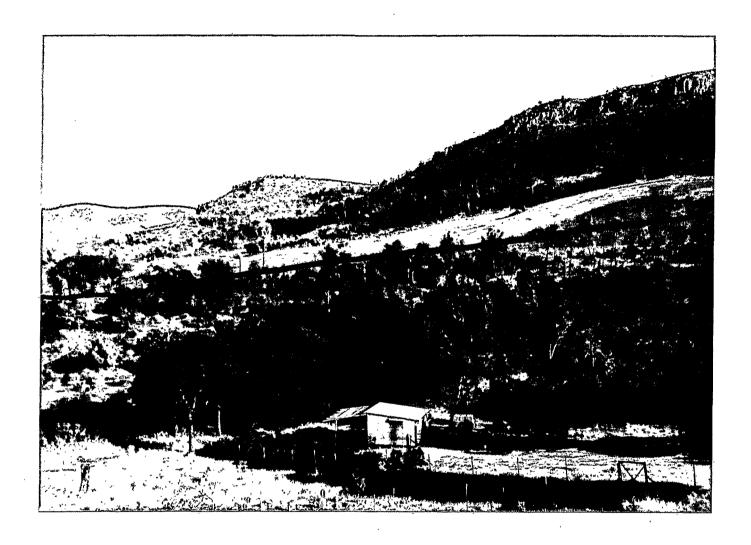


Figure 2. Typical View From Neighbors To Whitbread of California Newly Proposed Winery Area - Note dark line indicates approximate position of winery access road which is sited along property boundary. Winery traffic will be noisy and intrusive.

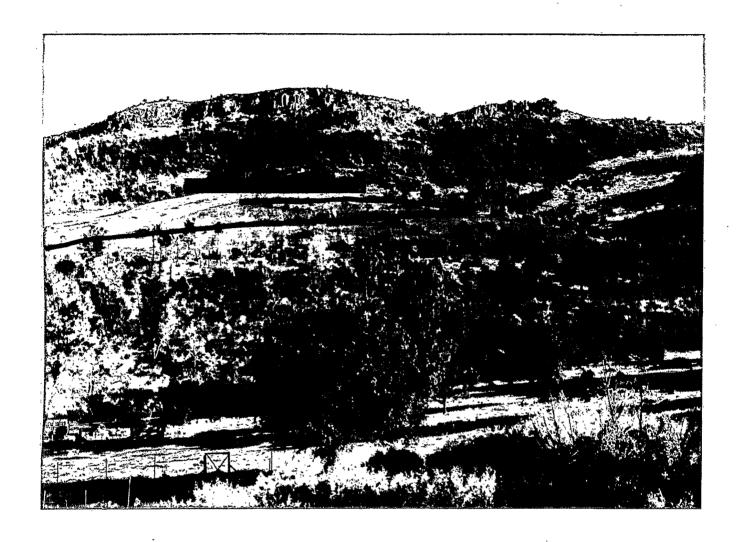
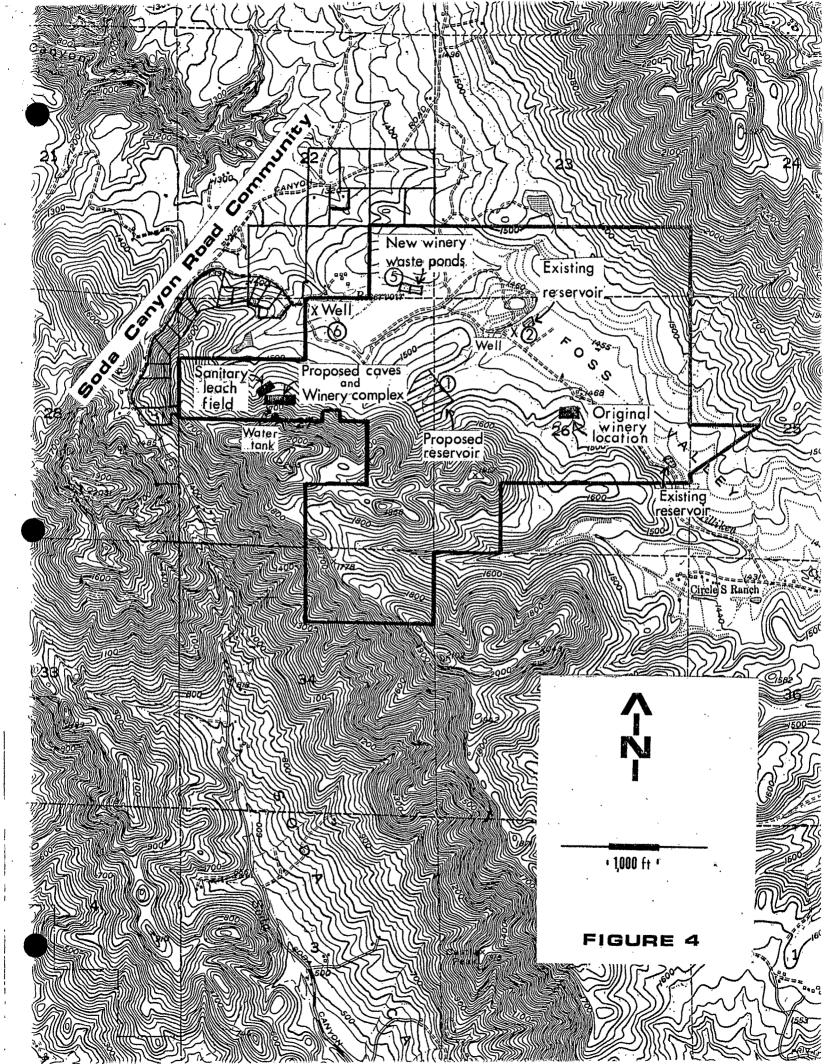


Figure 3. Typical View From Neighbors To Whitbread of California Newly Proposed Winery Area - Note dark line and area indicates approximate position of winery access road and winery complex respectively. Winery traffic and operation will be noisy and intrusive.



4.0 PROJECT ALTERNATIVES

The very rural and mountain valley nature of Soda Canyon and Foss Valley is ideal for quiet, low intensity, low density farms, ranches and rural suburbanites. The area lacks completely the necessary infra-structure for a modern industrial winemaking plant the size of that proposed by the Whitbread of California.

Critical and significant environmental impacts include inadequate and unsafe trucking along Soda Canyon Road; fire protection only designed for small rural residences; the probable inadequacy and sensitivity to pollution of the surface and groundwater supplies to local residences, Rector and Milliken drinking water reservoirs; inadequate worker housing necessitating additional commuting traffic along Soda Canyon Road; and inadequate response time for medical or police personnel.

- 4.1 WHITBREAD OF CALIFORNIA WINERY IN NAPA VALLEY ALTERNATIVE Consideration of siting the proposed winery near to the infrastructure that it requires reduces the significant environmental impacts to the Soda Canyon/Foss Valley area markedly.
- o Crush at Foss Valley Vineyard Truck Juice to Napa Valley for Processing

The study of alternative winery siting advantages is demonstrated by the example of locating the crushing facilities in the Foss Valley vineyard and locating the winery in Napa Valley. In this example, the commuting of winery workers, winery supply trucking including cooperage, corks, bottles, labels, trucking of retail

and wholesale wine sales, winery visits, etc. along the unsafe and substandard Soda Canyon Road would not occur.

Crushed grape juice transport would require some 115 truck trips (4,000 gallon/load) to carry the wine juice to the alternative Napa Valley location compared to the 1,094 truck trips necessary for the proposed Foss Valley winery location.

Other necessary infra-structure such as adequate and fast response time to winery workers and visiting public for emergency medical, fire and police aid would be available in a Napa Valley location. Issues of future winery use permit modification allowing increased winery public tours, wine tasting, public events and expanded retail item sales would be much less controversial and could be conducted in an environment more conducive to usual Napa Valley winery decision making.

5.0 GEOLOGY, SEISMICITY AND SOILS

5.1 EXISTING CONDITIONS

5.1.1 GEOLOGY

The project lies in the central portion of California's Coastal Range Province. The site is underlain by rocks of the Plioceneage Sonoma Volcanic Group. These rocks consist mainly of andesite to basaltic lava flows (Noguchi, 1985).

5.1.2. SOILS

Alluvial deposits overlie the volcanic rocks in the low-lying central portion of Foss Valley consisting of unconsolidated sand, silts, gravels and clays (Noguchi, 1985).

5.1.3 SEISMICITY

Structures constructed within the project area will be subjected to relatively very strong ground shaking during the economic life of the structure (Noguchi, 1985).

5.2 POTENTIAL IMPACTS

- o The volcanic geology and proximity to major faults of the project area are estimated to yield at least one very strong ground shaking during the economical life of the proposed winery.
- o Erodibility and porosity of the local soils range from low to high. Attempts to seal the reservoir located in the N 1/2 of the NW 1/4 of Section 27 as shown in Figure 4 have failed even with commercial Bentinite. Given the soil types and history of pond seepage, the proposed winery waste ponds located in the SE 1/4 of the SE 1/4 of Section 22 as shown in Figure 4 adjacent to Rector Creek may allow winery wastes to enter the domestic water supplies of neighbors and move toward Rector drinking water reservoir.
- o The proposed new winery site elevation is about 1,600 ft up an average slope of 17% with exposed rock escarpments behind and above the site rising to 2,135 ft elevation. No engineering geology study was available to assess the suitability of the new proposed winery and cave site as to seismicity or soil stability. Potential impacts could be seismic instability of rock escarpment leading to rock slides during earthquakes, soil erosion and instability for building foundations, and poor integrity for safe cave construction.

o There is a potential during cave drilling that the hydrologic integrity of the groundwater may be jeopardized due to interference with groundwater flows. The potential impact is discussed in detail under Water Resources Potential Impacts Section 8.3. This potential could lead to contamination and/or loss of neighboring and winery groundwater supplies.

6.0 BIOLOGICAL RESOURCES

6.1 EXISTING CONDITIONS

The area surrounding the project is typically mixed chapparal with openings of oak woodlands. The project site itself has been extensively cleared for vineyard development with little or no sensitivity shown for sensitive and important wildlife habitats. Several wetland springs and riparian corridors were denuded in land clearing operations in the S 1/2 of the NW 1/4 of Section 27. Increased wildlife encroachment onto adjacent neighboring properties has been experienced due to the wildlife's loss of habitat.

6.2 POTENTIAL IMPACTS

o Vineyard land clearing operations have already impacted riparian corridors on unnamed tributaries to Rector Creek.

Increased loss of wildlife habitat will occur as land clearing operations to develop reservoirs and the 700 acres of vineyards continue. Potential impacts will be loss of riparian corridors and wetland springs along creek tributaries which wildlife use as habitat and watering areas.

7.0 WATER RESOURCES

7.1 EXISTING CONDITIONS

Precipitation in the Napa Valley area averages about 22 to 60 inches with higher rainfall occurring in mountainous areas to the north. The project area's precipitation will be somewhat higher than the City of Napa some 10 miles to the south where the average is 23 inches. The site is at the summit of the Rector and Milliken water sheds and as such has a limited watershed catchment area as shown on Figure 4.

7.1.1 GENERAL HYDROLOGICAL FEATURES

General hydrological features are typical for high mountain valleys with slopes up to 50% leading to areas of Foss Valley with slopes less than 2.5%. Precipitation in most winter months except during droughts such as 1977, produces sufficient runoff in Rector and Milliken Creeks to meet the 400 acre-feet allowed and the additional 301 acre-feet applied for. The consequences of the diversions on neighboring groundwater supply recharge are not known.

7.1.2 SURFACE WATER HYDROLOGY AND QUALITY

Major use of the Rector and Milliken watersheds is for impoundment of drinking water for the Yountville Veterans Home and the City of Napa in the Rector and Milliken reservoirs respectively. Considerable changes have occurred to the surface water hydrology in the project area due to land clearing, vineyard development, and water diversion and impoundment projects all of which increase erosion and sedimentation reducing

surface water quality. No measurements or monitoring programs were referenced for the area.

7.1.3 GROUNDWATER HYDROLOGY AND QUALITY

There are some 48 lots in the immediate area and about half with domestic wells. Most wells on the south side of Soda Canyon Road adjacent to the Whitbread project area are drilled through bedrock consisting of pumice, basalt and other volcanic materials to a depth of over 200 ft and an average of about 100 ft to static water depth. Wells on the north side of Soda Canyon Road are drill into more alluvial materials associated with Rector Creek. Water quality has not previously been influenced by industrial or agricultural wastes and is considered excellent. There are several spring-fed domestic water supplies in the area.

Whitbread of California, knowing of the local groundwater supply of their neighbors, drilled a well about 1 1/2 years ago close to their property line in the NW 1/4 of the NE 1/4 of Section 27 which is very close to an excellent existing well drilled back in the 1950's.

While no use has been put to this well, potentially a yearly use of 3,594,000 gallons/year will be required for the proposed winery and domestic needs. Some 80 people in the immediate area depend upon the ground water supply and their annual use totals some 2,993,000 gallons/year (102.5 gpcd). The Whitbread projected artificial groundwater use totals some 20% more than the yearly combined adjacent neighbors.

Since groundwater flows, such as the Soda Canyon Road residences

near the project area have, may be riparian, their needs as domestic users supercede Whitbread's artificial agricultural and industrial needs. If this is the case, and if well water becomes short in supply, the domestic needs of the neighbors would take precedence over the winery or agricultural needs of the Whitbread project. Only a thorough groundwater hydrological study will answer such a question and the outcome may spell success or failure for the Whitbread winery enterprise since it seems clear that domestic needs take precedence.

Whitbread's present permit to divert 400 acre-feet/year (# 19060) of the Milliken Creek flow and their pending application (#28794) to the California Department of Water Resources, Division of Water Rights, for diversion of an additional 301 acre-feet/year from Rector Creek may influence groundwater recharge for the project neighbors along Soda Canyon Road.

7.2 POTENTIAL IMPACTS

7.2.1 PROJECT CONSTRUCTION AND PROPOSED OPERATIONS

- o Land clearing and vineyard development, reservoir and water diversion development projects, and the proposed winery and waste ponds will increase sedimentation transport into Rector and Milliken Creeks.
- Operation of the proposed winery complex will require some 20% more groundwater than the combined use by nearby Soda Canyon residents. Groundwater availability for winery and agricultural use may be limited due to riparian water rights which protect

"natural" domestic use over "artificial" agricultural or industrial use. A potential impact to the proposed winery and agricultural operation exists if insufficient groundwater supplies develop which inhibits Whitbread's groundwater use.

- o Present permitted diversion of 400 acre-feet/year from Milliken Creek and requested diversion of 301 acre-feet/year from Rector Creek may reduce groundwater recharge for the neighboring 48 parcels and some 80 Soda Canyon residents.
- The proposed cave drilling and construction activities have the potential to interrupt neighboring domestic groundwater supplies and/or to allow winery pollutants to enter directly into those supplies. Residential domestic wells in the area have been drilled through volcanic bedrock containing basaltic materials. The source of the groundwater encountered for those on this type of groundwater resource has not been identified but pumping tests have indicated that it is probably not derived from local surface percolation. A year-round spring in a riparian corridor destroyed by land clearing operations not far from the newly proposed winery caves may indicate hydraulic connection to the neighboring residences' groundwater supply. If this is the case, merely drilling the caves may destroy the hydraulic continuity to the groundwater supply and may at worst cause catastrophic loss of the neighbors' groundwater supplies. Since the volcanic area is interlaced by pumice and broken basaltic materials, their porosity could allow direct contamination from winery operations conducted within the caves to enter the neighbors' groundwater supply.

- 7.2.2 WINERY WASTE STREAM AND AGRICULTURAL CHEMICALS USE

 The major sources of wastewater from the production of table
 wines include:
- o wastewater from the seasonal crushing and fermentation processes which occur from late August to early November;
- o year-round washing of storage tanks, barrels, and filters used in the racking and ageing processes;
- o bottling room and equipment washwater; and
- o blowdown from cooling and refrigeration equipment (AWARE, Inc. 1972; Vaughn et al, 1953; LaBella et al, 1972; Ryder, 1965).

Typical chemicals used in these operations, and which may enter the winery waste stream, are listed in Table 1. Many of these compounds are toxic and must not be allowed to enter groundwater or surface runoff.

Modern industrial farming operations increasingly rely on agricultural chemicals to control soil fertility, soil pests such as nematodes, weeds, rodents and herbivores, insects, fungi, and plant diseases. Increasingly, these agricultural chemicals are finding their way into groundwater, surface runoff and into agricultural processing waste streams.

Concern over a new large source of agricultural chemicals in the Milliken drinking water watershed prompted the City of Napa to write on March 21, 1986 the following:

TABLE 1

TYPICAL CHEMICAL USAGE IN A 450,000 GALLONS/YEAR WINERY

Chemical Compound	pounds/year
Trisodium Phosphate	135
Chlorinated Trisodium Phosphate	216
Soda Ash	648
Calcium Hypochlorite	414
Tri Pel-Detergent	378
Sulfur	14
Sodium Bisulfite	630
Sulfur Dioxide	270
Citric Acid	Small
Tartaric Acid	Small
Bentonite	Small
Gelatin	Small
Activated Carbon	Small
Diatomaceous Earth	Small

REFERENCE: Ryder, 1977

"There are three concerns that we have with this application: the first is erosion associated with vineyard conversion; the second is the pesticides and herbicides associated with almost any agricultural enterprise; and the third, is the adequacy of safeguards that insure that all domestic and industrial wastes are contained at their treatment facilities at all times."

The concerns raised above are not idle speculation since agriculture in California uses 25% of all pesticides applied in the U.S. Of 8,000 water wells tested for DBCP, a soil fumigant which was registered for use from the 1950's to August 1977, in the San Joaquin Valley, 2,000 are contaminated, covering some 7,000 square miles (Holden, P.W. 1986). Fifty pesticides have been found in 23 California counties and the EPA has asked for additional information on the "environmental fate" of 84 previously registered pesticides and additional information concerning 50 others originally thought to degrade harmlessly. Testing of California water wells has found the following:

- o 1983 Water Resources Control Board found 67 wells contaminated with D-D in 266 tested;
- o 1982 California Department of Food and Agriculture in testing of 217 shallow aguifers -

DBCP was detected in 27 wells (12%) at 0.1 to 10.5 ppb the herbicide Simazine in 5 wells (2%) - 0.5 to 3.5 ppb the nematocide EDB in 2 wells (1%) - 0.1 to 0.2 ppb the insecticide Carbofuran in 1 well (0.5%) - 0.5 ppb.

The widely-found groundwater contamination prompted the California Assembly to pass Bill 1803 which authorized a one time testing of all public water supply wells for the presence of organic chemicals.

Agricultural chemicals of possible concern from the Whitbread project are listed in Tables 2 and 3. Commonly used vineyard herbicides are listed in Table 2 and pesticides in Table 3.

In summary, writing for the Board of Agriculture National Research Council in 1986, P.W. Holden stated:

- o Pesticides may enter the groundwater from field application or from other activities inseparable from field application such as mixing and loading pesticides;
- o Agricultural chemicals which may appear as residues in groundwater include pesticides, fertilizers, fuels and wastes;
- o Hydrologic variables influencing the potential for groundwater contamination include:
 - porosity, organic matter content and pH of the soil;
 - depth, confinement and recharge areas of the aquifers;
- o Particularly susceptible areas are characterized by porous soils, shallow water tables and site-specific hydro-geologic conditions that expose aquifers to infiltration by surface contaminants;
- o It appears probable that in some regions little can be done to prevent agricultural chemicals from leaching to groundwater

TABLE 2

HERBICIDES REGISTERED FOR USE IN VINEYARDS IN CALIFORNIA

Soil Applied Residual Herbicides (Preemergence)

Dichlobenil Casoron 50% WP

Diuron Karmex 80% WP and other trade

names

Dinoseb* (alkanolamine salt) Premerge 3 S, Sinox PE 3 S

Napropamide Devrinol 2 EC, 50% WP Oryzalin Surflan 4-FL, 75% WP

Simazine Princep 80% WP and other trade

names

Trifluralin Treflan 4 EC

Foliar Applied Herbicides (Postemergence)

Translocated (systemic) herbicides

Dalapon Dowpon M 74%, Basfapon and

other trade names

Glyphosate (Isiopropylamine salt) Roundup 4 S

Contact herbicides

Dinoseb* (oil soluble) Dow General 5 EC, Sinox

General 5-EC, Dinitro General

and other trade names

Dinoseb* (alkanolamine salt) Premerge 3 S and other trade

names

Dinoseb* (water emulsifiable) "Contact" formulations, 0.9 to

3.2 EC

Paraquat* Ortho Paraquat CL 2 S

Petroleum solvents (weed oils)

Key:

* Restricted material, permit required from county Agricultural Commissioner for possession or use

EC emulsifiable concentrate

FL flowable formulation

S soluble formulation

WP wettable powder

For liquid formulations, the number indicates the pounds of active ingredient per gallon.

Reference: Div. Ag. Sciences (1981)

TABLE 3 PESTICIDES FREQUENTLY USED IN GRAPES

	Toxici	ty Level
Organochlorines		
Endosulfan (Thiodan) Dicofol (Kelthane)	Insecticide I Miticide	I or III III
Organophosphates		
Mevinphos* (Phosdrin) Parathion* Demeton (Systox) Azinphos-methyl (Guthion) Dimethoate Ethion* Oxydemeton-methyl (Metasystox-R) Naled (Dibrom)	Insecticide Insecticide Insecticide Insecticide Insecticide Insecticide Insecticide Insecticide Insecticide	I I II II II
N-Methyl Carbamates		
Methomyl* (Lannate, Nudrin) Carbaryl (Sevin) Chloropicrin* 1,3-dichloropropene	Insecticide Insecticide Fumigant	I III I
(Telone II, D-D) Ethylene dibromide* (EDB) Methyl Bromide Benomyl (Benlate) Captan Sodium arsenite* Sulfur Paraquat Dinoseb* Propargite (Omite) Strychnine* Zinc Phosphide*	Fumigant, nematocide Fumigant, nematocide Nematocide Fungicide Fungicide Fungicide Fungicide Herbicide Herbicide Miticide Rodenticide	I I III I I I I I I I I I I I I I I I

Key:

Toxicity Category

All pesticides are poisonous to human beings (Div. Ag. Sciences, 1981; Coop. Extension, 1982).

- = highly toxic, must be handled extremely carefully
- II = medium toxicity, must be handled with care
 III = low toxicity, least poisonous, must still be handled with care.

unless agricultural production practices are substantially modified or curtailed. In such cases it is critical to determine what level of residue can be accepted without undue risk to public health and to relate this level to agricultural management practices in the area;

- o Who should bear the responsibility and costs for mitigating contamination in cases where the source of pollution is known needs to be clarified, and the appropriate responses of users, manufacturers and landowners in cases where the source of contamination is unknown need to be established;
- o The unexpected presence in groundwater of residues from previously acceptable and sanctioned agricultural uses of pesticides has already had significant local impacts on agriculture in several major farm states (Holden, 1986).

The history of porous and leaky reservoirs, the porosity of pumice and sandy soils found in the project area, and the sensitivity of local domestic water supplies and the drinking water watersheds of Rector and Milliken reservoirs all intensify the severe potential environmental impacts that are posed by the winery and vineyard agricultural chemicals.

8.0 CLIMATOLOGY AND AIR QUALITY

8.1 EXISTING CONDITIONS

The climatological conditions are similar to those of the Napa Valley. Summer conditions will include warmer nights due to the absence of marine intrusion and the presence of the Pacific High

temperature inversion at 1,500 ft elevation. Late fall, winter and early spring conditions will periodically be colder due to the area's elevation and increased nocturnal cooling. Napa's 259 day growing season will be periodically shortened due to these cold conditions by about 30 days.

Existing air quality in the project area is better than in the Napa Valley and less impacted by vehicular emissions since the area is usually above Bay Area temperature inversions.

8.2 POTENTIAL IMPACTS

o The recent increase in agricultural activity plus the proposed increase will continue to produce major quantities of dust and periodic pesticide drift. The intensive land conversion, and proposed winery and reservoir construction over the next several years will continue to produce considerable quantities of dust. As these programs decrease, the developed 700 acres of vineyard will continue to produce dust from usual agricultural operations and increased quantities of agricultural chemicals emissions.

9.0 NOISE

9.1 EXISTING CONDITIONS

The Whitbread development is adjacent to the Soda Canyon community which has had a very low ambient noise level disturbed only by occasional residential traffic. Measurements made by the consultant during afternoon and evening periods were below the instrument's 50 dBA minimum reading. Because of its location at the end of Soda Canyon Road, the area has no through traffic and

neighbors commented on the peaceful quiet surroundings. Rural residents are more sensitive to noise levels which urban dwellers often take for granted. A quiet rural evening will have a noise level down to 30 dBA and intrusive sounds are often defined as 10 dBA over ambient. During daytime periods noise levels averaged below 50 dBA with local neighborhood traffic producing slightly over 50 dBA.

9.2 POTENTIAL IMPACTS

- o Noise resulting from construction and land conversion will continue for several years in the project area. While signed mitigation measures address this issue, these measures must be enforced if they are to mitigate the adverse impacts. Evidence exists that Whitbread is not following all of these directives. For example, on Sunday June 7, 1987 at 1400 hrs a Whitbread project water truck with a faulty or very deficient muffler system was so loud that it produced over 70 dBA at a neighbor's patio and interrupted normal conversation. The truck was being used to water roads to the proposed new winery site.
- o It is estimated that automobiles starting and leaving at the new proposed winery site during evening hours will produce intrusive sound levels (10 dBA over ambient) due to the elevated and exposed location of the proposed new winery site and the location of their access road which borders neighboring property.
- o Proposed winery operation, expanded agricultural activities, and necessary trucking operations will severely degrade the rural ambient noise level. Additional noise will result from trucks

changing gear to meet the steep grades of Soda Canyon Road and from the use of jake brakes.

10.0 CULTURAL RESOURCES

10.1 EXISTING ENVIRONMENT

The existence of archaeological sites within the project area has been addressed in the past and proposed use permits. The extent of proposed construction activities may result in important sites being uncovered which will require careful evaluation. A Department of Water Rights' staff archaeologist has located several significant cultural resources.

10.2 POTENTIAL IMPACTS

o Archaeological site disturbance and destruction is a possibility due to the scale of the proposed construction and land conversion activities.

11.0 LAND USE AND VISUAL

11.1 EXISTING CONDITIONS

Foss Valley and the surrounding area has experienced very low intensity land use which has preserved the rural and undisturbed mountainous nature of the area. Slow conversion to 40 acre or more low intensity rural homesteads has had little visual effect on the area. The distributed effects of domestic groundwater extraction have been supported due again to this low intensity of use. The lack of urban infra-structure has been felt by the residents to be a decided asset even though many homes have been lost to wild fires in the past.

Rural residents are more sensitive to scenic and light level changes since daily and yearly patterns move much more slowly than in urban man-dominated environments. Moving lights, to an urban dweller, are part of the evening and night outdoors environment. Moving lights for rural dwellers represent a potential visitor, poacher, or movement of a known neighbor and as such represent an important piece of information to his senses.

11.2 POTENTIAL IMPACTS

o Figures 2, 3 and 4 demonstrate that the present and proposed projects will result in significant visual impacts. Families who have lived in the area for many years are seeing their area converted from mixed chapparal and oak woodland to commercial vineyards and potentially to a large winery, intrusive in this mountain setting.

12.0 SOCIOECONOMIC AND PUBLIC FACILITIES

12.1 EXISTING CONDITIONS

The Soda Canyon community has been very stable for many years with slow, low intensity growth. Neighbors have been known to one another and little community controversy existed. Presently, an atmosphere of divisiveness is developing between those citizens who because of their concerns and desires for more information have sought professional legal and environmental analysis assistance and those whom Mr. James Barnes, Vice President of Whitbread of California, described to the consultant on June 7, 1987 as "good" neighbors. All developed information

concerning a project whether environmental, water rights, or CEQA and zoning legal issues helps planners, developers and concerned residents achieve informed and planned development of projects while avoiding adverse environmental impacts which may otherwise be unforeseen or underestimated. In this spirit the consultant requested access for himself and a group of concerned neighbors to the Whitbread project on the day when other "good" neighbors were invited to view and discuss the project, and regrets that Mr. James Barnes denied that request.

Other socioeconomic factors such as law enforcement, fire protection, medical facilities, schools and solid and liquid waste management must be viewed in the very rural setting of the community. Response time for emergency protection is long due to distance and slow due to the nature of Soda Canyon Road. Fire protection is augmented by local volunteers but periodically major wild fires occur and are difficult to control due to the natural mountainous character of the area.

12.2 POTENTIAL IMPACTS

- o Many socioeconomic factors are being disrupted and an air of divisiveness is developing due to the Whitbread projects.
- o Individual acceptance and enjoyment of the low intensity rural lifestyle of the Soda Canyon community is being disrupted by necessities of the Whitbread project for rural resources in short supply such as use of Soda Canyon Road for heavy transport, groundwater, housing, and fast medical, police, and fire protection.

13.0 TRAFFIC AND CIRCULATION PATTERN

13.1 EXISTING ENVIRONMENT

All traffic and circulation to the project site and neighboring community travels Soda Canyon Road 6.5 miles from its start at Silverado Trail. This narrow mountain road climbs 1,425 feet from the Napa Valley floor with the last mile to the summit averaging 12% grade with a twisting pitch up to 20% grade shown in Figure 5. The severe climb has resulted in several mechanical problems for heavy trucks as shown in Figure 6 where diesel fuel was lost on a narrow steep part of the roadway. Truck trailer combinations have stopped near the volunteer fire department so that one trailer at a time can be hauled up the last steep winding grade.

Usual county Standards and Specifications ordinances specify maximum allowable road grades following CALTRAN guidelines. The guidelines are: non-mountainous feeder roads - less than 12%; mountain roads - less than 15%; and mountain feeder roads - less than 17%, where mountainous terrain is defined as less than 20% (County of Lake, Standards and Specifications). Slopes in the area exceed 50% and as stated above Soda Canyon Road averages 12% grade for the last mile to the summit with grades up to 20%. The local school district has taken note of these conditions and transfers students who live near the upper end of Soda Canyon Road to a smaller van which can safely climb and negotiate the steep, narrow and winding road.

Adding to the rural traffic is Soda Canyon Ranch Estates, whose

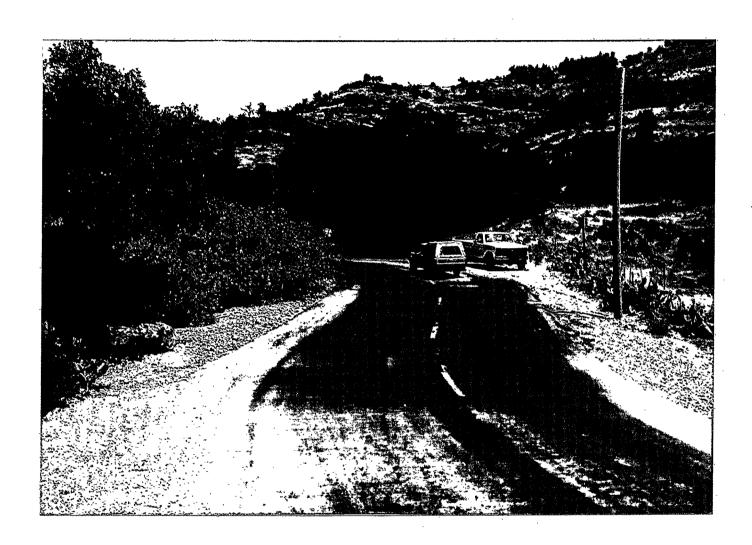


Figure 5. Soda Canyon Road Section Winding and Climbing At 20% Grade - Unsafe and substandard for large trucks.

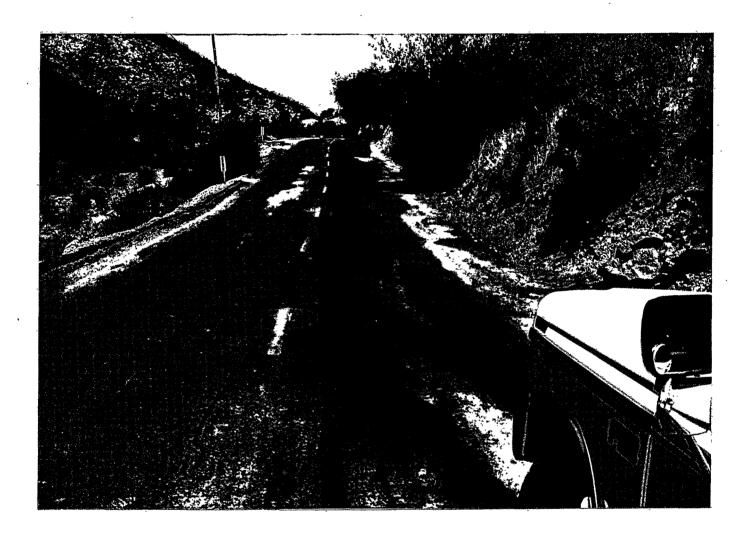


Figure 6. Recent Heavy Truck Breakdown Point on Steep and Narrow Section of Soda Canyon Road - Note the diesel fuel spill on pavement.

feeder enters above the summit near the upper end of Soda Canyon Road. The development will result in 14 families on the 40 to 83 acres parcels now being sold.

Agricultural and land conversion workers commute and truck traffic arrivals conflict with the residents' Napa Valley work commutes in that they must pass on narrow Soda Canyon Road.

Despite the fact that Whitbread's representatives have signed a mitigation measure prohibiting trucking during school commute periods, a number of violations are reported to have occurred.

13.2 POTENTIAL IMPACTS

- o The commuting and truck traffic due to agricultural workers is currently causing significant adverse impacts.
- o At the planned 700 acre vineyard size, the number of agricultural workers commuting and trucking in agricultural supplies, added to increased traffic from further residential development in the area, will result in severely congested traffic on Soda Canyon Road, especially since this traffic is in the opposite direction of the normal Napa Valley commute from the area.
- o The proposed winery workers, winery visitors, and the 700 acre vineyard worker traffic will lead to increased congestion, especially since the project traffic moves in the opposite direction to the normal commute traffic for the area. An estimated average of 4 semi-truck tractor loads (40,000 lb/load) will travel the Soda Canyon Road per day.

- o The required empty bottle trips to the winery will amount to about 157 loaded semi-truck tractors/year (1,200 cases/load).
- o The required trips from the proposed winery to retail outlets will amount to about 157 loaded semi-truck tractors/year (full loads with 1,200 cases/load)
- o The proposed winery will require approximately 780 supplies by truck traffic per year (15 per week).

14.0 CEQA REQUIRED CATEGORIES

14.1 CUMULATIVE IMPACTS

Cumulative effects are presently being felt by the Soda

Canyon community from increased agricultural development

associated with the Whitbread project and the development of

rural ranchettes such as Soda Canyon Estates.

14.2 ENVIRONMENTAL FACTORS AFFECTED CUMULATIVELY

- o Cumulative effects of competition for limited groundwater supplies.
- o Cumulative effects of competition for restricted traffic and circulation along Soda Canyon Road.
- o Cumulative effects of competition for limited surface runoff which is required to maintain groundwater recharge.

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APPENDIX A

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