COPY

TYPE OR PRINT IN BLACK INK
(For instructions, see booklet: "How to File an Application to Appropriate Water in California")

APPLICATION NO. 31870

California Environmental Protection Agency

State Water Resources Control Board
Division of Water Rights
P.O. Box 2000, Sacramento, CA 95812-2000
Tel: (916) 341-5300 Fax: (916) 341-5400
www.waterrights.ca.gov

APPLICATION TO APPROPRIATE WATER

1. APPLICANT/AGENT

	APPLICANT	ASSIGNED AGENT (if any)
Name	Beckstoffer Vineyards XIV	Drew L. Aspegren, P.E.
	c/o Rich Schaefers	Napa Valley Vineyard Engineering
Mailing Address	P.O. Box 218	176 Main St. Suite B
City, State & Zip	Talmage, CA 95481	St. Helena, CA 94574
Telephone	(707) 462-6624	(707) 963-4927
Fax	(707) 462-5145	(707) 963-1297
E-mail	RichS@beckstoffer.net	nvvedlw@covad.net

2. OWNERSHIP INFORMATION (Please check type of ownership.)

☐ Sole Owner
☐ Limited Partnership*
☐ Corporation
☒ Limited Liability Company (LLC)
☐ Business Trust
☐ Joint Venture
☐ General Partnership*
☐ Husband/Wife Co-Ownership
☐ Other _____

*Please identify the names, addresses and phone numbers of all partners.

3. PROJECT DESCRIPTION (Provide a detailed description of your project, including, but not limited to, type of construction activity, area to be graded or excavated, and how the water will be used.) Add additional pages if needed and check box below and label as an attachment.

This application seeks wintertime diversion (December 15 to May 15) from 5 existing points of diversion (PODs) to an existing 67 AF offstream reservoir and a proposed 70 AF offstream reservoir. The application includes replenishment of water withdrawn for frost protection up to an additional 137 AF for a total of 274 AF per annum. The maximum rate of diversion to storage will be 3 cfs for initial storage and 9 cfs for replenishment of water used for frost protection. Water will be used for frost protection, irrigation and heat control of 320 acres of vineyard. Three of the PODs were constructed pursuant to appropriative applications. All 5 PODs are utilized under riparian right. See attachment 1 for a complete project description.

☒ For continuation, see Attachment No. 1

4. PURPOSE OF USE, DIVERSION/STORAGE AMOUNT AND SEASON

a. PURPOSE OF USE (irrigation, domestic, etc.)	DIRECT DIVERSION				STORAGE		
	AMOUNT		SEASON OF DIVERSION		AMOUNT	SEASON OF COLLECTION	
	Rate (cfs or gpd)*	Acre-feet per annum	Beginning date (month & day)	Ending date (month & day)	Acre-feet per annum	Beginning date (month & day)	Ending date (month & day)
Irrigation					274	Dec. 15	May 15
Frost Protection							
Heat Control							
	Total afa			Total afa	274		

☐ *See Attachment No.* ___ * If rate is less than 0.025 cubic feet per second (cfs), use gallons per day (gpd).

b. Total combined amount taken by direct diversion and storage during any one year will be 274 acre-feet. 870 AF in combination with riparian direct diversion

c. Reservoir storage is: ☐ onstream ☒ offstream ☐ underground (If underground storage, attach Underground Storage Form.)

d. County in which diversion is located: Mendocino County in which water will be used: Mendocino

5. SOURCES AND POINTS OF DIVERSION/REDIVERSION

a. Sources and Points of Diversion (POD)/Points of Rediversion (PORD):

☐ POD / ☐ PORD #_____ tributary to _____ thence _____

☐ POD / ☐ PORD #_____ tributary to _____ thence _____

☐ POD / ☐ PORD #_____ tributary to _____ thence _____

☐ POD / ☐ PORD #_____ tributary to _____ thence _____

If needed, attach additional pages, check box below and label attachment

☒ *See Attachment No.* 2

b. State Planar and Public Land Survey Coordinate Description:

POD/ PORD #	CALIFORNIA COORDINATES (NAD 83)	ZONE	POINT IS WITHIN (40-acre subdivision)	SECTION	TOWN-SHIP	RANGE	BASE AND MERIDIAN
			¼ of ¼				
			¼ of ¼				
			¼ of ¼				
			¼ of ¼				

If needed, attach additional pages, check box below and label attachment

☒ *See Attachment No.* 2

c. Name of the post office most often used by those living near the proposed point(s) of diversion: Hopland

6. WATER AVAILABILITY

a. Have you attached a water availability analysis for this project? ☐ YES ☒ NO
If NO, provide sufficient information to demonstrate that there is reasonable likelihood that unappropriated water is available for the proposed appropriation: If needed, attach additional pages, check box below and label attachment.

☒ *See Attachment No.* 3

b. Is your project located on a stream system declared to be fully appropriated by the State Water Resources Control Board (State Water Board) during your proposed season of diversion?
☐ YES ☒ NO

c. In an average year, does the stream dry up at any point downstream of your project? ☐ YES ☒ NO
If YES, during which months? ☐ Jan ☐ Feb ☐ Mar ☐ Apr ☐ May ☐ Jun ☐ Jul ☐ Aug ☐ Sep ☐ Oct ☐ Nov ☐ Dec

d. What alternate sources of water are available if a portion of your requested diversion season must be excluded because water is not available for appropriation? (e.g., percolating groundwater, purchased water, etc.) If needed, attach additional pages, check box below and label attachment
none

☐ *See Attachment No.* ___

7. PLACE OF USE

a.

USE IS WITHIN (40-acre subdivision)	SECTION*	TOWNSHIP	RANGE	BASE & MERIDIAN	IF IRRIGATED	
					Acres	Presently cultivated?
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
				Total Acres:		

*Please indicate if section is projected with a "(P)" following the section number.

☒ *See Attachment No.* 4 Please provide the Assessor's Parcel Number(s) for the place of use:
Mendocino County 048-150-01, 048-150-07, 048-150-08; 048-280-16, 048-280-17; 048-090-04

8. PROJECT SCHEDULE

a. Project is: ☐ proposed. Year construction will begin: _____
☒ partially complete. Extent of completion: PODs and 1 reservoir are existing. 155 acres of orchard have been converted to vineyard. Another 165 acres of vineyard will be planted and second reservoir constructed by 2015.
☐ complete. Year completed: _____

b. Year of first use: 1955 Year water will be used to the full extent intended: within 10 years after permit is issued.

9. JUSTIFICATION OF AMOUNTS REQUESTED

a. ☒ IRRIGATION: Maximum area to be irrigated in any one year: 320 acres.

CROP	ACRES	METHOD OF IRRIGATION (sprinklers, flooding, etc.)	WATER USE (Acre-feet/Yr.)	SEASON OF WATER USE	
				Beginning date (month & day)	Ending date (month & day)
Wine Grapes	320	Drip	256	May 15	Oct. 1

☐ *See Attachment No. ___*

b. ☐ DOMESTIC: Number of residences to be served: _____ Separately owned? ☐ YES ☐ NO Number of people to be served: _____ Estimated daily use per person is: _____ gallons per day Area of domestic lawns and gardens: _____ square feet Incidental domestic uses:

_____
(dust control area, number and kind of domestic animals, etc.)

c. ☐ STOCKWATERING: Kind of stock: _____ Maximum number: _____
Describe type of operation: _____
(feedlot, dairy, range, etc.)

d. ☐ RECREATIONAL: Type of recreation: ☐ Fishing ☐ Swimming ☐ Boating ☐ Other _____

e. ☐ MUNICIPAL:

POPULATION List for 5-year periods until use is completed		MAXIMUM MONTH		ANNUAL USE		
Period	Population	Average daily use (gallons per capita)	Rate of diversion (cfs)	Average daily use (gallons per capita)	Acre-foot (per capita)	Total (acre-feet)
Present						

☐ *See Attachment No. ___*

Month of maximum use during year: _____
Month of minimum use during year: _____

f. ☒ HEAT CONTROL: Area to be heat controlled: 320 net acres
Type of crops protected: Wine Grapes
Rate at which water is applied to use: 30 gpm per acre
Heat protection season will begin June 1 (month and day) and end October 31 (month and day).

g. ☒ FROST PROTECTION: Area to be frost protected: 320 net acres
Type of crops protected: Wine Grapes
Rate at which water is applied to use: 55 gpm per acre
The frost protection season will begin March 1 (month & day) and end May 15 (month & day).

h. ☐ INDUSTRIAL: Type of industry: _____
Basis for determination of amount of water needed: _____

i. ☐ MINING: Name of the claim: _____ ☐ Patented ☐ Unpatented

Nature of the mine: _____ Mineral(s) to be mined: _____
Type of milling or processing: _____
After use, the water will be discharged into _____ (watercourse)
in _____ ¼ of _____ ¼ of Section _____, T _____, R _____, _____B. & M.

j. ☐ POWER: Total head to be utilized: _____ feet
Maximum flow through the penstock: _____ cfs Maximum theoretical horsepower capable of being generated by the works (cfs x fall ÷ 8.8): _____
Electrical capacity (hp x 0.746 x efficiency): _____ kilowatts at: _____% efficiency
After use, the water will be discharged into _____ (watercourse)
in _____ ¼ of _____ ¼ of Section _____, T _____, R _____, _____B&M. FERC No.: _____

k. ☐ FISH AND WILDLIFE PRESERVATION AND/OR ENHANCEMENT: List specific species and habitat type that will be preserved or enhanced: _____

l. ☐ OTHER: Describe use: _____
Basis for determination of amount of water needed: _____

10. DIVERSION AND DISTRIBUTION METHOD

a. Diversion will be by gravity by means of: _____
(dam, pipe in unobstructed channel, pipe through dam, siphon, weir, gate, etc.)

b. Diversion will be by pumping from: See Attachment 5
(sump, offset well, channel, reservoir, etc)
Pump discharge rate: _____ ☐ cfs or ☐ gpd Horsepower: _____
Pump Efficiency: _____

c. Conduit from diversion point to first lateral or to offstream storage reservoir:

CONDUIT (pipe or channel)	MATERIAL (type of pipe or channel lining; indicate if pipe is buried or not)	CROSS-SECTION (pipe diameter, or ditch depth and top and bottom width) (inches or feet)	LENGTH (feet)	TOTAL LIFT OR FALL		CAPACITY (cfs, gpd or gpm)
				feet	+ or -	

☒ *See Attachment No.* 5

d. Storage reservoirs: (For underground storage, complete and attach underground storage form)

	RESERVOIR NAME OR NUMBER	DAM				RESERVOIR		
		Vertical height from downstream toe of slope to spillway level (feet)	Construction material	Length (feet)	Freeboard: dam height above spillway crest (feet)	Surface area when full (acres)	Capacity (acre-feet)	Maximum water depth (feet)
A	Milovina	Offstream Reservoir				±4.8	67	±20
B	MK	Offstream Reservoir				±5	70	±20

☐ *See Attachment No.* ___

e. Outlet pipe: Complete for storage reservoirs having a capacity of 10 acre-feet or more.

RESERVOIR NAME OR NUMBER	OUTLET PIPE				
	Diameter in inches	Length in feet	Fall: Vertical distance between entrance and exit of outlet pipe in feet	Head: Vertical distance from spillway to entrance of outlet pipe in feet	Dead Storage: Storage below entrance of outlet pipe in acre-feet
		NA	Offstream Reservoirs		

☐ *See Attachment No. ___*

e. If water will be stored and the reservoir is not at the point of diversion, the maximum rate of diversion to off-stream storage will be 9* cfs. Diversion to offstream storage will be made by:
☒ Pumping ☐ Gravity *37 cfs wintertime diversion to storage, 9 cfs replenishment of water used for frost protection which is carried over as storage for irrigation.

11. CONSERVATION AND MONITORING

a. What methods will you use to conserve water? Explain.
Drip Irrigation

b. How will you monitor your diversion to be sure you are within the limits of your water right and you are not wasting water? ☐ Weir ☒ Meter ☐ Periodic sampling ☐ Other (describe)

12. RIGHT OF ACCESS

a. Does the applicant own all the land where the water will be diverted, transported and used?
☒ YES ☐ NO
If NO, I ☐ do ☐ do not have a recorded easement or written authorization allowing me access.

b. List the names and mailing addresses of all affected landowners and state what steps are being taken to obtain access:

☐ *See Attachment No. ___*

13. EXISTING WATER RIGHTS AND RELATED FILINGS

a. Do you claim an existing right for the use of all or part of the water sought by this application?
☐ YES ☒ NO
If YES, please specify: ☐ Riparian ☐ Pre-1914 ☐ Registration ☐ Permit ☐ License
☐ Percolating groundwater ☐ Adjudicated ☐ Other (specify) _____

b. For each existing right claimed, state the source, year of first use, purpose, season and location of the point of diversion (to within quarter-quarter section). Include number of registration, permit, license, or statement of water diversion and use, if applicable.

☐ *See Attachment No. ___*

c. List any related applications, registrations, permits, or licenses located in the proposed place of use or that utilize the same point(s) of diversion.

☒ *See Attachment No.* 6

14. OTHER SOURCES OF WATER

Are you presently using, or do you intend to use, purchased water or water supplied by contract in connection with this project? ☐ Yes ☒ No If yes, please explain:

15. MAP REQUIREMENTS

The Division cannot process your application without accurate information showing the source of water and location of water use. You must include a map with this application form that clearly indicates the quarter/quarter, section, township, range, and meridian of (1) the proposed points of diversion and (2) the place of use. A copy of a U.S.G.S. quadrangle/topographic map of your project area is preferred, and can be obtained from sporting goods stores or through the Internet at http://topomaps.usgs.gov. A certified engineering map is required when (1) appropriating more than three cubic feet per second by direct diversion, (2) constructing a dam which will be under the jurisdiction of the Division of Safety of Dams, (3) creating a reservoir with a surface area in excess of ten acres or (4) appropriating more than 1,000 acre-feet per annum by underground storage. See the instruction booklet for more information.

☒ *See Attachment No.* 7

ENVIRONMENTAL INFORMATION

Note: Before a water right permit may be issued for your project, the State Water Board must consider the information contained in an environmental document prepared in compliance with the California Environmental Quality Act (CEQA). This form is not a CEQA document. If a CEQA document has not yet been prepared for your project, a determination must be made of who is responsible for its preparation. If the State Water Board is determined to be responsible for preparing the CEQA document, the applicant will be required to pay all costs associated with the environmental evaluation and preparation of the required documents. Please answer the following questions to the best of your ability and submit with this application any studies that have been conducted regarding the environmental evaluation of your project.

16. COUNTY PERMITS

a. Contact your county planning or public works department and provide the following information:

Person contacted: Not necessary Date of contact:
Department: (no permits required) Telephone: ( )
County Zoning Designation:
Agricultural Reserve

Are any county permits required for your project? ☐ YES ☒ NO If YES, check appropriate box below:

☐ Grading permit ☐ Use permit ☐ Watercourse ☐ Obstruction permit ☐ Change of zoning
☐ General plan change ☐ Other (explain):

b. Have you obtained any of the required permits described above? ☐ YES ☐ NO
If YES, provide a complete copy of each permit obtained.
☐ *See Attachment No.*

17. STATE/FEDERAL PERMITS AND REQUIREMENTS

a. Check any additional state or federal permits required for your project:
☐ Federal Energy Regulatory Commission ☐ U.S. Forest Service ☐ U.S. Bureau of Land Management ☐ U.S. Corps of Engineers ☐ U.S. Natural Res. Conservation Service ☑ Calif. Dept. of Fish and Game ☐ State Lands Commission ☐ Calif. Dept. of Water Resources (Div. of Safety of Dams) ☐ Calif. Coastal Commission ☐ State Reclamation Board ☐ Other (specify)

_____

b. For each agency from which a permit is required, provide the following information:

AGENCY	PERMIT TYPE	PERSON(S) CONTACTED	CONTACT DATE	TELEPHONE NO.
DFG	1603	--	--	--

☐ *See Attachment No. ___*

c. Does your proposed project involve any construction or grading-related activity that has significantly altered or would significantly alter the bed, bank, or riparian habitat of any stream or lake? ☐ YES ☒ NO
If YES, explain:

_____
_____
_____
_____
_____
_____

☐ *See Attachment No. ___*

d. Have you contacted the California Department of Fish and Game concerning your project?
☐ YES ☒ NO If YES, name, telephone number and date of contact:

_____

18. ENVIRONMENTAL DOCUMENT

a. Has any California public agency prepared an environmental document for your project?
☐ YES ☒ NO

b. If YES, submit a copy of the latest environmental document(s) prepared, including a copy of the notice of determination adopted by the California public agency. Public agency:

_____

c. If NO, check the appropriate box and explain below, if necessary:
☐ The applicant is a California public agency and will be preparing the environmental document.*
☒ I expect that the State Water Board will be preparing the environmental document.**
☐ I expect that a California public agency other than the State Water Board will be preparing the environmental document.* Public agency: _____
☐ *See Attachment No. ___*

* Note: When completed, submit a copy of the final environmental document (including notice of determination) or notice of exemption to the State Water Board, Division of Water Rights and proof of payment of the State Clearinghouse filing fee. Processing of your application cannot be completed until these documents are submitted.

** Note: CEQA requires that the State Water Board, as Lead Agency, prepare the environmental document. The information contained in the environmental document must be developed by the applicant and at the applicant's expense under the direction of the State Water Board, Division of Water Rights.

19. WASTE/WASTEWATER

a. Will your project, during construction or operation, (1) generate waste or wastewater containing such things as sewage, industrial chemicals, metals, or agricultural chemicals, or (2) cause erosion, turbidity or sedimentation? ☐ YES ☒ NO
If YES, or you are unsure of your answer, explain below and contact your local Regional Water Quality Control Board for the following information (See instruction booklet for address and telephone no.):

_____
_____
_____

☐ *See Attachment No.* ___

b. Will a waste discharge permit be required for your project? ☐ YES ☒ NO
Person contacted: _____ Date of contact: _____

c. What method of treatment and disposal will be used? _____
_____
_____

☐ *See Attachment No.* ___

20. ARCHEOLOGY

a. Have any archeological reports been prepared on this project? ☐ YES ☒ NO

b. Will you be preparing an archeological report to satisfy another public agency? ☐ YES ☒ NO

c. Do you know of any archeological or historic sites located within the general project area?
☐ YES ☒ NO If YES, explain:

_____
_____
_____

☐ *See Attachment No.* ___

21. ENVIRONMENTAL SETTING

Attach **two complete sets of color photographs,** clearly dated and labeled, showing the vegetation that exists at the following three locations:

☒ Along the stream channel immediately downstream from the proposed point(s) of diversion.
☒ Along the stream channel immediately upstream from the proposed point(s) of diversion.
☒ At the place(s) where the water is to be used.
☐ *See Attachment No.* 8

SUBMITTAL FEES

Calculate your application filing fee using the "Water Right Fee Schedule Summary" that was enclosed in the application packet. The "Water Right Fee Schedule Summary" can also be viewed at the Division of Water Rights' website (www.waterrights.ca.gov).

A check for the application filing fee, payable to the "Division of Water Rights" and an $850 check for the Streamflow Protection Standards review fee [Pub. Resources Code § 10005(a)], payable to the "California Department of Fish and Game," must accompany this application. All applicable fees are required at the time of filing. If the application fees are not received, your application will not be accepted and will be returned to you. Please check the fee schedule for any fee changes prior to submitting the application.

DECLARATION AND SIGNATURE

I declare under penalty of perjury that all information provided is true and correct to the best of my knowledge and belief. I authorize my agent, if I have designated one above, to act on my behalf regarding this water right application.

Signature of Applicant	Title or Relationship	Date
✓ [signature]	General Manager ✓	12-10-2010
Signature of Co-Applicant (if any)	Title or Relationship	Date

Applications that are not completely filled out and/or do not have the appropriate fees will not be accepted. In the event that the Division has to return the application because it is incomplete, a portion of the application submittal fee will be charged for the initial review.

"APPLICATION TO APPROPRIATE WATER" CHECKLIST

Before you submit your application, be sure to:

- ☐ **Answer each question completely.**
- ☐ **Number, label and include all necessary attachments.**
- ☐ **Include a legible map that meets the requirements discussed in the instruction booklet.**
- ☐ **Include the Water Availability Analysis or sufficient information to demonstrate that there is reasonable likelihood that unappropriated water is available for the proposed appropriation.**
- ☐ **Include two complete sets of color photographs of the project site.**
- ☐ **Enclose a check for the required fee, payable to the Division of Water Rights.**
- ☐ **Enclose an $850 check for the Streamflow Protection Standards review fee, payable to the Department of Fish and Game.**
- ☐ **Sign and date the application.**

Send the original and one copy of the entire application to:

State Water Resources Control Board
Division of Water Rights
P.O. Box 2000
Sacramento, CA 95812-2000

ATTACHMENT 1
BECKSTOFFER VINEYARDS XIV
Project Purpose

The purpose of this project is to modify current operations and more specifically define the use of water for crop irrigation and protection against springtime frost damage. The goal is to develop a project that, through the use of storage reservoirs, helps buffer the environment from historically large, irregular instantaneous water diversions from Russian River. The following project description details how, using storage, this project's historic springtime frost protection instantaneous diversion rate of 30 cubic feet per second (cfs) will be reduced to a maximum 9.875 cfs. Initial collection of water to storage during periods of high flow will significantly reduce the impacts of diversion during periods of low springtime flow. Additionally, the conversion of the project acreage from pear orchard to wine grape vineyard represents an anticipated reduction in irrigation water usage of about 64%. Because of the anticipated reduction in consumptive diversion between historic levels and projected levels, the applicant seeks (pursuant to Water Code Section 1707) to use the difference by leaving it in the Russian River for the benefit of the fishery, other aquatic resources and the environment.

Background

The report prepared for the Mendocino County Water Agency by UC Cooperative Extension, et al, entitled *Irrigated Agriculture Water Needs and Management in the Mendocino County Portion of the Russian River Watershed, July 2008*, presents Table 9, which shows the mean annual water supply to meet the irrigation demand for grapes and pears. The mean applied irrigation water for pears is 2.31 acre-feet per annum (afa) per acre (ac) and the mean applied irrigation water for grapes is 0.61 afa per ac. The specific location of the project site dictates an applied irrigation use slightly higher (0.8 afa per ac) than the mean. Historically, 339 acres of pear orchard were planted on the project site. Using the application rate of 2.31 af/ac, the mean annual use for irrigation of the pears was about 783 afa. A typical pear orchard irrigation system consists of sprinklers with an application rate of approximately 48 gallons per minute (gpm)/ac. An irrigation cycle for 339 acres of pears would typically be divided into 10 sets of 34 acres each, which required a summertime direct diversion rate of approximately 3.6 cfs. Frost protection of the pear orchard utilizes the same sprinkling system, but operates so the entire 339 acre system is sprinkling during each frost event. Frost protection on 339 acres at 48 gpm/ac requires a direct diversion rate of approximately 36 cfs. The existing project pump capacity is approximately 30 cfs and it is reasonable to conclude that historically water was diverted at 30 cfs during a frost event. As demonstrated in the project description, the conversion of the 339 acre pear orchard to a 320 acre vineyard with offstream storage facilities significantly reduces the instantaneous diversion rate during a springtime frost event (from 30 cfs to 9.875 cfs). And although the summertime direct diversion rate will not dramatically change (from 3.6 cfs to 3.17 cfs), the total amount of water diverted during the irrigation season will be reduced from approximately 783 afa to 279 afa.

Project Description

This project consists of adding wintertime diversion to storage to an existing direct diversion operation, and reducing the rate of the existing direct diversion. There are 5 existing Points of Diversion (POD) historically used under appropriative rights and riparian rights to provide frost protection, irrigation and heat control on 339 acres of pear

orchard. The pear orchard has been removed and 155 acres have been converted to vineyard. Another 165 acres of vineyard will be planted by 2015. The historical rate of direct diversion under riparian right has been as much as 30 cfs. The proposed rate of diversion to storage between December 15 and May 15 will be a combined maximum of 3 cfs. The proposed rate of diversion for direct diversion for frost protection, and/or diversion to storage to replenish water used for frost protection between March 1 and May 15 will be a combined maximum of 9 cfs under the new application (9.875 under basis of all rights). The summertime direct diversion rate for irrigation and heat control shall remain as allowed under the existing licenses (1.54 cfs at POD #1 and POD #2; .9 cfs at POD #3 and .73 cfs at POD #5). Offstream storage consists of an existing 67 AF pit-type reservoir constructed in 2009, and a proposed 70 AF pit-type reservoir to be constructed by 2015.

Email 6-15-11 DT

POD #1 is an existing well, which pumps Russian River underflow. It is operated under two appropriative licenses. License 9851B (Application 18093B) allows 1.54 cfs direct diversion for irrigation of 168 acres from May 1 and October 1. License 11060B (Application 23926B) allows .875 cfs direct diversion for irrigation and frost protection of 168 acres from March 15 to May 1, and October 1 to November 1. Proposed changes to the existing licenses are the addition of heat control as a purpose of use, the addition of POD #2 as a source, and increasing the place of use to 320 acres to allow flexibility in operations over the entire project. Additionally, diversion to storage will be added to License 11060B to allow water that is diverted under this license between March 15 and May 1 to be held over (stored) for irrigation if it is not used for frost protection. The new application will allow diversion to storage from POD #1 between December 15 and May 15 at a maximum rate of 1.54 cfs.

POD #2 consists of an existing offset well and two pumps in Russian River. It is operated under riparian right. Historically, water has been directly diverted at a rate of up to 12 cfs between March 1 and October 1 for frost protection, irrigation and heat control on 168 acres. Proposed project changes at POD #2 include modifying the facilities to pump a maximum of 3 cfs. Under the new application water will be diverted to storage from POD #2 at a rate of up to 3 cfs between December 15 and May 15. POD #2 will be added as a second POD under License 9851B and License 11060B.

EMAIL 6-30-11 NB

POD #3 consists of a pump in Russian River. It is operated under an existing appropriative license and riparian right. License 9434 (A16670) allows 0.9 cfs direct diversion for irrigation of 93 acres from May 15 to October 15. Water is directly diverted under riparian right at a rate of up to 6 cfs between March 1 and October 1 for frost protection, irrigation and heat control on 171 acres. Proposed project changes at POD #3 include modifying the facility to pump a maximum of 2 cfs, and proposed changes to License 9434 include the addition of heat control as a purpose of use, and increasing the place of use to 320 acres. Under the new application water will be diverted to storage from POD #3 at a rate of up to 2 cfs between December 15 and May 15.

EMAIL 6-30-11 NB

POD #4 consists of a pump in Russian River. It is operated under riparian right. Historically, water has been directly diverted at a rate of up to 6 cfs between March 1 and October 1 for frost protection, irrigation and heat control on 171 acres. Proposed project changes at POD #4 include modifying the facility to pump a maximum of 2 cfs. Under the new application water will be diverted to storage from POD #4 at a rate of up to 2 cfs between December 15 and May 15.

EMAIL 6-30-11 NB

POD #5 consists of a pump in Russian River. It is operated under an existing appropriative license and riparian right. License 8627 (A17145) allows 0.73 cfs direct diversion for irrigation of 78 acres from May 15 to October 1. Historically, water has been directly diverted under riparian right at a rate of up to 6 cfs between March 1 and October 1 for frost protection, irrigation and heat control on 171 acres. Proposed project changes at POD #5 include modifying the facility to pump a maximum of 2 cfs, and proposed changes to License 8627 include the addition of heat control as a purpose of use, and increasing the place of use to 320 acres. Under the new application water will be diverted to storage from POD #5 at a rate of up to 2 cfs between December 15 and May 15.

Evan 6-30-11 NB

Wintertime Storage

The new storage application seeks to divert 137 AF to storage between December 15 and May 15 for frost protection, irrigation and heat control of 320 acres. It also seeks an additional 137 AF of diversion to storage between March 1 and May 15 to replenish water withdrawn from the reservoirs for frost protection, which is carried over for summertime irrigation/heat control. The storage application seeks a total maximum diversion of 274 AFA.

Direct Diversion-Frost Protection

License 11060B (Application 23926B) allows direct diversion for frost protection from March 15 to May 1 at a rate of .875 cfs. Additional direct diversion for frost protection between March 1 and May 15 will be under riparian right at a rate of up to 9 cfs. The maximum direct diversion rate between March 1 and May 15 under basis of all rights shall not exceed 9.875 cfs, and the maximum annual direct diversion for frost protection under basis of all rights shall not exceed 317 AF.

Provides a maximum of 142 hrs. of frost protection per annum:

317 AF direct diversion for frost protection
+137 AF wintertime storage (initial filling)
454 AF/3.2 AF per hr.* = 142 hrs.

*Based on 320 vine acres

Direct Diversion-Irrigation, Heat Control

License 9851B (Application 18093B) allows 1.54 cfs direct diversion from May 1 and October 1. License 8627 (Application 16670) allows 0.73 cfs direct diversion from between May 15 and October 1. License 9434 (Application 17145) allows 0.9 cfs direct diversion between May 15 and October 15. The maximum annual direct diversion for irrigation and heat control under basis of all rights shall not exceed 279 AF.

Provides 1.3 AF per acre for irrigation and heat protection:

279 AF summertime direct diversion
+137 AF wintertime storage/replenishment
416 AF/320 acres = 1.3 AF per acre (.8 AF/AC for irrigation, .5 AF/AC for heat control)

Summary

The conversion plan results in reducing the instantaneous direct diversion rate during frost protection from 30 cfs (capability of existing equipment operated under riparian right) to 9.875 cfs, and reduces the maximum annual diversion under basis of all rights from approximately 1,200 AF (142 hrs. of frost protection at 30 cfs, plus 783 AF of irrigation) to 870 AF.

ATTACHMENT 2

5. SOURCES AND POINTS OF DIVERSION/REDIVERSION

a. POD #1 Russian River underflow
POD #2 Russian River underflow, Russian River
POD #3 Russian River
POD #4 Russian River
POD #5 Russian River

b.

POD PORD	NAD 83	ZONE	POINT IS WITHIN	SECTION	TOWNSHIP	RANGE	BASE AND MERIDIAN
POD #1	2,122,990N 6,246,600E	2	SW 1/4 of NE 1/4	18	13N	11W	MD
POD #2	2,123,075N 6,247,075E	2	SW 1/4 of NE 1/4	18	13N	11W	MD
POD #3	2,121,260N 6,247,035E	2	SW 1/4 of SE 1/4	19	13N	11W	MD
POD #4	2,119,105N 6,246,620E	2	NW 1/4 of NE 1/4	19	13N	11W	MD
POD #5	2,118,360N 6,246,260E	2	SW 1/4 of NE 1/4	19	13N	11W	MD

ATTACHMENT 3

6. Water Availability
   a. This application and accompanying direct diversion application seek to convert an existing spring/summer direct diversion project into a combined wintertime diversion to storage and direct diversion project. The goal of the project is to decrease the historical rate of diversion and overall amount of diversion. Water has historically been available for diversion under existing appropriative and riparian rights and these applications will reduce the rate of diversion and the total annual amount diverted. It is reasonable to predict that water is available for this project.

WATER AVAILABILITY
Beckstoffer Vineyards XIV, LLC
Application 31870
Prepared by Napa Valley Vineyard Engineering, Inc.
February 18, 2011

This application seeks to divert a maximum of 274 AFA from Russian River at a rate of 3 cfs for initial storage and 9 cfs for replenishment of water used for frost protection, between December 15 and May 15. The project is located approximately 4.5 miles downstream from the Russian River flow gage identified as USGS 11462500 RUSSIAN R NR HOPLAND CA (gage). The mean of daily mean values for the 71 years of flow records at the gage (Table 1) is used to determine water availability at the project points of diversion (POD). Because this project is downstream from Lake Mendocino, diversion under this application can only occur when flows at the project PODs are equal or greater than the project diversion rate plus the Lake Mendocino minimum flow requirement (D1610) as measured at the gage. To determine what the gage flows must be in order to divert under this application, the project diversion rate plus the diversion rate under all existing water rights along the mainstem Russian River between the gage and the project POD #5 (furthest downstream), is added to the Lake Mendocino flow requirement (see Table 2). The resulting flow requirement is compared to the average daily gage records to determine availability. During an average year, water is available for diversion each day during the diversion season. It is reasonable to expect that water is available for this project.

TABLE 1

Water Availability
Application 31870
2/18/11

Discharge @ USGS 11462500 RUSSIAN R NR HOPLAND CA (cfs)
Mean of daily mean values for 71 years of record
(1939 to 2010)
Seasonal Supply October 1 Through March 31

Day	December	January	February	March	April	May
1		1590	1690	1550	1090	512
2		1360	1710	1480	982	480
3		1190	1750	1490	963	456
4		1640	1810	1540	1100	443
5		1620	1750	1470	1000	426
6		1330	1830	1340	959	386
7		1460	1670	1220	822	380
8		1490	1600	1180	765	379
9		1720	1590	1320	745	382
10		1390	1490	1250	756	370
11		1510	1710	1160	801	349
12		1690	1760	1170	906	329
13		1690	1760	1150	806	321
14		2080	1740	1110	784	311
15	848	1950	1740	1170	715	305
16	894	2530	1940	1160	976	
17	860	2150	2320	1160	644	
18	1040	2050	2020	1210	614	
19	1290	1930	2100	1150	578	
20	1100	2230	1950	1060	551	
21	1460	2530	1880	1080	549	
22	2130	2020	1750	1070	519	
23	1780	2110	1590	1200	521	
24	1560	2040	1770	1230	534	
25	1250	2030	1650	1200	530	
26	1210	2200	1380	1170	530	
27	1690	1760	1530	1090	567	
28	1760	1610	1860	979	575	
29	1630	1550	2290	1110	604	
30	1540	1470		1280	557	
31	1890	1520		1210		

Diversions from Mainstem Russian River between USGS Gage 11462500 (RUSSIAN R NR HOPLAND CA) and Application 31870 POD #5

December 15 to May 15

Sr. Diverters	Rate (cfs)	Season	Dec 15-31	Jan	Feb 1-15	Feb 15-28	Mar 1-15	Mar 15-31	Apr 1-15	Apr 15-30	May 1-15
A003565	0.42	May 1 to Oct 1	0	0	0	0	0	0	0	0	0.42
S008074	0	Mar 1 to Nov 30	0	0	0	0	0	0	0	0	0
A013030A	0.36	May 1 to Oct 15	0	0	0	0	0	0	0	0	0.36
A013030B	0.54	May 1 to Oct 15	0	0	0	0	0	0	0	0	0.54
A013661	0.625	May 1 to Nov 1	0	0	0	0	0	0	0	0	0.625
S015041	1.34	Mar 1 to Oct 31	0	0	0	0	1.34	1.34	1.34	1.34	1.34
S015042	2	Mar 1 to Oct 31	0	0	0	0	2	2	2	2	2
S015043	0.78	Mar 1 to Oct 31	0	0	0	0	0.78	0.78	0.78	0.78	0.78
S015313	9.9	Mar 1 to May 31	0	0	0	0	9.9	9.9	9.9	9.9	9.9
S015314	4.1	Mar 1 to May 31	0	0	0	0	4.1	4.1	4.1	4.1	4.1
S015315	3.23	Mar 1 to May 31	0	0	0	0	3.23	3.23	3.23	3.23	3.23
S015349	4.9	Mar 1 to Oct 31	0	0	0	0	4.9	4.9	4.9	4.9	4.9
S015400	0.33	Jan 1 to Dec 31	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
S015401	0.17	Jan 1 to Dec 31	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
S015402	0.33	Jan 1 to Dec 31	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
S015924	0	Apr 1 to Oct 1	0	0	0	0	0	0	0	0	0
A016141	0.06	Jan 1 to Dec 31	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
A016557	1.65	Apr 1 to Sep 30	0	0	0	0	0	0	1.65	1.65	1.65
A016561	1.6	May 1 to Oct 31	0	0	0	0	0	0	0	0	1.6
A016670	0.9	May 15 to Oct 15	0	0	0	0	0	0	0	0	0
A016671	0.55	May 15 to Oct 15	0	0	0	0	0	0	0	0	0
A018093A	0.22	May 1 to Oct 1	0	0	0	0	0	0	0	0	0.22
A018093B	1.54	May 1 to Oct 1	0	0	0	0	0	0	0	0	1.54
A021927	0.23	May 1 to Oct 31	0	0	0	0	0	0	0	0	0.23
A021928	1.04	May 1 to Oct 31	0	0	0	0	0	0	0	0	1.04
A021932	0.046	Apr 15 to Oct 31	0	0	0	0	0	0	0	0.046	0.046
A023926A	0.125	Mar 15 to May 1	0	0	0	0	0	0.125	0.125	0.125	0
A023926B	0.875	Mar 15 to May 1	0	0	0	0	0	0.875	0.875	0.875	0
A024050	4.46	Mar 1 to May 31	0	0	0	0	4.46	4.46	4.46	4.46	4.46
A024522A	0.67	May 15 to Nov 15	0	0	0	0	0	0	0	0	0
A024522B	0.67	May 15 to Nov 15	0	0	0	0	0	0	0	0	0
A024763B	13.25	Mar 15 to May 31	0	0	0	0	0	13.25	13.25	13.25	13.25
A025596	2.95	Apr 1 to Oct 31	0	0	0	0	0	0	2.95	2.95	2.95
A025822A	0.1	May 15 to Jul 15	0	0	0	0	0	0	0	0	0
A025822B	0.99	Mar 15 to May 15	0	0	0	0	0	0.99	0.99	0.99	0.99
A030163	40	Mar 1 to Apr 30	0	0	0	0	40	40	40	40	0
A030987	25.5	Mar 1 to May 31	0	0	0	0	25.5	25.5	25.5	25.5	25.5
A031085	8.1	Mar 1 to Jun 1	0	0	0	0	8.1	8.1	8.1	8.1	8.1
A031091	4.9	Mar 1 to May 31	0	0	0	0	4.9	4.9	4.9	4.9	4.9
A031093	4.9	Mar 1 to May 31	0	0	0	0	4.9	4.9	4.9	4.9	4.9
A031105	4.9	Jun 1 to Oct 1	0	0	0	0	0	0	0	0	0
A031159	2.09	May 1 to Oct 1	0	0	0	0	0	0	0	0	2.09
A031179	2.95	Feb 15 to Mar 31	0	0	0	2.95	2.95	2.95	0	0	0
A031261	2.95	Nov 1 to Nov 15	0	0	0	0	0	0	0	0	0
Total rate Sr. Diverters			0.89	0.89	0.89	3.84	117.95	133.19	134.84	134.89	102.55
Min. flow req'd (D1610)			150	150	150	150	150	150	185	185	185
A31870 diversion to storage rate*			3	3	3	3	3	3	9	9	9
Flow req'd @ gage for diversion under A31870			153.89	153.89	153.89	156.84	270.95	286.19	328.84	328.89	296.55
#days water available for diversion (based on mean of daily mean values for 71 yrs of record)			15	31	15	13	15	16	15	15	15

*To simulate potential diversion to replenish water used for frost protection, 9 cfs is used as the rate during the period Apr. 1- May 15.

ATTACHMENT 4

7. PLACE OF USE

a.

USE IS WITHIN	SECTION	TOWNSHIP	RANGE	BASE & MERIDIAN	ACRES	IF IRRIGATED PRESENTLY CULTIVATED?
NE 1/4 OF NW 1/4	18	13N	11W	MD	1	☒ YES ☐ NO
SW 1/4 OF NW 1/4	18	13N	11W	MD	8	☒ YES ☐ NO
SE 1/4 OF NW 1/4	18	13N	11W	MD	34	☒ YES ☐ NO
NW 1/4 OF NE 1/4	18	13N	11W	MD	10	☒ YES ☐ NO
SE 1/4 OF NE 1/4	18	13N	11W	MD	1	☒ YES ☐ NO
SW 1/4 OF NE 1/4	18	13N	11W	MD	32	☒ YES ☐ NO
NW 1/4 OF SW 1/4	18	13N	11W	MD	4	☒ YES ☐ NO
NE 1/4 OF SW 1/4	18	13N	11W	MD	34	☒ YES ☐ NO
SE 1/4 OF SW 1/4	18	13N	11W	MD	8	☒ YES ☐ NO
NW 1/4 OF SE 1/4	18	13N	11W	MD	39	☒ YES ☐ NO
NE 1/4 OF SE 1/4	18	13N	11W	MD	8	☒ YES ☐ NO
SE 1/4 OF SE 1/4	18	13N	11W	MD	5	☒ YES ☐ NO
SW 1/4 OF SE 1/4	18	13N	11W	MD	34	☒ YES ☐ NO
NE 1/4 OF NW 1/4	19	13N	11W	MD	22	☒ YES ☐ NO
SE 1/4 OF NW 1/4	19	13N	11W	MD	24	☒ YES ☐ NO
NW 1/4 OF NE 1/4	19	13N	11W	MD	30	☒ YES ☐ NO
NE 1/4 OF NE 1/4	19	13N	11W	MD	6	☒ YES ☐ NO
SW 1/4 OF NE 1/4	19	13N	11W	MD	20	☒ YES ☐ NO

320 acres

ATTACHMENT 5

10. DIVERSION AND DISTRIBUTION METHOD

b. Diversion will be by pumping from:

	Rate	Horsepower	Efficiency
POD #1 - Well	1.54 cfs	25	70%
POD #2 - Offset Well, River	3 cfs	50	70%
POD #3 - River	2 cfs	30	70%
POD #4 - River	2 cfs	30	70%
POD #5 - River	2 cfs	30	70%

c. Conduit from diversion point to first lateral or to offstream storage reservoir:

CONDUIT	MATERIAL	CROSS SECTION (inches)	LENGTH (total feet)	TOTAL LIFT OR FALL		CAPACITY (cfs) MAX.
				feet	+or-	
Pipe	PVC	21	1,695			9.875
Pipe	PVC	18	2,200			7.875
Pipe	PVC	15	4,220			5.875
Pipe	PVC	12	1,070			3.875
Pipe	PVC	10	925			2

ATTACHMENT 6

13. EXISTING WATER RIGHTS AND RELATED FILINGS

b., c.

Riparian rights and appropriative rights have been exercised since approximately 1955. There are 5 existing PODs (PODs under this application). Direct diversion under riparian right has been exercised at each of the 5 PODs. Direct diversion under appropriative rights has been exercised at 3 of the existing PODs. The source, rights under which diversion is made, approximate year of first use, season, purpose, place of use, and rate of diversion at each POD is as follows:

POD #1: Russian River underflow-
Appropriative License 9851B (A18093B); 1958; May 1 to October 1; irrigation; 168 acres; 1.54 cfs
Appropriative License 11060B(A23926B); 1971; March 15 to May 1, October 1 to November 1; irrigation, frost protection; 168 acres; 0.875 cfs

POD #2: Russian River underflow, Russian River-
Riparian Right; 1955; March 1 to October 15; irrigation, frost protection, heat control; 168 acres; 12 cfs

POD #3: Russian River-
Appropriative License 9434 (A16670); 1955; May 15 to October 15; irrigation; 93 acres; 0.9 cfs
Riparian Right; 1955; March 1 to October 15; irrigation, frost protection, heat control; 171 acres; 6 cfs

POD #4: Russian River-
Riparian Right; 1955; March 1 to October 15; irrigation, frost protection, heat control; 171 acres; 6 cfs

POD #5: Russian River-
Appropriative License 8627; May 15 to October 1; irrigation; 78 acres; 0.73 cfs
Riparian Right; 1955; March 1 to October 15; irrigation, frost protection, heat control; 171 acres; 6 cfs