

WATER AUDIT CALIFORNIA

A PUBLIC BENEFIT CORPORATION

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August 19, 2025

County of Napa Planning Commission

Sent via email to: meetingclerk@countyofnapa.org

RE: Hearing – August 20, 2025

1 A. Public Hearing YOUNTVILLE VINEYARDS LLC / PIAZZA DEL DOTTO WINERY / USE PERMIT MAJOR MODIFICATION P18-00143 CEQA STATUS: Consideration and possible adoption of a Mitigated Negative Declaration and Mitigation Monitoring

Reporting Program (MMRP) (SCH #2025050553).

A. INTRODUCTION

Water Audit California ("Water Audit") is an advocate for the public trust.

This is an unusual project in that largely the same elements were the subject of a prior but withdrawn hearing. As Water Audit had previously commented on the earlier application, we were particularly interested in any matters that had been changed in the new iteration. One difference of significance that we were unable to fully assess is the change in the Planning Commission's own membership.

We urge newly appointed District 3 Planning Commissioner Moran-Williams to make a full and unqualified disclosure of her relationship to the Applicant and the Applicant's representatives to allow the public to make its own judgment on the independent nature of the decision that she will render. There are many aspects to a conflict of interest, but underlying the concept is that the public must have confidence in the independent and unbiased nature of the Commission. There are, of course, legal considerations, but the principle that underlies disclosure for a person in an adjudicative role is "uberrima fides", a Latin phrase meaning "utmost good faith." Parties involved in matters of public trust are expected to be completely open and honest, revealing all material facts that could influence their independence.

When in doubt, disclose.

B. THE APPLICATION IS INCOMPLETE AND INACCURATE

The record does not include evidence of a Pre-Application meeting.

The required checklist is not included in the Application, preventing Commission review to ensure inclusion of mandated requirements. The omitted checklist requires a Water System Feasibility Report, raising the reasonable question of whether the omission was intentional misdirection:

"Additional Information Required by the Environmental Health Department:

3. Water System Feasibility Report if the water supply system will serve 25 or more people inclusive of employees, visitors, and residents or if kitchen is proposed. **See enclosed handout provided by Environmental Services.**" (Page 6) (emphasis added)

The application form has no stamp received, no staff initials/date, no fee received, and no invoice #. Application form pages 1-4 and pages 17-22 are omitted. There is no Checklist of Required Application Materials.

The application submits a Business Activities Form that inaccurately states there is no underground hold and haul.

Found on the County website, the omitted checklist reveals a required Biological Study unless waived by at Pre-Application Review (https://www.countyofnapa.org/DocumentCenter/View/16552/Use-Permit--Major-Modification-Application-Winery-Uses.pdf). In the absence of a preapplication meeting, there can be no waiver.

"Technical Information and Reports:

The following technical information and studies are generally required unless waived by County Planning Staff at or following a Pre-Application Review Meeting. Please see County Planning Staff for a list of pre-qualified consultants.

5. Biological Study – Includes Special Status Survey (consistent with *Guidelines for Preparing Biological Resources Reconnaissance Surveys* and *Guidelines for Preparing Special-Status Plant Studies*)" (page 6)

The California Department of Fish and Wildlife ("CDFW") Lake & Streamed Alteration

Agreement for the earlier application notes both native grass and oak lands (packet page 226.) CDFW

noted in the earlier application: "A biological assessment or study may be required to evaluate potential project impacts on biological resources." (Packet page 229)

The application omits the full-page copy of the assessor's parcel book page(s) and a copy of the latest equalized assessment roll used to compile the property owners' list. This prevents proof of mandated notice, consideration of alleged recent lot line adjustments, and the relationship to the ground water basin.

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Water Audit California Comment Letter YOUNTVILLE VINEYARDS LLC / PIAZZA DEL DOTTO WINERY August 19, 2025

The Application Form appears to be altered with a superimposed Memorandum on application "Page 20 of 22" (packet page 183). This is unexplained.

C. GRAPHICS

The Graphics do not demonstrate the existing and proposed lot line adjustment on a single site plan. It is unclear where the boundary changes are delineated. There appears to be no evidence of the recent lot line agreement on the County record. The agreement is improperly omitted from the hearing packet.

D. MISCELLANEOUS OMMISSIONS

- 1. The project has not been reviewed by the Public Works Department, the authority that manages and monitors groundwater resources.
- 2. The County hydrology experts Ludhorff & Scalmanini have not opined on the project's impacts to natural resources.
- 3. State Clearing House Notice of Completion omits the Napa Resource Conservation District and surrounding cities.
- 4. The Findings do not reflect potentially significant impacts to biological resources as cited in County's GSA Final Interconnected Surface Water Groundwater Dependent Ecosystems Workplan.
- The application packet omits the Required Checklist, Assessor Page, and List of Adjoining Owners.
- Staff did not seek review from NRCD, or the surrounding cities, in particular the City of Yountville.
- 7. The hearing packet does not provide a Biological Study, Water System Feasibility, or Geotechnical Report.
- 8. The Applicant provided CA Drinking Water Watch with no consumer reports, and only one year of water quality samples from 2013.

E. MISCELLANEOUS MISREPRESENTATIONS

- 1. The Water Availability Analysis represents that the parcel is located outside of the GSA Boundary that is not true. The estimated groundwater recharge rate is calculated based on inflated parcel acres and does not consider the possible effect that ground surface slopes might impart on the rate of groundwater recharge.
- 2. The supporting pumping tests note that Well 1 is a 5" casing and has a recommendation to be retrofit with a 10gpm pump. That recommendation is characterized by the County's

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Adopted 2015 Water Availability Analysis Guidance Document as a "Very Low" pumping capacity well, *prima facie* inadequate for the proposed project.

- 3. The pumping tests reveal insufficient pumping duration tests, and provide no water quality lab results, but for the one sample drawn that came back positive for coliform.
- 4. There is no County monitoring data for any well over the past sixteen years since the winery has been permitted to operate.

F. OBJECTIONS TO ENVIRONMENTAL FINDINGS

Water Audit **DISAGREES** with the following Environmental Findings:

- 1. The Mitigated Negative Declaration and MMRP are based on independent judgment exercised by the Planning Commission.
- 2. The Mitigated Negative Declaration was prepared and considered in accordance with the requirements of the CEQA.
- 3. There is no substantial evidence in the record that the proposed project will have a significant effect on the environment provided that measures to mitigate potentially significant impacts to biological resources are incorporated into the project approval, and when the project is made subject to compliance with standard conditions of development approval.
- 4. There is no evidence, in considering the record as a whole that the proposed project will have a potential adverse effect on wildlife resources or habitat upon which the wildlife depends.

G. OBJECTIONS TO USE PERMIT FINDINGS

Water Audit **DISAGREES** with the following Use Permit Findings:

- 1. The Mitigated Negative Declaration and MMRP are based on independent judgment exercised by the Planning Commission.
- 2. The procedural requirements for a Use Permit set forth in Chapter 18.124 of the Napa County Code (zoning regulations) have been met.
- 3. The application for a Major Modification to the Use Permit has been appropriately filed, and notice and public hearing requirements of County Code Sections 18.124.040.B and 18.136.040 have been met.
- 4. On May 15, 2025, the notice of public hearing was emailed to interested parties requesting such notice; was published in the Napa Valley Register; and mailed via first class mail to the applicant and the applicant's project team, as well as, to owners of property located within 1,000 feet of the property.

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5. The CEQA public comment period ran from May 15, 2025, to June 16, 2025.

- 6. The grant of the Use Permit, as conditioned, will not adversely affect the public health, safety or welfare of the County of Napa.
- 7. The requested modification of the use permit, as proposed and conditioned, will not adversely affect the health, safety or welfare of the County.
- 8. Affected County divisions and departments have also reviewed the project and commented regarding the wastewater treatment system, food service, proper waste disposal, existing site access, and fire and life safety. Conditions of Approval are recommended which will incorporate these comments, along with other project-specific and standard County conditions pertaining to noise, lighting, and water monitoring, into the project approval to assure the protection of the public health, safety, and welfare.
- 9. That the proposed use would not require a new water system or improvement causing significant adverse effects, either individually or cumulatively, on the affected groundwater basin in Napa County, unless that use would satisfy any of the other criteria specified for approval or waiver of a groundwater permit under Sections 13.15.070 or 13.15.080 of the County Code.
- 10. The project does not require a new water system. The existing domestic water system is classified as a transient, non-community system. No improvements to the system are required.
- 11. The project is consistent with General Plan Conservation Policies CON-53 and CON-55, which require that applicants, who are seeking discretionary land use approvals, prove that adequate water supplies are available to serve the proposed use without causing significant negative impacts to shared groundwater resources.
- 12. The July 9, 2025, Addendum to the Water Availability Analysis (WAA) prepared by O'Connor Environmental Inc. (OEI), (original WAA dated February 20, 2025), estimates the proposed water use of 9.5 ac-ft per year, which is less than the estimated groundwater recharge rate of 9.84 ac-ft per year. The proposed water use is a reduction from the existing water use, calculated at 11.02 ac-ft per year.
- 13. Based on the data and interpretation of the hydrogeology of the project area, the project hydrologist opines that the water use associated with the proposed project will not have a significant impact on seasonal flows in Lincoln Creek, the nearest designated Significant Stream.
- 14. The requested Use Permit Modification is consistent with General Plan Goals CON-10 and CON-11, as well as the policies mentioned above that support reservation and sustainable use of groundwater for agricultural and related purposes.

H. CEQA

- 1.The State Clearing House webpage APN is incorrect, and Location Waterways omits Lincoln Creek. (Ex. 1.)
- 2. State Clearing House Summary for Electronic Submittal Reviewing Agencies recognizes only California Department of Fish & Wildlife. The Notice of Completion addresses issues with Biological Resources, however there is no Biological attached. (Ex. 2.)
- 3. As noted above, the CEQA Notice of Completion (NOC) Reviewing Agencies Checklist omits Napa Resources Conservation District and surrounding cities. The NOC notices the Department of Drinking Water, however there is no water sampling or Water System feasibility to review.

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There is not a Water System Feasibility Report, much less one that has reviewed by Responsible Agencies. (Ex. 4.)

4. The underlying Use Permit P09-00185 has no attachments (https://ceqanet.lci.ca.gov/2010082038). (Ex. 4.)

I. STAFF REPORTS OMIT CRITICAL DOCUMENTATION

There are no records on the Electronic Document Retrieval database or Parcel Report for Project APN 031-120-040, formerly APN 031-120-038 or formerly APN 032-130-032 (packet page 9). There are no documented use permits, wells, building, septic, project lot line adjustment agreement, water system feasibility, biological study, or geotechnical study. (Ex. 5.) Staff attachments omit CEQA NOC, Summary for Electronic Submittal, and Public Notice. When found on the Current Project folder, the Public Notice does not include the affidavit of publication, invoice #, date or signature.

J. STAFF HAS MISREPRESENTED STREAMFLOW

Staff's reversal of streamflow direction conceals the importance of the associated watercourse as a tributary to the Napa River. Staff reports that there is a culvert that runs north-south through the site:

"Existing Development: The parcel is currently developed with an approximately 6,500 s.f. winery hospitality building, approximately 8,000 s.f. of caves, uncovered crush pads, parking lot, entry driveway, and 9.94 acres of vineyards. A stream, as defined by County standards in code section 18.108.030, runs north-south through the site. In compliance with CDFW Streambed Alteration Agreement No. 1600-2012-0012-3 (dated October 10, 2012), the stream enters a culvert on the northern side of the winery development and daylights through the center of the access driveways between the crush pad and parking, before entering a southern culvert that drains to the south toward the adjacent property." (Packet page 14)

Staff's statement is contradicted by previous statements. According to the Applicants 2012 CDFW Lake & Streamed Alteration Agreement 8. Project Location:

"A. The project is a future winery that has been approved by the county of Napa. The location is the west side of the butte north of Yountville, CA. The project is accessed from Hwy 29. It is just south of the intersection of Yount Mill road and hwy 29. The main winery will be located on the side of the hill that has both native grass/oak lands and an olive orchard The parking lot will be located on the flat area that has an existing vineyard with a residence. At the base of the hill is a swale that runs from south to north into the Napa River. The swale drains approximately 128 acres. The swale the length of the swale impacted is 365 feet. The current riparian areas on both sides of the this segment of the swale are bare with the exception of the olive tree orchards.

C. What water body is the river, stream, or lake tributary to? Napa River. "(Packet page 226)

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Omitted from the hearing packet, but found in the recently approved July 2, 2025 Tesseron Project hearing packet, a CDFW Environmental Scientist emphasized the necessary review of blue line streams represented in the California Aquatic Resources Inventory map "CARI" (Ex. 6): "I noticed that APN 027-060-020 encompasses several blue line streams per California Aquatic Resources Inventory (see screenshot)." (Tesseron packet page 425/6)

K. FACTS ARE MISREPRESENTED TO OMIT THE REQUIRED WATER SYSTEM FEASIBILITY STUDY

Staff discussion on the Water System claims the project well is on-site, and a Water System technical report is not necessary. One could reasonably wonder what has occurred to delete that requirement since the project commenced. The April 19, 2023, staff report discussed: "Water System - The existing domestic water system is currently classified as a transient, non-community system. No improvements to the system are required." (PC April 19, 2023, Staff Report page 426) The Water System Feasibility Study is appended to the Water Availability Analysis (PC April 19, 2023, Staff Report page 426.)

The November 21, 2021, Water System Feasibility Study "WSF" was appended to the prior hearing attachment Water Availability Analysis. The WSF is insufficient as there is no current 24-hour pumping test, and no managerial, technical or financial information. (Ex. 8.)

L. CALIFORNIA DRINKING WATER REPORTING REQUIREMENTS IGNORED

Del Dotto has not reported any Consumer Reports on the California Drinking Water website. There is only one year of water quality sampling in 2013, twelve years ago. (See: https://sdwis.waterboards.ca.gov/PDWW/JSP/WSamplingResultsByStoret.jsp?SystemNumber=280004 8&tinwsys_is_number=14567&FacilityID=001&WSFNumber=58205&SamplingPointID=001&SystemNa me=PIAZZA+WINERY&SamplingPointName=WELL+1&Analyte=&ChemicalName=&begin_date=&end _date=&mDWW=) (Ex. 8.)

M. THE SITE PLAN IS INCOMPLETE

The site plan does not reflect a lot line revision. According to Applicant Site Plan C1, project Well 1 remains located on an off-site parcel, and there appears to be an unaccounted for well sited above the cave (packet page 517.) There is no water easement designated number. The site plan omits distances between cave, septic fields, wells, watercourses, location of cave spoils, and "Below Ground" Hold & Haul. (Ex. 9.)

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N. BELOW GROUND HOLD AND HAUL IS INACCURATELY REPRESENTED

Staff did not report the hold and haul storage tank was below ground. The Application Business Activities worksheet reports there is no below ground Hold and Haul (packet page 180.) (Ex. 11.) The Onsite Process WW Disposal Feasibility Study UP-101 ARCHITECTURAL SITE PLAN is not the same site plan submitted by staff in the Graphics attachment. (Ex. 10.)

The alteration reveals the below ground Hold and Haul tanks:

"Existing Winery Process Wastewater Disposal System

The current winery process wastewater system consists of a hold and haul type system with 15,000 gallons of tank storage. **The tanks are located below ground, near the southerly cave portal area**. The system is designed to accommodate at least seven days of peak flow for the existing 48,000 gallon, includes a 70% volume level alarm and was designed and installed under County permit in accordance with County requirements." (Packet page 358) (emphasis added)

Water Audit supports and restates the as yet unanswered prior comment questions by Dominus Estate at the Planning Commission July 13, 2023, Del Dotto Item 7A - Additional Public Comment (Added After Meeting):

"Is it sustainable to send 1.2 trucks/day during harvest, or 125 trucks/year to East Bay MUD, a total of 13,000 miles (20.2 metric tons of CO2 of fuel, equivalent to the total CO2 emitted by 4.3 passenger vehicles in one year)? ... What will the effects of additional heavy trucks be on an already congested Hwy 29 during harvest and/or a rural road such as Yount Mill Road?" (PC July 13, 2023 Del Dotto page 2)

Water Audit supplements those questions: Who is the contracted hold and haul vendor? How many total trips are anticipated? Can the hold and haul tanks support the increase in visitation/marketing?

O. NO CAVE FRAC-OUT PLAN

Water Audit restates its earlier public comment "There is no frac-out plan for the cave construction." Note the omission of comment by CDFW and the precedence for that requirement established by prior application for Duckhorn Winery.

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P. CAVE SPOILS

The Initial Study reports "Spoils are proposed to be exported off site" (packet page 137) Water Audit supports and restates comments by Gary Margadent to the Planning Commission on July 13, 2023, Del Dotto Item 7A - Additional Public Comment (Added After Meeting):

"The cave spoils should not be removed from the construction parcel via a grading permit as part of the project. The spoils are the earth of the parcel and should remain on the parcel. The spoils can be integrated by the grading permit into the soils of the vineyard, just as required by the Engineering Department in the case of permit P15-00422 UP, Baldacci Vineyard, 6236 Silverado Trail Grading Permit. This permit requires the spoils to be integrated into the site soils prior to receiving the Use Permit." (PC July 13, 2023 Del Dotto page 7)

Q. PROJECT PARCEL IS PARTIALLY WITHIN THE GSA BOUNDARY

Because of the omission of the site plan, this fact requires reference to external documents and is contradicted by prior staff comments. The Staff Report claims the project parcel is not within GW basin boundary:

"Because the Project Well is located outside of the GSA Sub, a parcel-specific groundwater recharge analysis was prepared... For the approximately 21.7-acre project parcel, the calculations yield an estimated average annual recharge of 9.8 acre-ft/yr. (Packet page 19) (emphasis added)

However, that statement conflicts with the April 19, 2023 Staff Report:

"Groundwater Availability - The winery property is located within the groundwater basin boundary set by the California Department of Water Resources, which was studied and evaluated by the County's Groundwater Sustainability Agency (GSA). The GSA has determined that projects within the subbasin boundary have an estimated recharge potential of 0.3 acre-feet per year (af/yr). Based on direction from the Board of Supervisors and the County's hydrogeology consultant Luhdorff & Scalmanini Consulting Engineers (LSCE), if a parcel in the GSA boundary has existing groundwater uses that already exceeds the to 0.3 acre feet per acre per year calculation, a no net increase in groundwater use is required. The parcel is located within the GSA Subbasin with the existing well serving the winery on the eastern hillside above the cave." (PC April 19, 2023, packet page 425) (emphasis added)

R. GROUNDWATER SUSTAINABILITY AGENCY FINAL INTERCONNECTED SURFACE WATER GROUNDWATAER DEPENDENT ECOSYSTEMS WORKPLAN NOT CONSIDERED IN PROJECT REVIEW

It appears that staff did not notice either NRCD or the City of Yountville of this application. Not in the hearing packet but found on County website, Groundwater Sustainable Agency March 26, 2024 Agenda Item 10A. Attachment C. Final Interconnected Surface Water Groundwater Dependent

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Ecosystems Workplan. The Workplan reports a site priority score "10" of 10 for Napa River near Yountville. It charts the estimated stream depletion proximate to the Del Dotto project, and Yountville, stating Riparian Oaks are groundwater dependent data gaps and intensive monitoring sites are referred to by CEFF as a "Location of Interest".

(https://napa.legistar1.com/napa/meetings/2024/3/1603_A_Board_of_Supervisors_24-03-26_Agenda.pdf) (Ex. 12.)

The Workplan recommends monitoring intensive sites summarized in Table 5-1:

"5. ECOHYDROLOGIC CONCEPTUAL MODELS FOR INTENSIVE MONITORING SITES EHCMs for the six recommended intensive sites are described in this section and summarized in **Table 5-1**. These EHCMs were developed following Rohde et al. (2020) and include GDEs, surficial landscape features, groundwater and ISW dynamics, listed species occurring near the intensive sites (ecological targets), known and likely stressors, preliminary assessment of streamflow depletion, and any data gaps. Each of these intensive sites is also referred to by CEFF as a "Location of Interest" (**Section 2.3**). These locations will be used to develop the CEFF ecology-flow metrics. " (Workplan page 67)

Riparian Oaks are part of the groundwater dependent ecosystem. See Table 5-1 (Ex. 13):

"Land cover is primarily vineyards outside of the Ecological Reserve. The alluvial basin is constricted in this reach... Groundwater levels indicate consistent to intermittent direct hydraulic connection... **Groundwater pumping contributes to stream depletion**." (Page 68) (emphasis added)

The StreamWatch program is managed by the Napa Resource Conservation District (https://naparcd.org/streamwatch/):

"Stream Watch is a community science program organized by Napa RCD and Napa County Watershed Information and Conservation Council. Volunteers make observations at select creek sites about whether or not there is water in the creek. They also note how much trash they see. This information will be compiled over several years to learn more about our creeks and how we can best take care of them now and as our climate changes."

The Workplan Table 5-5 Estimated Stream Depletion by Water Year Type (Napa River at Yountville) emphasizes the 98% stream depletion during August and September (Ex. 14):

"2. Stream depletion is calculated as the difference between all agricultural pumping removed (No Pumping) and the Baseline model Scenario. The Baseline scenario includes agricultural pumping. Stream depletion occurs in winter months due to the time it takes for pumping effects to move through the hydrogeologic system." (Workplan page 81) (emphasis added)

The Workplan cites StreamWatch Site 1: Napa R mainstem at Yountville EcoReserve. (Ex. 14):

"Groundwater pumping at this site has a small effect on flows in the winter and spring (10-15 cfs or less than 25 percent of the discharge). In summer, the difference between existing flows and flows without pumping has a lower magnitude (5-7 cfs) but reduces flows by a greater percentage (**Table 5-5**) than in the wet season. The modeling shows that in the absence of groundwater pumping, the minimum flow would be just over 4 cfs, while under existing

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conditions from 1988 through 2022, the channel has zero flow for nearly 30 percent of the low-flow season." (Page 80)

S. STAFF MISREPRESENTS REGULATORY AGENCIES AS "PUBLIC COMMENT"

Staff continues to misrepresent regulatory agencies' submittals as public comment submittals:

"On June 4, 2025, staff received a letter from Caltrans in response to their review of the Mitigated Negative Declaration. The letter expressly states, "this correspondence does not indicate an official position or approval by Caltrans on this project and is for informational purposes only." **The letter has been provided to the applicant and is included in Attachment O - Public Comments**. No other comments were received from state agencies as a result of this CEQA review." (Packet page 23)(emphasis added)

Responsible Agency review letters cannot be "Public Comment" by name or nature. It is not a public comment it is a regulatory agency review. Note again the failure to disclose the facts that would have alerted CDFW to the requirement for a frack-out plan.

T. CONDITIONS OF APPROVAL ARE NOT FOUNDED IN FACT

- The underlying use permit conditioned visitation to 75 visitors a day. The Request for P18-00143 is conditioned to Monday -Thursday 120 visitors and Friday - Sunday 130 visitors. The Applicant has disclosed to CA Drinking Water Watch Del Dotto Water System No CA2800100 only 25 Transient Population (https://data.ca.gov/dataset/drinking-water-publicwater-system-information/resource/9dca2f92-4630-4bee-a9f9-69d2085b57e3)
- 2. No Groundwater Memorandum.
- 3. No peer review from County hydrology expert Ludhorff & Scalmanini.
- 4. No "Public Works and PBES jointly implement" language:"4.9 GROUND WATER MANAGEMENT WELLS [RESERVED]" (packet page 38)
- 5. No Caltrans or CDFW letters cited in COA 4.18 COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES OPERATIONAL CONDITIONS" (packet page 39.)
- 6. No Public works authorization language for the GW Management Plan (packet page 40.)
- 7. The County Public Works department has not reviewed the project.
- 8. No CDFW or Caltrans letters cited or appended with the Conditions of Approval.
- 9. The conditioned Groundwater Demand Management Program omits Public Works Director authority and improperly designates all monitoring and management to PBES Director.
- 10. PBES Engineering has no authority to review the Water Availability Analysis, and therefore their opinion is irrelevant.

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- 11. Previously mandated water monitoring reports have been omitted from the Application, "On or near the first day of each month the owner shall read the water meter, and provide the data to the Director of PBES, or a designated representative of the Department. The applicant shall also convey to the Director of PBES, or a designated representative of the Department, the right to access and verify the operation and reading of the meter at anytime." (Packet page 58)
- 12. There is no explanation for Public Works Department Water Availability Analysis review being withheld from the Del Dotto permit process. Not in the hearing packet but found on Electronic Document Retrieval database for APN 031-130-028, the neighboring parcel sought to have approved a similar project, Wright Winery, was approved in 2009, the same year as the Del Dotto winery,. The Wright Winery Water Availability Analysis was reviewed by the Public Works Department by then Director Robert J. Peterson. See WAC-Del Dotto Ex15. This is a clearly stated requirement set forth at the outset of the planning process:

"Introduction: As an applicant for a permit with Napa County, It has been determined that Chapter 13.15 of the Napa County Code is applicable to approval of your permit. One step of the permit process is to adequately evaluate the amount of water your project will use and the potential impact your application might have on the static groundwater levels within your neighborhood. The public works department requires that a Phase 1 Water Availability Analysis (WAA) be- included with your application. The purpose of this form is to assist you in the preparation of this analysis. You may present the analysis in an alternative form so long as it substantially includes the information required below. Please include any calculations you may have to support your estimates. The reason for the WAA is for you, the applicant, to inform us, to the best of your ability, wha~ changes in water use will occur on your property as a result of an approval of your permit application. By examining the attached guidelines and filling in the blanks, you will provide the information we require to evaluate potential impacts to static water levels of neighboring wells." (Page 2)

U. CONFLICT WITH PREVIOUS CONDITIONS OF APPROVAL

The P09-00185 Environmental Health Services Memorandum May 21, 2010, revised August 27, 2010, sited an off-site well water supply, and conditioned the project to comply with California Safe Drinking Water Act and Related Laws and technical report, all required monitoring, and required a recorded easement:

"2. 2. The water supply and related components must comply with the California Safe Drinking Water Act and Related Laws. This will require plan review and approval prior to approval of building permits. Prior to occupancy, the owner must apply for and obtain an annual operating permit for the water system from this Department. The technical report must be completed by a licensed engineer with experience in designing water systems. The applicant must comply with all required monitoring and reporting. Since the well serving this project is located on an adjacent parcel, a recorded easement must be included in the application for a water supply permit. The easement must specify right to an amount of water equal to or greater than the estimated maximum day demand for the proposed water system." (Packet page 91) (emphasis added)

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Del Dotto permit P15- 00153 conditioned the project with wells that shall be monitored monthly and the total annual groundwater pumped commencing within six months of issuance of use permit.

"14.1 WELLS

The permittee shall (at the permittee's expense) provide well monitoring data monthly and the total annual groundwater pumped. Data requested shall include, but not necessarily be limited to, water extraction volumes and static well levels. Water usage shall be minimized by use of best available control technology and best water management conservation practices.

b. All monitoring shall commence within six months of the issuance of the use **permit**, or immediately upon commencement of the winery use, whichever occurs first and shall be submitted annually thereafter." (Packet page 118)(emphasis added)

Monitoring data is not included in the hearing packet or the Water Availability Analysis, and there is no water easement permit number or lot line adjustment agreement as part of this Application.

V. WATER AVAILABILITY ANALYSIS

The Water Availability Analysis ("WAA") enumerates Well Completion Reports for 18 wells but has no drawing demonstrating their locations. Well completion reports for wells 19 and 20 are omitted. There is no comprehensive well site plan, and no distances between project wells and neighboring wells. The WAA provides no County well monitoring data, as was mandated by prior approvals.

The WAA is supported with two well inspection reports. However, the McClean & William pump test provides no description of which of the wells it tested other than "Casing Size: 6" PVC". The test is over twelve years old, and only 11 hours in duration. The County policy requires 24-hour duration (Water System Information for Use Permits 2025_202502211022546898, https://www.countyofnapa.org/DocumentCenter/ View/10959/Water-System-Information-for-Use-

The water samples taken were positive for coliform. That flow test represents well water yield and system condition for the time of the test only. (packet page 316.)

The Perry's Pumps test provides no description of which wells it tested other than "Diameter of Well Casing: 5". The Water Quality Testing notes "none taken." The narrative states that it is associated with a well that is located "next to vineyard in front of the 10000 Gallon Tank" (packet page 317)

The "Project Well" 1 has a 5" diameter well casing. The County's 2015 Water Availability Analysis Adopted Policy describes Project Well 1 as a Very Low pumping capacity pump (https://www.countyofnapa.org/DocumentCenter/View/1056/Water-Availability-Analysis-Adopted-Policy-May-12-2015-PDF).

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The well pump is reported to be oversized and requires replacement with a 1HP 10GPM pump. There is no obligation for this work to be done. The only recent pump test is June 29, 2023, and the duration of constant pumping level was only one (1) hour (packet page 318.)

"PBES and **Public Works (PW) staff will review** the application for completeness and reasonableness, review the County's groundwater data management system for additional information about the characteristics of the areas/basin and nearby wells, compare the analysis to the screening criteria, and determine if additional analysis is required" (See above page 6) (emphasis added)

Footnote 3 to the same document further defines a Very Low pumping well:

"For the purposes of this WAA, "very low pumping capacity wells" are defined as wells with a **casing diameter of six inches or less** and an installed pump capable of producing less than 10 gallons per minute (gpm). Pumping capacities referenced throughout this WAA were developed as part of a separate analysis of potential streamflow depletion in unconsolidated alluvial settings. Details of this analysis are provided in a separate Technical Memorandum (LSCE, 2013)." (Page 6) (emphasis added)

The 2015 Water Availability Analysis Adopted Policy further states driller's logs well yields are not sufficient pumping rate determinations, and constant rate aquifer test at a minimum 8 hours. The Applicant has not satisfied that criteria. At Footnote 13:

"Estimates of well yield shown on driller's logs are not sufficient for this purpose. The planned pumping rate should be determined based on the pump and related equipment installed, or planned to be installed, in the well and, if available, constant rate aquifer test data for tests conducted for a minimum of 8 hours." (page 11) (emphasis added)

"The County's preferred method for determining the aquifer hydraulic conductivity or other parameters is by conducting an aquifer test and analyzing aquifer test data. In some cases, pump test data may be recorded by a well driller at the time of well construction and included as part of the Well Completion Report submitted to the California Department of Water Resources. However, these tests are not always conducted to standards that result in meaningful aquifer parameters (i.e., the pumping rate may not be constant, the pumping rate may not be large enough to analyze aquifer parameters, the test may be of too short a duration, and groundwater level measurements may not have been made during the test in the pumped well and one or more observation wells, etc.) (page 14) (emphasis added)

The WAA attaches an unidentified chart, without providence or signed, and no description of which well it is associated, truncating the link online address (packet page 304). The charts are incomplete, and it appears the charts are missing the email correspondence that is found in the 2023 Water Availability Analysis. That correspondence is O'Conner Appendix D Soil Water Balance Analysis Napa County.

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It is unexplained why a Draft Report and not a Final report is an acceptable Completeness item. (packet page 319/55)

The WAA recharge calculations are flawed. It assumes the entire 21.7 area parcel is outside the basin. It does not reveal a significant portion of the project parcel is within the GSA basin Boundary.

"The total proposed groundwater use for the project recharge area is estimated to be 80.65 acre-ft/yr. This use is equivalent to 79% of the estimated 102.6 acre-feet of recharge based on the 2012-2021 average precipitation. A similar comparison can be drawn for the 21.7-acre project parcel where the proposed 9.73 ac-ft/year demand is equivalent to 99% of the estimated 9.8 acre-ft of average annual recharge during [sic] (Table 8). Given that this project would result in a net decrease in demand, water use associated with the proposed project is highly unlikely to result in reductions in groundwater levels or depletion of groundwater resources over time relative to existing conditions." (Packet page 256) (emphasis added)

The recharge calculation draws into accounting the entire project parcel 21.7 acres. Not in the hearing packet, but revealed on County GIS Map GSA Boundary layer, approximately 8 acres *are within the GSA Boundary*. (Ex. 16.)

Water Audit has recalculated, subtracting the GSA boundary acres from the total parcel acreage, reducing the sum of available water use from the O'Conner recharge calculation. That lesser sum reveals the water demand *is greater* than the existing water demand. For consistency in calculations, compare Planning Commission April 2, 2025, SATTUI Attachment F. Water Availability Analysis pages 13-17. That analysis included outside and inside GSA Boundary calculations, and consideration of slope run-off adjustment. (Ex. 17.)

The miscalculation defeats the Tier 2 assertion that the water demand is less than net neutral. (Packet page 256.) Regardless, a less than net neutral defense cannot prove that no injury to the environment or the public trust is occurring.

The Tier 3 analysis is flawed (packet page 256/7). It does not site or consider two blueline stream tributaries to Lincoln Creek and Napa River that are located adjacent to the project "Well 1", the unaccounted for well, and Well 20. (See CDFW and California Aquatic Resources Inventory map.)

The WAA claims "intermittent streams are believed to only have the potential for hydraulic connection to groundwater for limited periods throughout the year." (Packet page 257) However, O'Conner misstates the importance of intermittent streams. Not in the hearing packet but found on the California Water Boards website, non-perennial streams are an important interface that supports aquatic life use (https://www.waterboards.ca.gov/water_ issues/programs/swamp/docs/reports/mgmt_memo2extent.pdf) (Ex. 18.):

"Most of the Water Board's resources are devoted to perennial streams because they tend to have many beneficial uses and pollution problems tend to accumulate downstream. However,

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non-perennial streams make up the majority of California's stream network, are an important interface between land-use activities and downstream impacts and support a wide variety of aquatic life uses." (Page 1) (emphasis added)

"Better tools are needed to monitor and assess the condition of non-perennial streams, especially now that the State is increasing its use of biological condition indicators." (Page 4) (emphasis added)

"Despite the fact that non-perennial streams often comprise the majority of stream length in California's PSA regions, and fall under the jurisdiction of the Water Boards, **very few of California's monitoring resources are invested in their assessment.**" (Page 5) (emphasis added)

Water Audit restates its original public comments to this Application. See the record of the Planning Commission July 13, 2023, hearing Item 7A - Additional Public Comments:

- "3. The application fails to consider the cumulative impacts of groundwater extractions from this application and other proximate approved and pending projects on proximate public trust resources, including but not limited to Far Niente Winery
- 6. The project's hold and haul wastewater provisions are in violation of Napa County Ordinance Chapter 13.52(D)
- 10. The applicant has failed to comply with an earlier undertaking to the County to obtain a stream alternation agreement. (page 10/11)

W. The Public Trust

The public trust is evergreen; every new day of injury or violation creates a new cause of action. "Public rights cannot be lost nor the public trust as to their administration and exercise be destroyed either by adverse possession or by laches or other negligence on the part of the agents of the state or municipality who may from time to time be invested with the duty of their protection and administration." (San Diego v. Cuyamaca Water Co. (1930) 209 Cal. 105, 109.) Public agencies have a ministerial duty to consider the public trust interest, and mitigate harm when feasible, when making its daily decisions to divert water, by the operations and/or permitting of well extractions that impact the Napa River. (See Envtl. Law Found. v. State Water Res. Control Bd. ("Envtl. Law Found.") (2018) 26 Cal.App.5th 844, 852.)

Once an appropriation is approved, "the public trust imposes a duty of continuing supervision over the taking and use of the appropriated water." (*Nat'l Audubon Soc'y v. Superior Court* ("*Audubon*") (1983) 33 Cal.3d 419, 424.) A public agency is "not confined by past allocation decisions that may be incorrect in light of current knowledge or inconsistent with current needs [and] accordingly has the

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power to reconsider allocation decisions even though those decisions were made after due consideration of their effect on the public trust." (*Audubon*, supra, 33 Cal.3d 419, 424; see also *Cal. Trout v. State Water Res. Control Bd.* (1989) 207 Cal.App.3d 585, 629, stating that "the rule in section 5946 pertains to a public trust interest no private right in derogation of that rule can be founded upon the running of a statute of limitations, for the same reasons that one may not acquire an interest in public lands by means of adverse possession.".)

[T]he determinative fact is the impact of the activity on the public trust resource. If the public trust doctrine applies to constrain fills which destroy navigation and other public trust uses in navigable waters, it should equally apply to constrain the extraction of water that destroys navigation and other public interests. Both actions result in the same damage to the public trust. The distinction between diversion and extraction is, therefore, irrelevant. The analysis begins and ends with whether the challenged activity harms a navigable waterway and thereby violates the public trust.

(Envtl. Law Found., supra, 26 Cal.App.5th 844.)

Tributaries to navigable waterways are also subject to the public trust doctrine. For example, see Fish and Game Code section 711.7. (a) which states in part "The fish and wildlife resources are held in trust for the people of the state ..."

The public trust doctrine imposes independent and unavoidable obligations on trustee agencies overseeing groundwater extraction. California precedent makes clear that subdivisions of the state¹ have "a duty to consider the public trust interest² when making decisions impacting water that is imbued with the public trust," and merely complying with CEQA does not discharge that duty.⁴

The public trust requires reconsideration of past or ongoing water use decisions where those decisions were made "without any consideration of the impact upon the public trust." Thus, compliance with public trust duties is not discretionary, it is obligatory.

As Napa County is a legal subdivision of the state, it must deal with the trust property for the beneficiary's⁶ benefit. No trustee can properly act for only some of the beneficiaries – for example the trustee must represent them all, taking into account any differing interests of the beneficiaries, or the

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¹ Env't L. Found. (ELF) v. State Water Res. Control Bd. (SWRCB) (2018), 26 Cal. App. 5th 844, 868 ("Although the state as sovereign is primarily responsible for administration of the trust, the county, as a subdivision of the state, shares responsibility for administering the public trust and may not approve of destructive activities without giving due regard to the preservation of those resources.") (internal quotation marks omitted).

The Napa River and its tributaries, and the fish within those water ways, are protected public trust resources.

³ *Id.* at 863.

⁴ *Id.* at 868.

⁵ Nat'l Audubon Soc'y v. Superior Ct. (1983) 33 Cal. 3d 419, 426.

i.e. people of California

trustee cannot properly represent any of them. (*Bowles v. Superior Court* (1955) 44 C2d 574.) This principle is in accord with the equal protection provisions of the Fourteenth Amendment to the US Constitution.

Furthermore, there can be no vested rights in water use that harm the public trust. Regardless of the nature of the water right in question, no water user in the State "owns" any water. Instead, a water right grants the holder thereof only the right to use water, a "usufructuary right". The owner of "legal title" to all water is the State in its capacity as a trustee for the benefit of the public. Both riparian and appropriative rights are usufructuary only and confer no right of private ownership in the watercourse, which belongs to the State. (*People v. Shirokow* (1980) 26 Cal.3d 301 at 307.)

If at any time the trustee determines that a use of water other than the then current use would better serve the public trust, the State has the power and the obligation to reallocate that water in accordance with the public's interest. Even if the water at issue has been put to beneficial use (and relied upon) for decades, it can be taken from one user in favor of another need or use. The public trust doctrine therefore means that no water rights in California are "vested" in the traditional sense of property rights.

Fish & Game Code, section 1600 provides:

The Legislature finds and declares that the protection and conservation of the fish and wildlife resources of this state are of utmost public interest. Fish and wildlife are the property of the people and provide a major contribution to the economy of the state, as well as providing a significant part of the people's food supply; therefore their conservation is a proper responsibility of the state.

The California Department of Fish & Wildlife (CDFW):

... is California's Trustee Agency for the State's fish, wildlife, and plant resources. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitats necessary for biologically sustainable populations of those species. For the purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. (https://wildlife.ca.gov/Conservation/Environmental-Review/CEQA.)

Respectfully,

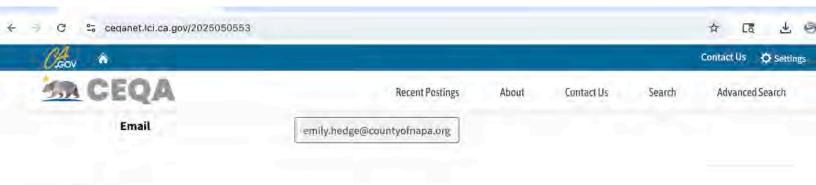
William McKinnon General Counsel

Water Audit California

Voice: (530) 575-5335

Email: General@WaterAuditCA.org

See Water Audit Attachments, Exhibits 1-18.



Location

Coordinates	38°25'18.8"N 122°23'14.4"W
Cities	Unincorporated area, Yountville
Counties	Napa
Regions	Unincorporated
Cross Streets	Parcel driveway is off of State Highway 29
Zip	94515
Total Acres	21.7
Jobs	4
Parcel #	031-120-038
State Highways	State Highway 29
Railways	Napa Valley Wine Train
Airports	N/A
Schools	Yountville Elementary School
Waterways	Napa River, Conn Creek, Rector Creek, Hopper Creek
Township	07N
Range	05W
Section	26
Base	MDM
Other Location Info	7466 St. Helena Highway/State Route 29, Yountville, CA 94559
Other Information	Formerly APN 031-120-038 (SFAP) and 031-130-032 (SFAP) – Revised per Lot Line Adjustment LLA 2106 (Recorded December 26, 2024), currently referred to as "LLA 2106 Adjusted Parcel A".

Notice of Completion

Notice of Completion & Environmental Document Transmittal

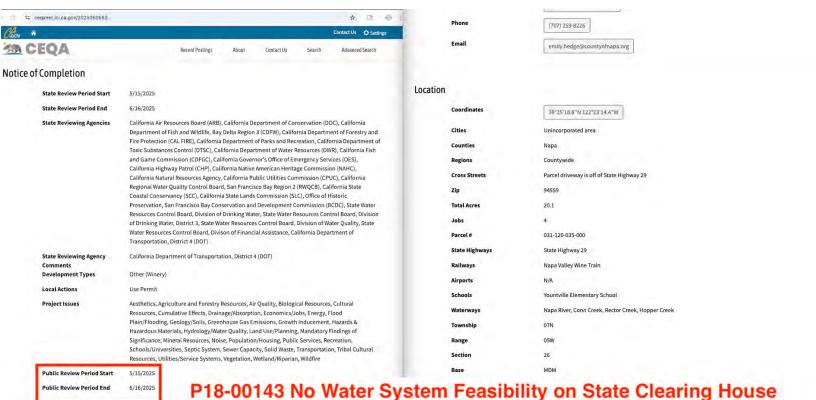
Mail to: State Clearinghouse, P.O. Box 3044, Sacramento For Hand Delivery/Street Address: 1400 Tenth Street, Sac	
Project Title: Piazza del Dotto Winery Use Permit Major Modifi	cation P18-00143
Lead Agency: Napa County	Contact Person: Emily Hedge
Mailing Address: 1195 Third Street	Phone: 707-259-8226
City: Napa	
City. Mapa	
	City/Nearest Community: Unincorporated/Town of Yountville
	orporated Napa County, Yountville, California 94515 Zip Code: 94515
Longitude/Latitude (degrees, minutes and seconds): $\underline{38}$ ° $\underline{25}$	<u>' 18.8 " N / 122 ° 23 ' 14.4 "</u> W Total Acres: <u>21.7</u>
Assessor's Parcel No.: 031-120-038	
Within 2 Miles: State Hwy #: 29	Nana Biyar Cana Crack Bostor Crack Hanner Crack
Airports:	
·	
Document Type:	
CEQA: NOP Draft EIR Early Cons Supplement/Subsequent E Neg Dec (Prior SCH No.)	Draft EIS Other:
Mit Neg Dec Other:	FONSI
Local Action Type: General Plan Update General Plan Amendment General Plan Element Planned Unit Developm Community Plan Site Plan	Rezone
Development Type:	
Residential: Units Acres	
Commercial:Sq.ft Acres Employees	Mining: Mineral
Industrial: Sq.ft Acres Employees	Power: Type MW
Educational:	Waste Treatment: Type MGD
Recreational:	Hazardous Waste:Type
Water Facilities:Type MGD	Other: Winery
Project Issues Discussed in Document:	
Aesthetic/Visual Fiscal	■ Recreation/Parks ■ Vegetation
Agricultural Land Flood Plain/Flooding	■ Schools/Universities ■ Water Quality
■ Air Quality ■ Forest Land/Fire Hazard	■ Septic Systems ■ Water Supply/Groundwater
Archeological/Historical Geologic/Seismic	Sewer Capacity Wetland/Riparian
■ Biological Resources □ Minerals □ Coastal Zone □ Noise	 ■ Soil Erosion/Compaction/Grading ■ Growth Inducement ■ Land Use
☐ Coastal Zone ☐ Noise ☐ Drainage/Absorption ☐ Population/Housing Bala	
Economic/Jobs Public Services/Facilitie	
Present Land Use/Zoning/General Plan Designation:	
	gricultural Preserve (AP). Current land use: Winery and vineyards.
Project Description: (please use a separate page if ne	cessary)

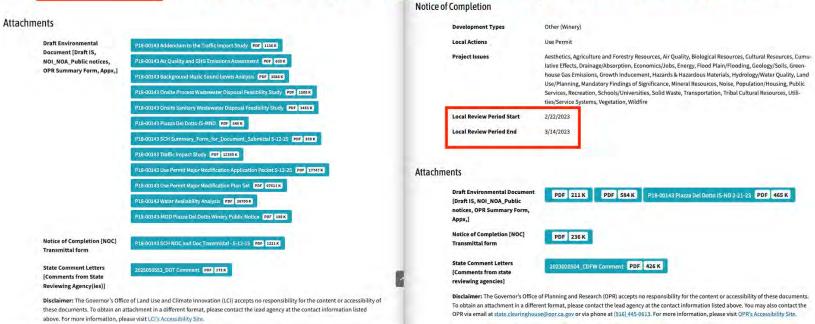
Approval of a Major Modification to the existing Piazza del Dotto Winery to increase production, number of employees, and number of visitors. The project would add additional events to the existing marketing plan, permit visitation and on-premises consumption in additional areas on site, and allow outdoor speakers for background music. Physical changes on site include construction of an approximately 10,500 s.f. winery building with a 700 s.f. lounge building, increase the existing cave from 16,000 s.f. to 32,500 s.f., cabanas on the existing hospitality building patio, and additional parking spaces. The winery would continue the use of the existing hold and haul with analysis of a process wastewater treatment system to be installed at a later date.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

	Agencies may recommend State Clearinghouse distr have already sent your document to the agency plea	
x	Air Resources Board Boating & Waterways, Department of California Emergency Management Agency California Highway Patrol Caltrans District # 4 Caltrans Division of Aeronautics Caltrans Planning Central Valley Flood Protection Board Coachella Valley Mtns. Conservancy Coastal Commission	Office of Historic Preservation Office of Public School Construction Parks & Recreation, Department of Pesticide Regulation, Department of Public Utilities Commission * Regional WQCB # 2 Resources Agency Resources Recycling and Recovery, Department of S.F. Bay Conservation & Development Comm. San Gabriel & Lower L.A. Rivers & Mtns. Conservance San Joaquin River Conservancy Santa Monica Mtns. Conservancy State Lands Commission SWRCB: Clean Water Grants * SWRCB: Water Quality SWRCB: Water Rights Tahoe Regional Planning Agency Toxic Substances Control, Department of Water Resources, Department of * Other: SWRCB, Drinking Water District 3 Other:
	Public Review Period (to be filled in by lead age	Ending Date 6/16/25
Consu Addre City/S Conta	Agency (Complete if applicable): ulting Firm: sss: state/Zip: ct:	Applicant: Address: City/State/Zip: Phone:
	eture of Lead Agency Representative:	mily pledge Date: 5/12/25

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.





Notice of Completion

State Review Period Start

8/13/2010

State Review Period End

9/13/2010

State Reviewing Agencies

California Department of Fish and Wildlife, Bay Delta Region 3 (CDFW), California Department of Parks and Recreation, California Highway Patrol, California Native American Heritage Commission (NAHC), California Public Utilities Commission (CPUC), California Regional Water Quality Control Board, San Francisco Bay Region 2 (RWQCB), Department of Water Resources, Resources Agency, California Department of Transportation, District 4 (DOT)

State Reviewing Agency Comments

California Department of Transportation, District 4 (DOT)

Development Types

Other (Winery)

Local Actions

Use Permit

Project Issues

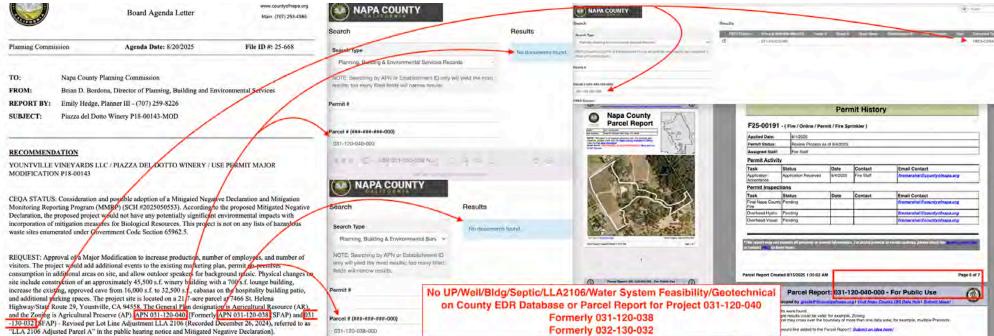
Aesthetics, Agriculture and Forestry Resources, Biological Resources, Cultural Resources, Drainage/Absorption, Economics/Jobs, Flood Plain/Flooding, Geology/Soils, Hydrology/Water Quality, Land Use/Planning, Noise, Population/Housing, Public Services, Recreation, Septic System, Solid Waste, Transportation

Disclaimer: The document was originally posted before CEQAnet had the capability to host attachments for the public. To obtain the original attachments for this document, please contact the lead agency at the contact information listed above.

P09-00185 provided no Attachments on State Clearing House

https://ceqanet.lci.ca.gov/2010082038 **EXHIBIT 4**







A Tradition of Stewardship A Commitment to Service

Napa County

Phone: 707-253-4437

1195 Third Street, Suite 210

Napa, CA 94559

www.countyofnapa.org

From: Magnuson, Nicholas@Wildlife < Nicholas.Magnuson@Wildlife.ca.gov>

Sent: Wednesday, March 12, 2025 4:52 PM

To: Morrison, Dana < <u>dana.morrison@countyofnapa.org</u>>

Subject: RE: P22-00309 New Winery Use Permit CDFW commetnes/review - Going out for Public

Comment Soon

[External Email - Use Caution]

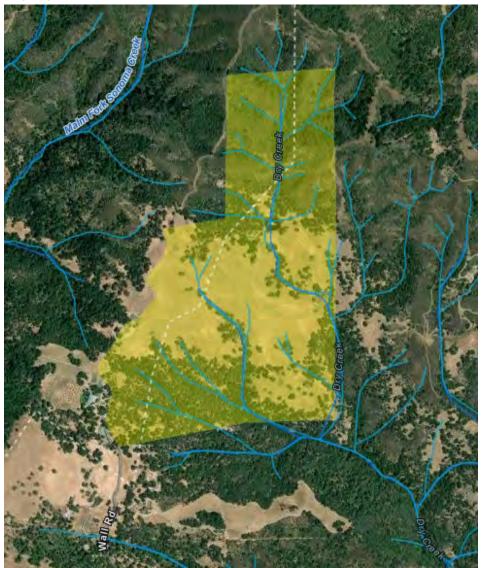
Items 1 to 3 of your below list sound good.

For the "Ensure no indirect impacts to CDFW jurisdiction areas subject to F&GC section 1600 et sec." language, this was just for you to consider. It looks like impacts to the stream(s) would be avoided per page 12, part c, but I always take special care on this in my reviews. I noticed that APN 027-060-020 encompasses several blue line streams per California Aquatic Resources Inventory (see screenshot). If a stream could be potentially impacted by this project, I recommend including the below measure.

Impacts to Streams and Riparian Areas. Prior to the commencement of Project activities, the Project shall conduct a thorough assessment for potential impacts to streams and riparian habitat including but not limited to impacts resulting trail clearing, earth moving, and vegetation removal. If impacts to the bed, bank, channel, or riparian area of the streams cannot be avoided, the Project shall notify CDFW for potential Project impacts to the streams. More information for the Notification process is available at https://wildlife.ca.gov/Conservation/Environmental-Review/LSA. The Project shall comply with all measures of the Streambed Alteration Agreement (SAA), if issued, and shall not commence activities with potential to impact the stream until the SAA process has been completed. Impacts to the streams and riparian habitat shall be mitigated by restoring riparian habitat at a minimum 3:1 mitigation to impact ratio in area

and linear feet for permanent impacts, all temporary impact areas shall be restored, and trees shall be replaced at an appropriate ratio based on size and species, unless otherwise approved in writing by CDFW. An SAA, if issued, may include additional avoidance and minimize measures to protect fish and wildlife resources

Thanks!



Nicholas Magnuson

Environmental Scientist California Department of Fish and Wildlife Bay Delta Region (R3) (707) 815-4166

From: Morrison, Dana <<u>dana.morrison@countyofnapa.org</u>>

Sent: Wednesday, March 12, 2025 4:27 PM



Water feasibility report – phase 2 7466 Hwy 29, Yountville CA

November 21 2021

Water Feasibility Report

Project: Ca' Nani Winey

7466 St. Helena Highway

APN: 031-120-026, 031-130-026

Domestic water uses and tank reserves.

Summary

This phase increases the domestic water use from 8 ac-ft per year to 9.97 ac-ft per year. There is an existing 85,000-gallon tank is set up to share the tank with fire and domestic uses. The new sprinkler calculation indicate that fire supply must be increased from 43,200 gal to 73,559 gal. This means two 85,000-gallon tanks must be used to supply water for the domestic and fire demand. There will two 85,000-gallon tanks available to serve the winery parcels.

Exiting and proposed water demand

Exist demand Fire demand

The existing fire sprinkler demand is 43,200 gallons (sprinkler demand) for phase 1 and existing domestic is 12,078 gpd. There is an existing 85,000-gallong tank that is currently serving 7566 Highway 29.

Proposed demand Fire demand

The proposed fire sprinkler demand (due to the 2019 fire regulations) and the proposed new cave expansion is 73,559 gallons. Due to the increase fire demand the existing tank will be converted to a dedicated domestic tank. An existing 85,000 tank (next to the existing tank at the same elevation) will be use to satisfy the fire demand. See sheet attached fire sprinkler demand calcs from Kenneth Johns.

A new fire hydrant will be added along the existing line at the new tunnel entrance. The remaining line will stay the same.

Existing domestic demand

The peak demand for water use is during harvest, with winery events and irrigation.



Existing

		no./area	rate	rate	existing
No.	Uses		ac-ft / yr	gal day	ac-ft / yr
1	WINERY 48,000 GALLONS	48000	2.5/100,000	auy	1.200
	-		• •		
a	landscaping (ac)	0.5	0.5		0.250
b	employees	13	15	195	0.215
С	tasting room week	40	5		0.128
d	tasting room weekend	75	5		0.180
	events with food				
е	27 event	24	5	120	0.010
f	10 events eve end 10 pm	49	5	245	0.008
g	1 event	100	5	500	0.002
h	1 event	300	5	1,500	0.005
2	EXIST VINEYARD	8.035	0.75		6.026

Total Existing

8.02

PHASE 2 Water use

		no./area	rate	rate	existing
				gal	
No.	Uses		ac-ft / yr	day	ac-ft / yr
	Proposed				
1	WINERY 100,000 GALLONS	100,000	2.5/100,000		2.500
а	landscaping (ac)	0.78	0.5		0.390
b	employees	17	15	255	0.282
С	tasting room week	125	5		0.399
d	tasting room weekend	130	5		0.311
	events with food				
е	27 event	24	5	120	0.010
f	2 events eve end 10 pm	49	5	245	0.002



9.88

Water feasibility report - phase 2 7466 Hwy 29, Yountville CA

November 21 2021

-	g	1 event	100	5	500	0.002
	h	4 event	400	5	2,000	0.025
	i	19 event	120	5	600	0.035
	2	EXIST VINEYARD	7.9	0.75		5.925

Total Existing

Well yield has currently been tested at 20.09 gpm Recovery rates are as follows:

well yeild =		20.09 1205.4	gpm gphr	60	min hr		
daily use peak		15,097	gal/day		•••		
hours to recover =	daily use		=	15,097		12.52	hr
	pumping rate			1205.4			
Available storage in	tank is 84,000	gallons	;				
Days of reserve =	tank volume		=	84000		5.6	days
	daily use peak		·	15,097			

See sheet C6 for modification to the existing 85,000 tanks.

The diagram for the water remains the same except for the new tank configuration. The sample points will also remain the same.

This concludes the water statement for the existing and proposed water demand



Guadalupe S. Chavarria, PE

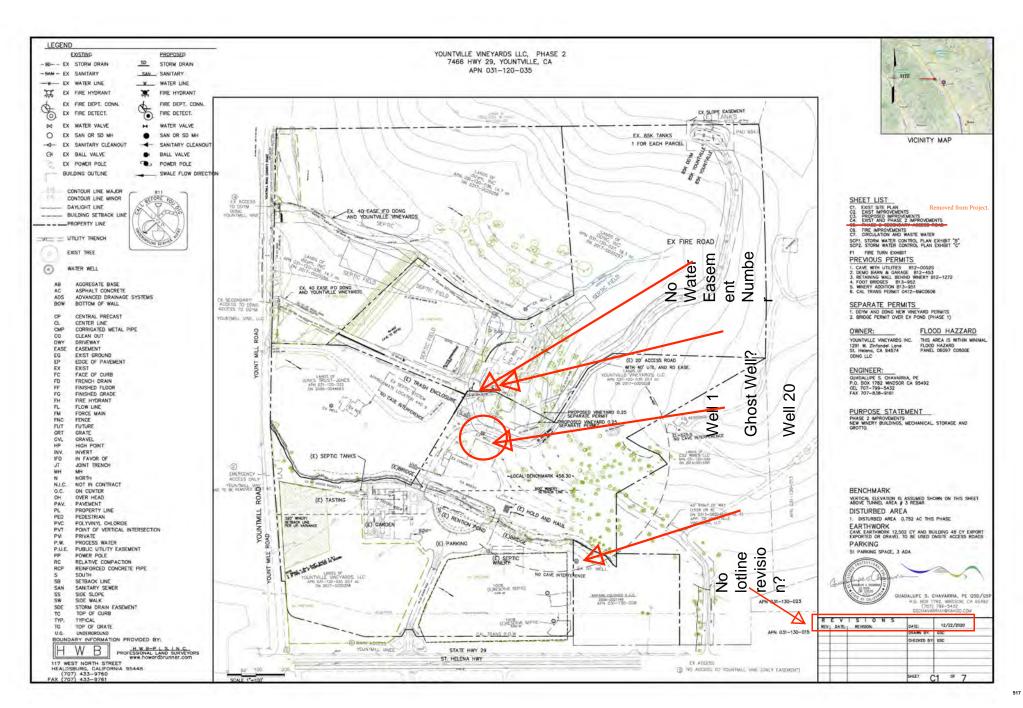
Water Quality Sampling Results

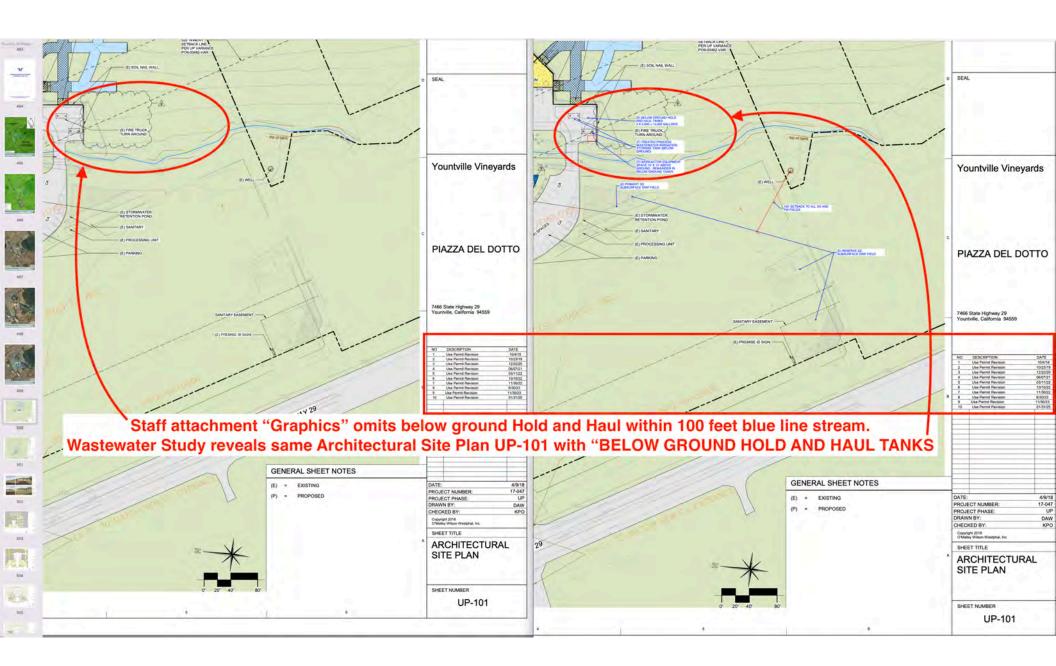
Analyte Number	Analyte Name	Sampling Date	Detected Level	Less Than	RL	Counting Error (+/-)	MCL	DLR	Unit	Lab
1002	ALUMINUM	08-02-2013		<	50		1000	50	UG/ L	1456700
1005	ARSENIC	08-02-2013		<	2		10	2	UG/ L	1456700
1010	BARIUM	08-02-2013		<	100		1000	100	UG/ L	1456700
1015	CADMIUM	08-02-2013		<	1		5	1	UG/ L	1456700
1020	CHROMIUM	08-02-2013		<	10		50	10	UG/ L	1456700
	HYDROXIDE AS CALCIUM CARBONATE	08-02-2013		<					MG/ L	1456700
1025	FLUORIDE	08-02-2013		<	0.1		2	.1	MG/ L	1456700
1028	IRON	08-02-2013		<	100		300		UG/ L	1456700
1030	LEAD	08-02-2013	7.2000000		5			5	UG/ L	1456700
1031	MAGNESIUM	08-02-2013	4.1000000						MG/ L	1456700
1032	MANGANESE	08-02-2013	26.0000000		20		50		UG/ L	1456700
1035	MERCURY	08-02-2013		<	1		2	1	UG/ L	1456700
1036	NICKEL	08-02-2013		<	10		100	10	UG/ L	1456700
1039	PERCHLORATE	08-02-2013		<	4		6	4	UG/ L	1456700
1040	NITRATE	10-07-2024	0.40		0.4		10	.4	MG/ L	24J1330
1040	NITRATE	10-03-2023	0.43		0.4		10	.4	MG/ L	23J0571·
1040	NITRATE	10-03-2022		<	0.4		10	.4	L	22J0174

Analyte Number	Analyte Name	Sampling Date	Detected Level	Less Than	RL	Counting Error (+/-)	MCL	DLR	Unit	Lab
1040	NITRATE	10-06-2021	0.44		0.4		10	.4	MG/ L	21J0759
1040	NITRATE	12-02-2020	0.4100000		0.4		10	.4	MG/ L	1456700
1040	NITRATE	10-28-2019	0.5200000		0.4		10	.4	MG/ L	1456700
1040	NITRATE	10-02-2018	0.5600000		0.4		10	.4	MG/ L	1456700
1040	NITRATE	10-02-2017	0.6900000		0.4		10	.4	MG/ L	1456700
1041	NITRITE	12-14-2023		<	0.2		1	.4	MG/ L	23L2318-
1041	NITRITE	12-02-2020		<	0.4		1	.4	MG/ L	1456700
1041	NITRITE	10-02-2017		<	0.4		1	.4	MG/ L	1456700
1041	NITRITE	08-02-2013		<	400		1000	400	UG/ L	1456700
1045	SELENIUM	08-02-2013		<	5		50	5	UG/ L	1456700
1050	SILVER	08-02-2013		<	10		100	10	UG/ L	1456700
1052	SODIUM	08-02-2013	9.4000000						MG/ L	1456700
1074	ANTIMONY, TOTAL	08-02-2013		<	6		6	6	UG/ L	1456700
1075	BERYLLIUM, TOTAL	08-02-2013		<	1		4	1	UG/ L	1456700
1085	THALLIUM, TOTAL	08-02-2013		<	1		2	1	UG/ L	1456700
1915	HARDNESS, TOTAL (AS CACO3)	08-02-2013	35.0000000						MG/	1456700

Analyte Number	Analyte Name	Sampling Date	Detected Level	Less Than	RL	Counting Error (+/-)	MCL	DLR		Lab
									L	
1919	CALCIUM	08-02-2013	7.4000000						MG/ L	1456700
1925	PH	08-02-2013	6.6000000						рН	1456700
1927	ALKALINITY, TOTAL	08-02-2013	48.0000000						MG/ L	1456700
1928	ALKALINITY, BICARBONATE	08-02-2013	59.0000000						MG/ L	1456700
1929	ALKALINITY, CARBONATE	08-02-2013		<					MG/ L	1456700
2218	TRICHLOROFLUOROMETHANE	08-02-2013		<	5		150	5	UG/ L	1456700
2251	METHYL TERT-BUTYL ETHER	08-02-2013		<	3		13	3	UG/ L	1456700
2378	1,2,4-TRICHLOROBENZENE	08-02-2013		<	0.5		5	.5	UG/ L	1456700
2380	CIS-1,2-DICHLOROETHYLENE	08-02-2013		<	0.5		6	.5	UG/ L	1456700
2413	1,3-DICHLOROPROPENE	08-02-2013		<	0.5		.5	.5	UG/ L	1456700
2904	TRICHLOROTRIFLUOROETHANE	08-02-2013		<	10		1200	10	UG/ L	1456700
2955	XYLENES, TOTAL	08-02-2013		<	0.5		1750	0.5	UG/ L	1456700
2963	XYLENE, META AND PARA	08-02-2013		<	0.5			.5	UG/ L	1456700
2964	DICHLOROMETHANE	08-02-2013		<	0.5		5	.5	UG/ L	1456700
2968	O-DICHLOROBENZENE	08-02-2013		<	0.5		600	.5	UG/ L	1456700
2969	P-DICHLOROBENZENE	08-02-2013		<	0.5		5	.5	UG/ L	1456700
2976	VINYL CHLORIDE	08-02-2013		<	0.5		.5	.5	UG/ L	1456700
2977	1,1-DICHLOROETHYLENE	08-02-2013		<	0.5		6	.5	UG/	1456700

Analyte Number	Analyte Name	Sampling Date	Detected Level	Less Than	RL	Counting Error (+/-)	MCL	DLR		Lab
									L	
2978	1,1-DICHLOROETHANE	08-02-2013		<	0.5		5	.5	UG/ L	1456700
2979	TRANS-1,2- DICHLOROETHYLENE	08-02-2013		<	0.5		10	.5	UG/ L	1456700
2980	1,2-DICHLOROETHANE	08-02-2013		<	0.5		.5	.5	UG/ L	1456700
2981	1,1,1-TRICHLOROETHANE	08-02-2013		<	0.5		200	.5	UG/ L	1456700
2982	CARBON TETRACHLORIDE	08-02-2013		<	0.5		.5	.5	UG/ L	1456700
2983	1,2-DICHLOROPROPANE	08-02-2013		<	0.5		5	.5	UG/ L	1456700
2984	TRICHLOROETHYLENE	08-02-2013		<	0.5		5	.5	UG/ L	1456700
2985	1,1,2-TRICHLOROETHANE	08-02-2013		<	0.5		5	.5	UG/ L	1456700
2987	TETRACHLOROETHYLENE	08-02-2013		<	0.5		5	.5	UG/ L	1456700
2988	1,1,2,2-TETRACHLOROETHANE	08-02-2013		<	0.5		1	.5	UG/ L	1456700
2989	CHLOROBENZENE	08-02-2013		<	0.5		70	.5	UG/ L	1456700
2990	BENZENE	08-02-2013		<	0.5		1	.5	UG/ L	1456700
2991	TOLUENE	08-02-2013		<	0.5		150	.5	UG/ L	1456700
2992	ETHYLBENZENE	08-02-2013		<	0.5		300	.5	UG/ L	1456700
2996	STYRENE	08-02-2013		<	0.5		100	.5	UG/ L	1456700
2997	O-XYLENE	08-02-2013		<	0.5			.5	UG/ L	1456700
C255	NITRATE (AS NO3)	08-02-2013	3.3000000		2		45	2	MG/ L	1456700





Gounty	of Napa PC 20250820
	"E" Use Permit Major Modification Application Packet
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		Page 1 of		
	Partition of			
I FACILITY IDENT				
Agency Use Only)	FPA ID # (Hazardous Waste Only)			
USINESS NAME (Same as Facility Name of DBA-Doing Business As) Piazza [el Dotto	10		
USINESS SITE ADDRESS 7466 Hwy 29 USINESS SITE CITY Yountville		M CA ZIP CODE 94559 III		
ONTACT NAME Derrick Martin		108 PHONE 707-333-8120 III		
II. ACTIVITIES DEC				
NOTE: If you check YES to any part of this list, please subm Does your facility		Operator Identification page. uplete these pages of the UPCF		
Does your aiduty	II 1 es, piense con	inplete these pages of the OPCr		
L HAZARDOUS MATERIALS lave on site (for any purpose) at any one time, hazardous materials at or above 5 gallions for liquids, 500 pounds for solids, or 200 cubic feet for compressed ases (include liquids in ASTs and USTs); or the applicable Federal threshold uantity for an extremely hazardous substance specified in 40 CFR Part 355, appendix A or B; or handle radiological materials in quantities for which an mergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	□YES 🛛 NO .	HAZARDOUS MATERIALS INVENTORY - CHEMICAL DESCRIPTION		
 REGULATED SUBSTANCES Inve Regulated Substances stored onsite in quantities greater than the irreshold quantities established by the California Accidental Release revention Program (CalARP)? 	□YES 🖾 NO 👟	Coordinate with your local agency responsible for CalARP.		
. UNDERGROUND STORAGE TANKS (USTs)	UST FACILITY (formerly SWINGS)			
win or operate underground storage tanks? ABOVE GROUND PETROLEUM STORAGE	☐YES X NO 5	UST TANK (one page per tank) (Formerly Form II)		
win or operate ASTs above these thresholds: Store greater than 1,320 gallons of petroleum products (new or used) in aboveground tanks or containers.	TES X NO *	NO FORM REQUIRED TO CUPAS		
HAZARDOUS WASTE				
enerate hazardous waste?	□YES ☑ NO »	EPA ID NUMBER - provide at the top of this page		
ecycle more than 100 kg/month of excluded or exempted recyclable saterials (per HSC 25143.2)?	TYES X NO 10	RECYCLABLE MATERIALS REPORT		
reat hazardous waste on-site?	TYES X NO 11	ON-SITE HAZARDOUS WASTE TREATMENT - FACILITY ON-SITE HAZARDOUS WASTE TREATMENT - UNIT (1004 PROF) PET (1015)		
reatment subject to financial assurance requirements (for Permit by Rule and londitional Authorization)?	☐YES ☑ NO 12	CERTIFICATION OF FINANCIAL ASSURANCE		
onsolidate hazardous waste generated at a remote site?	□YES 🛛 NO 13	REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION		
leed to report the closure/removal of a tank that was classified AS azardous waste and cleaned on-site?	□YES X NO 34	HAZARDOUS WASTE TANK CLOSURE CERTIFICATION		
enerate in any single calendar month 1,000 kilograms (kg) (2,200 pounds) or sore of federal RCRA hazardous waste, or generate in any single calendar sonth, or accumulate at any time, 1 kg (2.2 pounds) of RCRA acute hazardous	□YES ⊠ NO 164	Obtain federal EPA ID Number, file Biennial Report (EPA Form 8700- 13A/B), and satisfy requirements for RCRA Large Quantity Generator.		
raste; or generate or accumulate at any time more than 100 kg (220 pounds) of pill cleanup materials contaminated with RCRA acute hazardous waste.		See CUPA for required forms.		

Page 17 of 22

REVISED 06/08/2015



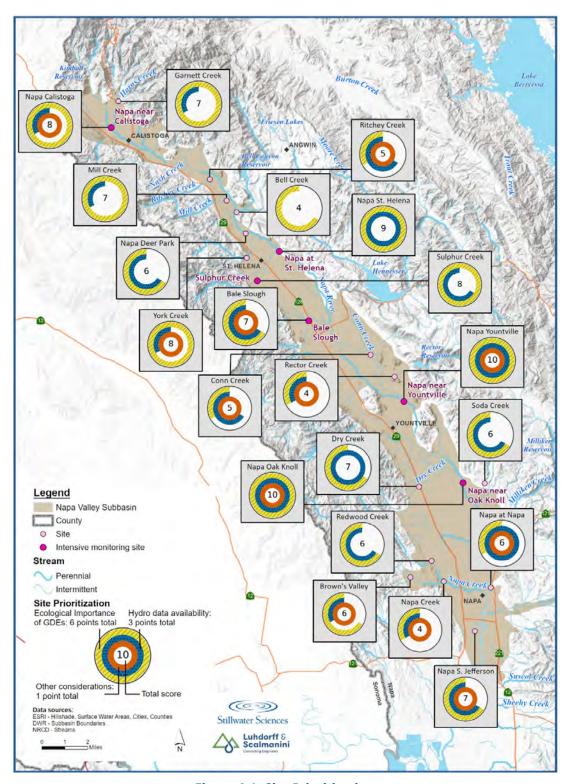


Figure 4-1. Site Prioritization



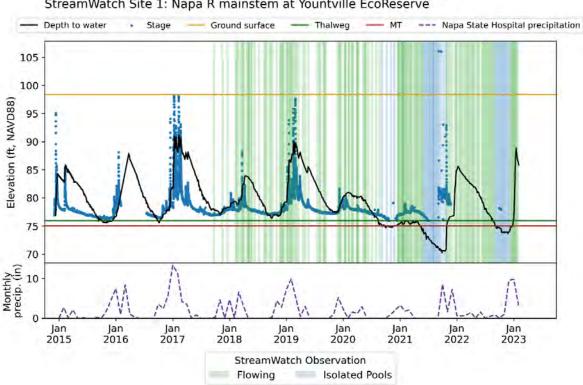


Cibo	CDE Tune		nary of Ecohydrologic Conceptual Models fo	<u> </u>	Known and likely stressors	Data gana	
Napa River at Calistoga	Riparian oaks along tributaries and Napa mainstem and some palustrine wetlands. GDE Type Surficial Landscape Features Upstream-most Napa River reach within the Subbasin. Springs and seeps create freshwater emergent marsh habitat.		Groundwater and ISW Dynamics Reach is generally connected with groundwater and baseflow is sustained throughout the year.	Ecological Targets Steelhead, Chinook salmon, California freshwater shrimp, northwestern pond turtle, Calistoga popcornflower.	Urbanization and channel simplification and incision. Tile drains may reduce groundwater elevation during dry season.	Data gaps Channel conditions. Long-term shallow groundwater monitoring. Habitat-flow linkages. Stream Watch (sit retired in 2022).	
Napa River at Pope St. (St. Helena)	Riparian oaks and willows.	Land cover is primarily urban. Reach is located near the eastern edge of the Subbasin at the downstream end of St. Helena.	Reach is frequently disconnected from groundwater.	Steelhead, Chinook salmon. Foothill yellow-legged frog presumed extant.	Urbanization and channel simplification and incision. Groundwater pumping contributes to stream depletion.	Channel conditions. Long- term shallow groundwater monitoring. Habitat-flow linkages.	
Bale Slough	Riparian oaks near Napa River confluence	Bale Slough is a historical wetland complex that drains to the Napa River from the west. The channel is currently incised. Restoration site: Bale Slough – Bear Creek Sediment Reduction and Habitat Enhancement	Intermittent reach, which may be connected to groundwater a few weeks per year during wet years. NVIHM indicates depth to groundwater between 10 and 15 feet in spring, which may not support a connection to groundwater.	Steelhead, chinook salmon, foothill yellow-legged frog.	Summer water temperatures warm enough to potentially stress steelhead. Channel simplification.	Long-term shallow groundwater monitoring. Habitat-flow linkages.	
Napa River near Yountville	Riparian oaks.	Land cover is primarily vineyards outside of the Ecological Reserve. The alluvial basin is constricted in this reach.	Groundwater levels indicate consistent to intermittent direct hydraulic connection. Stream Watch observations indicate that the isolated pools are maintained when groundwater levels drop below the thalweg.	Steelhead, Chinook salmon, northwestern pond turtle.	Historic channel simplification, but the reach is located in the OVOK restoration project. Groundwater pumping contributes to stream depletion.	Habitat-flow linkages.	
Napa River at Oak Knoll	Riparian oaks.	Land cover is primarily agricultural. The reach is near the eastern edge of the alluvial basin, which is constrained to the west by an alluvial fan associated with Dry Creek.	Groundwater levels indicate consistent to intermittent direct hydraulic connection and gaining stream conditions. Lake Hennesey and Rector Reservoir operations affect surface flow in this reach.	Steelhead and Chinook salmon.	Channel simplification. Groundwater pumping contributes to stream depletion.	Influence of Hennessey Dar on flows in this reach is uncertain.	
Napa River near First Street	No mapped terrestrial GDEs, but oaks occur upstream.	The Napa River is tidal and perennial in this reach. Reach is located within the Napa River Flood Control Project, which includes planted vegetation and setback levees.	Lake Hennesey and Rector Reservoir operations affect surface flow in this reach. Exchange between groundwater and surface water is unlikely based on fine sediment that make up the riverbed and electrical conductivity measurements. Tidal variation in surface water elevation is 5-7 feet.	Migration corridor for steelhead and Chinook salmon. Longfin smelt have been observed downstream.	Levee development. Urbanization. Channel simplification. Upstream dams. Groundwater pumping contributes to stream depletion.	Habitat-flow linkages. Use I fish other than salmonids not well known.	
St. Helena Area – Sulphur Creek	Riparian oaks and willows.	Sulphur Creek is a west-side tributary with a high sediment supply. Sulphur Creek has supported a consistently braided channel morphology near the Valley View Bridge but is incised near the Napa River confluence.	Sulphur Creek is intermittent, with flows in winter and spring. NVIHM indicates that Sulphur creek is typically disconnected from groundwater in this reach, except during wet winters.	Steelhead, chinook salmon, foothill yellow-legged frog.	Groundwater pumping has little effect on Sulphur Creek but contributes to depletion downstream (Napa River at Napa).	Long-term shallow groundwater monitoring. Habitat-flow linkages.	



Final Draft March 2024





NapaCounty-220s-swgw4 (depth = 45 ft, screened from 25 to 40 ft) StreamWatch Site 1: Napa R mainstem at Yountville EcoReserve

Figure 5-4. NapaCounty-220s-swgw4, groundwater levels and stage, observations from Stream Watch Site 1, monthly precipitation at Napa State Hospital, thalweg elevation near monitoring well, and the Minimum Threshold for monitoring well.

Groundwater pumping at this site has a small effect on flows in the winter and spring (10-15 cfs or less than 25 percent of the discharge). In summer, the difference between existing flows and flows without pumping has a lower magnitude (5-7 cfs) but reduces flows by a greater percentage (**Table 5-5**) than in the wet season. The modeling shows that in the absence of groundwater pumping, the minimum flow would be just over 4 cfs, while under existing conditions from 1988 through 2022, the channel has zero flow for nearly 30 percent of the low-flow season.



Table 5-5. Estimated Stream Depletion by Water Year Type (Napa River at Yountville)									
	Dry Years			Normal Years			Wet Years		
Month	Stream- flow (cfs) ¹	Stream Depletion (cfs) ²	Percent Stream Depletion	Stream- flow (cfs) ¹	Stream Depletion (cfs) ²	Percent Stream Depletion	Stream- flow (cfs) ¹	Stream Depletion (cfs) ²	Percent Stream Depletion
Jan	111.5	9.4	8%	236.8	12.4	5%	855.3	14.3	2%
Feb	228.2	10.5	5%	367.6	11.9	3%	936.4	13.0	1%
Mar	186.9	9.4	5%	273.8	10.2	4%	616.9	10.5	2%
Apr	72.6	7.8	11%	84.5	7.9	9%	304.0	7.2	2%
May	26.8	6.5	24%	28.1	6.8	24%	102.8	5.9	6%
Jun	8.9	6.1	68%	13.1	7.2	55%	33.5	6.1	18%
Jul	6.1	5.9	96%	9.3	7.7	82%	17.1	7.2	42%
Aug	4.4	4.3	98%	7.1	6.8	96%	12.8	8.4	66%
Sep	4.7	4.6	98%	8.2	7.6	93%	11.7	8.5	72%
Oct	20.3	8.0	40%	38.1	10.9	29%	42.9	11.4	27%
Nov	31.2	8.1	26%	73.4	12.7	17%	73.2	11.3	16%
Dec	68.5	10.9	16%	275.0	15.5	6%	396.2	13.9	4%

- 1. Streamflow is the simulated flow, from the NVIHM, when all irrigation pumping has been removed from the simulation, typically referred to as the 'No Pumping scenario'.
- 2. Stream depletion is calculated as the difference between all agricultural pumping removed (No Pumping) and the Baseline model scenario. The Baseline scenario includes agricultural pumping. Stream depletion occurs in winter months due to the time it takes for pumping effects to move through the hydrogeologic system.

Ecological Targets:

GDE vegetation is primarily Riparian valley oak. NDVI has generally been stable, with a drop in 2021 (followed by recovery). This reach is listed as critical habitat for steelhead and provides spawning and rearing habitat for steelhead and Chinook salmon (Napa County RCD, 2019). Northwestern pond turtles have been observed in the Napa River nearby and Conn Creek.

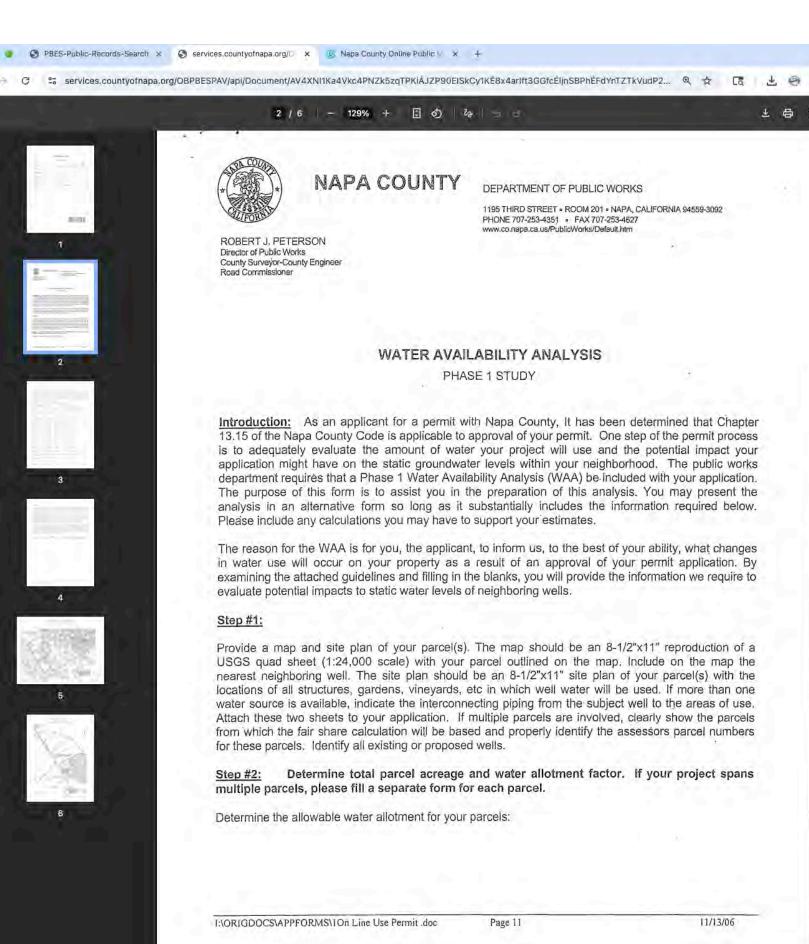
Known and Likely Stressors:

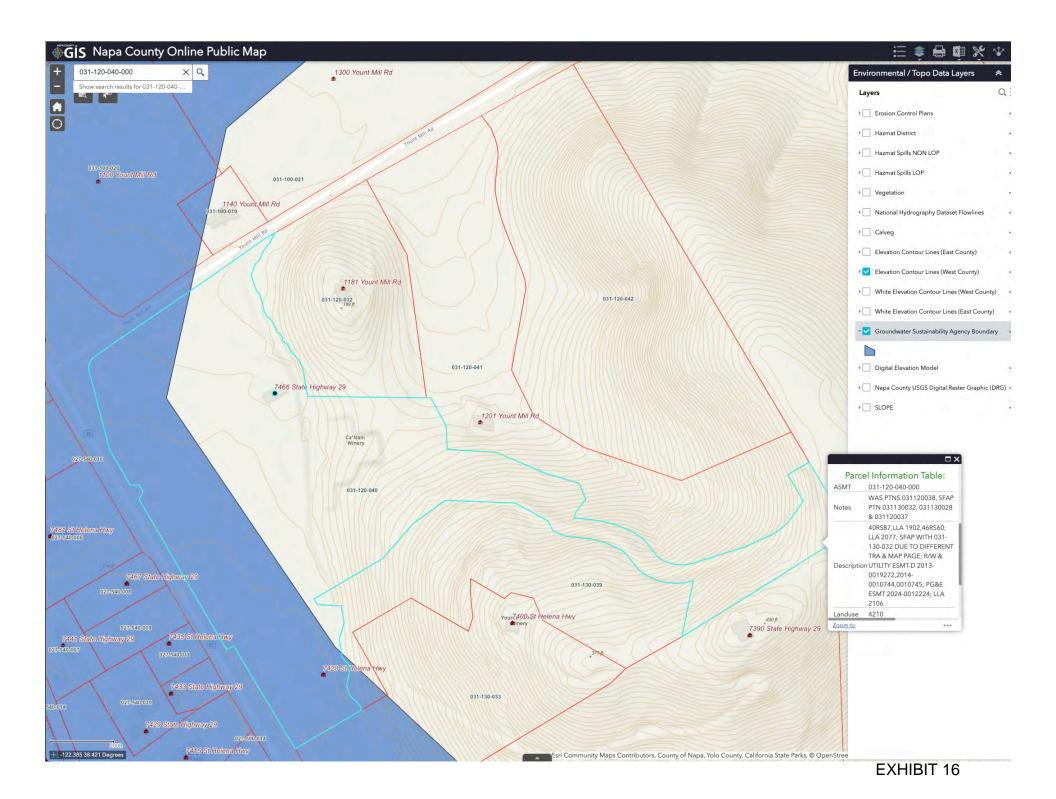
Groundwater pumping causes significant streamflow depletion during the summer (**Table 5-3**). Channel incision and simplification occurred historically, but the Oakville to Oak Knoll restoration project (completed 2021) includes restoration activities upstream and downstream of the Ecological Preserve.

Data Gaps:

Relationships between discharge and habitat for salmonids and other aquatic species have not been defined in this reach. Water quality, particularly temperature and dissolved oxygen levels in pools in the reach are unknown.









CONSULTING GROUNDWATER GEOLOGISTS

MEMORANDUM

August 10, 2024

To: Mr. Scott Greenwood-Meinert Coblentz Patch Duffy & Bass LLP One Montgomery Street, Suite 3000

San Francisco, CA 94104

Sent via email: sgreenwood-meinert@coblentzlaw.com

CC: Mr. Dane Hoime, P.E.

Bartelt Engineering

Sent via email: daneh@barteltengineering.com

From: Edward Linden & Anthony Hicke

Richard C. Slade & Associates LLC (RCS)

Re: Results of Groundwater Recharge Analysis for the

Castello Di Amorosa Winery

4045 St Helena Hwy, Napa County, CA 94515







Introduction

This Memorandum presents the results of a groundwater recharge analysis by RCS for the Castello Di Amorosa Winery property (the subject property), located at 4045 St Helena Hwy, in Napa County, California. This property consists of two contiguous parcels identified by Napa County Assessor's Parcel Numbers (APNs) 020-390-012 and 020-230-001, with a total assessed acreage of 108.9 acres, as reported in the May 30, 2024, version of the County's GIS parcel layer (Napa County, 2024b). Figure 1, "Regional Map," shows, superimposed on a topographic map of the area, the approximate boundaries of the subject property, the local groundwater basin (DWR, 2021), and the watersheds tributary to the Napa River (LSCE & MBK, 2013). Most of the subject property does not fall within any groundwater basins defined in DWR Bulletin 118 (2021), but 6% of the property is within the Napa Valley Subbasin of the Napa-Sonoma Valley Groundwater Basin (DWR, 2021). As shown on Figure 1, the entire property is within the Napa River at St. Helena Watershed that was defined by LSCE & MBK (2013). Note, that the entire Napa River at St. Helena (black boundary) is within the Napa River Watershed near Napa (orange boundary).

Groundwater Recharge Estimate

Napa County's guidelines for calculation of groundwater recharge for the purposes of WAAs in response to the Governor's Executive Order N-7-22 and historic drought periods in the State have been addressed in various published documents (Napa County, 2022a & 2024a). The County has mandated that such groundwater recharge estimates for projects outside of the Napa Valley Subbasin of the Napa-Sonoma Valley Groundwater Basin (DWR, 2021) be calculated on a parcel-specific basis, and that the calculation must consider "average rainfall" to be the average annual



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rainfall that has occurred during the 10 water year period of 2012 to 2021 defined in the County's 10-year average precipitation dataset (PBES & LSCE, 2022). Conversely, allowable groundwater extractions for properties within the Napa Valley Subbasin are to be calculated as 0.3 AFY of allowable groundwater extractions for each assessed acre of the subject property, according to current requirements (Napa County, 2015 & 2024a).

As described above, 6% of the 108.9-acre subject property is within the Napa Valley Subbasin, whereas the remaining 94% falls outside of the basin. Based on these spatial relationships between the subject property and the groundwater basin, two calculations were necessary to estimate an average annual groundwater recharge volume for the property: one for the portion of the subject property that is within the groundwater basin, and a separate parcel-specific groundwater recharge value for the portion of the property that is outside of the groundwater basin. The sum of these calculations represents the average annual volume of groundwater recharge at the subject property, calculated in accordance with current Napa County requirements (2015, 2022a & 2024a), and represents the allowable volume of groundwater extraction from the subject property.

Groundwater Recharge Estimate Within Groundwater Basin

Multiplication of the 6.53-acre portion (6%) of the subject property that falls within the groundwater basin by the 0.3 AFY/acre County-designated recharge factor results in an allowable groundwater extraction total of 2.0 AFY for the portion of the property within the groundwater basin.

<u>Parcel-Specific Precipitation (Outside of Groundwater Basin)</u>

Spatial analysis of the County's 10-year average rainfall data set (PBES & LSCE, 2022) determined that the area-weighted average rainfall for the 10-water-year period of 2012 to 2021 within the 102.37-acre portion (94%) of the subject property that is outside of the groundwater basin is 2.77 ft (33.24 inches). Multiplying this rainfall average by the 102.37-acre portion of the property outside of the groundwater basin results in a total of 283.6 AFY. This value is the average volume of rainfall calculated to fall each water year on the portion of the subject property that is outside of the groundwater basin, in accordance with the County's 10-year (Water Years 2012 to 2021) average methodology.

Parcel-Specific Groundwater Recharge (Outside of Groundwater Basin)

Groundwater recharge on a long-term average annual basis on the portion of the subject property that is outside of the groundwater basin can be estimated as a percentage of the average rainfall that falls on this portion of the property and undergoes deep percolation, ultimately becoming groundwater within the underlying aquifer system(s). The actual percentage of rainfall that undergoes deep percolation is a function of numerous local and regional conditions, including ground surface slopes; soil types; ground cover; evapotranspiration; and the frequency, intensity, and duration of rainfall, among other possible factors.

^a Here, a water year is defined as beginning on October 1 and ending on September 30 of the following year (e.g., water year 2021 begins on October 1, 2020, and ends on September 30, 2021).

^b A "prolonged drought analysis" is no longer required for WAA preparation due to the required use of the 10-year annual rainfall average or the unit groundwater use of 0.3 AFY/ac (Napa County, 2022b).

^c AFY = acre-feet per year; 1 acre-foot = 325,851 gallons

Results of Groundwater Recharge Analysis for the Castello Di Amorosa Winery 4045 St Helena Hwy, Napa County, CA 94515

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Estimates of groundwater recharge as a percentage of rainfall were presented for several watersheds that are tributary to the Napa River in LSCE & MBK (2013). A local subset of those same watershed boundaries is depicted on Figure 1 of this Memorandum. The local subwatershed that contains the subject property is referred to by LSCE & MBK (2013) as the "Napa River Watershed at St. Helena". As noted above, the Napa River Watershed at St. Helena is entirely contained by the Napa River Watershed near Napa. On Table 8-10 of LSCE & MBK (2013), referred to thereon as "Recharge (% of Precip.)", the deep percolation rate for the Napa River Watershed near Napa is 17%, whereas the deep percolation rate for the Napa River Watershed at St. Helena is 14%. To present a more conservative analysis for the purposes of this Memorandum, the lower deep percolation rate of 14% for the Napa River Watershed at St. Helena was selected, as it represents the portion of the larger watershed in which the subject property is located.

Multiplication of the 14% groundwater recharge rate in LSCE & MBK (2013) with the average volume of rainfall that falls on the portion of the subject property outside of the groundwater basin each water year (283.6 AFY) results in a parcel-specific average groundwater recharge rate of 39.7 AFY for that portion of the property, by the County's current 10-year precipitation average methodology. However, this value still does not consider the possible effect that ground surface slopes might impart on the rate of groundwater recharge.

Effect of Slope on Groundwater Recharge Potential (Outside of Groundwater Basin)

Any estimate of the percentage of rainfall entering an aquifer system via deep percolation that is reliant upon on estimates of rainfall, evapotranspiration, and surface water outflow over an entire watershed, such as the estimates provided by LSCE & MBK (2013), inherently includes the effects of ground surface slope. To provide a more site-specific estimate of the potential effects of ground slope on groundwater recharge over the portion of the subject property that is outside of the groundwater basin, an analysis of ground surface slope has been included in this Memorandum.

Many basic geologic references assume that recharge potential is reduced on steeper slopes because steeper slopes tend to increase surface water runoff rates and less time is therefore available for rainfall to percolate (infiltrate) into the ground before running off as surface flow. Page 56 of LSCE & MBK (2013) asserts that deep percolation recharge from rainfall is "significantly reduced" for land areas with slopes angles (inclinations) >30°. On page 11 of LSCE & MBK (2013), an assessment of slope angles >30° is also mentioned, and this was attributed to a prior LSCE report, namely "LSCE 2011" therein; that document is likely to be the reference listed as "2011a" on page 134 of LSCE & MBK (2013). LSCE (2011) states on page 29 that "areas in which the slope of the land surface exceeds 30 degrees, beyond which recharge potential is significantly reduced". No other references or data are presented in any of the above-referenced documents to quantify the qualitative description of "significantly reduced". Because the various factors that affect groundwater recharge are likely interrelated (Yeh et al., 2009), assigning a value to define the amount that recharge is diminished as a function of slope is extremely difficult. No references were reviewed by RCS that quantify the possible reduction of deep percolation that might occur as a function of ground surface slope angle.

The watershed-wide estimates of the deep percolation rate of rainfall for the Napa River Watershed at St. Helena were based on water balance calculations that considered rainfall throughout the entire watershed (LSCE & MBK, 2013), which inherently include all slopes within the watershed, including those >30°. For the purposes of this Memorandum, and to provide a



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more conservative and site-specific estimate of groundwater recharge for the subject property outside of the groundwater basin, it has been assumed that deep percolation at the subject property does not occur on areas with slopes >30°, and that rainfall on the areas with slopes >30° would leave the property through some other process (e.g., surface runoff, evapotranspiration, etc.).

Spatial analysis of a U.S. Geological Survey (USGS) digital elevation model (2020) determined that 97% (99.30 acres) of the ground surface of the subject property outside of the groundwater basin is sloped at ≤30°, with the remaining 3% (3.07 acres) sloped >30°. Therefore, based on the preceding discussion of deep percolation rate as a function of ground surface slope, groundwater recharge over the portion of the subject property outside of the groundwater basin was removed from these calculations to account for the steeply sloped portions of the property; again, this conservatively assumes that no groundwater recharge occurs on the more steeply sloped portions of the property that are outside of the groundwater basin.

Recalculation of the area-weighted average rainfall only over the areas of the subject property that are both outside the groundwater basin and sloped at ≤30° results in nearly the same average annual rainfall of 2.77 ft (33.25 inches). Multiplication of this rainfall depth over the same areas of the subject property that are both outside the groundwater basin and sloped at ≤30° (99.30 acres) results in a groundwater recharge rate of 38.5 AFY, which represents the volume of groundwater recharge that is assumed to occur over the portion of the subject property that is outside of the groundwater basin.

Site-Wide Estimated Groundwater Recharge

Based on the calculations presented above, the total annual average groundwater recharge at the subject property can be calculated as the sum of the groundwater recharge on the portion of the subject property within the groundwater basin (2.0 AFY) and the groundwater recharge on the portion of the subject property outside of the groundwater basin (38.5 AFY). This total, 40.5 AFY, is therefore the volume of groundwater that can be extracted annually from the subject property for any new or modified water uses, according to the County's current WAA requirements (2015, 2022a, & 2024a).

Closure/Disclaimer

This Memorandum regarding RCS's estimate of average annual groundwater recharge at the Castello Di Amorosa Winery at 4045 St Helena Hwy, in Napa County, CA has been prepared for Mr. Scott Greenwood-Meinert and applies only to the evaluation of the subject property for the requirements discussed herein. This Memorandum has been prepared in accordance with the care and skill generally exercised by reputable professionals, under similar circumstances, and in this or similar localities. No other warranty, either express or implied, is made to the conclusions or professional advice presented herein.



MEMORANDUM

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EXTENT OF CALIFORNIA'S PERENNIAL AND NON-PERENNIAL STREAMS

California's Water Boards are responsible for protecting, enhancing, and restoring water quality in a large network of perennial and non-perennial' streams under the authority of the Clean Water Act and Porter-Cologne Water Quality Control Act. Most of the Water Board's resources are devoted to perennial streams because they tend to have many beneficial uses and pollution problems tend to accumulate downstream. However, non-perennial streams make up the majority of California's stream network, are an important interface between land-use activities and downstream impacts, and support a wide variety of aquatic life uses.

The distribution of perennial and non-perennial streams in different regions of the State has direct bearing on several of the State Water Board's current priority initiatives (e.g., biological objectives for perennial streams and rivers, and the Wetland and Riparian Area Protection Policy). However, currently best-available stream maps are replete with inaccuracies about the extent and classification of perennial and non-perennial streams. For example, a recent field study in Southern California demonstrated that the flow status of greater than 50% of streams was misclassified.

The Surface Water Ambient Monitoring Program's (SWAMP) Perennial Streams Assessment (PSA) gives us the ability to assess the magnitude of resource mis-classification in different regions of California. This Management Memo summarizes key findings on the extent of perennial and non-perennial streams and highlights the need for more refined base maps to define the extent of the water resources protected by State and Federal regulations.

OBJECTIVE

The objective of this memo is to inform management about the extent of California's perennial and non-perennial streams and implications for the management of these aquatic resources.







1. Non-perennial streams include both intermittent and ephemeral streams.

October 2011

Description of Resources

The total length of California's streams is approximately 284,000 km (Figure 1), according to the National Hydrography Dataset (NHD and its EPA derivative, NHD+). This includes the major and minor rivers, streams, and creeks that flow year-round (perennial) and those that have flow for only a portion of the year (non-perennial). The NHD classifies 206,000 km (73%) of California's stream network as non-perennial.



Figure 1. Network of California's streams resources. California streams comprise 284,000 km. Based on the National Hydrography Dataset (NHD), both perennial and non-perennial streams are shown here in blue.

Perennial Streams Assessment (PSA) field reconnaissance conducted over the last eight years provides a quantitative estimate of the error rate associated with the NHD mapping in different regions of the State. Based on reconnaissance of over 1000 sites, approximately 66% of the State's stream network is non-perennial, which is roughly similar to the

proportion in NHD (Figure 2). However, regional proportions often were quite different from NHD.

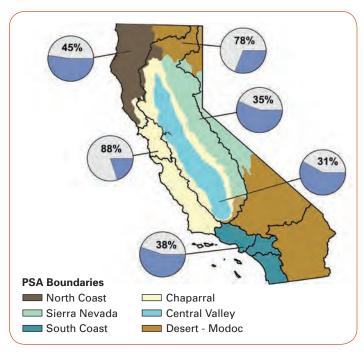


Figure 2. Non-perennial Stream Resources In California. Pie charts show the percent of non-perennial streams (gray), relative to the amount of perennial streams (blue) in each PSA Region. Color overlays delineate the six PSA Regions. Black lines correspond to Regional Water Board boundaries.

Under the PSA, California is divided into six large biogeographic areas (referred to hereafter as PSA regions):
a) the North Coast; b) the Chaparral along the Central Coast and foothills of the Central Valley; c) the Sierra Nevada;
d) the Central Valley floor; e) Southern California Coastal watersheds; and f) the Desert-Modoc, which combines the Modoc Plateau and southern Desert areas. Figure 2 presents the percent of perennial streams in each PSA region.

Most of the State's perennial streams (app. 65%) occur in the North Coast and Sierra Nevada PSA regions (Figure 3). Non-perennial streams represent nearly all of the stream network in more arid regions and most of the headwater streams in the more mountainous regions of the State. One key finding is that arid regions in the State, such as the South Coast and Central Valley PSA regions, had a higher proportion of perennial stream length than anticipated from the NHD. This finding reflects the conversion of many non-perennial streams to perennial streams through flow augmentation from urban runoff and the loss of hydrological complexity due to urban and agricultural development. In the Central Valley, flows from agricultural irrigation have resulted in the conversion of non-perennial streams to non-wadeable perennial rivers.

Implications

The large proportion of non-perennial stream length across all regions has significant implications for water quality and aquatic life in California's streams and rivers. Although these ecosystems are non-perennial, they often support rich biotic communities both in the stream channels and in the surrounding riparian zones. In addition, these streams collectively drain large areas of land, which can result in concentrated seasonal impacts from point and nonpoint pollution sources to the downstream perennial flows. During rain events, these non-perennial streams form a conduit for transport of pollutants from the landscape. Development in watersheds may also increase flow to non-perennial streams during both dry and wet periods. Such changes in hydrology can have major impacts on physical habitat, biota, and water quality within those streams, as well as downstream, thereby compromising many beneficial uses in both non-perennial and perennial streams. This is especially true in arid regions of the State (e.g., Chaparral, South Coast, and Desert-Modoc PSA Regions).

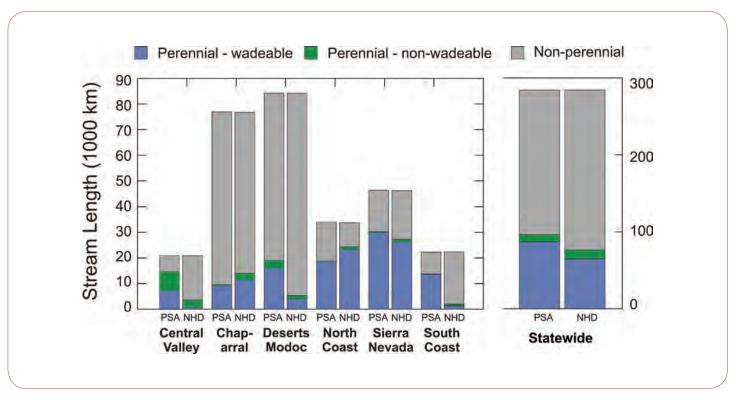


Figure 3. The length and relative proportion of perennial wadeable, perennial non-wadeable and non-perennial streams, in each of the six major Perennial Streams Assessment (PSA) regions. The first bar in each pair represents estimates generated from PSA (this study) and the other bar represents data derived from National Hydrology Database (NHD+). The heights of PSA bars were rescaled to match NHD totals for easier comparisons of flow classes.

Despite the fact that non-perennial steams often comprise the majority of stream length in California's PSA regions, and fall under the jurisdiction of the Water Boards, very few of California's monitoring resources are invested in their assessment. Non-perennial streams are strong candidates for increased monitoring and subsequent assessment and protection. Fortunately, several new State Water Board initiatives are beginning to build the State's capacity to monitor and protect these streams (e.g., Wetlands and Riparian Area Protection Policy and SWAMP's PSA which uses algal and benthic invertebrate bioassessment tools).



Recommendations for Management

• The Healthy Streams Partnership being led by SWAMP for the California Water Quality Monitoring Council should form the framework for a coordinated statewide approach to assessing and protecting all the stream resources of the State including non-perennial streams. Better tools are needed to monitor and assess the condition of non-perennial streams, especially now that the State is increasing its use of biological condition indicators. The SWAMP currently does not have the resources to address non-perennial streams. Coordination with the Wetlands and Riparian Area Protection Policy and the California Wetland Monitoring Workgroup's Wetland and Riparian Area Monitoring Program will be essential to this goal.



- The California Water Quality Monitoring Council should provide a forum for coordinating GIS stewardship activities statewide to improve the accuracy of perennial and non-perennial flow status designations in GIS layers of California's stream network. Accurate base maps are essential to the protection of the State's aquatic resources. Inconsistencies between map and field observations highlighted in this memo underscore the need for local stewardship to update base maps, specifically with respect to flow status. This should be well coordinated with the California Wetland Monitoring Workgroup's Wetland and Riparian Area Monitoring Program and their effort to develop a standardized base map of California's wetlands and aquatic resources, which will be maintained by the California Department of Fish and Game.
- The State Water Board should encourage evaluation of watershed-wide development on the overall stream network. Development in upstream non-perennial streams can have significant impacts in downstream perennial streams. This is consistent with the requirements of the recent Clean Water Act Section 404 compensatory mitigation rule which calls for using a watershed approach to make regulatory decisions affecting aquatic resources. The State Water Board's Wetlands and Riparian Area Protection Policy should be used to support these evaluations.

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• The State Water Board should strengthen the protection of non-perennial streams through the Wetlands and Riparian Area Protection Policy by defining beneficial uses related to riparian area water quality functions (e.g. shading). While non-perennial streams are protected under Porter Cologne, the level of protection provided to these streams under Clean Water Act authority may vary.

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