







napa valley vintners



WINEGROWERS  
*of napa county*

January 2, 2015

VIA EMAIL: [STEVEN.LEDERER@COUNTYOFNAPA.ORG](mailto:STEVEN.LEDERER@COUNTYOFNAPA.ORG)

Mr. Steve Lederer  
Director, Napa County Department of Public Works  
County Administration Building  
1195 Third Street, Suite 101  
Napa, CA 94559

**Re: Water Availability Analysis Comments**

Dear Mr. Lederer:

The Napa Valley Vintners and the Winegrowers of Napa County thank you for allowing us to comment on Napa County's revised Water Availability Analysis (WAA). We support Napa County's proactive approach to watershed management. The County has been monitoring groundwater since the mid-1900s, commissioned studies on effective groundwater management and hydrogeology, and created a Groundwater Advisory Committee (GRAC) in 2011 to study groundwater levels and quality. The timely changes to the WAA appear to support the County's long-term solutions and GRAC recommendations. We are supportive of the changes, taking into account the following comments:

- **Introduction and Purpose:** It is our understanding that the WAA is to be conducted as part of not only the discretionary groundwater permit application review process pursuant to the Groundwater Conservation Ordinance, but also other discretionary permits issued by the County, some of which are exempt from the Groundwater Conservation Ordinance, such as, use permits and erosion control plans. Please clarify this in the first paragraph of the Introduction and Purpose section.
- **WAA Procedures:** The WAA requires the analysis of groundwater/surface water interaction if substantial evidence, in the record, indicated a potentially significant impact may occur as a result of the project. We request that the WAA define "substantial evidence" consistent with the California Environmental Quality Act (CEQA) Guidelines section 15384.
- **Tier 2 - Well Interference Criteria:** Please clarify whether neighboring wells include those wells owned by the applicant. Example, if an applicant owns two contiguous parcels each with its own individual well and they are within 500 feet of each other, will the applicant be subject to the Tier 2 Well Interference Criteria even if they control both wells? It appears reasonable not to require the Tier 2 analysis and provide a similar option found in Appendix E requiring that a form be recorded to notify subsequent buyers of any potential impacts.
- **Tier 3 - Groundwater/Surface Water Interaction Criteria:** Please review the basis for utilizing the same distance criteria for wells regardless of the project parcel location (Napa Valley Floor, MST Groundwater Deficient Area, and All Other Areas).

Acceptable distances from surface water should attempt to take into consideration the project parcel location. For example 1,500 feet may be appropriate on the Napa Valley Floor but it could be excessive in All Other Areas and therefore, unnecessarily require applicants to incur the costs of conducting the Tier 3 analysis.

- Tier 2 and Tier 3 distance measurement methodology: Please clarify how distance will be calculated for determining whether a well is within 500 feet of neighboring wells or 500, 1,000, or 1,500 feet from surface waters. For example, will they be measured using horizontal or vertical distance?
- Season Variation Considerations: In both the Tier 2 and Tier 3 criteria the WAA mentions that season variations (wet versus dry seasons) should be accounted for or have been incorporated into the methodology. It seems reasonable to account for potential dry season impacts on both neighboring wells and surface waters; however, we ask that the WAA not impose "worst case" pumping restriction but ones that provide flexibility to account for both wet and dry season conditions.
- Tier 3 Well Construction Criteria: Tables 3, 4, and 5 include standards for depth of uppermost perforations. Please clarify whether these standards will be applied to all new wells or just those subject to Tier 3 criteria. How does the County propose to address projects subject to the Tier 3 criteria proposing to utilize existing wells that do not meet the well construction criteria listed in these tables?
- Appendix E: Determining water use numbers with multiple parcels: Please clarify whether the total water allotment calculations can include multiple parcels that are noncontiguous, subject to the requirements discussed in Appendix E.
- Appendix F: Water Availability Analysis Tier 2 and 3 Screening Criteria and Additional Analysis: Consistent with the WAA Table 1, footnote 1 and the first sentence of the Tier 3 Groundwater/Surface Water Interaction Criteria section, please add the following: "Tier [insert "2" or "3" as applicable] analysis is only conducted when substantial evidence in the record indicates a potentially significant impact may occur as a result of the project."
- Appendix F, Figures F-1 and F-2: Each of these WAA Additional Analysis Decision Trees uses the undefined term "aquifer unit". Please include a definition of this term or replace with a more commonly understood term, such as, "hydraulically connected".

We recognize that maintaining a healthy functioning watershed is essential to protecting agriculture and our livelihood and look forward to continuing to work with the County on developing solutions.

Respectfully submitted,



Russ Weis  
Board Chairman  
Napa Valley Vintners



Tony LeBlanc  
Board President  
Winegrowers of Napa County

**From:** linda mcglochlin [mailto:lmcglochlin@rwarchitect.net]  
**Sent:** Monday, January 05, 2015 1:58 AM  
**To:** Lowe, Rone Patrick  
**Cc:** selles@napafarmbureau.org  
**Subject:** Review of Draft Napa County Water Availability Analysis - Working Draft

Patrick,

It was a pleasure meeting you at the October 2014 Farm Bureau Natural Resources Committee meeting. Shortly after that Farm Bureau meeting, I departed for Europe on vacation and did not return to the US until mid November. Consequently, I missed the November 5, 2014 Water Availability Analysis (WAA) Workshop Update. I had hoped my work schedule would allow me to get you these comments before I departed and before your workshop, which did not happen, thus I hope my comments are not too late for your consideration.

As I had mentioned to you before, I am a California Licensed Professional Geologist and Certified Hydrogeologist with 30 years of professional experience working on primarily groundwater projects. I have been growing grapes in the Carneros region since 2001 and I am an active member of the Napa County Farm Bureau. My comments are not being transmitted as a contracted consultant to the Farm Bureau, but rather as a concerned Napa County resident with insight into groundwater conditions in portions of the Napa-Sonoma Sub-basin. Additionally, my professional experience as a hydrogeologist provides me with insight into complexities and indirect costs that frequently occur during implementation of groundwater availability investigations. I appreciate the effort that Napa County has expended in developing the Draft WAA and appreciate the difficulties the County will face finalizing the WAA into a guidance that reasonably addresses future groundwater permit applications. With that said, my first pass comments on the Draft WAA are as follows:

#### General Comments

- 1) Project Parcel Location/Zoning and Water Use Criteria. This Agricultural Watershed "AW" zoning designation occurs throughout the rural portions of Napa Valley and allows for a primary dwelling, secondary dwelling, and guest cottage, as well as agricultural uses (e.g. vineyards). Under the draft document, there will be a requirement for a WAA for these allowed residential structures as well as agricultural uses where development is proposed in "All Other Areas" outside of the valley floor and the MST. In my opinion, residential uses (primary dwelling, secondary dwelling, and guest cottage) and agricultural uses (e.g. vineyards), unless required by CEQA, should be exempt from groundwater permitting requirements (and associated groundwater availability analysis). The WAA requirement should only be a requirement for large projects in "All Other Areas" (e.g. commercial projects, projects that require conditional use permits, projects that are subject to CEQA evaluations). It seems as if the WAA in its current form requires a land owner in "All Other Areas" to prove they have adequate groundwater even if groundwater may be plentiful. This seems to make sense for a large scale residential development or commercial development, but I question whether it makes sense for residential or agricultural development that are currently exempt from CEQA or conditional use permits.
- 2) Residential Development Cost Increase for projects outside of valley floor. The state of California's recent requirement for increased groundwater oversight by a local agencies should be focused on the primary groundwater basins and not the sub-basins as defined by the

Department of Water Resources. Yet upon my review of the Draft WAA, the restrictive focus and strict evaluation methods are focused on parcels outside of the valley floor. In other words, the cost of residential development in Napa County, unless in the valley floor, will increase significantly due to the requirement of qualified consultant (professional geologist or professional civil engineer) to prepare a WAAs. Is this warranted and consistent with the state of California mandate for groundwater oversight only in high water use areas (e.g. the valley floor) and does it put too great of a cost burden on single families who wish to construct residences and ancillary structures? In other words, should not this rigorous groundwater evaluation process be relegated to large scale development projects in Napa County (e.g. wineries and large scale vineyard development)?

- 3) Cost of WAA. Having worked in private consulting for many years, I am very familiar with the costs of consultants who are proficient in groundwater analysis. Professional civil engineers and professional geologists, who are the only professionals that the state of California allowed to conduct these analyses, are relatively expensive not including the capital cost costs of test wells, associated infrastructure, and temporary easements that may be required as part of the field investigation. Are these costs too great a burden on CEQA exempt residential projects and vineyards?

#### Specific Comments Regarding Appendix F

- 1) Professional Certification. A groundwater availability analysis with the many technical requirements identified in Appendix F would be considered by the State of California a document or report that makes interpretations and derives conclusions from hydrogeological data. For this reason, all WAAs must be signed by a qualified geologist, registered in the State of California, or a professional civil engineer. This is required by California State Law – Business and Professions Code (Geologists and Geophysicists Act, Section 6735 and Professional Engineers Act, Section 6735). This should be clearly stated in Appendix F. Accordingly, a signature sheet displaying professional certification should be provided to the County of Napa with each WAA.
- 2) Well Interference Evaluation (Tier 2).
  - a. The well interference evaluation should also address the location of the pumping well relative to impermeable boundaries such as earthquake faults. If an earthquake fault (a potential vertical impermeable boundary) is in the near vicinity of the pumping well, the drawdown in the pumping well will further decline when the cone of depression intercepts the impermeable boundary. The WAA should address whether this increased drawdown from fault interception will adversely impact nearby wells.
  - b. The well interception evaluation should also address whether neighboring wells are screened in the same aquifer unit as the pumping well. Notably, wells can be very close together (laterally) if the units are screened in and pumping from different confined aquifers. Therefore, confined aquifers and the presence of aquicludes that separate wells screened in different aquifer units, need to be identified as site-specific information for consideration.
- 3) Tables 3, 4, and 5 - Well Distance Standards and Construction Criteria.
  - a. These tables are troubling from the standpoint that the County is dictating well design criteria instead of the licensed groundwater professional. For example, in portions of the lower Carneros region (Napa Sonoma Subbasin), the aquifer is confined by 55 feet of

clay creating artesian conditions. However, groundwater in this region that is deeper than 120 feet below ground surface frequently has high concentrations of boron that is detrimental to vineyards. In this situation, pumping wells do not adversely impact Carneros Creek because of the confining clay unit, but care must be taken not to design the well with perforations at depths greater than 120 feet. This is in conflict with Tables 3, 4 and 5. These tables should not apply to wells screened in confined aquifers that are not in hydraulic connection to surface water bodies.

- b. Appendix F should also address the potential adverse impacts of saltwater intrusion that could occur due to a well's proximity to a brackish or saline water body. The WAA should address the potential adverse impact to groundwater quality in neighboring wells if saltwater intrusion from the proposed well degrades groundwater quality in the aquifer unit.
- 4) Data Needs for Additional Analysis. The best way to estimate the configuration and lateral extent of a cone of depression of a pumping well is from a pumping test of at least 24 hours. Calculations of drawdowns can be problematic in that there are many assumptions in these calculations. Typical heterogeneities in aquifers can add orders of magnitude discrepancies to these calculated drawdowns versus real world measured drawdowns. That said, conducting 24 hour or more pump test can be very problematic and costly for land owners with existing wells because:
- a. Wells are often located near a property line so they are the least distance from electrical utilities. This proximity to a property line is challenging in that it may not allow for construction of observation wells on the same parcel without removal of vineyards. Where observation wells cannot be constructed on the same parcel as the existing pumping well, neighboring property owners may not grant access agreements for observation wells.
  - b. Disposal of pumped water during a high capacity pump test may also be difficult in terms of the cost for rental of temporary piping to convey the water to a suitable drainage or rental of a storage tank.
- 5) Qualified County Staff to Evaluate WAAs. The draft WAA document is a highly technical document. I believe most hydrogeologists and civil engineers with expertise in groundwater will understand the goals that the County is trying to achieve in terms of groundwater management and understand the equations, calculations, assumptions, etc. However for the average vineyard owner, this document is very complicated and will require them to hire a licensed professional with expertise in groundwater at considerable expense. Will the County also have qualified licensed geologists and civil engineers on staff to evaluate these WAAs and make decisions on whether WAAs are required on a case by case basis?

Sincerely

Linda M. McGlochlin Wolff PG, CHG  
3008 Cuttings Wharf Road  
Napa, CA 94559

707-322-3058







MEMORANDUM

January 6, 2015

To: Steven Lederer  
Patrick Lowe  
Napa County Department of Public Works  
Sent via email ([Steven.Lederer@countyofnapa.org](mailto:Steven.Lederer@countyofnapa.org); [patrick.lowe@countyofnapa.org](mailto:patrick.lowe@countyofnapa.org))

From: Anthony Hicke and Richard Slade  
Consulting Groundwater Geologists

Re: Preliminary Comments on the Working Draft of the  
Proposed "Water Availability Analysis (WAA) – Policy Report"  
Fall 2014 Update, prepared by  
Napa County Department of Public Works

Per our previous telephone conversations and emails with you, we appreciate the opportunity to provide our preliminary comments on the proposed changes to Napa County's WAA. As you are aware, our firm has been very active in groundwater projects and water wells in Napa County since 1983, and we have prepared hydrogeological studies over the years for a number of high profile clients and projects throughout the County. We currently have a number of active projects within the non-valley floor and non-MST areas of the County (referred to as "all other areas" in the WAA document) that have the potential to be affected by the pending changes to the WAA.

We appreciate the work of the County and their consultants on proposing the changes to the WAA and developing the subject Working Draft. Clarity regarding the required content of hydrogeologic studies prepared for the County for future projects will be helpful.

It appears that the proposed changes to the WAA will most greatly affect projects located within the non-valley floor and non-MST areas of the County. Below are some specific comments/questions related to the application of the proposed WAA requirements in the non-valley floor, non-MST areas; our following comments/questions are presented in no particular order:

- Tier 1 requires that the applicant or hydrogeologic consultant calculates the average annual groundwater recharge at the subject property; this calculation would obviously have to rely on available long-term average rainfall data for the subject parcel. Many sources for rainfall data exist, including: private raingages used by vineyard managers; raingages available on the Napa One Rain website; raingages from the California Department of Water Resources (DWR); isohyetal data available from the Napa county GIS website; and spatially gridded data from the PRISM Climate Group at Oregon State University. Some of these data sources are relatively short-term data (i.e., include only 10 years or so of rainfall data) but include recent data, while others have a more robust long-term data set, but may not include



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recent data (such as the PRISM data set). Will the County have a preferred data source for rainfall data when calculating average annual rainfall, or will the selection of the appropriate data source be left to the discretion of the applicant/hydrogeologist?

- When calculating average annual groundwater recharge for a specific parcel, the geology of the parcel becomes very important, as is discussed in the WAA document on page 8. As an example, deep percolation of direct rainfall onto the rocks of the Sonoma Volcanics is likely much higher than direct rainfall recharge on Franciscan Formation or Great Valley sequence rocks. The preferred method for calculating the deep percolation of rainfall for a certain area or property would assumedly be to rely on a watershed-level water balance, by comparing numerous years of rainfall within the watershed to stream discharges and estimates of evapotranspiration. However, the requisite streamflow data and evapotranspiration data necessary for those calculations do not exist for most watersheds in the County. Hence, for many properties within the "all other areas" designation, estimates of the percentage of rainfall that might be able to deep percolate into the aquifer will be required. RCS has long-provided such estimates as part of its work for properties within the County. Will there be a preferred data source for such percentage estimates for specific geologic materials, or will such work be left to the discretion of the hydrogeologist?
- Tier 2 requires water well drawdown interference calculations for project wells within 500 ft of offsite non-project wells. In the last paragraph on Page 8, the statement is made "The minimum significant drawdown values presented in Table 2B are intended for use in cases where information about existing non-project wells is limited or non-existent." Therefore, if a neighboring, non-project well owner decides to not release confidential well construction information to the project applicant or the applicant's consultant, then will the applicant be held to the Table 2B "Significant Drawdown Values?" Are there any legal means by which the County can require release of well data for neighboring wells from the County records? Alternatively, in Sonoma County, as an example, the Sonoma County employees will sign the DWR's "WELL COMPLETION REPORT RELEASE AGREEMENT—AGENCY STUDY" form, so that consultants working in the area can obtain non-project well data to help determine possible offsite well impacts. Perhaps Napa County can explore authorization of such DWR data releases as well, in cases where Tier 2 analysis is required and release of neighboring well data cannot be obtained by other means.
- As discussed in the footnote on the bottom of Page 8, we agree with the assertion that pumping data derived from Constant Rate pumping tests is much more useful than information reported on the driller's log for the well.
- For Tier 3 analyses, distance standards and well construction assumptions are listed in Tables 3, 4 and 5 in the text. In the description of each of the Tables on pages 10 and 11 of the text, reference is made to wells "constructed in unconsolidated deposits in the upper part of the aquifer system (unconfined aquifer conditions)". For many wells within the non-valley floor and non-MST areas of the county, wells are constructed into fractured volcanic rock, and fractured, well consolidated sedimentary rocks, and not unconsolidated, alluvial-type deposits. We therefore infer that the criteria included in Tables 3, 4 and 5 apply only to wells in "all other areas" of the County that are constructed into alluvial deposits. If this



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inference is correct, are there any specific screening criteria or setback-distance criteria for wells constructed into fractured rock aquifers? As an example, would analysis for groundwater/surface water interaction be required for a project well constructed solely into rocks of the Sonoma Volcanics (and not into an unconsolidated alluvial aquifer) that is located 490 ft from a surface water body?

- On Page 12 in Appendix F, third full paragraph, the statement is made: "If adequate aquifer test data are not available, and there is substantial evidence in the record that the project (including the proposed location, construction and operation of any project wells) regarding potential impacts on neighboring non-project wells or nearby surface waters, then an aquifer test may be required of the applicant's project well(s)." Will there be limits, or a maximum distance at which the County's discretion for further analysis will no longer be applicable? As an example, if a project well is within 3,000 ft of an offsite, non-project well, or a surface water body, what substantial evidence, if any, would be required for the County to require further analysis?
- On page 12, last paragraph, the statement is made "Pending the proposed project details, the County may also require installation of a monitoring well or monitoring of a nearby existing non-project well." Construction of a monitoring well is costly, and should be performed under the supervision of a qualified hydrogeologist. What will be the criteria that will trigger the County's requirement of monitoring well construction?

Further, the monitoring of non-project wells not owned by the applicant is a complicated and dangerous issue. What will be the criteria that will trigger the County's requirement of monitoring a non-project well? If the County requires monitoring of an offsite, non-project well, many complications must be considered. During an aquifer test, the non-project well should remain un-pumped before, during, and after the aquifer test of the pumping well so that the hydrogeologist reviewing data collected during the test can definitively determine water level drawdown impacts on the non-project well, if any. Does the County have any mechanism to require the non-project well to remain un-pumped during the testing period? We assume that monitoring of a non-project well during an aquifer test will be completed by the contractor or the consultant administering the test. Who will guarantee access to the non-project well during the testing? If wellhead modification of the non-project well is necessary to allow down-well access for monitoring devices (such as transducers or electric tape water level sounders), will the applicant be required to make such modifications to the non-project well? If the well owner claims damage to the non-project well after the test is complete, who will be responsible? From our experience with this issue, numerous legal and logistical constraints will predominate.

We recommend that the County strongly re-consider these issues before including a provision in the WAA that would require the monitoring of offsite, non-project wells not owned by the applicant. RCS does not recommend the inclusion of such a provision in the WAA.

- How will springs and/or seeps be considered by the WAA with respect to well impacts? Will springs be treated as surface water bodies, and trigger the analyses set forth in the WAA?



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- The footnote on page 4 states "For the purposes of this procedure, surface waters are defined to include only those surface waters known or likely to support special status species or surface waters with an associated water right." Does this mean that designation as a "blue-line creek" on USGS topographic maps will not be considered as a criteria for analysis? Further, many creeks within the County have small, ephemeral drainages that are tributary to the main creeks that may support special status species. Will such small, unnamed, ephemeral tributaries be included as part of a required surface water impact analysis?

## Mount Veeder Stewardship Council

www.mtveederstewardshipcouncil.org

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January 6, 2015

Steven Lederer, Director  
County of Napa Department of Public Works  
1195 Third Street  
Napa CA 94558

John McDowell, Deputy Planning Director  
Napa County Planning Department for  
Napa County Planning Commission  
County Administration Building  
1195 Third Street, Suite 305  
Napa, CA 94559

Re: Napa County Water Availability Analysis  
January 7, 2015 Hearing before the Napa County Planning Commission

Dear Mr. Lederer and Planning Commission:

Members of the Mount Veeder Stewardship Council have reviewed the most recent Water Availability Analysis (hereinafter "WAA") dated December 18, 2014 and submit the following comments regarding the document and the Frequently Asked Questions and Comments Received, of the same date.

### **Water Availability Analysis Procedure**

The outlined WAA Procedure on page 4 has two goals, but the Mount Veeder Stewardship Council believes there should be a third goal: The WAA should also provide neighbors to proposed projects with a clear set of procedures for citizens to present problems and demand more study on the particular applications or existing permits.

Currently the WAA is only focused on the applicant and the Napa County administration of the WAA and the Napa County Water Conservation regulations. The WAA lacks guidelines for the inclusion of the remaining citizens of Napa County, especially the adjacent neighbors who are also using the groundwater resources.

In the Conclusion on page 14, the WAA describes a community water resource but the specific language does not give guidance to those who are significantly impacted by the Permit Applicant or Permit holder's right to use a public groundwater resource.

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### **WAA Application Procedure**

In the WAA application procedure, Item 2, on the top of page 5, requires the applicant to provide locations of existing non-project wells on other parcels within 500 feet, based on the applicants knowledge and available public information. However, for surface water rights, the applicant is only required to identify existing surface water rights within 1,500 feet based on the applicant's knowledge, **but not from available public information.**

The Applicant should be required the search public data on the Public Surface Water Rights DataBase, Electronic Water Rights Information Management System, on the California State Water Resources Control Board Website, to locate these adjacent surface water rights. Citizens holding surface water rights, especially those downstream, should be notified of the permit application for these well locations.

On the bottom of page 5, Item 2, of the criteria for the staff review of the application, non-project wells within 500 feet and are completed to similar depths as the projects well(s). The criteria for the comparison of similar well depths was not defined. What is considered similar depths? Also, there is no discussion regarding springs. There should also be consideration of springs in this item, or a separate item.

### **Recharge of Water in All Other Areas**

On pages 7 and 8 there is a brief discussion regarding estimating recharge for All Other Areas for the Water Availability Analysis. The discussion is very brief. There should be additional guidance regarding recharge.

Water Quality and Recharge are interconnected and a better analysis should not take into consideration the recharge for a water source producing useless water for the application.

If the project well uses a 500 foot radius for interference criterion, then the recharge for that well should only use, at a maximum, the 18 acres in the 500 foot radius. If the aquifer is limited to 18 acres, then the recharge area should be limited to the same area. If there is another well, project or non-project, in that radius, then the recharge circle area is further reduced by the recharge area needed for the other well(s).

Recently, the Planning Commission approved a winery in Angwin (which is in All Other Areas pursuant to the Water Availability Analysis) which was required to show that there was adequate recharge of groundwater. The Planner who reviewed the project mentioned the rainfall in the area, and based upon very brief comments regarding rainfall and no complaints from neighbors, approved the winery use application, with out any hard data regarding actual recharge in the area.

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In Appendix B, Parcel Location Factors, the project applicant will need to estimate the average annual recharge occurring in the project area. Using an average annual recharge does not consider the variations of rain amounts on the property and available for use on the project. Heavy rain years averaged with drought years does not an accurate evaluation method since the effects of drought on the project operations are not considered. Drought might force the project to import or haul water in and attempt to maintain a non-drought supply of water to the project, rather than remain as a sustainable operation that lives within its means and the capabilities of the project site to provide adequate quality groundwater resources.

### **Screening Criteria in All Other Areas**

The Tier 2--Well Interference Criterion, the discussion of Table 2B, on page 9, describes site-specific measures of significance should also account for known seasonal variations in groundwater elevation in the vicinity, in All Other Areas. The Stewardship Council believes that neighbor notification should be more comprehensive to include neighbors who are nearby in the watershed, using a 4 foot by 8 foot project site sign posted on the property.

Posted notification could elicit more well information from neighboring properties, as was demonstrated in the Walt Ranch Public Comment Forum, when watershed neighbors shared their well water and spring level experiences throughout their history in the watershed. This would be an appropriate measure to elicit voluntary participation in the California Statewide Groundwater Elevation Monitoring (CASGEM) program, giving Napa County a head start on the upcoming California regulation concerning Aquifer Management requirements.

### **Springs in the Water Availability Analysis**

The Water Availability Analysis now includes springs in determining the impact on water sources; however, the document is not always quite clear regarding the addition of the springs to the analysis.

So for example, on page 6, Table 1, under Tier 2 references Well Interference. It should now read Well and Spring Interference.

Likewise, on page 8 there is a header which reads "Tier 2 - Well Interference Criterion". Either this should be changed to "Well and Spring Interference Criterion" or on page 9 the header entitled "Springs" should be changed to "Tier 2 - Spring Interference Criterion".

On page 9, the last paragraph reads in part that:

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Because springs originate as groundwater, springs are mentioned in the WAA Tier 2 analysis. It is recommended that any proposed project wells occurring within 1,500 feet of natural springs that are being used for potable or agricultural purposes be evaluated to assess potential connectivity between the part of the aquifer system from which groundwater is planned to be produced and the spring(s).

First, springs are not “mentioned” but rather **included** in the Water Availability Analysis.

Second, it should be **required**, not recommended, that springs within 1,500 feet of a proposed project well, as well as **an existing project well**, be evaluated to determine impact of the well on the springs.

On pages 9 and 10, for springs, it is only recommended and not required that analysis of the connectivity between the part of the aquifer system from which groundwater is planned to be produced and the spring(s). What is the technical criteria for a recommendation and the requirement for monitoring and further analysis? It should be required, especially since this spring water is used as a neighbor’s potable water source and a basic requirement for the neighbor’s health and safety.

While Appendix F, has a section for Well Interference Evaluation, it lacks a section for Spring Interference Evaluation for the Tier 2 analysis. There should also be a section in this appendix for the Spring Interference Evaluation.

### **Additional Analysis Required**

On pages 12 and 13, Additional Analysis Required, paragraph 3, it appears to be assumed that the valley floor consists entirely of unconsolidated aquifer material. In the case of the Yountville Hill Winery, the well was drilled into consolidated or hard rock aquifer materials, but the WAA used the rule of thumb of 1 acre-foot of water available for each acre of land for unconsolidated aquifer material, rather than the project specific requirements of the WAA for consolidated aquifer material.

### **Water Quality**

Water Quality is not addressed in the WAA Working Draft of December 18, 2014, and only mentioned in the Frequently Asked Questions, Item 5. The Mount Veeder Stewardship Council believes that Water Quality is an integral component in determining many aspects of well to well and well to spring interference, and the recharge calculations for availability and quantity of the groundwater and surface water resources to be used by the applicant.



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Water Quality and Recharge are interconnected and a better analysis should not take into consideration the recharge for a water source producing useless water for the application. This water should not be counted as available in the permit calculations.

In the case of the Woolls Ranch Vineyard and winery permits, and the subsequent WAA, the Water Quality evaluations were an integral part of the well to well and spring interference investigations. The similarity of the mineral footprints of the Winery Well and the Springs indicated a connection of the Aquifers for each source. The same was true for the Woolls-Walker Well and the Allen/ Walker well on the adjacent neighboring property.

The need for water quality (mineral footprint) testing was also demonstrated by the Pond Well on the Woolls property. The water contained high levels of boron that were too concentrated to apply directly on the vineyard grapestock. Dilution was the only solution to this high boron content, and the only available water source for dilution is the other two proven wells on the property, the Winery Well and the Woolls-Walker Well.

The Woolls Pond Well was tested at the completion of the well construction in 2007, and analysis at that time indicated a high level of boron. Three years later, in 2010, the vineyard was planted and irrigated with well water from the Pond Well, the Winery Well and the Woolls-Walker Well. All three wells were pumped into the pond for distribution in the irrigation system. When the consultant did a Pond Water Quality Test (mineral test) for the Woolls WAA, the Pond water contained a boron concentration too high for vine irrigation.

If Woolls was aware of the original well water quality testing, they might have made better choices for their irrigation regime and avoided costly hauling water they needed to correct this boron problem. This quality testing was also available to Planning Staff, whose review of the report and consultation with the applicant, could have avoided the resulting problems.

### **Monitoring of Actual Water Use for a Project**

The Mount Veeder Stewardship Council believes that any project which is granted a discretionary permit and is subject to either Tier 1, Tier 2 or Tier 3 water availability analysis must be required to track water usage for the project. The tracking of water usage, through the use of water meters should be broken down into various categories. If there are residences on the parcel, there should be tracking of residential usage of water. There should also be separate tracking of water usage for any vineyards on the parcel. There should be a system set up to track all water usage in the winery and all winery operations on the parcel.

Since use permits are discretionary, a condition requiring tracking of water on a parcel obtaining a discretionary use permit is reasonable and the County of Napa has the authority to require the

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applicant, as part of the approval process, to track its water usage.

Given the fact that California is still in a drought, this monitoring must begin to occur, if there is any hope that projects which require use permit approval will become sustainable.

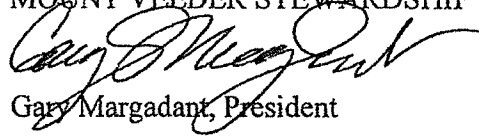
### **Conclusion**

The Department of Public Works has made significant progress with the Water Availability Analysis, addressing concerns regarding the Hillsides, now referred to as All Other Areas. The Mount Veeder Stewardship Council would like to see another draft Water Availability Analysis, addressing the above concerns, before the document is presented to the Board of Supervisors.

Thank you for your time and consideration regarding the above issues.

Sincerely Yours,

MOUNT VEEDER STEWARDSHIP COUNCIL



Gary Margadant, President



January 6, 2015

Mr. Steve Lederer  
Director, Napa County Department of Public Works  
1195 Third Street, Suite 101  
Napa, CA 94559

*RE: Water Availability Analysis*

Dear Mr. Lederer,

The Napa Valley Grapegrowers, representing over 700 vineyard owners and associated businesses, appreciates the opportunity to comment on the current County "Water Availability Analysis" (WAA).

In addition to the comments made by the Winegrowers of Napa County and the Napa Valley Vintners, the NVG encourages the County to consider that the Groundwater Resource Advisory Committee (GRAC) discussed the connectivity of surface water to groundwater at great length and in great detail. The conclusion of those discussions was that there is not sufficient data in Napa County off which to base recommendations. There was no direct connection determined between surface water and ground water. The GRAC did, however, agree that funding research in this area is merited, in order to make better, evidence-based decisions in the future. That agreement resulted directly in the funding of several experimental wells to test this theory under our local conditions. This investment also addressed the requirement in the state's new groundwater legislation to make progress defining our local groundwater issues. The NVG supports that conclusion and strongly believes that adequate and comprehensive data is required **before** enacting legislation or adopting that portion of the Water Availability Analysis related to ground water-surface water connectivity.

The Napa Valley Grapegrowers believes that working together towards sustainable stewardship of our natural resources - including water resources - is critical. The GRAC did its job thoroughly and well, and its recommendations ought to be supported by subsequent policies. Because of the variability of Napa's geology, topography, soils, and water availability, we urge you not to enact requirements that are not well-supported by data and best practices for water management.

Sincerely,

A handwritten signature in cursive script, appearing to read "Steve Moulds".

Steve Moulds, President

*To Preserve and Promote Napa Valley's World-Class Vineyards*



**From:** Carl Butts [<mailto:cbutts@cabengineering.com>]  
**Sent:** Sunday, January 18, 2015 5:48 PM  
**To:** Lowe, Rone Patrick; Galambos, Nathan  
**Cc:** Morrison, David; Lederer, Steven  
**Subject:** FW: Water Availability Analysis (WAA) - draft for public review

Patrick and Nate,

Thank you for taking the time on Friday to discuss the current Water Availability Analysis proposal. I will keep this short (hopefully) as I know you both are exceptionally busy. After our discussions, review of the January 7, 2015 planning commission meeting, WAA Policy report dated December 18, 2014, and background reports from LSCE, I have three concerns, listed in order of importance:

1. Documentation within the WAA
2. Technical Review Expertise
3. Tier One Processes

#### DOCUMENTATION:

1. Page 5, Note 1, bottom of page. "the characteristics of the groundwater area or basin (such as confined or unconfined aquifer system; alluvial or hard rock...) I am not aware of any confined aquifers within the county.

If such exists, I recommend stating where these are located as they are much more susceptible to overdraft than an unconfined system.

2. Page 6, footnote 4. Where does the criteria for establishing "low pumping capacity wells" come from? These numbers appear arbitrary without documentation. I would argue that a 50 gpm well sited greater than 500 feet from a neighboring well would not have "well to well" interference issue per the Tier 2 requirement. Moreover, where do the 500 and 1500 foot criteria come from? And last, the Page 6, footnote 4 is in disagreement with Page 9, footnote 7.

I recommend sourcing this information on the WAA, as derived from the county's expert, as this is can be challenged as arbitrary without such documentation. I also recommend sourcing footnote 7, and correcting the inconsistency between footnote 4 and footnote 7.

3. Page 7. "No single criterion can be established for "All Other Areas"... If this cannot be established, what is your expectation of the consultant or client to produce a Tier 1 analysis for submittal of a discretionary permit? Does the client need a pre-application meeting, as is recommended with the storm water code, to see what parcel location determination applies. Additionally, couldn't the parcel determination also be challenged?

My recommendation would be an elevation, slope or geologic criteria to better establish what is deemed an "All Other Area", or pre-application meeting with determination by staff that is the baseline for the project, not subject to change following staff determination.

4. Page 10. "Tier 3 analysis is only conducted when substantial evidence in the record..." What is "substantial evidence" defined as, and who has the technical expertise to define that evidence is substantial?

My recommendation would be to provide this information, available to the public, on a GIS platform, such as is annotated with "special status species", "archeologic findings" etc, if there is a known need for groundwater surface water interaction analyses.

5. Page 11. What is the definition or scope of the "upper part of the aquifer"?

My recommendation is a definition of this or source document.

6. Page 11-12. Tables 3-5. What is the source for the 500, 1000, and 1500 setback criteria? What happens if I case the well such that the deepest perforations are greater than 150'?

My recommendation to source the data and provide criteria for deep wells, as they are more typical of what I've seen installed in the recent past.

7. Page 17. Guidelines For Estimating Non-Residential Water Useage: Irrigated Pastures/Orchards. Where is the 4.0 ac-ft/ac derived? This appears to be old-school flood irrigation technique derived values.

My recommendation is to source that data, or take it off entirely and let the applianct source the data, as these are not common based on my experience.

#### TECHNICAL REVIEW EXPERTISE:

1. In my discussion with Nate Galambos, neither he nor any of the PBES staff have background or expertise in hydrogeology required to review a ground water recharge analysis, or other complex one/three dimensional hydrogeologic models.

Additionally, the LSCE report page 17, specifically states: "The complexity of the MIKE SHE model code limits the ability of Napa County staff in using the model for in-house analysis of regional and/or localized applications where groundwater is a primary focus...it is recommended that a public domain model code be considered...once a regional model is developed with a longer calibration period, separate models which focus on localized areas of the county could also be developed, as needed, using boundary conditions from the regional model as a foundation."

What is the county's position on providing timely and qualified review of these complex analyses for discretionary permits? Will a regional model for use by qualified consultants be provided prior to adoption of the code, as recommended by LSCE?

My recommendation is a process flow diagram with roles and responsibilities provided to the Board prior to adoption of any new ground water ordinance. Not doing so will hinder an already long and complicated CEQA review process.

#### TIER ONE PROCESSES:

1. As noted above, an undefined situation exists for "All Other Areas". My experience indicates that these areas lie outside of the toe of slope of the western and eastern ranges bounding the valley and are generally with slopes greater than 5%. Additional anecdotal evidence leads me to conclude that approximately ½ of discretionary projects would fall in this category.

With that number in mind, the Draft WAA, Tier One criteria directs a project applicant to a parcel specific water use criteria whereby: "Water use criteria shall be considered in relation to the average annual recharge available to the project property, as calculated by the applicant or their consultant." Additionally, "the project applicant will need to estimate the average annual recharge occurring on the project parcel(s) and consider the amount of recharge relative to the estimation of project water use...including estimates for normal and dry water years."

Based on the county's position that a groundwater recharge analysis is required, who is qualified to perform such analyses?

What methodology(ies) should be used to perform these analyses?

Will this require that a CEG, PG, etc. be required for all projects in "All Other Areas"?

What is the definition of a "dry water year"?

Since this effort will require an analysis of a multitude of criteria, geology, hydrology, soils capacity, etc., what is the county's expectation of cost for a complete Tier One Report, "All Other Areas", including review by staff with sufficient technical expertise to validate any modeling criteria and results?

Is this cost in addition to the \$5,000-10,000 cost stated by Mr. Lederer for a Tier 2/3 report during the January 7, 2015 Planning Commission Meeting?

Will this process extend the normal CEQA permitting timeline?

A Phase 1 analysis, under current code, costs approximately \$1,000 to complete. My expectation would be that if a PG or CEG were required to fulfill this task, the cost would be on the order of \$5,000-10,000 to complete.

My recommendation is to define key criteria noted above, and describe qualifications, methodologies, and project processes, including internal staff processes, prior to adoption of the WAA. I also recommend that the process be vetted by consultants that the county would likely expect to perform such analyses in the future. In reviewing the GRAC advisory board membership, I did not see any consultants that would likely be expected to produce this report.

In addition to the above comments, the WAA does not address concerns about water quality specified by Mr. Margadant during the January 7<sup>th</sup> meeting. The WAA also fails to address interconnectedness with often required Water System Technical, Financial and Managerial Reports. And last, the WAA does not take into account the synergy between groundwater use, irrigation and surface water discharge criteria described by the San Francisco Regional Water Quality Control Board's Basin Plan. My recommendation on this matter is requesting water quality data from applicants from either their well or a similarly sited well within the same geologic area to address this lingering issue.

Again, thank you for taking the time to discuss this matter with me, and for all the effort staff has gone through to get the proposed WAA to this point. I look forward to responses to these questions and am happy to discuss this matter at any time.

Sincerely,

*Carl Butts, P.E., LEED AP, QSP/QSD*  
*CAB Consulting Engineers, Inc.*  
*851 Napa Valley Corporate Way, Ste. D*  
*Napa, CA 94558*  
*(office) 707.252.2011*  
*(cell) 707.694.6479*  
[cbutts@cabengineering.com](mailto:cbutts@cabengineering.com)



## Mount Veeder Stewardship Council

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www.mtveederstewardshipcouncil.org

January 23, 2015

Steven Lederer, Director  
County of Napa Department of Public Works  
1195 Third Street  
Napa CA 94558

John McDowell, Deputy Planning Director  
Napa County Planning Department for  
Napa County Planning Commission  
County Administration Building  
1195 Third Street, Suite 305  
Napa, CA 94559

Re: Napa County Water Availability Analysis  
February 4, 2015 Hearing before the Napa County Planning Commission

Dear Mr. Lederer and Planning Commission:

Members of the Mount Veeder Stewardship Council have reviewed the most recent Water Availability Analysis (hereinafter "WAA") dated December 18, 2014 and submit the following comments regarding the document and the Frequently Asked Questions and Comments Received, of the same date.

### **Water Availability Analysis Procedure**

The outlined WAA Procedure on page 4 has two goals, but the Mount Veeder Stewardship Council believes there should be a third goal: The WAA should also provide neighbors to proposed projects with a clear set of procedures for citizens to present problems and demand more study on the particular applications or existing permits.

Currently the WAA is only focused on the applicant and the Napa County administration of the WAA and the Napa County Water Conservation regulations. The WAA lacks guidelines for the inclusion of the remaining citizens of Napa County, especially the adjacent neighbors who are also using the groundwater resources.

In the Conclusion on page 14, the WAA describes a community water resource but the specific language does not give guidance to those who are significantly impacted by the Permit Applicant or Permit holder's right to use a public groundwater resource.

### **WAA Application Procedure**

In the WAA application procedure, Item 2, on the top of page 5, requires the applicant to provide locations of existing non-project wells on other parcels within 500 feet, based on the applicants knowledge and available public information. However, for surface water rights, the applicant is only required to identify existing surface water rights within 1,500 feet based on the applicant's knowledge, **but not from available public information.**

The Applicant should be required the search public data on the Public Surface Water Rights DataBase, Electronic Water Rights Information Management System, on the California State Water Resources Control Board Website, to locate these adjacent surface water rights. Citizens holding surface water rights, especially those downstream, should be notified of the permit application for these well locations.

On the bottom of page 5, Item 2, of the criteria for the staff review of the application, non-project wells within 500 feet and are completed to similar depths as the projects well(s). The criteria for the comparison of similar well depths was not defined. What is considered similar depths? Also, there is no discussion regarding springs. There should also be consideration of springs in this item, or a separate item.

### **Recharge of Water in All Other Areas**

On pages 7 and 8 there is a brief discussion regarding estimating recharge for All Other Areas for the Water Availability Analysis. The discussion is very brief. There should be additional guidance regarding recharge.

Water Quality and Recharge are interconnected and a better analysis should not take into consideration the recharge for a water source producing useless water for the application.

If the project well uses a 500 foot radius for interference criterion, then the recharge for that well should only use, at a maximum, the 18 acres in the 500 foot radius. If the aquifer is limited to 18 acres, then the recharge area should be limited to the same area. If there is another well, project or non-project, in that radius, then the recharge circle area is further reduced by the recharge area needed for the other well(s).

Recently, the Planning Commission approved a winery in Angwin (which is in All Other Areas pursuant to the Water Availability Analysis) which was required to show that there was adequate recharge of groundwater. The Planner who reviewed the project mentioned the rainfall in the area, and based upon very brief comments regarding rainfall and no complaints from neighbors, approved the winery use application, with out any hard data regarding actual recharge in the area.

Steven Lederer  
Planning Commission  
January 23, 2015  
Page 3

In Appendix B, Parcel Location Factors, the project applicant will need to estimate the average annual recharge occurring in the project area. Using an average annual recharge does not consider the variations of rain amounts on the property and available for use on the project. Heavy rain years averaged with drought years does not an accurate evaluation method since the effects of drought on the project operations are not considered. Drought might force the project to import or haul water in and attempt to maintain a non-drought supply of water to the project, rather than remain as a sustainable operation that lives within its means and the capabilities of the project site to provide adequate quality groundwater resources.

Any calculation of water recharge in All Other Areas should be determined by the hydrologist hired to perform the water availability analysis.

#### **Screening Criteria in All Other Areas**

The Tier 2--Well Interference Criterion, the discussion of Table 2B, on page 9, describes site-specific measures of significance should also account for known seasonal variations in groundwater elevation in the vicinity, in All Other Areas. The Stewardship Council believes that neighbor notification should be more comprehensive to include neighbors who are nearby in the watershed, using a 4 foot by 8 foot project site sign posted on the property.

Posted notification could elicit more well information from neighboring properties, as was demonstrated in the Walt Ranch Public Comment Forum, when watershed neighbors shared their well water and spring level experiences throughout their history in the watershed. This would be an appropriate measure to elicit voluntary participation in the California Statewide Groundwater Elevation Monitoring (CASGEM) program, giving Napa County a head start on the upcoming California regulation concerning Aquifer Management requirements.

In addition, reference in the WAA Appendices to a link for the USGS Circular 1376: Streamflow Depletion by Wells-Understanding and Managing the Effects of Groundwater Pumping on Streamflow would be helpful.

#### **Springs in the Water Availability Analysis**

The Water Availability Analysis now includes springs in determining the impact on water sources; however, the document is not always quite clear regarding the addition of the springs to the analysis.

So for example, on page 6, Table 1, under Tier 2 references Well Interference. It should now read Well and Spring Interference.

Likewise, on page 8 there is a header which reads "Tier 2 - Well Interference Criterion". Either this should be changed to "Well and Spring Interference Criterion" or on page 9 the header entitled "Springs" should be changed to "Tier 2 - Spring Interference Criterion".

On page 9, the last paragraph reads in part that:

Because springs originate as groundwater, springs are mentioned in the WAA Tier 2 analysis. It is recommended that any proposed project wells occurring within 1,500 feet of natural springs that are being used for potable or agricultural purposes be evaluated to assess potential connectivity between the part of the aquifer system from which groundwater is planned to be produced and the spring(s).

First, springs are not "mentioned" but rather **included** in the Water Availability Analysis.

Second, it should be **required**, not recommended, that springs within 1,500 feet of a proposed project well, as well as **an existing project well**, be evaluated to determine impact of the well on the springs.

On pages 9 and 10, for springs, it is only recommended and not required that analysis of the connectivity between the part of the aquifer system from which groundwater is planned to be produced and the spring(s). What is the technical criteria for a recommendation and the requirement for monitoring and further analysis? It should be required, especially since this spring water is used as a neighbor's potable water source and a basic requirement for the neighbor's health and safety.

While Appendix F, has a section for Well Interference Evaluation, it lacks a section for Spring Interference Evaluation for the Tier 2 analysis. There should also be a section in this appendix for the Spring Interference Evaluation.

Third, springs should be treated as Zero-Foot Wells, in the Groundwater Section of the WAA, and given the same respect as a shallow well that is unable to have an adequate sanitary seal and considered to be a proper water source for residential use. Hundreds of residences in Napa County use springs or shallow wells to service their residential needs, and these Zero-Foot Wells should be considered to be an adequately defined and proper water source for residential use. Adequate safe guards can be added to maintain the health and safety of those using this residential water.

### **Additional Analysis Required**

On pages 12 and 13, Additional Analysis Required, paragraph 3, it appears to be assumed that the valley floor consists entirely of unconsolidated aquifer material. In the case of the Yountville Hill Winery, the well was drilled into consolidated or hard rock aquifer materials, but the WAA used the rule of thumb of 1 acre-foot of water available for each acre of land for unconsolidated aquifer material, rather than the project specific requirements of the WAA for consolidated aquifer material.

### **Water Quality**

Water Quality is not addressed in the WAA Working Draft of December 18, 2014, and only mentioned in the Frequently Asked Questions, Item 5. The Mount Veeder Stewardship Council believes that Water Quality is an integral component in determining many aspects of well to well and well to spring interference, and the recharge calculations for availability and quantity of the groundwater and surface water resources to be used by the applicant.

Water Quality and Recharge are interconnected and a better analysis should not take into consideration the recharge for a water source producing useless water for the application. This water should not be counted as available in the permit calculations.

In the case of the Woolls Ranch Vineyard and winery permits, and the subsequent WAA, the Water Quality evaluations were an integral part of the well to well and spring interference investigations. The similarity of the mineral footprints of the Winery Well and the Springs indicated a connection of the Aquifers for each source. The same was true for the Woolls-Walker Well and the Allen/ Walker well on the adjacent neighboring property.

The need for water quality (mineral footprint) testing was also demonstrated by the Pond Well on the Woolls property. The water contained high levels of boron that were too concentrated to apply directly on the vineyard grapestock. Dilution was the only solution to this high boron content, and the only available water source for dilution is the other two proven wells on the property, the Winery Well and the Woolls-Walker Well.

The Woolls Pond Well was tested at the completion of the well construction in 2007, and analysis at that time indicated a high level of boron. Three years later, in 2010, the vineyard was planted and irrigated with well water from the Pond Well, the Winery Well and the Woolls-Walker Well. All three wells were pumped into the pond for distribution in the irrigation system. When the consultant did a Pond Water Quality Test (mineral test) for the Woolls WAA, the Pond water contained a boron concentration too high for vine irrigation.

If Woolls was aware of the original well water quality testing, they might have made better choices for their irrigation regime and avoided costly hauling water they needed to correct this boron problem. This quality testing was also available to Planning Staff, whose review of the report and consultation with the applicant, could have avoided the resulting problems.

### **Monitoring of Actual Water Use for a Project**

The Mount Veeder Stewardship Council believes that any project which is granted a discretionary permit and is subject to either Tier 1, Tier 2 or Tier 3 water availability analysis must be required to track water usage for the project. The tracking of water usage, through the use of water meters should be broken down into various categories. If there are residences on the parcel, there should be tracking of residential usage of water. There should also be separate tracking of water usage for any vineyards on the parcel. There should be a system set up to track all water usage in the winery and all winery operations on the parcel.

Since use permits are discretionary, a condition requiring tracking of water on a parcel obtaining a discretionary use permit is reasonable and the County of Napa has the authority to require the applicant, as part of the approval process, to track its water usage.

Given the fact that California is still in a drought, this monitoring must begin to occur, if there is any hope that projects which require use permit approval will become sustainable.

It is incumbent upon Napa County to protect the health and safety of county residents and to accomplish this goal, Napa County should notify all neighbors within 1000 feet of a new well and advise them to begin metering and recording water quantities produced or pumped from their wells or springs and record the well water levels spring water flows on a daily basis. These measurements should also be required for those drilling the new wells and pumping water from the public groundwater resource. With this data from the water sources, the neighbors will not be facing a situation where their complaints will be criticized and their water loss complaints ignored by Napa County on the basis of anecdotal information.

It is noted that in Section 3 A 16 of the Napa County Board of Supervisors Findings of Fact for the Woolls Ranch Appeal, "...that appellant provided only anecdotal information regarding spring flows but no quantitative evidence of spring flow measurements ....." . It is also noted that the Applicant did not make any measurements of well water flow and well water level recordings after construction of a well within 40 feet of a neighbors well, not did he notify this neighbor that his new well was drilled at such a close proximity that well interference was a possibility.

Steven Lederer  
Planning Commission  
January 23, 2015  
Page 7

**Conclusion**

The Department of Public Works has made significant progress with the Water Availability Analysis, addressing concerns regarding the Hillsides, now referred to as All Other Areas. The Mount Veeder Stewardship Council would like to see another draft Water Availability Analysis, addressing the above concerns, before the document is presented to the Board of Supervisors.

Thank you for your time and consideration regarding the above issues.

Sincerely Yours,

MOUNT VEEDER STEWARDSHIP COUNCIL

/CES  
Gary Margadant, President





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**From:** Walt Brooks [<mailto:brooksvineyard@sbcglobal.net>]  
**Sent:** Monday, February 09, 2015 4:23 PM  
**To:** Lowe, Rone Patrick  
**Cc:** Ginna Beharry  
**Subject:** Comment on WAA update

Hello Patrick,

I have just read through the WAA document and the new updates being proposed. I think the updates make a lot of sense. One issue I think needs better resolution is the issue of water quality testing. I read the FAQ on this issue but disagree with your (your team's) response.

Per the FAQ:

While this question has some merit, it is not a current requirement of the exiting WAA or proposed to be added to the revised document. There are several reasons for this:

a. Project wells do not always exist at the time of use permit submittal, just as driveways, retaining wall, septic systems, and other supporting equipment is often installed after the use permit process. This is both to constrain initial costs, as well as to minimize environmental impact from installing such infrastructure should the project not be approved.

My response: For any and all of these items installed after the fact some inspection must take place to ensure that what was constructed measures up to the plan/permit. At that time the quality of well water in addition to true capacity can and should be measured.

b. Secondly, while water quality can sometimes be an issue (usually the result of high levels of naturally occurring contaminants), in reality this problem is almost always solvable by treatment or dilution;

My response: Yes poor water quality is often solvable but many forms of treatment result in "wasting" water and/or produce output with even higher percentage of contaminants that must be properly handled. I think this is something that needs to be taken into consideration for what the final project water usage really is and how much waste water needs to be handled.

c. There may be some cases where obtaining water quality data early in the process could be useful, and nothing in this procedure prevents PBES from asking for the same should a particular project warrant it.

My response: How or why would PBES ask for the water quality data? What criteria says it is warranted?

d. Once a well is put into service for commercial potable usage, commercial projects that are regulated as a small water system do water quality testing as required by State drinking water laws, so problems with drinking water quality later in a project's life would be identified.



My response: I agree but again as in my response to item b the total water used if the water must be treated is not estimated in the original WAA.

With clean water becoming more precious everyday and development in Napa especially in our watersheds growing at an alarming rate I hope your team will consider adding a water quality check into the WAA.

Thank You,  
Bernadette Brooks  
3103 Dry Creek Rd  
Napa

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## Reid Bryson

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**From:** Lowe, Rone Patrick <Patrick.Lowe@countyofnapa.org>  
**Sent:** Monday, March 23, 2015 9:41 AM  
**To:** Vicki Kretsinger; Reid Bryson  
**Subject:** RE: Comment on WAA update >>>

Just wanted to confirm that we had picked this one up in our responses somewhere.....

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**From:** Lowe, Rone Patrick  
**Sent:** Monday, February 09, 2015 4:46 PM  
**To:** 'Walt Brooks'; Ginna Beharry  
**Bcc:** Lederer, Steven; Vicki Kretsinger  
**Subject:** RE: Comment on WAA update

Thank you for your comments. We are in the process of reviewing and responding to comments at this time. We will have an updated version of the WAA available on our website in about 2 weeks along with Responses to Comments and revised FAQs. The WAA will be considered again at the March 18<sup>th</sup> meeting of the Planning Commission.

R. Patrick Lowe  
Natural Resources Conservation Manager  
Division of Water Resources/NRC/Flood Control  
Department of Public Works

Phone: 707-259-5937

E-mail: [patrick.lowe@countyofnapa.org](mailto:patrick.lowe@countyofnapa.org)



A Tradition of Stewardship  
A Commitment to Service

*"Water is the driving force of all nature." – Leonardo da Vinci*



## Reid Bryson

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**From:** Lowe, Rone Patrick <Patrick.Lowe@countyofnapa.org>  
**Sent:** Monday, March 02, 2015 8:33 AM  
**To:** McDowell, John; Gallina, Charlene; Lederer, Steven; Vicki Kretsinger  
**Cc:** Sharp, Jeff; Reid Bryson  
**Subject:** FW: WAA comments

Additional comments on the WAA, for the next PC meeting on April 1<sup>st</sup>.

R. Patrick Lowe  
Natural Resources Conservation Manager  
Division of Water Resources/NRC/Flood Control  
Department of Public Works

Phone: 707-259-5937  
E-mail: [patrick.lowe@countyofnapa.org](mailto:patrick.lowe@countyofnapa.org)

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**From:** Ginna Beharry [<mailto:ginna.beharry@sbcglobal.net>]  
**Sent:** Monday, March 02, 2015 8:21 AM  
**To:** Lowe, Rone Patrick  
**Cc:** Walt and Bernie Brooks; Gary Margadant; Patricia Damery  
**Subject:** WAA

Dear Mr. Lowe,

I am writing to ask you to consider some other very important factors in the WAA study. I am a resident of the Dry Creek Road area south of Orchard Avenue and the residents in these environs have had water concerns since long before the current drought. There is currently a proposed winery expansion in the watershed above this area and the applicant has drilled, I believe, 8 or more wells in search of water to justify this proposed project.

My concerns regarding how the water availability will be evaluated for this or any similar projects are as follow:

1. Water quality assessment – some of the local residents have to perform reverse osmosis on the water to make it usable for residential or agricultural use. A well should only be given credit for what **usable** water it produces, not absolute amounts

2. Temporal Demand Analysis - the analysis of required water for any project should include an analysis of intensity of use at different times of the year. For wineries and vineyards, that use is most intense at the end of the dry summer season. Will the pump be forced to cycle 24 hours during that period of intense use? As we know, that is not a realistic demand to place on the pump or well. Water use analysis should not simply be based on simple averages. It should be evaluated on ability to meet peak demand at crucial times, year after year.

3. Age of Wells – As this applicant, or any other, drills numerous wells to support the desire for increased production and visitation, the early production data may give falsely high indications for the first few months. Many in this area have experienced a significant drop in production over time and since winery use and vineyard permits are issued in perpetuity, water availability over an extended period (forever!) should be of utmost concern.

4. Number of Dry Wells – If in the process of drilling for water for a proposed project, the number of dry wells drilled should be considered a factor since it may indicate the ability to find water with new wells if existing wells should fail. This could be a reason for additional scrutiny of a project if, in fact, 4 dry wells were drilled in the process of finding one or two with limited production.

5. Earthquake effects – these particular applicants have claimed an increase in production of certain wells after the Napa earthquake last August. I believe that hydrologists find these effects to be temporary and therefore, the fleeting increase in production should not be counted on as reliable long-term availability.

6. Trucking of water – The County and/or City of Napa need to implement restrictions on trucking of water to wineries and vineyards located outside of city limits. Projects should be required to have SUSTAINABLE, local water resources that do not interfere with neighboring wells. The County can ill afford the traffic, disruption and environmental impact of trucking water to service commercial food processing plants in rural locations OR the trucking of city water to support rural vineyards dispersed throughout the County. Permitting vineyards and wineries that require now, or will require in the future, more water than can be sourced reliably and responsibly from the project's own resources would be a dereliction of governmental duty to act on behalf of the common good.

Thank you for the work you are undertaking on this extremely important matter. Please feel free to contact me with any questions or comments.

Sincerely,

Ginna Beharry

3167 Dry Creek Road

847-287-3273

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