

Date	Commenter		Comment	Response
January 2, 2015 (letter)	Napa Valley Vintners Winegrowers of Napa County	1.1	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.	Clarifying language will be added in the Introduction to the WAA.
		1.2	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.	The legal definition of substantive evidence was included in the FAQs (December 18, 2015). A new section will be added to the WAA called “Definitions”, and this term will be defined.
		1.3	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.	Applicant may consider potential for well interference effects. Tier 2 analysis will not be required if the two contiguous parcels have identical ownership, although the applicant will be required to document the project on a form provided by the Department of Public Works and have the form recorded by the County, as described in Appendix E.
		1.4	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.	Geologic conditions were considered as part of the original analysis performed to assess potential impacts to surface waters (LSCE, 2013). The results of that analysis were carried forward in the WAA. However, additional explanation will be added to highlight that the Tier 3 distance and well construction assumptions are based on scenarios developed for unconsolidated geologic settings most commonly found in the Napa Valley Floor.
		1.5	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?	The distance measurement is generally in reference to horizontal distance. However, geologic considerations also factor into this.
		1.6	Season Variation Considerations: In both the Tier 2 and Tier 3 criteria the WAA mentions that season variations (wet verses 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.	The reference to seasonal variations is intended to identify typical seasonal fluctuations in local groundwater levels, pending data availability. As related to Tier 2 analyses, knowledge of fluctuations provides some context for the potential pumping effect between neighbors relative to typical variations in groundwater levels. As related to Tier 3 analyses, the mention of dry season assessment pertains to operational considerations for the typically drier part of the year (summer/fall) compared to the typically wetter part of the year (winter/spring).
		1.7	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?	Tables 3, 4, and 5 show criteria related to wells constructed in unconsolidated deposits (i.e., most typically on the Napa Valley Floor or other alluvial valley deposits. These criteria are typical of projects subject to Tier 3 criteria. As explained in Appendix F, wells are not necessarily required to be constructed in this manner pending geologic, well construction, and/or operational conditions.

		1.8	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 E will be edited to clarify that the water use criterion considered for a project may account for the criteria applicable to contiguous parcels with common ownership, subject to certain documentation and recording requirements.
		1.9	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."	Acknowledged.
		1.10	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".	Acknowledged. A definition will be added for the term aquifer unit.
January 5, 2015 (email)	Linda McGlochlin	2.1	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.	See Response 1.1. The WAA will be clarified to affirm that non-discretionary (i.e., ministerial) projects including single family homes and track II replants are not typically subject to the CEQA requirements that the WAA is intended to address. In addition, discretionary vineyard permits are subject to a separate analysis managed by the Conservation Division of the Planning Building & Environmental Services (PBES) Department.
		2.2	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)?	The WAA serves to provide guidance to applicants for all locations in the County whether in a groundwater basin or not. The guidance is for discretionary projects with the exception of designated groundwater deficient areas. Cost, particularly in the hillside areas, can vary pending the scale, geologic setting and design parameters of such projects.
		2.3	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?	See Response to 2.2. Cost, particularly in the hillside areas, can vary pending the scale, geologic setting and design parameters of such projects.
		2.4	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	Acknowledged. The appropriateness of involvement of registered professionals often depends on the degree of complexity of the project (location, geologic setting, scale) and design parameters. For these reasons, discretionary

			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.	projects often involve a registered professional regardless of the revisions to the WAA. Language will be added to provide additional clarification with respect to Tier 2 and 3 analyses.
		2.5	<p>Well Interference Evaluation (Tier 2).</p> <p>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.</p> <p>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.</p>	<p>a. Geologic features such as faults are an important consideration when present. The WAA is intended to provide guidance to the applicant but it is not intended to be an exhaustive manual that addresses all factors.</p> <p>b. The WAA describes consideration of the construction of the applicant’s well(s) and neighboring wells in a similar part of the aquifer system. See Appendix F.</p>
		2.6	<p>Tables 3, 4, and 5 - Well Distance Standards and Construction Criteria.</p> <p>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.</p> <p>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.</p>	<p>a. The commenter’s concerns are acknowledged. It appears some additional explanation is needed to clarify the intent of these tables. The tables show results of the analysis of potential impacts associated with certain operational parameters, the geologic setting, hydraulic properties associated with the geologic setting, and distance between a well and surface water. The tables are not intended to be absolute for all conditions. Additional text will be added to clarify the purpose of these tables.</p> <p>b. Acknowledged. This is an important consideration when present. See also Response to 2.5.</p>
		2.7	<p>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:</p> <p>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.</p> <p>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.</p>	<p>Acknowledged. Aquifer testing, especially in hillside geologic settings (i.e., consolidated rock environments) can be very complex.</p> <p>a. The parcel setting may have unique factors with respect to preferred locations for planned wells, actual locations of existing wells, and complexities with respect to observing existing well responses during an aquifer test (if any are involved and relevant to application-specific needs).</p> <p>b. Acknowledged. This is not typically an issue in hillside settings. Preferably, an appropriate test can be performed at the time of well construction, where the results can provide the information needed for several purposes.</p>
		2.8	<p>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</p>	<p>The County has licensed professionals on staff to review and evaluate submittals. In addition, the County has access to outside professionals when needed.</p>

			on whether WAAs are required on a case by case basis?	
January 6, 2015 (letter)	Napa Valley Grapegrowers	3.1	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.	As discussed during the GRAC’s term, and subsequently, the WAA intent is supported by existing information documented in a number of recently produced reports as listed on the County’s web site at: http://www.countyofnapa.org/bos/grac/ and as supplemented with the preliminary data generated from the Surface Water/Groundwater Interaction investigation supported through grant funding provided by the California Department of Water Resources. There are sufficient data to support the basis of the WAA, which emphasizes guidance needed by discretionary projects to address CEQA analyses that are to be conducted when substantial evidence exists that requires analysis of potential impacts on surface water due to groundwater pumping. The data gaps discussed during GRAC meetings focused on the location and degree to which surface water and groundwater are connected, not whether there is any connection.
		3.2	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.	Acknowledged. The GRAC has been and continues to be commended for its contributions to the County’s groundwater sustainability efforts. Please see Response to 3.1.
January 6, 2015 (Memorandum)	Richard C. Slade Associates LLC	4.1	Tier 1 requires calculation of 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.... <i>[gives examples]</i> 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?	Acknowledged. The WAA is a guidance document; other approaches are the discretion of the applicant and/or the applicant’s consultant.
		4.2	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. ...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.... 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. 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?	Acknowledged. The WAA is a guidance document; other approaches are the discretion of the applicant and/or the applicant’s consultant.
		4.3	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-	The applicant can inquire with one or more neighbors about their willingness to accommodate information gathering for a proposed project. If the neighbors decline, the applicant may need to consider other approaches. It is not the County’s purview to compel neighboring property owners to cooperate. If neighbors do not wish to gain information from investigative activities that may be useful to help mitigate potential project impacts that is their prerogative.

			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.	
		4.4	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.	Acknowledged.
		4.5	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 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?	Agreed. In large part owing to the complexity of geologic conditions in the hillsides, there are no specific screening criteria for the hillside areas. However, as noted in Response to 1.4 additional explanation will be added to highlight that the Tier 3 distance and well construction assumptions are based on scenarios developed for unconsolidated geologic settings most commonly found in the Napa Valley Floor. In consolidated geologic settings distance screening criteria are subject to site-specific conditions. In addition, the distance criteria presented in Tiers 2 and 3 are not setback requirements; rather, they are guides that the County will use to determine when to require additional analysis of potential project impacts.
		4.6	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?	The WAA guidance is more focused on recommendations for when analyses are likely to be more appropriate to assess potential impacts. Generally, based on the example provided by the commenter, the parameters do not suggest these conditions would provide a concern. Hypothetically, substantial evidence to the contrary might involve operational parameters for a very large scale project and also potential cumulative impacts contributed by non-project pumpers in the vicinity of the project.
		4.7	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? ... Does the County have any mechanism to require the non-project well to remain un-pumped during the testing period? 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.	As indicated by the WAA, there may be factors that prompt the County to require the applicant to install a monitoring well. As possible, the County will try to avoid such a requirement during the project application phase. However, as the commenter is aware, monitoring wells may be required as part of the CEQA analysis and subsequent monitoring that is required to assess whether an impact has occurred that triggers mitigation measures. Related to monitoring of non-project neighbor wells see Response to 4.3.
		4.8	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?	See the WAA section on Springs.

		4.9	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?	The definition of surface waters applied in the WAA will be modified to acknowledge that site-specific evaluation of surface waters may be required to determine the potential for impacts to surface waters.
January 6, 2015	Mount Veeder Stewardship Council	5.1	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.	The purpose of the WAA is to provide guidance and a procedure to assist County staff, applicants, and others in conducting the various analyses required of discretionary projects by the California Environmental Quality Act. Opportunities for citizens to challenge a particular discretionary project are distinct from the procedures outlined by the WAA.
		5.2	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 applicant’s 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 WAA also indicates (generally) that County staff can assist the applicant with information. Clarifying language will be added.
		5.3	The Applicant should be required the search public data on the Public Surface Water Rights Data Base, 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.	If the project requires a Tier 3 analysis and the results from that analysis show possible impacts to downstream surface water right holders, then notification would be made.
		5.4	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.	Item 2 will be clarified to 1) indicate the identification of all wells located within 500 feet of the proposed project well(s) and 2) identify the depths and well construction, if known. The latter is to enable the identification of wells that are located within 500 feet that may also be constructed in a similar manner to one or more project wells.
		5.5	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.	Acknowledge. Additional example guidance will be added. However, it is not the intent of the WAA to become too prescriptive but rather to allow the applicant and/or the applicant’s consultant to use a scientifically defensible approach.
		5.6	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.	Generally, the recharge volume estimate is based on the potential for recharge of precipitation (and corresponding runoff or streamflow) to percolate into the subsurface to the water table. While the quality of water available to percolate into the subsurface is important to the long term utilization of the groundwater beneath the area where recharge is occurring, it does not immediately affect the recharge volume computed.
		5.7	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).	The commenter’s example is incorrect; groundwater produced by a well is recharged by infiltration to groundwater that can occur substantial distances from a well location. The cone of depression created by a pumping well is not synonymous with the area where groundwater recharge may occur.

		<p>5.8 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.</p>	<p>Processes relating to groundwater availability generally occur slowly, i.e., on time scales involving years. The temporal and seasonal occurrence of precipitation greatly affects the amount of precipitation that may be available to recharge, and when infiltration rather than runoff occurs, the infiltration rate into the subsurface is governed by the soil properties and geology, among other factors. An average annual recharge rate essentially integrates precipitation conditions over a number of years, and this provides an indication of what is likely to occur over a longer period. For purposes of the recharge estimate, this provides a better indication than an annual estimate, as the use of precipitation occurring during the current or immediately preceding year is generally not a good gage of the recharge volume that has infiltrated to the water table. This especially applies to recharge occurring in hillside areas where the surficial soils may provide an opportunity for recharge, but the infiltration rate through underlying consolidated rock deposits is slow.</p>
		<p>5.9 a. 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. b. 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.</p>	<p>a. See Response to Comment 1.6. b. Noticing for proposed projects is outside the scope of the WAA and is being addressed separately by PBES.</p>
		<p>5.10 The WAA 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.</p> <p>So for example, on page 6, Table I , under Tier 2 references Well Interference. It should now read Well and Spring Interference.</p> <p>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".</p> <p>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).</p> <p>First, springs are not "mentioned" but rather included in the WAA.</p> <p>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.</p>	<p>The WAA language will be clarified where the sections of the guidance relate to both wells and springs. Where applicable, evaluation of springs will be required.</p>
		<p>5.11 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?</p>	<p>See Response to 5.10.</p>

			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.	
		5.12	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 language will be added to Appendix F.
		5.13	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.	The commenter's assumption is incorrect. It is not assumed that groundwater beneath the Valley Floor occurs entirely in unconsolidated deposits. The "rule of thumb" referenced is related to the potential for groundwater recharge on the Napa Valley Floor. The recharge rate for the Napa Valley Floor does not mean that the aquifer system beneath the Valley Floor is only unconsolidated deposits.
		5.14	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.	See Response to 5.6. In Napa County, the chemical composition of groundwater varies depending on the geologic setting. Naturally occurring salts and other constituents have been observed at varying concentrations. It is the applicant's purview to determine whether the water source (surface water or groundwater) is suitable for the current or proposed land use. The County's General Plan encourages conservation of the County's water resources. Accordingly, water applied for agricultural uses is viewed as being applied with conservation practices incorporated as part of overall land and water resources management approaches. With respect to approaches for recharge analysis, it is generally considered prudent to assume applied water is lost through evapotranspiration, and that there is not a residual volume that is counted as part of the estimated recharge volume.
		5.15	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 WAA 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.	Conditions of approval are under the purview of PBES and the Planning Commission. Stipulating conditions of approval is outside the scope of the WAA.
January 18, 2015 (email)	Carl Butts	6.1	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.	There are semi-confined to confined aquifer systems in Napa County. Additional information on the hydrogeology in Napa County is available at: http://www.countyofnapa.org/bos/grac/ . An applicant can also request assistance from the County in locating additional information.
		6.2	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	The reference for the original report from which this information was sourced will be added to the WAA.

		<p>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.</p> <p>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.</p>	<p>Footnotes 4 and 7 are about different points; there is no inconsistency between these two footnotes.</p>
	6.3	<p>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?</p> <p>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.</p>	<p>The WAA guidance specifies that the water demand and estimated recharge related to the subject parcel are to be provided for a Tier 1 analysis. While the WAA provides guidance, it is not intended to be prescriptive. In other words, it is the applicant and/or the applicant’s consultant decision with respect to the approach to develop and support the demand analysis and recharge estimate. County staff is available to respond to any application-specific questions the applicant may have.</p> <p>b. The areas identified in the WAA are well-defined. County staff can assist the applicant at the outset of the application process if there is uncertainty regarding the applicable area.</p>
	6.4	<p>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?</p> <p>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.</p>	<p>See Response to 1.2.</p>
	6.5	<p>Page 11. What is the definition or scope of the “upper part of the aquifer”?</p> <p>My recommendation is a definition of this or source document.</p>	<p>The definition of an aquifer is: a formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs. An aquifer unit is one part of a number of units that comprise an aquifer system. The “upper part of an aquifer system” is broadly referring a relatively shallower part of the aquifer, which as described above, can be complex and involve different geologic conditions. These terms will be added to the new section that includes definitions of key terms.</p>
	6.6	<p>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’?</p> <p>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.</p>	<p>See Response to 6.2 and Appendix F.</p>
	6.7	<p>Page 17. Guidelines For Estimating Non-Residential Water Usage: Irrigated Pastures/Orchards. Where is the 4.0 ac-ft/ac derived? This appears to be old-school flood irrigation technique derived values.</p> <p>My recommendation is to source that data, or take it off entirely and let the applicant source the data, as these</p>	<p>The WAA is a guidance document. The applicant and/or the applicant’s consultant can elect to use any source of information that is more relevant and/or current to their specific project and planned operations.</p>

			are not common based on my experience.	
		6.8	<p>a. Commenter believes PBES staff do not have the 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.”</p> <p>b. 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?</p> <p>c. 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.</p>	<p>a. See Response 2.8; the County has licensed professionals on staff that can help applicants. Generally, the WAA is not suggesting that a groundwater flow model is necessary to address Tier 1, 2, and 3 analyses. However, it is possible that a future proposed project, particularly a large scale complex site and project, may warrant a local model to aid the performance of CEQA impact analyses.</p> <p>b. The County does not intend to use a regional scale planning model to address project-specific questions. Generally, the types of questions the applicant needs to address and analyze require data on the project-scale; these data are typically not the level of data incorporated in regional planning scale models.</p> <p>c. The WAA is not a new groundwater ordinance (see Response 5.1. A process flow diagram is not necessary. The process is handled consistent with other County planning processes subject to CEQA provisions. The County assigns each project to a County planner who is the primary point of contact for all information relating to the project.</p>
		6.9	<p>a. Tier 1 Related Comments: 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.</p> <p>b. 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.”</p> <p>c. 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”?</p> <p>d. 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?</p> <p>e. 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</p>	<p>a. Acknowledged.</p> <p>b. Acknowledged.</p> <p>c. See Response to 2.4.</p> <p>d. The ultimate cost of analysis is driven by the quantity and quality of data needed to meet CEQA requirements.</p>

			task, the cost would be on the order of \$5,000-10,000 to complete. f. 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.	f. Many consultants who will likely use the WAA have provided comments on the draft document that have will be incorporated to refine the document prior to its finalization.
		6.10	The WAA does not address concerns about water quality specified by Mr. Margadant during the January 7th 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.	See Response to 5.14. As described in a separate Frequently Asked Questions document, dated December 18, 2014, water quality monitoring is not required under the existing WAA nor is it proposed to be added to the revised WAA.
January 23, 2015	Mount Veeder Stewardship Council	7.1	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.	See Comment 5.1 and Response
		7.2	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.	See Comment 5.2 and Response
		7.3	The Applicant should be required the search public data on the Public Surface Water Rights Data Base, 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.	See Comment 5.3 and Response
		7.4	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.	See Comment 5.4 and Response
		7.5	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.	See Comment 5.5 and Response
		7.6	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.	See Comment 5.6 and Response
		7.7	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).	See Comment 5.7 and Response
		7.8	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. Any calculation of water recharge in All Other Areas should be determined by the hydrologist hired to perform the water availability analysis.	See Comment 5.8 and Response

		7.9	<p>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.</p> <p>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.</p>	See Comment 5.9 and Response; also, the suggested reference will be added.
		7.10	<p>The WAA 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.</p> <p>So for example, on page 6, Table I , under Tier 2 references Well Interference. It should now read Well and Spring Interference.</p> <p>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".</p> <p>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).</p> <p>First, springs are not "mentioned" but rather included in the WAA.</p> <p>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.</p>	See Comment 5.10 and Response
		7.11	<p>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.</p>	See Comment 5.11 and Response
		7.12	<p>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.</p> <p>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.</p>	See Comment 5.12 and Response. As a guidance document, the WAA is not prescriptive with respect to the conceptual and technical approaches used by applicants in analyzing potential project impacts.
		7.13	<p>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</p>	See Comment 5.13 and Response

			specific requirements of the WAA for consolidated aquifer material.	
		7.14	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.	See Comment 5.14 and Response
		7.15	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 WAA 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.	See Comment 5.15 and Response
		7.16	It is incumbent upon Napa County to protect the health and safety of county residents. 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.	See Comment 5.9 and Response.
February 9, 2015	Bernadette Brooks	8.1	<p>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.</p> <p>Per the FAQ:</p> <p style="padding-left: 40px;">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:</p> <p style="padding-left: 40px;">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.</p> <p>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.</p>	See Comments 5.14 and 6.10 and Responses.
		8.2	<p style="padding-left: 40px;">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;</p> <p>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.</p>	See Comment 5.14 and Response.
		8.3	<p style="padding-left: 40px;">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</p>	This would be a project specific decision, based on factual evidence in the record. One potential reason PBES might

			<p>it.</p> <p>My response: How or why would PBES ask for the water quality data? What criteria says it is warranted?</p>	ask for this data would be knowledge of water quality issues in the area.
		8.4	<p>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.</p> <p>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.</p>	See Comment 5.14 and Response.
March 2, 2015	Ginna Beharry	9.1	<p>My concerns regarding how the water availability will be evaluated for this or any similar projects are as follow:</p> <p>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</p>	See Comment 5.14 and Response. Also see item 5 in the Water Availability Analysis (WAA) Frequently Asked Questions and Comments Received document (dated 12/1/2014).
		9.2	<p>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 simple be based on simple averages. It should be evaluated on ability to meet peak demand at crucial times, year after year.</p>	The WAA does address potential impacts due to variable demands at particular wells through the Tier 2 and Tier 3 criteria. For comparisons of project water use with groundwater recharge and availability, an annual comparison is more appropriate given the time scales over which groundwater recharge occurs (see Comment 5.8 and Response).
		9.3	<p>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 are 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.</p>	The WAA acknowledges the need for sufficient testing of wells with respect to identifying potential impacts on other existing wells (Tier 2) or surface waters (Tier 3), subject to certain conditions. However, there are many potential causes for reduced production by a particular well over time, many of which relate to the condition of the well or pump rather than the aquifer from which water is being extracted. The Tier 1 water use criteria have been developed to avoid potential impacts to the aquifer system.
		9.4	<p>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.</p>	See Comment 5.8 and Response. Clarifying language was added to the March 2, 2015 WAA working draft to clarify that CEQA requires that the County consider whether a proposed discretionary project will create “a net deficit in aquifer volume”. Given the complex geology of Napa County, there can be wide variability in the productivity of individual wells and testholes. While this variability may present an operational concern for an applicant, water use on a given parcel is determined not by the number of wells but by land use, which is addressed through the required water use estimate and Tier 1 criteria.
		9.5	<p>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 counted on as reliable long-term availability.</p>	This comment is specific to a particular project; however, the WAA, through the Tier 1 criteria, is concerned with ensuring long-term groundwater availability.
		9.6	<p>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</p>	Trucking of water is a policy decision at the discretion of the Board of Supervisors and the Planning Commission

			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.	and is beyond the jurisdiction of the WAA.
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