Comments Received Between 11/3/2016 and 11/11/2016				
Date	**Commenter**		**Comment**	**Response**
November 3, 2016	Gary Margadant, WICC Public Workshop, verbal comments	2.1	WICC look into the flow bypass requirements for dams for Conn, Rector and Bale creeks and believes the municipalities should release water to keep the stream from going dry.	Comment not related to Basin Analysis Report.
November 3, 2016	Gordon Evans, WICC Public Workshop, verbal comments	2.2	Appreciated responses to his comments from the September 22 WICC workshop. a) With respect to the river system, commented that swimming holes are dry/shallow or covered with algae; can no longer kayak the river; previously Chinook salmon could be seen from the Zinfandel Lane bridge. b) Said the hillsides were mostly lush woodlands dotted with modest vineyards; now, deforestation, runoff and siltation and over-pumping of groundwater has devastated our riparian areas that were once the Napa River and led to loss of flora and fauna and carbon sequestration. c) Stated the title of WICC includes the words watershed and conservancy and not to lose sight of those words when making recommendations on the Sustainable Groundwater Management Act (SGMA) alternative to the Board of Supervisors. Wishes to paint a historical picture and what has transpired overtime.	See responses to 1.15 and 2.31.

November 3, 2016	Chris Malan, Atlas Peak Rd., WICC Public Workshop, verbal comments	2.3	Presented an SF Chronicle article "Fisheries Hit Hard by Vast Sea Change." Stated the SF Bay Estuary is a premier estuary. We can no longer recreate in the upper reaches of the Napa River because there is no water, or if there is water, it is polluted pools. She said she could kayak the river seven years ago and that it is not possible today. She commented that everyone who lives in Napa is responsible for what happens to the bay and that there is a law that says the municipalities should be releasing water below their dams.	Acknowledge article shown to WICC. With respect to comments regarding conditions of the Napa River system, see responses to Comments 2.34 and 2.35.
November 3, 2016	Pam Smithers, WICC Public Workshop, verbal comments	2.4	Clarified that the WICC will not be making recommendations today but is rather serving as a conduit for public comments and discussion on the SGMA process and Basin Analysis Report. Everyone is welcome to comment individually.	The WICC's role is community education and outreach related to groundwater and that is why the discussion on SGMA and the Basin Analysis Report is set up in a public workshop format.
November 3, 2016	Scott Sedgley, WICC Public Workshop, verbal comments	2.5	The members of the Council take what they hear at these meetings back to their respective organizations and municipalities, and are effective at that level to lobby for things to happen.	Comment acknowledged. No action/response required.
November 3, 2016	Audience comment, WICC Public Workshop, verbal comments	2.6	Asked for clarification of the model used by the County to look at the hydrologic impacts of vineyard development related to the general plan update. David Graves answered it was the MIKE SHE from DHI (Danish Hydrologic Institute). Mr. Lowe noted that information about that model is available in the technical appendices for the General Plan Update of 2008.	Comment acknowledged. No action/response required.
November 3, 2016	Audience comment, WICC Public Workshop, verbal comments	2.7	When the alternate plan (report) is submitted to the Board of Supervisors on December 13th, and if they choose not to submit it, running past the due date, what are the repercussions?	If the Board requests minor changes, the Report could be approved as amended and submitted to DWR. More substantial changes would need to be returned to the Board for approval on Dec. 20th. If the Board's decision is to abandon the Alternative path, an expedited process would need to get underway to create a Groundwater Sustainability Agency (GSA) by June 30, 2017 to meet the SGMA deadline and to ensure that eligibility for DWR grant funding would not be lost. Technical work would likely be delayed for some time while the political, financial, and administrative process of forming the agency were resolved and implemented. The County would allocate resources and priorities to ensure we met the 2022 deadline for submitting a GSP.
November 3, 2016	Mike Hackett, WICC Public Workshop, verbal comments	2.8	Asked what assumptions were used to determine the future scenario in the report.	The future scenario was based upon modeled precipitation, evapotranspiration, and current and projected land use trends in the Napa Valley Subbasin. See also section 6.7.2 Projected Subbasin Water Budget Results of the Basin Analysis Report.

November 3, 2016	Chris Benz, Napa Sierra Club, WICC Public Workshop, verbal comments	2.9	Expressed appreciation for the work that went into the analysis. Commented on the discrepancy between the calculated water budget showing an increase of 6,000 AFY and what is observed which is stable groundwater levels and that there is significant uncertainty of the upland runoff, surface water outflow and baseflow components of the model. Can you give us an idea of how much uncertainty there is in the estimates (+ or – how many AFY)? What type and location of additional monitoring would help determine upland inflow contributions to the basin? Our local concern is that change in the ground cover on the hillsides (deforestation) could affect the inflow of rainwater into the basin. How can we look at this in greater detail now and in the future?	The basin characterization used in the report for the Valley Floor could be expanded in the future to look more closely at geology in the hillsides to further inform hillside input components in the model. See also responses to Comments 2.24, 2.25, and 2.26.
November 3, 2016	Gary Margadant, WICC Public Workshop, verbal comments	2.10	Gary Margadant asked a couple of questions on behalf of a person who needed to leave. Is pond evaporation included in the analysis and is climate change considered in the report? Will the dredging of the Napa River have any effect on the absorption of water into the ground? Mr. Margadant expressed concern with the problem areas found inside the valley, i.e. Petra Dr. What type of criteria is used to determine these problem areas? He suggests other problem areas: Dunaweal Rd., somewhere near St. Helena, and Dry Creek Rd. at Orchard Ave. Asked if extensive discussions about proposed winery use of groundwater is enough for the County to revisit SGMA and the sustainable use of groundwater? Are the change and/or clustering of well drilling permits in an area an indication that there is going to be a problem? The groundwater level charts shown in the 2016 CASGEM report, fig. 2.6, show depths 40-130' and that those areas are the problem areas. Is that what is used to determine these problem areas or is it just complaint driven? The Grand Jury Report of 2014-15 says that Napa County should develop contingency planning for a sustained drought. This report is focused only on the Napa Valley Subbasin.	The root zone model accounted for water surfaces (such as ponds) where mapped by DWR as part of land use surveys. Climate change has been considered as part of the Subbasin Water Budget analysis particularly for the Projected Water Budget Scenario (see Section 6.7.2). Dredging of the Napa River, which occurs in the most southern part of the Subbasin in the tidal reach of the river, was not considered as part of the analysis. In areas such as Petra Drive where groundwater level trends are atypical of overall Subbasin conditions, further study may be warranted and there is the potential for designation as a management area. The Petra Drive area and the study currently underway there are discussed in Section 7.6. The Basin Analysis Report does focus on the Napa Valley Subbasin as required by SGMA. However, hydrologic inputs from the contributing watersheds to the Subbasin are also included in the analysis of the basin conditions. The County has previously responded to the Grand Jury Report (dated June 2, 2015).

			Suggests that the Board of Supervisors revise their response to the Grand Jury saying that this process will address that need. Santa Clara and Orange County are doing a great job with groundwater and that Napa County should look to them to see what management is being done. Will submit additional written comments.	Acknowledged. The County and its consultants are aware of the groundwater management approaches being used on the Santa Clara and Orange County areas. For example, see Vicki Kretsinger Grabert, T. N. Narasimhan, *California's evolution toward integrated regional water management: a long-term view*, Hydrogeology Journal (2006) 14: 407–423. This article includes details relating to these two areas.
November 3, 2016	Gordon Evans, WICC Public Workshop, verbal comments	2.11	The report emphasizes the need for monitoring and sharing of water data. He appreciated finally getting his well monitored for the self-monitoring program. He wants to help the County to help us all, but he has heard these comments/remarks "depends if we are interested in a particular well or area," "we don't want to incur extra expense," "the County will except data and reports but may not do anything," "hillside data is not required by the State. Maybe if there is enough interest we will do that," and "people are afraid to turn data over to the County." He would like to know how serious the County is about the voluntary well monitoring program?	The County appreciates all public interest in the countywide groundwater monitoring program administered by the County and also the County's and the GRAC's efforts in recent years to promote broader engagement by the public in the countywide program and/or in the self-monitoring program. The countywide program was evaluated to identify data gaps (LSCE, 2011) and actions were implemented to address those data gaps (LSCE, 2013, 2014, 2015, 2016). These "gaps" include areas in the County where wells are in a certain location or constructed within a particular part of the groundwater system in order to accomplish data collection that addresses specific monitoring objectives. Mr. Evan's comments indicate that these specific monitoring needs for the countywide program may not be fully understood by the general public. The County wishes to fill data gaps with data from wells that are constructed in a manner that will provide meaningful data that addresses objectives.
			He said that when a neighbor's well failed, he went to the Assessor's office and looked at the 'parcel report' which stated there was not a groundwater problem. That statement on the parcel report was apparently put on the report by a third party vendor to mean no study was conducted; which was confusing for the casual observer or one who may purchase the parcel. A common down to earth common sense explanation of the data and numbers is needed.	Acknowledged. As Mr. Evans is aware, this terminology was clarified in the County system several years ago at his suggestion. David Graves commented in response to Mr. Evans during the WICC Workshop saying that the Groundwater Resources Advisory Committee (GRAC) spent a lot of time discussing data confidentiality and many in the community are concerned about their static well level data being widely available to anyone.

November 3, 2016	Chris Malan, WICC Public Workshop, verbal comments	2.12	If we have undesirable results in a medium or high priority basin you must do a groundwater management plan. Moving forward with an Alternate Plan in March before DWR regulations and BMPs were approved is putting the cart before the horse, not knowing what the management tools are. A GSP will map out what we will have to do to manage the aquifer sustainably. DWR has determined the Napa Valley Subbasin is in moderate decline since 1950. The monitoring data show that. All of the charts should show a regression line showing the decline overtime on recharge and groundwater levels. We are dewatering the mainstem near St. Helena. The Alternative is wishy-washy on management and does not provide distinctive management tools and objectives to reach a sustainable yield. The public wants management and groundwater for their children. The Alternative plan says there is a big problem with groundwater quality, particularly with boron, arsenic, nutrients/nitrogen – why do we want that to get worse? We have land subsidence (albeit under a foot) in several areas of the County - the land is sinking. She will submit more comments. She would like the report to be peer reviewed. More public involvement is needed. An ad-hoc group was formed but she was not asked to be on it – it included no environmental groups, which was a gap. She would like the report to project the trajectory we are on given land use and where we are headed, for example the thousands of acres of deforestation and losing our recharge.	See response to Comment 2.52.

November 3, 2016	Michelle Benvenuto, WICC Public Workshop, verbal comments	2.13	She commented on the ad-hoc committee mentioned by Chris Malan. Ms. Benvenuto clarified that if the reference was to the Groundwater Resources Advisory Committee (GRAC), that committee was formed via an application process and was appointed by the Board of Supervisors and included the Sierra Club and 15 members representing a broad spectrum of the community. Only two positions on the GRAC were held by the wine industry.	Comment acknowledged. No action/response required.
November 3, 2016	Chris Malan, WICC Public Workshop, verbal comments	2.14	Responded to Ms. Benvenuto saying that the GRAC was pre SGMA and the document references an ad-hoc committee and she doesn't know what that reference referred to.	Comment acknowledged. No action/response required.
November 3, 2016	Pam Smithers, WICC Public Workshop, verbal comments	2.15	It is very important that we pick the right wells to represent the basin, referencing Table 7-2 in the report. Some of these selected wells are newer wells and/or are right on the river. Is it possible to select other additional wells that are not so close to the river given the need to understand the upland runoff component and achieve the goal to select wells to study the surface flow interaction of the basin? Do the selected wells fulfill that need/goal? The report talks about declines in some wells. Do we need less wells near the river, or should we add more wells that show decline, to those that we are setting minimum thresholds? The County should commit more money to fill some of the data gaps that are mentioned in the report (e.g. a well in the south area to measure salinity). A larger distribution of these special wells across the basin where thresholds are monitored would show the public that we are representing the entire basin with these selected wells. If money is a constraint, consider adding more of these wells over time. She noted that the 6,000AFY projected excess of water in the basin is only 2.5% of the total inflows to the basin. If that number is wrong we could be in trouble. Is the 6,000 number high enough given the assumption that land use is being held constant at 2011 levels? 6,000 seems like a slim "positive" number.	See responses to 2.46 and 2.52

November 3, 2016	Steve Donoviel, WICC Public Workshop, verbal comments	2.16	Added that a stratified randomized selection of the wells in the network would be a better representation of the basin as a whole. Why aren't the hills being monitored? That is where the future growth and deforestation will occur. The valley floor is sold-out. It is short-sighted not to sample the hillsides too.	As reported in the *Napa County Comprehensive Groundwater Monitoring Program, 2015 Annual Report and CASGEM Update*, there are 113 sites monitored in Napa County; which include hillside wells. Monitoring is conducted by the County, DWR, and others. The monitoring network is continually being evaluated to assess additional data needs to ensure groundwater resource sustainability. Chapter 10 of the Basin Analysis Report presents recommendations for focused areas where additional groundwater monitoring is recommended.
	Patrick Lowe, WICC Public Workshop, verbal comments	2.17	Comment to Council and meeting attendees—the County staff and its consultants have answers to all of the questions raised and these will be provided in the response to comments table. He pointed out that the State DWR will be the ultimate arbitrator whether or not the basin is sustainable. The job of the County is to provide the State with the information they have requested in order to make that assessment.	Comment was informational for WICC and meeting attendees.
	Pam Smithers, WICC Public Workshop, verbal comments	2.18	Complemented staff and the consultants for making refinements to the document and water budget based upon comments received at the last meeting WICC workshop, adding that those changes show that the County and its team are really listening to the comments received and lends to the trust of the public.	Comment acknowledged. No action/response required.
	Kimberly Richard, WICC Public Workshop, verbal comments	2.19	Asked why the role of deforestation on soil moisture is left out of the scope of analysis for the Basin Analysis Report? Deforestation plays a role in climate, groundwater and hillside erosion. She would like more detail than what was provided in the response from the September 22nd meeting; where it was stated that deforestation is out of the scope of the analysis. Please elaborate more on why deforestation was not included since it plays a vital role.	The root zone model component of the water budget is spatially limited to the Napa Valley Subbasin. Ongoing or upcoming conversions from forest to vineyards are occurring in the uplands, outside of the Subbasin. Upland runoff and subsurface inflow components from the hillsides are components of the water budget and are based on the output of the California Basin Characterization Model (BCM) (which also considers climate change). Ongoing or upcoming conversions from forest to vineyards in the uplands are considered by the water budget as far as they are captured by the BCM land use inputs.
November 4, 2016	Stephen Donoviel, Letter to Patrick Lowe and Jeff Sharp, Re: WICC Meeting/Workshop of November 3, 2016	2.20	From the LSCE staffs comments and the summary posted on WICC website, it appears that no valid or reliable conclusions can be drawn or certified to the state about major areas of the Napa County ground water sustainability per state and federal expectations but only for those areas served by the alluvial river valley, viz., the Napa Valley Subbasin.	The Sustainable Groundwater Management Act requires GSPs or Alternatives for medium and high priority groundwater basins as delineated and ranked by the State Department of Water Resources (DWR). The Basin Analysis Report was prepared for the Napa Valley Subbasin, a medium priority basin that DWR has delineated and is not intended to address groundwater sustainability for the entire County.

November 6, 2016	Mike Hackett, Email to David Graves, Re: WICC/Alternative Ground Water Plan	2.21	What was the reasoning for selecting the alternate plan? (…) What individual or group came to that determination?	Following a public hearing and at the direction of its Board of Supervisors, Napa County prepared this Basin Analysis Report, an Alternative Submittal per the requirements of the California Water Code. It provides an analysis of basin conditions and demonstrates that the basin has operated within its sustainable yield over a period of at least 10 years. The Basin Analysis Report is required to accomplish the same (or identical) goals as a GSP within the framework of SGMA. An Alternative to a GSP does not require the formation of a Groundwater Sustainability Agency, which allows for a more cost effective use of existing resources through the Board of Supervisors and WICC. The Board of Supervisors determined that this was the fastest path to move forward with meaningful monitoring and proactive measures, while meeting the requirements of the Act in the most cost efficient way possible. SGMA requires submittal of an Alternative, such as the Basin Analysis Report, by January 1, 2017, which is five years in advance of when a GSP is required. Following its submittal to the state, DWR will conduct a review of the Basin Analysis Report, which will allow for additional public comment. An early submission to DWR sets local groundwater thresholds and establishes required monitoring and reporting well in advance of the 2022 timeline established by SGMA for a GSP. The Basin Analysis Report must be reviewed and updated by 2022 and every five years thereafter, and annual groundwater monitoring/implementation updates are also required by DWR. If minimum thresholds are not being met, then actions will be required to ensure the long-term sustainability of the Napa Valley Subbasin.
November 6, 2016	Mike Hackett, Email to David Graves, Re: WICC/Alternative Ground Water Plan	2.22	We need and will continue to demand an ongoing process like a sustainable groundwater plan.	The Basin Analysis Report is functionally equivalent to a GSP for the Napa Valley Subbasin.
November 6, 2016	Mike Hackett, Email to David Graves, Re: WICC/Alternative Ground Water Plan	2.23	L&S appear to have cherry picked data and modeling to support the alternate plan, which is disturbing enough. But more scary is that their future assumptions are based on current conditions: like no increased development. (…) We have the demand for 5,000 more acres of conversion from forest to vineyard in the pipeline right now.	All available historical and current data were evaluated for the Basin Analysis Report, including (but not limited to) data from the current 113 groundwater level monitoring locations, of which 45 locations have a period of record of over 10 years, 25 locations over 30 years, and 11 locations over 50 years. The demand of 5,000 acres of conversion from forest to vineyard cited by the commenter is believed to be based on the County General Plan. The number presented in the general plan is a conservative upper limit that was estimated for EIR purposes by projecting trends from the height of development leading up to 2006; however, the actual rate of development has been much lower. In addition, this number represented the countywide vineyard acreage trend, while the Subbasin itself has already been largely built out. Ongoing or upcoming conversions from forest to vineyards in the uplands are considered by the water budget as far as they are captured by the California Basin Characterization Model (BCM) land use inputs.
November 7, 2016	Chris Benz, Sierra Club Napa Group, Email to Patrick Lowe, Re: Comments on Basin Analysis Report	2.24	Please give the error, in terms of +/- amount of ac-ft/year, for each of the quantities used to calculate the water budget and groundwater level, as well as the error in the final quantities for the change in storage volume and for the change in groundwater level.	Table 10-1 (Summary of Recommended Implementation Steps) in the Basin Analysis Report includes item 22 to evaluate and address uncertainties in historical water budgets to improve calibration of budget components and reduce uncertainty of projected future water budgets. Results of this evaluation will include quantification of uncertainties.

November 7, 2016	Chris Benz, Sierra Club Napa Group, Email to Patrick Lowe, Re: Comments on Basin Analysis Report	2.25	Please list the data needed to improve the accuracy of the "upland runoff" and "surface water outflow and baseflow" values.	Table 10-1 in Chapter 10 of the Basin Analysis Report summarizes recommended implementation steps, and includes item 17: Coordinate with RCD and others regarding current stream gaging and supplemental needs for SGMA purposes; consider areas that may also benefit from nearby shallow nested groundwater monitoring wells (similar to LGA SW/GW facilities).
November 7, 2016	Chris Benz, Sierra Club Napa Group, Email to Patrick Lowe, Re: Comments on Basin Analysis Report	2.26	Please list specific locations for ideal monitoring sites (which could be public or private wells) that could be used to determine if changes in hillside watershed land use (e.g. deforestation for vineyard conversion/housing development) will have an effect on upland runoff into the subbasin. In other words, wells in which specific locations would be able to measure changes in upland runoff.	See response to Comment 2.25.
November 9, 2016	Gordon Evans Letter to WICC, Re: WICC Special Meeting, 9/22/16 & 11/3/16	2.27	The CA Dept. of Water Resources has not yet even finalized Best Management Practices (BMP's) for Groundwater Sustainability Plans (GSP's), (see: http://www.water.ca.gov/groundwater/sgm/pdfs/BMP Framework Draft 2016-10::28.pdf), so how can the Board of Supervisors even vote on an Alternative that must be functionally equivalent to a GSP?	Best Management Practices (BMPs) are guidance documents, not regulations, which aim to aid communities in implementing useful procedures, community activities, and other actions which will assist in improving groundwater sustainability. They are not required to be adopted in full, and some BMPs have no applicability to specific situations, whereas other BMPs may be very useful. DWR's Draft BMPs are already available and are not expected to change greatly as they go through the State approval process. Alternatives to GSPs are due to DWR on January 1, 2017. The Basin Analysis Report was written in accordance with the Groundwater Sustainability Plan Emergency Regulations that were finalized and published in August 2016. DWR publishes final BMPs for sustainable management of groundwater on January 1, 2017. Until then, the draft BMPs will inform the Basin Analysis Report (Alternative to GSP). The commenter also fails to recognize the adaptability of the Basin Analysis Report (BAR or Report). The Board of Supervisors will continue (as they have for several years) to receive an annual update on the latest groundwater monitoring results, changes to practices and regulations, and other possible improvements to how groundwater is monitored. The County does not believe that skipping the option to submit a BAR and move forward now on the many proposed actions in the Report, and instead waiting until 2022 to adopt a full GSP, is in the best interest of the County and its residents simply because final BMPs are not yet approved by DWR.

November 9, 2016	Gordon Evans Letter to WICC, Re: WICC Special Meeting, 9/22/16 & 11/3/16	2.28	The County's Consulting Engineers, Luhdorff & Scalmanini, have presented extensive data purporting to justify that that there's no groundwater availability problem, based on historical usage and current models. However, these engineering studies don't go forward. Even if one accepts those figures, they fail to note the demand for 5,000 more acres of conversion from forest to vineyard in the application process right now. Also ignored are 113 additional wells, many of which are already on line.	The water budget results that are presented in the DRAFT Basin Analysis Report include a 10 year projection of baseline Subbasin water budget results. As per the GSP regulations, the most recent land use development trend is utilized for the projected water budget future condition. In addition, changes in the water demand within the Subbasin were applied to evaluate the projected scenarios, along with modeled climate change from the US Geological Survey Basin Characterization Model (Flint and Flint, 2013). The water budget has been updated to include projects approved or in process through 2016, and now considers the rate of projected development through 2025. This results in an ongoing average annual increase in demand for new wineries of 12 acre-feet/year, and for new vineyards of 2 acre-feet/year average within the Subbasin. Upland runoff and subsurface inflow components of the water budget were based on the output of the U.S. Geological Survey California Basin Characterization Model (BCM)(Flint and Flint, 2013). Ongoing or upcoming conversions from forest to vineyards in the uplands are considered by the water budget as far as they are captured by the BCM land use inputs. In recent years, approximately 40 wells have been added to the groundwater level monitoring network that currently consists of 113 wells. These wells have existed prior to being added to the monitoring network and do not represent additional demand. The demand of 5,000 acres of conversion from forest to vineyard cited by the commenter is believed to be based on the County General Plan. The number presented in the General Plan is a conservative upper limit that was estimated for EIR purposes by projecting trends from the height of development leading up to 2006; however, the actual rate of development has been much lower. In addition, this number represented the countywide vineyard acreage trend, while the Subbasin itself has already been largely built out.
November 9, 2016	Gordon Evans Letter to WICC, Re: WICC Special Meeting, 9/22/16 & 11/3/16	2.29	Another glaring problem that is not discussed is the future quality of water, whether it be from groundwater sources (increased levels of toxic elements) or reservoirs which are subject to accelerated runoff from newly-deforested hillsides, which include siltation and chemical runoff from vineyards. These problems can be mitigated by current technology, but at what cost to the taxpayer, let alone the environment?	Groundwater quality monitoring in the Napa Valley Subbasin consists of 81 sites with data collected primarily at sites regulated by the SWRCB through the Division of Drinking Water and the Geotracker program, and data from other public agencies are available as well (including DWR and the U.S. Geological Survey) where available. The Basin Analysis Report discusses water quality in section 4.1.3; groundwater quality records from representative monitoring sites provide information on important constituents whose concentrations influence the quality of water for irrigation and human consumption. Despite the lack of long-term historical groundwater quality records in Napa County (a situation that is common throughout CA), available data suggest that groundwater is generally of good quality throughout most subareas. However, poor groundwater quality does, exist in the south and the north-central parts of the County. This includes concentrations of **naturally** occurring metals such as arsenic, iron, and manganese that exceed drinking water standards in those areas. Naturally occurring elevated levels of boron are also prevalent in most subareas. Subareas south of the Napa Valley Floor, such as the Carneros and Napa River Marshes outside of the Napa Valley Subbasin, have poor quality water due to naturally elevated levels of salinity and chloride. The Calistoga Subarea of the Napa Valley Floor has poor quality water in many wells due to hydrothermal conditions that result in higher concentrations of metals. Nitrate concentrations are not a concern throughout the county, but tend to be somewhat higher in agricultural areas in the Napa Valley Floor. The Basin Analysis Report identifies representative monitoring sites which include locations for ongoing monitoring and reporting of groundwater quality as one of the sustainability indicators.
November 9, 2016	Chris Malan, Institute for Conservation Advocacy, Research and Education (ICARE). Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka,	2.30	It (the Basin Analysis Report) assumes a false baseline of groundwater surface elevation: historically groundwater surface elevation in Calistoga was at 0 feet at mean sea level. Now groundwater is 10 feet below the surface in Calistoga and there is on-going dewatering of the Napa River from Calistoga to the City limits of Napa since 2004 and yearly thereafter including April to October 2016.	Figure 4-6 of the Basin Analysis Report shows groundwater level elevation records for the vicinity of Calistoga. Spring groundwater levels for monitoring locations within 5 miles of Calistoga show stable spring groundwater level elevations since the 1980s.

	Groundwater Sustainable Plan-Alternative			
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.31	LS reports that a monitoring well in St. Helena, Site #5 is showing on-going dewatering of the Napa River. This is an undesirable result impacting the public trust requiring a GSP.	The commenter makes a foundational error~~,~~ by requiring SGMA to resolve undesirable results that have occurred historically. For instance, the County acknowledges that the Napa River still faces many challenges, and in fact is taking many actions to address those challenges in the context of the TMDL, stormwater program, many miles of river restoration projects, and other activities. SGMA must address future undesirable results occurring from groundwater pumping exceeding the sustainable yield. While climate variability is described in the Report as a key contributing factor for low or no baseflow during dry periods, the effects of climate on the river system will be tracked with measurements at the 16 representative wells selected to assess potential streamflow depletion. Figure 4-46 of the Basin Analysis Report shows that, at Site 5, water level data indicate that the river was hydraulically connected to shallow groundwater during the first half of the year, until flows in the river ceased in July, and again in December 2015 as storms generated runoff leading to renewed flow in the river. Based on the analyses of surface water and groundwater interconnections, including the relationship of this connection to seasonal and annual groundwater elevation fluctuations (Chapter 4), measurable objectives for the streamflow sustainability indicator are set at 16 wells in the Subbasin (Table 7-7). These objectives represent the mean fall groundwater level elevations that occurred historically. These objectives represent the fall groundwater elevations within which groundwater elevations are reasonably likely to fluctuate during fall without exacerbating baseflow depletion. These measureable groundwater elevation objectives also serve as proxies for many other sustainability indicators, as shown in Table 7-2. (Measurable objectives and minimum thresholds are shown together in Table 7-11.) Because the data indicate that the interaction of groundwater and the river has been unchanged over a long period of time, this is not an undesirable result (as defined by SGMA) that must be corrected after the SGMA accountability date of January 1, 2015. SGMA provides that a plan or alternative submittal is not required to address undesirable results that occurred before and have not been corrected by January 1, 2015. However, the local Agency or the Groundwater Sustainability Agency have the discretion to set measurable objectives and the timeframes for achieving them. (Section 10727.2). Chapter 4 of the report describes the historical conditions of the Napa River System that occurred prior to January 1, 2015. The report also describes the river system being "considered the most sensitive sustainability indicator in the Napa Valley Subbasin, the measurable objectives and minimum thresholds discussed below [*in the Report*] are recommended to ensure groundwater sustainability or improve groundwater conditions, and provide ongoing monitoring targets devised to address potential future effects on surface water. The duration of annual no flow days varies from year-to-year and increases during extended droughts as during recent years. SGMA does not require a return to pre-development conditions, nor would decreased groundwater pumping necessarily have a significant impact on the duration and frequency of no flow days. The Basin Analysis Report provides measurable objectives and minimum thresholds at 18 specific monitoring sites within the Subbasin. Groundwater levels at 16 of these sites will be regularly evaluated and used to ensure that streamflow conditions are maintained or improved with respect to historical observations.

November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.32	(The Basin Analysis Report) has misleading information about groundwater quality-LS states that groundwater quality is poor in many areas, (especially American Canyon and Jamison Canyon and Carneros-due to sea water intrusion) into the aquifer due to boron, arsenic, nitrates, salt and heavy metals but then dismisses the importance of declining groundwater quality. Some areas are beyond the level allowed for drinking water in arsenic.	The Basin Analysis Report states that groundwater quality data show stable conditions between 2009 and 2015 compared to the conditions reported previously with data through 2008 (LSCE, 2011). Water quality standard exceedances in the Napa Valley Floor subareas and Napa Valley Subbasin were limited to the naturally-occurring constituent arsenic, with 4 of 26 sites showing maximum concentrations above the arsenic MCL of 10 µg/L. (See also Comment 2.12) The measurable objective for maintaining or improving groundwater quality is based on groundwater sample concentrations remaining above water quality objectives and groundwater quality at concentrations similar to and/or improved compared to historical observations in the groundwater basin. One representative well (06N04W27L002M, also referred to as 6N/4W-27L2) has a historical groundwater quality record. Other wells in Table 7-8 that have long groundwater level monitoring records are proposed to be added to track groundwater quality trends at locations representative of basin conditions. Beginning in spring 2017, groundwater quality sampling on an annual basis will incorporate these wells in the ongoing monitoring program. Measurable objectives for the newly designated representative wells will be re-evaluated after baseline water quality conditions are established (approximately three years of sampling and analysis of conditions). An example of measurable objectives for nitrate-nitrogen is shown in Table 7-8. The presence of long term, naturally occurring contaminants is not defined as an undesirable result by SGMA.
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.33	(The Basin Analysis Report) dismisses and omits information about the root zone modeling outcomes-LS discusses root zone modeling on the valley floor but ignores the upper watershed value of root zone absorption for the water budget. This allows LS to not model the impacts of deforestation on groundwater recharge impacting the NVSB.	The root zone model and the overall water budget presented in the Basin Analysis Report were developed for the extent of the Napa Valley Subbasin. The root zone model does not cover upland areas outside of the Subbasin. Upland runoff and subsurface inflow components of the water budget were based on the output of the California Basin Characterization Model (BCM), and impacts of upland land use changes are considered as far as they are captured by the BCM land use inputs.
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.34	(The Basin Analysis Report) ignores the Public Trust Doctrine that guarantees the right to fish, swim and recreate by dismissing the dewatering of the Napa River and streams due to groundwater pumping for agriculture. If an aquifer is listed with the DWR as high or moderate priority for a GSP/GSA, and there are undesirable results, a GSP, is required to achieve sustainable year-to-year safe yield, or the State takes over groundwater management.	Reaches of the Napa River have over many decades (since the 1930s) experienced low to no-flow conditions during the summer-to-fall period for a variety of reasons. Changes in streamflow over the years has been impacted by: • seasonal rainfall, • small dams (both legal and illegal) that have been constructed to block streamflow in the hills; • withdrawal of surface water (both legal and illegal) from the creeks, and • elimination of valley floor wetlands and reduced infiltration areas from development as far back as the 1800s. The duration of annual no flow days varies from year-to-year and increases during extended droughts as during recent years. SGMA does not require return to pre-development conditions, nor would decreased groundwater pumping necessarily have a significant impact on the duration and frequency of no flow days. The Basin Analysis Report provides measurable objectives and minimum thresholds at 18 specific monitoring sites within the Subbasin. Groundwater levels at 16 of these sites will be regularly evaluated and used to ensure that streamflow conditions are maintained or improved with respect to historical observations.

November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.35	(The Basin Analysis Report) fails to adequately discuss ' undesirable results' required by SGMA such as: chronic lowering of groundwater levels, unreasonable and significant depletion of supply or storage, significant or unreasonable degraded groundwater quality, depletion of interconnected surface water that has adverse impacts on beneficial uses of water, unreasonable or significant sea water intrusion, unreasonable or significant land subsidence (see chart 4-3 on page 60 of the NVSBA on land subsidence): In the NVSBA all of these undesirable results are current and on-going in this aquifer since January 1, 2015. Because 'undesirable results' are present now in this basin, the County is required to do a Groundwater Sustainable Plan, GSP, by 2020 for critically over-drafted aquifers and 2022 for medium to high priority aquifers, and a Groundwater Sustainable Agency, GSA, by June 2017.	The report defines undesirable results in Chapter 7 and provides findings related to the six sustainability indicators (the items listed by the commenter), which are discussed in greater detail in Chapter 4. The report acknowledges "at some locations during the summer to fall period, the historical occurrence of diminished baseflow could be considered an undesirable result." SGMA provides that a plan or alternative submittal is not required to address undesirable results that occurred before and have not been corrected by January 1, 2015. However, the local Agency or the Groundwater Sustainability Agency have the discretion to set measurable objectives and the timeframes for achieving them. (Section 10727.2). Chapter 4 of the report describes the historical conditions of the Napa River System that occurred prior to January 1, 2015. The report also describes the river system being "considered the most sensitive sustainability indicator in the Napa Valley Subbasin, the measurable objectives and minimum thresholds discussed below [*in the Report*] are recommended to ensure groundwater sustainability or improve groundwater conditions, and provide ongoing monitoring targets devised to address potential future effects on surface water."
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.36	The MST aquifer is in critical overdraft, but the DWR doesn't recognize the MST for SGMA regulation implementation, or in other words, MST is outside the SGMA boundaries. Yet, there are portions of a alluvial aquifer that qualify the MST for SGMA regulation of pumping groundwater.	See response to 1.5
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.37	(The Basin Analysis Report) mischaracterizes the water budget elements for determining safe yield-discusses that grape vine production is at 20,000/valley floor/acres and holding and ignores the recharge area in the hills where the majority of the wine grape industry expansion is occurring causing thousands of acres of deforestation and conversion to wine grapes consequently impacting groundwater recharge (to the valley floor) and many areas in the hills loosing wells due to depleting aquifers.	Proposed development of vineyards are predominantly located in the uplands, outside of the Napa Valley Subbasin. Infiltration and groundwater recharge in uplands are not considered an inflow to the Napa Valley Subbasin by the Water Budget presented in the Basin Analysis Report. However, upland runoff and uplands subsurface inflow (from mountain-front recharge) are inflows and inputs into the Subbasin water budget. An increase in upland surface water runoff would increase the inflow to the Napa Valley Subbasin and would not decrease infiltration/recharge within the Subbasin. Management of groundwater in hillsides surrounding the Napa Valley Subbasin is not the subject of the Basin Analysis Report, nor is it required under the SGMA.

November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.38	(The Basin Analysis Report) fails to account for the major use of groundwater at 60% during drought-causing dewatering of streams	Table 6-11 of the Basin Analysis Report lists the sources of applied water that are considered in the sustainable yield analysis, including groundwater pumping. Figures 5-2 and 5-4 show estimated annual Napa Valley Subbasin agricultural and municipal water use from 1988 to 2015, by source of supply, including groundwater.
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.39	(The Basin Analysis Report) fails to project or analysis groundwater use impacts into the future due to expanding vineyards, wineries and municipal needs of surface water all impacting groundwater recharge	The water budget results that are presented in the Basin Analysis Report include a 10 year projection of future conditions in the Subbasin water budget results. As per the GSP regulations, most recent land use trend is utilized for the projected future baseline condition. The water budget has been updated to include projects approved or in process through 2016, and now considers the rate of projected development through 2025. This results in an ongoing average annual increase in demand for new wineries of 12 acre-feet/year, and for new vineyards of 2 acre-feet/year average within the Subbasin. Although homes, vineyards, and wineries are almost universally more water efficient than any time in their histories, the Report does not attempt to take credit for this known decrease in water use. Vineyard practices in particular, including use of vine specific watering technology and underground applications have greatly reduced the amount of water used for irrigation. Thus, while we account for new uses, we conservatively do not take credit for extensive conservation efforts. There is no current evidence that the County possesses that indicates the municipalities with wells (Yountville and St. Helena) intend to greatly increase their groundwater pumping; the County will nonetheless monitor the use of municipal wells and will discuss it with the Board of Supervisors should pumping rate increases occur over an extended period of time.
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.40	The Alternative (GSP Alternative/Basin Analysis Report) quickly dismisses vineyard development impacts on groundwater recharge as it relates to drainage tiles preventing groundwater recharge, and states there is no available information on erosion control plan tiles. This is a false statement. All erosion control plans are available through the County Planning and Conservation Department files to determine tile impacts on storm water discharges and l (the) loss to groundwater aquifer recharge.	Erosion Control Plans (ECPs) are required for agricultural projects involving grading and earthmoving activities on slopes over 5%, which does not apply within the vast majority of the Subbasin due to the flat topography. Therefore, ECPs that would include information on tile drains are not available for those areas.
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.41	The Alternative (GSP Alternative/Basin Analysis Report) is using old data on land use (2008) on vineyard development in the county unincorporated, hence the recharge considerations by LS are incorrect.	The Subbasin Water Budget presented in the DRAFT Basin Analysis report utilized DWR land use data from 2011 for pumping and recharge estimates under current condition. The water budget has been updated to include projects approved or in process through 2016, and now considers the rate of projected development through 2025. This results in an ongoing average annual increase in demand for new wineries of 12 acre-feet/year, and for new vineyards of 2 acre-feet/year average within the Subbasin.

November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.42	Figure 5.2 shows that since 1988 surface flows have declined steadily as groundwater pumping increases, as evidence that a GSP is required as groundwater continues to be a primary source of water for vineyards, as surface water availability declines	Figure 5-2 shows annual agricultural irrigation water use by source of supply; surface water, groundwater, and recycled water. The portion of irrigation water use supplied by groundwater increased over time as the portion of irrigation water use supplied by surface water decreased. Figure 5-2 does not show a decline in surface water flows.
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.43	A GSP requires management tools implemented vs. GSP-Alt has recommendation pending/on-going and doesn't have to report to DWR for another 5 years	The commenter is mistaken regarding reporting frequency to DWR. Annual reports are required to be submitted to DWR following submittal of an alternative or a GSP. Napa County will have submitted a number of annual reports to DWR before other entities (who are submitting GSPs) have even submitted their first GSP. Napa County staff have annually reported groundwater monitoring conditions to the Board of Supervisors in a public forum for many years, which will continue. SGMA also requires that a GSP or an alternative be updated every 5 years, which means the next full update of the Basin Analysis Report would be due by 2022.
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.44	This GSP-Alternative makes management recommendations for sustainable yield-out of 26 recommendations, 9 are complete, 14 are to be address and 9 are in the process while a GSP requires management tools to be implemented with deadlines for successful implementation with results by 2022. This GSP-Alternative allows a five year pass on groundwater sustainability if approved.	The Basin Analysis Report alternative provides many sustainability recommendations. Nearly all of the recommendations previously made in the 2011 groundwater conditions report (LSCE, 2011) have been implemented, but there are also many new actions proposed in the Report that are looking forward. The submittal of an alternative does not allow a "five year pass" on groundwater sustainability. See response to 2.43. As explained in several Chapters of the Report, it is the intent of this Report to set forth guidance and actions now that maintain or improve groundwater conditions in the Napa Valley Subbasin.
November 9, 2016	Chris Malan, ICARE. Letter to WICC, Re: The Napa Valley Groundwater Sub-basin Analysis, NVGSA aka, Groundwater Sustainable Plan-Alternative	2.45	Because the NVGSB/GSP/Alternative recommends on-going monitoring and not getting going on the develop(ment) of a Groundwater Sustainable Plan, undesirable results will continue to damage our precious watershed for generations to come. Additionally, Napa County runs the risk of the State stepping in to manage our over-drafted aquifers.	The commenter's statement is incorrect. Chapter 7 establishes measurable objectives and minimum thresholds as required by SGMA for the purposes of avoiding significant and unreasonable undesirable results. As explained in that Chapter and elsewhere in the report, these metrics will be regularly tracked and evaluated for the purpose of maintaining or improving groundwater conditions. The commenter also overstates the role of the State in this matter. It is expected that the Alternative Plan will be submitted to DWR on or before January 1, 2017, as required by SGMA. The State is required to review, comment, and approve or reject the plan. If they have any questions, needed clarifications, or have objections, the County will have the opportunity to resolve those concerns. Should the State reject the plan in its entirety, the County would then go down the path of creating a Groundwater Sustainability Agency and preparing a Groundwater Sustainability Plan by the 2022 deadline. As the County is moving forward with these allowable options, the specter of a State takeover is very unlikely given that this is intended as a measure of last resort

November 9, 2016	Pam Smithers, WICC Board Member, Re: Comments on Draft Napa Valley Groundwater Sustainability: Basin Analysis Report for the NV Sub-basin	2.46	This (The Water Budget) calculation –inflows of 236,000 acre feet, out -flows of 230,000 acre feet - leaves only 6,000 acre feet in net annual positive change in sub-basin storage. This net change is only 2.5% of total inflows. The calculations depend on many assumptions, any one of which may be incorrect. The margin of error is very slim. The assumptions should be listed, and explained in detail, next to the Budget numbers. Even better would be several Water Budgets prepared, side by side, under different assumptions.	The Basin Analysis Reports lists assumptions and uncertainties of water budget components in Table 6-10. The water budget results show an average annual change in Subbasin storage of 6,000 acre-feet per year over the base period from 1988 to 2015. Figure 6-24 shows that estimated year-to-year changes in Subbasin storage can be as large as 60,000 acre-feet. The average value of 6,000 acre-feet per year is a small fraction of the total inflows and outflows, indicating that the water budget has been nearly balanced over the base period (showing an average increase), which is consistent with the results from the independent Groundwater Level Change in Storage Analysis presented in section 6.8 of the Basin Analysis report. However, as the comment indicates, a small relative error of major water budget inflow and outflow components would have a measurable effect on the average annual change in Subbasin storage. To address this issue, Table 10-1 (Summary of Recommended Implementation Steps) in the Basin Analysis Report includes item 22: "Evaluate and address uncertainties in historical water budgets to improve calibration of budget components and reduce uncertainty of projected future water budgets." This will also be reviewed by DWR as a part of their determination of basin sustainability.
November 9, 2016	Pam Smithers, WICC Board Member, Re: Comments on Draft Napa Valley Groundwater Sustainability: Basin Analysis Report for the NV Sub-basin	2.47	The (Water Budget) calculations assume land uses have been constant since 2011. This needs further explanation, with County Planning Dept. data to prove the conclusion. This should be done for both the sub-basin and the uplands (which matter, see below).	The Subbasin Water Budget presented in the DRAFT Basin Analysis report utilized DWR land use data from 2011 for pumping and recharge estimates under current condition. The water budget has been updated to include projects approved or in process through 2016, and now considers the rate of projected development through 2025. This results in an ongoing average annual increase in demand for new wineries of 12 acre-feet/year, and for new vineyards of 2 acre-feet/year average within the Subbasin. Upland runoff and subsurface inflow components of the water budget are based on the output of the California Basin Characterization Model (BCM)(Flint and Flint, 2013), and impacts of upland land use changes are considered as far as they are captured by the BCM land use inputs.
November 9, 2016	Pam Smithers, WICC Board Member, Re: Comments on Draft Napa Valley Groundwater Sustainability: Basin Analysis Report for the NV Sub-basin	2.48	The majority of the inflow to the basin (145,000 AF or 61% of total inflows) is reported as due from upland runoff (infiltration which eventually makes its way to the basin). This number is reported in italics, as not completely proven/correct. If this number is wrong by only 5%, we have a negative number for annual change in sub-basin storage, i.e. more water is being taken out of the sub-basin than going into. Therefore, this reported infiltration number which is the majority of the inflow to the sub-basin needs more work to assure correctness with the margin of error allowed by the Budget (2.5%).	The water budget results slide (p. 36) of the November 3, 2016 presentation "Napa Valley Groundwater Sustainability: A Basin Analysis Report for the Napa Valley Subbasin (Draft)" shows the Upland Runoff (inflow) and Surface Water Outflow and Baseflow (outflow) italicized. The note on the bottom of that slide indicates that italicized values are more uncertain than others. This is explained by their absolute magnitude, and is not meant to indicate that their relative uncertainty is quantifiably worse than other components.
November 9, 2016	Pam Smithers, WICC Board Member, Re: Comments on Draft Napa Valley Groundwater Sustainability: Basin Analysis Report for the NV Sub-basin	2.49	When forests are removed for vineyard installation, the water budget calculation changes. More data is necessary to prove that forest conversion to vineyard is not a factor. Use aerial mapping (or County Planning Dept. records) to prove the assumption that forest conversion has been minor since 2011. With forest conversion, more water makes its way into the surface water (an outflow) than infiltration (inflow). Any slight change to the surface water outflow number will result in a negative net change to sub-basin storage.	See response to Comment 2.37.

November 9, 2016	Pam Smithers, WICC Board Member, Re: Comments on Draft Napa Valley Groundwater Sustainability: Basin Analysis Report for the NV Sub-basin	2.50	Recycled Water as an Input to the Water Budget: Our obligation is to prove we have achieved groundwater sustainability over the last 10 or more years. Recycled water is used as an inflow to the water budget, yet recycled water has only been actually used in the valley within the last few years. This apparent contradiction should be clarified and explained.	Section 5.2 of the Basin Analysis Report describes the water supplies and utilization by sector. As described in the Report, recycled water has been utilized for agriculture and municipal use throughout the evaluated base period from 1988 to 2015. Although outside of the Napa Valley Subbasin, the recent construction of the MST and Carneros recycled water pipelines will increase the use of recycled water in those areas by about 1000 acre-ft per year in Napa County.
November 9, 2016	Pam Smithers, WICC Board Member, Re: Comments on Draft Napa Valley Groundwater Sustainability: Basin Analysis Report for the NV Sub-basin	2.51	Use of 1988 as beginning year of base period: Using 1988 as the base year seems odd, like cherry picking, because it results in a 28 year study period (1988-2016). To avoid the appearance of cherry picking a dry year as your beginning base year, the analysis should be done with either a 30 year base period (1986-a wet year), or a 25 year base period.	A base period of time must be selected so that it is a representative period of study for groundwater basin conditions, with minimal bias that might result from the selection of a wet or dry period or significant changes in other conditions including land use and water demands. The study period selected for the Basin Analysis Report spans from water years 1988 to 2015. This period was selected on the basis of the following criteria: long-term mean annual water supply; inclusion of both wet and dry stress periods, antecedent dry conditions, adequate data availability, and inclusion of current cultural conditions and water management conditions in the basin. A shift of the base period would not satisfy these criteria.
November 9, 2016	Pam Smithers, WICC Board Member, Re: Comments on Draft Napa Valley Groundwater Sustainability: Basin Analysis Report for the NV Sub-basin	2.52	Numbers and placement of wells being relied upon: We need more wells placed (or private wells located) away from the Napa River. The newest ten wells were all placed near the river, which is where groundwater accumulates. Table 7-1 lists “representative monitoring sites”, which includes the 10 (out of 18) wells which were located near the river, placed there specifically to study the interaction of groundwater and surface water (“designated surface/groundwater facility). While studying this interaction is critical, these wells should not dominate the list of “representative monitoring sites”. These wells must “typify conditions in the sub basin”. Either add more wells to this list, or remove some and select more wells further away from the river basin.	Table 10-1 in Chapter 10 of the Basin Analysis Report summarizes recommended implementation steps, and includes ongoing item 3.1b: Develop and/or expand aquifer specific groundwater monitoring network in Napa Valley Floor, Pope Valley and Carneros Subareas by identifying existing wells with well construction data and constructing new aquifer-specific monitoring wells as needed where data gaps may exist.
November 9, 2016	Pam Smithers, WICC Board Member, Re: Comments on Draft Napa Valley Groundwater Sustainability: Basin Analysis Report for the NV Sub-basin	2.53	Data Gaps: The study mentions in Section 4 the fact that many data gaps exist. This means not enough well data in certain areas of the valley. We should take every opportunity to use existing private wells that have been volunteered up by their owners to be included in this study. Not doing so robs us of valuable data, and it gives the appearance of cherry picking wells that will yield favorable results.	See response to 2.52

November 9, 2016	Pam Smithers, WICC Board Member, Re: Comments on Draft Napa Valley Groundwater Sustainability: Basin Analysis Report for the NV Sub-basin	2.54	Data Gaps: Additional water gages along the river should also be considered for measuring surface flow.	Table 10-1 in Chapter 10 of the Basin Analysis Report summarizes recommended implementation steps, and includes item 17: Coordinate with RCD and others regarding current stream gauging and supplemental needs for SGMA purposes; consider areas that may also benefit from nearby shallow nested groundwater monitoring wells (similar to LGA SW/GW facilities).
November 9, 2016	Pam Smithers, WICC Board Member, Re: Comments on Draft Napa Valley Groundwater Sustainability: Basin Analysis Report for the NV Sub-basin	2.55	Size of Report: The report, at 1100 pages, is too long. No one can examine a report of this size, in fact, I doubt many have actually read the entire document. There should be an executive summary section that lays out layman terms the big ideas with the assumptions used, and references to the tables and graphs. As a board member, I attended both workshops, and also spent about 6-8 hours studying the Report. In all fairness to the public, this report is far too long for the average citizen to read and understand.	The Report includes the information required by DWR to demonstrate the sustainability of the basin. The main text of the Basin Analysis Report is less than 250 pages, excluding figures and appendices; the Report includes a 30-page executive summary at its beginning.
November 10, 2016	Gary Margadant, Letter to WICC Board, Re: WICC Special Meetings, 9/22/16, 11/3/16, Comments on NAPA VALLEY GROUNDWATER SUSTAINABILITY – A BASIN ANALYSIS REPORT FOR THE NAPA VALLEY GROUNDWATER SUBBASIN (DRAFT PLAN)	2.56	The Water Availability Analysis (WAA) developed by Napa County Department of Public Works and adopted by the Board of Supervisors on May 12, 2015. I specifically refer to tables 1, 2A and 2B describing Project Screening Criteria, Water Use Criteria and Default Well Interference Criteria. The footnote to Table 1 (Further analysis may be required under CEQA if substantial evidence, in the record, indicates a potentially significant impact may occur from the project.) This is a very telling for any resolution of groundwater problems falling outside the table direction. It requires the gathering of data and evidence, placed in the record, before any County Action is initiated to counteract or change any applicability criteria. My point here is the difficulty in approaching the County with a Groundwater problem you have in the Napa Valley Floor. It appears to be very difficult and requires you to amass substantial evidence before Napa County will hear your plea. But, If you are off the floor and in the hillsides, then and investigation based on the Tier 2 requirements is straightforward and Required.	The commenter's statement regarding the WAA guidance is acknowledged. The Valley Floor and the hillside areas are very different hydrogeologic settings. The WAA intends to provide a consistent approach for applications submitted for comparable areas. For example, two hillside area discretionary project applications will be assessed for project water use and potential impacts of that use similarly. However, other factors unique to either project may result in additional analyses being required, such as the potential for well to well or well to stream interference

			The evidence will be gathered as a requirement of the project. This dichotomy does not describe a sound management process for residents throughout Napa County. The county can do better and show consistency across the whole area of their purview.	
November 10, 2016	Gary Margadant, Letter to WICC Board, Re: WICC Special Meetings, 9/22/16, 11/3/16, Comments on NAPA VALLEY GROUNDWATER SUSTAINABILITY – A BASIN ANALYSIS REPORT FOR THE NAPA VALLEY GROUNDWATER SUBBASIN (DRAFT PLAN)	2.57	The Board of Supervisors (BOS) responded to the Napa County Grand Jury on June 2, 2015 concerning questions about the management of Groundwater and Recycled Water. I refer you to the Board of Supervisors response to Findings 3 and 4 and the Recommendations 1, 2 and 3. For the findings, the BOS did not deal directly with the questions and avoided any discussion of county efforts for sustainability as described in the GRAC Objectives previously listed: "……overarching goal of developing sustainability objectives is to protect the groundwater resources of Napa County for all the people who live and work here, regardless of the source of their water supply….." The BOS approved and adopted this language in their acceptance of this GRAC report, but it is a shame that their follow up has not been more rigorous in the need to help residents with guidance and analytical efforts. Without help, it is difficult to understand the nature of the groundwater problems in their experience and make an educated attempt at Groundwater Sustainability. The BOS needs to revisit their response to the Grand Jury if their overarching goal is Sustainability in the Whole of Napa County, not just the Valley Floor covered by the Basin Analysis. The board needs to broaden their approach to all areas of Napa County with consistent direction and effective use of their staff in the Department of Public Works and PBES. These departments are full of qualified talent to manage these Groundwater difficulties	The County previously responded to the Grand Jury Report.

November 10, 2016	Gary Margadant, Letter to WICC Board, Re: WICC Special Meetings, 9/22/16, 11/3/16, Comments on NAPA VALLEY GROUNDWATER SUSTAINABILITY – A BASIN ANALYSIS REPORT FOR THE NAPA VALLEY GROUNDWATER SUBBASIN (DRAFT PLAN)	2.58	In previous comments before WICC, I have discussed areas of Groundwater difficulties within the Napa Valley Basin, particularly Petra Drive, Dry Creek Road and Orchard Avenue and Dunaweal Lane. I have reviewed the LIDAR maps in two documents in the appendices of the Basin Report: 1) Part 1 of 2, Updated Hydrogeologic Conceptualization & Characterization of Condition, January 13, Fig 7-9, Calculation depth of Groundwater in spring 2010. 2) Casgem Update, 2015 Annual Report, March 2016, Fig 2-6. Spring 2010, calculated Depth of Groundwater. In each of these maps, areas of groundwater depth are depicted in colors throughout the Basin. In 1), the yellow areas show a depth of 40'-250' , with grey of 20' - 30'. In 2), the yellow area show a depth of 40' - 132'. These maps indicate areas of deep difficulty in the location of Groundwater, defining for the county where sustainability issues will bubble to the surface and residents will be looking for guidance and assistance. If the county were to overlay these maps with Parcel Maps, they will immediately know who might be affected by this deep water source that is not typical of the majority of the Valley Floor Basin. These would immediately become areas of concern with the possible need for sustainable management. Petra Drive has entered that area of concern due to the concentration of wells in a somewhat Residential neighborhood with nearby commercial wineries and the nature of the underlying groundwater geology. The close proximity of the Beau Vigne (formerly Van de Heyden) and the resulting pressure on the groundwater supplies is noted in the Water Availability Analysis (WAA) provided by the project Permit Modification request. The WAA relies on the valley floor definition of the WAA Tier 1 available groundwater at 1 acre-foot of water per acre of land in the project, yet if the project location was located to the east by 1300 feet, it would no longer be in the valley floor basin. Rather it would be in the hills and subject to Tier 2 of the WAA and require greater analysis of the available ground water and interference of	In areas such as Petra Drive where groundwater level trends are atypical of overall Subbasin conditions, further study may be warranted and there is the potential for designation as a management area. The Petra Drive area and the study currently underway in that vicinity are discussed in Section 7.6 of the Report.

			adjacent wells within 500 feet. As you can see by the WAA and the diagram of the 500' radius circle around the existing well, there are 13 adjacent wells within that circle, yet none of the wells will be analyzed for interference. The groundwater is considered sufficient for all wells based on the Tier 1 criteria. So this is the current process, but I fail to see how this method will meet the definition of Sustainability and meet the goals of GRAC. The county needs to step up and meet the SGMA goals with a different organization and goals. This current regime bodes ill for the residents of the valley, especially in those in areas of deep groundwater location within the Napa Valley Sub Basin.	Since 2009, the County has implemented a Comprehensive Groundwater Monitoring Program which has included far more than simply monitoring groundwater. The activities undertaken and completed by the County during the past 7 years surpass what has been accomplished in many other medium and high priority basins statewide to understand conditions in those basins and comply with SGMA. See Report Executive Summary, and Chapters 1, 9, and 10 of the Report.
November 11, 2016	Bernadette Brooks, Email to WICC Board, Re: SGMA Basin analysis comments	2.59	One key comment and concern I have is that the models and report as presented look backward in time and rely on a similar pattern for Napa Basin going forward. While I am not sure any of us has definitive information on what climate change will bring to Napa Valley I feel it would be a mistake for us not to look at a worst case scenario and somewhere in between before we talk ourselves into thinking that Napa Valley's water supply is in good shape for the next 5 -10 years. As data input behind my concern please see a short but very informative article at the link below by the Colorado River Research Group that talks about the considerable effects of temperature change more so than precipitation levels on water supply. While they are specifically looking at the Colorado River the concerns can be applied to most western water basins. I am especially concerned as the presented Water Budget model relies heavily on Upland Runoff as input and practically stable groundwater pumping for irrigation. Both of these factors will probably change considerably with increasing temperatures. In addition we need to anticipate more reductions in imported water allowances. So I would like to see the SGMA report include both a mention of the climate change factors and present, a conservative at least, future Water Budget scenario taking them into consideration. I think this is important for future planning and governance of our water supply.	Climate change is a component considered in the Basin Analysis Report. The root zone model component of the Subbasin water budget utilizes precipitation as well as evapotranspiration as hydrologic model inputs. Evapotranspiration (ET) is a function of temperature. Projected Subbasin water budgets rely on projected hydrologic inputs for precipitations, and ET/temperature. The baseline condition for future water budgets that is presented in this report is based on the “warm and moderate rainfall” climate change projection of the U.S. Geological Survey Basin Characterization Model (BCM)(Flint and Flint, 2013). In addition to the “warm and moderate rainfall” baseline condition, an alternative “hot and low rainfall” future climate scenario from the BCM was applied to the Subbasin Water Budget to evaluate future scenarios of hydrologic uncertainty associated with projections of climate change.

			(http://www.coloradoriverresearchgroup.org/uploads/4/2/3/6/42362959/crrg_climate_change.pdf)	
11/21/2016	Yemia Hashimoto, SF Bay Regional Water Board, Email to Patrick Lowe, Re: Water Board Comments on the October 2016 Draft Napa Valley Groundwater Sustainability-Basin Analysis Report	2.60	Data Gaps: We concur with Section 10.2 recommendations in the Basin Analysis Report that groundwater monitoring gaps be addressed. Our concern is that if these data gaps are not addressed, Napa County would not be able to identify future Study Areas, as is described in Section 7.6. Therefore, please indicate if specific locations are currently prioritized for monitoring, and/or how these locations would be identified. For example, we note data gaps in the northern region, near Calistoga, including Napa River tributaries, where the monitoring network is much less dense. Please consider focusing future investigation/monitoring to address data gaps in the Dry, Milliken, Sulphur, Mill, and Richie Creek tributary areas, which are of particular interest for preservation of groundwater base flow and aquatic species habitat.	The 2013 Napa County Groundwater Monitoring Plan ranked and prioritized improvements or expansions of groundwater level monitoring in each of the designated subareas in Section 2.3.4 (Groundwater Monitoring Priorities). Six subareas (including the NVF-Calistoga, NVF-MST, NVF-Napa, NVF-St. Helena, NVF-Yountville, and Carneros Subareas) were given a relatively higher priority. This relative prioritization was based on such factors as data scarcity, the need to improve the spatial distribution of the currently collected data, current population and groundwater utilization relative to other parts of the county, and /or the need to improve understanding of groundwater/surface water interaction. 10 additional dedicated monitoring wells were installed and have been monitored since 2014 to collect data and ascertain the relative importance of baseflow and its interrelationship with the groundwater system along the river system. Going forward, a total of 18 representative monitoring sites will be monitored to achieve measurable objectives, or specific quantifiable goals for maintaining or improving groundwater conditions, and to inform the five-year updates of the Basin Analysis Report. As reported in the Napa County Comprehensive Groundwater Monitoring Program, 2015 Annual Report and CASGEM Update, there are 113 sites monitored throughout Napa County, by the County, DWR, and others. The well monitoring network is continually being evaluated and updated to assess additional data needs to ensure groundwater resources sustainability, including areas within the Dry, Milliken, Sulphur, Mill, and Richie Creek tributary areas that the commenter mentioned. Section 10.2 of the Basin Analysis Report specifies that additional wells are of interest in the St. Helena Subarea, northern part of the Yountville Subarea, and the southern part of the Napa Subarea. Figure 10- 1 shows the current distribution of monitoring wells, including monitoring wells used to compute groundwater levels and the change in groundwater storage in the alluvial aquifer system and the distribution of other currently monitored wells. Additional wells are also of interest to monitor conditions in older formations underlying the alluvial aquifer system. The County has the opportunity, through Conditions of Approval on new and modified discretionary permits, to obtain additional wells and monitoring data by requiring new permittees to monitor and record water level and extraction data, and provide the County access to project wells and data when it is needed to maintain or expand the monitoring network.
11/21/2016	Yemia Hashimoto, SF Bay Regional Water Board, Email to Patrick Lowe, Re: Water Board Comments on the October 2016 Draft Napa Valley Groundwater Sustainability-Basin Analysis Report	2.61	Management Areas: We recognize that the County has identified a Study Area that overlaps a portion of the southeastern Napa Valley Subbasin and the MST area, where future growth and activity is anticipated. Please explain the difference between a Study Area and a Management Area. Please also explain if/how the approach to investigate or manage these areas is affected by Napa County's decision to not form a SGMA Groundwater Sustainability Agency (GSA) for the Napa Valley Subbasin.	SGMA defines a "management area" as an area within a basin for which the Plan (in this case, the Basin Analysis Report in Section 7.6) may identify different minimum thresholds, measurable objectives, monitoring, or projects and management actions based on differences in water use sector, water source type, geology, aquifer characteristics, or other factors (GSP regulations; Article 2, Section 351). Within the Napa Valley Subbasin, there is an area where groundwater level trends are different than those that are typical of groundwater level trends for the overall groundwater basin. This area, referred to in the Basin Analysis Report as the Study Area, is not considered to be representative of the overall Napa Valley Subbasin. At this time, there are no Management Areas that have been defined in the Napa Valley Subbasin. The investigation described in Section 7.6 of the Basin Analysis Report will determine whether a Management Area is warranted.
11/21/2016	Yemia Hashimoto, SF Bay Regional Water Board, Email to Patrick Lowe, Re: Water Board Comments on the October 2016 Draft	2.62	a) Undesirable Results, Minimum Thresholds: We concur with the statement in the Basin Analysis Report that the "river system is considered the most sensitive sustainability indicator in the Napa Valley Subbasin" and that the historical occurrence of diminished stream base flow could be considered an undesirable result. Because this	a) The thresholds for streamflow depletion and other sustainability indicators represent the lowest static groundwater level elevation that has occurred historically in the fall and an elevation below which additional streamflow depletion is likely to occur, i.e., expand the duration of annual no flow days in some reaches of the Napa River. These thresholds represent the lowest static groundwater elevation to which groundwater levels may reasonably be lowered at the end of a dry season without exacerbating streamflow depletion. Therefore, undesirable results could occur if groundwater levels do not recover from threshold levels to near-average spring groundwater levels through the following wet

	Napa Valley Groundwater Sustainability-Basin Analysis Report		undesirable result is a pre-SGMA condition, the Basin Analysis Report recommends measurable objectives and minimum thresholds to protect against only future undesirable results. Therefore, the report should elaborate on the details of the minimum thresholds for protecting against future worsening of this undesirable result. For instance, the report states that the minimum threshold is not a long term value, but did not provide sufficient exceedance timeframe details. What is the time interval within which it is acceptable for the minimum threshold to be exceeded, and how is it determined? b) Furthermore, the report should explain the consequences of a minimum threshold exceedance (i.e., if there is an exceedance, what is the next step?) and the difference between a GSA and non-GSA entity's ability to respond to an exceedance of threshold values, and implement a corrective action, if any.	season. These objectives represent the mean fall groundwater level elevations that occurred historically. These objectives represent the fall groundwater elevations within which groundwater elevations are reasonably likely to fluctuate during fall without exacerbating baseflow depletion. These measureable groundwater elevation objectives also serve as proxies for many other sustainability indicators, as shown in Table 7-2. (Measurable objectives and minimum thresholds are shown together in Table 7-11.) Because the data indicate that the interaction of groundwater and the river has been unchanged over a long period of time, this (as defined by SGMA) is not an undesirable result that must be corrected after the SGMA accountability date of January 1, 2015. SGMA provides that a plan or alternative submittal is not required to address undesirable results that occurred before and have not been corrected by January 1, 2015. However, the local Agency or the Groundwater Sustainability Agency have the discretion to set measurable objectives and the timeframes for achieving them. (Section 10727.2). Chapter 4 of the report describes the historical conditions of the Napa River System that occurred prior to January 1, 2015. Yes, the report describes the river system being "considered the most sensitive sustainability indicator in the Napa Valley Subbasin, the measurable objectives and minimum thresholds discussed below [*in the Report*] are recommended to ensure groundwater sustainability or improve groundwater conditions, and provide ongoing monitoring targets devised to address potential future effects on surface water. The duration of annual no flow days varies from year-to-year and increases during extended droughts as during recent years. SGMA does not require return to pre-development conditions, nor would decreased groundwater pumping necessarily have a significant impact on the duration and frequency of no flow days. The Basin Analysis Report provides measurable objectives and minimum thresholds at 18 specific monitoring sites within the Subbasin. Groundwater levels at 16 of these sites will be regularly evaluated and used to ensure that streamflow conditions are maintained or improved with respect to historical observations. See also response to 2.34.b) The Basin Analysis Report is functionally equivalent to a GSP, and provides measurable objectives, or specific quantifiable goals for maintaining or improving groundwater conditions, for streamflow depletion and other sustainability indicators. Section 9.5 of the Basin Analysis Report outlines groundwater management strategies; implementation of the monitoring and reporting actions outlined in Chapter 8 and elsewhere in this Report over time may require the incremental implementation of a variety of management strategies or actions to ensure the long-term sustainability of the Napa Valley Subbasin. Actions may include future changes to local land use controls, well permitting, groundwater metering and usage limits, changes to County ordinances, and direct coordination with other municipal agencies to effectively protect and sustain groundwater and surface water resources; all of which are within the authority of the County Board of Supervisors. As evident by results in this Report, the Napa Valley Subbasin has been operating within its sustainable yield for more than 20 years and far-reaching management actions are not necessary at this time.

11/21/2016	Yemia Hashimoto, SF Bay Regional Water Board, Email to Patrick Lowe, Re: Water Board Comments on the October 2016 Draft Napa Valley Groundwater Sustainability-Basin Analysis Report	2.63	Future Assumptions: The report should elaborate on how other stakeholders are obligated to follow any of the Basin Plan Report requirements, considering there is no GSA. It (The Basin Analysis Report) should also address the following: • How were recycled water and future stormwater projects addressed and how might they affect future management of the Basin in terms of water quantity (i.e. water levels) and water quality? • How was climate change addressed and might it affect future basin management and sustainability? • What assumptions were made about future increases in groundwater use? If groundwater is fully allocated, how will the Napa Valley Subbasin address additional land use changes that create demands on additional groundwater extraction? What land use and population growth assumptions were included?	See response to 2.62(b) Section 5.2 of the Basin Analysis Report describes the water supplies and utilization by sector. As described in the Report, recycled water has been utilized for agriculture and municipal use throughout the evaluated base period from 1988 to 2015. Recycled water use is reflected in the water budget based on the use of recycled water reported by the municipalities in the Subbasin and by the use of recycled water for irrigation as calculated by the Root Zone Model and is informed by the source of water supply assigned for irrigated land use units in the Department of Water Resources' land use surveys and by the delivery area for the Town of Yountville Recycled Water Distribution System. Projected baseline water supply is based on most recent imported surface water deliveries. Although outside of the Napa Valley Subbasin, the recent construction of the MST and Carneros recycled water pipelines will increase the use of recycled water in those areas in Napa County by about 1000 acre-ft. The root zone model component of the Subbasin water budget utilizes precipitation as well as evapotranspiration as hydrologic model inputs. Evapotranspiration (ET) is a function of temperature. Projected Subbasin water budgets rely on projected hydrologic inputs for precipitation, and ET/temperature. The baseline condition for future water budgets that is presented in this report includes climate change projections from the most recent regional climate models and is based on the "warm and moderate rainfall" climate change projection of the U.S. Geological Survey Basin Characterization Model (BCM)(Flint and Flint, 2013). In addition to the "warm and moderate rainfall" baseline condition, an alternative "hot and low rainfall" future climate scenario from the BCM was conservatively applied to the Subbasin Water Budget to evaluate future scenarios of hydrologic uncertainty associated with projections of climate change. Projected baseline water demand presented in the DRAFT Basin Analysis report was based on most recent municipal demand rates and DWR land use data from 2011 for pumping and recharge estimates under current condition. The water budget has been updated to include projects approved or in process through 2016, and now considers the rate of projected development through 2025. This results in an ongoing average annual increase in demand for new wineries of 12 acre-feet/year, and for new vineyards of 2 acre-feet/year average within the Subbasin. Projected municipal demand is conservatively projected to be constant, at rates that are based on the most recent 5 year averages.

11/21/2016	Yemia Hashimoto, SF Bay Regional Water Board, Email to Patrick Lowe, Re: Water Board Comments on the October 2016 Draft Napa Valley Groundwater Sustainability-Basin Analysis Report	2.64	Monitoring: We believe the Basin Analysis Report should provide a commitment to continually improving the Napa Valley monitoring network and refining baseline conditions. We note that the threshold monitoring network is comprised of 18 representative monitoring sites; however, 113 groundwater level, 81 groundwater quality, and 5 groundwater-surface water interaction cluster wells are also monitored. Please consider including a process for nominating additional representative monitoring wells based on data gaps and uncertainties related to specific monitoring objectives and minimum thresholds and other criteria to detect potential undesirable results.	All wells within the monitoring network (113) are monitored and the data from the entire network is analyzed annually. The Basin Analysis Report describes the criteria by which special representative monitoring sites were selected in Section 7.3 (Representative Monitoring Sites); SGMA defines "representative monitoring" as "a monitoring site within a broader network of sites that typifies one or more conditions within the basin or an area of the basin" (GSP regulations; Article 2, Section 351). In accordance with SGMA regulations, the Basin Analysis Report identifies 18 representative monitoring sites for monitoring sustainability indicators throughout the Subbasin. This subset of monitoring sites is for the purpose of monitoring groundwater conditions that are representative of the basin or an area of the basin (Article 5, Section 354.36) and for the establishment of sustainability objectives and minimum thresholds. Going forward, these 18 representative monitoring sites will be monitored to achieve measurable objectives, or specific quantifiable goals for maintaining or improving groundwater conditions, and to inform the five-year updates of the Basin Analysis Report. The other approximately 95 wells in the County that are monitored will continue to be monitored, with groundwater conditions reported annually to the public and County Board of Supervisors, and they will also inform the five-year updates of the Basin Analysis Report. Future updates of the Basin Analysis Report (or annual reports) may adopt additional representative monitoring sites using the criteria mentioned above, if new data suggest additional sites are need.
11/21/2016	Yemia Hashimoto, SF Bay Regional Water Board, Email to Patrick Lowe, Re: Water Board Comments on the October 2016 Draft Napa Valley Groundwater Sustainability-Basin Analysis Report	2.65	Reporting: Please explain how the monitoring data, inclusive of threshold and baseline data, is to be made available to agencies such as ours, and/or the public.	Section 8.5 of the Basin Analysis Report discusses regular, annual data submittals to DWR, and specifically for SGMA purposes. Monitoring data stored in the County's Data Management System will be submitted to DWR electronically (GSP regulations; Sections 354.40, 356.2). A copy of the monitoring data included in the Annual Report (see Report Section 8.6.4) will be submitted electronically as required on forms provided by DWR. The County understands that DWR is working on guidance that will describe the formatting requirements needed to submit data to DWR. DWR will make forms and instructions for submitting Plans, reports, and other information available on its website.

Comments on Draft Basin Analysis Report Received Prior to 11/3/2016				
Date	**Commenter**		**Comment**	**Response**
September 22, 2016	Gary Margadant (Verbal comment at WICC Workshop)	1.1	Gary Margadant referred to the Napa County Grand Jury Report 2014-15 and commented that the report said the County had no groundwater contingency plans for the drought and no means of monitoring groundwater usage.	Regarding Finding F1 from the Napa County Grand Jury report "Management of Groundwater and Recycled Water: Is Napa County in Good Hands?" (dated March 31, 2015). The Napa County Board of Supervisors' Response (dated June 2, 2015) notes that "the County has invested significant resources to ensure an adequate understanding of our groundwater resources. This is evident in the Napa County Comprehensive Groundwater Monitoring Program 2014 Annual Report and CASGEM Update. The monitoring program provides an 'early warning system' to provide sufficient time to respond should a significant problem develop." The response continues by noting the County's decision to develop this Basin Analysis Report as an Alternative to a Groundwater Sustainability Plan. With respect to the Napa Valley Subbasin, the Basin Analysis Report identifies representative monitoring sites that will be used to monitor sustainability indicators, including: chronic lowering of groundwater levels, reduced groundwater storage, seawater intrusion, degraded groundwater quality, land subsidence, and streamflow depletion. Minimum thresholds (in feet above mean sea level) to avoid chronic lowering of groundwater levels, land subsidence, reduced groundwater storage, and streamflow depletion are provided in the Basin Analysis Report for sixteen representative monitoring sites (and one additional representative monitoring site that is too far from the Napa River and is not used for streamflow depletion); minimum thresholds to avoid degraded groundwater quality (e.g., for nitrate) are provided in this document for seven representative monitoring sites; a minimum threshold to avoid seawater intrusion is provided in this document for one representative monitoring site (for TDS concentration). Measurable objectives, or specific quantifiable goals for maintaining or improving groundwater conditions, are provided in the Basin Analysis Report for streamflow depletion and other sustainability indicators, again using 16 of the representative monitoring sites. The measurable objective to maintain or improve groundwater quality is set for seven representative monitoring sites; for one representative monitoring site to avoid seawater intrusion; and for 17 of the representative monitoring sites for avoiding chronic lowering of groundwater levels, reducing groundwater storage, and land subsidence. Outside the Napa Valley Subbasin, the County has implemented conditions for monitoring groundwater usage, when warranted, for discretionary projects that use groundwater as a source of supply. The Sustainable Groundwater Management Act of 2014 (SGMA) does not require that the County, or any agency, monitor all groundwater use in its jurisdiction in order to achieve sustainability of groundwater resources.
September 22, 2016	Gary Margadant (Verbal comment at WICC Workshop)	1.2	Mr. Margadant mentioned the Petra Dr. area and development of a winery in the area. Mr. Margadant would like a comparison of the Petra Dr. area to that of the hillside areas, and noted the 1 ac/ft/ac/year water allotment on the valley floor. He also noted that there are 13 wells along Petra Dr. within 500' of the proposed winery development. Mr. Margadant said there is no monitoring well nearby.	Water levels in northeastern Napa Subarea wells monitored by the County east of the Napa River have stabilized since 2009, though declines were observed over approximately the prior decade. To ensure continuation of the current stable groundwater levels, a further study in this area was approved by the Napa County Board of Supervisors. The study is designed to examine existing and future water use in the area, sources of groundwater recharge, and the geologic setting to address questions regarding the potential for long-term effects. The study will also investigate the potential influence of previously documented groundwater cones of depression in the MST subarea on the Study Area both east and west of the Napa River. The County will evaluate the study results to determine if potential groundwater management measures or controls (similar to those that have been successfully implemented in the MST) or a Management Area designation are warranted. The County's monitoring network includes two wells (Napa County Wells 182 and 228) on Petra Drive. Regarding the recent approval of a winery use permit modification request (the modification of an existing winery) near Petra Drive was "approvable" from a groundwater perspective because the modification actually proposed a decrease in groundwater use. The County recognizes there are several other proposed projects and modifications to existing projects in this area. These projects are all being requested to demonstrate "no net increase" in groundwater, or a reduction in use. Those that cannot achieve that standard are being required to do additional studies beyond the normal Valley Floor Water Availability Analysis Tier 1 standard in order to prove that adequate groundwater is available.

September 22, 2016	Gary Margadant (Verbal comment at WICC Workshop)	1.3	Mr. Margadant also mentioned the 2015 monitoring report and 108 wells, of which 61 are less than two years old; concluding that 56% of the wells do not come close to the 10 year period that is required for looking at sustainability.	The Basin Analysis Report provides, in Chapter 3, a list of currently monitored wells and their periods of record. In addition, dozens of additional wells have been monitored in the Napa Valley Subbasin and Napa Valley Floor at various times in the past and provide data that have been used to understand historical conditions, as described in the 2011 Napa County Groundwater Conditions and Groundwater Monitoring Recommendations Report that is among the appendices to the Basin Analysis Report. While the County has worked to expand its monitoring network in recent years to address data gaps, that effort does not imply that previously available data are not useful for understanding conditions in the Subbasin. The state regulations for Groundwater Sustainability Plans (GSPs) and Alternatives to GSPs specifically call for using the best available data to evaluate sustainability, while acknowledging that data gaps may be present. The state regulations also define sustainability in terms of conditions present throughout a basin or subbasin, in part to avoid over reliance on any single measurement which may reflect a localized or temporary condition (e.g., temporary groundwater level drawdown resulting from a nearby well). The Basin Analysis Report identifies representative monitoring sites for monitoring sustainability indicators throughout the Subbasin now and into the future. Of those, 7 monitoring sites have periods of record from at least 1988 to present. 10 additional dedicated monitoring sites have been monitored since 2014. Going forward, a total of 18 representative monitoring sites will be monitored to achieve measurable objectives, or specific quantifiable goals for maintaining or improving groundwater conditions, and to inform the five-year updates of the Basin Analysis Report. As reported in the *Napa County Comprehensive Groundwater Monitoring Program, 2015 Annual Report and CASGEM Update*, there are 113 sites monitored in Napa County, by the County, DWR, and others. The monitoring network is continually being evaluated to assess additional data needs to ensure groundwater resources sustainability. Chapter 10 of the Basin Analysis Report presents recommendations for focused areas where additional groundwater monitoring is recommended.
September 22, 2016	Gary Margadant (Verbal comment at WICC Workshop)	1.4	Mr. Margadant mentioned recharge, saying the RCD has changed its position on deep ripping, concluding it changes recharge rate due to changes in the soil properties and compaction.	The USDA Natural Resources Conservation Service sent a letter to the Napa County Resource Conservation District in June, 2016, giving recommendations on changing Hydrologic Soil Groups after the ripping of shallow soils. The summary of finding states “that upon ripping to 36 inches deep the Hydrologic Soil Group (HSG) of the following soils would change from D to C: Hambright, Lodo, Maymen and Millsholm. The HSG for the Kidd soil would change from D to B. Increases in (ripped) soil depth from less than to more than 20 inches can change HSG even without changes in saturated hydrologic conductivity (Ksat)”. In general, ripping can lower the potential for runoff, and increase the rate of infiltration. The Sustainable Yield Analysis that is presented in the Basin Analysis Report includes a Subbasin Water Budget that already assumes runoff to be negligible within the Subbasin due to the flat topography and soil saturated hydraulic conductivity values that are generally higher than average monthly precipitation by more than an order of magnitude. The soils mentioned in the letter by NRCS do not generally occur in the Subbasin, but in the surrounding hillsides/uplands. In the Subbasin Water Budget, runoff from upland areas is represented by the mass balance modeling approach of the USGS California Basin Characterization Model (BCM). The BCM utilizes the NRCS soil data to estimate available soil-water storage, but does not utilize the Hydrologic Soil Group which is used to associate runoff curve numbers.
September 22, 2016	Gordon Evans (Verbal comment at WICC Workshop, and 10/28/16 letter to WICC Board of Directions, Re: WICC Special Meeting 9/22/16)	1.5	Gordon Evans, Atlas Peak Rd., noted that there are a number of wells in decline and 3 total failures in the last couple of years. Mr. Evans said to look at the Napa Valley subbasin only is myopic and doesn’t take into account the recharge the MST “basin” and hillside watersheds provide to the lowest aquifer in the subbasin.	Water levels in northeastern Napa Subarea wells monitored by the County east of the Napa River have stabilized since 2009, though declines were observed over approximately the prior decade. To ensure continuation of the current stable groundwater levels, a further study in this area was approved by the Napa County Board of Supervisors. The study is designed to examine existing and future water use in the area, sources of groundwater recharge, and the geologic setting to address questions regarding the potential for long-term effects. The study will also investigate the potential influence of previously documented groundwater cones of depression in the MST subarea on the Study Area both east and west of the Napa River. The majority of the MST is located outside a DWR-designated groundwater basin. The County will evaluate the study results to determine if potential groundwater management measures or controls (similar to those that have been successfully implemented in the MST) or a Management Area designation are warranted. The Sustainable Groundwater Management Act requires GSPs or Alternatives for medium and high priority groundwater basins as delineated and ranked by the State Department of Water Resources (DWR). The hillsides do not fall within the Napa Valley Subbasin that DWR has delineated. However, the hillsides are included in the Napa Valley Subbasin water budget by

				incorporating uplands runoff and subsurface inflow. Because the hillsides do not act as a basin, but instead as thousands of discrete subareas based on local geography, it is not scientifically or economically practical to "study the hillsides".
September 22, 2016	Gordon Evans (Verbal comment at WICC Workshop, and 10/28/16 letter to WICC Board of Directions, Re: WICC Special Meeting 9/22/16)	1.6	Mr. Evans mentioned the conclusion and recommendations in the Grand Jury 2014-15 Report and the Board of Supervisor's responses; saying the conclusions and the recommendations by the Grand Jury have largely not been followed by the Board of Supervisors and no contingency plans are in place for groundwater like there are for earthquakes and floods.	See response to 1.1
September 22, 2016	Gordon Evans (Verbal comment at WICC Workshop, and 10/28/16 letter to WICC Board of Directions, Re: WICC Special Meeting 9/22/16)	1.7	Mr. Evans stated that even if one assumes that the groundwater models show there is no current groundwater deficiency there is no monitoring beyond the subbasin and the Board of Supervisors response has been "will include significant outreach and input from the public." Mr. Evans said contrary to statements by Patrick Lowe, no one has been in contact with him despite repeated inquiries to Mr. Lowe and Jeff Sharp over the years.	Wells in the CASGEM monitoring network are a subset of the larger Napa County network and are distributed across all five Napa Valley Floor Subareas (Calistoga, St. Helena, Yountville, Napa, and MST), as well as the Carneros, Angwin, Eastern Mountains, and Western Mountains Subareas. The Basin Analysis Report identifies representative monitoring sites for monitoring sustainability indicators throughout the Subbasin. Going forward, these 18 representative monitoring sites will be monitored to achieve measurable objectives, or specific quantifiable goals for maintaining or improving groundwater conditions, and to inform the five-year updates of the Basin Analysis Report. The other approximately 95 wells in the County that are monitored will also continue to be monitored, and groundwater conditions will be reported annually to the County Board of Supervisors. Mr. Evans was contacted by Napa County regarding groundwater questions and the voluntary well monitoring network on September 25, 2015, September 30, 2015, October 27, 2015, and October 29, 2015. The Napa Resource Conservation Dist. (RCD) contacted Mr. Evans regarding participation in the groundwater self-monitoring program on June 16, 2016. Napa County has followed up with Mr. Evans on October 19, 2016, October 21, 2016 and October 26, 2016. Mr. Evans well site was visited by County and RCD staff on October 24, 2016 to measure his well and calibrate a sonic level measuring device so that he can self-monitor his well in the future. The County will continue to solicit input from the public on future updates of the Basin Analysis Report.
September 22, 2016	Gordon Evans (Verbal comment at WICC Workshop, and 10/28/16 letter to WICC Board of Directions, Re: WICC Special Meeting 9/22/16)	1.8	Mr. Evans quoted the 2014-15 Grand Jury report: "In contrast to the County's position, the well drillers reported that wells on the Valley floor must be drilled to depths of 300-750 feet and in some cases over 1,000 feet to find water vs. a drilling depth of 100-200 feet or less in previous years. They still find water on the Valley floor 90-95% of the time, just at lower depths. The well drillers agree that it is far less certain that water will be found on the county's hillsides. Drillers that were interviewed said finding water there is a 50-50 proposition and that reports of wells drying up are not uncommon." Mr. Evans said that common sense and experience tell us water flows downhill. Mr. Evans stated that the MST "basin" is in	Overall groundwater levels in the main Napa Valley Subbasin have been stable for decades. Groundwater conditions outside the Napa Valley Subbasin are more variable, such as in the Milliken-Sarco-Tulucay area and in hillside areas. In addition to the effects of the recent drought, the productivity of an individual well can depend on a number of things including the depth and serviceable life of the well, local aquifer properties, and amount and rate of nearby pumping from surrounding wells. In limited areas, such as the northeastern Napa Subarea, where groundwater levels have declined, or where seasonal variability is high, newer wells may be deeper to produce at dependable rates. Water levels in northeastern Napa Subarea wells monitored by the County east of the Napa River have stabilized since 2009, though declines were observed over approximately the prior decade. To ensure continuation of the current stable groundwater levels, a further study in this area was approved by the Napa County Board of Supervisors. The study is designed to examine existing and future water use in the area, sources of groundwater recharge, and the geologic setting to address questions regarding the potential for long-term effects. The study will also investigate the potential influence of previously documented groundwater cones of depression in the MST subarea on the Study Area both east and west of the Napa River. The County will evaluate the study results to determine if potential groundwater management measures or controls (similar to those that have been successfully implemented in the MST) or a Management Area designation are warranted. With regards to the MST, it is in fact one of the most monitored areas of the county, with data dating back many decades. There are significant land use controls in place in the area (the County has not approved a discretionary project in the MST

			depletion and continues to decline with no groundwater management planning.	that couldn't meet the "no net increase" standard since 2004), and significant effort has gone into constructing a recycled water pipeline to the area, that became operational just this year. While groundwater levels in the MST area are far from recovered, data indicates a stabilization of water levels in most areas, and it is hoped that the recycled water will continue this recovery. The County will not be in a position to relax the strict land use standards and groundwater permit requirements in the area until it does.
September 22, 2016	Gordon Evans (Verbal comment at WICC Workshop, and 10/28/16 letter to WICC Board of Directions, Re: WICC Special Meeting 9/22/16)	1.9	Mr. Evans believes we do not qualify for a SGMA plan alternative because we do have more than ten years of undesirable results as previously defined, especially in areas around and feeding the Subbasin.	In response to the 2014 Sustainable Groundwater Management Act, Napa County has prepared this Alternative Submittal, Basin Analysis Report, per the requirements of Water Code Section 10733.6 (b)(3) where an analysis of basin conditions demonstrates that the basin has operated within its sustainable yield over a period of at least 10 years. The Basin Analysis Report will be submitted to the State Department of Water Resources (DWR) for evaluation. DWR will issue a written assessment of the Report which will include a determination of the status of the Report (i.e. approved, incomplete, or inadequate).
September 22, 2016	Gordon Evans (Verbal comment at WICC Workshop, and 10/28/16 letter to WICC Board of Directions, Re: WICC Special Meeting 9/22/16)	1.10	Mr. Evans said the hills and the upper watersheds need management and must be included with any groundwater sustainability planning because if one doesn't manage those recharge areas, especially those being deforested, one is not managing for long-term sustainability.	The Sustainable Groundwater Management Act requires GSPs or Alternatives for medium and high priority groundwater basins as delineated and ranked by the State Department of Water Resources (DWR). The hillsides do not fall within the Napa Valley Subbasin that DWR has delineated. However, the hillsides are included in the Napa Valley Subbasin water budget by incorporating uplands runoff and subsurface inflow. Because the hillsides do not act as a basin, but instead as thousands of discrete subareas based on local geography, it is not scientifically or economically practical to "study the hillsides" However, Napa County does have significant land use controls in the hillsides, including large minimum parcel sizes (generally 160 acres), use restrictions, and CEQA evaluations required of all discretionary projects. The Planning, Building, and Environmental Services Department (PBES) and the Board of Supervisors will continue to monitor land uses and may or may not choose to make changes regarding tree removal and other uses. However, changes to these land use controls are not required in order to complete this basin analysis.
September 22, 2016	Scott Sedgley (Verbal comment at WICC Workshop)	1.11	Mr. Sedgley added that as we move into the future, the hillsides need to be brought into the same scrutiny, particularly those sensitive areas surrounding our reservoirs, and pledged to work on improving ordinances affecting conditions in those areas. … there is more to be done to include the entirety watershed including both groundwater and surface water.	The 2017 biennial Napa County Watershed Symposium will be a focused effort to bring together watershed experts to explore the hillside area issues regarding groundwater and water quality concerns.
September 22, 2016	Kenneth Leary (Verbal comment at WICC Workshop)	1.12	Mr. Leary noted that every well should be monitored and that everyone should participate, whether they want to or not, in order to grow the scope of our understanding.	While SGMA could provide the Board of Supervisors the authority to regulate each individual and municipal well, such action is not supported as being needed by the existing data. "Every well" is not needed for a comprehensive monitoring plan. Outreach for monitoring is conducted continually by the County and each potential monitoring well is sent to the County's groundwater consultant to assess if the well would meet specific objectives of the monitoring program. Additional wells are not needed in some areas where existing geographic coverage is sufficient. The County is working with the Resource Conservation District to promote the use of sonic self-monitoring instruments and is training and assisting well owners on the use of the devise so they can borrow a portable unit from the County (http://www.napawatersheds.org/app_pages/view/7819). In order to ensure that the County does have all the needed coverage, proposed recommendation number 23 requires that project wells associated with new discretionary permits be made available to the County monitoring program upon request.

September 22, 2016	Susan Boswell (Verbal comment at WICC Workshop)	1.13	Susan Boswell said we need more quantifiable data in regard to best management practices that are already currently in place, and that this applies not only to agriculture but other areas of the community as well.	The Basin Analysis Report provides a summary of recommended implementation steps that includes recommendations for optimization and expansion of existing monitoring networks, as well as providing support to landowners in implementing best sustainable practices by soliciting information on and widely sharing best practices with regard to water use in vineyards, wineries, and other agricultural/commercial applications.
September 22, 2016	Susan Boswell (Verbal comment at WICC Workshop)	1.14	Ms. Boswell … wondered how winter cover crops in the valley might foster a better source of groundwater recharge and that there may be other things out there that we are doing that could provide better quantifiable data.	The Basin Analysis Report provides a summary of recommended implementation steps that include the evaluation of strategic recharge opportunities, particularly along the Napa Valley Subbasin margin and in consideration of hydrogeologic factors in the near-to mid-term, as well as ongoing efforts to improve scientific understanding of groundwater recharge and groundwater-surface water interactions.
September 22, 2016	Pamela Smithers (Verbal comment at WICC Workshop)	1.15	Ms. Smithers said that maintaining the current status of the river is not enough, noting that in the past the river flowed year-round in the area of St Helena and now it is often dry late in the year. Ms. Smithers suggested that our starting point should be at time when the river flowed.	Reaches of the Napa River have over many decades (since the 1930s) experienced low to no-flow conditions during the summer-to-fall period for a variety of reasons. Changes in stream flow over the years has been impacted by: • seasonal rainfall, • small dams (both legal and illegal) that have been constructed to block stream flow in the hills; • withdrawl of surface water (both legal and illegal) from the creeks, • elimination of valley floor wetlands and reduced infiltration areas from development as far back as the 1800s. The duration of annual no flow days varies from year-to-year and increases during extended droughts as during recent years. SGMA does not require return to pre-development conditions, nor would decreased groundwater pumping necessarily have a significant impact on these duration of no flow days. The Basin Analysis Report provides measurable objectives and minimum thresholds at 18 monitoring sites. Groundwater levels at 16 of these sites will be regularly evaluated and used to ensure that streamflow conditions are maintained or improved with respect to historical observations. Surface water and groundwater are connected; therefore, seasonal and year to year variability in precipitation and other factors have affected both surface water and groundwater. Since at least the 1930s, periods of no flow days have been observed in the Napa River system, particularly during drier years. Based on the analyses of surface water and groundwater interconnections, including the relationship of this connection to seasonal and annual groundwater elevation fluctuations, the Basin Analysis Report uses 16 wells (and other data including stream gage data) in the Subbasin to monitor groundwater level impact on the Napa River. As long as the fall water levels in these 16 wells remains above the determined level, (the “minimum threshold”), the contribution of groundwater to flow in the Napa River is determined to be no less than has occurred historically in the fall. On average, it is preferable for fall water levels in these wells to approximate their individual measureable objective, which is a level higher than the minimum threshold. While the County specifically monitors groundwater and surface water conditions and, through the Basin Analysis Report, sets threshold values for determining if/when groundwater levels are changing in ways that could exacerbate streamflow depletionin the Napa River, ultimately the duration of annual no flow days are impacted by a wide array of factors, and varies from year-to-year.

September 22, 2016	Pamela Smithers (Verbal comment at WICC Workshop)	1.16	Ms. Smithers had a question about the use of irrigation as an input in the water budget and also asked how recycled water is being calculated in the water budget.	The Root Zone Model is a component of the Subbasin water budget. Irrigation is an input/inflow to the root zone soil moisture. The Root Zone Model assumes that irrigation is only applied when needed to supplement precipitation to meet the crop demand (evapotranspiration, ET). However, from the perspective of the overall Subbasin water budget, irrigation is an output/outflow through ET. Recycled water use is reflected in the water budget based on the use of recycled water reported by the municipalities in the Subbasin and by the use of recycled water for irrigation as calculated by the Root Zone Model and is informed by the source of water supply assigned for irrigated land use units in the Department of Water Resources' land use surveys and by the delivery area for the Town of Yountville Recycled Water Distribution System.
September 22, 2016	Kimberly Richard (Verbal comment at WICC Workshop)	1.17	Kimberly Richard questioned how the root zone model and soil moisture is affected by deforestation and asked how important the trees are in maintaining the resulting groundwater recharge. Ms. Richard asked how important is it to reduce deforestation to maintain healthy soil moisture.	The Root Zone Model presented in the Basin Analysis Report treats each mapped land use type with its rooting depth and crop type individually, resulting in groundwater recharge and irrigation demand calculations for more than 16,000 land use units comprising the entire Napa Valley Subbasin. The model is reliant on the resolution of the available land use data. And does not account for individual trees. However, changes in vegetation/land use over the evaluated base period are captured in the Root Zone Model by interpolation of Department of Water Resources' land use maps between 1987 and 2011. The specific effects of deforestation on soil moisture were outside of scope of the Basin Analysis Report.
September 22, 2016	Pamela Smithers (Verbal comment at WICC Workshop)	1.18	Pamela Smithers suggested separating the presentation of the surface water component into surface water and recycled water to make it more clear to the public which supply is being used.	Recycled water use within the Subbasin is listed in Chapter 5 (5.2 Water Supplies and Utilization by Sector) of the Basin Analysis Report. Estimates for recycled water use for irrigation are presented with the Root Zone Model results in Chapter 6 (6.5.6 Root Zone Model Results).
September 22, 2016	Tosha Comendant (Verbal comment at WICC Workshop)	1.19	Tosha Comendant commented on the 1988-2015 base-period used for the analysis and asked if any sensitivity analysis was conducted to see if adjusting the period 5 years one way or the other influenced the results shown.	A base period of time must be selected so that it is a representative period of study for groundwater basin conditions, with minimal bias that might result from the selection of a wet or dry period or significant changes in other conditions, including land use and water demands. The study period selected for the Basin Analysis Report spans from water years 1988 to 2015. This period was selected on the basis of the following criteria: long-term mean annual water supply; inclusion of both wet and dry stress periods; antecedent dry conditions; adequate data availability; and inclusion of current cultural conditions and water management conditions in the basin. A shift of the base period would not satisfy these criteria. A sensitivity analysis on the base period was not performed.
October 28, 2016	Gordon Evans Letter to WICC Board of Directions, Re: WICC Special Meeting 9/22/16	1.20	I'm concerned about the County's attempt to "fast track" an Alternative to the state-mandated requirements of SGMA (CA Sustainable Groundwater Management Act). …While these responses by the BOS (and WICC's symbolic nod to conducting a "Public Workshop") may technically comply with the State requirements for Public Input and the SGMA Alternative submission deadline, they are certainly not in keeping with the spirit of the State guidelines. They are little more than a transparent attempt to "kick the can down the road" and utilize the Alternative option as a "Hail Mary" to manipulate selected data and avoid the far more stringent requirements of a full-blown State-mandated Groundwater Management Plan and the formation of a Groundwater	See response to 1.9

			Management Agency within the County.	
October 28, 2016	Gordon Evans Letter to WICC Board of Directions, Re: WICC Special Meeting 9/22/16	1.21	Today's WICC Agenda statement that "… the Napa Valley Subbasin… has operated within its sustainable yield for a period of 10 years or more and is being managed consistent with the goals of SGMA and CA DWR regulations" is self-serving and misleading at best. The data provided in an elaborate and extremely complicated presentation by the County's Consulting Engineers, Luhdorff & Scalmanini, is narrowly focused on a small geographical area, utilizes figures from a very narrow time frame (2008-10) and does not take into account whatsoever any surface runoff or recharge factors from the surrounding areas.	The 9/22/16 presentation *Napa Valley Groundwater Sustainability: A Basin Analysis Report for the Napa Valley Subbasin (Draft)* focused on the geographic subject area of the Napa Valley Subbasin, and included surface water and groundwater data for the selected 28-year base period from 1988 to 2015. Runoff and recharge from the surrounding areas are incorporated in the Napa Valley Subbasin water budget.
October 28, 2016	Gordon Evans Letter to WICC Board of Directions, Re: WICC Special Meeting 9/22/16	1.22	In summary, Napa County cannot say that groundwater is stable and make a case for the AGSP because there are more than 10 years of data that show we have dry (or greatly diminished flow in) streams and river beds, salt water intrusion, water quality degradation, wells going dry, land subsidence (along the Napa River) and specie and habitat extirpation. SGMA defines these as "undesirable results," primarily due to increased groundwater pumping over time and not enough recharge. Recharge originates in the hills, where unabated clearcutting and rampant vineyard development continue. The San Francisco Regional Water Quality Control Board cited well water availability and the lack of flows in the Napa River in their Triennial Report last Fall. Ample evidence and documentation show that our groundwater is in depletion, and this will continue in the absence of diligent management and planning.	See responses to Comments 1.5, 1.7, 1.8, 1.9, and 1.10. The Triennial Report referenced in this comment, San Francisco Bay Basin Water Quality Control Plan 2015 Triennial Review Staff Report, December 2015[1], does not include an analysis or evaluation of groundwater conditions in the Napa Valley Subbasin or of lack of flow in the Napa River. While the report does not address the points claimed by Mr. Evans, the San Francisco Bay Basin Plan (dated March 20, 2015) does note that low flow conditions during the spring and dry season (along with stressful water temperatures and fish migration barriers) in the Napa River do "exert a significant negative influence" on juvenile steelhead (Section 7.8.4.1). However, that section does not refer to any data that are inconsistent with what is presented in the Basin Analysis Report, nor does the Basin Plan identify groundwater conditions as the cause of low flows in the River.

[1] (http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/Triennial_Review/Appendix%20B%202015%20triennial%20review%20staff%20report%20-%2012-15.pdf, accessed November 1, 2016)

October 31, 2016	Chris Benz, Napa Group, Sierra Club, Email: Comments on Napa Valley Basin Analysis Report	1.23	We request that the report clarify the discrepancy between the calculated water budget (an annual increase of 5900 acre-feet/year as given on page 111) and the observed stability in groundwater levels. As this discrepancy calls into question the validity of the budget, it should be discussed in greater detail and, ideally, corrected, so that the calculated value for water storage reflects what is observed. From page 113: Data on groundwater levels in the Subbasin show stable trends during the base period. The average annual change in storage volume calculated by the water budget suggests an accrual of water within the subbasin that is not consistent with the stable spring to spring groundwater levels observed. The most likely explanations for this discrepancy are that inflows are overstated, outflows are understated, or some combination of the two.	The Subbasin water budget and the groundwater level change in storage analyses are two independent analyses that inform the sustainable yield estimate. Any effort to quantify Subbasin conditions is subject to some uncertainty. Uncertainties in the water budget and groundwater level changes in storage are addressed in the Basin Analysis Report (Sections 6.6 and 6.9). Over the base period from 1988 to 2015, the water budget estimates average annual total Subbasin inflows to be 235,400 acre-feet/year, and estimates average annual total Subbasin outflows to be 229,500 acre-feet/year. The difference between the estimated average annual inflows and outflows are 5,900 acre-feet/year (i.e., 2.5% of average annual inflows and 2.6% of average annual outflows). It is not necessary that the water budget be brought into exact agreement with observed groundwater level changes in order to move forward with management efforts; however, further clarifications will be made to the Basin Analysis Report to clarify sources of uncertainty. Chapter 10 of the Basin Analysis Report provides a summary of recommended implementation steps that includes recommendations for reducing uncertainties of water budget components and projected future water budgets. Further calibration of water budget components based on ongoing data collection will reduce uncertainties of previously estimated water budget components and projected future water budgets.
October 31, 2016	Chris Benz, Napa Group, Sierra Club, Email: Comments on Napa Valley Basin Analysis Report	1.24	We commend the recognition that the Napa River system is considered to be the most sensitive indicator of sustainable groundwater usage. From page 131: Since the river system is considered the most sensitive sustainability indicator in the Napa Valley Subbasin, the measurable objectives and minimum thresholds discussed below are recommended to ensure groundwater sustainability or improve groundwater conditions, and provide ongoing monitoring targets devised to address potential future effects on surface water. However, a river flow gauging site is not included as one of the "representative monitoring sites". Is it possible to include a site that measures river flow and sets Minimum Thresholds and Measurable Objectives for this site?	The Basin Analysis Report provides measurable objectives and minimum thresholds at 18 monitoring sites. Groundwater levels at 16 of these sites will be regularly evaluated and used to ensure that streamflow conditions are maintained or improved with respect to historical observations. In addition, Chapter 10 of the Basin Analysis Report presents a summary of recommended implementation steps that includes the following recommendation "Coordinate with the Resource Conservation District and others regarding current stream gaging and supplemental needs for SGMA purposes; consideration of areas that may also benefit from nearby shallow nested groundwater monitoring wells (similar to LGA SW/GW facilities)". This includes potential establishment of new streamflow gage sites. Surface water levels and surface water flow data will continue to be included as part of the County's monitoring of surface water and groundwater interactions in the future. However, establishing a stream gage as a representative monitoring site would likely limit the ability of the County to effectively evaluate Subbasin conditions when in dry water years, such as during the recent drought, there is no surface water to monitor during parts of the year at some monitoring sites. Establishing representative monitoring sites at wells will allow the County to more comprehensively track Subbasin conditions, even at times when streams are dry.

October 31, 2016	Chris Benz, Napa Group, Sierra Club, Email: Comments on Napa Valley Basin Analysis Report	1.25	In addition to managing the Napa Valley Subbasin, we encourage the County to expand monitoring of wells to hillside locations (making use of volunteered wells) to further define Napa County's groundwater situation and provide data for use in creating sound groundwater policies for the entire County.	See response to 1.11.