

MEMORANDUM

date: October 19, 2009
to: Hillary Gitelman, Napa County
Felix Riesenber, Napa County
from: Robert I. McMurry
Edgar Khalatian
subject: Peer Review of Water Supply Assessment for the Napa Pipe Project
file no.: 75576.00002

I. Introduction

In response to the County of Napa's (the "County") request, this analysis of the water supply assessment dated October 15, 2009 prepared by Brownstein Hyatt Farber Schreck for the Napa Pipe project is based upon our review of the following documents:

- Water Supply Assessment, including the exhibits, dated October 15, 2009 (the "WSA");
- City of Napa Urban Water Management Plan 2005 Update, dated January 17, 2006 (the "UWMP");
and
- Preliminary Groundwater Report prepared by Stetson Engineers, dated August 31, 2009.

This peer review memorandum is not intended to be a guarantee of a certain outcome or result; rather it is a reasoned analysis based on the available documentation and our expertise reviewing water supply assessments. This memorandum provides an analysis of the WSA's compliance with California Water Code §§ 90910 *et seq.* (i.e., SB 610; the "Water Code"), and should be read in conjunction with Luhdorff & Scalmannini's peer review memorandum, dated October 16, 2009.

II. The Project

The proposed project consists of an approximately 154-acre redevelopment located within the County and adjacent to the southern limits of the City of Napa (the "Project Site").

Napa Redevelopment Partners, LLC ("NRP") proposes to redevelop the Project Site with a mixed use project consisting of: 2,580 attached residential dwelling units in multi-story buildings, 150 senior housing units, 15,000 square feet of restaurant space, 25,000 square feet of retail space, 50,000 square feet of office space, 140,000 square feet of industrial, research and development or warehousing space, various

community facilities and a 150-room condominium hotel (the "Project"). The Project will include parks and public open space, including a community garden.

III. Analysis of Applicable Water Laws

A. The California Water Code - SB 610 and Analysis

i. SB 610 Requirements

Since the County determined that the Project is subject to the California Environmental Quality Act (California Public Resources Code §§ 21000 *et seq.*; "CEQA") and is a "project" as defined by Water Code § 10912, it must prepare a water supply assessment pursuant to SB 610.

Generally, SB 610 requires the County to determine on a project-by-project basis whether sufficient water supplies currently exist to serve the Project. The SB 610 assessment must address whether the projected water supply for the next 20 years, based on normal, single dry and multiple dry years, will meet the demand projected for the Project and existing and planned future use, including agricultural and manufacturing uses.¹

The SB 610 assessment must include and quantify water received in prior years from existing (1) water supply entitlements, (2) water rights and (3) water service contracts held by the public water supplier. These must be demonstrated by (a) written contracts, (b) capital outlay/financing program for delivery adopted by the water supplier, (c) Federal, State or local permits for delivery infrastructure or (d) regulatory approvals required to convey or deliver water.

Since the source of the Project's water is groundwater, the following factors and specifications related to the source of the groundwater must also be included²:

- (1) A review of any information contained in the UWMP relevant to the identified water supply for the proposed project.
- (2) A description of any groundwater basin or basins from which the proposed project will be supplied, including information obtained from the most current California Department of Water Resources bulletin that characterizes the condition of the groundwater basin.
- (3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from any groundwater basin from which the proposed project will be supplied.

¹ Water Code § 10910(c)(3) and (4); Government Code § 66473.7(a)(2).

² Water Code § 10910(f)

- (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project.

ii. The WSA Satisfies SB 610 Requirements

- (1) A review of any information contained in the UWMP relevant to the identified water supply for the proposed project.

There is no identified water supplier for the Project, and thus no applicable UWMP (see WSA at pgs. 21-24). Section 5 of the WSA, which is a thorough analysis of City water supplies, does analyze the UWMP.

- (2) The WSA provides a sufficient description of any groundwater basin or basins from which the Project will be supplied, including information obtained from the most current California Department of Water Resources (the "DWR") bulletin that characterizes the condition of the groundwater basin.

The source of potable water for the Project will be groundwater underlying the Project Site, which overlies the Sonoma Volcanics aquifer of the Napa Valley Subbasin (the "Basin"). The Basin serves as a natural underground reservoir for local water supplies (WSA at pg. 32). DWR's Bulletin 118 series provides comprehensive descriptions of groundwater basins, some of which are subdivided into smaller subbasins. According to the most recent bulletin, Bulletin 118 - Update 2003, the Project Site is located in the southern tip of the Napa Valley Subbasin (id). In the most recent 2003 update of Bulletin 118, DWR did not complete an assessment of either the Napa-Sonoma Valley Groundwater Basin or the Napa Valley Subbasin. In its prior update of Bulletin 118 in 1980, DWR found that the Napa-Sonoma Valley Basin and two of its subbasins, including the Napa Valley Subbasin, showed no evidence of overdraft and were not classified as "basins with special problems." This represented no change from the 1975 Bulletin 118, in which DWR also did not find overdraft conditions to exist. DWR has not conducted any other recent technical studies of groundwater resources in the Project vicinity (WSA at pg. 33).

We believe that the WSA sufficiently describes the Basin underlying the Project Site and provides the required information from the most recent DWR Bulletin (WSA at pg. 32).

- (3) The WSA provides a detailed description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from the groundwater basin from which the Project will be supplied.

There are five groundwater extraction wells currently located on the Project Site (WSA at pg. 39). NRP has conducted numerous tests to ensure the wells have sufficient capacity, which, based on the expert tests, it appears they do (WSA at pg. 40). Owners of the Napa Pipe property have extracted groundwater from the Sonoma Volcanics aquifer beneath the Project Site for many years. Wells located on the Project Site have consistently produced large quantities of groundwater. Specific groundwater production data for other wells in the Suscol area in recent years is also unavailable. Stetson estimated that groundwater production might have been approximately 714 AFY during at least the past seven years, based on the acreage of vineyards planted to the east of the Project Site multiplied by the typical crop water requirement for vineyards in the area (WSA at pg. 41).

In a 2008 aquifer test, Stetson drilled and constructed a new groundwater production well on the Project Site. Elements of the 2008 aquifer-testing program included pre-test monitoring, step drawdown testing, constant rate testing and water level recovery data collection. Groundwater levels were not affected at the southern boundary of the Project Site and water levels recovered almost instantaneously after the conclusion of the constant rate test (WSA at pg. 44).

Therefore, we believe that the WSA provides a detailed description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from the groundwater basin from which the Project will be supplied.

- (4) The WSA provides a detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system. The description and analysis is based on information that is reasonably available, including, but not limited to, historic use records.

Based on the calculations identified in the WSA, the combined amount of groundwater from both subsurface inflows and local recharge available in the Sonoma Volcanics aquifer near the Project Site is estimated to be at least 3,100 AFY. As reported in the 2050 Study discussed in the WSA, based on hydrographs in the Napa Valley from 1930 through 2002, groundwater levels in the Napa Valley Subbasin have historically been steady and have not varied significantly from year to year across wetter and drier periods (WSA at pg. 52). The effects of Project pumping on the MST area, which is located north of the Project Site and which is experiencing declining groundwater levels, were evaluated in the WSA and determined not to be affected by the Project (WSA at pgs. 64-65).

Section 4.1.6 of the WSA identifies other local groundwater users' projected future increased pumping, including the Project's 620 AFY. Other identified users include the City of Napa (0 AFY), City of American Canyon (0 AFY), Vineyards (987 AFY), Syar Industries (50 AFY) and Kenny Park Golf Course (0 AFY). The Sonoma Volcanics aquifer is currently tapped by a relatively small number of groundwater users in the Project vicinity, beyond present demand of approximately 146 AFY on the Project Site.

As described in Section 4.1.3 of the WSA, the long-term groundwater supply of the Sonoma Volcanics aquifer in the Suscol area is at least 3,100 AFY. Due to the long-term nature of groundwater inflow and recharge to the Sonoma Volcanics aquifer in the Suscol area, that supply is available in normal, single dry and multiple dry years for at least 20 years. According to the WSA, the combined water demands of current groundwater users within that area (910 AFY) create a present surplus of approximately 2,190 AFY. Under future pumping projections (1,657 AFY), there is projected to be a surplus of approximately 1,443 AFY. Thus, groundwater pumping within the Suscol area is not expected to exceed 55 percent of the available groundwater supply.

Therefore, based on information that is reasonably available to the County and NRP, including but not limited to historic use records, the WSA provides a detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system.

- (5) The WSA provides a sufficient analysis of the sufficiency of the groundwater from the basin or basins from which the Project will be supplied to meet the projected water demand associated with the Project.

Due to the nature of groundwater, it is a highly reliable source of water. Groundwater is stored in aquifers, which act as natural long-term storage reservoirs, making water available year-round and during both wet and dry hydrological conditions. As described above, groundwater in the Suscol area has not been identified by DWR as being in an overdraft condition, where withdrawals are greater than recharge on a long-term basis. The long-term available groundwater supply of the aquifer underlying the Project Site is at least 3,100 AFY, which is almost double the projected water demand of the Project and other groundwater users. Therefore, the Project's reliance on the Sonoma Volcanics aquifer is reasonable, and groundwater underlying the Project Site has a high likelihood of being available for the first 20 years of the Project and beyond (WSA at pg. 60).

There are a number of factors, which are specifically discussed in Section 4.1.10 of the WSA that lead to the conclusion that the groundwater resources of the Sonoma Volcanics aquifer in the Suscol area will be sufficient to meet the potable water demands of the Project over a 20-year planning horizon, in normal, single dry and multiple dry years.

Based on these factors and the expert analysis regarding the sufficiency of the groundwater supply, groundwater from the Sonoma Volcanics aquifer underlying the Project Site is determined to be available to meet all potable water demands, in addition to other existing and future uses of groundwater, including agricultural and manufacturing uses. This conclusion applies for the 20-year planning horizon of this WSA, in normal, single dry and multiple dry years (WSA at pgs. 60-61).

Therefore, the WSA provides a sufficient analysis of the sufficiency of the groundwater from the basin from which the Project will be supplied to meet the projected water demand associated with the Project.

B. Applicable Case Law and Analysis

i. Applicable Case Law

The California Supreme Court in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412 (“*Vineyard*”) articulated for principles for analysis of future water supplies under CEQA. (*Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (2007) 157 CalApp4th 149, 158-159.)

First, CEQA’s informational purposes are not satisfied by an EIR that simply ignores or assumes a solution to the problem of supplying water to a proposed land use project. Decision makers must, under the law, be presented with sufficient facts to evaluate the pros and cons of supplying the amount of water that the project will need.

Second, an adequate environmental impact analysis for a large project, to be built and occupied over a number of years, cannot be limited to the water supply for the first stage or the first few years. While proper tiering of environmental review allows an agency to defer analysis of certain details of later phases of long-term linked or complex projects until those phases are up for approval, CEQA’s demand for meaningful information is not satisfied by simply stating information will be provided in the future.

Third, the future water supplies identified and analyzed must bear a likelihood of actually proving available; speculative sources and unrealistic allocations (“paper water”) are insufficient bases for decision making under CEQA. An EIR for a land use project must address the impacts of likely future water sources, and the EIR’s discussion must include a reasoned analysis of the circumstances affecting the likelihood of the water’s availability.

Finally, where, despite a full discussion, it is impossible to confidently determine that anticipated future water sources will be available, CEQA requires some discussion of possible replacement sources or alternatives to use of the anticipated water, and of the environmental consequences of those contingencies. The law’s informational demands may not be met, in this context, simply by providing that future development will not proceed if the anticipated water supply fails to materialize. But when an EIR makes a sincere and reasoned attempt to analyze the water sources the project is likely to use, but acknowledges the remaining uncertainty, a measure for curtailing development if the intended sources fail to materialize may play a role in the impact analysis.

ii. The WSA Satisfies the Applicable Case Law

- (1) CEQA's informational purposes are not satisfied by an EIR that simply ignores or assumes a solution to the problem of supplying water to a proposed land use project. Decision makers must, under the law, be presented with sufficient facts to evaluate the pros and cons of supplying the amount of water that the project will need.

The scope of this peer review analysis does not include reviewing the EIR and administrative record to determine whether the County has been presented with sufficient facts to evaluate the pros and cons of supplying the amount of water that the project will need. However, based on the numerous expert studies and peer review of such studies, we believe that the administrative record contains substantial evidence for the County to evaluate the pros and cons of supplying the amount of water that the Project will need.

- (2) An adequate environmental impact analysis for a large project, to be built and occupied over a number of years, cannot be limited to the water supply for the first stage or the first few years. While proper tiering of environmental review allows an agency to defer analysis of certain details of later phases of long-term linked or complex projects until those phases are up for approval, CEQA's demand for meaningful information is not satisfied by simply stating information will be provided in the future.

The Project's water demands will occur within the 20-year timeframe analyzed in the WSA, although the demand will not arise at a single point in time (WSA at pg. 30). The Project is expected to be developed in three phases, so that water demands associated with the Project would start in 2010 and reach its full levels at expected build out, which is 2020. Table 6 in Section 3.5 of the WSA identifies the projected water demand for each of the three phases. All of the required water demand information for the entire Project is contained in the WSA. Therefore, we believe that the WSA satisfies this requirement.

- (3) The future water supplies identified and analyzed must bear a likelihood of actually proving available; speculative sources and unrealistic allocations ("paper water") are insufficient bases for decision making under CEQA. An EIR for a land use project must address the impacts of likely future water sources, and the EIR's discussion must include a reasoned analysis of the circumstances affecting the likelihood of the water's availability.

As described above, the WSA identifies specific future water supplies and analyzes the likelihood of actually proving available water. The Project's water supply does not appear to be "paper water." We have not reviewed the EIR, but based on the WSA and other documents included in the administrative record that we have reviewed, we believe that the water supply is not "paper water" and that the WSA satisfies this requirement.

- (4) Where, despite a full discussion, it is impossible to confidently determine that anticipated future water sources will be available, CEQA requires some discussion of possible replacement sources or alternatives to use of the anticipated water, and of the environmental consequences of those contingencies. The law's informational demands may not be met, in this context.

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The fourth prong requires an analysis of replacement or alternative sources only if it is “impossible to confidently determine” that anticipated future water sources will be available (*Santa Clarita Organization for Planning the Environment*, 157 CalApp 4th at pg. 162). As stated above, we believe, based on the expert opinions, that the WSA correctly concludes that future water sources are available; therefore, the WSA does not have to satisfy this prong. That being said, Sections 1.4.3 and 5 of the WSA analyze other potential sources of water, namely the City of Napa.

IV. Conclusion

The WSA and the accompanying *Groundwater Report* demonstrate that there are sufficient total water supplies (groundwater and recycled water) to meet the Project’s projected water demand, in addition to existing and planned future uses, including, but not limited to, agricultural and manufacturing uses. As required by Water Code § 10910, the WSA analysis was for at least a 20-year horizon during all water types, including normal, single-dry and multiple-dry years. The analysis took into consideration all current and reasonably foreseeable future projects that might use groundwater.

Although the WSA focuses on the required 20-year planning horizon, the analyses demonstrates the long-term sustainability of the Project beyond the 20 years in combination with all other known existing and future estimated pumping demands noted in the *Groundwater Report*, WSA and EIR since, on an average annual basis, more water is recharged than would be extracted by the Project and other identified users.

We believe, based on the expert documents that we have reviewed and our experience reviewing water supply assessments, that the Project’s WSA satisfies all of the legal requirements.