

Chirila, Myra E.

Item 35 10-25-16

From: Greg Kamman <greg@khe-inc.com>
Sent: Tuesday, October 25, 2016 1:47 PM
To: Seifert, Linda J.; Hannigan, Erin; Thomson, Skip; Spering, Jim P.; Vasquez, John M.; CAO-Clerk
Cc: Amber Kemble
Subject: Hydrology review comments - Middle Green Valley Specific Plan Project
Attachments: GRK_Green-Valley-Project-Review_10-25-16.pdf

Dear Board of Supervisors,
Please see my attached comments on the Middle Green Valley Specific Plan Project.
Feel free to contact me with any questions.
Thank you,
Greg

Greg Kamman, Principal Hydrologist
Kamman Hydrology & Engineering, Inc.
7 Mt. Lassen Drive, Suite B-250
San Rafael, CA 94903
Phone: (415) 491-9600
Fax: (415) 680-1538



Kamman Hydrology & Engineering, Inc.

7 Mt. Lassen Drive, Suite B250, San Rafael, CA 94903
Telephone: (415) 491-9600
Facsimile: (415) 680-1538
E-mail: Greg@KHE-Inc.com

October 25, 2016

Board of Supervisors
Solano County
675 Texas Street, Suite 6500
Fairfield, California 94533

Sent via Email: ljseifert@solanocounty.com
ehannigan@solanocounty.com
sthomson@solanocounty.com
ipspering@solanocounty.com
jmvasquez@solanocounty.com
cao-clerk@solanocounty.com

Subject: Review of Middle Green Valley Specific Plan Project
Second Revised Recirculated Draft Environmental Impact Report
SCH#: 2009062048

Dear Board of Supervisors,

I am a hydrologist with over twenty seven years of technical and consulting experience in the fields of geology, hydrology, and hydrogeology. I have been providing professional hydrology and geomorphology services in California since 1991 and routinely manage projects in the areas of surface- and groundwater hydrology, water supply, water quality assessments, water resources management, and geomorphology. Most of my work is located in the Coast Range watersheds of California, including the Northern and Southern San Francisco Bay Counties. My areas of expertise include: characterizing and modeling watershed-scale hydrologic and geomorphic processes; evaluating surface- and ground-water resources/quality and their interaction; assessing hydrologic, geomorphic, and water quality responses to land-use changes in watersheds and causes of stream channel instability; assisting and leading in the development of CEQA environmental compliance documents and project environmental permits; and designing and implementing field investigations characterizing surface and subsurface hydrologic and water quality conditions. I co-own and operate the hydrology and engineering consulting firm Kamman Hydrology & Engineering, Inc. in San Rafael, California (established in 1997). I earned a Master of Science in Geology, specializing in Sedimentology and Hydrogeology as well as an A.B. in Geology from Miami University, Oxford, Ohio. I am a Certified Hydrogeologist (CHG) and a registered Professional Geologist (PG).

On behalf of the Law Office of Amber Kemble, I have the following comments on the Second Revised Recirculated (“SRRDEIR”) for the Middle Green Valley Specific Plan (“MGVSP”) (SCH#: 2009062048).

1. Insufficient Monitoring Plan to evaluate potential impacts to creek flow and fishery habitat

The Vollmar Report¹ states, “Any reduction in current Green Valley Creek dry season (May to October) flow that this species uses for juvenile rearing could have potentially significant impacts.” The SRRDEIR states (page 6-48), “The County’s threshold of significance for assessing whether potential impacts to Central California Coast steelhead, CRLF, and WPT from groundwater pumping would be significant is defined as the point at which induced recharge begins, and Green Valley Creek begins to lose water to the groundwater aquifer... Induced recharge could begin if the radial extent of any cone of depression within the unconfined aquifer resulting from groundwater pumping extended to the stream channel.” Review of the 2013 Water Supply Assessment (WSA) and the 2014 RRDEIR do not provide information or detail (esp. monitoring plan) on how the onset of induced recharge will be identified. As a professional hydrologist experienced in stream flow monitoring and well installation and testing, I understand the challenges in developing monitoring programs to identify and evaluate well pumping impacts on creek flow and fishery habitat. Thus, I am concerned that the project does not have a mechanism specified to evaluate induced recharge and potential significant impacts to fishery habitat. Even if aquifer storage and static groundwater levels (or safe yield) are not impacted by project pumping, induced recharge may lengthen the duration of seasonal creek dry-down and delay the onset of flows necessary for fish migration, spawning and rearing.

2. Unsubstantiated Conclusion that Project Groundwater Pumping will not cause potential significant impacts.

The SRRDEIR states that various aquifer characteristics mitigate impacts. It concludes,

“Given the relatively high water table (see RRDEIR Section 16.1.1[a]), high soil permeability, and large aquifer volume in the plan area, it is expected that groundwater levels would remain stable and there is no evidence to suggest that groundwater pumping from new deep wells would result in significant water table fluctuations.” (SRRDEIR, p. 6-54, 68).

This analysis is incomplete as it does not fully consider wildlife values. Even if aquifer volumes and static water levels remain unchanged, groundwater cones of depression associated with pumping impart local lowering of the water table that may be sustaining wetlands and creeks, especially given the “high water table” described above. Such impacts can’t be evaluated unless the location of the pumping well is known and all

¹ Analysis of Potential Effects to Surface Biological Resources from Groundwater Pumping Middle Green Valley Project” by Vollmar Natural Lands Consulting (2016)

(natural and unnatural) surrounding water features are identified. It is only then that the potential impacts associated with groundwater pumping can be quantified and evaluated. A concern I have had throughout the environmental compliance process of this project is the lack of specific water supply well locations and the attempt to generically qualify the potential impacts of pumping based on generalized aquifer conditions. There is enough variability in subsurface and surface geologic and hydrologic conditions in Green Valley to recognize that the impacts of large-scale pumping warrants more detailed and site-specific analysis. Until this level of analysis is completed, the true potential impacts to the environment, including aquatic fauna and flora, will not be addressed.

If you have any questions or wish to discuss these opinions and conclusions further, please feel free to contact me.

Sincerely,



Gregory R. Kamman
Principal Hydrologist

