Middle Green Valley Specific Plan Project

Responses to Comments on and Revisions to the Second Revised Recirculated Draft Environmental Impact Report

State Clearinghouse #2009062048

PREPARED FOR:
Solano County, Department of Resource Management
675 Texas Street, Suite 5500
Fairfield, CA 94533-6341

October 2016

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PREPARED FOR:

Solano County, Department of Resource Management
675 Texas Street, Suite 5500
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October 10, 2016

ERRATA

The following text represents errata noted in the Second Revised Recirculated Draft EIR (SRRDEIR) that do not involve changes in impact characterization. Changes are shown in ~~strikeout~~ for deletions and underlined for additions.

SECOND REVISED RECIRCULATED DRAFT EIR – CHAPTER 6. BIOLOGICAL RESOURCES

The first bullet on page 6-67 of the SRRDEIR under Mitigation Measure 6-12 is amended as follows:

… Examples of such measures include:

- Restricting in-stream work to ~~specified work windows during low-flow conditions (typically June 15 to October 15)~~ to August 1 through October 15, which is outside of steelhead breeding and migration periods.

…

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Tables

Exhibits

None

ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
af	acre-feet
afy	acre-feet per year
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
County	Solano County
CSA	County Services Area
DEIR	Draft Environmental Impact Report
FEIR	Final Environmental Impact Report
gpm	gallons per minute
LAFCO	Local Agency Formation Commission
M&I	municipal and industrial
mgd	million gallons per day
Plan Area	Specific Plan Area
SB	Senate Bill
SID	Solano Irrigation District
Specific Plan	Middle Green Valley Specific Plan
USBR	U.S. Bureau of Reclamation
UWMP	urban water management plan
WSA	water supply assessment

1. INTRODUCTION

1.1 OVERVIEW

This document presents responses to comments and minor revisions to the Second Revised Recirculated Draft Environmental Impact Report (SRRDEIR) on the Middle Green Valley Specific Plan (Specific Plan), a proposed mixed-use development on approximately 1,905 acres located along Green Valley Road, in unincorporated Green Valley, near the western boundary of Solano County. The proposed development would include up to 400 new residences, agricultural tourism, local neighborhood retail and community facility uses, and over 1,400 acres of protected agriculture and open space.

An EIR was prepared for the Specific Plan and certified by Solano County in July 2010. A lawsuit challenging the adequacy of the EIR, specifically the water supply analysis, was subsequently filed and the Court ruled in favor of the petitioner. In response to the Court's ruling, the County prepared a revised water supply analysis and a Recirculated DEIR, which was circulated for a 45-day public review and comment period from August 27, 2013 to October 10, 2013. In accordance with the Order, the Recirculated DEIR incorporated more detailed information on the proposed groundwater supply than what had been available during preparation of the original EIR.

In 2013, after further coordination between Solano County, the Solano Irrigation District (SID), which is the water supplier in Green Valley for agricultural and non-potable urban water deliveries, and the City of Fairfield, it was determined that SID water could be treated to potable levels using City of Fairfield facilities, then delivered by SID to the Specific Plan area within SID service boundaries. To evaluate this option, Solano County requested that SID prepare a water supply assessment (WSA) analyzing the availability and reliability of surface water to serve the Middle Green Valley Specific Plan. The SID WSA was approved by the SID Board on August 15, 2013. The findings of the SID WSA were incorporated into a Revised Recirculated DEIR (RRDEIR), in addition to the two previously proposed water supply options (Option A, Municipal Connection, and Option B, Onsite Groundwater), and circulated for a 45-day public review and comment period from June 26, 2014 to August 11, 2014.

On November 25, 2014, the Board of Supervisors recertified the EIR, which now included the RRDEIR, and readopted the Specific Plan. The County then filed a motion asking the Court to find that the RRDEIR addressed the issues raised by the Court in its October 2011 ruling and that the recertified EIR was legally adequate.

In an order filed September 24, 2015, the Court denied the County's motion. Although the Court was satisfied with the recertified EIR's assessment of the sufficiency of water supply from the groundwater alternative, it also found the recertified EIR did not adequately consider the possible biological resources impacts that could result from use of groundwater. The SRRDEIR evaluates the possible significant biological impacts of the groundwater alternative by revising and recirculating portions of Chapter 6 (Biological Resources) of the EIR. The SRRDEIR was circulated for a 45-day public review period from June 24, 2016 to August 8, 2016.

This responses to comments document has been prepared by Solano County in accordance with the California Environmental Quality Act (CEQA). In its entirety, the Final EIR will consist of the Middle Green Valley Specific Plan EIR certified in July 2010, the RRDEIR published June 26, 2014, the Responses to Comments and Revisions to the RRDEIR published November 12, 2014, the SRRDER

published June 24, 2016, and this document, which includes the comments received on the SRRDEIR, responses to those comments, and any associated edits to the SRRDEIR text.

1.2 PUBLIC REVIEW AND RESPONSES TO COMMENTS

On June 24, 2016, Solano County distributed a notice of availability of the SRRDEIR to public agencies and the general public, submitted the documents with a notice of completion to the Governor's Office of Planning and Research - State Clearinghouse, and published a public notice in the *Daily Republic*. As explained in the notice of availability and newspaper notice, the SRRDEIR was also published on the Solano County website: https://admin.solanocounty.com:4433/depts/rm/planning/middle_green_valley_specific_plan.asp.

In accordance with the State CEQA Guidelines, a 45-day public review period (June 24, 2016 to August 8, 2016) was established to allow review and comment on the SRRDEIR.

Three comment letters were received on issues evaluated in the SRRDEIR, one from an agency, one from an organization, and one from an individual. This document has been prepared to respond to those comments and to make appropriate revisions to the SRRDEIR, consistent with Section 15089 and 15132 of the State CEQA Guidelines. Responses to each comment are provided in Chapter 2 of this document. The comments did not result in significant changes to the text of the SRRDEIR and none of the comments or responses constitute "significant new information" as defined in Section 15088.5(a) of the State CEQA Guidelines, which would require recirculation.

Copies of this document can be reviewed at the Department of Resource Management, Planning Services Division at Solano County Department of Resource Management, Planning Services Division, 675 Texas Street, Suite 5500, Fairfield, California 94533. Additional copies can be reviewed at the Fairfield Cordelia Library, 5050 Business Center Drive, Fairfield; the Fairfield Civic Center Library, 1150 Kentucky Street, Fairfield; and online at https://admin.solanocounty.com:4433/depts/rm/planning/middle_green_valley_specific_plan.asp.

Lead agencies are required to provide responses to public agency comments on a Draft EIR at least 10 days before certification of the Final EIR (Section 15088[b] of the State CEQA Guidelines).

Solano County intends to hold a public hearing to consider the adequacy of the Final EIR and consider re-approval of the Specific Plan. If the Final EIR is certified and project approved, the Court will request the court to discharge the writ.

1.2.1 Comments That Require Responses

Section 15088(c) of the State CEQA Guidelines specifies that the focus of the responses to comments shall be on the disposition of significant environmental issues. Responses to comments regarding the merits of the project or on issues unrelated to the project's environmental impacts are not required. Such comments are noted in the responses, and will be reviewed by the County before any action by decision makers.

1.3 EIR CERTIFICATION AND PROJECT DECISION PROCESS

As the decision-making body of the lead agency, the Solano County Board of Supervisors is responsible for certifying that the EIR has been completed in compliance with CEQA, that the information in the Final EIR has been reviewed and considered prior to approving the project, and that

the EIR reflects the County's independent judgment. For each significant environmental effect identified in the EIR, the County must issue a written finding reaching one or more of three possible conclusions. According to Section 15091 of the State CEQA Guidelines, the three possible findings with respect to each significant effect are:

- Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the Final EIR;

- Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency; or

- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

If any significant unavoidable impacts would result from the approval of project elements, the County would also be required to state in writing why it proposes to approve the project despite these significant unavoidable impacts. This is termed a Statement of Overriding Considerations, pursuant to Section 15093 of the State CEQA Guidelines.

In addition, if the County approves the Specific Plan, it would adopt a mitigation monitoring and reporting program—consistent with Section 15097 of the State CEQA Guidelines—that describes how each of the mitigation measures adopted for the project would be implemented and tracked. If the project is approved, a Notice of Determination would be filed within five working days of approval at the Solano County Clerk's office and at the Governor's Office of Planning and Research – State Clearinghouse.

1.4 ORGANIZATION AND FORMAT OF THIS DOCUMENT

This document consists of the following chapters and sections.

"Errata" presents various errata noted in the SRRDEIR. Changes are shown in ~~strikeout~~ for deletions and <u>underlined</u> for additions.

Chapter 1, "Introduction." This chapter describes the purpose and organization of the Responses to Comments and Revisions to the SRRDEIR document and presents a brief summary of the project description.

Chapter 2, "Responses to Comments on the Second Revised Recirculated Draft EIR," includes all comments received on the SRRDEIR during the public review period and responses to significant environmental issues raised in the comments, as required by Section 15132 of the State CEQA Guidelines. All comment letters are reproduced in their entirety. Table 2-1 lists all comment letters received, and each individual comment is assigned a number (e.g., O1-1) that corresponds with the response.

Chapter 3, "List of Preparers," identifies the preparers of this document.

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2. RESPONSES TO COMMENTS ON THE SECOND REVISED RECIRCULATED DRAFT EIR

2.1 LIST OF COMMENTERS ON THE SECOND REVISED RECIRCULATED DRAFT EIR

Table 2-1, below, indicates the numerical designation, author, and date of each comment letter received on the Second Revised Recirculated Draft EIR (SRRDEIR).

Table 2-1 List of Commenters on the Second Revised Recirculated Draft EIR

Letter #	Commenter	Date of Comment
Agencies (A)		
A1	Scott Wilson, Regional Manager, Bay Delta Region California Department of Fish and Wildlife	August 8, 2016
Organizations (O)		
O1	Amber L. Kemble, on behalf of Upper Green Valley Homeowners Law Office of Amber L. Kemble	August 8, 2016
Individuals (I)		
I1	Bryant Washburne	July 1, 2016

2.2 COMMENTS AND RESPONSES ON THE SECOND REVISED RECIRCULATED DRAFT EIR

The comment letters received on the SRRDEIR and responses to the individual comments in the letters are provided below. The comment letters are reproduced in their entirety and are followed by the responses. Where a commenter has provided multiple comments, each comment is indicated by a line bracket and an identifying number in the margin of the comment letter.

State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.wildlife.ca.gov

***EDMUND G. BROWN JR.**, Governor*
***CHARLTON H. BONHAM,** Director*

Letter A1

August 8, 2016

Mr. Matt Walsh
County of Solano
Department of Resource Management
675 Texas Street, Suite 5500
Fairfield, CA 94533

Dear Mr. Walsh:

Subject: Middle Green Valley Specific Plan, Second Revised Recirculated Draft Environmental Impact Report, SCH #2009062048, Solano County

The California Department of Fish and Wildlife (CDFW) has reviewed the Middle Green Valley Specific Plan (Plan) second revised recirculated draft Environmental Impact Report (EIR). Thank you for addressing the majority of the concerns outlined in our letter dated February 9, 2010, regarding the original draft EIR.

CDFW provided comments on the draft EIR as a Trustee Agency and Responsible Agency. As Trustee for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of the fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species for the benefit and use by the people of California. CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as the California Endangered Species Act (CESA) Permit, the Native Plant Protection Act, the Lake and Streambed Alteration Agreement (LSAA) and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources. **A1-1**

While the majority of our issues were addressed in the subsequent versions of the EIR, CDFW still has concerns over mitigation for Oaks Woodlands under Mitigation Measure 6-3 and mitigation for Swainson's hawk forging habitat under Mitigation Measure 6-9. Please see the attached letter that outlines our concerns on the impact and proposed mitigation. **A1-2** **A1-3**

CDFW appreciates the opportunity to provide comments on the second revised recirculated draft Environmental Impact Report (EIR) for the proposed Project and is available to meet with you to further discuss our concerns. If you have any questions, please contact Ms. Karen Weiss, Senior Environmental Scientist (Supervisory), at (707) 944-5525. **A1-4**

Sincerely,

Scott Wilson
Regional Manager
Bay Delta Region

cc: State Clearinghouse
Mr. Ryan Olah, U.S. Fish and Wildlife Service – ryan_olah@fws.gov

Conserving California's Wildlife Since 1870

State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Bay Delta Region
Post Office Box 47
Yountville, California 94599
(707) 944-5500
www.dfg.ca.gov

***ARNOLD SCHWARZENEGGER**, Governor*
***John McCamman**, Director*

February 9, 2010

Mr. Michael Yankovich
County of Solano
Department of Resource Management
675 Texas Street, Suite 5500
Fairfield, CA 94533

Dear Mr. Yankovich:

Subject: Middle Green Valley Specific Plan, Draft Environmental Impact Report, SCH #2009062048, Solano County

The Department of Fish and Game (DFG) has reviewed the Middle Green Valley Specific Plan (Plan) draft Environmental Impact Report (EIR), and we have the following comments.

The proposed 1,905-acre Plan area is located north of the City of Fairfield along Green Valley Road at the east edge of the western hills. The Plan area includes the valley floor with two drainage corridors, Green Valley Creek and Hennessey Creek, surrounded by foothills with steep slope areas and oak woodlands. Agricultural, residential and commercial uses within the Plan area include grazing, livestock barns and stock ponds, vineyard development and building infrastucture, housing units, power and communication lines, and a Solano County Water Agency-operated reservoir. The Plan is intended to carry out the goals and policies identified by the Solano County 2008 General Plan for the Middle Green Valley "special study area."

Approximately 1,490 acres (78 percent) of the Plan area is proposed to be designated as permanent open land including approximately 440 acres for agricultural use. Lands designated for development would include a maximum of 400 and 100 new primary and secondary residential units, respectively. The Plan proposes to establish a land use and circulation layout, and associated land use tools such as development clustering and a transfer of development rights program while incorporating conservation easements to limit the impacts of development on the rural and agricultural character, and biological resources of the area.

DFG is providing comments on the draft EIR as a Trustee Agency and Responsible Agency. As Trustee for the State's fish and wildlife resources, DFG has jurisdiction over the conservation, protection, and management of the fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species for the benefit and use by the people of California.

Mr. Michael Yankovich
February 9, 2010
Page 2

Botanical Resources

Mitigation 6-3

The proposed Plan states that an Oak Woodlands Management Plan (OWMP) will be submitted prior to approval of individual development projects within the Plan area. At a minimum, the management and protection of oak woodlands should be consistent with "The Oak Woodlands Conservation Act 2001" (see http://www.wcb.ca.gov/Applications/pdf/Oak_Program.pdf). The draft EIR for the proposed Plan should specify that a detailed adaptive management plan for oak woodlands shall be prepared which is supported by scientific studies, ecological expertise, and a funding budget at a minimum. The draft EIR should describe restoration efforts such as conifer encroachment and include a timeline for restoration work.

Pursuant to the California Environmental Quality Act (CEQA) Section 21083.4, the draft EIR should state that in subsequent CEQA documents, any loss of oak woodlands shall be effectively mitigated. Oak woodlands are important for mast production and provide habitat for cavity nesters and hunting and resting perch sites for diurnal and nocturnal raptor species. The draft EIR states that any removal of heritage oaks will be mitigated by replanting at a ratio of 1:1. DFG considers this mitigation measure inadequate to avoid or reduce impacts to below a level of significance. If impacts to oak woodlands cannot be fully mitigated by permanent conservation and management, then effective mitigation should include planting replacement oaks at a minimum 1:1 ratio of trunk basal area.

A1-2 cont

Mitigations 6-6 and 6-7

The proposed Plan states that protocol-level surveys for special-status plant species will be conducted prior to approval of future individual project-level development plans. Botanical surveys were conducted within the proposed Plan area on April 22 and 23, 2009. However, future botanical surveys should be conducted throughout the blooming period for plant species potentially occurring within the proposed project site. Please refer to the recently revised DFG protocols for surveying and evaluating impacts to rare plants available at http://dfg.ca.gov/habcon/plant/plants.html. The draft EIR should specify that rare, threatened and endangered plant species to be addressed should include all those which meet CEQA definition (see CEQA Guidelines, Section 15380). If project impacts to sensitive plant species cannot be avoided, then off-site conservation should be included as part of a mitigation and monitoring plan. DFG should be consulted to review and approve the mitigation and monitoring plan.

Biological Resources

The draft EIR should provide a complete assessment of potential habitat for special-status wildlife species within the proposed Plan area and surrounding lands. Sources should not be limited to positive occurrence databases, such as the California Natural Diversity Data Base (CNDDB). The CNDDB contains only records of species and natural communities which have been observed and documented. Absence of data in such sources does not confirm that the species is absent from the proposed Plan area. Sources should be predictive in nature, discussing occurrence on the basis of habitat type and geographic area.

Mr. Michael Yankovich
February 9, 2010
Page 3

Mitigations 6-4, 6-5 and 6-12
Development projects within the proposed Plan area may result in adverse impacts to aquatic and riparian habitats. Steelhead (*Oncorhynchus mykiss*) has been documented within the Green Valley Creek watershed. Riparian forests maintain shade, protect against windthrow, produce litterfall, provide important migratory routes for wildlife, and serve to recruit in-stream small and large woody debris, which provides habitats, food and shelter for invertebrates and fish. Aquatic habitat could be affected by the alteration of stream flow as a result of filling-in and grading operations of upstream drainages and swales, and groundwater withdrawal. Riparian buffers also act as a filter strip for sedimentation from erosion sources located further upslope. Sediment delivery to streams could adversely affect spawning and juvenile rearing habitat conditions for steelhead as well as habitat for other aquatic species. The draft EIR should provide adequate protection and maintenance of the beneficial functions of aquatic and riparian habitats. DFG considers a 250-foot riparian buffer as adequate to protect anadromous salmonids and maintain aquatic habitat. The draft EIR should include enhanced protective and restoration measures on Green Valley Creek and other fish-bearing streams.

Lake and Streambed Alteration Agreement
For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, DFG may require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of an LSAA is subject to CEQA. DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the LSAA notification process, please access our website at http://www.dfg.ca.gov/habcon/1600/; or to request a notification package, contact the Lake and Streambed Alteration Program at (707) 944-5520.

Mitigations 6-8, 6-9 and 6-10
Future land uses within the proposed Plan area may adversely affect the long-term functionality of wildlife habitat and viability of dispersal for several special-status wildlife species. In order to adequately assess these impacts, protocol-level wildlife surveys should be conducted prior to each future site-specific development plans. Surveys to be conducted should include, but are not limited to, California red-legged frog (*Rana draytonii*), Swainson's hawk (*Buteo swainsoni*), western burrowing owl (*Athene cunicularia*), and western pond turtle (*Actinemys marmorata;* see Mitigation 6-11). The suitability of habitat within the proposed Plan area for California tiger salamander (*Ambystoma californiense*) should also be assessed. DFG-recommended wildlife survey and monitoring protocols and guidelines are available at http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html.

A1-3 cont

Suitable habitat is present within the proposed Plan area for the California red-legged frog (CRLF), which is federally-listed as Threatened and is a State Species of Special Concern (SSC). CRLF may be adversely affected by the filling-in of streams and ponds, and changes in hydrology due to urban runoff of creeks and ponds, and development of adjacent land. The draft EIR should provide protection measures to avoid "take" of CRLF

and significant impacts to CRLF dispersal, breeding and foraging habitat. DFG recommends that a minimum 300-foot buffer be established surrounding suitable breeding habitat for CRLF.

Birds in the order of Falconiformes and Strigiformes and their nests are protected under Fish and Game Code Section 3503.5. Migratory raptors are also protected under the Migratory Bird Treaty Act. It is also unlawful to take, possess, or destroy the nest or eggs of any bird pursuant to Fish and Game Code Section 3503. Burrowing owls are considered a State SSC. If burrowing owls are documented within the proposed Plan area or within 250 feet of Plan boundaries, survey results should be submitted to DFG staff according to the guidelines identified in the DFG "Staff Report on Burrowing Owl Mitigation" (1995). If burrowing owls are documented on the Project site, DFG views this as a significant impact and recommends the conservation of extant burrowing owl habitat. DFG is available to provide guidance on compensatory mitigation based on site-specific factors.

The Swainson's hawk is listed as threatened under the California Endangered Species Act (CESA). To avoid adverse impacts to Swainson's hawk, project activities are prohibited within 0.5 miles of a nesting Swainson's hawk between March 1 and September 15 without consultation with DFG. The draft EIR should include measures to avoid or minimize loss of Swainson's hawk foraging habitat. Lands should be protected in perpetuity and provide for long-term management of Swainson's hawk habitat. DFG recommends mitigation for loss of Swainson's hawk foraging habitat based on the following ratios:

- For projects within one mile of an active nest tree - shall provide one acre of land for each acre of development authorized (1:1 ratio).
- For projects within 5 miles of an active nest tree but greater than 1 mile from the nest tree - shall provide 0.75 acres of land for each acre of urban development authorized (0.75:1 ratio).
- For projects within 10 miles of an active nest tree but greater than 5 miles from an active nest tree - shall provide 0.5 acres of land for each acre of urban development authorized (0.5:1 ratio).

A1-3 cont

Mitigation requirements for special-status species should be determined in consultation with the U.S. Fish and Wildlife Service and DFG, and fully disclosed in the CEQA document prior to certification of the EIR. Please be advised that a CESA Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the project and mitigation measures may be required in order to obtain a CESA Permit.

Mitigation 6-11
The western pond turtle (WPT), which is a State SSC, is known to occur in several ponds within the proposed Plan area. WPT nests are very difficult to detect and may be located

up to 600 feet away from aquatic habitat. The draft EIR should specify that if an individual WPT is observed, mitigation shall be provided through preservation of occupied habitat that also provides nesting sites.

Land Conservation
The Plan proposes to establish a Green Valley Conservancy (Conservancy) as part of the Conservation Easement Program. The Conservancy would oversee the protection and management of the approximately 1,590 acres of agricultural and open lands within the proposed Plan area. The Conservancy would use a Resource Management Plan (RMP) which would specify long-term sustainability and management programs for resources protection and restoration. Wetland and riparian habitat restoration and improvement, and oak woodland preservation are also proposed in the Plan.

The draft EIR should include a detailed adaptive management and monitoring plan for each habitat type including oak woodlands, wetlands, riparian forests, streams, ponds and grasslands. Non-native invasive plant species used as erosion control and landscaping ornamentals may spread to native habitats and be difficult if not impossible to control. Therefore, the RMP should include effective techniques to eradicate or control invasive non-native plants in natural and protected areas. The draft EIR should provide detailed information on the location and extent of habitat types which will receive protection in perpetuity under a conservation easement. The draft EIR should state that protected lands will include an endowment fund for long-term resource management.

If you have any questions, please contact Ms. Brenda Blinn, Environmental Scientist, at (707) 944-5541; or Mr. Liam Davis, Habitat Conservation Supervisor, at (707) 944-5529.

Sincerely,

Scott Wilson FOR
Charles Armor
Regional Manager
Bay Delta Region

cc: State Clearinghouse

Mr. Ryan Olah
U.S. Fish and Wildlife Service
2800 Cottage Way, Room W2605
Sacramento, CA 95825-1888

Letter A1 Response	Scott Wilson, Regional Manager, Bay Delta Region California Department of Fish and Wildlife August 8, 2016

A1-1 The comment introduces California Department of Fish and Wildlife (CDFW) and states that comments had been submitted on the Specific Plan DEIR in a letter dated February 9, 2010, which is attached to this comment letter. As noted in the comment, CDFW is generally satisfied with the responses to its 2010 comment letter that were provided in the FEIR for the Middle Green Valley Specific Plan, Responses to Comments on and Revisions to the DEIR dated April 2010; see code number 18, responses 18.01-18.12.

A1-2 The comment raises continued concerns regarding mitigation for oak woodlands under DEIR Mitigation Measure 6-3. As noted in Table 6.5 of the SRRDEIR and page 6-52 of the SRRDEIR, impacts to oak woodlands (Impact 6-3) would not be altered by the additional information known about water supply Option B and Option C1, as the 2009 DEIR considered buildout of the Specific Plan and water service including a 186 acre-feet per year (afy) domestic water supply, which would come entirely or partially from new groundwater wells under water supply Options B and C1.

Mitigation Measure 6-3 also requires proponents of future individual, site-specific development projects within the plan area to submit, prior to project approval, a proposed oak woodland management plan, prepared by a trained arborist or forester, that is consistent with the requirements of the Specific Plan and the recommendations made in the Specific Plan DEIR. The required contents of a project-specific oak woodland management plan described in the DEIR text are consistent with the Oak Woodlands Conservation Act of 2001, and include subsequent monitoring to ensure that planted or transplanted oaks have survived the process. If the project applicant's proposed oak woodland management plan meets these criteria, the County would include a condition of approval on the site-specific development project requiring that the plan be implemented. The Specific Plan itself contains detailed mitigation provisions related to preservation and management of oak trees in the plan area (see Specific Plan Section 5.5.6).

Furthermore, DEIR Mitigation Measure 6-1 requires proponents of future individual, site-specific development projects to prepare a biological resources assessment report, which must contain a focused evaluation of project-specific impacts on biological resources, including temporary and indirect impacts, as well as all related biological impact avoidance, minimization, and compensatory mitigation measures included in the project. If the assessment results in a determination that oak woodland areas would be affected, the assessment must identify associated avoidance, minimization, and/or compensatory mitigation measures that must be consistent with the requirements of DEIR Mitigation Measure 6-3.

Other recommendations for oak woodland mitigation suggested in the comment will be considered by the County when evaluating future, site-specific development projects for potential significant impacts at the "second tier," project-level environmental evaluation phase, which will be completed as part of the required project-specific biological assessment reports.

A1-3 The comment raises concern regarding mitigation for Swainson's hawk foraging habitat under DEIR Mitigation Measure 6-9. As discussed on pages 6-52 and 6-53 of the SRRDEIR, Swainson's hawk was evaluated in the 2009 DEIR Impact 6-10. Several species of the tall trees along Green Valley Creek and Hennessey Creek riparian corridor provide suitable nesting habitat for Swainson's hawk, and the cropland in the project area provides suitable foraging habitat. Of the more shallow-rooted, water dependent riparian species in Green Valley Creek (white alder, narrow-leafed willow, arroyo willow, and Goodding's black willow), Goodding's black willow is the only species that grows tall enough and is of the appropriate species for potential Swainson's hawk nesting (see Section 4.5.4 of Appendix A of the SRRDEIR). As discussed below, direct impacts on nesting Swainson's hawk would be avoided or minimized, and foraging habitat would be avoided and preserved, through the implementation of DEIR Mitigation Measures 6-8, 6-9, and 6-10.

Potential indirect effects of groundwater pumping proposed by Option B to nesting habitat in Goodding's black willow would occur slowly over multiple breeding seasons and as a result would not affect the ability of Swainson's hawk to successfully nest. Therefore, indirect impacts to Swainson's hawk nesting in the Green Valley Creek riparian corridor by the groundwater pumping proposed in Option B would be less than significant. Furthermore, potential indirect impacts to Swainson's hawk nesting habitat in the Green Valley Creek riparian corridor from groundwater pumping in water supply Option B are addressed in Impact and Mitigation Measure 6-4. As discussed therein, indirect impacts to riparian vegetation due to groundwater drawdown would be mitigated by the implementation of Mitigation Measure 16-1 (Water Master Plan that identifies well locations and depths), Mitigation Measure 16-2a (well design process to avoid interference between new wells and surface waters), Mitigation Measure 16-2b (adaptive management of groundwater wells), and Mitigation Measure 6-4 (preservation of riparian habitat). Implementation of these measures would avoid potential interference between new water supply wells (wells to be constructed for water supply Options B or C1) and surface streams and associated riparian vegetation. Therefore, Swainson's hawk nesting habitat would not be adversely affected and the 2009 DEIR Impact 6-10 and Mitigation Measure 6-10 remain valid. Impacts to Swainson's hawk would be mitigated to a less-than-significant level.

Furthermore, DEIR Mitigation Measure 6-8, which provides mitigation for Impact 6-9, requires proponents of future individual, site-specific development projects to submit, prior to project approval, a biological resources assessment report that includes an evaluation of impacts, and suitable mitigation measures for those impacts, to special status wildlife species with the potential to occur as identified in the DEIR, including Swainson's hawk. Mitigation Measure 6-8 also references the Solano HCP for measures to avoid, minimize, and mitigate for impacts to Swainson's hawk. The avoidance and minimization measures described in the HCP include pre-construction survey and other avoidance measures that have been developed in coordination with CDFW. These measures also include field surveys to identify Swainson's hawk nesting activity (for example, see ADHCP Section 10.4.1), as well as specific ratios for preservation of Swainson's hawk foraging habitat and specific requirements for management of that habitat (see, for example, ADHCP Sections 6.4.8, 7.3, and 10.5.3). Regardless of the status of the HCP, the measures identified in that document provide guidance on approved CDFW measures for surveys, avoidance, minimization, and mitigation for Swainson's hawk to be used by future project applicants in preparation of biological resources assessment reports. If the project applicant's proposed biological resources

assessment meets these criteria, the County would include a condition of approval on the site-specific development project requiring that the measures be implemented.

A1-4 The comment provides contact information if there are questions. The County appreciates input on the project and will contact CDFW if questions arise.

Letter 01

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August 8, 2016

Mr. Matt Walsh
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Planning Services Division
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Dear Mr. Walsh:

Petitioner Upper Green Valley Homeowners submits these comments in regards to the Second Revised Re-circulated Draft Environmental Impact (SRRDEIR) for the proposed Middle Green Valley Specific Plan (2009-2010).

The SRRDEIR remains legally inadequate under the California Environmental Quality Act (CEQA, Public Resources Code §21000, *et seq.*) for several reasons, chief among them are the following three:

1.) The SRRDEIR must provide additional mitigation measures and/or performance standards with respect to the future well testing and monitoring (mitigation measure 16-2a);
2.) The SRRDEIR must evaluate a contingency to reduce the Project's water use (e.g. size of the Project) if, after the siting of the wells, they may have potential Creek interference; and
3.) The SRRDEIR must, but fails to, adequately and meaningfully discuss and mitigate the potential biological resources impacts from delay(s) in recharge, especially in the dry season, following multiple drought years.

01-1

These and other comments are detailed below.

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I. The Mitigation Measures are Improperly Deferred, Not Effective and Not Enforceable for the Proposed Well Testing and Monitoring

The SRRDEIR attempts to defer analysis of the Project's three or more super-wells stating,

> "Until the proposed well locations are identified and tested, analyzed, and monitored, this impact [on Riparian Communities] would be potentially significant. As described therein, steps would be implemented to design, place, and monitor the project wells. A well design planning process is standard industry practice and would include the following components: test hole and test well drilling in several locations to obtain further site-specific aquifer data, which would be used to determine appropriate well design and placement; placement of public supply wells in appropriate locations; spacing of plan wells to avoid interference with each other, with nearby private wells (agricultural or domestic), and surface streams; and ongoing monitoring." (SRRDEIR, p. 6-54)

01-2

However, controlling precedent dictates that County cannot defer these mitigations in the first place. *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412. The proposed future testing and monitoring in mitigation measure 16-2a fails to provide the much needed substantial evidence that the impacts from groundwater extraction for the Project can be mitigated to less than significant levels.

Even if it could defer this analysis, which it cannot, the SRRDEIR must articulate adequate performance standards. But, the SRRDEIR fails to do so. For example, the SRRDEIR relies on mitigation measure 16-2a, which promises that the super-wells "shall be designed to avoid any potential interference between the new Plan wells and … existing nearby private wells and surface streams."[1] This is not a performance standard, but rather is a goal that lacks standards, like having a ladder without the rungs. *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1119. Performance standards require a trigger to ensure that the mitigation measure will actually occur. For example, the Water Master Plan must

01-3

[1] See also SRRDEIR stating, "*2014 RRDEIR Mitigation Measure 16-1* (Water Master Plan that identifies well locations and depths), *Mitigation Measure 16-2a* (well design process to avoid interference between new wells and surface waters), and *Mitigation Measure 16-2b* (adaptive management of groundwater wells), shall be implemented to provide for avoidance of any potential interference between new Plan wells and surface streams." (SRRDEIR, p. 6-59)

trigger the involvement of a biologist to evaluate pumping impacts on steelhead. This is especially critical because steelhead in Green Valley Creek are on the brink of extinction. Further yet, the vulnerability ot steelhead is in the dry season, when there can be NO reduction to the in-stream water flow and therefore no delay in recharge for wells that are hydrologically connected to the Creek in any way.

Examples of additional performance standards so as to provide sufficient guidelines to ensure that there will be "no Creek interference" include, but are not limited to:

- County shall hire a hydrogeologist/hydrologist *and* a biologist to work in tandem to review of well testing as part of the Water Master Plan;
- The biologist and hydrologist team shall implement the mitigation measures, especially to analyze the "site-specific aquifer data" and "appropriate locations" and "spacing of plan wells to avoid interference with each other, with nearby private wells (agricultural or domestic), and surface streams; and ongoing monitoring" and determine the likely extent (distance) of the cone of depression of a proposed well in multiple drought years;[2]
- The biologist and hydrologist team shall determine whether the wells are hydrologically connected to the Creek.
- The biologist shall be highly qualified for steelhead/fisheries analysis because County's biologist, Mr. Vollmar, emphasizes that, "Central California coast steelhead is the surface biological resource most vulnerable to the potential impacts of groundwater pumping. *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." (Italics added.); and
- Ongoing monitoring of Green Valley Creek must include at least annual review and documentation of the gauge at Mangels Road to monitor that there is the no "potential interference" between Project wells and the Creek, so as to be fully enforceable. Public Resources §21081.6(b).
- Scientific monitoring shall use the best management practices for conservation of the species and shall occur at least once per year at the same time each year, at the time most effective to best

O1-3
cont

[2] A useful and analogous example in the SRRDEIR requires that "prior to County approval of any future plan area subdivision or other discretionary development application, the project proponent shall submit a biological resources assessment report prepared by a qualified biologist for County review and approval." A similar requirement should be provided for the review of the testing and monitoring of wells -- requiring a hydrogeologist/hydrologist working in tandem with the biologist to make the necessary evaluations relating to timing, impacts, issues of low flow being exacerbated.

analyze the potential groundwater impacts on the Creek and water table (ie the dry season in order to monitor the "limiting factor");
- Monitoring shall include analysis useful to evaluating 1.) the seasonal delay for recharge and 2.) safe yield.

01-3 cont

The SRRDEIR, as drafted, fails to adequately provide guidelines to determine how the Project's proposed super-wells[3] are in compliance with mitigation measures 16-2, 16-2a and 16-2b (e.g. no potential interference with Green Valley Creek, even in the dry season during drought, changing the timing of pumping). Such a determination requires the services of a biologist working in tandem with the hydrologist, but the SRRDEIR fails to require scientific analysis of the all important mitigation of testing and monitoring the Project's super-wells.

Moreover, analysis of the future well impacts has already proven to be a complex and scientifically intensive task, just based on the history of this Project alone, along with the extensive and meaningful input from hydrologists and biologists for this Project's proposal to rely extensively on groundwater resources. The indirect impacts from groundwater extraction can be subtle and take place over time (such as cottonwoods dropping limb by limb). At the same time, adverse effects can be sudden but avoidable with adequate monitoring of the wells (drop in water table below 6 feet can result in permanent loss of several types of shallow rooted willow species). A biologist's analysis and evaluation along side the hydrologist is a critical requirement that mitigation measures are fully enforceable and effective.

01-4

Yet, despite importance of having qualified scientists evaluate the well test and well monitoring, the SRRDEIR continues to rely on the Mitigation Monitoring and Reporting Program (MMRP, 2014). But, the 2014 MMRP failed to identify *any qualified independent scientific review* that is charged with this *critically important* task of testing and monitoring the super-wells. Rather it lists, "MGV County Service Area or Solano Irrigation District" as the implementation entity for monitoring the wells. Notably, the MGV County Service Area would not normally include a hydrogeologist and or biologist. Therefore members of the

[3] The reference to super-well is to distinguish the 3 or more wells from typical wells in the area that serve only one parcel. In contrast each of the super-wells in Option B would serve up to one third of the Project's 400 new primary residential units, a 100 new secondary residential units, and 60 farmworker houses and 30 guesthouses, ranging in density from to 8 units per acre to 1 unit per 5 acres (AR 1214); community services buildings, including a non-denominational chapel, a recreation center, a school, and a nature conservancy office; agricultural processing, commercial nurseries; hotel and retail for agricultural products; 10,000 feet of general retail and office space; a convenience store; 60 acres of roads; agriculture; and open space. (AR 1; 13, 1189.)

County Service Area are not qualified to make Mitigation Measure 16-2a enforceable.

Accordingly, mitigation measure 16-2a remains fatally flawed because it is not "fully enforceable through permit conditions, agreements, or other measures," as required by CEQA. Public Resources Code §21081.6(b), CEQA Guidelines §15097. [4] The a conditions of approval must require a the initial super-well testing, as well as ongoing monitoring, to be analyzed by a hydrogeologist *and* a biologist. Public Resources Code §21081.6(b), CEQA Guidelines §15097. 01-4 cont

In addition, the well information should be made easily accessible by the public, such as on the Conservancy's website, (which incidentally is also required to disclose subdivision and other applications, as part of the 2010 FEIR). 01-5

Finally, the SRRDEIR should articulate "enforcement procedures for noncompliance, including provisions for administrative appeal." CEQA Guidelines §15097(e)(5). The SRRDEIR should identify the manner in which an effected landowner with an existing well or an interested party, such as an environmental organization can redress the Project's failure to meet all mitigation measures, in the event that occurs. This contrasts with the existing recourse for an adversely affected well owner to be required to adjudicate the ground water basin (AR731, See also AR715-785, particularly See AR715, showing RREIR did not repeal the FEIR, but rather supplements it.) 01-6

II. <u>The Uncertainties Associated with Well Location due to Environmental Constraints, Proximity to Existing Wells, Low Transmissivity and Spatial Variability Requires that the SRRDEIR include a Contingency for a Reduced Project Size</u> 01-7

As noted above, the Project acknowledges that the impacts cannot be known until the wells are drilled.[5] As such the SRRDEIR must include an additional mitigation that the size of the Project will be curtailed as to

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[4] The California Environmental Quality Act is codified at Public Resources Code section 21000 *et seq.* See also CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.) developed by the Governor's Office of Planning and Research and adopted by California's Natural Resources Agency. Public Resources Code § 21083 "[C]ourts should afford great weight to the Guidelines except when a provision is clearly unauthorized or erroneous under CEQA. [Citation.]" (*Laurel Heights Improvement Assn. v. Regents of University of California* ("*Laurel Heights I*") (1988) 47 Cal.3d 376, 391, fn. 2.)

[5] See also SRRDEIR, stating, "... it may be conservatively assumed that one or more of the project wells could possibly have adverse effects on stream hydrology or riparian habitat, due to water level fluctuations resulting from well interference. This is a potentially significant impact." (SRRDEIR, p. 6-65 and See also p. 6-69)

size (e.g. overall number of new houses) if it is not possible to meet all of the mitigation measures while pumping 186 + afy as required by the Project. This type of mitigation was specifically sanctioned by the Supreme Court in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412. [6] In that case, as is the case here, it is impossible to know the full effects of groundwater use, absent future action. Therefore, providing for a contingency to curtail the size of the Project becomes a necessary mitigation in the event there is any potential interference with Greek Valley Creek or other mitigation measures and the super-wells.

01-7 cont

Moreover, there are several undisputed and unusual characteristics about the Green Valley groundwater subbasin that are relevant to the uncertainties of the impacts that may result from pumping for the 1000+ new residents in the rural County, located outside municipal services. For example, the Record clearly establishes that the subject groundwater basin has low transmissivity. Additionally, the Project requires much higher pumping rates from historic wells (i.e. the new super wells will serve over 100 residences each, as opposed to historic wells serving far fewer residences or an individual farm.

Several of the experts in the Record identified *significant and numerous warnings*. For example, Thomasson and others, highlighted the significant spatial variability of well performance (AR10363); the low transmissivity and low permeability (AR838); the low specific capacity (AR838); the difficulty of extraction of water at economic rates of discharge and drawdown (AR10360), the heavy seasonal fluctuation (10349-50, 10351), the nearby cones of depression (AR9313, 10361; see also AR10357, 10689 showing that there is the same type of alluvium in Suisun Valley, where the 2 ½ mile across cone of depression was documented); the severe drought conditions due to climate change (AR3134, AR2827); and the heavy pumping costs (AR10366). See also Letter from Kamman Hydrology & Engineering, Inc., dated August 11, 2014, which is attached hereto as Attachment A and incorporated into these comments and made applicable by this reference.

01-8

[6] See *Vineyard, supra* at 434, stating, "If the uncertainties inherent in long-term land use and water planning make it impossible to confidently identify the future water sources, an EIR may satisfy CEQA if it acknowledges the degree of uncertainty involved, discusses the reasonably foreseeable alternatives—including alternative water sources and the option of curtailing the development if sufficient water is not available for later phases—and discloses the significant foreseeable environmental effects of each alternative, as well as mitigation measures to minimize each adverse impact. § 21100, subd. (b). In approving a project based on an EIR that takes this approach, however, the agency would also have to make, as appropriate to the circumstances, any findings CEQA requires regarding incorporated mitigation measures, infeasibility of mitigation, and overriding benefits of the project (Public Resources § 21081) as to each alternative prong of the analysis."

Notably, the MGVSP is only approximately 2 miles square, but cones of depression have been historically present in Suisun Valley (with similar rock material as is present in Green Valley) for a span of 2 ½ miles across! Therefore, the SRREIR's conclusion that the wells can be spaced so as to avoid interference with each other, all other existing wells and with environmental constraints may not be obtainable. In the event that it is not then the Project size must be reduced. Without this contingency the SRRDEIR remains fatally flawed because it attempts to defer basic well information that could readily be provided by current a well pump test – stating the quantity pumped, how long it took for the well to pump dry and how quickly the well took to refill from surrounding groundwater, and the like. Much useful information could readily be provided at this time, given the large number of existing wells in the area. Guidelines §15144.

01-8 cont

III. The SRRDEIR Must But Fails to Adequately Discuss and Mitigate the Potential Impacts from Seasonal Delay in the Creek's and Basin's Recovery Commensurate with the First Rains

The Groundwater analysis in the SRRDEIR relies on 525 afy as being available to the Project. The problem with relying on that quantity of water availability was that nearly of all the wells that support that figure were located next to the Creek, several were *likely within the 100 feet buffer zone*. These well locations likely adversely affected (caused seasonal delay) for recharge of the Creek. However, such biological impacts were not included in Thomasson's 1960 USGS study.

Biologist Vollmar assumes without sufficient data that there will be no adverse impacts from pumping the super-wells up to 525 afy. This conclusion is not supported by substantial evidence. In other words the data that is missing is that there is insufficient evidence how wells outside of the Green Valley Creek corridor (as will be the super wells) will affect the water table and therefore affect seasonal delay in recharge. This is especially important because the hydrologic connection between the Creek and the entire basin is exemplified by the perennial nature of Green Valley Creek – it is draining the basin's groundwater even throughout the dry season. The County must discuss this further discuss this the potentially significant impacts associated with the seasonal delay in recharge. After all this was the gist of the Court's Order re: denial of discharge of peremptory writ, dated September 23, 2015.

01-9

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IV. The Mitigation Measure 16-2b Continues to Exacerbate the Problems Associated with Drawdown

The SRRDEIR finds that the Project's three or more super-wells could adversely affect other wells and stream habitats (Impact 16-2, referring to the 2014 RRDEIR). Nevertheless, the SRRDEIR continues to rely on the legally inadequate, pre-existing mitigation measures. Some of the mitigation measures from 2009 and 2014 actually *exacerbate* the problems associated with drawdown. For example Mitigation Measure 16-2b requires: lowering or deepening the super well; or pumping more to serve those whose wells have gone dry. In addition these mitigations are band-aids or worse, they are indicators of a problem with exceeding safe yield or lingering cones of depression such that if they occur they must include immediate evaluation of the problem by the aforementioned hydrologist and biologist team as part of the monitoring mitigation stated in Mitigation 16-2b. 01-10

Next, the SRRDEIR states that such mitigation will occur if there is "potentially significant drawdown…" (SRRDEIR, p. 6-68). The trigger of "*significant* drawdown" is misplaced. Rather, the SRRDEIR should trigger evaluation if there is *any* drawdown that either delays recharge to the Creek and other water important to biological resources or *any* drawdown that reveals safe yield may be exceeded *at all* and not wait until there is "significant drawdown."

V. The SRRDEIR's Finding that All Potentially Significant Impacts are Less Than Significant After Mitigation is Not Supported by Substantial Evidence

The SRRDEIR continues to rely heavily on the pre-existing and unaltered mitigation measures from the 2009 DEIR Mitigation Measures 6-2 to 6-13, the 2014 RDEIR and the RRDEIR.

The SRRDEIR adds a new potentially significant impact: "CUMULATIVE IMPACT ON RIPARIAN AND AQUATIC BIOLOGICAL RESOURCES DUE TO GROUNDWATER EXTRACTION UNDER WATER SUPPLY OPTION B OR C1." However, the SRRDEIR provides no new legally adequate mitigation measures. As stated above several impacts remain potentially significant because there is no substantial evidence that 3 super wells can be situated in the Plan area so as to have no interference with the Creek. On the contrary, there is missing data to provide sufficient knowledge of the impacts and how the ground water basin will behave due to considerable spatial variability in the Valley, *inter alia*. 01-11

Therefore the finding that cumulative impacts are not cumulatively considerable is finding is not supported by substantial evidence. (SRRDEIR, Mitigation Measure 6-15, p. 6-69) 01-11

Conspicuously missing from the SRRDEIR's meaningful discussion in Mitigation Measure 6-15 is the likelihood that a cone of depression can remain year to year, thereby affecting storage capacity. (Kamman, 2014). 01-12

VI. <u>There is No Substantial Evidence that the Impacts to Steelhead are Mitigated to Less than Significant Levels. Rather the SRRDEIR Defers such Analysis without Adequate Performance Standards.</u>

County's biologist, Mr. Vollmar writes:

> "Central California coast steelhead is the biological resource most vulnerable to the potential impacts of groundwater pumping. The dry season (May - October) is the time of the year in which groundwater pumping could impact surface flows, and Green Valley Creek is the only stream in the Project Area that provides dry season habitat for this species. Small changes in dry season stream depth could impact critical juvenile rearing aquatic habitat, when juvenile steelhead of various potential age classes require at least intermittently fairly fast-moving water to maintain the food supplies necessary for growth. Any reduction in current Green Valley Creek dry season flow that this species requires for juvenile rearing could potentially have impacts. (Vollmar, 2016, Analysis of Groundwater Pumping and Biological Resources, pp. 39-40). 01-13

Additionally, UGH's biologist, Ms. Rich, concurs with the gravity of the impacts to steelhead if the Creek is affected during low flow, i.e. extending the dry season, especially in drought. *Vineyard*, supra at 425-426. Ms. Rich previously commented that, "...the CCC steelhead is likely to be at the brink of extinction in the near future." Letter from Alice Rich, Ph.D. letter to Board of Supervisors, Solano County, dated November 25, 2014, a copy is attached hereto and incorporated herein as a part of these comments by this reference.

For the seasonal drawdown of the water table the SRRDEIR fails to adequately address the critical issue regarding delayed recharge. This is especially key because steelhead are triggered to move by the first rains. (Rich, 2014) Notably, if there is *any* hydrologic connection between the well and the Creek there is the potential for interference with the Creek, depending on the size of the cone of depression. This would violate

Mitigation Measure 16-2a. Therefore it is critical that the performance standard for a well test determine the hydrologic connectivity of the proposed well to the Creek and the extent of a cone of depression.

The SRRDEIR elaborates on the vulnerability of protected steelhead:

> "Green Valley Creek stream gauge data 0.6 miles downstream of the Project Area demonstrates that flow depth annually drops to approximately 1 foot in depth during the dry season from May – October (Figure 6.6) (for additional information about this stream gauge data, see Appendix A of this SRRDEIR). This time period overlaps with the freshwater rearing period for juvenile steelhead of various potential age classes that require at least intermittently fairly fast-moving water to maintain the food supplies necessary for growth (see Section 4.5.1). Small changes in dry season stream depth could adversely affect critical juvenile rearing aquatic habitat, when juvenile steelhead of various potential age classes require at least intermittently fairly fast-moving water to maintain the food supplies necessary for growth. *Any reduction in current Green Valley Creek dry season flow that this species requires for juvenile rearing could potentially have impacts.* The threshold for assessing whether potential impacts to Central California Coast steelhead 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 would begin if the radial extent of the cone of depression in the unconfined aquifer adjacent to a proposed Option B groundwater pumping well extended to the stream channel of Green Valley Creek, where a hydraulic connection was already present between the creek and the unconfined aquifer (as in Figure 6.5). If this occurs and stream depth is reduced, it would represent a significant impact to Central California Coast steelhead." (SRRDEIR, p. 6-66, emphasis added.)
> ...
>
> "Potential indirect impacts to surface waters due to drawdown of groundwater under water supply Option B (or C1) would be mitigated by proper well design, as required by the Specific Plan and 2014 RRDEIR Mitigation Measure 16-2a, as well as adaptive well management required by Mitigation Measure 16-2b. The well design process shall precede, and under industry practice would precede, determination of the engineering specifications for well

O1-13
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> locations and depths. The engineering specifications for well locations and depths are required to be identified as part of the Water Master Plan specified under 2014 RRDEIR Mitigation Measure 16-1. The Water Master Plan is required to be prepared prior to subdivision map approval (a discretionary approval subject to CEQA). These measures would provide for avoidance of any potential interface between new plan wells and surface streams." (SRRDEIR, p. 6-68)

01-13 cont

This conclusion that the impacts would be mitigated is not supported by substantial evidence because it assumes, without adequate data, that avoidance *is possible*. If the SRRDEIR is to rely on such an assumption it must provide adequate enforceability of the mitigation measure -- there will be an adequate reduction in the number of units/use of water *in the event* there is drawdown over time or *any potential* interference with the Creek.

Additionally, the SRRDEIR must be revised to prohibit work during times most vulnerable to steelhead. Currently, the mitigation merely requires that work be outside of June – October, but that limitation is insufficient because there is substantial evidence that it must be restricted to March until the first few substantial rains. This is because the first storm events trigger steelhead to migrate. (Rich, 2014) Further, biologist Rich states (and is not contradicted by a biologist in the Record), that smoltification, which occurs in March is also particularly sensitive time for steelhead. (Rich, 2014). Accordingly, the mitigation to perform riparian work must be revised to prohibit Creek activities which could affect steelhead and/or water flow from March until the first significant rains, whenever they occur for each year – October, November, December, or January.

01-14

VII. <u>The SRRDEIR Improperly Relies on a 100 feet Buffer to Avoid Potentially Significant Impacts and any Potential Interference with Green Valley Creek</u>

The SRRDEIR states, "New development lot lines, the edges of cultivated agricultural fields in preserved lands, and all new groundwater wells shall be set back from preserved riparian corridors by a minimum of 50 feet from tributaries and a minimum of 100 feet from Green Valley Creek and lower Hennessey Creek." (SRRDEIR, p. 3-55, 56; See also Vollmar, p. 2) While it is useful to use the term "a minimum of 100 feet," it the SRRDEIR must articulate that the buffer shall be revised by a qualified team of a hydrologist and biologist working in tandem to determine the proper proximity of the super wells to the Creek so as to have no potential interference to the same.

01-15

Additionally the buffer should begin from the lateral sides of the Creek not the center line because Mitigation 16-2a requires "no potential interference." Potential interference includes the underground portion of the creek that is running adjacent to the visible above ground creek. The SRRDEIR should provide data as to the width of the underground creek to determine where the buffer begins.

In short, the buffer for placing super wells next to the Creek must be determined *only after* the well tests are completed with particular detailed attention paid to determining the potential for 1.) extending the seasonal drawdown (ie temporarily reducing re-watering of the aquifer and the creek due to the Project's use of the groundwater); 2.) the radial extent of the cone of depression over time and in multiple drought years; and 3.) whether there is any drawdown over time – exceeding safe yield. 01-15 cont

Meanwhile, even if the SRRDEIR posits a preference for a 200 feet buffer, it must clearly make such a buffer subject to modification pending the scientific review of the well tests and monitoring. As articulated above, such scientific review must be conducted by a team of hydrogeologists to determine issues like radial extent of the cone of depression and underground creek width, along with biologists to determine that there is "no potential interference" between the super-wells and the biological resources.

VIII. The SRRDEIR's reliance on future permits is misplaced

Mitigation 6-5 (i.e. to secure permits from CDFW and USACE) purports to mitigate for drawdown over time, but this is inadequate because groundwater is not regulated by the state in Green Valley. 01-16

IX. Significant Impacts to the Western Pond Turtle (WPT) and to the California Red Legged Frog Remain (CRLF)

SRRDEIR claims,

> "CRLF and WPT in Green Valley Creek could be affected by the drawdown of groundwater, if it were to result from groundwater pumping, under water supply Option B or C1, if the radial extent of the cone of depression in the unconfined aquifer adjacent to a proposed groundwater well extended to the edge of the stream channel, where a hydraulic connection was already present between the stream and the unconfined aquifer, causing induced recharge. This could result in a small reduction in surface flow. However, due to perennial surface flow in Green Valley 01-17

> Creek, and the general surplus of groundwater in the Project Area (Luhdorff & Scalmanini 2013; Section 3.5; see Appendix B of the 2014 RRDEIR) that limits the depth that groundwater could decline based on the scale of the proposed pumping in Option B, ponded riparian refugia would not dry up entirely. Therefore, impacts to CRLF and WPT in Green Valley Creek due to the groundwater pumping proposed in Option B would be less than significant." (SRRDEIR, p. 6-61)

However, the finding of less than significant impact is not supported by substantial evidence because it lacks data as to how much water reduction can be tolerated by the protected species, WPT and CRLF. Moreover, the SRRDEIR fails to account for a *delay* in groundwater recharge due to pumping. The question remains as to the impacts during the sensitive time period when recharge of creeks and the like is delayed due to returning water to the aquifer as a result of the super wells.

01-17 cont

Figure 6.2 shows several development areas in CRLF proposed critical habitat. However, a permit for development will not usually trigger federal consultation. Since a large portion of the Specific Plan area is proposed critical habitat, the SRRDEIR must require off site mitigation, or the like, for development within the CRLF proposed critical habitat. The SRRDEIR focuses on take of individuals, but fails to adequately mitigate for the loss of habitat, in violation of CEQA Guidelines §15065(a)(1).

Finally, Impact 6-13 is for Impact on Wildlife Habitat Corridors and Linkages, must but it fails to discuss the inadequacy of non aquatic riparian animals to get through bridges spans that are not designed to especially allow passage of such creatures under the bridges.

X. <u>The SRRDEIR Fails to Disclose and Mitigate Potentially Significant Impacts from Groundwater Pumping to Swainson's Hawk (*Buteo swainsoni*)</u>

While the SRRDEIR acknowledges the impacts to nesting pairs and finds that such impact is less than significant, the SRRDEIR fails to disclose and analyze the other impacts to Swainson's hawk, such as reduction in range of a protected species. Reduction in range analysis is required by CEQA. *Napa Citizens for Honest Government v. Napa Board of Supervisors* (2001) 91 Cal. App. 4th 342, 384. The mitigation for impacts to Swainson's hawk must include replacement species for trees that are adversely affected from the Project. For example, the SRRDEIR finds that the shallow rooted riparian tree, the Goodding's black willow, could be

01-18

used by Swainson's hawk but concludes that if groundwater extraction contributed to reducing its population size the impact would be LTS because it would occur over several seasons. Even if that were so, there are less trees that can provide nesting foliage for the protected avian and as such there are indirect cumulative impacts that the SRRDEIR fails to discuss. 01-18 cont

In addition the SRRDEIR fails to analyze the Project's impacts on the other shallow riparian trees such as white alder and narrow-leafed willow and arroyo willow because the trees are not tall enough for nesting. However, such narrow analysis is legally inadequate because Swainson's hawk are protected to do more than nest at the Project site. Rather they are protected for their other activities such as hunting. The smaller riparian trees provide shelter, cover, habitat for the rodents and other small animals that the Hawk hunts and therefore require further analysis of this identified potentially significant impact of dewatering of shallow rooted riparian species. 01-19

CONCLUSION

The SRRDEIR fails to satisfy the requirements of CEQA. This is especially so since CEQA requires that the groundwater option must be fully analyzed at this juncture due to the legal uncertainty of the preferred option to obtain water from the City of Fairfield (either directly or indirectly). See Order re: denial of discharge of peremptory writ, dated September 23, 2015. Therefore, the SRRDEIR must either provide sufficient information to fully and meaningfully evaluate the pros and cons the Project's groundwater impacts, but it does not. On the contrary, it relies on uncertain, ineffective and unenforceable mitigation measures. Accordingly, potentially significant impacts remain. 01-20

Thank you for your consideration. Please feel free to contact me if I may provide any further information for these comments.

Amber Kemble
Attorney for Upper Green Valley Homeowners

Attachments: Attachment A --Letter from Kamman Hydrology & Engineering, Inc. to Board of Supervisors, dated August 11, 2014
Attachment BLetter from Alice Rich, Ph.D. letter to Board of Supervisors, Solano County, dated November 25, 2014

Attachment A:

Letter from Kamman Hydrology & Engineering, Inc. to Board of Supervisors, dated August 11, 2014

Kamman Hydrology & Engineering, Inc.
7 Mt. Lassen Drive, Suite B250, San Rafael, CA 94903
Telephone: (415) 491-9600
Facsimile: (415) 680-1538
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August 11, 2014

Matt Walsh
Solano County Department of Resource Management
Planning Services Division
675 Texas Street, Suite 5500
Fairfield, CA 94533
Sent via Email: MWalsh@solanocounty.com

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

Dear Mr. Walsh,

On behalf of the Law Office of Amber Kemble, I have reviewed the Revised Re-circulated EIR ("RRDEIR") for the Middle Green Valley Specific Plan ("MGVSP") (SCH#: 2009062048). My review has focused on the Option B Water Supply Assessment[1] (WSA) and the Solano Irrigation District (SID) Option C WSA[2] and supporting documents. Because the Option B WSA may rely heavily on local area groundwater information contained in a 1960 U.S. Geological Survey report, I have also reviewed this report prepared by Thomasson et al. (1960)[3]. The purpose of this letter is to

01-21

[1] Luhdorff & Scalmanini, 2013, Water supply assessment – Middle Green Valley Project, Solano County, California. Prepared for Solano County, May, 69p.

[2] Summers Engineering, Inc., 2014, Water supply assessment for the Middle Green Valley Specific Plan Project. Prepared for: Solano Irrigation District, April, 10p.

[3] Thomasson, H.G., Jr., Olmsted, F.H., and LeRoux, E.F., 1960, Geology, water resources and usable ground-water storage capacity of part of Solano County, California. Geological Survey Water-Supply Paper 1464, United States Geological Survey, prepared in cooperation with the U.S. Bureau of Reclamation, 711 p.

provide you with an independent opinion regarding potential significant hydrologic impacts to the environment associated with the proposed project.

Based on my review of the RRDEIR and supporting technical documents, it is my professional opinion that the RRDEIR and supporting Option B WSA do not adequately demonstrate that there is sufficient groundwater resources to support the proposed project and that the project may pose a significant impact to the environment. In addition, I question the adequacy of the SID Option C WSA in demonstrating that there is adequate SID water supply to support the MGVSP project. The rationale for these opinions is provided below.

1.0 Inconsistent and Non-conservative Domestic/Residential Water Demands

Existing residential water demands in the Plan Area for potable water are estimated at 110 AFY (90 AFY supplied by local groundwater pumping and 20 AFY supplied by SID deliveries under Option B WSA). Proposed project residential water demands are estimated to increase by 186 AFY for domestic use and 54 AFY for landscape irrigation (total increase in project residential water demand of 240 AFY). The 186 AFY domestic increase is proposed to be satisfied by increased local groundwater pumping while the increased 54 AFY residential irrigation demand will be satisfied by project reclaimed water.

01-21 cont

Of the 186 AFY increased demand for potable water, 136 AFY will be used to satisfy the residential unit potable water demand. The remaining 50 AFY of total potable water demands are for a variety of other facilities including community center, meeting hall, school, etc. (see Table 5-1 of Option B WSA for complete listing). Combining the 136 AFY residential unit demand with the 54 AFY for residential irrigation sums to 190 AFY of residential unit demand. Assuming 500 residential units, this equates to an annual residential demand of 0.38 AFY per unit (see Table 5-1 of Option B WSA).

Pages 28 through 31 of the Option B WSA provide a number of examples of existing residential unit water demands in the project vicinity. These documented residential unit demands (based on what was actually supplied from provider) are significantly higher than the Project residential unit demand and are summarized as follows: 1) Recent residential M&I deliveries to homes in the Plan Area range from 1.0 to 2.8 AFY (average 1.8 AFY); 2) outside of the Plan Area, recent SID deliveries averaged 0.94 AFY per unit to 254 parcels; 3) the City of Vallejo delivers 0.54 AFY per unit to 429 parcels in the Thomasson study area (north); and 4) the WSA reports (page 31) that groundwater pumping for residential use in the Thomasson study area (north/south) was calculated at 2.0 AFY per residence/residential parcel.

Although the Project proposed conservation measures will lower annual residential water demands, I am skeptical that demands can be reduced to the degree claimed/anticipated in the DEIR. It would seem prudent and responsible that residential demand estimates used in the WSA should reflect more conservative demand estimates, based on actual recent water deliveries, not speculative figures for which no derivation is provided/proven.

O1-21 cont

2.0 Incorrect Assumption that Annual Groundwater Demands Won't Vary

The Option B WSA assumes that annual groundwater demands (Table 16.6 of DEIR) won't vary from year to year based on wet and dry weather patterns. As presented above, the Option B WSA states (page 28) that recent annual residential M&I deliveries to homes in the Plan Area vary from 1.0 to 2.8 AFY. The rationale for this variation is also provided in the WSA, which states, "*This year-to-year fluctuation is likely related to dry-year versus wet-year demand, where a dry year (such as 2007) leads to an increase in demand for residential landscaping needs, and a wet year leads to a corresponding decrease in demand.*" The DEIR and Option B WSA provide no justification for why this trend won't continue, which suggests that annual variability groundwater demands are likely to continue.

Comparison of available annual groundwater pumping volumes for the Thomasson study area against annual rainfall totals (1945-1950; see Table 47 in Thomasson et al., 1960)

indicate an inverse relationship between rainfall and pumping, with highest pumping rates occurring during dryer years and less groundwater pumping during relatively wetter years (see also Table 4-1 in Option B WSA). This information also suggests that higher demands are warranted during relatively dry year-types, which would translate into the need for increased groundwater pumping. Therefore, Option B WSA water demands should similarly be higher during dry year analysis periods and the Option B WSA should be deemed inaccurate without accounting for this documented condition.

3.0 Unsubstantiated Assumption that Groundwater Pumping Had or Will Have No Adverse Impact on the Environment

The Option B WSA/DEIR state that groundwater levels are "stable" within the Plan Area. These documents also assume that the historic pumping rates did not impart adverse impacts on the environment. The depth to groundwater in the Plan Area is characterized as shallow, especially along creek corridors that aid in winter recharge. However, groundwater levels were commonly lowered 10- to 20-feet seasonally in response to groundwater pumping during the dry season. The Option B WSA/DEIR characterization of "stable" water table conditions is based on the phenomenon that winter recharge is sufficient to recharge the aquifers and restore the seasonally depleted water levels back to the the same elevation each year.

01-21 cont

The effect of groundwater pumping logically artificially accelerates the dewatering of areas such as creeks and wetlands that lie within the vicinity of the wells and likely host aquatic organisms and water dependent vegetation. It is my experience that dewatering of shallow aquifers adversely impacts sensitive and endangered species such as salmonids, Western Pond Turtle, California red-legged frog and California Tiger salamander. Therefore, the careful sighting of groundwater extraction wells is critical in being able to evaluate impacts from Project pumping on the environment. Although significant and likely impacts from groundwater pumping are acknowledged in the DEIR, the DEIR proposes to delay the sighting and evaluation of potential adverse impacts from groundwater pumping as a mitigation measure (page 16-3). However, based on descriptions of the aquifer conditions underlying the Plan Area, it is not unreasonable to

assume that a majority of Area and existing environment may be susceptible to potential adverse impacts from groundwater pumping (e.g., well interference, dewatering creeks and wetlands, poor aquifer conditions limiting well yields, etc.). Thus, Option B WSA and DEIR must include a feasibility assessment that includes a general screening to identify suitable well locations, compatible with existing/future land-use, water supply facilities and within a favorable hydrogeologic setting. This assessment must take into account potential impacts to existing wells and surface water features. Such an assessment must also identify and evaluate sustainable yields from near-by adjacent wells to better evaluate the ability to attain the desired supplies. This is especially prudent in light of the conclusions presented in the next section.

4.0 Unsubstantiated Derivation of Safe Groundwater Extraction Rate

The project proposes that an annual groundwater pumping rate of 525 AFY or greater is safe and sustainable over the long-term. This rate is derived from a historic (1949) maximum pumping rate of 1400 AFY from the cumulative well extractions within the entire 2400-acre Thomasson study area.[4] What is not presented in the DEIR, Option B WSA or Thomasson et al. (1960) is the distribution and pumping rates of the wells within the Thomasson study area that contributed this total volume. In summary, the Option B WSA and DEIR do not present relevant empirical data that reflects the Plan Area groundwater conditions, nor demonstrates that an annual pumping rate of 1400 AFY is feasible, sustainable or safe.

01-21 cont

Thomasson indicates that groundwater yields are higher in the northern portion of the 2400-acre study area than in the south. Thomasson et al. state the following. "*The alluvium in storage unit E2, Green Valley, is underlain by the Sonoma volcanics throughout all but the southwestern part where the volcanics may be missing in places and the alluvium may reset directly on rocks of Eocene age. Some of the storage capacity in the northern part of Green Valley, the part underlain by the volcanics, probably could be utilized but at very substantial cost for wells and pumping power. On*

[4] It is my understanding that these pumping rates are based on interpretation of power consumption records. Although this is a standard method to derive historic pumping volumes, there is considerable uncertainty in the accuracy of actual pumping rates using this method.

the other hand, it is doubtful that any material part of the storage capacity of the southern part could be utilized effectively because of the tight character of the underlying older rocks and the probably poor quality of the deeper water."

If the majority of the total water pumped in 1949 came from the higher producing wells in the northern part of the study area, it would be incorrect to apply these types of yields to the southern part of the Thomasson study area. In short, there appears to be a geographic distribution of aquifer that allow higher pumping yields to the north and lower supply to the south. This raises the concern that the relatively high sustainable yield proposed by the Project is biased by a higher proportion of the 1400-AFY coming from wells in the northern Thomasson study area and applying this anticipated yield would be unreasonable in the southern Thomasson study area. This raises the question as to what the sustainable well yields would be from the centrally located 900-acre project area. It does not appear that the Option B WSA has addressed that desired groundwater yields and supply are truly available within the Plan Area, but uses a potentially biased maximum annual yield estimate that may be unrealistic to meet proposed demands. What I learned from review of project documents is that there is significant spatial variability in underlying aquifer characteristics, which results in stated spatial variability in well yields, available groundwater storage, sources of groundwater recharge (e.g., creeks and groundwater inflow via the Sonoma Volcanics) and water table declines. Again, this spatial variability in groundwater conditions requires more focused assessment of available resources within the Plan Area.

01-21
cont

Other data provided in the Option B WSA and the DEIR (e.g. the driller logs and hydrographs in Figures 4-3 and 4-4 of the WSA) do not provide the relevant and missing data from Thomasson et al. that is necessary to analyze the safe yield of the aquifer. While well completion reports can provide basic information for analysis, the information from the well completion reports on page 16-3 of the DEIR are inadequate in providing information of sustainable safe yields. Additionally, site specific aquifer tests are necessary to analyze water availability in the Green Valley aquifer, which shows significant spatial variability. Similarly, the information disclosed from the Drillers' logs

on page 16-4 is incomplete because it omits total water pumped. The County must disclose and analyze more empirical data to draw well informed conclusions as to the potential yield of the aquifer and sustainable/safe supply rates and volumes.

Although the Option B WSA authors conclude that groundwater extractions of 1400 AFY are safe and sustainable, Thomasson et al. was not able to come to the same conclusion. Based on my review of the DEIR and Option B WSA, there is no new information or relevant empirical data that shed new light on local area groundwater conditions that lead to conclusions that would lead me to deviate from those by Thomasson et al., which include, "*In summary, the usable ground-water storage capacity in the Suisun-Fairfield area is not capable of any reasonably accurate estimation from data available at this time.*" They also concluded that only a tenth to a fifth of the total capacity estimated for the area was a conservative upper limit for extraction and they go on to state, "*The development of anywhere near this amount would require the construction of many deep wells into the Sonoma volcanics and heavy pumping costs concomitant with the necessary deep pumping levels.*"

01-21 cont

5.0 Adequacy of Option C WSA (SID Surface Water Supply)

The Option C WSA assumes the Solano Irrigation District (SID) would provide water to satisfy the MGVSP project demands. In reviewing the SID's Option C WSA, it appears the WSA does not satisfy the requirements of a WSA preparation as set forth in Water Code Section 10910. The following points are the basis for this determination.

a) The Option C (SID) WSA includes a component of groundwater supply in quantifying SID water supplies. The location and ownership/control over these wells is not discussed. No thorough assessment of the potential impacts from groundwater pumping is provided in the SID WSA. For example, what is the dry year safe yield from available wells? What are the potential impacts from long-term pumping during various year-types? The lack of this analysis on groundwater supplies fails to comply with the Water Code's water supply assessment requirements. Additionally, there may be potentially significant

impacts associated with pumping the municipal supply from such wells, as is proposed by the WSA, such as draw down of neighboring wells, or draw down of neighboring creeks.

b) SID has allocated 141,000-AF supply from Solano Project during minimum, average and maximum year types. This supply value does not to change based on water year-type. However, actual water deliveries stated on Table 1 indicate considerable variability, likely due to water year type conditions, many years falling well below 141,000-AF. How can the SID justify they will receive their full 141,000-AF allocation during all year types especially during prolonged drought periods when there is insufficient carryover storage to satisfy potential deficits? Where is the long-term analysis and accounting during multi-year droughts to demonstrate that there is sufficient carryover storage to meet demands?

c) The water budget presented in Table 4 indicates a deficiency of supply in meeting "maximum scenario type" periods. What types of year types (e.g., dry, normal, wet…) does this represent? What is the frequency of occurrence of such year types? Doesn't this deficiency indicate an inadequate supply to meet project demands?

d) During years of water supply deficiency, the SID indicates that they can rely on carryover storage from Lake Berryessa to meet needed supply. However, under Section 6.2 of the WSA, the PID indicates that there are times during prolonged drought when there is insufficient carryover storage to meet demands. This section indicates that there is a "Drought Measures and Water Allocation Agreement" that calls of mandatory curtailment of Solano Project water. However, where is the analysis that demonstrates that this curtailment will offset the imbalance between available supply and demand? What happens during multi-year dry periods when there is not sufficient carryover storage to meet demands. Section 6.1 of the WSA indicates that the SID and SCWA have created

O1-21 cont

a 15,000-AF "Emergency Water Pool" in response to drought periods. However, even if the SID were to receive 100% of this resource, they would still be short in meeting the total 17,100-AF "Maximum" year supply deficit indicated in Table 4.

e) The water budget analysis in Table 4 indicates that there is an excess of 6403-AF supply under an Average scenario type. This equates to 4% of the total available supply and represents a very narrow margin for error. This represents virtually no Factor of Safety for long-term planning. If groundwater supply estimates are eliminated from water budgets (Tables 3 and 4), water availability excess/deficit are reduced by 5000-AF. This leaves only 1403-AF (vs. 6403-AF) of excess supply under "Average" scenario types (see Table 4), or less than 1% margin of error. This is an insufficient margin on which to base a new municipal water supply. How reliable are the SID groundwater resources and where is the analysis to demonstrate that they will be reliable over the long-term? How accurate are water budget estimates – could the uncertainty associated with estimates create supply deficits during an Average scenario type?

O1-21 cont

f) Except for evapotranspiration, the water supply and all demands estimates presented in Table 3 and 4 are not derived from statistical analysis of year type-driven variables or conditions. What is meant by Minimum, Average, and Maximum scenario types? Are all demands and supplies categorized by scenario consistent? What sort of year-types do these scenarios represent? A more standard approach would be to develop water budgets based on "normal, *single dry, and multiple dry water years during a 20-year projection*" periods.

g) Appendix F of the DEIR includes the following statement. *"Because SID does not have water treatment facilities, SID surface water would be treated at the City of Fairfield treatment plant(s) to meet safe drinking water standards for domestic use. There is existing infrastructure that provides Solano Project water to the City. This infrastructure would be sufficient to handle the SID water for the Specific Plan; additional pipeline construction to transmit SID surface water to*

the City's water treatment facilities would not be necessary. Fairfield has indicated that the Specific Plan area would most likely receive water from the Waterman Water Treatment Plant; however, once the City completes its cross-town transmission pipeline connecting the North Bay Regional Water Treatment Plant to Nelson Hill Reservoir, the project could also receive water from North Bay Regional Plant (which treats water from Lake Berryessa and the Delta), in which case the water supply would be a blend from the two treatment plants." This statement indicates that some of the water supply to the project will ultimately come from the Delta. The WSA does not include an evaluation of what percentage of the total 141,000-AF of Solano Project allocation will come from the Delta. How much water is or will be coming from the Delta? Is the Delta supply controlled by year-type and if so, how is that factored into the WSA?

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h) Nowhere in the WSA is there a discussion of the "SID Water Supply City" commitments (Table 3 and 4). How will these be affected by various drought periods?

i) The SID WSA states (last paragraph of Section 6.1) that the SID surface water deliveries from the Solano Project are 100% reliable during normal years, 99% reliable during single dry years, and 99% reliable during the 1987-92 drought. However, review of Table C. in Appendix B8[5] of the RRDEIR indicates that the Solano Project allocation reliabilities are as indicted in the table below. These data contradict the conclusion above and suggest much lower allocation reliability during individual and multi-year drought periods.

[5] Solano County Water Agency, 2010, UWMP reliability data (revised for SWP prior memo is date 6/10/10 – Solano Project data unchanged). Memorandum from David B. Okita, General Manager SCWA to City/District Urban Agencies, August 10, 3 pages and tables.

Year	Water Year Type	% Full Allocation
1990	Dry	95%
1991	Normal	95%
1992	Dry	90%
1993	Wet	95%
1994	Dry	95%

01-21 cont

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

REGISTERED GEOLOGIST
GREGORY R. KAMMAN
NO. 360
CERTIFIED HYDROGEOLOGIST
Exp. 12/31/14
STATE OF CALIFORNIA

Attachment B:

Letter from Alice Rich, Ph.D. to Board of Supervisors, dated November 25, 2014

A.A. RICH AND ASSOCIATES

Alice A. Rich, Ph.D.
Principal

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November 25, 2014

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

RE: Middle Green Valley Specific Plan Project-Recirculated Draft Environmental Impact Report (SCH# 2009062048)/Potential Significant Impacts on the Threatened Central California Coast Steelhead (*Oncorhynchus mykiss*); California Red-Legged Frog (*Rana draytonii)*; and, Western Pond Turtle (*Actinemys marmorata*), in Green Valley Creek

Dear Supervisors:

The purpose of this letter is to provide evidence that the Middle Green Valley Specific Plan ("MGVSP") (SCH#: 2009062048) could result in significant adverse impacts to the *Threatened* Central California Coast steelhead (*Oncorhynchus mykiss*) (CCC steelhead)[1], and their critical habitat (Federal Register, 2005). Additionally, I reviewed some of the water requirements for the California Red-Legged Frog (*Rana draytonii)* (CRLF) and, Western Pond Turtle (*Actinemys marmorata*) (WPT), and the potentially significant impacts to these species. I base this professional opinion on a review of the DEIR, the Revised Re-circulated DEIR ("RRDEIR"), related documents for the MGVSP, a letter (dated August 11, 2014) prepared by hydrologist,

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[1]As part of the Endangered Species Act (ESA), in 1991, NOAA Fisheries issued a policy for delineating distinct population segments of Pacific salmon, including steelhead (56 FR 58612; November 20, 1991). Under this policy, a group of Pacific salmonid (salmon and steelhead) populations is considered to be an ''evolutionarily significant unit'' (ESU) if it is substantially reproductively isolated from other same-species populations, and it represents an important component in the evolutionary legacy of the biological species. Further, an ESU is considered to be a "distinct population segment" (DPS). The CCC steelhead DPS comprises winter-run steelhead populations from: (1) The Russian River (inclusive) in Sonoma County stretching south to Aptos Creek (inclusive) in Santa Cruz County; and, (2) The tributaries to the San Francisco/San Pablo Bay system (Federal Register, 2006, 1997; NOAA Fisheries, 2011). In addition, Critical Habitat was designated for the CCC steelhead (Federal Register, 2005).

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Gregory R. Kamman (2014), and supporting scientific documents.[2] My Résumé is attached as Exhibit A to this letter and my Statement of Qualifications is attached as Exhibit B to this letter.

1. Proposed Groundwater Extraction may have Significant Impacts on the CCC Steelhead

CCC steelhead are present in Green Valley Creek (DEIR, pp. 6-35 to 6-36).[3] To spawn, hatch, grow, and continue to reproduce for subsequent generations, the CCC steelhead requires water throughout the year in creeks and rivers. Therefore, even small amounts of a reduction of water to Green Valley Creek, and its intermittent tributaries, may have potentially significant impacts on the CCC steelhead.

The groundwater extraction proposed by all Options in the MGVSP could result in the de-watering of Green Valley Creek. Such extraction would likely result in significant impacts on the sensitive CCC steelhead. And, to determine the extent to which groundwater extraction for the proposed MGVSP would result in significant impacts on the CCC steelhead, further studies are required.

01-22 cont

[2] The references cited in this letter are listed as an Attachment A to the letter.

[3] The DEIR states, "Steelhead (*Oncorhynchus mykiss irideus*) -- Central California Coast ESU, Federal Threatened (FT), National Marine Fisheries Service (NMFS), Essentual Fish Habitat (EFH) The central California coast Evolutionary Significant Unit (ESU) includes … Steelhead…in California streams from the Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo bays eastward to the Napa River (inclusive), excluding the Sacramento-San Joaquin River Basin."

"Steelhead is an anadromous salmonid, typically migrating to marine waters after spending two years in the fresh water. Following out-migration to the ocean, individual Steelhead remain there for two years…. before returning to their natal stream to spawn…. Preferred spawning is found in perennial streams with cooler-temperature water, high dissolved oxygen levels, and substantial flow...."

"Steelhead has been documented in Green Valley Creek and its tributaries" (cited Leidy et al. (2005).

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2. The CCC Steelhead is Likely to be on the Brink of Extinction in the Near Future

The failures of the environmental review are especially egregious for CCC steelhead. Being listed as *Threatened* [4], the CCC steelhead is likely to be at the brink of extinction in the near future. If it is re-listed as *Endangered* [5], then it would be likely to be at the brink of extinction at that time. NOAA Fisheries is in the process of drafting a multi-species Recovery Plan that includes the CCC steelhead (NOAA Fisheries, 2011). Currently, there are extremely limited data to assess the status of the CCC steelhead (NOAA Fisheries, 2011), and virtually no data on the population in Green Valley Creek (Rich, 2013). Thus, if groundwater extractions result in the de-watering of Green Valley Creek, the negative impacts of that action on the CCC steelhead could be significant and result in their further decline or, at worse, its extinction.

3. Specific Life Cycle and Life Stage Requirements of the CCC Steelhead are not known for Green Valley Creek

The steelhead is the anadromous form of the resident rainbow trout. An anadromous fish is one that begins life in a freshwater stream or river, migrates out to sea to grow and mature, and then returns to its natal stream or river to spawn. Except for their ocean-going habits and larger spawning size, the steelhead is visually indistinguishable from its non-migratory counterpart, the rainbow trout; only genetic studies can provide the necessary information that differentiates the two forms (Utter et al., 1980; Allendorf, 1975; Behnke, 1972). Whether or not a particular stream supports an anadromous or resident trout population, or both, appears to be the result of local adaptation to geographic location. Steelhead have well-developed homing abilities and usually spawn in the same stream in which they were born.

01-22 cont

[4] Defined under the ESA as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." (www.nmfs.noaa.gov/pr/glossary.htm#species)

[5] Defined under the ESA as "any species which is in danger of extinction throughout all or a significant portion of its range." (www.nmfs.noaa.gov/pr/glossary.htm#species)

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The CCC steelhead, similar to other salmonids (steelhead and salmon), has specific life stage requirements. Life stages for the steelhead include: (1) Adult immigration/passage; (2) Spawning; (3) Egg/alevin (yolk sac not absorbed) incubation; (4) Fry/juvenile rearing; and, (5) Juvenile smoltification/emigration (NOAA Fisheries, 2011; DFG, 1996; Barnhart, 1986). If any natural, or man-made, factor in a creek, such as Green Valley Creek, negatively impacts any of these life stages, the future of that CCC steelhead population may be in jeopardy.

Environmental factors that affect the various life stages of steelhead include stream flows, water temperature, dissolved oxygen concentrations, suitability of spawning and rearing habitat (i.e., size of gravel, percentage of silt and fines), angling pressure, phase of the moon, and photoperiod (Moyle, 2002; DFG, 1996; Barnhart, 1986; Folmar and Dickhoff, 1982; Grau et al., 1981). Depending upon the geographical location and the interaction of environmental factors, included those caused by humans, both the timing of each life stage, and the requirements for each of those life stages, vary. For Green Valley Creek, there are no data on the CCC steelhead, except for a few adult sightings in the past (Leidy et al., 2005; Leidy, 2002; Pinkham and Johnson, 1976; Week, 1975). Thus, before one could determine potential impacts of the MGVSP on the CCC steelhead, the following two types of studies, or the like, would have to be conducted: (1) Studies to determine existing steelhead and habitat conditions; and, (2) Instream flow studies to determine the potential impacts of streamflow alterations on each of the life stages of the CCC steelhead during the year and under different water years.

O1-22 cont

4. <u>The Water Supply Options in the MGVSP Could Result in De-Watering of Green Valley Creek and Fail to Mitigate Potentially Significant Impacts to CCC Steelhead</u>

Following are some of the conclusions that Kamman (2014) made in his hydrological assessment of the proposed MGVSP that could negatively impact the CCC steelhead.

- *" ... annual variability groundwater demands are likely to continue."*
- *" with highest pumping rates occurring during dryer years and less groundwater pumping during relatively wetter years…."*

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- *"... it is not unreasonable to assume that a majority of area and existing environment may be susceptible to potential adverse impacts from groundwater pumping (e.g., well interference, dewatering creeks and wetlands, poor aquifer conditions limiting well yields, etc.)"*

- " *Additionally, site specific aquifer tests are necessary to analyze water availability in the Green Valley aquifer, which shows significant spatial variability."*

As streamflow significantly affects each life stage, groundwater extractions that alter creek flows at any time of the year could result in significant negative impacts on the CCC steelhead during any of their freshwater life stages. Following are examples of how the CCC steelhead could be significantly negatively impacted if groundwater extractions reduced creek flows in Green Valley Creek.

- Adult steelhead immigrate to their spawning areas in "waves" or pulses, coinciding with storm events (Shapovolov and Taft, 1954). Thus, if streamflows were reduced as a result of groundwater extraction, those adults might not be able to immigrate up Green Valley Creek and reach their spawning grounds.

- If there were adult steelhead that had immigrated into Green Valley Creek and flows were reduced as a result of groundwater extraction, the steelhead might not be able to immigrate over a shallow riffle, or dry area of the creek, and, hence, would not be able to reach their spawning grounds.

- Reduced flows can result in dried-up steelhead redds (nests), or newly-layed eggs being deprived of oxygen (Reiser and White,1982; Coble, 1961). Thus, if groundwater extraction reduced creek flows in Green Valley Creek during the time when the steelhead eggs were in the gravel, the eggs could be dessicated, or be deprived of oxygen, and die.

O1-22 cont

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- One of the most sensitive times of the year for juvenile anadromous salmonids is when they prepare to change from a freshwater to a marine fish. This process is called the "parr-smolt transformation", or "smoltification" (Folmar et al., 1982). For the CCC steelhead, smoltification occurs during the spring (March through mid-June). One of the factors that stimulates the beginning of smoltification is streamflow (Wedemeyer et al., 1980; Folmar et al., 1982). If flows are reduced and anadromous steelhead are prevented from emigrating out of watersheds and, hence, from completing the parr-smolt transformation, they can revert back to the "parr" (freshwater fish) stage and die (Folmar et al., 1982; Adams et al., 1973).

  Thus, if groundwater extractions reduced flows in Green Valley Creek and the juvenile steelhead were unable to emigrate out of the system, they could revert back to the "parr" (freshwater) stage and die in Green Valley Creek.

- Suitable water temperature is probably the most important requirement for the thermally temperate-water salmonids, including the CCC steelhead (Rich, 1987; Brett, 1956, 1952). The reason is that fish are poikilotherms ("cold blooded" animals) and, as such, water temperature controls all aspects of a fish's life, including its physiology and biology. And, although lethal temperatures are often cited as the water temperatures that kill fishes, sublethal water temperatures have a far greater effect on the overall survival of salmonid populations (Brett, 1956). The optimal water temperature is a site-specific phenomenon, controlled, to a great extent, on the amount of food available for the life stage of a species of fish.

  If the water temperatures increased in Green Valley Creek during the summer months as a result of reduced streamflows caused by groundwater extraction, the higher water temperatures could negatively impact the steelhead. The steelhead's metabolism would increase as a result of the increased water temperatures and they would, thus, require additional food. If there was little food, or water temperatures increased to lethal levels, the steelhead could be harmed or, at the worst, die (Wurtsbaugh, 1973; Brett, 1952).

01-22 cont

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5. <u>The Water Supply Options in the MGVSP Could Result in De-Watering of Green Valley Creek and Fail to Mitigate Potentially Significant Impacts to California Red-Legged Frog.</u>

California red-legged frog (*Rana draytonii)* (CRLF) is federally-listed as *Threatened* and state-listed as a *Species of Special Concern* (DEIR p. 6-29). The DEIR describes the life cycle of the CRLF as wholly water dependent at all stages of its life (DEIR, p. 6-40).

The importance of the CRLF and its habitat in the MGVSP is identified throughout Chapter 6 of the DEIR:

- In its summary of the types of aquatic communities in the Plan Area, the DEIR states that there are: 17.1 acres of Stock Ponds and Reservoirs; 13.0 acres Wetlands; and, 6.8 acres Ephemeral, Intermittent, and Perennial Streams (DEIR, p. 6-4, Table 6.1). All of these aquatic habitats are habitats used by the CRLF during the different stages of its life.
- Figure 6.4 shows *critical habitat* for the red-legged frog (DEIR p. 6-34).
- DEIR acknowledges that there is "*High Potential*" for the presence of CRLF – "Both the higher-elevation ponds in the Plan Area Hills and Green Valley Creek and surrounding irrigation channels in the Plan Area Valley provide moderate to high quality habitat (varying between specific sites). There are two recent documented occurrences (including breeding) approximately 0.7 and 0.8 miles south of the Plan area, respectively." (DEIR, p. 6-29)
- "Suitable aquatic habitats include ponds (ephemeral and permanent), streams/creeks (e.g., ephemeral and permanent), seasonal wetlands, springs, seeps, human-made features (e.g., stock ponds, roadside ditches), marshes, dune ponds, and lagoons." (DEIR, p 6-40)

01-22 cont

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- "Typical CRLF breeding habitat is characterized by deep and still or slow – moving water associated with emergent marsh and/or riparian vegetation." DEIR, p. 6-40)
- The DEIR further acknowledges that, "Portions of the Draft Specific Plan-proposed development areas are ADHCP-designated conservation areas for Priority Drainages and Watersheds (Green Valley Creek), … California Red-legged Frog, …." (DEIR, p. 6-55)
- Additionally, Figure 6.8 on p 6-70 of the DEIR shows that Green Valley Creek is habitat for protected species, including the CRLF.

Despite the considerable appropriate habitat and presence of the protected CRLF in the vicinity of the Plan Area, the DEIR and related documents fail to identify, disclose and scientifically analyze potentially significant environmental impacts to the CRLF, related to the water supply options that include groundwater pumping from the local basin. In my professional opinion, the information presented by Kamman (2014) related to the potential to dewater the area, and the new proposals to provide all or a portion of groundwater in Options B and C, creates a potentially significant impact to the CRLF. The DEIR, RRDEIR and related documents fail to disclose, analyze and mitigate potentially significant impacts to the CRLF

01-22 cont

6. <u>The Water Supply Options in the MGVSP Could Result in De-Watering of Green Valley Creek and Fail to Mitigate Potentially Significant Impacts to Western Pond Turtle</u>

The Western Pond Turtle (WPT) is federally-listed as *Threatened,* and state-listed as a *Species of Special Concern*, and is present in the Plan Area (DEIR, p. 6-29). As stated in the DEIR, "The Western Pont Turtle (WPT) is the only freshwater turtle native to northern California, and is associated with rivers, streams, lakes, and ponds throughout much of the state." (DEIR, p. 6-35).

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The importance of the WPT and its habitat in the MGVSP is identified in Chapter 6 of the DEIR.

- "Green Valley Creek (and associated drainages) as well as irrigation canals in the plan area may support this species." (DEIR, p. 6-35).
- "Some of the aquatic features within the plan area valley (e.g., Green Valley Creek) provide suitable habitat and may also be occupied by WPT." (DEIR, p. 6-74)
- "WPT (including one immature turtle less than two years old) was observed within the two large, perennial ponds in the middle of the portion of the plan area's hill during the site visit. The plan area provides high-quality aquatic habitat for the WPT,…" (DEIR, p. 6-35)
- "The plan area provides high-quality aquatic habitat for WPT…" (DEIR p. 6-35)

Despite the actual presence of the protected WPT, Impact and Mitigation 6-11 provide little to no information, with respect to the foreseeable potentially significant impacts to this species from groundwater extraction.

- Impact 6-11 acknowledges that, "Alteration of hydrology and water quality during construction and following development may indirectly affect WPT by influencing habitat characteristics." (DEIR, p 6-74)
- Mitigation 6-11 also states that, "Alteration of hydrology and water quality during construction and following development may indirectly affect WPT by influencing habitat characteristics." Mitigation 6-11 also states that "Indirect hydrology and water quality impacts on WPT shall be mitigated through implementation of mitigation measures recommended in chapter 11, Hydrology and Water Quality, of this EIR." (DEIR, p. 6-75). But, those mitigations fall short of sound statistically-based studies that would determine whether or not the impacts could be reduced to less than significant.

01-22 cont

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7. Conclusion

In summary, groundwater extractions, as part of the proposed RRDEIR for the MGVSP, have the potential to result in reduced flows in Green Valley Creek and other important water features of the area. These extractions may result in significant negative impacts on the CCC steelhead, the Red Legged Frog, and the Western Pond Turtle.

To determine the potentially significant impacts that may occur as a result of the RRDEIR's proposals related to groundwater pumping, the Project's environmental must disclose and analyze further studies relating to the impacts of groundwater extraction on species in and near the Plan area.

O1-22 cont

If you have any questions, or wish to discuss this letter further, please do not hesitate to contact me.

Sincerely,

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MGVSP RRDEIR-Potential Impacts to CCC Steelhead, CRLF, and WPT
Attachment A-References Cited
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Letter O1 Response	**Amber L. Kemble, Attorney** **On behalf of Upper Green Valley Homeowners** August 8, 2016

O1-1 The comment suggests evidentiary gaps in the SRRDEIR and introduces the more detailed comments contained in the letter. Please see Responses to Comments O1-2 through O1-29, below.

O1-2 The comment asserts that the SRRDEIR defers analysis of potential MGVSP groundwater wells. As stated in response to comment O1A-12 of the 2014 Response to Comments document, the Option B (Onsite Groundwater) WSA and 2014 RRDEIR provide substantial evidence that an adequate water supply exists for the project and proposes Mitigation Measures 16-1, 16-2a, and 16-2b to address potentially significant impacts stemming from the eventual location and operation of project wells. For a water supply system of the size proposed under Option B, it is a standard industry practice to identify specific production well locations and well designs after the water supply entity has made a decision to fund construction of the system. Specific well locations and well designs are generally not finalized while the system is still in the planning and feasibility stage.

Further, as explained in Response to Comment I1-4 in the 2014 Response to Comments document, RRDEIR Mitigation Measure 16-1a requires that a Water Master Plan for water supply Option B be prepared and approved by Solano County. The Water Master Plan is required to address well locations and depths, water pumping, filtration, and disinfection, and water storage and distribution facilities and sizing. The Water Master Plan and its components are required to be designed to provide water service only to the MGVSP-designated development areas to preclude any growth-inducing impacts (pursuant to General Plan Housing Element Policy G.2). Furthermore, as stated on page 16-45 of the 2014 RRDEIR, the well design planning process is expected to include the following components: test hole and test well drilling in several locations to obtain further site-specific aquifer data, which will be used to determine appropriate well design and placement; placement of public supply wells in appropriate locations; spacing wells to avoid well interference with each other (other water supply wells), nearby private wells (agricultural or domestic), and surface streams; and ongoing monitoring. The Specific Plan area is not constrained in terms of area and there would be sufficient potential well sites that would be both far from existing wells and riparian areas.

Finally, RRDEIR Mitigation Measure 16-2a requires that new wells be designed to avoid interference between new water supply wells, other water supply wells, existing nearby private wells, and surface streams (which in-turn would protect habitat and potential special status species). Mitigation Measure 16-2b further addresses the unlikely event that ongoing monitoring of the new wells reveals potentially significant drawdown, and identifies measures to mitigate such impacts such that subsequent monitoring shows that drawdown is no longer adversely affecting operations of other wells to the satisfaction of the County Division of Environmental Health.

The commenter's assertion that the well siting and designs must be completed at the present Specific Plan stage of the land use planning process misstates the requirements for water supply planning.

O1-3 The comment asserts that the SRRDEIR does not articulate adequate performance standards for new groundwater wells, asserts that the Water Master Plan should trigger a biological evaluation to evaluate pumping impacts on steelhead, and provides a list of actions that should be undertaken as part of the well design planning process. The comment refers to these actions as "performance standards." The comment raises concerns regarding steelhead and stream flow in Green Valley Creek. Impact 6-12 in the 2016 SRRDEIR addresses potential impacts to steelhead, disclosing that implementation of the MGVSP could result in a significant impact on steelhead if groundwater pumping to supply project demands would cause a reduction in stream flows. Mitigation Measure 6-12 is imposed on the project, which requires regulatory approval for potential impacts on steelhead and steelhead habitat through consultation with the National Marine Fisheries Service (NMFS) and lists best management practices. This consultation is typically initiated as part of U.S. Army Corps of Engineers (USACE) Section 404 permitting process described in Impact and Mitigation Measure 6-5 for wetlands, streams, and ponds. Furthermore, as explained in response to comment O1-2, above, the project is required to implement proper well siting and design measures. RRDEIR Mitigation Measure 16-2a requires that new wells be designed to avoid interference between new water supply wells, other water supply wells, existing nearby private wells, and surface streams, which in-turn would protect habitat and potential special status species. In the unlikely event that ongoing monitoring of the new wells reveals potentially significant drawdown, Mitigation Measure 16-2b identifies measures to mitigate such impacts. Furthermore, future discretionary developments undertaken in accordance with the Specific Plan would undergo project-specific evaluation to determine whether the potential impacts of the development project were fully evaluated in the MGVSP EIR or whether additional environmental review would be required.

O1-4 The commenter asserts that the SRRDEIR must provide guidelines to determine how the proposed wells would be in compliance with Mitigation Measures 16-2a and 16-2b and that independent scientific review is required to make mitigation enforceable and effective. Please see response to comment O1-2, above.

The comment also asserts that Mitigation Measure 16-2a is not fully enforceable by the proposed County Service Area (CSA). This is incorrect. The Specific Plan proposes establishment of a CSA to fund and oversee wastewater, storm drainage, and parks and recreation facility construction and provide the necessary ongoing financial and management structure for these Plan Area facilities. The CSA would be a County entity with the legal ability to hire staff and outside experts as well as the legal ability to enforce the Water Master Plan and Mitigation Measures 16-2a and 16-2b. The Water Master Plan would identify the qualifications necessary for the monitoring efforts.

O1-5 The comment requests that well monitoring data be made available to the public. The public availability of well monitoring data is neither a potential environmental impact of the project nor a measure necessary to mitigate an environmental impact of the project. If area groundwater is used as a water source to supply the project, the entity responsible for the operation of the water supply system – either SID or the CSA – will need to decide whether and how to make such well monitoring data available to the public.

O1-6 The comment asserts that the SRRDEIR should articulate enforcement procedures for noncompliance with adopted mitigation measures. In accordance with CEQA and CEQA Guidelines Section 15901(d), the County must adopt a mitigation monitoring and reporting program (MMRP) to ensure that the mitigation measures adopted are

implemented in the implementation of the Middle Green Valley Specific Plan Project. The MMRP must identify the entity responsible for monitoring and implementation, and the timing of such activities. The County will use the MMRP to track compliance with project mitigation measures, and will ensure that the mitigation measures are fully enforceable through permit conditions, agreements and other measures. The MMRP will remain available for public review during the compliance period.

O1-7 The comment asserts that the SRRDEIR should include mitigation that would curtail the size of the project if it is not possible to meet all of the mitigation measures while pumping the 186 acre-feet-per-year of groundwater anticipated to serve the project under water supply Option B. The EIR imposes mitigation to reduce impacts related to the project's full water demand to a less-than-significant level. Mitigation Measures 16-1, 16-2a, and 16-2b are sufficient to address proper well siting and to address potential impacts to existing wells and stream habitats from water supply Option B or Option C1. The potential biological resource impacts of the groundwater supply options are addressed in Chapter 6 of the 2009 EIR, as expanded upon in Impacts and Mitigation Measures 6-4, 6-5, 6-11, 6-12, and 6-15 of the SRRDEIR, and are supported by substantial evidence, including the biological resource study related to drawdown of groundwater provided in Appendix A of the SRRDEIR.

As described in response to comment O1-3, above, after the Specific Plan is approved, future discretionary developments undertaken in accordance with the Specific Plan, such as subdivisions or other development projects, would undergo project-specific evaluation. As part of that evaluation, the County would consider whether there was new information showing that the development planned for in the Specific Plan would have one or more significant environmental effects not discussed in the Middle Green Valley Specific Plan EIR, or that any of the significant effects examined in the project-specific environmental document would be substantially more severe than shown in the Specific Plan EIR. Based on the outcome of the project-specific evaluation, the County may be required to conduct additional environmental review pursuant to CEQA prior to approving such future discretionary developments. The County could impose additional mitigation requirements as conditions of project approval if recommended in the additional environmental review conducted for those development projects.

O1-8 The comment raises concerns regarding the groundwater basin and incorporates by reference a letter from Kamman Hydrology & Engineering, Inc. dated August 11, 2014. This letter was included in, and responded to, in the 2014 Responses to Comments on and Revisions to the RRDEIR, see Chapter 2, response to comments I1-1 through I1-15.

This comment also asserts that the Project would require higher pumping rates than historic wells. The comment also asserts that the project wells may not be able to avoid interference with other wells, and that the project must be curtailed if that occurred.

The Option B WSA referenced all publicly available records for wells constructed in Green Valley, including well completion reports (i.e., driller's logs) on file with the California Department of Water Resources and the well records compiled by Thomasson et al. (1960). One focus of the Option B WSA was to compare reported data on the volumes of groundwater pumped in Green Valley to calculated pumping demands for all present uses of groundwater within the Plan Area across the rest of Green Valley. That comparison of groundwater pumping resulted in a surplus that exceeds the demand for groundwater proposed to be used by the Project.

The assertion that the project wells would require much higher pumping rates than historic wells is unsupported by the available data. The Option B WSA and Specific Plan describe that project would include at least three wells and that they would have a capacity of potentially 100 gallons per minute (GPM). This capacity is within the range of pumping capacities reported for wells in the Plan Area, which are reported in the Option B WSA as between 90 GPM and 300 GPM. The commenter's labeling of the project wells as "super-wells" and implication that such wells are substantially larger than other wells in the Plan Area is unsupported by the available data.

Please also see responses to comments O1-2 and O1-7, above.

O1-9 The comment asserts that the 525 acre-feet per year (afy) of groundwater available to the project area was based on wells located within the Big Creek corridor, that biological impacts were not included in the Thomasson's USGS study, and that the biological resource impact evaluations are not supported by substantial evidence, regarding how wells outside of the creek corridor would affect the water table and seasonal recharge of the creek.

While the work conducted by Thomasson et al. (1960) did include a survey of wells in Green Valley and an analysis of pumpage volumes, the report is not specific with respect to the location of all wells and the relative pumping demand for the wells in operation in the valley at the time of that study. The Option B WSA (see 2014 RRDEIR Appendix B) addresses the project-related additional pumping that would occur from the Green Valley aquifer system using the best available data. Mitigation Measure 16-2a identifies the site-specific analysis that shall be conducted prior to the project's construction to ensure that the project's groundwater demand can be met without significant impacts to existing wells and surface water resources.

The comment's assertion of a perennial connection between the surface waters in Green Valley and the aquifer system has not been demonstrated to be true for all parts of Green Valley nor the Plan Area. Available data indicate that a connection is possible in parts of the valley and at some times; however, available data reported by Vollmar (see Appendix A of the SRRDEIR) also indicate that some tributaries crossing the Plan Area do not have flow outside of the rainy season. The comment also implies that observations of more rapid groundwater level responses to winter precipitation in wells located nearer to Green Valley Creek described in the report by Thomasson would necessitate that project wells would adversely intercept groundwater flowing through the unconfined portion of the aquifer system and ultimately discharging to Green Valley Creek. However, the comment provides no analysis of the construction of those non-project wells and aquifer properties in their vicinity. The mitigation measures included in the 2014 RRDEIR (Mitigation Measures 16-1a and b, and 16-2a and b) allow for the potential that a connection exists between the unconfined aquifer system and surface waters in Green Valley and includes measures specifically developed to avoid impacts to surface waters, in particular through the criteria that any drawdown from the project wells not reach the riparian zone.

Furthermore, as stated in Section 3.5.1 of the Vollmar report in Appendix A of the SRRDEIR, a supply of 525 acre-feet per year of groundwater would be available to the Project Area without depleting the groundwater aquifer. An agricultural demand of about 525 acre-feet per year was historically met by groundwater with no annually adverse effects, i.e., groundwater levels remained stable from spring to spring. Also stated in Vollmar report, the entire groundwater demand of 326 to 376 acre-feet per year in the

Project Area (at build out) would include: 90 acre-feet per year currently used for existing private/residential (supplied by private wells), 50 to 100 acre-feet per year currently used for agriculture on lands situated outside SID's service area (supplied by private wells), and 186 acre-feet per year for Project Area potable water domestic use to be supplied by three (or more) new Project wells under Option B. The increase in groundwater pumping due to the project would be 186 afy. Therefore, Green Valley's groundwater resources have a surplus of at least 149-199 acre-feet/year in excess of the proposed addition of 186 acre-feet/year Project Area demand for potable water [525 acre-feet less (326-376 acre-feet) = 149-199 acre-feet per year]. This information was provided to demonstrate that overall groundwater supplies in Green Valley and the Project Area currently have a surplus that is well in excess of the additional pumping proposed for the Middle Green Valley Project's Option B, and therefore demonstrates at this temporal scale that the proposed additional groundwater pumping would be sustainable and not result in depletion or significant drawdown of the aquifer.

The report goes on to evaluate the potential impact from the project-related increase in groundwater pumping on surface water and riparian resources. The report addresses the dry season when riparian habitats are most stressed and species are most vulnerable to impacts from declining groundwater levels (see Section 3.5.2 and Section 5.0 of the Vollmar report in Appendix A of the SRRDEIR). This study provided the basis for the revised biological resource impact evaluations and conclusions in the SRRDEIR.

O1-10 The comment asserts that Mitigation Measure 16-2b would exacerbate the problems associated with groundwater drawdown and that the trigger for evaluation should be any drawdown that either delays recharge to important biological resources or reveals safe yield is being exceeded.

The Option B WSA concluded that the sum of current groundwater pumpage in Green Valley and additional pumpage from the project would not exceed rates of pumping that occurred previously in Green Valley, pumping rates which did not exceed the long-term supply of the aquifer system. That conclusion does not support this comment's assertion that project would create a cone of depression (i.e., persistent declines in groundwater levels that are not compensated by sources of recharge to the aquifer system).

The comment's focus on the distinction between "potentially significant drawdown" as stated in the SRRDEIR and "any drawdown" is excessive. Any well that is not under artesian conditions requires some drawdown to produce water from an aquifer. The SRRDEIR established a threshold of significance for drawdown relative to riparian areas to address delays in recharge that could adversely affect biological resources. In addition, the well siting process (per Mitigation Measure 16-2a and b) shall establish the placement, spacing, depths, and monitoring of the project wells such that they avoid interference with existing nearby private wells, other new water supply wells, and surface streams. Therefore, the EIR discloses, evaluates, and mitigates for project-related groundwater drawdown that could adversely affect surface waters, biological resources, and nearby wells.

O1-11 The comment asserts that the conclusion reached in Mitigation Measure 6-15, that the cumulative impacts of the project on riparian and aquatic biological resources due to groundwater extraction under water supply Options B or C-1 would be less than cumulatively considerable, is not supported by substantial evidence. A project would have a "cumulatively considerable" impact on a resource when the incremental effects of the project on the resource are significant when viewed in connection with the effects of

past projects, the effects of other current projects, and the effects of probable future projects on that same resource. The comment does not assert that the SRRDEIR failed to consider and evaluate the effects on riparian and aquatic biological resources caused by other past, current, or probable future projects. Instead, the comment again asserts that the project's impacts on these biological resources would be significant, despite implementation of Mitigation Measures 6-4, 6-5, 6-11, 6-12, 16-1, 16-2a, and 16-2b, and without regard to whether other past, current, and probable future projects would cause any impacts to these same resources. This comment is therefore a restatement of comments O1-2 through O1-10. See responses to comments O1-2 through O1-10, above.

O1-12 The comment expresses concern that a cone of depression could remain year to year, affecting storage capacity. See response to comment O1-10. The site-specific hydrogeologic study to be conducted as part of Mitigation 16-12a will provide data necessary to analyze the potential site-specific impacts due to project wells and to construct project wells in a way that minimizes potential impacts. Mitigation 16-2b requires monitoring to confirm that drawdown due to pumping at project wells does exceed the thresholds for significance for impacts to surface waters or existing non-project wells.

O1-13 The comment acknowledges that the significance of the project's potential impacts to Central California Coast steelhead and their habitat is adequately identified and discussed in the SRRDEIR. The comment incorporates by reference a letter from Alice Rich, Ph.D., to the Board of Supervisors dated November 25, 2014, regarding the significance of this potential impact.

The comment asserts that the project could cause delay of recharge in Green Valley Creek, that such delay could potentially impact steelhead, and that the mitigation measures described in the SRRDEIR would be inadequate if such delay and impact were to occur.

Table 6-3 of the SRRDEIR identifies the Central California Coast steelhead as federally listed as "threatened," and Impact 6-12 and associated Mitigation 6-12 address the project's potential impacts to the species, including the potential for groundwater drawdown due to water supply Options B or C1. Specifically, on page 6-66 of the SRRDEIR, the impact evaluation discusses stream gauge data for Green Valley Creek, stating:

> Green Valley Creek stream gauge data 0.6 miles downstream of the Project Area demonstrates that flow depth annually drops to approximately 1 foot in depth during the dry season from May – October (Figure 6.6) (for additional information about this stream gauge data, see Appendix A of this SRRDEIR). This time period overlaps with the freshwater rearing period for juvenile steelhead of various potential age classes that require at least intermittently fairly fast-moving water to maintain the food supplies necessary for growth (see Section 4.5.1). Small changes in dry season stream depth could adversely affect critical juvenile rearing aquatic habitat, when juvenile steelhead of various potential age classes require at least intermittently fairly fast-moving water to maintain the food supplies necessary for growth. Any reduction in current Green Valley Creek dry season flow that this species requires for juvenile rearing could potentially have impacts. The threshold for assessing whether potential impacts to Central California Coast steelhead 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 would begin if the radial extent of the cone of depression in the unconfined aquifer adjacent to a proposed Option B groundwater pumping well extended to the stream channel of Green Valley Creek, where a hydraulic connection was already present between the creek and the unconfined aquifer (as in Figure 6.5). If this occurs and stream depth is reduced, it would represent a significant impact to Central California Coast steelhead.

The impact evaluation is supported by the technical report in Appendix A of the SRRDEIR, *Analysis of Potential Effects to Surface Biological Resources from Groundwater Pumping for the Middle Green Valley Project*, prepared by Vollmar Natural Lands Consulting (June 2016).

Mitigation Measure 6-12 is imposed, which requires regulatory approval for potential impacts on steelhead and steelhead habitat to be obtained through consultation with the National Marine Fisheries Service (NMFS). This consultation is typically initiated as part of U.S. Army Corps of Engineers (USACE) Section 404 permitting process described in Impact 6-5 for wetlands, streams, and ponds. However, project applicants are encouraged to contact NMFS personnel during the design phase to inquire about design recommendations and avoidance measures for a specific type of project. Mitigation Measure 6-12 lists construction avoidance measures, but final best management practices (BMPs) would be determined based on consultation with NMFS. Furthermore, proper well siting and design measures shall be implemented, as described above in response to comment O1-2. Furthermore, because this is an EIR on the overall Specific Plan, project applications to implement the Specific Plan would be required to undergo project-specific evaluation to determine consistency with the MGVSP EIR and whether additional impacts or mitigation measures would be required. In addition, please see response to comments O1-10, O1-7, O1-12, and O1-14 above.

The 2014 letter from Alice Rich incorporated into this comment also asserts that the EIR fails to mitigate potentially significant impacts to CRLF and WPT. This is inaccurate. Please see response to comment O1-17, below.

O1-14 The comment asserts that the SRRDEIR should be revised to prohibit construction activities within the Green Valley Creek riparian corridor during times of vulnerability to steelhead, identified in the comment as the period between March and the first few substantial rains, and goes on to assert that the mitigation requirement for such work to occur outside of the June to October timeframe is insufficient.

Based on a report by Peter Moyle (a professor at UC Davis and an acknowledged California fish expert), et al. (2008)[1] titled *Salmon. Steelhead, and Trout in California: Status of an Emblematic Fauna,* the CCC Steelhead DPS is a 'winter run' DPS. Fish typically enter creeks to spawn from late December to April though they can arrive as early as late October (partly dependent on the timing of early season rains as the commenter points out). Spawning typically occurs in late spring (May), egg development and hatching takes approximately one month (roughly through June), and the fry (newly hatched fish) spend their first few weeks (roughly through July) close to shorelines for warmer water and protection from heavy flows. After this period, the developing juvenile

[1] Moyle et al. 2008. Salmon. Steelhead, and Trout in California: Status of an Emblematic Fauna. A report commissioned by California Trout. Prepared by Peter B. Moyle, Joshua A. Israel, and Sabra E. Purdy, Center for Watershed Sciences, University of California, Davis.

fish move to deeper areas and pools in the creek where they remain into the next winter. Juveniles typically inhabit the creek for 1-2 years before transforming into smolts and emigrating to a downstream estuary or out to the ocean. Peak emigration typically occurs January through March (Moyle et al. 2008).

The commenter's proposal to prohibit construction activities near the creek during the period between March and the first substantial rains would restrict construction to the peak rainy season, when fish would be entering creeks to spawn and smolts would be emigrating downstream. In-stream construction during the rainy season is ecologically damaging and should be avoided due to stormwater runoff, erosion control, water quality impacts and associated biological resource impacts to riparian and aquatic species.

As addressed in SRRDEIR Impact 6-12, the Specific Plan could result in direct, temporary, and/or indirect impacts on steelhead, both due to construction impacts and due to potential groundwater drawdown due to groundwater pumping under water supply Option B. In terms of construction-related impacts to steelhead, Mitigation Measure 6-12 requires project design measures and construction avoidance measures that would reduce the potential impact to steelhead to a less-than-significant level. Mitigation Measure 6-12 lists potential design measures and construction avoidance measures, but states that the final determination of BMPs and avoidance and minimization measures shall be based on consultation with NMFS. Nonetheless, to further avoid potential impacts to steelhead during their most vulnerable life stages (spawning, hatching, and fry stages [late October-July], and downstream emigration period for smolts [January-March]), the first bullet on page 6-67 under Mitigation Measure 6-12 is hereby revised as follows:

- Restricting in-stream work to ~~specified work windows during low-flow conditions (typically June 15 to October 15)~~ to August 1 through October 15, which is outside of steelhead breeding and migration periods.

O1-15 The comment asserts that Mitigation Measure 6-4 is inadequate because it requires that all new groundwater wells shall be set back a minimum of 100 feet from Green Valley Creek. As stated in the comment, "the buffer for placing wells next to the creek must be determined *only after* the well tests are completed…" Proper well placement is required by Mitigation Measures 16-1a and 16-2a. The Water Master Plan, which will be prepared prior to construction of wells under water supply Option B and C1, will identify well locations and depths that avoid interference between wells and surface waters. In addition, as stated in responses to comments O1-3 and O1-4, monitoring requirements will be included in the Water Master Plan.

O1-16 The comment asserts that Mitigation Measure 6-5 is inadequate to mitigate for drawdown over time. However, Mitigation Measure 6-5 addresses impacts to wetlands, streams, and ponds through a suite of measures. Regulatory approval for project-level impacts on wetlands, streams, and ponds from USACE, CDFW, and the Water Board are one part of that mitigation. Such regulatory permits will be required as conditions of approval for project-specific development proposals. As cited in Mitigation Measure 6-5, Mitigation Measures 16-1 (Water Master Plan that identifies well locations and depths), 16-2a (well design process to avoid interference between new wells and surface waters), and 16-2b (adaptive management of groundwater wells), described in the 2014 RRDEIR, shall be implemented to provide for avoidance of any potential interference between new water supply wells and surface streams.

O1-17 The comment asserts that SRRDEIR's conclusion that the project's potential impacts to California red-legged frog (CRLF) and western pond turtle (WPT) (Impact 6-11) can be mitigated to a less-than-significant level through implementation of Mitigation Measure 6-11 is not supported by substantial evidence. According to the comment, the SRRDEIR lacks data regarding how much water reduction can be tolerated by CRLF and WPT and fails to account for a delay in groundwater recharge.

Impact 6-11 states that CRLF and WPT in Green Valley Creek could be affected by groundwater pumping under water supply Option B or C1 if such pumping caused drawdown of groundwater or if the radial extent of the cone of depression in the unconfined aquifer adjacent to a proposed water supply well extended to the edge of the stream channel, where a hydraulic connection was already present between the stream and the unconfined aquifer, causing induced recharge. This could result in a small reduction in surface flow. However, due to perennial surface flow in Green Valley Creek, and the general surplus of groundwater in the Project area (Luhdorff & Scalmanini 2013; Section 3.5; see Appendix B of the 2014 RRDEIR) that limits the depth that groundwater could decline based on the scale of the proposed pumping in Option B, ponded riparian refugia would not dry up; this habitat would continue to be available. Therefore, impacts to CRLF and WPT in Green Valley Creek due to the groundwater pumping proposed in Option B would be less than significant.

However, future site-specific discretionary developments undertaken in accordance with the Specific Plan may result in direct, temporary, and/or indirect impacts to CRLF and WPT. Therefore, Mitigation Measure 6-11 addresses impacts to CRLF and WPT through a suite of measures, including biological assessment required under Mitigation Measure 6-1 along with avoidance, minimization, and mitigation measures developed in consultation with CDFW and USFWS and/or consistent with the measures in the Solano HCP. Mitigation Measure 6-11 goes on to provide examples of avoidance, minimization, and mitigation measures that may be incorporated into the project-specific approval process and final design. Furthermore, Mitigation Measure 6-11 states that proposed projects would be required to implement stormwater and water quality mitigation measures outlined in Chapter 11, Hydrology and Water Quality, of the 2009 DEIR, as well as Mitigation Measures 6-4, 16-2a, and 16-2b. Implementation of the suite of required measures for Impact 6-11 would reduce the potential impact to CRLF and WPT to a less-than-significant level.

Consideration of designated critical habitat only pertains to federal agencies. A critical habitat designation is a reminder to federal agencies of their responsibility to protect the important characteristics of areas. Federal agencies are required to avoid "destruction" or "adverse modification" of designated critical habitat. If federal actions are required for project implementation, the federal lead agency should include evaluation of effects on critical habitat for listed species when making their determination if the action may affect listed species. Proposed critical habitat for CRLF is shown in Figure 6.8. The designation of critical habitat for CRLF was finalized by USFWS in 2010 and remains as depicted in Figure 6.8. The USFWS designation of critical habitat for CRLF includes Unit Sol-2, which includes the southwestern portion of the plan area. The Mitigation Measure 6-11 lists measures that may be incorporated into the project-specific approval process, including "provid(ing) compensation for loss of CRLF habitat and individuals by purchase of conservation credits at a USFWS-approved conservation bank…" (see SRRDEIR, page 6-65).

The comment also asserts that Impact 6-3 does not adequately discuss the passage of non-aquatic species "to get through bridge spans that are not designed to especially allow passage of such creatures under the bridges." As stated in Section 6.3.3 of the SRRDEIR, the 2009 DEIR evaluated the potential biological resources impacts from construction and operation of development under the Specific Plan, including construction and operation of infrastructure to serve Specific Plan buildout. In regard to Impact 6-13, the additional information known about the extraction of groundwater under water supply Option B or C1 (per the 2014 RRDEIR) would not alter the 2009 DEIR general biological resource impacts and non-riparian impacts listed in Table 6.5, including Impact 6-13. Impact 6-13 and associated mitigation remains valid.

O1-18 The comment asserts that the SRRDEIR fails to disclose and mitigate impacts on Swainson's hawk, such as reduction in range of a protected species. This is inaccurate. Impacts to Swainson's hawk are discussed on pages 6-52 and 6-53 of the SRRDEIR. Direct impacts on nesting Swainson's hawk and foraging habitat would be avoided or minimized through the implementation of 2009 DEIR Mitigation Measure 6-10. Furthermore, potential indirect impacts to Swainson's hawk nesting habitat in the Green Valley Creek riparian corridor from groundwater pumping in water supply Option B are addressed in SRRDEIR Impact and Mitigation Measure 6-4. As discussed therein, indirect impacts to riparian vegetation due to groundwater drawdown would be mitigated by the implementation of Mitigation Measures 16-1 (Water Master Plan that identifies well locations and depths), 16-2a (well design process to avoid interference between new wells and surface waters), 16-2b (adaptive management of groundwater wells), and 6-4 (preservation of riparian habitat). Implementation of these measures would avoid potential interference between new water supply wells and surface streams and associated riparian vegetation. Therefore, Swainson's hawk nesting habitat would not be adversely affected and the 2009 DEIR Impact 6-10 and Mitigation Measure 6-10 remain valid. Impacts to Swainson's hawk would be mitigated to a less-than-significant level. Please also see SRRDEIR Impact 16-5, which addresses cumulative impacts on riparian and aquatic biological resources due to groundwater extraction.

O1-19 The comment asserts that the SRRDEIR does not analyze the project's impacts on other riparian trees because they are not tall enough for nesting. This is not accurate. The SRRDEIR addresses impacts to both riparian communities (see SRRDEIR Impact 6-4), impacts to wetlands, streams, and ponds (see SRRDEIR Impact 6-5), and cumulative impacts on riparian and aquatic biological resources due to groundwater extraction (see SRRDEIR Impact 6-15). These impact evaluations and associated mitigation measures address the impacts of the MGVSP on riparian habitat, including riparian trees. Please also see the Vollmar report in Appendix A of the SRRDEIR, which discusses riparian trees and their root zones.

O1-20 As addressed throughout the responses to comments in this document, the SRRDEIR was prepared in compliance with CEQA and provides a sufficient evaluation of the potential biological resource effects of groundwater extraction under water supply Option B or Option C1 in response to the Order dated September 13, 2015 for the public and decision makers. As addressed throughout the responses to comments in this document, required mitigation is based on substantial evidence, is enforceable, and is appropriate.

O1-21 This letter from Kamman Hydrology & Engineering, Inc. to the Board of Supervisors, dated August 11, 2014,was included in, and responded to, in the 2014 Responses to

Comments on and Revisions to the RRDEIR, see Chapter 2, response to comments I1-1 through I1-15. The letter predates, and does not provide comment on, the SRRDEIR.

The Kamman letter is referenced by the Upper Green Valley Homeowners as evidence supporting comments O1-8 and O1-12 in its August 8, 2016, comment letter. The County has considered the information contained in the Kamman letter in preparing responses to comments O1-8 and O1-12, above. Because the Kamman letter does not provide comments on the SRRDEIR, an additional separate response to that letter is not required.

O1-22 This letter from A.A. Rich and Associates to the Board of Supervisors, dated November 25, 2014, provides comments on the RRDEIR. The letter predates, and does not provide comments on, the 2016 SRRDEIR.

The A.A. Rich letter is referenced by the Upper Green Valley Homeowners as evidence supporting comments O1-13 and O1-14 in its August 8, 2016, comment letter. The County has considered the information contained in the A.A. Rich letter in preparing responses to comments O1-13 and O1-14, above. Because the A.A. Rich letter does not provide comments on the SRRDEIR, a separate response to that letter is not required.

Letter I1

July 1, 2016

County Of Solano
Planning Services Division
Department Of Resource Management
675 Street, Suite 5500
Fairfield, California 94533

Mr. Matt Walsh,

My name is Bryant Washburne. I live in Green Valley at 1934 Vintage Lane, Fairfield CA.94534. My home is located on the east side of Green Valley directly across Green Valley Road from the proposed Middle Green Valley Specific Plan Project. I have lived at this location since 1976. My only source of water is a 385 foot well.

I am writing you to express my disagreement with the findings of your SRRDEIR, specifically the findings regarding the impacts of using groundwater to supply the proposed development.

My experience with my well is counter to what your SRRDEIR found. My water level drops significantly during dry spells. As much as 20 feet at times during extended droughts. The proposed increase of aquifer drawdown by 400 additional households greatly concerns me. Should my well go dry I must abandon my home. There would be no way to mitigate the loss of water.

I1-1

Your SRRDEIR implies that the groundwater for the project would come from much deeper wells. It does not examine the effect these wells would have on shallower wells such as mine. Most of the information contained in this revised DEIR is a reiteration of what was published for the now defunct Rockville Trails Estates proposal. No new studies have been made. No new test wells have been drilled. Nothing has changed.

I adamantly oppose the use of groundwater to supply the houses proposed to be built under this plan.

Respectfully yours,

Bryant Washburne

Bryant Washburne
1934 Vintage Lane
Fairfield, CA 94534

ph: (707) 864-1123

Letter	
I1	Bryant Washburne
Response	July 1, 2016

I1-1 The comment expresses concern about the potential drawdown of groundwater due to the MGVSP proposed water supply Option B and impacts to adjacent groundwater wells, stating that the 385-foot well on a nearby property experiences drops in water levels during dry spells. The comment suggests that the information presented in the SRRDEIR is a reiteration of work published for the Rockville Trails Estates proposal and that new studies were not completed. This is not correct. A water supply assessment (WSA) was prepared by Solano County for water supply Option B (Onsite Groundwater) (Luhdorff & Scalmanini 2013, see Appendix B of the 2014 RRDEIR), which satisfies the requirements of Water Code Section 10910 and that of CEQA. The WSA provides substantial evidence of sufficient long-term groundwater to serve the project.

As described in Section 1.1 of the 2016 SRRDEIR, the purpose of the SRRDEIR is to evaluate the possible significant biological impacts of water supply Option B (Onsite Groundwater) by revising and recirculating portions of Chapter 6 (Biological Resources) of the EIR. The concerns expressed in this comment letter relate to the adequacy of the groundwater supply and the potential for drawdown of groundwater in surrounding wells; these issues were evaluated in the 2014 RRDEIR.

The Option B (Onsite Groundwater) WSA and 2014 RRDEIR acknowledge the potential for drawdown in existing wells due to any new project wells. Mitigation Measure 16-1a of the 2014 RRDEIR requires that a Water Master Plan for water supply Option B be prepared and approved by Solano County. The Water Master Plan is required to address well locations and depths, water pumping, filtration, and disinfection, and water storage and distribution facilities and sizing. The Water Master Plan and its components are required to be designed to provide water service only to the MGVSP-designated development areas to preclude any growth-inducing impacts (pursuant to General Plan Housing Element Policy G.2). Furthermore, as stated on page 16-45 of the 2014 RRDEIR, the well design planning process is expected to include the following components: test hole and test well drilling in several locations to obtain further site-specific aquifer data, which will be used to determine appropriate well design and placement; placement of public supply wells in appropriate locations; spacing wells to avoid well interference with each other (other water supply wells), nearby private wells (agricultural or domestic), and surface streams; and ongoing monitoring. Finally, 2014 RRDEIR Mitigation Measure 16-2a requires that new wells be designed to avoid interference between new water supply wells, other water supply wells, existing nearby private wells, and surface streams (which in-turn would protect habitat and potential special status species). In the unlikely event that ongoing monitoring of the new wells reveals potentially significant drawdown, Mitigation Measure 16-2b identifies measures to mitigate such impacts.

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17. LIST OF PREPARERS

Resumes for technical staff involved in the preparation of the Second Revised Recirculated EIR are provided in Appendix C of the SRRDEIR.

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Matt Walsh.....Principal Planner
Peter R. Miljanich..... Deputy County Counsel
James W. Laughlin ..... Deputy County Counsel

17.2 ASCENT ENVIRONMENTAL, INC. (EIR CONSULTANT)

Sydney Coatsworth, AICP ..... Principal-in-Charge
Suzanne Enslow.....Project Manager/Environmental Planner
Linda Leeman.....Senior Biologist
Allison Fuller .....Biologist
Amber Giffin..... Word Processor/Document Production
Gayiety Lane ..... Word Processor/Document Production

17.3 VOLLMAR NATURAL LANDS CONSULTING (BIOLOGICAL RESOURCES CONSULTANT)

John Vollmar .....President, Senior Ecologist

17.4 LUHDORFF & SCALMANINI CONSULTING ENGINEERS (WSA CONSULTANT)

Vicki Kretsinger Grabert..... Principal Hydrologist
Reid Bryson.....Hydrologist

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