



ASSOCIATED TRANSPORTATION ENGINEERS

100 N. Hope Avenue, Suite 4, Santa Barbara, CA 93110 • (805) 687-4418 • FAX (805) 682-8509

Since 1978

Richard L. Pool, P.E.
Scott A. Schell, AICP, PTP

September 4, 2013

06092L07.WP

Mr. Brian Pedrotti
Department of Planning and Building
San Luis Obispo County
976 Osos Street, Room 200
San Luis Obispo, CA 93408-2040

**APPLICANT'S MITIGATED PROJECT ANALYSIS:
LAETITIA AGRICULTURAL CLUSTER PROJECT REVISED RECIRCULATED DEIR**

Associated Transportation Engineers (ATE) has reviewed the County Revised Recirculated Draft Environmental Impact Report (RRDEIR) for the Laetitia Agricultural Cluster Tract Map and CUP and we have the following comments on the Mitigated Project-Applicant Proposed Alternative. It is noted that the traffic generated under the Mitigated Project-Applicant Proposed Alternative would be the same as for the proposed project since the number of residential lots is the same (102). Our review and comments focus on the Class I impacts identified in the RRDEIR, which include TR Impact 4, TR Impact 10, TR Impact 13, and TR Impact 15.

LV19-2

TR Impact 4: The Mitigated Project-Applicant Proposed Alternative (and proposed project) would add traffic to southbound Highway 101 during the P.M. peak hour and exacerbate an existing deficient condition (LOS D) according to Caltrans standards. The proposed project would also exacerbate existing deficient conditions at the Highway 101/Los Berros Road/North Thompson Road ramp junctions during the P.M. peak hour.

LV19-3

ATE Comment: U.S. Highway 101 operates at LOS D with or without the project. Some of the ramp junctions at the Highway 101/Los Berros Road-North Thompson Avenue interchange operate at LOS D with or without the project. **Project traffic is considered significant since the threshold used for determining significant impacts is the addition of one trip.**

LV-19-1

Engineering • Planning • Parking • Signal Systems • Impact Reports • Bikeways • Transit

Mr. Brian Pedrotti

Page 2

September 4, 2013

There are several points to consider with respect to this impact and the analysis presented in the EIR:

LV19-4

1. According to the Transportation Concept Report for U.S. Route 101 prepared by Caltrans District 5, LOS D is the target level of service for U.S. Highway 101 in the Nipomo area. The traffic analysis shows that LOS D would be maintained on the adjacent freeway segments under Existing + Project conditions, thus meeting the LOS D target contained in the Transportation Concept Report prepared by Caltrans.

2. The traffic affects of the Mitigated Project-Applicant Proposed Alternative on the U.S. Highway 101 mainline and at the ramp junctions would be nominal. There are three performance measures for freeway operations. Density in passenger cars per mile per lane (pc/mi/ln), mean passenger car speed (mph), and volume to capacity (v/c). Each of these measures is an indication of how the traffic would be accommodated. While the three measures are interrelated, level of service is based upon density (pc/mi/ln). The following table illustrates the Existing and Existing + Project densities and levels of service for U.S. Highway 101, as derived from the Fehr & Peers worksheets contained in the DEIR.

LV19-5

**Table A
U.S. Highway Operations**

Direction/Location	Peak Hour	Existing		Existing + Project		Project Change	
		Density (1)	LOS (2)	Density (1)	LOS (2)	Density	LOS
NB Hwy 101 n/o Los Berros	A.M.	22.2	LOS C	22.6	LOS C	0.4	None
	P.M.	23.5	LOS C	23.8	LOS C	0.3	None
SB Hwy 101 n/o Los Berros	A.M.	18.1	LOS C	18.3	LOS C	0.2	None
	P.M.	29.3	LOS D	29.9	LOS D	0.6	None
NB Hwy 101 s/o Los Berros	A.M.	20.1	LOS C	20.2	LOS C	0.1	None
	P.M.	22.6	LOS C	22.8	LOS C	0.2	None
SB Hwy 101 s/o Los Berros	A.M.	17.5	LOS B	17.7	LOS B	0.2	None
	P.M.	26.4	LOS D	26.6	LOS D	0.2	None

(1) Density = passenger cars per mile per lane (pc/mi/ln).

(2) LOS based on Density.

Given the operational analyses prepared by Fehr & Peers, it is our professional opinion that the Laetitia Project would not significantly impact U.S. Highway 101 operations. As shown in Table A, densities would not significantly change with the addition of project traffic. Also, the project would not change the levels of service and LOS D would be maintained, which is the Caltrans target LOS for U.S. Highway 101. Thus, the impact is less than significant.

LV19-6

LV-19-1

Mr. Brian Pedrotti

Page 3

September 4, 2013

- 3. To our knowledge, the County has not adopted thresholds for assessing freeway facilities and the County has not certified any EIRs or MNDs for development projects where thresholds have been applied to U.S. Highway 101 mainline operations. The DEIR may be applying the "threshold" from the "Caltrans Guide for the Preparation of Traffic Impact Studies". However, **the Caltrans publication is a guideline and does not contain adopted thresholds or standards.** Furthermore, the Caltrans traffic study guideline states, "Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained." As shown in Table A above, the project would not change the levels of service on the adjacent freeway segments. LV19-7
- 4) The impact threshold used in the RRDEIR is the addition of **one trip**. Building just one of the proposed residential units (or a new residential unit by any land owner in the area) would result in a significant impact to U.S. Highway 101 based on this "threshold" since traffic would use a facility that does not meet the LOS C standard. Many of the segments of U.S. Highway 101 within San Luis Obispo County operate at LOS D (or worse). Application of this threshold consistently would result in significant impacts to U.S. Highway 101 on a routine basis, including development projects that are consistent with the General Plan. If a threshold of one trip were applied consistently it would lead to EIRs for a large number of projects, including those for which Negative Declarations are normally prepared and projects that are normally considered Categorically Exempt. LV19-8
- 5) It is noted that the impact analysis used in the RRDEIR is based on traffic counts collected prior to the opening of the U.S. Highway 101/Willow Road interchange. Some of the traffic from the U.S. Highway 101/Los Berros Road interchange has shifted to the new interchange at U.S. Highway 101/Willow Road. New traffic counts collected at the U.S. Highway 101/Los Berros Road interchange may show a change in operations (improvement) at that location. However, new counts would not change the project's impact on the segment of U.S. Highway 101 north of Los Berros Road since the new interchange at Willow Road would not change the flow rates north of the Los Berros Road interchange. In other words, the project's impact to the Los Berros Road interchange ramps could be slightly less, but the affect to mainline operations on U.S. Highway 101 would not change as a result of the new interchange at Willow Road. LV19-9
- TR Impact 10:** The Mitigated Project-Applicant Proposed Alternative (and proposed project) includes a controlled gate at the Laetitia Vineyard Drive connection to U.S. Highway 101 for emergency-only access. The RRDEIR finds the proposed emergency access connection to result in a Class I impact because "...a single unauthorized trip would result in an impact considered significant and unavoidable, Class I." LV19-10

LV-19-1

Mr. Brian Pedrotti

Page 4

September 4, 2013

ATE Comment: The applicant is proposing to control the emergency access by installing a gate and the gate would be controlled by a guard. The guard would only open the gate during emergencies. This is a reasonable mitigation to prohibit regular use of the emergency access connection. This manned gate would reduce the impact to a less than significant level since traffic would not use the secondary access as part of normal use but only under emergency conditions.

LV19-10
(cont'd)

TR Impact 13: The RRDEIR finds a Class I cumulative impact at the Laetitia Vineyard Drive emergency-only access connection to U.S. Highway 101 since a single unauthorized trip would result in an impact consider significant and unavoidable.

LV19-11

ATE Comment: See ATE Comment on TR Impact 10. The applicant is proposing to control the emergency access by installing a gate and the gate would be controlled by a guard who would only open the gate during emergencies. Thus, the project would not add traffic to the emergency-only access connection to U.S. Highway 101 on a regular basis.

TR Impact 15: The RRDEIR finds a Class I cumulative impact to southbound Highway 101 during the P.M. peak hour and at the Highway 101/Los Berros Road/North Thompson Road ramp junctions during the P.M. peak hour.

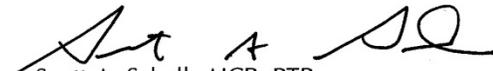
LV19-12

ATE Comment: See ATE Comment on TR Impact 4. The Mitigated Project-Applicant Proposed Alternative (and proposed project) would not significantly affect U.S. Highway 101 mainline operations or the Los Berros Road interchange ramp junctions under cumulative conditions since levels of service would not change as a result of project-added traffic.

This concludes our review and comments on the Mitigated Project-Applicant Proposed Alternative contained in the RRDEIR for the Laetitia Agricultural Cluster Tract Map and CUP. Please do not hesitate to contact us if you have any questions concerning our comments.

LV19-13

Associated Transportation Engineers



Scott A. Schell, AICP, PTP
Principal Transportation Planner

SAS/DLD

LV-19-1

**Responses to Associated Transportation Engineers' Comments
(Exhibit LV-19)**

Comment No.	Comment
LV19-1	Please refer to specific responses to comments below.
LV19-2	Please refer to specific responses to comments below.
LV19-3	Please refer to response to comment LV19-4 below. Final EIR Section V.N. Transportation and Circulation clarifies the number of trips that would be generated by the project during the p.m. peak hour, which would exacerbate existing congestion on deficient roadways.
LV19-4	EIR Section V.N. Transportation and Circulation, 6. Project-specific Impacts and Mitigation, TR Impact 4 discussion and impact determination has been clarified to recognize that the additional trips created by the project would not result in a noticeable increase in congestion on the Highway 101 Mainline. The impact determination regarding the North Thompson Road and Los Berros Road ramps remains the same. Please refer to EIR Section V.N. Transportation and Circulation, Figure V.N.-5 Project Trip Assignment. During the p.m. peak hour, implementation of the project would add 29 trips to the northbound Highway 101 off-ramp, 34 trips to the northbound Highway 101 on-ramp, 46 trips to the southbound Highway 101 off-ramp, and 21 trips to the southbound Highway 101 on-ramp. These additional trips would add one additional passenger car per mile per lane on the affected ramp junctions. Based on review by County Public Works and Caltrans, the effect would be significant, and mitigation is recommended.
LV19-5	The Transportation Concept Report US 101 District 5 (August 2013) does not identify a target level of service for U.S. Highway 101 in the Nipomo Area. The report notes that: "2010 base year projections show high levels and demand exceeding capacity for much of the segment, with a LOS ranging from D-F. By the 2035 horizon year, these levels are expected to increase in severity with a large portion of the segment projected to operate at LOS F by 2035" (page 60). As stated in the Caltrans Guide for the Preparation of Traffic Impact Studies, "Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS" (page 1). Public Works at Caltrans were consulted upon initiation of the EIR, including review and approval of study methodology and thresholds of significance.
LV19-6	Please refer to responses to comments LV19-3 and LV19-4 above. Please note that mitigation is identified for improvements to the Highway 101/North Thompson Road/Los Berros Road on and off-ramps; implementation of noted mitigation would reduce the identified significant effect to the ramp junctions to less than significant.
LV19-7	Please refer to responses to comments LV19-4 and LV19-5 above.
LV19-8	Please refer to responses to comments LV19-4 and LV19-5 above. The proposed project would not add just one trip, it would add 130 trips to the ramps during the p.m. peak hour. Based on review by County Public Works and Caltrans, a significant impact would occur, and mitigation is warranted.
LV19-9	Based on consultation with County Public Works, implementation and operation of the Willow Road Interchange would not have a significant change on the traffic analysis conducted for the project, or the findings (County Public Works 2011).
LV19-10	As noted in EIR Section V.N. Transportation and Circulation TR Impact 10: "The proposed control of the emergency vehicle access at Laetitia Vineyard Drive does not guarantee emergency-only access, because residents could open and close the gate for non-emergency use." As documented in the EIR, the intersection operates at LOS F during the peak hour, and the addition of new residential trips would be significant. Additional correspondence from Caltrans (May 9, 2014) states that use of this driveway for secondary access "would constitute an unapproved use" because the

Comment No.	Comment
	existing encroachment permit for the driveway access onto Highway 101 is identified for use as a winery and tasting room. In addition, use of this driveway for secondary access would “create its own set of public safety and traffic operations problems” (Caltrans 2014). The County and Caltrans considered the applicant’s statements, and maintain that the impact would be significant and unavoidable.
LV19-11	As noted in Final EIR Section V.N. Transportation and Circulation Cumulative Impact TR Impact 13: “The proposed control of the emergency vehicle access at Laetitia Vineyard Drive does not guarantee emergency-only access, because the gate <i>could physically be opened</i> for non-emergency use, significantly contributing to the cumulative degradation of this intersection.” As documented in the EIR, the intersection would operate at LOS F under cumulative conditions, and the addition of trips would be cumulatively considerable. The County and Caltrans considered the applicant’s statements, and maintain that the impact would be significant and unavoidable.
LV19-12	Please refer to responses to comments LV19-4 and LV19-5, above. The proposed project would not add just one trip; it would add 130 trips to the ramps during the p.m. peak hour. Based on review by County Public Works and Caltrans, a significant cumulative impact would occur, and mitigation is warranted.
LV19-13	The commenter’s statements are noted.



LETTER OF TRANSMITTAL

LV20-1

To: Brian Pedrotti **Date:** August 23, 2013

Organization: Department of Planning and Building
San Luis Obispo County
976 Osos Street, Room 200
San Luis Obispo, CA 93408-2040

RRM Office Location: 3765 S. Higuera St., Ste. 102
San Luis Obispo, CA 93401
P: (805) 543-1794
F: (805) 543-4609

Project Name: Laetitia Vineyard Ag Clustering **From:** Victor Montgomery

Project Number: 1403034 **Title:** Principal

We Transmit:

Via: Hand Delivery

For Your:

- Approval
- Distribution to Parties
- Information
- Use
- Review & Comments
- Record

The Following:

- Drawings
- Shop Drawing Prints
- Letters
- Specifications
- Shop Drawing Reproducible
- Product Literature
- Change Order
- Reports
-

No. of Copies	Date	Description:	Action Code
1	8-23-13	LV-16, letter from John Janneck	
1	8-23-13	LV-16-1, Table 1	
1	8-23-13	LV-16-2, ESA letter	
1	8-22-13	LV-16-3, letter from RRM Design Group	
1	7-18-13	LV-17, letter from CHG	
1	8-22-13	LV-18, letter from George Donati	
1	8-23-13	LV-19, letter from John Janneck	

Action Code:

- A. No action indicated on item transmitted
- B. No action required
- C. For signature and return to office
- D. For signature and forwarding as noted below under "Remarks"
- E. See "Remarks" below

Remarks:

Copies To:

John Janneck With Enclosures File With Enclosures

Wendy Lockwood Allison Donatello

LV-20

COMMUNITY | CIVIC & PUBLIC SAFETY | RECREATION | URBAN
ARCHITECTS | ENGINEERS | LANDSCAPE ARCHITECTS | PLANNERS | SURVEYORS
A California Corporation | Victor Montgomery, Architect #C11090 | Jerry Michael, RCE #36895, LS #6276 | Jeff Ferber, LA #2844

**Responses to RRM Design Group’s Comments
(Exhibit LV-20)**

Comment No.	Comment
LV20-1	Refer to responses to comments LV16, LV17, LV18, and LV19 above.

Sirius Environmental

August 23, 2013

Mr. Brian Pedrotti
Project Manager
County Planning and Building Department
976 Osos Street, Room 300
San Luis Obispo, CA 93408-2040

**RE: Comments on Laetitia Agricultural Cluster Subdivision DEIR
SUB2003-00001 (Tract 2606), SCH # 2005041094**

Dear Brian:

As you may remember I have been writing CEQA documents for over 25 years, including several for San Luis Obispo County while I was employed by ESA. I recognize how complex the issues are that are addressed by the Laetitia Agricultural Cluster EIR.

LV21-1

I have worked with many applicants and their teams over the years, and I don't think I have ever seen an applicant or a team more determined to both create an exceptional residential environment and genuinely address environmental impacts. RRM is of course well known for their pioneering work in creating projects that blend with their environment while at the same maintaining the highest standards of sustainability (many of their buildings are highly rated according to criteria developed by the Leadership in Energy and Environmental Design [LEED]).

The Laetitia Project Team knows every wrinkle of the Laetitia project site. They have tirelessly walked the site and environs, photographing, researching and mapping the environmental characteristics of the site and adjoining area from every conceivable angle. They have sought out experts in every issue area relevant to the site and asked the questions, how can we make this project better, how can we minimize our impact on the environment? They have poured over the County maps and analyses provided in the EIR -- remapping, re-photographing, reanalyzing, everything. Not just once but multiple times. They have sought out and implemented every conceivable mitigation measure. The original project was carefully designed, but the Applicant's Mitigated Project is not only designed to fit the site, but also to incorporate environmental mitigation as a basic feature of the project that affects every lot location and orientation. This level of commitment to reducing impacts is unusual to say the least.

LV-21

1478 N. Altadena Drive, Pasadena, California 91107 626 808 0031
www.siriusenvironmental.com

Sirius Environmental

Brian Pedrotti
August 23, 2013
Page 2

I have worked with the Laetitia Project Team to provide input on CEQA particularly implementation of mitigation measures. I have reviewed the RRDEIR analysis of the Applicant’s Mitigated Project and agree substantially with the analyses presented in the document. I disagree only with the Class I impact conclusions. Based on my understanding of the project, experience with CEQA documents including effectiveness of mitigation measures, and review of San Luis Obispo documents for similar projects, I believe that the mitigation measures now included in the EIR as well as additional measures that are part of the project, would reduce all but the Air Quality impact to Class II.

Working with ESA, ATE and the other technical experts, based on the analyses submitted as part of letters in the record, I prepared Exhibit LV-16-1 attached to the letter from John Janneck, that summarizes the impacts of the Applicant’s Mitigated Project compared to the (reasonable) alternatives to the project.

As evidenced by their carefully written plans, programs and ordinances, the County of San Luis Obispo requires that projects meet high standards for environmental protection. I believe the Laetitia Mitigated Project meets those standards.

Sincerely,



Wendy Lockwood
Principal

LV21-1
(cont'd)

LV-21

**Responses to Sirius Environmental' s Comments
(Exhibit LV-21)**

Comment No.	Comment
LV21-1	The commenter's statements are noted and will be considered by the County decision makers.

Cleath-Harris Geologists, Inc.
11545 Los Osos Valley Road, Suite C-3
San Luis Obispo, California 93405
(805) 543-1413



August 23, 2013

Mr. Brian Pedrotti
Project Manager
County Planning and Building Department
976 Osos Street, Room 300
San Luis Obispo, CA 93408-2040

Subject: Response to WRAC Subcommittee Draft Report on Laetitia Agricultural Cluster RRDEIR.

Dear Mr. Pedrotti,

As requested by John Janneck, Cleath-Harris Geologists (CHG) has reviewed the Water Resources Advisory Committee (WRAC) ad hoc subcommittee draft report on the Laetitia Revised Recirculated Environmental Impact Report (RRDEIR) dated August 7, 2013. This letter provides comments in response to the concerns expressed in the subcommittee draft report regarding impact to water resources from the project.

LV22-1

COMMENTS ON PREVIOUS WRAC SUBCOMMITTEE REPORT

LV22-2

CHG previously provided comments dated December 4, 2012, which responded to concerns in the June 2012 WRAC Subcommittee report on the water resources section of the April 2012 Recirculated Draft Environmental Impact Report (RDEIR). Many of these CHG comments also apply to the WRAC draft report on the current RRDEIR and are attached for submittal herein. CHG comments on portions of the August 2013 WRAC draft report that were not previously submitted are discussed below.

COMMENTS ON NEW WRAC CONCERNS

LV22-3

#1) Annual Rainfall

The WRAC subcommittee agrees with the RRDEIR in assuming an average rainfall of about 17 inches. The amount of rainfall is important in estimating irrigation requirements and expected well production. It is therefore important that irrigation requirements not be measured for a highly atypical year. The RRDEIR states that rainfall "between July 2009 and march 2011 was 138 percent of average", and this is supported by Appendix H, p.5 of letter to Scott from Thrupp and Gotberg, 18 April 2012. This letter references data from the Nipomo Mehlschau #38 gauge.

LV-22

August 23, 2013



For the 2010-2011 water year 28.95 inches were recorded while the average water year precipitation between 1920 and 2012 is 16.75 inches. The Mehlschau 2009-2010 water year yielded 21.84 inches. (page 6)

LV22-3
(cont'd)

Nipomo's Mehlschau rainfall Station 38 is not representative of long-term annual rainfall for the project site. Station 38 is two miles south of Laetitia and at a lower elevation in the Nipomo Valley. Station 175.1 (Penny Ranch), active from 1965 to 1998, is approximately 1/4 mile east of Laetitia and at a similar elevation.

As atmospheric moisture moves from lower elevations to higher elevations, orographic lift and air mass cooling typically result in an increase in average precipitation at the higher elevation. Rainfall can change significantly over relatively short distances when ground elevations are also changing. The location and elevation of Station 175.1 are comparable to the project site, and with close to 30 years of records, makes this upper Los Barros Canyon station the best available choice to represent on-site precipitation. Station 175.1 registered 22.53 inches average precipitation between 1965 and 1998. Based on a comparison of actual on-site data with historical monthly averages at Station 175.1, total rainfall in the project area between July 2009 and March 2011 was 116 percent of average, with rainfall during Phase 1 and Phase 2 (used for the sustainable yield baseline period) approximately 105 percent of average.

In addition, The 2011 irrigation water demand used by the EIR consultant was for the 2011 calendar year. Precipitation for the 2011 calendar year was slightly below average; the irrigation requirements were not derived from an atypical year.

#2) Increased water demand in Los Berros Creek Watershed

LV22-4

Under the Stipulated Settlement the County has a commitment to help preserve the groundwater basin in the NCMA, which would be impaired if they approved an increase in non-ag water demand in Oceano's primary recharge zone. (page 7)

This statement of downstream impacts to the NCMA groundwater supply is not supported by water balance data. The NCMA 2012 annual monitoring report Supply/Demand Comparison (GEI Consultants, attached herein) lists the estimated safe yield of NCMA groundwater resources at 9,500 acre-feet per year. Table 7 indicates total groundwater used in the NCMA area was 3,921.4 acre feet in 2012. According to the NCMA, groundwater use in their management area is less than half of the available supply.



#3) Evidence of Negative Impacts to Los Berros Creek from Current Operations

LV22-5

V.P.-4 Stream gauge data for Los Berros Creek (Table 1 Appendix H1) shows that the stream flowed year round until 1981, with the exception of 1977, 1979, and 1980. (page 8)

Laetitia increased irrigated acreage tenfold in 1982 (source: Laetitia's web page) at about the time creek flows are sharply diminished. Impacts would be felt as new wells penetrated both underflow of the stream and bedrock that was providing effluent flow to the creek. (page 8)

The monthly data for Los Berros Creek is attached (Table 1 from Geosyntec 2012, Appendix H1). As shown in the table, the creek flowed at the gauge year-round until 1979, with the exception of 1977 (a drought year). Laetitia's first high capacity irrigation well (F.V. Wells #1) was constructed in 1983, four years after the onset of intermittent flows at the gauge. Production at Laetitia is only one contributing factor to diminished flows over time through the stream gauge on Los Berros Creek. Other factors include increases in irrigation for citrus orchards in the northern Nipomo Valley and adjacent to Laetitia, intensified agriculture in the Los Berros alluvial valley near the stream gauge, and increases over time in domestic uses adjacent to Los Berros Creek, both in the upper canyon and in the vicinity of Laetitia.

#4) Water Levels in Vineyard Wells

LV22-6

Appendix H1, figure 18, shows F&T 1 dropped 40 ft. in a decade, FVW-1 dropped 40 feet in 20 years, F&T 2 dropped 80 ft. in 10 years, and FVW-3 about 10 ft. in 10 years. This suggests that an overdraft condition already exists in the area, that the existing production for the vineyard is unsustainable in the long term, damaging to Los Berros Creek ecosystems, and reducing recharge to the Arroyo Grande Subarea aquifers. (page 9)

An update of the above-referenced Figure 18 that included Spring 2011 measurements was provided to the EIR consultant and to the WRAC that shows water level recovery at the vineyard wells and does not indicate overdraft conditions (attached).

#5) Agricultural Water Demand

LV22-7

The subcommittee offers evidence from SLO County records that the use of 2011 irrigation data is misleading. Using data from the Nipomo Mehlschau #38 site, and using the 2010-2011 water year as the basis for establishing spring and summer water conditions for 2011, the precipitation was 28.95 inches. As the average water year precipitation for the site between 1920 and 2012 is 16.75 inches, it is evident that irrigation amounts would have been much reduced from average requirements. The other two years for which irrigation data is ostensibly available were given



as 1994 and 2003, but the data is not provided or apparently used and the preceding water years 1993-1994 and 2002-2003 yield 13.37 inches and 16.98 inches. (page 10-11)

LV22-7
(cont'd)

Water year (July 1- June 30) precipitation typically correlates with spring groundwater conditions, but does not establish soil moisture conditions for evaluating crop irrigation demand. At a minimum, monthly precipitation would be needed, and typically daily precipitation is used to establish conditions applicable to soil moisture deficit and crop irrigation requirements. Furthermore, the 2011 growing season water use for Laetitia is reported for the calendar year, which received a total of 15.67 inches of precipitation at Station #38; the 2011 irrigation data is not misleading. Historical water use data for Laetitia were based on irrigation schedules (1994) and metered production (1999-2003).

#6) Irrigation Data

LV22-8

The WRAC subcommittee also questions the lack of availability of irrigation data, which would usually be an important factor in wine production, and the selection of high rainfall years in providing the limited information available. (page 11)

When the applicant submitted project information in 2004, detailed water use for 1994 (a drought year) was provided, along with individual well production meter readings that averaged water use over five years, from 1999-2003 (Cleath & Associates, Water Supply Assessment for Laetitia Vineyard and Winery, Arroyo Grande, California, dated January 27, 2004). The EIR consultant subsequently requested 2011 water use data during RDEIR preparations to assess current usage. Altogether, the water use data provided covers seven years of vineyard irrigation. As noted earlier, the 2011 water use for Laetitia is reported for the calendar year, which had less than average rainfall.

#7) Added Comments Regarding Sustainability

LV22-9

Several people have expressed concern that production of water from fractured aquifers can be highly productive until the fractures are drained, so that water production will drop quickly and in some cases not recover. (page 14)

The bedrock fractures tapped by project wells are highly productive and these wells are capable of being pumped at high rates which could drain the fractures, result in sudden production loss, and require extended periods for recovery. Long-term testing was conducted to establish and confirm lower pumping rates that are sustainable and would not result in these problems. Recovery has been noted in all cases at Laetitia's project wells and irrigation wells.



#8) Balance between Withdrawals and Recharge

LV22-10

The long term sustainability of groundwater-dependent projects would depend on the balance between withdrawals and recharge. Given the use of 17 inches as an average annual precipitation, and the total project acreage of 1,910 acres, the 1.42 ft of precipitation yields 2,712 AFY on project lands.

The project water demands are stated (p.VP-37) as a wide range between a very low 277.75 AFY to highs of both 494 FY or 938 AFY based on different conditions and using Master Water Plan numbers. The higher numbers are presented in a letter submitted to Shawn Scott from Gordon Thrupp (Appendix H2) by ESA. This would require capture of between 10% to over 30% of the total rainfall as groundwater recharge, both of which are very high numbers compared to the hydrologic literature. For example, one global study gives a recharge of 0.1 to 5% of rainfall (Bridget R. Scanlon et. al., 20056, Global synthesis of groundwater recharge in semiarid and arid regions, Hydrologic processes v.20 p.3335-3370). This is due to both evapotranspiration and runoff taking the majority of the rainfall. Given a very optimistic capture of 5% of precipitation recharging groundwater, it would only provide about half of the lowest water demand (277.75 AFY) of this project. The other half would either have to be taken from other nearby properties or taken from incoming flows of Los Berros Creek. (page 14)

The WRAC only uses the first conclusion from the referenced study, and ignores the second (both presented below):

- Average recharge rates estimated over large areas (40–374 000 km²) range from 0.2 to 35 millimeters per year, representing 0.1 to 5% of long-term average annual precipitation.
- Focused recharge beneath ephemeral streams and lakes and preferential flow mostly in fractured rock result in highly variable recharge rates, up to 720 meters per year.

Los Berros Creek is an ephemeral stream, and the local drainages cut through fractured rock. According to the study's second conclusion, focused recharge under conditions similar to the project site vicinity can be several orders of magnitude greater than the average. An EIR analysis would look at site-specific conditions, not an average over the entire world.

Runoff from the property into local drainages will cross fractured rock exposures and enter an ephemeral stream, where focused recharge can greatly exceed average precipitation. The WRAC subcommittee did not include focused recharge from site runoff in its water balance calculation. In addition, the on-site average annual precipitation is approximately 22 inches per year, resulting in 3,500 AFY of rain volume. Precipitation on Laetitia likely generates more groundwater recharge than withdrawn from on-site wells.



Sincerely,

CLEATH-HARRIS GEOLOGISTS, INC.

A handwritten signature in black ink that reads 'Spencer J. Harris'. The signature is fluid and cursive, with the first and last names being the most prominent.

Spencer J. Harris, CHG 633
Associate Hydrogeologist

A handwritten signature in blue ink that reads 'Timothy S. Cleath'. The signature is fluid and cursive, with the first and last names being the most prominent.

Timothy S. Cleath, CHG 81
Principal Hydrogeologist

attachments



ATTACHMENTS

LV22-11

August 7, 2013 Draft WRAC Subcommittee Report on Laetitia Agricultural Cluster Subdivision
RRDEIR

2012 NCMA Annual Monitoring Report (Supply/Demand Comparison)

Los Berros Monthly Stream flow (Table 1 from Geosyntec 2012)

December 4, 2012 CHG Response to WRAC Subcommittee Report on Laetitia Agricultural
Cluster RDEIR

Updated Geosyntec Figure 18

LV22-12



**August 7, 2013 Draft WRAC Subcommittee Report on Laetitia Agricultural
Cluster Subdivision RRDEIR**

LV22-12

WRAC Subcommittee Report on Laetitia Agricultural Cluster Subdivision Revised Recirculated Draft Environmental Impact Report (RRDEIR)

PREFACE

The Water Resources Advisory Committee has criteria under which comments are submitted in the CEQA process. These are:

- 1- Does the project introduce a change in water policy (however small) that would affect the county elsewhere?
- 2- Is the project of such a scale that it would have a regional impact on the water supply?

Commentary on this proposed project concerns major policy issues regarding water management, criteria for judging long-term sustainability, stream and wildlife habitat alteration, the quality of data that is acceptable, and the degree to which an individual project can appropriate more water than originates on the project site. The proposed project introduces large numbers of houses into undeveloped or agricultural lands.

The scale of the proposed project is such that the original entity (Laetitia) and the new entity (a proposed Mutual Water Company serving a large number of users) might need to resolve issues concerning the use of a common water source, and that the proposed project might impact recharge into the water supplies of the 'Northern Cities Management Area (NCMA)', specifically Los Berros, Arroyo Grande and Oceano.

The WRAC Subcommittee met to review the Laetitia Agricultural Cluster Subdivision Revised Recirculated Draft Environmental Impact Report on July 18, 2013 at the SLO County Government Center from 1 pm to 3 pm. Subsequent discussions on the issues raised at this meeting were conducted via email leading to this report for consideration by the Water Resources Advisory Committee.

BACKGROUND

The Laetitia project subdivides twenty-one parcels (approx 1,910 acres) out of rural and agricultural lands of the Laetitia Ranch into 102 residential lots and 4 open space lots. In September 2008, the Laetitia DEIR, which listed possible significant, adverse, and unavoidable environmental impacts, was released for public comment. Of the ten impacts to water in the report, each was reduced to 'less than significant' with mitigation measures.

A subcommittee was formed to review the Laetitia DEIR. The members visited the project site and submitted their report to WRAC, which subsequently adopted that report

on February 4, 2009. At the end of the DEIR public comment period, issues regarding water resources and applicant modifications to the project necessitated the need to re-circulate sections of the DEIR, resulting in a delay of the preparation of a Final EIR.

LV22-12

The revised DEIR (RDEIR) released April 26, 2012 consists of the sections of the DEIR that include water resources, biological resources, and two additional project alternatives. A second WRAC Subcommittee was formed on May 2, 2012 to review the RDEIR. While comments from WRAC were submitted, the comments were later discarded when the RDEIR was withdrawn and the RRDEIR later created to address water and wildlife issues following changes in the project description. WRAC has therefore formed another subcommittee to review and comment on the RRDEIR.

COMMENTS OF THE WRAC SUBCOMMITTEE TO REVIEW THE LATITIA AGRICULTURAL CLUSTER SUBDIVISION RRDEIR

ORGANIZATION OF COMMENTS WITHIN THIS DOCUMENT

General issues are considered under headings, but where the issue appears in different sections of the RRDEIR they will be treated together under the same heading. Page numbers from the RRDEIR will be given where possible at the start of a comment to aid in locating the point of discussion. Major issues are defined by headings that are 'all caps and in bold font'. Subsidiary issues in 'all caps'. Direct quotations from other documents are in italics.

COMMENTS REGARDING APPLICATION OF CEQA GUIDELINES SECTION 15988.5 (I-1)

The RRDEIR states: "*the Final EIR will include responses to written comments on the remainder of the Draft EIR (2008), and responses to comments on this recirculated version of the Introduction, Biological Resources, Water Resources, and Alternatives Analysis sections of the Draft EIR (2013)*".

Although WRAC made comments on the original document concerning the covered issues, these will apparently not be addressed in the FEIR as they are not part of the "*remainder*". The WRAC subcommittee wants all comments addressed, including those made on earlier issuances of the DEIR.

COMMENT CONCERNING DUDE RANCH AND EQUESTRIAN CENTER

In the RRDEIR the proposed project has eliminated the equestrian center. The RRDEIR also addresses a future 'dude ranch' and states "*the dude ranch is included in this EIR as a future development proposal*".

WRAC had submitted the following comment to the RDEIR, which it resubmits to the RRDEIR:

The cumulative impact of a Dude Ranch is missing from the DEIR. The information provided on the Dude Ranch is inadequate to evaluate the cumulative impact on water demand. There is no way to determine if the needs of Dude Ranch will potentially exceed the water supply.

LV22-12

The derivation of the 13-acre feet water need is not described in either the DEIR or RDEIR. The Dude Ranch lists 75 units but does not elaborate on the livestock needs, include the number of staff or list amenities that would increase water demand.

Los Berros Creek has been identified as being impacted by nitrate loading by the Regional Water Quality Control Board. Proposed project agricultural activities including the Dude Ranch would potentially exacerbate the loading. It is recommended that water quality protections be considered in project design to address potential increases in water quality impacts as regards nitrate loading in Los Berros Creek.

The impacts of the Equestrian Center on Los Berros Creek were eliminated when it was removed from the project, but there is question that the creek may be similarly impacted by the Dude Ranch in both water quantity impacts and water quality impacts.

There has not been any change, as on page V.P.-35 the RRDEIR notes that Cleath (2008) had estimated 13 afy for the dude ranch, but that "it is not included in the current project application". The WRAC subcommittee believes all conceivable future uses of groundwater should be considered in a calculation of safe sustainable yields.

COMMENTS CONCERNING ESTIMATIONS OF ANNUAL RAINFALL AND USE IN WATER DEMAND CALCULATIONS

V.P.-3 The WRAC subcommittee agrees with the RRDEIR in assuming an average rainfall of about 17 inches. The amount and timing of rainfall is important in estimating irrigation requirements and expected well production. It is therefore important that irrigation requirements not be measured for a highly atypical year. The RRDEIR states that rainfall "between July 2009 and March 2011 was 138 percent of average", and this is supported by Appendix H, p.5 of letter to Scott from Thrupp and Gotberg, 18 April 2012. This letter references data from the Nipomo Mehlschau #38 gauge. For the 2010-2011 water year 28.95 inches were recorded while the average water year precipitation between 1920 and 2012 is 16.75 inches. The Mehlschau 2009-2010 water year yielded 21.84 inches.

COMMENTS CONCERNING IMPACTS TO LOS BERROS CREEK

(1) INCREASED WATER DEMAND IN LOS BERROS CREEK WATERSHED

WRAC comments on the RDEIR stated:

The total water budget for the agricultural and residential uses produces a net increase in water use from 222.3 AFY to 280 AFY that will be reflected in a net reduction in

outflow for the Los Berros Creek system. WRAC supports adherence to mitigation WAT/mm 10 (sic) in the project design, with a strong emphasis on the optimization of groundwater recharge to bedrock aquifers and the use of surface impoundment.

LV22-12

V.P.-3 The RRDEIR notes that Los Berros Creek is in the Oceano Hydrologic Subarea and outside of the Santa Maria Groundwater Basin. The WRAC subcommittee notes that Oceano is included in "The Northern Cities Management Area" (NCMA). The Northern Cities were party, along with San Luis Obispo County to the Stipulated Settlement regarding the disposition of water originating in Santa Maria and being exported into San Luis Obispo County. The adjudicated judgment, which incorporated the stipulated settlement and made it binding on all stipulating parties, and the ongoing oversight of the court demonstrate that the signatories are committed to help preserve the water supply. The Settlement states that there will be no new wells in the Northern Cities Management Area, and only the County has the discretionary power to permit new (or replacement) wells outside the boundaries of the incorporated cities.

In a related issue, Oceano CSD in a letter to Nipomo CSD, dated April 24, 2013, state:

For nearly 30 years, Oceano Community Services District has limited pumping from the Santa Maria Groundwater Basin so as to not exceed the basin's safe yield. However, continued growth on the Nipomo Mesa, which currently depends entirely on groundwater from the Santa Maria Groundwater Basin, has taxed the basin and contributed to a deepening groundwater depression underlying the Nipomo area that threatens the entire region

The WRAC subcommittee introduces this issue, which is not discussed in the RRDEIR, as it is clear that every inflow into the Arroyo Grande- Oceano watershed is important and that any diminution in the contribution from Los Berros Creek will be significant. Under the Stipulated Settlement the County has a commitment to help preserve the groundwater basin in the NCMA, which would be impaired if they approved an increase in non-ag water demand in Oceano's primary recharge zone.

(2) V.P.-4 ESTIMATION OF PROJECT IMPACTS ON LOS BERROS CREEK FLOW AND UNDERFLOW

(a) Domestic And Agricultural Well Reallocation In The RRDEIR As Impacts On Flow

The substitution of Wells 10, 11, 12, 13 with Wells 10, 11, 14, 15 for domestic supply is supported by the WRAC subcommittee . While it has been shown that wells 12 and 13 affected Los Berros Creek, it cannot be assumed that lowering water tables due to production of the other wells will not also have an effect on the creek. Los Berros Creek historically behaved as an effluent stream that flowed long into the dry season due to recharge from nearby aquifers. In WRAC's comments on the RDEIR, it was noted, in regard to Well 9:

The fast recovery of Well #9 after heavy rains suggest connectivity to Los Berros Creek. Other bedrock-supplied wells did not show a similar recovery (RDEIR V67) (sic). The RDEIR also notes that there could be future well interference between Well #9 and domestic production wells, although the well tests show no evidence of this. The RDEIR (V67) (sic) notes that replenishment rates for wells in the Monterey Formation are likely to be low, and that well interference with Wells #10 and #11 is a future possibility (V68) (sic).

LV22-12

and in regard to Wells 5 and 8:

Well #5 and Well #8 appear to have a dependence on Los Berros Creek underflow as both showed fast recovery after rain (RDEIR V67).

Well #8 appears in the RDEIR in the context of hydrographs that indicate strong dependence on Los Berros Creek underflow (RDEIR V67) (sic). There is no further discussion of Well #8 except the statement that it is an agricultural supply well. Failure to factor in Well #8 impact weakens the assertion that impacts (WAT Impact 7) (sic) to Los Berros Creek can be reduced to less than significant (RDEIR V81) (sic) as this conclusion has been evaluated on potentially incomplete data.

Please note that the page and section references in the above quotes are copied from the original document and do not refer to the RRDEIR.

(b) Evidence Of Negative Impacts To Los Berros Creek From Current Operations

V.P.-4 Stream gauge data for Los Berros Creek (Table 1 Appendix H1) shows that the stream flowed year round until 1981, with the exception of 1977, 1979 and 1980. There is reference to the Bartleson Development Plan which states that Los Berros Creek maintained base flow throughout the summer

"...during the dry season prior to approximately 1981 when groundwater pumping was increased from the fractured tuff aquifers of the Obispo Formation. The stream gauging data also show zero flow prior to 1981 in the creek during the dry season in 1977, 1979, and 1980."

On the same page:

"no gauging data for Los Berros Creek are available for the period from 2002 to 2005. Some field records with the County indicate that the creek was dry during that period but no data logs have been found to confirm the creek stage or flow during this period."

Laetitia increased irrigated acreage tenfold in 1982 (source: Laetitia's web page) at about the time creek flows are sharply diminished. Impacts would be felt as new wells penetrated both the underflow of the stream and bedrock that was providing effluent flow to the creek. There is historical evidence of significant drawdown in the water table at Laetitia. On p. V.P.-41 the RRDEIR states

"Although there are only a few data points for Wells F&T-1, F&T-2, FVW-1, and FVW-3, over periods of several years, the data show a general decline in groundwater elevation at these wells over 30 years"

Appendix H1, figure 18, shows that F&T 1 dropped 40 ft. in a decade, FVW-1 dropped 40 ft. in 20 years, F&T 2 dropped 80 ft. in 10 years, and FVW- 3 about 10 ft. in 10 years. This suggests that an overdraft condition already exists in the area, that the existing production for the vineyard is unsustainable in the long term, damaging to Los Berros Creek ecosystems, and reducing recharge to the Arroyo Grande Subarea aquifers.

LV22-12

The RRDEIR fails to either interpret or establish the history of long term storage changes with either the history of agricultural well water extraction at Laetitia or with the flow history of Los Berros Creek, although much of the data appears to be present in the document and its appendices. The FEIR should examine the thin evidence on water storage changes in terms of future projections of water levels and impacts to Los Berros Creek.

The 1968-2001 flow data is processed as monthly averages in Appendix H1 Figure 5. This does seem to show a significant decrease in January average flow in Los Berros Creek when years 1981-2001 are averaged, compared to the 1966-2001 average which is weighted toward older data. January flow dropped by a third, suggesting a possible deficit in underflow storage has developed through the summer and fall months. This would detract from surface flow until underflow capacity was reached.

(c) Insufficient Or Missing Information Concerning Los Berros Creek Flows

The RRDEIR states that the County has stream gauge data: *"for the period from 1978 to March 2011. However, no gauging data for Los Berros Creek are available for the period from 2002 to 2005."* There is a question as to why 2006-2011 data is not presented along with the analysis of the 1968-2001 data in Appendix H1 Figure 5.

(3) Cumulative Effects Of Well Water Extraction On Steelhead And Red-Legged Frog Habitat Of Los Berros Creek

The National Marine Fisheries Service has designated Los Berros Creek as steelhead Critical Habitat in the Estero Bay Hydrologic Sub-unit 3310 and the Oceano Hydrologic Sub Area 331031. Impact mitigations listed in Chapter 4 of the RRDEIR as Bio/mm-1 through Bio/mm-12, and WAT/mm-1 through WAT/mm-15, say nothing about increasing mean daily flows in the creek.

As steelhead are present in the creek (V.E.-15) the RRDEIR should discuss the serious potential that federal and state agencies may impose a minimum daily flow requirement to conserve the endangered species habitat. A habitat plan could require pumping be reduced or even terminated if shown to be directly or indirectly dewatering the creek.

The RRDEIR fails to relate minimum allowable flows for success of steelhead in Los Berros Creek to the probable impacts of increased well pumping affecting the creek.

Most of what has been said above for steelhead can be repeated for red-legged frog. The possibility of additional water demand for the endangered frog habitat should be addressed in the FEIR. The RRDEIR discusses mitigation of impacts associated with the

red-legged frog habitat, including the preservation of ponds and wetlands especially through the dry summer months. These impacts are discussed only in the context of construction activities and not in terms of a possible prolonged and large-scale dewatering of the area.

LV22-12

COMMENTS CONCERNING RESIDENTIAL SYSTEM LINKAGE TO THE AGRICULTURAL SYSTEM

V.P.-6 The RRDEIR states that the looped water main distribution system for the domestic supply "*will be separate from the agricultural/irrigation water supply and storage system.*" The WRAC subcommittee requests further information on the accuracy of this statement, as it is possible that physical connections between domestic and agricultural systems will remain in place but would be unused. Based on the answer to the question, the WRAC subcommittee would like to see information on any foreseeable situation where cross connections would be used. For example, would or could irrigation well water be diverted to domestic use if unexpected production losses were experienced on the domestic side? If the agricultural and domestic water supply was to be controlled by a single entity, would cross-connection be in the interests of all parties? Does California Water Code Section 106 that states that residential use is a higher use than agricultural use come into effect? In addition, water quality data of the irrigation water at any proposed point of interconnection should be presented so that it can be determined whether water quality, after processing by the proposed Mutual Water Company, will meet State Environmental Health & Safety Agency standards.

COMMENTS CONCERNING ESTIMATIONS OF AGRICULTURAL WATER DEMAND

V.P.-6 discusses existing water use estimations in agricultural operations. The RRDEIR uses the 208 af pumped in 2011 as the basis for describing both existing and projected demand (see also Table V.P.-1). The basis of this number, as given by Cleath and Associates, cannot be verified as supportive documentation is not provided, such as well production logs, and is referenced only as an email communication (Appendix H-2, p.2).

The WRAC subcommittee requests that better documentation be provided in defense of this low irrigation application rate. This is especially important as 2011 was a heavy rainfall year (see comments on V.P.-3 above), and thus irrigation would be less than normal.

The subcommittee offers evidence from SLO County records that the use of 2011 irrigation data is misleading. Using the data from the Nipomo Mehlschau #38 site, and using the 2010-2011 water year as the basis for establishing spring and summer water conditions for 2011, the precipitation was 28.95 inches. As the average water year precipitation for the site between 1920 and 2012 is 16.75 inches, it is evident that irrigation amounts would have been much reduced from average requirements. The other two years for which irrigation data is ostensibly available were given as 1994 and 2003,

but the data is not provided or apparently used and the preceding water years 1993-1994 and 2002-2003 yield 13.37 inches and 16.98 inches.

LV22-12

The subcommittee supports the use of irrigation values based on the Master Water Plan, minus allocations for frost protection. The RRDEIR notes the low Master Water Plan value of 0.7 AFY/A would be reduced to 0.45 AFY/A (Appendix H2, p.7) with frost protection removed, as the Master Water Plan assumed 0.25 AFY/A frost protection would be needed in coastal areas (see also Appendix D, Master Water Plan). The 0.45 AFY/A from Appendix H2 and the projected vineyard use of 291.2 AFY gets no further mention in the DEIR, even though the Appendix states :

"Because available records of irrigation rates for the Laetitia vineyards are apparently limited to three years (1994, 2003, and 2011) and rainfall in 1994 and 2011 was well above the estimated average for the Project Area (Geosyntec, 2010), we have used a reasonable conservative approach to calculate baseline water demand of the Laetitia vineyards based on the low water demand value of 0.7 AF/Y per acre for WPA 7 in Table A1 and subtraction of the assumed 0.25 AF/Y per acre for frost protection, which is included in the 0.7 value: $0.7 - 0.25 = 0.45$ AF/Y per acre".

The subcommittee questions using Master Water Plan vineyard water numbers derived from Water Planning Area WPA 2 for Cambria and WPA 3 (Cayucos) rather than those for Laetitia's geographic location in WPA 7 (South Coast). The evapotranspiration rates for these WPA's are 38.5, 38.2 and 52.1 respectively. In the letter from Geosyntec to Shawna Scott of 4/18/12, the consultants state on p.4:

"Thus, although the reported vineyard water demand values of 0.26 to 0.34 AF/Y per acre for the Laetitia vineyards are substantially lower than predicted for WPA 7 based on calculated water demands (ESA, 2010) presented in Appendix D of the County MWP (Corollo, 2012), the Laetitia vineyard reported values are similar to predicted values for other WPAs in the County if indeed no water is used for frost protection".

The WPAs were developed because there are significant differences in such factors as evapotranspiration rates, so the application of data to WPA 7 from WPAs 2 & 3 is not appropriate.

The WRAC subcommittee also questions the lack of availability of irrigation data, which would usually be an important factor in wine production, and the selection of high rainfall years in providing the limited information available.

The subcommittee notes an inconsistency between V.P.-5, which states *"Average annual production from the onsite irrigation wells was 161 afy between 1999 and 2003."*, and the statement that records were only available for the years 1994, 2003 and 2008. If an average annual production was calculated, where is the data for 1999-2002?

As the subcommittee was meeting, the County provided a copy of a letter from Cleath and Harris (CHG) to John Janneck on July 18, 2013, which was copied to San Luis Obispo County. They question a linkage between drought and increased irrigation use and defend figures used in the DEIR and state:

"CHG has documented vineyard water use at Laetitia over several years, including a drought year, where water use was less than the current rate (1994; 13.37 inches of precipitation at County gage #38; 0.25 acre-feet per acre of vineyard). Historical average annual water use in the vineyard has ranged from 0.25 to 0.34 acre-feet per acre, which is much more realistic for future Laetitia water demand than the RRDEIR figures."

LV22-12

The differing opinions of experts regarding irrigation demand and rainfall should not be cause to simply accept the numbers provided in the RRDEIR. As vineyard water demand is a critical factor in groundwater sustainability, more supportive data is needed before an average figure is chosen. For example the WRAC subcommittee is concerned that rainfall data and irrigation data is not available for each year that Laetitia has been in wine production, and that water use and local rainfall data cannot be substantiated. This would seem unusual for a weather-dependent agricultural operation.

Without greater substantiation the subcommittee considers that, relative to 2011, precipitation is likely to be lower and irrigation requirements are likely to be higher.

COMMENTS CONCERNING ESTIMATIONS OF RESIDENTIAL WATER DEMAND

V.P.-36 In the RRDEIR Geosyntec states that they concur with applicant's estimate of 0.44 afy/lot, noting that it is higher than the standardized rate of 0.36 afy/lot. The supporting arguments are given in an April 2013 document contained in Appendix H of the RRDEIR. That document supports the duty factor by incorporating assumptions utilized in the Department of Water Resources Model Water Efficiency Ordinance and the 2011 California Green Buildings Standards Code (CGBSC). However the CGBSC cited homes are described as 3 bedroom with 4 occupants without reference as to size. Laetitia is proposing 3000 to 5000 square foot homes on 1 acre lots. For comparison Nipomo CSD's 2010 Urban Water Management Plan prepared by WSC [Water Systems Consulting, Inc.] has recorded actual usages as Multi Family 0.28AFY; Duplexes/Secondary 0.28AFY; Parcel less than 12,768 sq. ft. 0.40AFY; Parcel between 12,769 and 25,536 sq. ft. 0.68AFY; Parcel greater than 25,536 sq. ft. 0.82AFY.

While the 0.36 afy/lot might be defended on the basis of severely restricted landscape irrigation and engineered water-saving devices that would be policed through CC&Rs, such CC&Rs may either be changed in the future or violations of the CC&Rs ignored. Regardless of residence fixture flow rates at the time of first occupancy, personal comfort levels and habits will frequently cause residents to modify flow in devices like showers.

For these reasons, the WRAC subcommittee considers the 0.36 afy/lot to be marginally credible but probably underestimating likely future use.

COMMENTS CONCERNING AQUIFER AND WELL TESTING

(1) GENERAL COMMENTS

During the evolution of the RRDEIR there have been a number of documents that have questioned both the methodology used in aquifer and well testing, and the interpretation of the results. These include the original tests by Cleath and Associates, peer review of the tests by Fugro West, and in the RRDEIR analysis by Geosyntec. The WRAC subcommittee also received commentary on the Geosyntec studies by Cleath and Harris. The subcommittee also realizes that the conflicts between experts, which is not uncommon in the CEQA process, will be an obstruction to making an optimal decision that maximizes development without threatening long term sustainability of the water supply and wildlife. For this reason, project approvals should error on the side of caution.

LV22-12

(2) VALIDITY OF PUMP TEST RESULTS IN PREDICTING LONG TERM SUSTAINABLE YIELD

The RRDEIR's Appendix H "Review of Well Testing and Sustainable Yield Assessment" has a section starting on p. 21 giving "Conclusions and Recommendations". The following quotes are pertinent:

"The projections of downward water level trends exhibited during testing and the unknown time to possibly achieve equilibrium pumping conditions underscores that time frame is an important issue with respect to long-term viability of the wells to meet the proposed project demands."

and

"With continued pumping at Phase 3 rates, an expanding cone of depression of groundwater elevation will result in capture of more groundwater and an equilibrium condition accompanied by stable water levels may be attained. However, equilibrium groundwater flow conditions may not occur for decades or longer) Based on the water level records during Phase 3 pumping, if the linear trend in decreasing groundwater elevations continues at the rates observed during the Phase 3 testing, the water levels in the wells will likely drop below the top of the well screens-- within months in Wells 10 and 14, and within a few years in Well 15".

The RRDEIR states on V.P.-30 that:

"Based on the available data, groundwater production needed for the proposed project is feasible, but will result in long-term average declines in groundwater levels. Additional depletion of groundwater storage associated with each proposed domestic well appears to be necessary to sustain long-term water production to meet project demands. With continued pumping, equilibrium water levels may be attained in time (Geosyntec 2011, 2013)."

Neither Geosyntec nor the WRAC subcommittee consider that this project meets the full definition of sustainability, but Geosyntec indicates that the four wells in the domestic loop would be able to produce 62.4 afy or 38.7 gpm. (V.P.-32) and satisfy project demand. However the degree to which this well production removes water from storage, or further reduces subsurface recharge to Los Berros Creek have not been quantitatively

established. Geosyntec defends this production level even after consideration of the following:

LV22-12

"The estimates of viable long-term groundwater production rates reported herein are based on evaluation of water levels recorded in four wells for the period from October 2009 to March 2011, which included several months of pumping. However, we caution that rainfall during the testing program was 138 percent of average, and also that long term yields of water wells producing from bedrock aquifers, which may have linear fracture systems, commonly are substantially less than short-term yields."

(3) ADDED COMMENTS BY WRAC SUBCOMMITTEE REGARDING SUSTAINABILITY

Several people have expressed concern that production of water from fractured aquifers can be highly productive until the fractures are drained, so that water production will drop quickly and in some cases not recover. Geosyntec notes the difference between fractured aquifers and homogenous aquifers, but sudden production loss was not discussed.

The long term sustainability of groundwater-dependent projects would depend on the balance between withdrawals and recharge. Given the use of 17 inches as an average annual precipitation, and the total project acreage of 1,910 acres, the 1.42 ft of precipitation yields 2,712 AFY on project lands.

The project water demands are stated (p.VP-37) as a wide range between a very low 277.75 AFY to highs of both 494 FY or 938 AFY based on different conditions and using Master Water Plan numbers. The higher numbers are presented in a letter submitted to Shawna Scott from Gordon Thrupp (Appendix H2) by ESA. This would require capture of between 10% to over 30% of the total rainfall as groundwater recharge, both of which are very high numbers compared to the hydrologic literature. For example one global study gives a recharge of 0.1 to 5% of rainfall (Bridget R. Scanlon et. al., 2006, Global synthesis of groundwater recharge in semiarid and arid regions, Hydrological Processes v. 20 p. 3335-3370). This is due to both evapotranspiration and runoff taking the majority of the rainfall. Given a very optimistic capture of 5% of precipitation recharging groundwater, it would only provide about half of the lowest water demand (277.75 AFY) of this project. The other half would either have to be taken from other nearby properties or taken from incoming flows of Los Berros Creek.

There is unfortunately no restriction of the amount of water that an individual land owner can extract, which leads to the accumulation of individual parcel overdrafts into the situation manifest in the Paso Robles area today.

COMMENTS ON V.P.-42 AND WAT IMPACT 1- ISSUES CONCERNING MANAGEMENT STRUCTURE

(1) CREATION A MUTUAL WATER COMPANY AND A HOMEOWNERS ASSOCIATION TO IMPLEMENT PROJECT MITIGATIONS THROUGH A

MASTER WATER PLAN

LV22-12

On V.P. 42 Mitigation WAT/mm-1 in the RRDEIR requires a Master Water Plan be prepared that provides "*guidelines for residents covering water conservation techniques, and lists of ornamental drought-tolerant plants that would do well in the native soils, etc.*). The program shall address all consumer-controlled water uses...". The MWP would define limitations on exterior irrigation, a drought management plan, a monitoring program to police pumping periods and production volumes, and be enforced by the Homeowners Association (HA) and Mutual Water Company (MWC).

On V.P. 44-45 WAT/mm-1 would make demonstration of compliance a condition before the project advanced to the next phase of the phased development. The other mitigations in this section (WAT/mm-2 through WAT/mm-7) recommend methods by which water use could be minimized,

The WRAC Subcommittee concurs that WAT/mm-1 provides for application of project mitigations through to the completion of Phase 3. However, the missing part of this discussion is the long term policing of water use after the development is built out at the end of Phase 3. There are substantial issues with the creation of an MWC to manage water production and use, and issues concerning the separation or space between, an MWC and an HA. While California law requires that they be separate corporate entities, there is no restriction regarding common membership for their boards. There is some possibility that highly restrictive CC&Rs could be altered by the HA by a vote of the HA after Phase 3 is completed, after which there might be no external policing of water use. The subcommittee therefore would like to see the FEIR define the legal framework that would protect mitigations from degradation upon completion of Phase 3.

(2) PROBLEMS ASSOCIATED WITH SEPARATION OF DOMESTIC PRODUCTION MANAGEMENT AND AGRICULTURAL PRODUCTION MANAGEMENT

Once vineyard water operations are divorced from those of the area covered by the Homeowners Association (HA), there will be nothing to prevent the current ability of the vineyard to pump at any desired level, as the Mutual Water Company (MWC) would have a separate jurisdiction on a different subset of water wells. Any MWC problems concerning well production and safe yield could not be addressed by changing vineyard operations.

V.P.-23 discusses groundwater rights, noting the rights of overlying landowners to withdraw water for beneficial use, which would imply parallel rights to the MWC and to Laetitia. The RRDEIR also notes the "reasonable use" provision. It is possible that side-by-side operations might result in litigation, each blaming the other for damage to their systems from over-pumping.

The subcommittee would draw attention to California Water Code 106 that states: *106. It is hereby declared to be the established policy of this State that the use of water*

for domestic purposes is the highest use of water and that the next highest use is for irrigation. The FEIR should address this code section in the light of possible conflicts between vineyard and domestic usage.

LV22-12

The WRAC subcommittee recommends a better analysis of both the depth of separation and the allowable provision for mutual aid that would be possible if a MWC is created.

Having addressed the WRAC subcommittee's concerns regarding divorcing a Mutual Water Company from Laetitia's agricultural concern, the concern is magnified by the terms of WAT/mm-1. This concerns the creation of a Master Water Plan that addresses "all consumer-controlled water uses" and "shall be administered by the Mutual Water Company and enforced by the Homeowners Association". It places well-specific limitations on pumping from wells 10, 11, 14 and 15 and requires a Drought Management Plan with specific triggers for action. While this appears perfectly sensible for a stand-alone development, in this case there is no mention of any involvement of the agricultural operations. There is no provision for diverting agricultural water toward residences, nor any suggested change in agricultural operations. This reinforces the fact the water supply for the Mutual Water Company may at risk from agricultural operations over which they have no control.

For the above reasons the WRAC subcommittee recommends that WAT/mm-1 not be implemented until the specific issues of relations with Laetitia and post- Phase 3 management issues are addressed.

COMMENTS ON MITIGATIONS WAT/MM-2 THROUGH WAT/MM-6

The WRAC subcommittee considers these mitigations that minimize water use to be sensible, providing that the imposed conditions can be satisfactorily policed. For example WAT/mm-5 requires installation of low flow showerheads, but how would this be policed after a home is occupied? Although removing water conservation measures inside the home would violate County codes and ordinances, the actions themselves would be impossible to police.

COMMENTS ON V.P. -47 WAT IMPACT 2- CONCERNING RUNOFF AND AQUIFER RECHARGE

Table V.P.-7 shows that the Net Peak Runoff Rate after development will be increased by 4.4% for the 10-year storm, 3.8% for the 25-year storm and 2.8% for the 100-year storm. In response to the County regulation that there should be no increase in peak flow, a number of flow-reducing mitigations must be implemented. The WRAC Subcommittee believes that County regulation must be upheld.

The WRAC subcommittee supports the water recharge options listed in WAT/mm-10. However on V.P-48 it states that "No onsite water stormwater detention basins are

proposed." The WRAC subcommittee would support the development of retention basins for both removal of sediment, the greater delay of peak discharge, and the possibility that basins can recharge bedrock aquifers and the Los Berros Creek alluvial prism.

LV22-12

The subcommittee does not concur with the RREIR that flood risks are reduced to a less than significant level by mitigations WAT/mm-9 and WAT/mm-10 as peak flow will still be increased and downstream flooding is a current problem. The mitigations in the RRDEIR will be helpful for controlling small events, but will be of little use in large events where retention basins would have the greatest effect.

The WRAC committee also notes that Coastal San Luis Resource Conservation District, in comments on RRM's Hydrology and Hydraulic Report for the original EIR, was concerned that the report had not addressed flooding issues on Arroyo Grande Creek. As the RRDEIR still does not directly address the issue, the FEIR should examine the impacts of the project on both Los Berros and Arroyo Grande Creeks.

SMALL EDITORIAL ISSUES

Appendix H Table A-2

Appendix H Table A-2 appears to have the spreadsheet headers misplaced. It appears that projected vineyard demand for the South Coast varies from 0.7 to 1.2 AF/A/YR (SLO County)

Geological Cross Section A-A' Figure V.P.-4

There is a small error in the Key to the Geological Cross Section, in which the unit 'Tmmb' is stated to be Obispo Formation rather than Monterey Formation



2012 NCMA Annual Monitoring Report (Supply/Demand Comparison)

5 Supply/Demand Comparison

This section presents a comparison of the 2012 water supplies and demands of the Northern Cities Management Area including applied irrigation, and rural water systems.

Table 5 in Section 4 outlines the Available Urban Water Supplies for each of the Northern Cities. The total available urban water supply is 10,769 AFY. As discussed in Section 4, the 2002 Management Agreement estimated that the historical safe yield from the groundwater basin was 9,500 AFY. Since all of the irrigation applied water demand is supplied by groundwater, the total available applied irrigation supply is based on a portion of the estimated groundwater safe yield, which was allocated as 5,300 AFY for agricultural and rural use. The agricultural conversion of 330 AFY reduces this allocation to 4,970 AFY. Of this estimated safe yield of 9,500 AFY, other than what is allocated for applied irrigation and rural use, the remaining 4,000 AFY is allocated for urban water use and 200 AFY allocated to subsurface outflow to the ocean.

In 2012, the total urban water demand, based on production, was 7,646 AF. Based on 2012 precipitation and ET data, 2012 applied irrigation water use was estimated at 2,742 AF, while rural water use was estimated at 41 AF. The total combined demand for the NCMA in 2012 was 10,429 AF. Total groundwater use by urban and rural users in 2012 was 1.7% greater than in 2011. The following Table 7 displays the water demand, by source, of each city and agency in 2012.

Table 7. 2012 Water Demand by Source (AF)

Urban Area	Lopez Lake	State Water Project	Groundwater	Transfers	Other Supplies	Total
Arroyo Grande	2,492.1	0.0	180.0	200.0	149.6	3,021.7
Grover Beach	880.5	0.0	877.0	0.0	0.0	1,757.5
Pismo Beach	1,109.6	896.6	22.5	0.0	0.0	2,028.6
Oceano CSD	241.1	738.4	58.9	-200.0	0.0	838.4
Urban Water Use Total	4,723.3	1,635.0	1,138.4	0.0	149.6	7,646.3
Applied Irrigation	0.0	0.0	2,742.0	0.0	0.0	2,742.0
Rural Water Users	0.0	0.0	41.0	0.0	0.0	41.0
Total	4,723.3	1,635.0	3,921.4	0.0	149.6	10,429.3

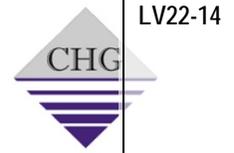
Urban water demand in 2012 to the NCMA totaled 4,723 AF of Lopez Lake water, 1,635 AF of State Water Project water, and 1,138 AF of groundwater. Neither Arroyo Grande, nor Grover Beach, has a State Water Project allocation. Arroyo Grande has a temporary agreement to purchase 100 AFY per water year of water from Oceano CSD through 2013.



Arroyo Grande purchased 200 AY in the 2012 calendar year. The 150 AF of “Other Supplies” delivered to Arroyo Grande consists of groundwater pumped from the Pismo Formation, which is located outside of the shared groundwater basin.

Based on the estimated groundwater safe yield, the total available supply for all uses is 15,739 AFY, which is the sum of 10,769 AFY for urban plus the allocation for applied irrigation and rural area of 4,970 AFY. Total applied water demand by source was estimated at 10,429 AFY for 2012.





Los Berros Monthly Streamflow (from Geosyntec 2012)

LV22-14

Table 1
Los Berros Creek Mean Monthly Flow Data
 Review of Well Testing and Sustainable Yield Assessment
 Proposed Laetitia Agricultural Cluster Subdivision
 San Luis Obispo, California

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	1	2	3	4	5	6	7	8	9	10	11	12
1968								0.15	0.13	0.11	0.09	0.10
1969	29.42	28.69	17.52	4.37	2.07	1.00	0.31	0.28	0.15	0.36	0.47	0.48
1970	0.86	0.98	3.90	0.79	0.27	0.23	0.25	0.13	0.07	0.07	0.11	1.31
1971	2.30	1.18	0.79	0.65	0.50	0.40	0.50	0.28	0.12	0.14	0.10	0.22
1972	0.19	0.24	0.25	0.03	0.05	0.13	0.07	0.06	0.05	0.07	0.28	0.19
1973	6.68	19.16	16.68	2.79	1.15	0.34	0.20	0.08	0.06	0.04	0.06	0.70
1974	10.59	1.55	6.33	7.16	2.09	1.10	0.64	0.35	0.24	0.29	0.51	1.08
1975	0.77	2.59	2.26	1.70	1.00	0.69	0.51	0.41	0.39	0.43	0.43	0.28
1976	0.28	0.45	0.77	0.66	0.43	0.33	0.23	0.13	0.14	0.34	0.36	0.32
1977	0.38	0.39	0.40	0.34	0.40	0.22	0.12	0.08	0.02	0.00	0.00	0.08
1978	8.96	27.98	17.46	6.72	2.75	1.35	0.67	0.41	0.37			0.66
1979	1.10	2.67	4.30				0.08	0.00	0.00	0.00	0.00	0.00
1980	1.81	12.97	8.10	1.44	0.95	1.17	0.29	0.01	0.00	0.00	0.00	0.00
1981	0.06	0.36	8.38	4.06	0.46	0.25	0.07	0.00	0.00	0.00	0.00	0.00
1982	0.00	0.00	1.96	9.87	0.96	0.30	0.04	0.00	0.00	0.00	0.00	1.82
1983	9.38	30.73	36.81	12.17	9.04	4.77	2.99	2.51	1.61	1.69	2.26	4.05
1984	2.70	2.41	1.75	1.14	0.72	0.43	0.38	0.38	0.00	0.00	0.01	0.56
1985	0.82	1.90	1.11	0.85	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1986	0.00		7.23	0.94	0.34	0.05	0.00	0.00	0.00	0.00	0.00	0.00
1987	0.00	0.00	0.37	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1988	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1989	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1991	0.00	0.00	11.04	3.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1992		5.56	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1993	2.05	6.10	7.62	2.04	0.01	0.00	0.00	0.00	0.00			
1994										0.00	0.00	0.00
1995		1.82			0.72	4.35	0.79	0.00	0.00	0.00	0.00	0.00
1996	0.00	12.19	3.51	0.85	0.01	0.00	0.00	0.00	0.00	0.00		
1997						0.00	0.00	0.00	0.00	0.00	0.01	
1998		73.30	20.82	25.03	12.20	5.44	3.04			0.64	0.48	
1999		1.79	2.40			0.85	0.36	0.13			0.00	0.00
2000	0.00		4.22		0.69	0.09	0.00	0.00	0.00		0.00	
2001		2.57	25.47	2.37		0.01			0.00			
Monthly Means 68-01	2.94	7.99	6.93	3.36	1.45	0.92	0.58	0.42	0.39	0.47	0.52	0.82
Monthly Means 81-01	1.07	8.16	7.39	3.96	1.50	0.83	0.40	0.17	0.09	0.14	0.15	0.43

Notes:

Blank cell insufficient data for calculation of mean monthly value.

Highlighted (yellow) rows include more than one month with greater than 10% of missing data



LV22-15

**December 4, 2012 CHG Response to
WRAC Subcommittee Report on Laetitia Agricultural Cluster RDEIR**

Cleath-Harris Geologists, Inc.
11545 Los Osos Valley Road, Suite C-3
San Luis Obispo, California 93405
(805) 543-1413



December 4, 2012

John Janneck
1116 Cory Avenue
Los Angeles, CA 90069

Subject: Response to WRAC Subcommittee Report on Laetitia Agricultural Cluster RDEIR.

Dear Mr. Janneck:

As requested, Cleath-Harris Geologists (CHG) has reviewed the Water Resources Advisory Committee (WRAC) ad hoc subcommittee report on the Laetitia RDEIR dated May 22, 2012, revised June 6, 2012 by the WRAC and submitted to San Luis Obispo County in correspondence dated June 12, 2012 (attached). This letter provides comments in response to the concerns expressed in the subcommittee report regarding impacts to water resources from the project. Concerns not commented on by CHG are included for reference.

LV22-15
(cont'd)

RECOMMENDATION THAT LAETITIA RANCH RETAIN CONTROL OF WATER TREATMENT FACILITY AND WASTE WATER FACILITY

LV22-16

(no CHG comment)

CLARIFY ALLOCATIONS BETWEEN AGRICULTURE AND RESIDENTIAL USERS

LV22-17

AGP11 addresses impacts to agriculture from suburban or urban development. The proposed project is an agricultural cluster subdivision and therefore, AGP11 is not applicable to this project.

WATER DEMAND

LV22-18

The reduced water duty factor for residences of the Laetitia agricultural cluster is suitable for the development with significant water use restrictions as proposed, and is not comparable to the other rural residential subdivisions mentioned in the WRAC report. Residential water demand at Laetitia will be reduced primarily through restrictions on outdoor landscaping. There will be separate water meters for monitoring indoor and outdoor water use that will provide the basis for reporting and CC&R compliance.

The factor of safety comparing safe yield versus demand is 1.9:1 (87 acre-feet per year yield: 46.3 acre-feet per year demand). CHG does not agree with the reduction in project well safe yield presented in the RDEIR, which reduces the factor of safety to 1.35:1.



UNRELIABILITY OF WATER FROM FRACTURED ROCK

LV22-19

As noted by the WRAC, the project wells have been adequately tested. It is true that fractured rock wells, or any well, may show an initially high pumping capacity that diminishes over time due to limited storage and/or recharge. The project wells *each* have high short-term capacities (150-300 gallons per minute during 72-hour pumping tests), but are estimated by CHG to reliably produce a *combined* 55 gallons per minute continuous flow. When anecdotal evidence of wells running dry is examined, the explanation is typically pump/casing failure or excessive pumping. Monterey Formation and Obispo Formation fractured rock aquifers have been reliable sources for supplying water to the vineyard operation and local citrus orchards. If, however, any project well suddenly "runs dry", the remaining wells would be sufficient to serve the project while the affected well is replaced. The proposed water management plan could address well replacement.

SUSTAINABILITY OF WATER SUPPLY

LV22-20

The RDEIR updates agricultural well production for 2011 but for some reason does not update Figure 18 (water levels), which only includes measurements through September 2009 (drought). CHG has attached an updated figure to reflect spring 2011 measurements (within the time frame of RDEIR analysis). As shown in the updated figure, water levels have recovered following the recent drought, indicating the aquifers in question receive recharge and are not being mined (attached Figure 7).

WELL WATER EXTRACTION AND THE CUMULATIVE EFFECTS ON LOS BERROS CREEK

LV22-21

None of the project wells are completed in Los Berros Creek alluvial deposits. The only project well with the potential to draw from Los Berros Creek underflow (intersecting cone of depression) is Well 11. The RDEIR proposes to restrict Well 11 pumping to mitigate potential impacts to stream flow.

IMPACTS TO LOS BERROS CREEK: Use of Wells #5 and #8

LV22-22

Well #8 taps Los Berros Creek alluvium and is the only well described as having "fast recovery" (rapid recovery) following rainfall (RDEIR V67). Use of Well #8 will not change as a result of the project. Well #5 taps the Obispo Formation fractured rock reservoir and is approximately 0.5 miles from Los Berros Creek. The increase in water levels at Well #5 during the winter months is interpreted to be due primarily to a hydraulic recovery response following the end of the vineyard irrigation season (note recovery begins in November 2010, prior to surface runoff in Los Berros Creek). There is also a later response due to seasonal recharge, but it is masked by the steep water level recovery curve.



IMPACTS TO LOS BERROS CREEK: Restricted Use of Well #11

LV22-23

Noted.

IMPACTS TO LOS BERROS CREEK: Uncertainty on Use of Well #9

LV22-24

Well 10 is completed within a resistant Obispo Formation tuff aquifer zone that is a distinct mapped unit which is hydraulically isolated by non-water bearing rocks from both the Monterey Formation and the Obispo Formation aquifers tapped by Wells 9 and 11. There is no physical connection between Well 10 and other wells that could result in interference due to pumping.

Wells 9 and 11 are located approximately 2,000 feet apart, within a relatively thick sequence of resistant tuff (close to 1,000 feet thick). Interference testing was conducted from March 29 to 31, 2010, which indicated potential water level drawdown of up to a few tenths of a foot at Well 11 when operating Well 9. This magnitude of interference from Well 9 will not affect production at Well 11. Data interpreted from Phase 1 production testing, which evaluated Well 9 water levels for interference, concluded that project well production had no significant effect on Well 9.

The RDEIR says replenishment rates in the Monterey Formation are likely to be slow (not low as stated in the WRAC report) when discussing the "deeper" Monterey Formation Wells #12 and #13 (RDEIR V-67). These wells were not pumped, however, during the Phases 1, 2 or 3 testing and the aquifers remained relatively full (spilling to Los Berros Creek). If they had been used, their response to recharge would probably be similar to Well 11.

IMPACTS TO LOS BERROS CREEK: Potential Use of Wells #12 and #13

LV22-25

The referenced RDEIR Figure VB5 shows existing discharge piping used for testing, not a plan of the project water system layout. Wells #12 and #13 are not part of the proposed project water system.

RECHARGE OF GROUNDWATER AND CREEK

LV22-26

The project includes the use of approximately 37 acre-feet per year of tertiary treated water for agricultural irrigation, which should be listed as a credit in Table V.B.-5 (RDEIR V-64). The resulting net increase in well production for both agricultural and residential uses due to the project would be 21 acre-feet per year.



CUMULATIVE EFFECTS OF WELL EXTRACTION ON STEELHEAD HABITAT/RED-LEGGED FROG HABITAT OF LOS BERROS CREEK | LV22-27

See prior comments on impact to Los Berros Creek.

CUMULATIVE WATER IMPACT OF DUDE RANCH | LV22-28

(no CHG comment)

IMPACTS TO SURROUNDING AREA

Oceano Flood Plain | LV22-29

(no CHG comment)

Santa Maria Ground Water Basin | LV22-30

CHG is not aware of any study that supports this claim. Laetitia encompasses approximately 1,900 acres within the watershed of a tributary to Arroyo Grande Creek. The total watershed area draining to the Northern Cities Management Area, excluding the area upstream of Lopez Dam, is estimated at over 40,000 acres. There is an additional 43,000 acres of watershed area draining to Lopez Reservoir.

Salt Water Intrusion | LV22-31

The project wells are drilled into fractured rock within the Arroyo Grande Creek watershed but outside of the coastal groundwater basin. The wells are located approximately seven miles from the coast at elevations of approximately 400 to 800 feet above sea level. The amount of additional groundwater extraction from wells at Laetitia under project buildout conditions is estimated at 21 acre-feet per year. Wells in the groundwater basin between Laetitia and the coast pumped an estimated 14,500 acre-feet of water in 2011 (from NMMA and NCMA annual reports). It is not clear what the foundation of the WRAC's claim is regarding Laetitia's impact on the threat of sea water intrusion.

CONSIDERATION OF NEW WATER REGULATIONS | LV22-32

The Conditional Ag Waiver Discharge program and new nitrate TMDL requirements are focused on agriculture and are being implemented by the existing vineyard operations. The residential project would provide tertiary wastewater treatment and reuse operations under a RWQCB Waste Discharge Order.



Sincerely,

A handwritten signature in black ink that reads "Timothy S. Cleath". The signature is written in a cursive, flowing style.

Timothy S. Cleath, Certified Hydrogeologist #81

A handwritten signature in black ink that reads "Spencer J. Harris". The signature is written in a cursive, flowing style.

Spencer J. Harris, Certified Hydrogeologist #633

attachments (2)



LV22-33

Updated Geosyntec Figure 18

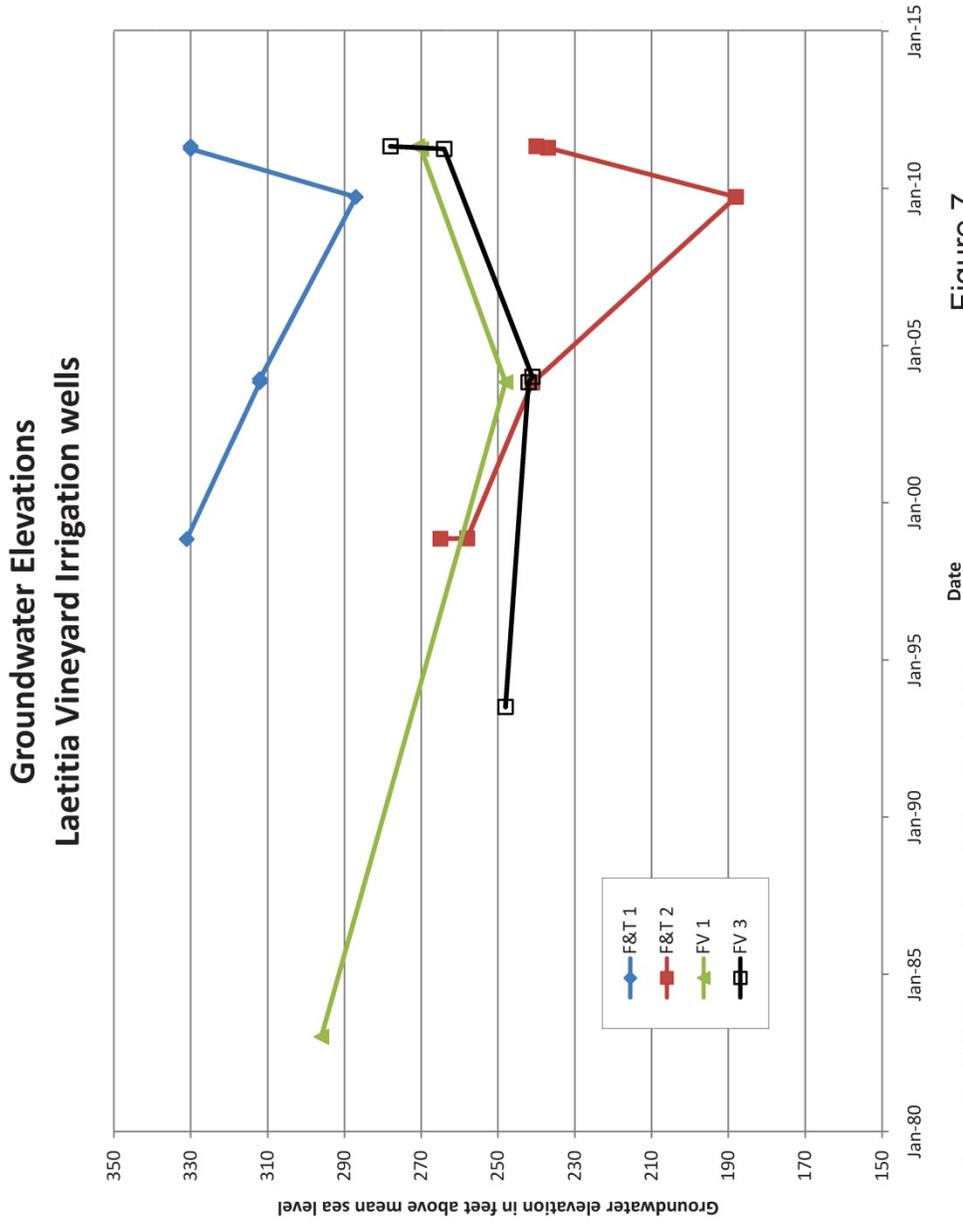


Figure 7
Updated Geosyntec Figure 18
Laetitia Agricultural Cluster

Geosyntec 2011 Figure 18 with available water level data through reporting date (May 2011)

LV22-33
(con'td)

Cleath-Harris Geologists

**Responses to Cleath-Harris Geologists, Inc.'s Comments
(Exhibit LV-22)**

Comment No.	Comment
LV22-1	Please refer to responses to specific comments below, and as addressed in responses to comments to WRAC and responses to previous comments (CHG 2012).
LV22-2	Please refer to Recirculated and Final EIR Section V.P. Water Resources, and responses to comment letters WRAC(a) and WRAC(b), which were prepared based on review of comments submitted by CHG and WRAC. References to applicable responses are noted below.
LV22-3	Please refer to responses to comment WRAC(b)-10 regarding rainfall.
LV22-4	Please refer to responses to comments WRAC(b)-11 and WRAC(b)-12 regarding increased water demand in the Los Berros Creek watershed.
LV22-5	Please refer to response to comment WRAC(b)-15 regarding impacts to Los Berros Creek from current operations.
LV22-6	Please refer to responses to comments WRAC(b)-16 through WRAC(b)-18 regarding water levels in vineyard wells.
LV22-7	Please refer to responses to comments WRAC(b)-22 through WRAC(b)-23 regarding agricultural water demand.
LV22-8	Please refer to responses to comments WRAC(b)-24 through WRAC(b)-26 regarding irrigation data.
LV22-9	Please refer to response to comment WRAC(b)-31 regarding sustainability.
LV22-10	Please refer to response to comment WRAC(b)-32 regarding the balance between withdrawals and recharge.
LV22-11	Please refer to referenced responses below.
LV22-12	Please refer to responses to comments WRAC(b)-1 through WRAC(b)-44, which address this attached letter.
LV22-13	The referenced document was considered in the EIR analysis and responses to CHG and WRAC.
LV22-14	The referenced document is included in the EIR (Appendix H).
LV22-15	Please refer to responses to comments LV11-6 through LV11-24 (copy of Cleath-Harris Geologists letter dated December 4, 1012). Please refer to Recirculated and Final EIR Section V.P. Water Resources, and responses to comment letters WRAC(a) and WRAC(b), which were prepared based on review of comments submitted by CHG and WRAC. References to applicable responses are noted below.
LV22-16	Please refer to response to comment LV11-7.
LV22-17	Please refer to response to comment LV11-8.
LV22-18	Please refer to response to comment LV11-9.
LV22-19	Please refer to response to comment LV11-10.
LV22-20	Please refer to response to comment LV11-11.
LV22-21	Please refer to response to comment LV11-12.
LV22-22	Please refer to response to comment LV11-13.
LV22-23	Please refer to response to comment LV11-14.
LV22-24	Please refer to response to comment LV11-15.
LV22-25	Please refer to response to comment LV11-16.

Comment No.	Comment
LV22-26	Please refer to response to comment LV11-17.
LV22-27	Please refer to response to comment LV11-18.
LV22-28	Please refer to response to comment LV11-19.
LV22-29	Please refer to response to comment LV11-20.
LV22-30	Please refer to response to comment LV11-21.
LV22-31	Please refer to response to comment LV11-22.
LV22-32	Please refer to response to comment LV11-23.
LV22-33	Please refer to response to comment LV11-24.



LV23-1

LETTER OF TRANSMITTAL

To: Brian Pedrotti **Date:** August 26, 2013

Organization: Department of Planning and Building
San Luis Obispo County
976 Osos Street, Room 200
San Luis Obispo, CA 93408-2040

RRM Office Location: 3765 S. Higuera St., Ste. 102
San Luis Obispo, CA 93401
P: (805) 543-1794
F: (805) 543-4609

Project Name: Laetitia Vineyard Ag Clustering **From:** Victor Montgomery
Project Number: 1403034 **Title:** Principal

We Transmit:

Via: Hand Delivery

For Your:

- Approval
- Distribution to Parties
- Information
- Use
- Review & Comments
- Record

The Following:

- Drawings
- Shop Drawing Prints
- Letters
- Specifications
- Shop Drawing Reproducible
- Product Literature
- Change Order
- Reports
-

No. of Copies	Date	Description:	Action Code
1	7-18-13	LV-17, letter from Cleath-Harris Geologists, Inc.	
1	8-23-13	LV-21, letter from Sirius Environmental	
1	8-23-13	LV-22, letter from Cleath-Harris Geologists, Inc.	

Action Code:

- A. No action indicated on item transmitted
- B. No action required
- C. For signature and return to office
- D. For signature and forwarding as noted below under "Remarks"
- E. See "Remarks" below

Remarks:

Copies To:

John Janneck With Enclosures
 Wendy Lockwood With Enclosures

File Allison Donatello With Enclosures

LV-23

COMMUNITY | CIVIC & PUBLIC SAFETY | RECREATION | URBAN
 ARCHITECTS | ENGINEERS | LANDSCAPE ARCHITECTS | PLANNERS | SURVEYORS
A California Corporation | Victor Montgomery, Architect #C11050 | Jerry Michael, RCE #96895, LS #6276 | Jeff Farber, LA #2644

**Responses to RRM Design Group’s Comments
(Exhibit LV-23)**

Comment No.	Comment
LV23-1	Please refer to responses to comment letters LV17, LV21, and LV22.