



June 27, 2012

To: Allan Moore, Gagen McCoy

From: Shari Libicki, ENVIRON
David Weaver, ENVIRON
Megan DiBiase, ENVIRON

Subject: Review of Air Quality and Greenhouse Gas DEIR Sections for the Proposed Residential Development at Deer Hill Road, Lafayette, California

This memorandum presents results from ENVIRON's review of the Draft Environmental Impact Report (DEIR) prepared under the California Environmental Quality Act (CEQA) for the proposed residential development (Project) at Deer Hill Road in Lafayette, California. ENVIRON was asked to review and provide comments on the AQ and GHG sections of this DEIR for the Proposed Project, as well as assess the AQ and GHG impacts of an Alternative Project.

This memorandum discusses ENVIRON's findings related to the following AQ and GHG assessments for the Proposed Project:

- Construction equipment NO_x emissions (listed as AQ-2 and AQ-5 in the DEIR),
- Per capita GHG threshold (listed as GHG-1 in the DEIR), and
- Community Hazards (listed as AQ-3 in the DEIR).

Because the DEIR did not assess the Alternative Project, this memorandum also semi-quantitatively assesses the Alternative Project.

Off-road and on-road construction equipment NO_x emissions

The DEIR states that construction equipment NO_x emissions would be *Significant and Unavoidable* (listed as AQ-2 and AQ-5 on DEIR pages 4.2-38 and 4.2-40, respectively). During ENVIRON's review, we identified an apparent error in the calculations and identified other parameters that should be modified. If these errors would be corrected and the parameters in question updated, significance findings for AQ-2 and AQ-5 would be less than significant.

Although listed as two different impacts in the DEIR, AQ-2 and AQ-5 both refer to the comparison of the average daily construction NO_x emissions to the currently vacated BAAQMD May 2011 thresholds.¹ AQ-2 is a Project impact and AQ-5 is a cumulative impact. Specifically, the DEIR states for AQ-2:

"Use of heavy off-road and on-road construction equipment would produce substantial emissions of criteria air pollutants, which would exceed the BAAQMD threshold of

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¹ <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx>

significance for NO_x and could contribute to the O₃ and particulate matter nonattainment designations of the Air Basin.”

And the DEIR states for AQ-5:

“Construction activities associated with the Project would result in a temporary increase in criteria air pollutants that exceed the BAAQMD’s regional significance thresholds and, when combined with the construction of cumulative projects, would further degrade the regional and local air quality.”

The DEIR’s analysis of construction related impacts included emissions from on-road fleet and off-road construction equipment. The DEIR calculated emissions from these sources using the California Emissions Estimation Model (CalEEMod).

The DEIR Appendices seemingly contain one calculation error. Furthermore, ENVIRON believes the calculations should have used several different input parameters in the analysis. When calculating the construction NO_x emissions, ENVIRON believes the DEIR:

- Erroneously doubled the haul truck trip distance,
- Should incorporate recent information from the Project proponent regarding haul truck sizes,
- Should have accounted for the stated smaller haul truck size when calculating emissions per mile driven, and
- Should have averaged emissions over total days as opposed to construction days when calculating average daily emissions.

These are each explained in more detail below, followed by the updated results incorporating these changes into the CalEEMod run.

The DEIR apparently erroneously multiplied the site hauling distance by a factor of two (26 miles vs. 13 miles). The DEIR’s rationale for this adjustment can be found on PDF Page 17 of DEIR Appendix H and states “Haul trip increased to 26 to account for 13-mile one-way distance to nearest landfill.” However, the trip distance to be entered in CalEEMod is supposed to be the one-way trip distance. CalEEMod Appendix A, Page 13, states: “For non-phased trips, the truck is assumed to be empty one direction and thus results in more haul trips calculated.” The DEIR should not have made this adjustment and therefore, the DEIR overestimated haul truck emissions by a factor of two.

The DEIR should incorporate recent information from the Project proponent regarding haul truck sizes. The Project proponent has indicated that the haul trucks can haul 12 cubic yards of fill as compared to the 10 cubic yards as indicated in the DEIR appendices.

The DEIR did not adjust the haul truck emissions per mile even though the DEIR states that the trucks will be smaller and hauling less material per trip (but with more trips) than the CalEEMod default trucks. The DEIR adjusted the size of the haul trucks from the CalEEMod default as stated on PDF Page 17 of DEIR Appendix H: “Adjusted export volumes to account for smaller trucks: 300,000 x (16 CY/ 10 CY)”. This means that the DEIR increased the number of trips because the trucks are smaller (only hauling 10 cubic yards instead of the CalEEMod default of 16 cubic yards), but did not decrease the emissions per mile even though the trucks are smaller. Therefore, the DEIR may have overstated NO_x emissions from these trucks. Note that CalEEMod has the ability to adjust the haul truck fleet mix from the default should smaller trucks be used. This can be done by selecting a haul truck fleet mix of 50% heavy-heavy duty and 50% medium-heavy duty trucks (or even 100%

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medium-heavy duty trucks) instead of the conservative default of 100% heavy-heavy duty trucks. CalEEMod lists heavy-heavy duty trucks as weighing over 33,000 pounds unloaded.² There are haul trucks that can haul more than 12 cubic yards of fill material and also weigh less than 33,000 pounds while empty.³ Since smaller haul trucks use less fuel, it makes sense that at least some, if not all, of the haul trucks will be medium heavy duty trucks. Therefore, ENVIRON suggests that CalEEMod be run to represent a haul truck fleet mix of 50% heavy-heavy duty and 50% medium-heavy duty trucks. ENVIRON made this adjustment in the updated CalEEMod run.

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When calculating average daily NO_x emissions to compare to the May 2011 significance thresholds, the DEIR averaged the emissions over the working days of the Project instead of the overall days of the Project. ENVIRON recommends that the emissions be averaged over all days. As stated in the DEIR (Table 4.2-10), the construction significance thresholds are 54 pounds NO_x per day. When comparing to this daily threshold, the DEIR divided total calculated construction emissions by the number of work days (438 days, DEIR appendix H pages 11 and 188) during the construction period, instead of the total number of days (608 days) during the construction period. Page 2-3 of the 2011 BAAQMD guidelines suggest that the total number of days should be used: "The Air District recommends that for construction projects that are less than one year duration, Lead Agencies should annualize impacts over the scope of actual days that peak impacts are to occur, rather than the full year."⁴ Therefore, because the construction of this Project is over one year in duration, ENVIRON recommends that the emissions be averaged over the entire construction period, which is greater than a 'full year'. ENVIRON suggests that the DEIR average emissions over all days instead of only the work days.

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If the changes described above are incorporated, the Project and Cumulative construction NO_x impacts listed as *significant and unavoidable* (AQ-2 and AQ-5) would be *less than significant*. In addition, CalEEMod is generally conservative when estimating emissions. For example, CalEEMod does not yet incorporate recent regulation that mandates the use of cleaner on-road trucks, which if accounted for, would decrease calculated NO_x emissions yet further. This and other refinements were not quantitatively included in ENVIRON's CalEEMod run at this time because, as shown in Table 1 below, the NO_x impact is less than significant after incorporation of the specific recommendations discussed above.

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The proposed changes discussed above are summarized in Table 1 on the next page. In addition, a CalEEMod run reflecting these changes is an attachment to this memorandum.

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² CalEEMod Appendix A. Available online at www.caleemod.com

³ See for example <http://www.bellequipment.co.uk/pdf/B20D-6x4-Ribless-Eng.pdf>

⁴ BAAQMD, CEQA Guidelines, May 2011:

http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx

Table 1 – Proposed updates to construction NO_x assessment.

Description of Update	Original Value	Proposed Value	Rationale for Adjustment
CalEEMod Site Hauling Distance (Site Preparation)	26 miles (13 x 2)	13 miles (One-way)	Distance should represent one-way trip per CalEEMod manual.
CalEEMod Site Hauling Truck Size (Site Preparation)	10 cubic yards	12 cubic yards	More recent data was provided by the project proponent.
CalEEMod Site Hauling Truck Type (Site Preparation)	100% HHD	50% HHD/50% MHD	DEIR adjusted truck capacity because smaller trucks would be used; smaller trucks should be accounted for in the truck emissions per mile.
Total Number of Days	438 days (weekdays only)	608 days (all days)	Average daily emissions should be calculated based upon total days during construction period, including weekends.
NO _x Emissions (lb/day)	133 lb/day	52 lb/day (less than the significance threshold of 54)	

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Per capita GHG threshold

The DEIR states that after mitigation, GHG impacts would be *less than significant* (Page 4.6-19):

“Table 4.6-4 identifies GHG emissions with application of the mitigation measures. With implementation of the mitigation measures, GHG emissions would be under BAAQMD’s per capita threshold. Consequently, GHG emissions impacts would be *less than significant*.”

However, during ENVIRON’s review, we identified one apparent calculation error and identified other parameters that should be modified. If these changes are made, these Project GHG impacts would be less than significant even without the shuttle bus mitigation measure (GHG-1b) listed in the DEIR.

The DEIR seemingly contains one calculation error. Furthermore, ENVIRON believes the DEIR should have used several other different parameters when performing the GHG analysis. ENVIRON believes the DEIR:

- Erroneously calculated the electricity emission factor,
- Should have used a vehicle fleet mix more representative of passenger cars,
- Should have removed waste emissions when comparing to BAAQMD significance threshold,
- Could have incorporated the fact that the dwelling units will be LEED Silver certified when calculating energy-use (i.e., more energy efficient than Title 24), and

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- Should have used CalEEMod trip length defaults (or provided justification for over-riding the defaults).

These are each explained in more detail below.

The DEIR erroneously calculated the electricity emission factor when accounting for future California-mandated use of 33% renewable energy per the Renewable Portfolio Standard (RPS). The DEIR correctly started with the PG&E 2008 emission factor of 641.3 pounds CO₂ per megawatt-hour delivered (PDF page 5 of DEIR Appendix H). However, when this original value was converted to the 33% RPS value, two apparent mistakes were made. The first mistake was that the DEIR used the renewable percentage from the incorrect year. The DEIR used the 2010 renewable percentage of 15.9% instead of the 2008 renewable percentage⁵ of 12% (see PDF page 16 of DEIR appendix H for the DEIR's value and data source). The second mistake was a mathematical error. When the DEIR converted from the 2008 emission factor to the 2020 emission factor, they calculated the difference in renewable percentages (in their case 33% - 15.9% = 17.1%) and multiplied the original emission factor (641.3) by 1 minus this calculated percentage. The difference between this methodology and the appropriate methodology is subtle, but the DEIR's calculation is mathematically incorrect. The DEIR should have first back-calculated an emission factor assuming no renewables, and then applied the 33% reduction to that emission factor. In summary, ENVIRON believes the DEIR should have used an electricity emission factor of 488.1 lb/MWh instead of the value of 531.7 that the DEIR lists on PDF page 16 of appendix H. Thus the DEIR over-states the electricity emission factor by approximately 10%, which leads to the DEIR overstating the Project's GHG emissions.

The DEIR should have used a passenger vehicle fleet mix, which is more representative of a residential area, as stated in the DEIR's AQ/GHG appendix. PDF Page 10 of the AQ/GHG appendices states: "Assumes a passenger vehicle fleet mix. Typical residential fleet mix is 97% passenger vehicles, 2% MDT [medium duty trucks], and 1% HDT [heavy duty trucks]." However, upon inspection of the CalEEMod run, it appears that the DEIR used a mix of 87% passenger vehicles, 8% MDT, and 5% HDT. Therefore, ENVIRON recommends the DEIR use 97% passenger vehicles, 2% MDT, and 1% HDT as stated in the DEIR appendix. By using the 87% passenger vehicles, 8% MDT, and 5% HDT fleet mix, it appears that the DEIR has overstated GHG emissions.

The DEIR should have removed the waste GHG emissions when comparing to the BAAQMD GHG significance threshold. This is because when BAAQMD developed their significance thresholds, they did not account for solid waste. Therefore, the inventory created for comparison with the service population threshold should not include GHG emissions due to solid waste. As such, the DEIR overstated the emissions per service population in their analysis.

The DEIR could incorporate the fact that the dwelling units will be LEED Silver certified when calculating energy-use. ENVIRON updated the CalEEMod run to account for a 15% improvement over Title 24 standards to account for the increased energy efficiency associated with LEED Silver accreditation. Note that LEED accreditation uses a flexible point-based system. Therefore, ENVIRON recommends that when the building design is more finalized, the Project proponent reassesses the quantitative improvement over Title 24 and incorporate that into the final CalEEMod

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⁵ California Climate Action Registry Reporting Online Tool. PG&E's Power/Utility Protocol (PUP) Reports. 2008. Online: www.climateregistry.org/CARROT/public/reports.aspx.

run. However, according to the Project architect, the energy efficiency improvements will likely be 15% better than Title 24.

The DEIR should have used CalEEMod trip length defaults or provided justification for overriding the CalEEMod default trip lengths. The DEIR used a trip length of 10.1 miles for all trip types. The CalEEMod default urban trip lengths for Contra Costa County range from 4.3 miles to 12.4 miles, depending on trip type. If the CalEEMod urban trip length defaults for Contra Costa County were used, GHG emissions would decrease significantly. Note that the DEIR assumed a distance of 10.1 miles for all trips, such as trips to the grocery store, even though there is a Safeway grocery store approximately one mile from the site. Therefore, by over-riding the CalEEMod defaults without justification, the DEIR calculated much higher GHG emissions than would have otherwise been calculated.

The proposed changes discussed above are summarized in Table 2 on the next page. In addition, a CalEEMod run reflecting these changes is an attachment to this memorandum.

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Table 2 – Proposed changes to the operational GHG assessment.

Description of Update	Original Value	Proposed Value	Rationale for Adjustment
Update electricity emission factor (pounds CO ₂ per megawatt-hour delivered)	531.7	488.1	The DEIR (1) used the incorrect 2008 renewable percentage, and (2) made a mathematical error when converting to 33% renewables.
Use a vehicle fleet mix more representative of passenger cars	87% passenger vehicles, 8% medium duty trucks, and 5% heavy duty trucks.	97% passenger vehicles, 2% medium duty trucks, and 1% heavy duty trucks.	Per the DEIR, a typical residential fleet mix is 97/2/1 (LDA/MDV/HHD).
Remove waste emissions when comparing to the BAAQMD significance threshold	66 tons per year.	0 tons per year.	When BAAQMD developed their significance thresholds, they did not account for solid waste.
Incorporate the fact that the dwelling units will be LEED Silver certified when calculating energy use.	Title 24 compliant.	15% improvement over Title 24.	Dwelling units will be LEED Silver certified and therefore more energy efficient than Title 24.
Use CalEEMod trip length defaults.	10.1 miles per trip for all trips.	Urban default for Contra Costa County.	No rationale was provided for over-riding the default trip length.
Remove mitigation measure GHG-1a that states 'Residential units shall be prohibited from having wood-burning or gas-burning fireplaces.'	0 natural-gas fired hearths.	Change to all natural gas fireplaces (same as DEIR's unmitigated run).	This measure is not required in order to be below significance thresholds after the above updates are made.
Remove mitigation measure GHG-1b that states 'provide subsidized, frequent shuttle service between the Project site and the Lafayette BART.'	'Increase transit accessibility' and 'improve pedestrian network' were selected as mitigation in CalEEMod run.	Remove these mitigations in CalEEMod run.	This measure is not required in order to be below significance thresholds after the above updates are made.
Tons GHGs per Service Population	4.5	3.3 (less than the significance threshold of 4.6)	

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Community Hazards

The DEIR states that the community risk is significant without mitigation:

“Results of the community risk assessment indicate that the average annual $PM_{2.5}$ concentration for a maximally exposed on-site receptor would exceed the BAAQMD significance threshold of $0.3 \mu\text{g}/\text{m}^3$. This would be a *significant impact*.”

However, the significance threshold that this impact was compared against leads to some inconsistencies regarding acceptable thresholds for new receptors. To resolve these inconsistencies, ENVIRON recommends that the DEIR compare the calculated results in the DEIR to the BAAQMD *cumulative* thresholds instead of the *single source* thresholds. If this comparison is made, this impact (AQ-3) would be less than significant without mitigation.

The DEIR assessed impacts at the Project site due to vehicles traveling on Highway 24 as well as other local sources (DEIR Table 4.2-8). The DEIR indicated that unmitigated impacts would be significant because their modeling showed a $PM_{2.5}$ concentration of $0.48 \mu\text{g}/\text{m}^3$ at the Project site due to Highway 24.

The currently vacated BAAQMD May 2011 CEQA Guidelines list $PM_{2.5}$ thresholds of significance as follows:

- An ambient $PM_{2.5}$ increase of greater than $0.3 \mu\text{g}/\text{m}^3$ annual average from a single source would be a significant impact, or
- An ambient $PM_{2.5}$ increase of greater than $0.8 \mu\text{g}/\text{m}^3$ annual average from all sources would be a significant impact.

The DEIR compared the modeled $PM_{2.5}$ concentration from Highway 24 to the *single source* threshold of $0.3 \mu\text{g}/\text{m}^3$ above, and then stated that impacts are significant before mitigation.

However, the BAAQMD May 2011 guidelines lead to some inconsistencies regarding exposures for new receptors. For example, if one were to follow the BAAQMD guidelines above, a new residential unit located near three sources each with an ambient $PM_{2.5}$ increase of $0.25 \mu\text{g}/\text{m}^3$ (total ambient $PM_{2.5}$ increase of $0.75 \mu\text{g}/\text{m}^3$) would be considered less than significant for both the single-source and cumulative levels. However, the ambient $PM_{2.5}$ increase to a new residential unit that would be located near one source with an ambient $PM_{2.5}$ increase of $0.4 \mu\text{g}/\text{m}^3$ (total ambient $PM_{2.5}$ increase of $0.4 \mu\text{g}/\text{m}^3$) would be considered significant on a single source basis. In other words, the situation with the higher ambient $PM_{2.5}$ increase from three sources ($0.75 \mu\text{g}/\text{m}^3$) would be below the significance thresholds, whereas a lower ambient $PM_{2.5}$ increase from a single source ($0.4 \mu\text{g}/\text{m}^3$) would be above the significance threshold. This leads to the nonsensical results that allow siting in a location without mitigation for a higher imposed ambient $PM_{2.5}$ increase ($0.75 \mu\text{g}/\text{m}^3$), but requiring mitigation for the lower ambient $PM_{2.5}$ increase ($0.4 \mu\text{g}/\text{m}^3$).

Therefore, ENVIRON recommends comparing the DEIR's results to the cumulative thresholds. The DEIR estimated a *total* ambient increase of $0.70 \mu\text{g}/\text{m}^3$ from Highway 24 and other local sources (DEIR Table 4.2-8). If compared against the cumulative threshold of $0.8 \mu\text{g}/\text{m}^3$, this impact would be less than significant without mitigation.

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Alternative Project

ENVIRON believes that all AQ impacts for the Alternative Project would be equal to or less than those of the Proposed Project and that the GHG impacts are nearly equivalent between the Alternative Project and the Proposed Project.

The Proposed Project involves the development of a 22.27 acre site with a 315 unit multi-family apartment complex. The alternative plan involves the development of the same site, but with fewer apartment units (248) and a balanced cut and fill plan that requires no offsite cut and fill-related hauling.

For all construction AQ impacts, the Alternative Project will have fewer emissions and therefore smaller impacts. Therefore, to the extent that a construction finding is less than significant for the Proposed Project, ENVIRON believes that the finding would also be less than significant for the Alternative Project should the same methodologies and assumptions be employed to calculate impacts.

For operational AQ impacts that have mass emissions thresholds, the Alternative Project will have fewer emissions and therefore smaller impacts. Therefore, to the extent that an operational mass threshold finding is less than significant for the Proposed Project, ENVIRON believes that the finding would also be less than significant for the Alternative Project should the same methodologies and assumptions be employed to calculate impacts.

For community hazard thresholds, there would be little or no difference in the analysis for the Proposed Project as compared to the Alternative Project. This is because the impacts and assessment are driven by the sources surrounding the new Project, rather than the design of the Project itself.

For the GHG service population metric significance threshold, ENVIRON calculated the emissions per service population of the Alternative Project using CalEEMod. As expected, the absolute GHG emissions decreased for the Alternate Project. However, because the number of units per acre decreased slightly, there was a slight (i.e., less than a 2%) increase in the emissions per capita. Therefore, ENVIRON attached a CalEEMod run that addresses the recommendations in this memorandum and demonstrates that applying mitigation measures specific to the Alternative Project result in impacts below significance thresholds.

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MEMO

From: Marylee Guinon

To: Allan Moore

Date: June 28, 2012

Re: TERRACES OF LAFAYETTE REDRAFTED COMMENTS ON BIOLOGY SECTION OF EIR

In BIO 5 elimination of 2 acres of native blue wildrye grasslands, a sensitive natural community the EIR 1) presents glaring inconsistencies, 2) establishes arbitrary standards of significance 3) overstates impacts 4) states that native grassland mitigation can be accomplished with “relative ease” and yet finds the impact to remain Significant and Unavoidable.

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Blue Wildrye Status: This species or plant community is not listed or protected under federal or state laws. This species and plant community is common and widespread. Threats to this and other native plant communities include primarily exotic species, such as European grasses that dominate California’s grasslands, over grazing and other site disturbances.

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Page 4.3-8 footnote 3 defines the Alliance inventory watch list. “Each community type is ranked with a Global (G) and a State (S) code of 1, 2, 3, 4, or 5, with 1 representing the most sensitive and 5 representing relatively common types. If an alliance is marked with a 1 through 3 code on the State or Global level, this means that all of the associations within it will also be considered of high inventory priority and should be considered as part of the CEQA review process. If marked as G4 or G5, these alliances are generally common enough to not be of concern. A question mark (?) denotes an inexact numeric rank due to insufficient samples over the fully expected range of the alliance type, but existing information points to the indicted rank. As an example, most alliances of native willow have a State rank of 3 or less in the List of California Vegetation Alliances, meaning they have a high priority and are generally considered a rare vegetation type by the CDFG. ”

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Associates of blue wildrye at the project site are ranked G3? S3? in the List of California Vegetation Alliances maintained by the CNDDDB. The City of Lafayette as lead agency for CEQA is encouraged to take into consideration the California Native Plant Society Plant List, and the natural plant communities inventoried in the List of California Vegetation Alliances, however there is a significant disconnect to conclude that after blue wildrye grassland mitigation, the impact is still Significant and Unavoidable. To make a finding of Significant and Unavoidable impact after acknowledging the grassland can be mitigated with “relative ease” is arbitrary and unsupported.

Impacts to blue wildrye grasslands are mitigatable to a level of less than significant: There is significant precedent for native grassland mitigation approaches that agencies consider to fully mitigate impacts to a level of less than significant. Many mitigation approaches are considered scientifically defensible, including: preservation of native grassland at a different location than the affected grasslands, restoration of grasslands using a range of plant establishment techniques (seeding or plant salvage) and management tools (prescribed burns or exotic plant removal), and a combination of preservation and restoration.

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Mitigation ratios are typically 1:1. See attachment for Grassland Mitigation Summary in California (May 17, 2012).

The EIR acknowledges that blue wildrye grassland can be mitigated by a combination of commonly available and scientifically documented techniques. The EIR acknowledges that the blue wildrye grassland can be readily mitigated (page. 4.3-49) "The proposed grading shall be modified to avoid additional areas of the stands of native grasslands on the site to the maximum extent feasible and a compensatory mitigation component prepared and implemented to provide a minimum 1:1 replacement ratio for grasslands lost as a result of the project. A higher replacement ratio would not be warranted **because of the extent of apparent past disturbances to the remaining native grasslands on the site, and relative ease which this particular species can be salvaged, replanted, and re-established at alternative locations.**" We agree with these statements in the EIR that are supported by the literature, yet take issue with conclusions that impacts remain significant. Mitigation can readily be accomplished by exercising additional avoidance on the site, establishment of blue wildrye in the preserved on-site creek corridor, and mitigation opportunities on the suitable adjacent property, such that impacts can unequivocally be reduced to a level of less than significant.

Off-site native blue wildrye grassland suitable mitigation is feasible. During the preparation of the EIR the project biologists Jeff Olberding and Marylee Guinon coordinated with the City's biological consultant Jim Martin on the potential mitigation for the blue wildrye grassland. The adjacent property to the north, Parcel 16, was identified as a potential mitigation site. The existing blue wildrye grassland and other natives were survey mapped in October 2011, and it was determined that Parcel 16 could provide grassland mitigation, if in fact it were needed. See attached Rare Plant Summary of Findings for Rare Plant Surveys Conducted on the AMD Property, Lafayette, California, dated June 12, 2012, by Olberding Environmental, including map. If mitigation of the impacts to the creek channel on the site was to occur at Parcel 16 as well, the grassland and creek mitigation plans should not conflict, i.e. the creek species such as willow could not be allowed to shade and out-compete the native grasses on the slopes. While the project biologists did determine that the two mitigations for blue wildrye grasslands and creek habitat did not need to conflict, it was determined that Parcel 16 did not provide sufficient hydrology for a desired creek mitigation, and Parcel 16 remains as a prime site (in close proximity, feasible and practicable) for blue wildrye grassland mitigation, as preservation and / or restoration to fully mitigate the impact to 2 acres of blue wildrye grassland impact. The review of Parcel 16 was conducted by the applicant's project biologists, CDFG, USACE and RWQCB. The City's CEQA biologist was invited to each agency site visit but declined to attend. If the mitigations in the EIR for the blue wildrye grasslands were followed, the impacts should be reduced to a level of less than significant.

The AMD Parcel 16 adjacent and to the north of the project site was surveyed for special-status plant species October 20, 2011. Botanist Chris Brony mapped native plant occurrences evident at the time of the plant survey: five stands of blue wildrye, needlegrass stands, needlegrass/naked buckwheat stands, Dutchman's pipe, snowberry/ soap plant stand, and soap plant/ naked buckwheat stand. See attached Rare Plant Summary of Findings for Rare Plant Surveys Conducted on the AMD Property, Lafayette, California, dated June 12, 2012, by Olberding Environmental, including map. Jurisdictional wetland delineation was also conducted for the drainages on this parcel. A portion of the Parcel 16 could be used as mitigation for

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impacts to the blue wildrye grassland, if in fact needed for the proposed project. Approximately 1.38 acres of blue wildrye were mapped and these native grassland stands would not be adversely affected by any other element of the proposed project or its associated mitigation. In the event, blue wildrye restoration activities are undertaken at Parcel 16, special-status plant surveys would be conducted during the blooming periods of other potential plant species that were not detectable during the October 2011 survey. Documentation of surveys, proposed preservation, proposed restoration activities, any authorizations, and documentation that any recommended mitigations are unnecessary, will be submitted to the City of Lafayette (pursuant to BIO 1).

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Impacts to blue wildrye grasslands are reduced to a level of less than significant after mitigation: We disagree with the conclusion in BIO 5 that with all the mitigations set forth, the impact is still Significant and Unavoidable. The EIR itself, as well as numerous other environmental scenarios for the blue wildrye grasslands, allow for off-site mitigation, such as Parcel 16. Additional avoidance of the blue wildrye grasslands on the site could be achieved by removal of Building M (page 4.3-41). The preserved on-site creek will accommodate some of the blue wildrye salvage and establishment. And Parcel 16 provides both preservation and restoration opportunities to meet the 1:1 ratio.

The EIR does not state that grassland mitigation cannot occur on the adjacent site, nor does it state that additional avoidance of impact is mandated in lieu of restoration.

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It is possible the EIR author's conclusion that the impact would remain Significant and Unavoidable, rather than reduced to a less than significant impact after mitigation, is based on the assumption that the abandoned creek mitigation at Parcel 16 would conflict with the blue wildrye grassland mitigation at this off-site location. If this is the case, we have confirmed that the creek mitigation will not occur at Parcel 16, and that the Native Grassland Avoidance and Replacement Program at Parcel 16 would reduce the impact to a level of less than significant. To conclude that the impact remains significant is arbitrary and unfounded.

In contrast, BIO 6 (proposed fill of 295 linear feet of creek channel), provides a defensible assessment of impacts and mitigation. BIO 5 (blue wildrye grasslands) establishes arbitrary standards of significance and overstates impacts.

The impact analysis and mitigation measures for BIO-6 are consistent with commonly accepted CEQA findings, i.e. the applicant will coordinate with jurisdictional agencies, secure state and federal permits, prepare an implement a Wetland/Riparian Replacement Program (creek mitigation plan) at a mitigation ratio of 2:1, exercise avoidance of impacts, allow for on-site or off-site, allow for out-of-kind mitigation, establish native species, implement construction precautions, comply with success criteria and monitoring for creek mitigation, and conduct Best Management Practices.

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It is relevant to note that the wetlands and waters of the US and waters of the State (creek) addressed in BIO 6 have significant state and federal status and associated protections, and the EIR concludes that impacts can be mitigated to a level of less than significant. The EIR logically provides for out-of-kind creek mitigation, acknowledging that it "may be necessary given the limited opportunities for recreating creek channel habitat on the site" (page 4.3-52). This impact analysis, mitigation measures, and the conclusion

that the impact is fully mitigated, are generally consistent with EIRs in California. What is noteworthy is that the same logical impact analysis and mitigation measures are set forth in BIO 5 (blue wildrye grassland), yet the conclusion is after all the mitigations, the impacts is Significant and Unavoidable. The mitigations stated in the EIR for the native blue wildrye grassland are consistent with commonly accepted CEQA findings, except the applicant does not need to coordinate with jurisdictional agencies or secure state and federal permits, because the grass species is not protected by state or federal laws as the creek is. Similar to BIO 6 (proposed fill of creek), the applicant will prepare an implement a Native Grassland Avoidance and Replacement Program (mitigation plan) at a mitigation ratio of 1:1, exercise avoidance to the maximum extend feasible, allow for mitigation on site or off site, establish salvaged native species, implement construction precautions, comply with success criteria and monitoring for grassland mitigation, and adopt Best Management Practices for maintenance and long term management. What appears to be inconsistent with many EIRs addressing similar scenarios (sensitive plant communities on an inventory or watch list) or in the case of more significant impacts (federal and state protected creek), is the conclusion that after all the commonly accepted mitigations, the impact to the native blue wildrye grassland is still Significant and Unavoidable.

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cont.

In BIO 6 the EIR states that jurisdictional waters of the creek shall be avoided to the maximum extent feasible, among other mitigations that together will reduce impacts to a level of less than significant. The applicant in consultation with regulatory agencies (USACE, CDFG and RWCQB) has designed an avoidance alternative that fully avoids impacts to the on-site creek drainage, including: 1. construction of a spanned arch culvert (40-foot long and 26-foot span on drilled piers providing 11-feet of vertical clearance) located above the creek's 100-year water surface elevation 2. Reducing the creek crossing from two locations to one 3. Reduction in parking stalls and 4. native enhancement plantings along the preserved 515 feet of creek drainage. As a result of this preferred avoidance alternative the Pre-construction Notification application of the USCAE for a 404 Nationwide Permit has been withdrawn, with concurrence from the USACE. The CDFG has reviewed and approved the full avoidance arch-culvert alternative and only requires proof of CEQA completion (Notice of Determination and payment of CEQA fees) to issue a fully drafted CDFG Streambed Alteration Agreement (No. 1600-2011-0386-R3). In working with the RWQCB, the applicant is providing a revised application to the Board staff reflecting the full avoidance arch-culvert alternative and a Storm Water Management Plan based on the avoidance plan so that Board may issue a 401 Certification or Waiver. Because of the avoidance exercised, the agencies will not require off-site mitigation. Provided as an attachment is the USACE wetland verification of the approved jurisdictional wetland determination letter dated March 19, 2012 and verified map (File NO. 2011-00165).

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In BIO 7 the EIR fails to provide a reasonable mitigation or a project alternative consistent with project objectives that can mitigate tree impacts to less than significant. The proposed project evaluated in the EIR would result in removal of 91 of 117 existing trees, and relocation of 3 oaks. A more meaningful and reasonable mitigation would be to avoid removal of 64 trees by elimination of Building M. This mitigation alternative would reduce tree removal to 27 (1 acacia, 1 black walnut, 1 carob, 1 plum, 1 stone pine, 2 valley oaks, 3 incense cedars, and 17 coast live oaks), and would still relocate 3 coast live oaks. The vast majority of the trees on the site were planted, even the oaks along the existing driveway to the residences. Only the oaks and single black walnut are native to the region. The project provides for significant

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opportunities to establish hundreds of native trees in mitigation for the trees 27 removed as a result of an avoidance alternative. In the impact analysis of trees on page 4.3-41 the EIR identifies that the elimination or relocation of Building M would reduce tree impacts to a level of less than significant, however this is not provided in the mitigation measures of BIO 7. On page 5-16 the EIR describes the Mitigated Project Alternative, which removes Building M and N, "would result in substantial improvement to the proposed project". We assert that with removal of Building M alone the reduction of impacts to the trees (27 trees removed in comparison to 91 trees removed); in conjunction with mitigation tree plantings, the impact can be reduced to a level of less than significant. Again, most of the trees on the site were planted, and many are non-native species, therefore, it is reasonable to mitigate removal of planted native trees and planted non-natives with establishment of hundreds of native trees.

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The Applicant's variation to the Mitigated Project Alternative (removal of Building M to avoid impacts and total avoidance of the on-site creek) would:

Avoid 0.4 acre of blue wildrye

Preserve an additional 64 trees

Avoid all impacts to the on-site creek drainage

Include off-site preservation and restoration of blue wildrye grassland

Include substantial tree replacement

Include habitat enhancement along the creek drainage

Fully mitigate all biological impacts to a level of less than significant

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The EIR presents conflicting statements about wildlife movement. In BIO 8 wildlife movement and habitat values along the creek is depicted as a significant impact We agree with the assessment on page 4.3-43 (Cumulative Impacts): "With regard to future development and its relationship to surrounding habitat, most of the site vicinity is already extensively disturbed by urban and suburban uses or is permanently protected as open space. The wildlife in the area has already become acclimated to the human activity (including major roads), and the proposed development is not expected to disrupt important movement corridors or access to surrounding habitat. ... the State Highway 24 corridor, which forms a major barrier for any wildlife movement opportunities". We agree with this assessment and would emphasize that if wildlife were encouraged to move along the 515-foot reach of existing creek, they would come upon an impassable underground drainage system, or face the barrier of Pleasant Hill Road and Highway 24. There is simply no safe place for wildlife to go south or east of Pleasant Hill Road and Deer Hill Road. The discussion of wildlife movement on page 4.3-55 in BIO 8 is in conflict with above (page 4.3-43 Cumulative Impacts): "Movement opportunities along the existing creek would be reduced and fragmented due to the proposed culverting and the intensity of development and human activity surrounding the segment to be retained. This would be a significant impact."

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Grassland Mitigation Summary in California
Prepared for O'Brien Land Company
May 17, 2012

Below is a list of citations and references to native grassland mitigation scenarios. This list is not exhaustive, but includes grassland mitigation examples under CEQA, mitigation and restoration plans, HCP/NCCP credits, preserves and mitigation banks, all within California. A few of the mitigation plans are specific to blue wild rye, which is present at the Terraces of Lafayette site. There is significant precedent for native grassland mitigation in California that is considered by agencies to fully mitigate impacts.

CEQA Documents

1. Biological Resources EBMUD WTTIP 3.6-43 ESA / 204369 Environmental Impact Report June 2006: In addition, the sensitive plant communities that are located within the project site footprints will be mapped and quantified prior to construction to aid in later avoidance, revegetation, and replacement efforts.

Measure 3.6-3b: In the event that nonlisted special-status plant species or sensitive plant communities are present or assumed present within or immediately adjacent to the limits of construction, the District will avoid these species or sensitive plant communities and establish a visible buffer zone (25 feet at minimum) prior to construction, in coordination with a qualified biologist, or will redesign or relocate the proposed structure and/or staging area. If the District determines that it is not feasible to avoid disturbance or mortality, then special-status plant habitat and/or sensitive plant communities will be restored at a 1:1 ratio. If feasible, special-status plants will be salvaged. A five-year restoration mitigation and monitoring program will be developed and implemented. Appropriate performance standards may include, but are not limited to: a 75 percent survival rate of restoration plantings or plant cover; absence of invasive plant species; and a functioning, self-sustainable plant community at the end of five years.

Measure 3.6-3c: At all WTTIP project sites, the District will revegetate all natural areas temporarily disturbed due to project activities. Areas supporting sensitive plant communities will be restored using locally collected plant materials specific to that community. For all sites, revegetation criteria will include general restoration concepts and methods, including use of locally native plant material, protection and restoration of soil conditions, irrigation, and control of aggressive non-native species. The planting effort will commence in the fall following construction at the project site. Sites disturbed prior to the planting effort will be treated immediately with a (1) seed mixture and mulch using broadcast methods, or (2) hydroseed. The plant palette will include native plants found locally, such as coffeeberry, sticky monkeyflower, miniature lupine, California poppy, purple needlegrass, California brome, and blue wild rye. All revegetated sites will be monitored for five years. Success criteria to be met at the end of five

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years may include: at least 80 percent survival of plantings, 75 percent vegetative cover by desirable species, and a viable, self-sustaining plant community.

http://www.ebmud.com/sites/default/files/pdf/wttip20_section_3.6_biological_resources_0.pdf

2. CEQA Findings Marin County for Lucasfilm, Ltd. Master Plan and use Permit
IMPACT 5.3-3 DISTURBANCE TO NATIVE GRASSLANDS -- BIOLOGICAL RESOURCES

Facts

The EIR found that proposed development would collectively affect an estimated 3.2 acres of purple needlegrass grasslands on the site, which is considered a sensitive natural community by the California Natural Diversity Data Base. This impact is discussed on page 5.3-28 of the EIR.

Finding 1: The impact is mitigated to a less-than-significant level.

Based upon the EIR and the entire record, this disturbance to native grasslands impact is mitigated to a less-than-significant level by the imposition of Condition 21 which implements Mitigation Measure 5.3-3 found in the MMRP and on pages 5.3-28 and 5.3-29 of the EIR. With this mitigation measure, the impact would be mitigated to a less-than-significant level because a qualified biologist experienced in grassland restoration using purple needlegrass would be required to prepare and submit for review and approval by the County Community Development Agency -- Planning Division a grassland restoration and enhancement plan that would provide for replacement of native grasslands disturbed by development and emphasize the use of purple needlegrass. The grassland restoration and enhancement plan would include: (1) replacing native grasslands disturbed by development at a minimum 1 to 1 ratio with replacement provided on a per acre basis for each cover class lost; (2) locating replacement grasslands in close proximity to disturbed grassland stands; (3) staking with color-coded flagging set at 50-foot intervals the limits of grading in the vicinity of native grasslands; (4) restricting landscape tree plantings from existing and restored native grasslands; (5) restricting cattle from the native grasslands associated with the serpentine rock outcrop south of the reservoir on Big Rock Ranch; (6) identifying restoration and enhancement areas and acreage; (7) specifying performance criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures; and (8) defining site preparation, revegetation procedures, and an implementation schedule.

<http://www.co.marin.ca.us/depts/cd/main/mcbds/plng/devproj/lucas/lucfnd-5.html>

3. City of San Diego Biological Resource Mitigation Guidelines: Provide minimum ratios for impacts to special status species and their habitats. Native Grasslands are considered Tier I and are to be mitigated at 2:1 or 3:1 depending on their location.

<http://www.sandiego.gov/development-services/industry/pdf/landdevmanual/ldmbio.pdf>

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4. Antelope Valley Conservancy Mitigation Program: Offers mitigation under CEQA for a number of species and habitats including Native Grasslands.

http://avconservancy.org/AVConservancy_SoQ_Mitigation.pdf

5. The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP or Plan) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on Conservation of species and their associated Habitats in Western Riverside County. The EIR/EIS for this Plan included mitigation for Native Grasslands.

<http://www.rctlma.org/mshcp/volume1/index.html>

6. City of St. Helena Spring Mountain Estates Subdivision: Perennial grassland occurs in Lot 7 and it can be presumed that the entire amount will be taken. A loss of 0.20 acres of native perennial grassland in Lot 7 equals about 30 percent of the area and 70 percent that will be avoided. The native perennial grassland outside of the building envelope will be preserved and protected. The following mitigation measure is recommended to reduce this impact to a less-than-significant level:

Mitigation Measure 7.

- a) The area in Lot 8 shall have native grassland creation and will be preserved as a unified block to prevent fragmentation and will be preserved in perpetuity, once established, as native grassland habitat through a conservation easement with the City or other public agency. The preserved grassland will be managed for plant habitat and will not be subject to road construction, agricultural development, livestock grazing or residential development.
- b) A detailed mitigation plan will be developed with the California Department of Fish and Game (CDF&G) for compensation of impacts to native perennial grassland.
- c) Fencing shall be installed and remain in place throughout construction and be clearly identified as an environmentally sensitive habitat that must be avoided. The preserved native grassland area will be off-limits to vehicle traffic, staging areas, and material storage at all times
- d) Cut slopes and disturbed areas located outside the proposed building envelope shall be reseeded with native grasses following completion of on-site roads, driveways, water tanks and other infrastructure facilities. Use of native grasses in restoration and erosion control will encourage the establishment of additional patches of native grasses on the site

<http://city.ci.st-helena.ca.us/images/city/Request%20for%20Proposals/Initial%20Study-Spring%20Mountain%20Estates%20Subdivision.pdf>

Mitigation Plans/Projects

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1. Solano County RCD: Rindler Creek restoration includes upland species such as *blue wild rye*, quail bush, coyote bush, and elderberry. Tree species, including oaks and buckeyes, were also planted in the uplands to develop native overstory vegetation. RCD staff monitored the plants' survival, provide supplemental watering as necessary, control competition from non-native grasses and invasive weeds, and do follow-up planting to replace plants that have died. Photo point monitoring stations and physical habitat evaluation using the *California Department of Fish and Game's Stream Bioassessment Procedure* are also used to evaluate restoration progress in the vegetation communities and stream habitat
http://www.solanorcd.org/index.php?option=com_content&view=article&id=18&Itemid=248
2. Sacramento Flood Control District: Grassland Restoration Goethe East comprises 77 acres of predominantly yellow star thistle (*Centaurea solstitialis*), a highly invasive non-native weed. Several agencies received encroachment permits from the County of Sacramento, Regional Parks, Recreation and Open Space to conduct Valley Elderberry Longhorn Beetle (VELB) mitigation on all but approximately 15 acres. To aid in the preparation of the site, SAFCA organized a controlled burn over the entire site in October of 2006. Shortly after, annual grasses and broadleaf weeds began colonizing the burned area. In early 2007, SAFCA conducted an herbicide application over the entire site and drill-seeded the 15 acres not used for VELB mitigation with the following native grasses: Sterile Triticale, Slender Wheatgrass, Nodding Needlegrass, California Barley, Creeping Wildrye, Purple Needlegrass and *Blue Wildrye*. As a follow-up treatment, the drill-seeded areas received two broad-leaf herbicide applications; one in the late spring of 2007, one in spring 2008. The native grasses have received no supplemental irrigation and are readily becoming established.
<http://www.safca.org/protection/specialprojects.html>
3. Guidelines for establishing Native Grasslands from Seed: Describes various options for seeding restoration areas with native seeds including blue wild rye.
<http://www.pacificnwnatives.com/Plantingguidelines.pdf>
4. Grady Ranch Restoration Plan: Marin County Project with riparian and upland restoration component that includes blue wild rye in planting palette.
<http://www.co.marin.ca.us/depts/CD/main/pdf/eir/Big%20Rock/Suplimentals/32.%20WRA%20nc.%202009-Wetland%20Mitigation%20and%20Monitoring%20Plan.pdf>
5. US Forest Service Website: Discussion re: the importance of blue wild rye as a native grassland restoration species.
<http://www.fs.fed.us/wildflowers/nativeplantmaterials/index.shtm>
6. Native Grassland Restoration Sacramento National Wildlife Refuge Complex PowerPoint Presentation.

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<http://www.fws.gov/sacramentovalleyrefuges/pdf/Habt%20Management/14-Silveira%20-%20Native%20Grassland%20Restoration%20at%20Sacramento%20NWRC%203-14-2012.pdf>

Habitat Conservation and Natural Community Conservation Plans and Mitigation Banks

1. The East Contra Costa County HCP/NCCP allows for the removal of native grasslands and uses the Planning Survey Form to identify which habitats/species are to be affected by a project. Native Grassland mitigation fee is \$23k per acre to do so.

<http://www.co.contra-costa.ca.us/depart/cd/water/HCP/project-permitting.html>

nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=10872

2. Center for Land Management. A non-profit that holds numerous conservation easements that include both mitigation banks as well as preserves set up to mitigate for specific projects. Numerous of the holdings include native grasslands preserved and enhanced as part of project mitigations.

http://www.cnlm.org/cms/index.php?option=com_content&task=view&id=138&Itemid=284

3. County of San Diego: Website provides links to mitigation banks that provide credit for native grassland impacts.

<http://www.sdcounty.ca.gov/dpw/environment/mscp.html>

4. Red Mountain Mitigation Bank: Provides Grassland Mitigation Credits.

http://sdopenspaces.com/mitigation_banks.html

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OLBERDING ENVIRONMENTAL, INC.

Wetland Regulation and Permitting

June 12, 2012

Mr. Dave Baker
O'BRIEN LAND COMPANY, LLC
3031 Stanford Ranch Road, Suite 2-310
Rocklin, California 95765

**SUBJECT: Summary of Findings for Rare Plant Surveys Conducted on the
AMD Property, Lafayette, CA**

Dear Mr. Baker:

This memo is intended to provide you with the results of our October 20, 2011 protocol-level surveys for rare plant species on the AMD property located near Lafayette, California.

SURVEY METHODOLOGY

On October 20, 2011, Olberding Environmental botanist Mr. Christopher Bronny conducted protocol-level floristic survey within the boundaries of the AMD property (see attached Plant Survey Map). All vascular plant species observed within the parcel were recorded. Nearly all species observed within the property were identified to species; all were identified to the level needed to determine whether they qualify as special-status plants. Final determinations for collected plant material were made by keying using *The Jepson Manual* and other sources.

The surveys followed the California Department of Fish and Game (CDFG) (2000) and California Native Plant Society (CNPS, 2001) published survey guidelines. These guidelines state that special-status surveys should be conducted at the proper time of year when special-status and locally significant plants are both evident and identifiable. These guidelines also state that the surveys be floristic in nature with every plant observed identified to the species, subspecies, or variety as necessary to determine their rarity status. Finally, these surveys must be conducted in a manner that is consistent with conservation ethics and accepted plant collection and documentation techniques. Following these guidelines, surveys were conducted during the time period when special-status plant species from the region were known to be evident and flowering. Surveys were intuitively-controlled and consisted of walking meandering transects through upland and wetland areas of the property where potentially suitable habitat for special-status species could occur. Focused efforts included hillslopes with flocculated clay soil substrates, edges of oak woodland, sage scrub, and seeps.

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SURVEY RESULTS

A total of 79 vascular plant species were detected and identified during the rare plant surveys conducted for the AMD property. No special-status plants were detected during our October 2011 protocol-level survey.

CONCLUSION

According to the project proponent, a portion of the AMD property is proposed as a mitigation preserve for the proposed "Deer Hill" development project located south of the AMD property on Deer Hill Road. No further surveys are required since no impacts would occur on the AMD parcel due to preservation of existing habitats.

This concludes the results of our 2011 rare plant survey for the AMD Property. Should you have any further questions, please do not hesitate to contact me at (925) 866-2111.

Sincerely,



Jeff Olberding
Olberding Environmental

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cont.



**AMD Property
Plant Survey
Contra Costa County
California**

Oberding Environmental, Inc.
3170 Crow Canyon Place, Suite 260
San Ramon, California 94583
Phone: (925) 866-2111

- Survey Boundary
- Ephemeral Channel

Plant Occurrences

- Dutchman's pipe
- Needlegrass stand
- Needlegrass / Naked buckwheat stand
- Snowberry / Soap plant stand
- Soap plant stand
- Soap plant / Naked buckwheat stand
- Blue wildrye (1.98 acres)

1 inch = 275 feet



Image Source: Contra Costa County
Image Date: 2009
Map Date: October, 2011
Field Survey conducted on October 20, 2011
By Mr. Christopher Broney.

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cont.

CALIFORNIA DEPARTMENT OF FISH AND GAME
BAY DELTA REGION
7329 SILVERADO TRAIL
NAPA, CALIFORNIA 94558
(707) 944-5520
WWW.DFG.CA.GOV



STREAMBED ALTERATION AGREEMENT
NOTIFICATION No. 1600-2011-0386-R3
Unnamed tributary to Releiz Creek

O'BRIEN LAND COMPANY, LLC
3031 STAFFORD RANCH ROAD, SUITE 2-310
ROCKLIN, CA 95765

TERRACES OF LAFAYETTE

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Game (DFG) and O'Brien Land Company, LLC (Permittee) as represented by David Baker.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified DFG on November 8, 2011 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, DFG has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement

PROJECT LOCATION

The project is located at an unnamed tributary to Releiz Creek, in the City of Lafayette, County of Contra Costa, State of California; Latitude 37.897778, Longitude - 122.100833; Assessors Parcel Number 232-150-027. The project site is at the southwest corner of Pleasant Hill Road and Deer Hill Road.

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PROJECT DESCRIPTION

The project is limited to installation of an approximately 40-foot-long, 26-foot span arch culvert. The arch will provide access across an on-site drainage as part of the circulation plan for a new residential development.

The footings of the arch will rest on drilled piers installed below the top of bank, but above the ordinary high water mark and 100-year flood elevation. The footprint of the piers and arch footings will be approximately 250 square feet. Minor grading will be done around the footprint of the drilled piers. When complete, the arch will provide approximately 11 feet of vertical clearance above the 100-year flood water surface elevation, including lower bank clearance.

Construction of the arch will involve removal of one native black walnut and one ornamental plum tree. Approximately 604 square feet of temporary disturbance will result from project activities. Following installation of the arch, the disturbed area will be replanted with native plants outlined in the plant list prepared by Camp and Camp Associates, Planning and Landscape Architecture on March 23, 2012 and submitted to DFG by email April 23, 2012.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include:

- California black walnut (*Juglans hindsii*) – impacts limited to removal of a single tree
- Nesting birds
- Roosting bats
- Riparian vegetation

The adverse effects the project could have on the fish or wildlife resources identified above include:

- soil compaction or other disturbance to soil layer;
- short-term release of contaminants (e.g., incidental from construction);
- loss or decline of riparian habitat;
- colonization of disturbed areas by exotic plant or animal species;
- disruption to nesting birds and other wildlife;
- direct take of terrestrial species; and
- loss or impediment of terrestrial animal species travel routes due to permanent structures

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MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1. Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to DFG personnel, or personnel from another state, federal, or local agency upon request.
- 1.2. Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3. Notification of Conflicting Provisions. Permittee shall notify DFG if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, DFG shall contact Permittee to resolve any conflict.
- 1.4. Inspections. Permittee agrees that DFG personnel or its agents may inspect the work performed at the project site at any time. As a result of field inspection, DFG may require that additional conditions be applied to protect sensitive biological resources. Such conditions may be amended into this Agreement with the agreement of both parties.
- 1.5. Consistency with Notification. All work shall be completed in accordance with the plans, drawings and project description submitted to DFG. The project notification (Exhibit A) was amended at Permittee's request as shown in the revised plans submitted March 16, 2012 and as described in the email sent to DFG by Permittee's representative on April 23, 2012. All project amendments submitted by Permittee to DFG are described in this Agreement, and work authorized by this Agreement is limited to the project described herein. If Permittee wishes to modify the project described in this Agreement, DFG shall first be notified, and an amendment or new notification may be required.
- 1.6. Access to Property Not Owned by Permittee. This agreement does not grant the Permittee authority to enter, use, or otherwise encroach upon on the property rights of individuals or organizations not party to this Agreement. Permittee shall obtain written authorization from outside parties, in accordance with applicable laws, if access to property not owned by Permittee is necessary.

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- 1.7. Notification of Work Initiation/Completion. Permittee will notify DFG 48 hours prior to the initiation of construction, and 48 hours following completion of work.
- 1.8. Unauthorized Take. The project site has been identified as an area that is potentially occupied by special-status species. This agreement does not authorize the take, including incidental take, of any state or federally listed threatened or endangered listed species, or of species that are otherwise protected under California Fish and Game Code. The Permittee is required, as prescribed in the California and U.S. Endangered Species Acts, to obtain take coverage for state and federally listed species prior to commencement of the project. Any unauthorized take of listed species may result in prosecution and nullification of this agreement.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

- 2.1. Work Limit – Seasonal Restriction. To minimize adverse impacts to fish and wildlife and their habitats, work within streams shall be limited to April 15 to October 31. Revegetation work above the mean high water level may be done at any time, provided that appropriate erosion control BMPs are implemented.
- 2.2. Work Limit – Precipitation. Work shall be restricted to periods with minimal or no precipitation to minimize bank disturbance and erosion. No phase of the project shall be initiated if work and installation of associated erosion control measures cannot be completed prior to the onset of a storm event predicted by 72-hour weather forecasts from the National Weather Service. If an unanticipated storm event occurs, the Permittee shall inspect all sites currently under construction and scheduled to begin work within 72 hours for indications of bank erosion and/or channel sedimentation; if noticeable erosion or sedimentation has occurred, the Permittee shall implement additional erosion control features and consult with DFG regarding corrective actions.
- 2.3. Equipment in Stream. Permittee shall not operate equipment in wetted areas (including but not limited to ponded, flowing, or wetland areas) without the prior written approval of DFG.
- 2.4. Nesting Bird Surveys and Avoidance. If vegetation removal/disturbance is scheduled to occur between February 15 and September 1, a qualified biologist (as determined by a combination of academic training and professional experience in biological sciences and related resource management activities) shall conduct pre-construction surveys for nesting birds no more than one week prior to work. Surveys shall encompass all potential habitats within 100 feet of the project area. The biologist shall be familiar with breeding behaviors and nest structures for birds known to nest in the project area. Surveys shall be

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conducted during periods of peak activity (early morning, dusk) and shall be of sufficient duration to observe movement patterns. Survey results, including a description of timing, duration and methods used, shall be submitted to DFG for review.

If nesting birds are found, buffers shall be established in consultation with DFG. The buffer area shall be fenced off from work activities and avoided until the young have fledged, as determined by a qualified biologist. Active nests found within the vicinity of the project area shall be monitored by the project biologist during all work activities for changes in bird behavior. Permittee shall perform at least two hours of pre-construction monitoring to characterize "normal" bird behavior. At the first indication of potential nest abandonment (e.g., female rises off the eggs; paces/shuffles in the nest; flaps her wings in an agitated manner; extended, concentrated staring at project activities; calls in distress; continuous circling over or fluttering around the area of disturbance (male); winged attacks (male); and/or other indications of distress shown by either mate), the biologist shall stop work immediately and consult DFG on how to proceed.

- 2.5. Bat Habitat Assessment and Avoidance. A qualified biologist or biological monitor shall conduct a pre-construction survey for bats at work sites where culverts, structures and/or trees would be removed or otherwise disturbed no more than 48 hours prior to disturbance. If bats are detected during the habitat assessment, DFG shall be notified immediately. DFG reserves the right to provide additional provisions to this agreement in the event that roosting bats are found.
- 2.6. Injury or Mortality of Special-Status Species. If Permittee or its employees, contractors, or agents injures or kills a special-status species, or finds any such animal injured or dead, all activities in the work area shall immediately cease, and DFG and U.S. Fish and Wildlife Service shall be notified by telephone within 30 minutes of the discovery. A written report detailing the time, location, and general circumstances under which the dead or injured individual animal was found shall be submitted to DFG and the U.S. Fish and Wildlife Service no later than five (5) business days following the incident. Any injured special-status species shall be immediately transported to an approved wildlife rehabilitation clinic (<http://dfg.ca.gov/wildlife/rehab/facilities.html>).
- 2.7. Vegetation Removal. The disturbance or removal of vegetation shall not exceed the minimum necessary to complete work. Precautions shall be taken to avoid other damage to vegetation by people or equipment.
- 2.8. Protection of Riparian Trees. For each existing tree greater than six inches DBH within or adjacent to the work area that will be retained following construction, a root protection zone shall be established. The root protection zone shall extend from the trunk to the dripline (i.e. the outer extent of the tree

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canopy) of each protected tree and shall be flagged or fenced off from work. If work will be conducted within the root protection zone of a given tree, that tree shall be considered an "impacted tree", and compensatory mitigation shall be required pursuant to Measure 3.1.

- 2.9. Pre-Construction Training. A qualified biologist hired by the Permittee shall conduct a pre-construction training session for work crew members. The training will include a discussion of sensitive biological resources within the project area and the potential presence of special-status species, special-status species' habitats, and protection measures to ensure species are not impacted by project activities and project boundaries.
- 2.10. Wildfire Prevention. If the risk of fire danger is high based on 7-day predictions from National Oceanic and Atmospheric Administration forecasts, Permittee shall mow access pathways, staging areas and work areas before allowing heavy equipment and vehicles to access the site. Non-living vegetative debris shall be cleared from around the work area, and basic fire suppression supplies shall be kept onsite at all times.
- 2.11. Staging Areas. Staging areas shall be located above the top of bank, within paved areas, if feasible. Vegetation disturbance shall be limited to the immediate work footprint and a single access pathway.
- 2.12. Artificial Lighting. No artificial night lighting shall be installed in the riparian corridor, and lighting outside of the corridor shall be shielded or directed away from the corridor.
- 2.13. Erosion Control Best Management Practices (BMPs). All exposed soils within the work area shall be stabilized immediately following the completion of earthmoving activities to prevent erosion into the stream channel. Erosion control BMPs, such as silt fences, straw hay bales, gravel or rock lined ditches, water check bars, and broadcasted straw shall be used. Erosion control BMPs shall be monitored during and after each storm event for effectiveness. Modifications, repairs and improvements to erosion control BMPs shall be made as needed to protect water quality. At no time shall silt laden runoff be allowed to enter the stream or directed to where it may enter the stream.
- 2.14. Vehicle/Equipment Maintenance. Any equipment or vehicles driven and/or operated in proximity of the stream shall be maintained in good working order to prevent the release of contaminants that if introduced to water could be deleterious to aquatic life, wildlife, or riparian habitat.
- 2.15. Equipment Storage and Stationary Operation. Staging and storage areas for equipment, materials, fuels, lubricants and solvents shall be located outside of the stream channel and banks. Stationary equipment such as motors, pumps, generators, compressors and welders, located adjacent to the stream, shall be

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positioned over drip-pans. Any equipment or vehicles driven and/or operated in proximity to the stream must be checked and maintained daily. Vehicles must be moved away from the stream prior to refueling and lubrication.

2.16. Storage and Handling of Hazardous Materials. Any hazardous or toxic materials that could be deleterious to aquatic life shall be contained in watertight containers or removed from the project site. Such materials include, but are not limited to, debris soil, silt, bark, rubbish, creosote-treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, and oil or other petroleum products. These materials shall be prevented from contaminating the soil and/or entering the waters of the State. Any such materials, placed within or where they may enter a stream or lake, by Permittee or any party working under contract, or with permission of Permittee, shall be removed immediately. Best management practices (BMPs) shall be employed to accomplish these requirements.

2.17. Pesticide and Fertilizer Use. In general, since the toxicological properties of various pesticides (including herbicides, insecticides and rodenticides) cannot be predicted under all conditions, DFG discourages pesticide application near open water wherever and whenever possible. Integrated pest management solutions that emphasize non-chemical pest management shall be used over chemical pesticides to the extent feasible. Chemical fertilizers and rodenticides shall not be used under this Agreement, and insecticides shall not be used in the stream zone without prior written permission from DFG Bay Delta Region. Herbicides may be used at the Permittee's discretion with implementation of the following protective measures:

- Permittee shall use caution to apply the least practicable amount of herbicides necessary to effectively control nuisance plants.
- Permittee shall use the least concentrated formulation of herbicide possible and practicable to accomplish his/her task.
- All herbicides shall be applied by a certified pesticide applicator in accordance with regulations set by the California Department of Pesticide Regulation and according to labeled instructions.
- Permittee shall use extreme caution to not to apply any herbicide directly to water. If herbicides must be applied next to water, Permittee shall use preventative BMPs to ensure that the chemical does not accidentally flow into or stream through the air into the water.
- Herbicides shall only be applied on calm days with winds below 5 miles per hour.

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- Care shall be taken to avoid spraying native vegetation with herbicides. Spraying within 100 feet of existing mitigation sites shall be done by hand.
- Should any fish or animal kills occur following application of herbicides, such kills shall be reported to DFG Bay Delta Region within 24 hours.
- Permittee shall only use pesticides for which a "no effect" determination has been issued by the U.S. EPA's Endangered Species Protection Program (<http://www.epa.gov/espp/>) for any species likely to occur within the project area or downstream. Prior to applying pesticides, Permittee shall verify that selected pesticides are not on an endangered species bulletin issued by the U.S. EPA for Contra Costa County. Bulletins are posted at: <http://www.epa.gov/oppfead1/endanger/bulletins.htm>
- Regardless of the contents of this Agreement, Permittee is responsible for any environmental damage caused by the application or use of substances that prove harmful to fish and aquatic wildlife.

- 2.18. Removal of Trash and Debris. Except as explicitly described in the Project Description of this Agreement, the removal of native soils, rock, gravel, vegetation, and vegetative debris from the stream bed or stream banks is prohibited. Embedded pieces of large woody debris or stumps that potentially serve as basking sites or that encourage pool formation shall be left in place whenever possible.

Permittee shall remove all raw construction materials and wastes from the project site following the completion of work. Food-contaminated wastes generated during work shall be removed on a daily basis to avoid attracting predators to work sites. All temporary fences, barriers, and/or flagging shall be completely removed from work sites and properly disposed of upon completion of work. Permittee or its contractors shall not dump any litter or construction debris within the riparian/stream zone.

3. Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

- 3.1. Restoration of Disturbed Areas. Following completion of construction, disturbed areas shall be replanted as specified in a DFG-approved restoration plan (see Measure 4.3). All exposed/ disturbed soils left barren of vegetation following work activities shall be revegetated with native plants or seeded with an erosion control seed mix consisting of native forbs, shrubs, wildflowers and grasses. Original genetic material shall have been collected from within 50 miles of the project site; however, the plants/seed may be purchased from a grower outside of this area. Revegetation/seeding shall be completed immediately (within two

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weeks) after work activities cease. Seeding placed after October 15 shall be applied by hydroseed or shall be covered with broadcast straw, jute netting, coconut fiber blanket, light mulch or a similar erosion control method. Erosion control blankets with monofilament or woven plastic filament shall not be used.

3.2. Tree Replacement. All trees removed or impacted (as defined under Measure 2.8) as a result of work shall be replaced at the following ratios (replacement trees to removed trees) to mitigate for permanent net loss of canopy cover:

- Oaks – 6:1 ratio
- For native trees other than oaks - 3:1 ratio
- Non-native trees – 2:1 ratio.

Replacement trees shall consist of 5-gallon saplings and shall be native species adapted to the lighting, soil and hydrological conditions at the replanting site. If replanting within the immediate work area is unfeasible due to slope steepness or other physical constraints, replacement trees may be planted at an alternate location along the stream corridor.

3.3. Sudden Oak Death. If trees or plants purchased for revegetation are hosts or associated hosts of sudden oak death (*Phytophthora ramorum*; refer to list of hosts at: <http://www.suddenoakdeath.org/diagnosis-and-management/hosts-and-associated-plants/>) and were grown within a county that is regulated under 7 Code of Federal Regulations (CFR) 301.92, the source nursery shall be in compliance with USDA quarantine regulations. Permittee shall view, and if possible, obtain a copy of the nursery's certificate of annual inspection certifying that the plant stock is free of *Phytophthora ramorum*. If the nursery cannot provide compliance with USDA quarantine regulations pertaining to sudden oak death, the nursery shall not be used as a source for plant material, soils or other materials that could transmit the disease organism.

Permittee and all contractors shall follow sanitation protocol specified in the *Sanitation Guidelines for Professional Crews* issued by the California Oak Mortality Task Force (<http://www.suddenoakdeath.org/pdf/Professional%20sanitation%20guide.pdf>) prior to entering, during construction, and prior to leaving the site. If the project site is within 5 miles of a confirmed sudden oak death infestation (refer to <http://www.oakmapper.org/> or contact the Contra Costa Agricultural Commissioner's Office at: (925) 646-5250), a discussion of sudden oak death shall be included in the pre-construction training (Measure 2.9).

3.4. Revegetation Survivorship and Monitoring. To ensure a successful revegetation effort, all plants shall be monitored and maintained as necessary for five years. The following success criteria shall apply:

- All plantings shall have a minimum of 80% survival at the end of 5 years.

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- Vegetation cover shall consist of no more than 10% non-native species.
- If the survival and/or cover requirements are not meeting these goals, Permittee is responsible for replacement planting, additional watering, weeding, invasive exotic eradication, or any other practice, to achieve these requirements. Replacement plants shall be monitored with the same survival and growth requirements for five years after planting.

Revegetation monitoring shall be conducted annually for a period of five (5) years to determine whether these goals have been met. If the survival and/or cover requirements are not projected to meet these goals, based on annual monitoring, Permittee is responsible for replacement planting, additional watering, weeding, invasive exotic eradication, or any other practice(s) that would to achieve these requirements.

- 3.5. Invasive Species Control. To allow successful re-establishment of native vegetation in temporarily disturbed areas, Permittee shall monitor these areas following restoration for establishment of invasive species, and shall implement targeted control activities (i.e. selective spraying or weeding) for a minimum of one calendar year.

4. Reporting Measures

Permittee shall meet each reporting requirement described below.

- 4.1. Biological Surveys. Permittee shall submit the results of biological surveys to DFG for review within two business days of the completion of the surveys. The summary of survey results should describe the date, duration and timing of the surveys, weather conditions, species observed (including potential predators, prey or competitors), behaviors observed (target species), and GPS coordinates for sightings. GPS coordinates for sensitive species should be taken at a distance and adjusted using a rangefinder. Results for multiple species may be combined into a single report. The report shall be no more than three (3) pages in length for each species surveyed.
- 4.2. Photographic Documentation of Work. Prior to commencement of work, the Permittee shall flag a minimum of four (4) vantage points that offer representative views of the project site and work areas. The Permittee shall photograph the project area from each of the flagged points, noting the direction and magnification of each photo. Upon completion of work, the Permittee shall photograph post-project conditions from the flagged photo points using the same direction and magnification as pre-project photos. Pre- and post-project photographs (.jpg format) shall be sent to DFG within five (5) days of completion of the project via email or by digital media. A reference key shall be submitted with the photos describing the location of the photo, the direction of the view, and whether the photo is pre- or post-construction.

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- 4.3. Restoration Plan. At least thirty (30) days prior to the commencement of restoration activities, Permittee shall submit a planting plan to DFG for review and written approval.
- 4.4. Notification to the California Natural Diversity Database. If any sensitive species are observed in project surveys, Permittee shall submit California Natural Diversity Database (CNDDDB) forms to the DFG Biogeographic Data Branch (CNDDDB@dfg.ca.gov) with all pre-construction survey data within five working days of the sightings, and provide regional DFG staff with copies of the CNDDDB forms and survey maps.

CONTACT INFORMATION

Any communication that Permittee or DFG submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or DFG specifies by written notice to the other.

To Permittee:

O'Brien Land Company, LLC
3031 Stanford Ranch Road, Suite 2-310
Rocklin, CA 95765
Fax (916) 521-4240
dave@obrienlc.com

To DFG:

Department of Fish and Game
Bay Delta Region
7329 Silverado Trail
Napa, California 94558
Attn: Lake and Streambed Alteration Program – Randi Adair
Notification #1600-2011-0386-R3
Fax (707) 944-5553
radair@dfg.ca.gov

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

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This Agreement does not constitute DFG's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

SUSPENSION AND REVOCATION

DFG may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before DFG suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before DFG suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused DFG to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes DFG from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects DFG's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 et seq. (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

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AMENDMENT

DFG may amend the Agreement at any time during its term if DFG determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by DFG and Permittee. To request an amendment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter DFG approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

EXTENSIONS

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to DFG a completed DFG "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). DFG shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code, § 1605, subd. (f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of DFG's signature, which shall be: 1) after Permittee's signature; 2) after DFG complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html.

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TERM

Authorization to conduct the activities described in the Project Description of this Agreement shall expire on December 31, 2016, unless the Agreement is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing all Measures to Protect Fish and Wildlife Resources specified herein after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

EXHIBITS

The documents listed below are included as exhibits to the Agreement and incorporated herein by reference.

- Notification of Streambed Alteration #1600-2011-0386-3

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

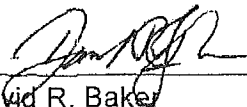
AUTHORIZATION

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify DFG in accordance with FGC section 1602.

CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

FOR O'BRIEN LAND COMPANY, LLC



David R. Baker
Project Manager

6-6-12

Date

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cont.**

FOR DEPARTMENT OF FISH AND GAME

Craig J. Weightman
Acting Environmental Program Manager

Date

Prepared by: Randi Adair
 Environmental Scientist

Date Sent: May 22, 2012



DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET, 16TH FLOOR
SAN FRANCISCO, CALIFORNIA 94103-1398

MAR 19 2012

REPLY TO
ATTENTION OF

Regulatory Division

Subject: File Number 2011-00165S

Mr. Jeff Olberding
Olberding Environmental, Inc.
3170 Crow Canyon Place, Suite 260
San Ramon, CA 94583

Dear Mr. Olberding:

This correspondence is in reference to your submittal of May 1, 2011, and revised submittal of July 5, 2011, on behalf of O'Brien Land Company, LLC, requesting an approved jurisdictional determination of the extent of waters of the United States occurring on the Terraces of Lafayette project site. This project site is located at the southwestern corner of the intersection of Deer Hill and Pleasant Hill Roads, in the City of Lafayette, Contra Costa County, California (APN 232-150-027).

All proposed discharges of dredged or fill material occurring below the plane of ordinary high water in non-tidal waters of the United States; or below the high tide line in tidal waters of the United States; and within the lateral extent of wetlands adjacent to these waters, typically require Department of the Army authorization and the issuance of a permit under Section 404 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1344 *et seq.*). Waters of the United States generally include the territorial seas; all traditional navigable waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters subject to the ebb and flow of the tide; wetlands adjacent to traditional navigable waters; non-navigable tributaries of traditional navigable waters that are relatively permanent, where the tributaries typically flow year-round or have continuous flow at least seasonally; and wetlands directly abutting such tributaries. Where a case-specific analysis determines the existence of a "significant nexus" effect with a traditional navigable water, waters of the United States may also include non-navigable tributaries that are not relatively permanent; wetlands adjacent to non-navigable tributaries that are not relatively permanent; wetlands adjacent to but not directly abutting a relatively permanent non-navigable tributary; and certain ephemeral streams in the arid West.

All proposed structures and work, including excavation, dredging, and discharges of dredged or fill material, occurring below the plane of mean high water in tidal waters of the United States; in former diked baylands currently below mean high water; outside the limits of mean high water but affecting the navigable capacity of tidal waters; or below the plane of ordinary high water in non-tidal waters designated as navigable waters of the United States,

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typically require Department of the Army authorization and the issuance of a permit under Section 10 of the Rivers and Harbors Act of 1899, as amended (33 U.S.C. § 403 *et seq.*). Navigable waters of the United States generally include all waters subject to the ebb and flow of the tide; and/or all waters presently used, or have been used in the past, or may be susceptible for future use to transport interstate or foreign commerce.

The enclosed delineation map entitled, "Approved Jurisdictional Determination, SPN File Number 2011-00165, Terraces of Lafayette, Proposed Project Site, located southwest of the intersection of Deerhill and Pleasant Hill Roads, Lafayette, Contra Costa County, California (APN 232-150-0270)," in one sheet, date certified February 29, 2012, accurately depicts the extent and location of other waters of the United States subject to U.S. Army Corps of Engineers' regulatory authority under Section 404 of the Clean Water Act. This approved jurisdictional determination is based on the current conditions of the site, as verified during a field investigation of June 22, 2011, and a review of other data included in your submittal. This approved jurisdictional determination will expire in five (5) years from the date of this letter, unless new information or a change in field conditions warrants a revision to the delineation map prior to the expiration date. The basis for this approved jurisdictional determination is explained in the enclosed *Approved Jurisdictional Determination Form*. This approved jurisdictional determination is presumed to be consistent with the official interagency guidance of June 5, 2007, interpreting the Supreme Court decision, *Rapanos v. United States*, 126 S. Ct. 2208 (2006).

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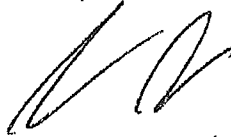
You are advised that the approved jurisdictional determination may be appealed through the U.S. Army Corps of Engineers' *Administrative Appeal Process*, as described in 33 C.F.R. Part 331 (65 Fed. Reg. 16,486; Mar. 28, 2000), and outlined in the enclosed flowchart and *Notification of Administrative Appeal Options, Process, and Request for Appeal (NAO-RFA) Form*. If you do not intend to accept the approved jurisdictional determination, you may elect to provide new information to this office for reconsideration of this decision. If you do not provide new information to this office, you may elect to submit a completed NAO-RFA Form to the Division Engineer to initiate the appeal process; the completed NAO-RFA Form must be submitted directly to the Appeal Review Officer at the address specified on the NAO-RFA Form. You will relinquish all rights to a review or an appeal, unless this office or the Division Engineer receives new information or a completed NAO-RFA Form within 60 days of the date on the NAO-RFA Form. If you intend to accept the approved jurisdictional determination, you do not need to take any further action associated with the Administrative Appeal Process.

You may refer any questions on this matter to Katerina Galacatos of my Regulatory staff by telephone at 415-503-6778 or by e-mail at Katerina.Galacatos@usace.army.mil. All correspondence should be addressed to the Regulatory Division, South Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner, while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: <http://www.spn.usace.army.mil/regulatory/>.

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Sincerely,



Jane M. Hicks
Chief, Regulatory Division

Enclosures

Copy Furnished (w/ encls):

O'Brien Land Company, LLC, Rocklin, CA (Attn. David Baker)

Copy Furnished (w/ encl 1 only):

CA RWQCB, Oakland, CA

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 29, 2012
 B. DISTRICT OFFICE: San Francisco District
 FILE NUMBER: 2011-00165
 File Name: Terraces of Lafayette, project site
 Waterbody Name: unnamed tributary

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: California County/Parish/Township: Contra Costa Co. City: Lafayette
 Pica, Las (if flowing in regular seasonal format): Lat. 37.2599 N Long: -122.068 W
 Pica, Las (if flowing in irregular seasonal format): Lat. Pick Long: Pick
 Pica, Las (if flowing in irregular seasonal format): Lat. Pick Long: Pick
 Unit used: Transverse Mercator; UTM Zone 10
 Name of nearest waterbody: Redox Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Suisun Bay

Name of watershed or hydrologic unit code (HUC): 18050001

Check if modification of review area and/or potential jurisdictional areas before available upon request

Check if other sites (e.g., off-site mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office Desk Determination, Date: June 22, 2011
 Field Determination, Date(s):

SECTION II: SUMMARY OF FINDINGS

A. REA SECTION 10 DETERMINATION OF JURISDICTION.

There are no navigable waters of the U.S. within 800 feet and Harbor Act (SHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Explain]

Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 405 DETERMINATION OF JURISDICTION

There are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Explain]

1. Waters of the U.S.:

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify the approximate size of waters of the U.S. in the review area

Non-wetland waters: 504 linear feet. width (ft) and/or 0.001 acres. (other comments: the site contains an intermittent stream (216 feet) and a shorter ephemeral stream (58 feet).)

Wetlands: acres (other comments:)

c. Limits (boundaries) of jurisdiction based on Pick List

Elevation of established OHWM (if known): 1.5'

2. Non-regulated waters/wetlands (check if applicable):²

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assess jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1, only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1; otherwise, see Section III.B. below.

1. TNW

Identify TNW:

Summarize information supporting determination that waterbody is a TNW:

Wetland adjacent to TNW

Summarize information supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Regener* have been met.

The agencies will assess jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, ship to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, ship to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA Regions will include in the record any available information that documents the existence of a significant nexus between a wetland and a permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of fact.

If the waterbody is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any outside wetlands, and Section III.B.3 for all wetlands adjacent to the tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C. below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(f) General Area Conditions:

Watershed size: 200 square miles
 Drainage area: 35 acres
 Average annual rainfall: 24 inches
 Average annual snowfall: inches

(g) Physical Characteristics:

a. Relationship with TNW:

- Tributary flows directly into TNW
- Tributary flows through 3 tributaries before entering TNW

Project values are 5-10 river miles from TNW.

Project values are 1 (or less) river miles from RPW.

Project values are 5-10 aerial (straight) miles from TNW.

Project values are 1 (or less) aerial (straight) miles from RPW.

Project values cross or serve as a state boundary. Explain:

Identify flow route to TNW: Water flows from unnamed stream into Redox Creek that flows into Los Trampous Creek that is a tributary to Walnut Creek. The lower reach of Walnut Creek, as it enters Suisun Bay, is a traditional navigable water, as is Suisun Bay.

Tributary stream order, if known:

b. Stream/Tributary Characteristics (check all that apply):

Tributary is:

¹ Note that the Interagency Guidebook contains additional information regarding water, ditches, canals, and erosion features generally and in the mid-

² For more on this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

- Natural (common if needed)
- Artificial (non-natural): *Explain:*
- Manipulated (man-made): *Explain:* Portions of the stream have been culverted.

Tributary properties with respect to top of bank (stream):

- Average width: 4.5 feet (measured from top of bank to top of bank)
- Average depth: 5 feet (measured from OHWM to top of bank)
- Average side slopes: 2:1 (vertical : horizontal)

Primary tributary substrate composition (check all that apply):

- Silt
- Sand
- Clay
- Cobble
- Gravel
- Muck
- Bedrock
- Concrete
- Vegetation (Type / % cover)
- Other (Explain):

Tributary condition/stability (e.g., highly eroding, sloughing banks): *Explain:*

- Presence of meanders: Meandering.
- Tributary geometry: Meandering.
- Tributary gradient (approximate average slope): %

c. FLOW INDICATORS

Tributary provides for: Seasonal flow

- Estimate average number of flow events in review area/year: 20 (or greater)
- Describe flow regime: The unnamed stream will have water flow during the rainy season.
- Other information on duration and volume:

Surface flow is: discrete and confined. Characteristics:

- Dye (or other) test performed.
- Tributary: less (check all that apply):

- Bed and banks
- OHWM* (check all indicators that apply):
 - clear, natural line impressed on the bank
 - changes in the character of soil
 - destruction of terrestrial vegetation
 - vegetation matted down, bent, or absent
 - leaf litter detached or washed away
 - multiple observed or predicted flow events
 - water staining
 - abrupt change in plant community. *Explain:*
 - other (list):

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- High Tide Line indicated by: OR Mean High Water Mark indicated by:
 - survey to available datum
 - physical markings
 - physical markings
 - vegetation lines/changes in vegetation types
 - tide gauges

*A stream or waterbody designated in the OHWM does not necessarily confer jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or artificial practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a road, outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

4/8/2007 10:29

other (list):

(B) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, only film; water quality; general watershed characteristics, etc.). *Explain:*
Identify specific pollutants, if known:

(C) Biological Characteristics. Channel supports (check all that apply):

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. *Explain findings:*
 - Fish/piscivore areas. *Explain findings:*
 - Other environmentally-sensitive species. *Explain findings:*
 - Aquatic wildlife diversity. *Explain findings:*

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(a) Physical Characteristics:

(1) General Wetland Characteristics:

- Properties
 - Wetland size: acres
 - Wetland type: *Explain:*
 - Wetland quality: *Explain:*
- Project wetlands cross or serve as state boundaries. *Explain:*

(2) General Flow Relationship with Non-TNW:

- Flows: Pick List *Explain:*
- Surface flows: Pick List
- Characteristics:

Solvent flow: Pick List *Explain findings:*

- Dye (or other) test performed:
- Directly abutting
- Not directly abutting

(3) Wetland Adjacency Determination with Non-TNW:

- Discrete wetland hydrologic connection. *Explain:*
- Ecological connection. *Explain:*
- Separated by berm / barrier. *Explain:*

(4) Proximity (Relationship) to TNW:

- Project wetlands are Pick List: river miles from TNW.
- Project wetlands are Pick List: aerial (straight) miles from TNW.
- Flows from: Pick List
- Estimate approximate location of wetland as within the: Pick List: floodplain.

(5) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics, etc.). *Explain:*

Identify specific pollutants, if known: *Explain:*

(B) Biological Characteristics. Wetland supports (check all that apply):

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. *Explain:*
- Habitat for:
 - Federally Listed species. *Explain findings:*
 - Fish/piscivore areas. *Explain findings:*
 - Other environmentally-sensitive species. *Explain findings:*
 - Aquatic wildlife diversity. *Explain findings:*

3. Characteristics of all wetlands adjacent to the tributary (if any)

- (i) All wetland(s) being considered in the cumulative analysis. Pick List
- (ii) Approximately () acres in total are being considered in the cumulative analysis.
- (iii) For each wetland associated with the reach or waterbody being analyzed in this form, specify the following:

Number/Name*	Directly adjacent (Yes/No)	Size	Number/Name*	Directly adjacent (Yes/No)	Size
	Pick	acres		Pick	acres
	Pick	acres		Pick	acres
	Pick	acres		Pick	acres
	Pick	acres		Pick	acres
	Pick	acres		Pick	acres

- (iv) Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW as identified in the *Regulatory Guidance* and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below.

1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D

* In the Number/Name column, add the number and/or name that you have given the wetland being referred to in the table. Example: you are referring to a wetland on your wetland delineation map number 6, that you call wetland No. 2, on a reach you refer to as Fish Creek. For this wetland you would add to the Number/Name column, something like the following: (No. 2, Fish Cr., Map #6).

Exposed streams, such as the small stream on the project site provide the necessary water source for maintaining adequate water levels of downstream wetland riparian areas. Exposed streams also have the ability to carry pollutants and flood waters that may influence water quality of traditional navigable waters. In addition, adjacent wetlands may enjoy riparian as a dominant component of the food base in riparian systems that will provide the food source for aquatic organisms (i.e. macroinvertebrates, near-shore fishes, and birds) for the downstream in the traditional navigable water. The downstream traditional navigable waters of Walnut Creek and the San Francisco Bay support the Federally listed, endangered fish species chinook, Coho salmon, steelhead and green sturgeon. A riparian study has been completed on the project site to determine the magnitude at which the above mentioned functions and values are being performed.

2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D.

3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

- 1. TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area.
 - TNWs: linear feet width (ft), and/or acres.
 - Wetlands adjacent to TNWs: acres.
- 2. RPWs that flow directly or indirectly into TNWs.
 - Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial.
 - Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally.
 - Provide estimates for jurisdictional waters in the review area (check all that apply)
 - Tributary waters: approximately 400 linear feet x 5 width (ft).
 - Other non-wetland waters: acres.
 - Identify type(s) of waters:

3. Non-RPWs that flow directly or indirectly into TNWs.

- Waters that are not a TNW or an RPW, but flow directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft)
- Other non-wetland waters: acres.
- Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands directly abutting an RPW and thus are jurisdictional as adjacent wetlands.
 - Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW.
 - Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW.

Provide acreage estimates for jurisdictional wetlands in the review area: _____ acres.

* See Form map # 3, wetland # 6.

- Non-wetland waters (i.e., rivers, streams): _____ linear feet _____ width (ft).
- Lakes/ponds: _____ acres.
- Other non-wetland waters: _____ acres. List type of aquatic resource.
- Wetlands: _____ acres.

SECTION IV: DATA SOURCES

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or print submitted by or on behalf of the applicant/consultant/Revised map of March 11, 2011.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
- Office concerns with data sheets/delineation report.
- Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps/See February 29, 2012 memorandum for record.
- Corps navigable waters' study.
- U.S. Geological Survey Hydrologic Atlas.
- USGS NHD data.
- USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey maps. Cite scale & grid name.
- USDA Natural Resources Conservation Service Soil Survey. Citation.
- National wetlands inventory maps. Cite name.
- State/Local wetland inventory map(s).
- FEMA/FIRM maps.
- 100-year Floodplain Elevation is: Aerial (Name & Date); Other (Name & Date); National Geodetic Vertical Datum of 1929)
- Photographs.
- Previous determinations. File no. and date of response letter.
- Applicable/supporting case law.
- Applicable/supporting scientific literature.
- Other information (please specify): _____

B. ADDITIONAL COMMENTS TO SUPPORT JD:

-

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- 5. Wetlands adjacent to but not directly abutting an R/W that flow directly or indirectly into TNVs.
 - Wetlands that do not directly abut an R/W, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area. _____ acres.

- 6. Wetlands adjacent to non-R/Ws that flow directly or indirectly into TNVs.
 - Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area. _____ acres.

- 7. Impoundments of jurisdictional waters.¹⁰

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

 - Demonstrate that impoundment was created from "waters of the U.S.," or
 - Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 - Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED INTERSTATE OR INTRA-STATE WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹¹

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- interstate isolated waters. Explain:
- Other factors. Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply)

- Tributary waters: _____ linear feet _____ width (ft)
- Other non-wetland waters: _____ acres.
- Wetlands: _____ acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Definition Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the January 2001 Supreme Court decision in "SWANZEE," the review area would have been regulated based solely on the "Navigable Wet Rule" (NWR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
- Other (explain, if not covered above): _____

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

¹⁰To complete the analysis under the Section III.D.6 of the International Guidebook on Jurisdictional Wetlands, Corps Districts will submit the wetlands to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Jurisdiction Following Supreme Court Decision in *SWANZEE*.

W-030207 NPS

NOTICE OF APPEAL RIGHTS, INITIAL OFFERINGS, AND PROFFERED PERMITS AND
REQUEST FOR APPEAL

Applicant: Mr. Jeff Oiberding	File Number: 2011-00165S, project site	Date: February 29, 2012
Attached is:		See Section below
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/>	FINAL PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/>	PERMIT DENIAL	C
<input checked="" type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D
<input type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION II: The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/ccwof/eg/> or Corps Regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the DISTRICT Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the initial proffered permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this Notice and return the Notice to the DISTRICT Engineer. Your objections must be received by the DISTRICT Engineer within 60 days of the date of this Notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your Notice, the DISTRICT Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the DISTRICT Engineer will send you a final proffered permit for your reconsideration, as indicated in Section B below.

B: FINAL PROFFERED PERMIT: You may accept or decline/appeal the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the DISTRICT Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the final proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this Notice and sending the form to the DIVISION (not District) Engineer (address on reverse). This Notice must be received by the DIVISION (not District) Engineer within 60 days of the date of this Notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this Notice and sending the Notice to the DIVISION (not District) Engineer (address on reverse). This Notice must be received by the DIVISION (not District) Engineer within 60 days of the date of this Notice.

D: APPROVED JURISDICTIONAL DETERMINATION (JD): You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this Notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this Notice and sending the Notice to the DIVISION (not District) Engineer (address on reverse). This Notice must be received by the DIVISION Engineer within 60 days of the date of this Notice. JD appeals based on NEW information must be submitted to the DISTRICT Engineer within 60 days of the date of this Notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION (JD): You do not need to respond to the Corps regarding the preliminary JD. The preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps District for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

**ORG1-194
cont.**

**SECTION II. REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT,
FINAL PROFFERED PERMIT, PERMIT DENIAL, or JURISDICTIONAL DETERMINATION**

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this Notice to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record; the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the Review Officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION

If you have questions regarding this decision and/or the appeal process you may contact:

Jane Hicks, Regulatory Division Chief
U.S. Army Corps of Engineers
San Francisco District
1455 Market Street, San Francisco, CA 94103-1399

Tel.: (415) 503-6771 Fax: (415) 503-6690

If you only have questions regarding the appeal process you may also contact:

Tom Cavanaugh, Administrative Appeal Review Officer
U.S. Army Corps of Engineers
South Pacific Division, CESPD-PDS-O, 2042B
1455 Market Street, San Francisco, CA 94103-139

Phone: (415) 503-6574 Mobile: (415) 254-7757
Fax: (415) 503-6646
Email: thomas.j.cavanaugh@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

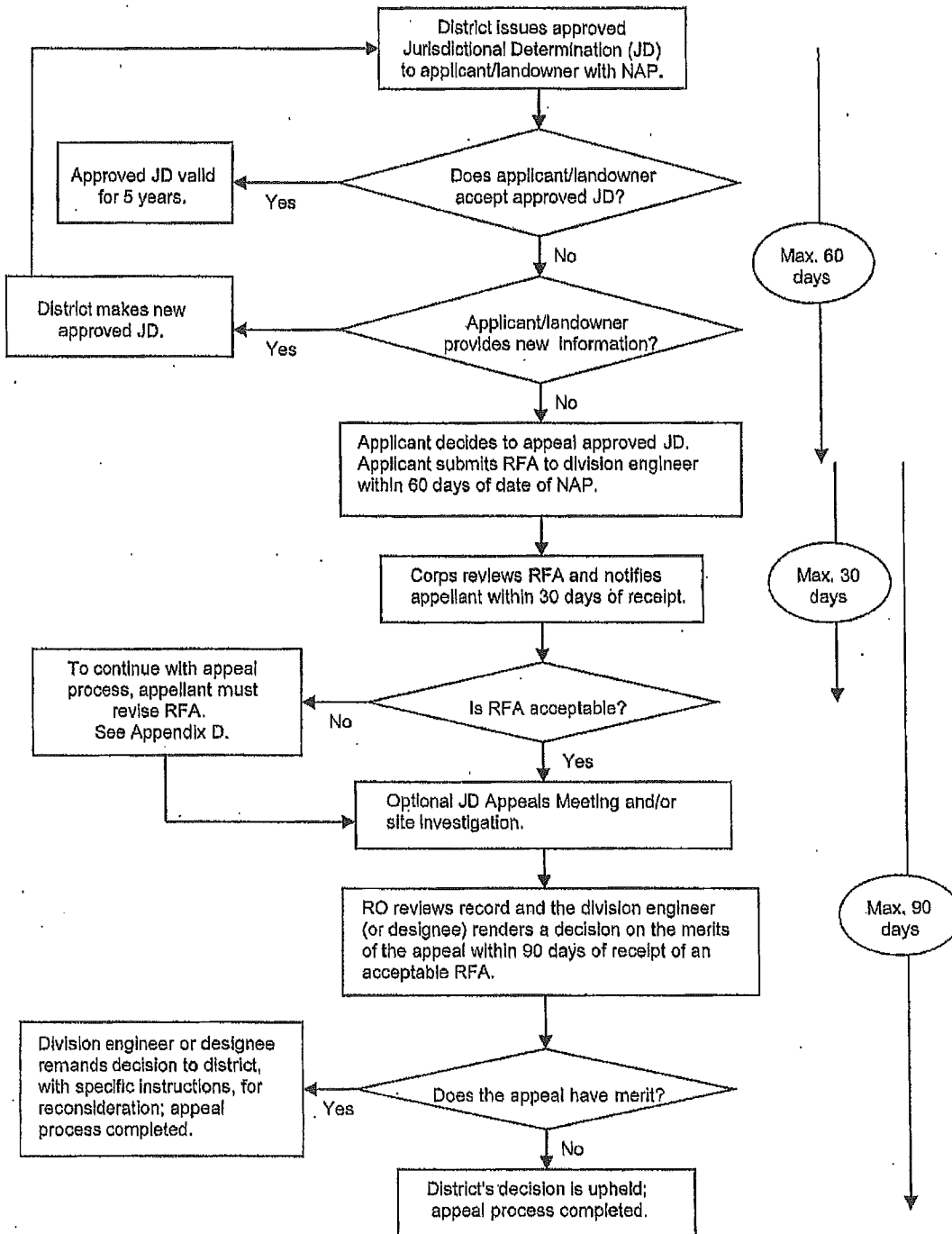
Signature of Appellant or Agent

Date: _____

Telephone Number: _____

**ORG1-194
cont.**






Administrative Appeal Process for Approved Jurisdictional Determinations



ORG1-194
cont.

Figure 5
Deer Hill Road
Survey Area
 Contra Costa County
 California

Olberding Environmental, Inc.
 3170 Crow Canyon Place, Suite 260
 San Ramon, California 94583
 Phone: (925) 866-2111

-  Survey Boundary
-  Jurisdictional Wetland (0.005 acres)
-  Jurisdictional Water (0.081 acres)
-  D (Data Point)
-  T (Transect)

1 inch = 100 feet



Image Source: Contra Costa County
 Image Date: 2009
 Field Delimitation conducted on March 11, 2011
 by Mr. Christopher Bromby



ORG1-194
 cont.

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Dave@bblandlaw.com
Eric@bblandlaw.com

June 28, 2012

**Commentary Regarding the Transportation and Traffic
Section of the Draft EIR for the Terraces of Lafayette Project**

1. Introductory Observations

TJKM Transportation Consultants is the traffic engineering firm to which the City of Lafayette has turned for preparation of the Transportation and Traffic section of the Draft EIR pertaining to the project known as "The Terraces of Lafayette". (Project) The study completed by TJKM for inclusion in that Draft EIR identified no fewer than six significant Project-related impacts which it deemed unavoidable no matter what mitigation might be proposed. It also found 17 Project impacts it characterized as significant which, after mitigation, might be reduced to less than significant levels.

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The Project retained its own traffic consultants for preparation of its own traffic studies. In fact, a detailed Traffic Impact Study prepared by Abrams Associates was furnished to the City at its request as a part of the Project completeness determination and made available to TJKM for its consideration—all so that its traffic-related tasks might be performed in more timely and cost efficient fashion. Obviously, TJKM never bothered to review the data or conclusions of the Project traffic study.

ORG1-196

The Abrams Associates Traffic Impact Study concluded that the addition of Project traffic to the surrounding area would not have a significant impact on existing traffic levels and intersections AND that proposed road improvements as a part of the Project would actually significantly improve traffic conditions at primary intersections and along Pleasant Hill Road as a Route of Regional Significance. No significant unavoidable environmental impacts were identified attributable to Project-generated traffic.

Since traffic engineering is supposed to be relatively scientific, based upon known standards applied to data compiled in organized fashion, the reconciliation of such disparate and contrasting conclusions by qualified traffic engineering firms poses a significant challenge.

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It is beyond question that the most basic purpose of California's Environmental Quality Act (CEQA) is to inform government decision makers and the public about the potential significant environmental effects of proposed projects. The California courts have repeatedly stated that informed decision-making and public participation are fundamental purposes of the CEQA process. The preparation of an EIR is designed to furnish to both decision makers and the public the basic information necessary to objectively evaluate project environmental impacts and to make informed decisions as to those impacts in deciding whether or not to grant discretionary approvals. Inherently, the consultants who prepare an EIR must evaluate a proposed project in objective terms, free of bias and/or political input, in accordance with the dictates and principles of their respective disciplines. Unfortunately, the work product of TJKM has so departed from these principles which underlie the preparation of an EIR that the entire Transportation and Traffic section of the DEIR must effectively either be substantially reworked and/or essentially superseded by the process which will hopefully yield a complete—and accurate—final document. (FEIR).

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cont.

2. TJKM Improperly Redesigned the Project and Eliminated Road Improvements which Render the Project Without Any Significant Environmental Impacts Related to Traffic Generation

It is noteworthy that both TJKM and the Project engineers have concluded that the area with the greatest potential for impacts from Project traffic is along Pleasant Hill Road and specifically the Pleasant Hill Road and Deer Hill Road/Stanley Blvd intersection. The Project traffic engineers proposed two road improvements along existing Pleasant Hill Road to address traffic circulation: (i) construction of a northbound turn lane on Pleasant Hill Road, enabling vehicles to turn left into the main project entrance; and (ii) a new southbound through-lane on Pleasant Hill Road at Project frontage from north of Deer Hill to the Hwy 24 freeway on ramp. It was the conclusion of the Project traffic engineer that the proposed northbound turn lane virtually eliminated the addition of Project vehicles turning left at Deer Hill Road during the PM peak hour. Similarly, the proposed southbound through lane on Pleasant Hill Road was deemed to significantly increase the capacity of that arterial during the AM peak hour.

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TJKM did not evaluate the two road improvements as elements of the Project. Instead, TJKM deemed the proposed road improvements "mitigation measures". TJKM then identified a series of "secondary impacts" related to said road improvements and effectively eliminated them based upon those purported secondary impacts. Having eliminated a substantive part of the Project design and measures by which existing traffic conditions might be improved, TJKM then concluded that a variety of Project-related traffic impacts were both significant and unavoidable. In the first instance, TJKM is without any authority to simply redesign the Project it purported to evaluate for environmental purposes; secondly, it is neither fair nor objective to make findings in which significant unavoidable traffic impacts are identified after such impacts have been created by virtue of that very unauthorized Project redesign.

An EIR is supposed to be all about the evaluation of physical effects on the environment traceable to a particular project. Regardless of the development of this Project, increases in traffic related to build-out within and without the City of Lafayette will degrade levels of service along Pleasant Hill Road, and the Deer Hill Road and Stanley Blvd intersection. In other words, traffic congestion within the area without the Project and without road improvements is already an

ORG1-199

existing condition with environmental impacts. No one proposes to mitigate those existing impacts for public policy reasons set forth in the "Gateway Constraint Policy" of the Lamorinda Action Plan. The point of the Project Traffic Engineer's analysis is that this progression of increasing traffic congestion will actually be arrested by virtue of the Project and its proposed road improvements. In short, it is the Project and its design for road improvements that is the solution to current and future environmental impacts associated with existing traffic as well as that generated by future development.

**ORG1-199
cont.**

A brief analysis of the manner in which TJKM has created "secondary impacts" which it has then used to eliminate the Project design element consisting of a southbound through lane from Deer Hill Road to the freeway is illustrative of the circular reasoning used to identify Project traffic impacts which are then alleged to be both significant and unavoidable.

The first "secondary impact" which allegedly disqualifies the Project southbound lane is the speed reduction of vehicular traffic caused by an unacceptable weaving condition causing significant traffic hazards. This particular secondary impact is analogous to the "significant and unavoidable" impacts identified as TRAF-3 and TRAF-14 - and is just as specious. The CORSIM weaving analysis cannot accurately assess differentiation in vehicle speeds and the use of percentages in speed reduction exaggerates potential hazards. (For example, the contention that a reduction in speed from 2.7 mph to 2.4 mph can cause a hazardous traffic condition - when such a speed difference is neither capable of measurement nor perceptible - is ludicrous on its face.)

ORG1-200

The second "secondary impact" allegedly requiring the elimination of the southbound lane as a Project design feature is the weaving conflict between bicycles and vehicles as the former seek to cross the freeway on ramp. This, of course, is an existing condition regardless of the addition of the southbound lane since bicycle riders currently have to "weave" to avoid turning onto that same on ramp.

ORG1-201

The third "secondary impact" compelling the elimination of the southbound lane as a part of the Project is the fact that it would allegedly constitute a widening of a two lane portion of Pleasant Hill Road, thus easing traffic flow and congestion in violation of the Gateway Constraint Policy. Effectively, however, the southbound lane is an extension of the on ramp and does not eliminate traffic signal metering as the primary traffic constraints used by that Policy to artificially increase traffic congestion.

ORG1-202

The fourth and final "secondary impact" compelling elimination of the southbound lane is the loss of passenger loading and unloading along Project frontage, thus allegedly causing "hazardous passenger loading activity at unsuitable locations". This impact is separately identified by TJKM as significant - but capable of mitigation - in the form of TRAF-23. As noted elsewhere in this commentary, irrational or unsafe driver actions cannot be deemed to be Project related.

ORG1-203

It must be the case that the southbound lane Project design element is as effective at improving traffic flow and supporting the determination that there are no significant environmental impacts associated with Project traffic as the Project Traffic Engineer has determined. If the design element was not that effective, surely TJKM would not have fabricated such flimsy

ORG1-204

"secondary impacts" to eliminate it and thereby conclude that development of the Project might cause so many alleged significant and unavoidable impacts.

ORG1-204
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3. TJKM Has Failed to Apply Customary and Usual Traffic Engineering Standards In Its Assessments of Alleged Significant Impacts; TRAF-1 Can Only Be Deemed A Significant and Unavoidable Impact If One Accepts the Flawed Analysis Upon Which Said Designation is Based

ORG1-205

In addition to its unauthorized redesign and redefinition of the Project, TJKM has substantially departed from standard engineering practice in assessing the impact of Project generated traffic and concluding that approval and subsequent construction would give rise to significant unavoidable environmental impacts. Examples of the TJKM departure from standard engineering practice abound.

The City of Lafayette has adopted a "Gateway Constraint Policy" as a part of the Lamorinda Action Plan. That policy is intended to limit the maximum amount of traffic that can use Pleasant Hill Road during peak periods. The Action Plan specifies that on Pleasant Hill Road the "Capacity is determined primarily by the timing of signals at the four major intersections and how much green time is given to Pleasant Hill Road." The Action Plan specifies signal timing as a metering point designed to control traffic and further City and Area goals to discourage use of Pleasant Hill Road as an alternative to the freeway system. The means of discouraging such use selected by public policy happens to be the artificial creation of traffic congestion. (In this sense, it might be argued that the generation of traffic by the Project with or without road improvements is actually consistent with public policy - regardless of environmental impacts. Perhaps a Statement of Overriding Consideration is appropriate as a resolution of the DEIR's consideration of traffic issues.)

The TJKM analysis of the critical Pleasant Hill Road/Deer Hill Road intersection in terms of levels of service is based on existing signal timing. Pursuant to the Action Plan and the Gateway Constraint Policy, the signal timing is not optimized; rather, signal metering is designed to restrict capacity and thereby cause congestion. By the usual and customary standards and procedures of its profession, TJKM was required to study this critical intersection based on the optimum traffic flow which might progress through it—not in the context of artificially created conditions causing congestion. The significant and unavoidable delay factor which TJKM attributes to Project traffic could be entirely mitigated by means of the simple expedient of retiming signals. (This is without regard to the Project road improvements). With Project improvements, existing conditions would be improved regardless of the Gateway Constraint Policy and signal timing, and the cumulative impacts of future traffic would be mitigated to less than significant levels. The TJKM identified Impact TRAF-1 must be eliminated entirely from the DEIR analysis.

ORG1-206

It is ironic that TJKM has failed to reconcile the traffic constraints imposed by the Gateway Constraint Policy with its analysis of Project-related impacts on the efficient flow of traffic through key intersections in light of the fact that it used that same "Policy" as a secondary impact to eliminate the southbound through lane on Pleasant Hill Road proposed as an element of the Project design. In this latter case, the Gateway Constraint Policy seeks to limit improvements to

the efficient flow of traffic on Pleasant Hill Road by maintaining capacity constraints. The TJKM argument is that the proposed Project southbound lane would violate the Constraint Policy by adding improvements designed to make more efficient the flow of traffic. In other words, TJKM would eliminate a Project improvement because such improvement would reduce traffic congestion in violation of City policy. Having eliminated the Project improvement, TJKM has then concluded that Project traffic would add to existing artificially created congestion thereby causing a significant unavoidable impact. In actual fact, the southbound traffic lane is essentially a lengthened on ramp to the freeway along Project frontage which leaves intact the primary generator of traffic congestion—the signal metering system. The southbound lane is not inconsistent with the Gateway Constraint Policy because it does not add a further lane to the two lane section of Pleasant Hill Road nor does it preclude the City's ability to achieve its desired capacity constraints through traffic signal metering. If it wishes, the City might continue to discourage use of Pleasant Hill Road by creating congestion through signal metering in accordance with its "Policy" even if Project approvals are granted and road improvements implemented. Intellectual honesty requires that the Project cannot be "tarred" with the label of having adversely impacted the environment and having created congestion.

ORG1-206
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4. The Remaining Five Impacts Identified As Significant and Unavoidable Are Not Significant and Are Avoidable

TRAF-3 and TRAF 14 are impacts identified by TJKM as "significant and unavoidable". These impacts both relate to a weaving analysis undertaken by TJKM using a CORSIM simulation.

The TRAF-3 impact relates to the purported average speed reduction on northbound Pleasant Hill Road between the freeway westbound off-ramp and Acalanes Avenue during the PM peak hour. The speed reduction was .8 mph; 4.6 mph to 3.8 mph. TJKM concluded that this speed reduction was more than 10% and therefore hazards related to the weaving movement would "substantially increase hazards, resulting in a significant impact".

Obviously, a minor real time reduction in speed relative to vehicles already moving at very slow speeds converts to a substantial percentage reduction. An idling vehicle will travel at a rate of speed of from 3 to 8 mph. Neither a driver nor the speedometer of such driver might differentiate between speeds of 3.8 and 4.6 mph. Empirically, weaving at high speeds presents greater hazards to involved vehicles even though such high speeds might actually involve lesser percentages of speed differentiation between vehicles. There is no objective percentage standard that one might apply to determine when "weaving" might give rise to hazardous conditions.

ORG1-207

CORSIM is a very limited tool in terms of traffic analysis. (In fact, the Project applicant objected to the significant increase in EIR cost attributable to its use and related study.) According to the CORSIM training manual: "When the simulated speeds are within 20% of the estimated detector station speeds, the speeds are considered acceptable." Output speeds are considered "calibrated" if the output volumes are within 10% of existing volumes but output speeds are considered "calibrated" if they are merely within 20% of the existing speeds. Additionally, the Caltrans Highway Design Manual identifies only the "Leisch" and LOS D methods as appropriate

for weaving capacity determinations. The manual notes that other methods "may not always produce accurate results".

The TRAF-14 Impact is markedly similar to the TRAF-3 described above. It addresses Cumulative Year 2030 plus Project conditions to conclude that the same weaving analysis indicates a speed reduction from 2.7 mph to 2.4 mph. Since the percentage reduction in speed amounts to more than 10%, a significant and unavoidable impact is said to have occurred. Certainly, the above comments also apply to this purported "significant and unavoidable impact". More to the point, TJKM cannot have applied customary and standard engineering practices and principles of analysis to reach the foregoing conclusion - at least without significant input from political sources.

**ORG1-207
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The TRAF-3 and TRAF-14 Impacts have no place in the DEIR analysis of significant environmental impacts as they are neither significant nor unavoidable.

The TRAF-12 and TRAF-13 Impacts relate to the left turn queue lengths and storage capacities for northbound traffic on Pleasant Hill Road at Deer Hill and at the Project entrance respectively. Those impacts under Cumulative Year 2030 plus Project analysis were found to be both significant and unavoidable. In reaching such conclusions, TJKM ignored the Lamorinda Action Plan Update and its forecast of growth in peak hour volumes on Pleasant Hill and Deer Hill Roads. The TJKM traffic forecasts are also in direct conflict with the volumes allowable under the Gateway Constraint Policy. If more reason to discount the TJKM conclusions regarding these alleged "impacts" is required, it might be further observed that: the TJKM traffic counts are flawed (see comments from the Project Traffic Engineer attached); the forecast traffic volumes have been exaggerated; the analysis continues to be based upon less than optimal traffic signal timing in accordance with the Gateway Constraint Policy; and TJKM has refused to consider an obvious mitigation factor - a two lane turn lane - which it simply discounted and then discarded.

ORG1-208

The TRAF-12 and TRAF-13 Impacts should not have been identified as such as they are neither significant nor unavoidable.

The final "significant and unavoidable" traffic impact cited by TJKM is TRAF-15. That "Impact" relates to Cumulative Year 2030 plus Project conditions. The claim is that the addition of Project trips to Pleasant Hill Road would increase the peak hour direction Delay Index by more than .05. Obviously, the TJKM conclusions regarding this "Impact" can only be reached using faulty traffic volume forecasts as well as inaccurate base data and by ignoring both the effect of Project road improvements and the congestion created by application of the Gateway Constraint Policy.

ORG1-209

None of the identified "significant and unavoidable" impacts attributed to Project traffic generation actually adds to existing traffic congestion. As noted in the study completed by the Project Traffic Engineer, the Project, as designed, actually relieves existing traffic congestion and pro-actively addresses the congestion which growth would engender without regard to the actual Project development. TJKM has concluded that the Project creates significant and unavoidable environmental traffic impacts only because it has ignored the existing congestion created by public policy and eliminated all aspects of the Project design which would alleviate that same congestion.

ORG1-210

The conclusions of the traffic engineers, as experts, cannot be reconciled because TJKM has simply ignored standard practices and principles of analysis to achieve a flawed - but politically-favored - set of conclusions.

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5. The Mitigation Measures Recommended By TJKM Are Largely Inappropriate and Are Unnecessary As They Pertain To Alleged Impacts Already Less Than Significant

The remaining traffic impacts addressed in the TJKM Section of the DEIR have been mitigated to less than significant. The remainder of this Commentary will address a number of the recommended so-called mitigation measures. Additionally, a detailed analysis from the Project Traffic Engineer is enclosed as well.

ORG1-211

The following are the purported "mitigation" measures to which the Project applicant takes exception:

TRAF-2 and TRAF 10 both propose as a mitigation measure the installation of a traffic signal at the Brown Avenue/Deer Hill Road intersection. There is no basis for such a requirement. The California Manual of Uniform Traffic Control Devices (MUTCD)2012 Edition requires that the degree of conflict between minor-street right-turn traffic with traffic on the major street should be considered in the determination of traffic counts used to justify installation of a traffic signal. In this case, there is minimal conflict such that the traffic counts used by TJKM to justify installation of a signal do not translate to the reality of a congested, poor level of service intersection. While it is understandable that the City might wish a signal paid by others to be added to its Capital Improvement Projects program (as noted in the DEIR), there is insufficient nexus to warrant this "mitigation measure" as a Project condition to approval.

ORG1-212

TRAF-5 proposes either a widening of Deer Hill Road to accommodate a left turn lane or the prohibition of left turns from that road into the Project. The justification is the "potential" safety hazard of left turns. The EIR turning movement volumes do not support the need for a left turn lane based upon capacity; the Project satisfies sight distance requirements. "Potential" safety concerns offer no justification for the proposed mitigation measure.

ORG1-213

TRAF-6 proposes that the Project install advance detection equipment for the existing Opticom system for emergency vehicles. This measure is only justified by reference to the inaccurate peak hour traffic volume calculations made by TJKM without regard to (among other things) the Gateway Constraint Policy. This mitigation measure is not needed.

ORG1-214

TRAF-11 proposes that Project traffic exiting the west project driveway on Deer Hill Road be protected from perceived potential traffic hazards by means of a road widening to create a median refuge lane. This "mitigation measure" makes no sense in light of the acknowledgement within the same section of the DEIR that the intersection is projected to operate at acceptable levels even under cumulative conditions in 2030.

ORG1-215

TRAF-16 proposes as a mitigation measure to address Project impacts on BART parking the requirement that the Project provide a frequent interval, subsidized shuttle service for an

ORG1-216

indefinite period of time. Such a mitigation measure appears to be a disguised effort to adversely impact the economic viability of the Project; it clearly has no application to mitigation of a significant impact since the Project actually has no impact whatsoever upon BART parking. Quite simply, there is already inadequate BART parking having nothing to do with the Project. By definition, something already inadequate cannot be deemed to be rendered even more inadequate. It must also be noted that the Downtown Specific Plan EIR concluded that a projected larger increase in BART ridership than that attributable to this Project was deemed to have no significant impact on BART parking. The Project is close to BART - or so it would seem based upon the DEIR concerns over pedestrians and bicycles addressed in TRAF-18 through 22 - such that this "significant" impact should have been further discounted and discarded.

ORG1-216
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TRAF-17 proposes that the Project construct a loading and unloading area for school bus service to reduce traffic congestion at the Pleasant Hill Road/Deer Hill Road intersection. The DEIR, however, concludes that only approximately 13 additional riders would be generated by the Project. A similar impact on ridership with respect to the Downtown Lafayette Specific Plan EIR and local schools was found to be less than significant. There is no justification for requiring this type of "mitigation measure" for the instant Project when no similar requirement may be found in the EIR for the City's own project.

ORG1-217

TRAF-20 proposes an alternative configuration for widening southbound Pleasant Hill Road which would not add the Project road improvement of a southbound through lane to the freeway on ramp. This "mitigation measure" has been proposed to avoid unacceptable weaving conflicts between bicycles and vehicle traffic. The identified impact addresses a problem that already exists irrespective of the Project. There is no significant weaving impact. However, and more to the point, the "impact" has nothing to do with the Project as it is an existing condition.

ORG1-218

TRAF-23 proposes the designation of major portions of the Project frontage on Pleasant Hill Road for passenger loading zone purposes. The "impact" to be mitigated appears to be the loss of existing curb parking and passenger loading due to the Project plans for widening Pleasant Hill Road between Deer Hill and the freeway on ramp. This impact is deemed "significant" by TJKM because the elimination of parking "would result in additional hazardous passenger loading activity at unsuitable locations". The Project can hardly be responsible for driver decisions to engage in passenger loading and unloading at "unsuitable" locations. TJKM has frankly engaged in rank speculation in its stated supposition regarding driver activity and irresponsibility. Moreover, Acalanes High School has onsite passenger loading and unloading which is far more safe than any drop-off along Project frontage. With Project traffic improvements and the elimination of traffic congestion caused by the Gateway Constraint Policy, the more efficient flow of traffic would encourage use of the very safe on-site facilities in avoidance of the need to cross a busy Pleasant Hill Road in front of the Project to reach the school. If anything, this "impact" would have the effect of discouraging a relatively hazardous current loading zone in favor of other (and more safe) alternatives.

ORG1-219

6. Conclusion

TJKM cannot sustain its conclusions that Project-generated traffic causes significant and unavoidable environmental impacts. There is not even any justification for those impacts it has

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designated as significant - but capable of mitigation to less than significant levels. The Project Traffic Engineer studied and analyzed eight separate intersections and several roadways as a part of a Traffic Impact Study. TJKM essentially directed all of its commentary and analysis to Pleasant Hill Road and to the Pleasant Hill Road/Deer Hill Road/Stanley Road intersection. TJKM demanded additional funding due to its increased scope of study and the need to use CORSIM as an instrument of analysis. The study conclusions of TJKM using CORSIM demonstrate a complete misunderstanding of the limitations of its use as an analytical instrument. It is now obvious - as argued by the Project applicant - that there was no justification for the additional costs attributable to the revised scope of Project study demanded by both the City and TJKM related to the use of traffic simulation.

The entire Traffic and Transportation Section of the DEIR is flawed due to a cavalier disregard by TJKM for accepted standards and practices applicable to this type of study. The FEIR must incorporate all of the Project Traffic Engineer comments as set forth herein and by separate letter to correct the multiple inaccuracies of the TJKM study contained in the DEIR. Only then might the EIR be deemed a document sufficient to objectively advise the public and decision-makers of the dearth of environmental impacts related to Project-generated traffic.

**ORG1-220
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