CAA PLANNING

To: Erin Morris, City of Napa Community Development Department

From: Shawna L. Schaffner

Date: June 15, 2018

Subject: Trinitas Mixed Use Project – Response to Late Comment Letter

The firm of Adams, Broadwell, Joseph & Cardozo (ABJC) submitted a letter dated May 31, 2018 to the City of Napa Planning Commission containing comments on the Trinitas Mixed-Use Project Final Environmental Impact Report. The letter included an attachment (Exhibit A) from Scott Cashen, Biologist.

CAA Planning, Inc. has prepared responses to each comment in the attached document. The format for the responses is similar to the Trinitas Responses to Comments document and the May 17, 2018 letter from ABJC where each response is aligned with the comment and bracketed numerically to correspond to the numbered comment.

The reports referenced in the responses are also included herein as follows:

- Attachment A – Wetland Delineation dated June 5, 2018
- Attachment B – Swainson's Hawk survey Memorandum dated June 7, 2018
- Attachment C – Vernal Pool Fairy Shrimp Survey by Rob Schell dated May 30, 2018
- Attachment D – Rare Plant Surveys – Update Memorandum dated May 15, 2018
- Attachment E – Bargas Report dated September 13, 2017

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Comment Letter ABJC-A
Adams Broadwell Joseph & Cardozo
May 31, 2018

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May 31, 2018

Via Email and Hand Delivery

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Re: Special Meeting Agenda Item No. 7.A: Trinitas Mixed-Use Project – 2610 & 2620 Napa Valley Corporate Drive (File No. P16-0054)

Dear Chair Murray, Honorable Members of the Planning Commission for the City of Napa, Ms. Morris:

On behalf of Napa Residents for Responsible Development ("Napa Residents"), we submit these comments regarding Special Meeting Agenda Item No. 7.A: Trinitas Mixed-Use Project – 2610 & 2620 Napa Valley Corporate Drive, File No. P16-0054, SCH #2017072005 ("Project"). The Project is proposed by Pacific Hospitality Group ("Applicant"). We previously submitted comments on the Draft Environmental Impact Report ("DEIR") for the Project on February 26, 2018 ("DEIR Comments"), and preliminary comments on the Final Environmental Impact Report ("FEIR") to the Planning Commission on May 17, 2018. We incorporate our prior comments by reference.[1]

ABJC-A1

[1] Napa Residents reserves the right to supplement these comments at later hearings and proceedings on this Project. Gov. Code § 65009(b); PRC § 21177(a); *Bakersfield Citizens for Local Control v.*

4140-006j

Response to
Comment Letter ABJC-A
Adams Broadwell Joseph & Cardozo
May 31, 2018

The City is in receipt of a letter from Adams Broadwell Joseph & Cardozo (ABJC) dated May 31, 2018, which was delivered to the City the day of the Planning Commission meeting (May 31, 2018). The comments below correspond to the numbered brackets on the ABJC May 31 letter.

A1 The City has previously responded to similar comments from ABJC (February 26, 2018) in the Responses to Comments document (April 2018) and in a response to the May 17, 2018 letter which included comments on the Final EIR. Under CEQA §15088, a written response to the May 17, 2018 letter was not required because the DEIR comment period had ended. Written responses are required by CEQA to *public agencies* at least ten days prior to certifying an environmental impact report. The City did provide detailed written responses to each comment in the May 17, 2018 letter prior to the Planning Commission meeting on May 31, 2018. Neither letter raised issues or provided substantial evidence that required delaying the Planning Commission hearing.

With regard to the public records request from ABJC, this is a separate issue, and the City transmitted the information separately. As noted above, there is no deadline (or requirement) for providing written responses beyond the CEQA public review period. However, the City has endeavored to provide written responses to each of the comments provided by ABJC and, as confirmed in the ABJC letter, the responses to the May 17, 2018 letter were made available prior to the Planning Commission hearing.

Napa Residents respectfully requests that the Commission continue this hearing to a later date due to the City's failure to provide timely access to numerous documents and studies that the City is relying upon to support its proposed CEQA findings, as well as documents referenced in, but not attached to, the Staff Report.

As discussed below, the City failed to timely provide Napa Residents with several documents that are referenced in the Staff Report and relied upon in the FEIR, including several new biological studies. Napa Residents submitted a Public Records Act ("PRA") request on May 23, 2018 for all new technical studies prepared for the Project. The City failed to provide the requested documents, and failed to include them in the current Staff Report. The public therefore remains uninformed regarding the basis for several of the City's proposed CEQA findings regarding biological resources, in violation of CEQA. The City also failed to provide its responses to our May 17, 2018 comment letter until after close of business on May 29, 2018, leaving inadequate time for Napa Residents and its consultants to fully consider the responses prior to this hearing. This hearing must be continued in order to provide Napa Residents and the public the opportunity to consider the evidence that the City asserts it is relying upon for its CEQA conclusions.

ABJC-A1 *cont'd*

The Staff Report also fails to resolve issues raised in Napa Residents' DEIR comments and May 17, 2018 comments to the Planning Commission regarding the FEIR's failure to adequately analyze the Project's significant cumulative impacts to biological resources, and inadequate mitigation for impacts to wetlands. The City must revise and recirculate the FEIR to adequately address these and other issues identified in Napa Residents' previous comments before the Planning Commission may consider approving the Project.

ABJC-A2

Finally, Napa Residents supports the Staff Report's proposed recommendations to remove floor area ratio ("FAR") averaging ("Alternative 2A"), and to remove hotel uses from the portion of the Project site located in Airport Land Use Commission ("ALUC") Zone C ("Alternative 2B"). However, these alternatives are among three alternative recommendations proposed in the Staff Report. Without a binding requirement to comply with FAR zoning and ALUC Zone C

ABJC-A3

Bakersfield (2004) 124 Cal. App. 4th 1184, 1199-1203; *see Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

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A2 ABJC does not provide specific examples or references in support of the broad claim that the FEIR did not adequately analyze significant cumulative impacts to biological resources and inadequate mitigation for impacts to wetlands. The absence of special-status plants, animals and critical habitat as verified during several site visits and surveys confirms that no significant cumulative impact could occur. The DEIR confirmed the potential occurrence of 0.60 acre of wetlands on site (DEIR page 5.3-48 – 7. Impacts to Potentially Seasonal Freshwater Wetlands). This was supported by subsequent surveys. Wetland mitigation was also discussed in response to the May 17, 2018 ABJC comments in responses ABJC-B18 (page 106) and ABJC-B20 (page 109).

In addition, as summarized on page 5.3-52 of the DEIR:

> The proposed Project will not have substantial adverse effect on any species identified as a candidate, sensitive or special status species, riparian habitat or other sensitive natural community, or federally protected wetlands with implementation of the Mitigation Measures included herein. The Project will not substantially interfere with the movement of any native resident or migratory fish or wildlife species. There will be no conflict with any local policies or ordinances protecting biological resources and the Project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan. All potential biological resources impacts can be reduced to a less than significant level in accordance with Mitigation Measures MM Bio-1 through MM Bio-8 and the Best Management Practices recommended for the protection and preservation of on-site trees.

None of the circumstances detailed in CEQA Guidelines §15088.5 – Recirculation of an EIR Prior to Certification – have been identified by commenter. Additionally, CEQA recognizes that disagreement between experts occurs but does not rise to the level of recirculation absent substantial evidence. Commenter provides no such evidence.

A3 The City Council has the discretion to require additional mitigation or conditions of approval during its approval process. Comment is noted regarding FAR averaging and hotel uses in Zone C. It should be noted that the Project was presented to the ALUC on June 6, 2018 and the ALUC unanimously upheld the Project's consistency with the ALUCP. The staff reported noted on page 2:

> The proposed office, winery and hotel project within the City of Napa's Napa Valley Commons Corporate Park is subject to ALUC review because the project includes a building height over the standard 50 ft. height limit; to allow a portion of the hotel within Compatibility Zone C; and, the proposal includes a rezoning action to apply a Planned Development Overlay designation. ALUC Staff recommend that the project be found consistent with the ALUCP as detailed in the Background section of this report. The project is located within Compatibility Zones C, D and E in an area of common overflight but at a distance of 9,900 ft. to greater than 10,000 ft. from the runways of the Napa County Airport. This is an area of minor noise intrusion and low risk from overflying aircraft. The project results in no hazards to flight and project densities will be below adopted Airport Land Use Compatibility Plan (ALUCP) thresholds.

regulations, the Project will remain in violation of City and County land use policies. Both requirements must be included as binding Conditions of Approval.

We prepared these comments with the assistance of conservation biologist and wildlife ecologist Scott Cashen.[2] Napa Residents reserves the right to submit supplemental comments to the City following our receipt and review of the outstanding studies, reports, and other documents relied upon in the FEIR and Staff Report.

I. THE CITY FAILED TO DISCLOSE CRITICAL STUDIES THAT IT RELIES ON TO SUPPORT THE FEIR'S CONCLUSIONS AND PROPOSED CEQA FINDINGS

The City failed to timely provide Napa Residents with several documents that are referenced in the Staff Report and relied upon in the FEIR, including documents we recently requested via a Public Records Act request to the City. The City's actions violate both the Public Records Act and CEQA's basic requirement that an agency must disclose all evidence relied upon in its CEQA analysis and CEQA findings to the public.

On May 23, 2018, Napa Residents submitted a Public Records Act request to the City seeking *immediate access,* pursuant to Gov. Code § 6253(a), to all public records referring or related to Trinitas Project since January 23, 2018, including but not limited to:

- All public comments received by the City regarding the Project that are not included in the Project's FEIR, including but not limited to all public comments received by the City at or in conjunction with the May 17, 2018 Planning Commission hearing on the Project.
- All surveys and technical reports prepared by or on behalf of the City's EIR consultant related to the Project that are not included in the Project's DEIR or FEIR, including but not limited to the 2018 fairy shrimp study referenced by Ms. Shana Shaffner during the May 17 Planning Commission hearing on the Project.

ABJC-A3 *cont'd*

ABJC-A4

ABJC-A5

[2] Mr. Cashen's technical comments and curriculum vitae are attached hereto as Exhibit A.

A4 Comment is noted that ABJC may submit additional comments to the City prior to the City Council meeting. The information provided in the Final EIR and additional responses is complete.

A5 ABJC states that the City failed to disclose critical studies in response to ABJC's public records request dated May 23, 2018. In response to the Public Records Act document request, the City, as noted in Response A1 above, has transmitted the information separately, as this is a separate issue.

- All documents related to the construction status of the Meritage Commons Project, to be located at 850 and 875 Bordeaux Way, also known as the Meritage Resort Expansion Project (PL15-0071).
- All other documents related to the Project that were not previously provided in response to our January 23, 2018 Public Records Act request.[3]

ABJC-A5 *cont'd*

As of the time of this writing, Napa Residents has not received any documents from the City in response to its May 23, 2018 Public Records Act request, including the five biological resources studies that were conducted after the release of the DEIR that are referenced in Attachment 7 of the Staff Report as part of the City's responses to Napa Residents' May 17, 2018 comments. These studies include:

- Reconnaissance level survey by Bargas Environmental Consulting (referred to as the "Bargas Report" in the FEIR).
- Dry season and wet season surveys for vernal pool fairy shrimp (Response to FEIR comments, p. 105).
- Wetland delineation (Response to FEIR comments, p. 106).
- Rare plants survey (Response to FEIR comments, p. 69).
- Swainson's hawk surveys (Response to FEIR comments, pp. 22 and 83).

Section 6253(a) of the Public Records Act requires public records to be "open to inspection at all times during the office hours of the state or local agency" and provides that "every person has a right to inspect any public record."[4] The City's responses to our May 17, 2018 comments are dated May 23, 2018, and reference these documents. Therefore, the documents were clearly in existence at the time our Public Records Act request was submitted to the City. The City's failure to provide immediate access to these records violates the Public Records Act.

ABJC-A6

The City also failed to timely provide Attachment 7 to the Staff Report to the public. Attachment 7 includes the City's 167-page response to our May 17, 2018 comment letter. The City did not provide Attachment 7 to Napa Residents until after close of business on Tuesday, May 29, 2018, in response to an email from the undersigned which advised the City of its omission from the Staff Report.

ABJC-A7

[3] A copy of our May 23, 2018 Public Records Act request is attached hereto as Exhibit B.
[4] Gov. Code § 6253(a).

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A6 Following is information regarding the five specific documents listed in the comments:

1. The Bargas Report – Information from the report was included in the Responses to Comments document as well as in the responses to the ABJC comment letter dated May 17, 2018. The Bargas Report was a secondary study to confirm whether additional wetlands investigation was warranted and additional surveys were subsequently conducted. The City was provided with the report prior to the Planning Commission meeting.

2. Dry season/wet season surveys for vernal pool fairy shrimp – Surveys were conducted and reported by Rob Schell of WRA Environmental Consultants in accordance with established dry and wet season protocols and timing. The 90-day Survey Report was delivered to the City on May 30, 2018 prior to the Planning Commission meeting.

3. Wetland delineation analysis – A wetland delineation analysis was included in the DEIR, Biological Technical Report (Appendix E to the DEIR). Response to Comment ABJC-B18 noted that Tony Bomkamp of Glenn Lukos Associates, conducted an additional formal wetland delineation survey on May 15, 2018. The results were included in a May 15, 2018 Memorandum confirming a 0.06-acre impact as reported in the DEIR. To the extent additional information is required for permitting, the formal surveys will be provided to the resource agencies.

4. Rare plant surveys – The April 18, 2018 survey memorandum was updated in a May 15, 2018 Memorandum from Glenn Lukos Associates. Both documents were provided prior to the Planning Commission meeting.

5. Swanson's hawk surveys – The Biological Technical Report addressed the Swainson's hawk and was included in the DEIR as Appendix E. The information was also included in the Responses to Comments document and in response to the May 2018 letter from Adams, Broadwell. Similar to the wetland delineation, to the extent additional information is required for any required permitting, the formal surveys will be provided to the resource agencies. Mitigation Measure Bio-5 has been updated in response to the comments from Adams, Broadwell to include a one-half mile radius of the project site for nesting surveys.

Attachment 7 still remains incomplete, as the version provided to Napa Residents failed to attach any of the recent biological studies that the City is relying on to conclude that the Project's impacts to sensitive biological resources, including impacts to the federally threatened vernal pool fairy shrimp and the State-listed threatened and federally designated Bird of Conservation Concern, Swainson's hawk, are less than significant. As a result, Napa Residents and its technical consultants have been unable to fully evaluate the Staff Report, the City's responses to its comments, or the adequacy of the FEIR.

ABJC-A7

The City's failure to disclose these studies to Napa Residents and the public violates CEQA. An agency may not rely on hidden studies or documents that it fails to disclose to the public to support its CEQA analysis and CEQA findings.[5] CEQA requires an EIR to provide the reader with the analytic bridge between its ultimate findings and the facts in the record.[6] The City has failed to comply with this requirement by failing to disclose the FEIR's supporting evidence and analysis to the public. Moreover, if the biological studies and other technical documents relied upon in the FEIR and Staff Report are not in the City's possession, and the Commission has not independently reviewed them, the Commission is similarly unable to exercise its independent judgment in making a recommendation to the City Council, as required by CEQA.[7]

In order to comply with CEQA and afford the public the necessary opportunity to consider the City's CEQA analysis, this hearing must be continued. The FEIR must also be recirculated to include all evidence and underlying analysis that the City is relying upon to support the FEIR's conclusions regarding the severity of the Project's environmental impacts.

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[5] *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 ("Whatever is required to be considered in an EIR must be in that formal report; what any official might have known from other writings or oral presentations cannot supply what is lacking in the report.").
[6] *Topanga Ass'n for a Scenic Comty. v. County of Los Angeles* (1974) 11 Cal. 3d 506, 515; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692, 733.
[7] Pub. Res. Code ("PRC") § 21082.1(c); 14 Cal. Code Regs. ("CCR") §15090(a).

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A7 The commenter was provided with responses to comments from the May 17, 2018 ABJC letter as part of the Planning Commission meeting document package. The official final report for the vernal pool fairy shrimp surveys was not available to the City until the day prior to the Planning Commission meeting. However, the results of the report were included in comments to the May 17, 2018 letter, which were obtained from the biologist in an earlier summary email. The information was based on wet-season surveys for the vernal pool fairy shrimp which were reported in a final Memorandum dated May 30, 2018, from Rob Schell, WRA Environmental Consultants. The surveys were detailed as follows:

Prior to initiation of sampling, hydrologic monitoring of the site was performed immediately following the conclusion of any storm event resulting in 0.25-inch of precipitation in a 24-hour period according to National Weather Service data in for the Napa area. Hydrologic monitoring occurred until inundation of depressional features reached 3 cm of depth 24 hours following a rain event.

Monitoring occurred on the following dates:

- October 21, 2016
- November 6, 2017
- December 6, 2017
- January 10, 2018
- February 21, 2018
- February 27, 2018
- March 6, 2018
- May 9, 2018

Details related to surveys for Swainson's hawk were included in Responses to Comments on the May 17, 2018 ABJC letter (specifically to the letter from Scott Cashen included as attachment B). The detailed information can be found on pages 81 through 103 of the response document which was provided to ABJC prior to the Planning Commission hearing.

There was no new or different information or different results in the report from what was provided in the responses to the May 17 comment letter. Impacts identified in the DEIR have been confirmed in the later reports, which will all be included in the City Council staff report. Therefore, the FEIR remains adequate and recirculation is not required.

II. THE PROJECT MUST BE REVISED AS RECOMMENDED IN THE STAFF REPORT TO COMPLY WITH MANDATORY LAND USE POLICIES

ABJC-A8

The Staff Report includes two alternative recommendations for Commission consideration – Alternative 2A, which would add a Condition of Approval that the Project be revised to reduce the floor area of the Project by approximately 10,000 square feet to eliminate the need for floor area ration ("FAR") averaging, and Alternative 2B, which would require the Project be revised to shift the portion of the hotel currently depicted in ALUC Zone C (approximately 12,400 square feet) out of Zone C.[8] As discussed below, the Commission should require both conditions to be adopted in order to remedy the Project's inconsistencies with City land use policies.

A. Floor Area Ratio.

The maximum permitted FAR in the IP-A and B Zoning Districts, where the Project is to be located is 0.40.[9] The May 17, 2018 Staff Report previously explained that this FAR is consistent with these zones' permitted industrial, research, and development uses, where a typical structure is generally a single story industrial building with surface parking.[10] The FAR for the Trinitas Project is 0.42, which exceeds the 0.40 maximum by over 8,000 sq. ft. of building area.[11]

The FEIR and May 17 Staff Report initially proposed to allow the Applicant to "average" the FAR for the Project site with the FAR allowed for its other two adjoining projects – Meritage Commons and the Meritage Resort – in order to render the Project's excess FAR consistent with City zoning requirements. The FEIR and Staff Report initially relied on Municipal Code Section 17.52.120, which allows averaging of the FAR where a project site encompasses several buildings on several lots. However, Section 17.52.120 only allows averaging of FAR for lots that

[8] Staff Report, p. 8.
[9] See May 17, 2018 Staff Report, p. 11; see City of Napa Muni. Code sec. 17.52.120, Density and floor area ratio calculations.
[10] *Id.*
[11] *Id.*

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A8 The comment states that the Planning Commission should require a reduction of the floor area of the Project to eliminate the need for floor area averaging and a Project re-design which would move a portion of the hotel out of ALUC Zone C.

The Project DEIR and the Responses to Comments document discussed in great detail the concept of floor area averaging and how the use of this permitting provision of the City's Municipal Code can be applied to the Project. The Project, as detailed in the DEIR, is not a phase of the previously approved The Meritage Resort (TMR) or Meritage Commons (MC) projects, each of which went through environmental analysis prior to approval. The basis for use of FAR averaging is that all three projects (TMR, MC and Trinitas) are under one ownership and all within the confines of the Napa Valley Commons industrial park. This is discussed in the Land Use and Planning Section of the DEIR (Chapter 5.9) and in Responses to Comments C-7 as well as in response ABJC-2 in the May 17 letter where the relationship of the three separate projects is identified as being under the same ownership. Therefore, the FAR averaging can be applied to Trinitas. A reduction of floor area by 10,000 square feet is not required to make the Trinitas project consistent with the City's zoning requirements. In addition, Comment ABJC-2 addresses the assertion that the three separate projects were piecemealed in their analysis and approvals.

are *part of a single development project*.[12] Meritage Commons and the Meritage Resort were separately permitted by the City prior to preparation of the EIR for the Trinitas Project. Although Napa Residents has previously commented that the Trinitas Project, Meritage Commons, and the Meritage Resort are all part of a single development project by the Applicant that should have been analyzed in a single CEQA document, the City continues to deny this fact.

ABJC-A8 *cont'd*

In response to Napa Residents' prior comments, and to concerns raised by Commissioners at the May 17, 2018 Commission hearing, the City now proposes the adoption of Alternative 2A, which would which would add a Condition of Approval that the Project be revised to reduce the floor area of the Project by approximately 10,000 square feet to eliminate the need for FAR averaging.

Napa Residents supports the reduction in FAR to comply with the applicable zoning requirement of 0.40 FAR. The City cannot, on the one hand, refuse to analyze the impacts of the three components of the Meritage Project as a whole, while at the same time seek to rely on an FAR averaging provision that is restricted to use by a single project. Alternative 2A must be adopted. The City must also continue to remedy the defects in its piecemealed CEQA analysis that were identified in Napa Residents' prior comments.

B. ALUC Policies.

ABJC-A9

Napa Residents previously commented that the Project's hotel uses are likely to result in violations of ALUC Zone C regulations, which the FEIR failed to disclose as a significant impact. The FEIR and May 17, 2018 Staff Report explained that approximately 12,400 square feet of the proposed Residence Inn portion of the hotel building is located within ALUC Zone C.[13] ALUC Zone C establishes a threshold of 50 persons per acre maximum for structures within ALUC Zone C.[14] Based on calculations in the FEIR, the projected density for the portion of the Residence Inn located within Zone "C" is 46.5 persons per acre, just below the 50 persons per acre

[12] See City of Napa Muni. Code sec. 17.52.120.C ("In cases where a project site encompasses several buildings on several lots, the floor area ratio may be combined and averaged over the entire project site.")
[13] *Id.*
[14] Staff Report, p. 10.

A9 The ALUC analysis was presented in Chapter 5.7 – Hazards and Hazardous Materials - of the DEIR (beginning at page 5.7-1) and again described in Response to Comments Errata – page 6-1. A response (ABJC-6) also is included in the May 17 comment letter – pages 19-22. Each chapter and response provide analysis of the Project's location within ALUC Zones and discusses that the Project will be presented to the ALUC Board for a consistency determination prior to final approval by the City. The ALUC meeting was held on June 6, 2018 and the ALUC unanimously determined that the Project was consistent with the ALUCP.

As noted in the ALUC staff report (pages 3-4):

> The ALUCP sets maximum (estimated) population densities for Compatibility Zones A through D. The purpose behind conducting density evaluation is to determine if the concentration of people within buildings and outside is suitable for the degree of noise exposure and overflight risk occurring at the site. The closer a site is to the airport and approach/departure paths, the greater the amount of noise intrusion and overflight risk, and in turn the greater the need to limit the number of persons on the ground to avoid conflicts. This project involves a somewhat unusual density calculation circumstance being that the site lies within three compatibility zones ranging from the fairly restrictive Zone C with a limit of 50 persons per acre in structures and 75 persons per acre total, to Zone E with no limit on non-residential density. The vast majority of the site and structures are located within Zone E, with a small parking and landscaping area within Zone D, and a 12,430 sq. ft. portion of the hotel with parking and landscaping located within Zone C. It is not unusual for a project site to fall within more than one zone, but it is rare for a majority of a site to be outside of density limits and have a small portion subject to a higher restriction area such as Zone C, which is the Extended Approach/Departure Zone.
>
> The City's EIR consultant calculated density only for the Zone C portion of the site. Typically, density is calculated for the entire site, but that is not to say there is an issue because there are no set density limits within Zone E, and there are no structures for the portion of site within Zone D. The City's approach seems fairly conservative, arriving at a forecasted maximum density of 46.5 persons per acre for that portion of the property within Zone C. Although that density is close to the 50 persons per acre (within structures) threshold, the calculation reasonably demonstrates that the project complies with the density limit. The calculation is based on an assumption of 80% maximum building code occupancy of the hotel. The California Airport Land Use Planning Handbook (Caltrans Aeronautics, October 2011), which is the primary ALUC resource document, prescribes that an adjustment factor be applied when utilizing the building code maximum occupancy calculation methodology. This is due to the fact that it is effectively impossible to occupy all rooms of a structure (including hallways, bathrooms, lobbies, mechanical rooms, staircases, etc.) at one time at the maximum occupancy prescribed by the building code. For example, the state's guidelines apply a 50% adjustment factor to office structures. In this regard, the 80% adjustment factor used on this project is an appropriate measure of maximum occupancy for the hotel use.

Given the unanimous approval by ALUC of the Project's consistency with the ALUCP, there is no requirement that a portion of the hotel be moved out of Zone C.

maximum.[15] However, this assumption was based on an unsupported assumption of 80% room occupancy, with the threshold of 50 persons per acre being exceeded at 86% occupancy.[16]

Neither the FEIR nor the Staff Report's proposed Conditions of Approval include any restriction to limit occupancy of the Residence Inn to less than 86%. Thus, Napa Residents concluded reasonably forseeable that operation of the Residence Inn will result in levels of occupancy that violate the ALUC Zone C regulations, resulting in a land use inconsistency and significant CEQA impact.[17]

In response to these comments, the Staff Report proposes the adoption of Alternative 2B, which would require the Project be revised to shift the portion of the hotel currently depicted in ALUC Zone C (approximately 12,400 square feet) out of Zone C.[18] Alternative 2B is consistent with the economically forseeable goal of the Applicant to reach up to a 100% occupancy level at the hotel in order to maximize profits. By relocating hotel uses outside of ALUC Zone C, Alternative 2B would also ensure that hotel occupancy that meets or exceeds 86% does not violate ALUC Zone C regulations. Accordingly, Napa Residents supports the adoption of Alternative 2B. Only in this way can the City ensure that the Project does not violate critical airport safety regulations.

ABJC-A9 *cont'd*

III. THE FEIR'S BIOLOGICAL RESOURCES ANALYSIS AND MITIGATION PLAN REMAIN INADEQUATE

A. Failure to Disclose Biological Resources Studies.

ABJC-A10

As discussed above, the City failed to provide Napa Residents with the six new biological resources surveys that the FEIR and Staff Report rely on to conclude that the Project's biological resources impacts will be reduced to less than significant levels, including the following studies:

1. Reconnaissance level survey by Bargas Environmental Consulting (referred to as the "Bargas report" in the FEIR).

[15] Staff Report, p. 10; pg. 5.7-22 of the FEIR.
[16] *Id.*
[17] See Napa Residents May 17, 2018 comments, p. 8.
[18] Staff Report, p. 8.

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A10 Commenter states that the Project analysis and mitigation plan are inadequate in the area of biological resources. Specifically, ABJC notes that the biological studies were not disclosed and the City is in violation of CEQA's public disclosure requirements. Please refer to Responses to Comment A5 and Comment A6 above.

2. Dry-season surveys for vernal pool fairy shrimp.
3. Formal wetland delineation.[19]
4. Rare plants surveys.[20]
5. Wet-season surveys for vernal pool fairy shrimp.[21]
6. Swainson's hawk surveys.[22]

ABJC-A10 *cont'd*

The City is therefore in violation of CEQA's public disclosure requirements, and Napa Residents remains unable to fully evaluate the adequacy of the FEIR and its responses to comments regarding several biological resources issues. We reserve the right to supplement our comments following receipt of these reports.

B. Unsupported Wetland Mitigation Ratio.

Napa Residents reviewed the FEIR and the City's most recent May 23, 2018 responses to comments in conjunction with Mr. Cashen. Based on this review, we continue to conclude that the FEIR fails to support its proposed mitigation measures for impacts to wetlands, and wetland-dependent species the vernal pool fairy shrimp, with substantial evidence. Specifically, the FEIR's reliance on a 2:1 mitigation ratio to mitigate significant impacts from lost wetland habitat violates CEQA because the City lacks substantial evidence to support its conclusion that a 2:1 ratio is adequate to mitigate admittedly significant impacts.[23]

ABJC-A11

As Mr. Cashen explains, numerous factors determine the mitigation ratio needed to mitigate a project's impacts to wetlands (or other jurisdictional waters) to less than significant levels, including:

> (1) whether there will be a time lag between wetland functions lost at the Project site and wetland functions gained at the compensatory mitigation site;

[19] City's May 23, 2018 Response to FEIR comments, p. 106.
[20] *Id.*, p. 69.
[21] *Id.*, p. 25.
[22] *Id.*, pp. 22 and 83.
[23] PRC §§ 21002.1(a), 21100(b)(3).

4140-006j

A11 A letter from biologist Scott Cashen is attached to the ABJC letter as Exhibit A and contains similar comments to what was included in the May 17 ABJC attachment from Mr. Cashen. As with the earlier comment letter, Mr. Cashen expresses his views on appropriate mitigation for impacts to wetlands. The Project biologist, Tony Bomkamp of Glenn Lukos Associates, has provided detailed responses to Mr. Cashen's comments. The responses are included herein as responses to attachment A. As will be detailed below, wet season surveys have shown that there is no evidence of fairy shrimp within the 0.06 acre of wetland on the Project site. As noted above, please see responses to the May 17 ABJC letter (responses ABJC-B18 – page 106 and ABJC-B20 – page 109) for responses specific to wetland mitigation.

(2) whether in-kind mitigation is required (i.e., compensatory mitigation will consist of vernal pools);
(3) whether compensation wetlands will be in close proximity and within the same watershed as the Project site;
(4) whether the mitigation site will include buffers around the compensatory wetlands; and
(5) the mitigation method (i.e., wetland creation, restoration, enhancement, or preservation) that will be implemented.[24]

ABJC-A11
cont'd

The FEIR fails to include any evidence or analysis related to any of these factors. Therefore, Mr. Cashen concludes that it is impossible for either the City or the public to evaluate the efficacy of the FEIR's proposed 2:1 mitigation ratio because the City has not provided any information that would establish facts to dictate selection of the appropriate ratio.[25] As Mr. Cashen explains, "without this information, there is inadequate evidence on which to derive an appropriate mitigation ratio, and no substantial evidence to support the City's reliance on the MMRP's proposed 2:1 mitigation ratios included in Mitigation Measures BIO-7 and BIO-8."[26]

CEQA requires that mitigation measures effectively reduce the impacts they are designed to address.[27] The Court of Appeal recently affirmed that mitigation ratios that are incorporated in mitigation measures for project impacts resulting from lost habitat must be supported by substantial evidence. In *Save Panoche Valley v. San Benito County ("Panoche")*,[28] the court upheld a 3:1 mitigation ratio for lost kangaroo rat habitat based on biological surveys of proposed mitigation lands prepared by the lead agency. Similarly, in *Banning Ranch Conserv'y v. Newport Beach*,[29] the court upheld an EIR's reliance on a 2:1 mitigation ratio for replacing gnatcatcher habitat where it was based on scientific studies and direct observations by the lead agency's biologist. Here, the FEIR failed to include any biological analysis of the efficacy MM BIO-7 and MM BIO-8, and failed to identify the basis for its selection of 2:1 habitat replacement in the first place. The FEIR

[24] See Exhibit A, p. 3.
[25] *Id.*
[26] *Id.*
[27] PRC §§ 21002.1(a), 21100(b)(3); 14 CCR § 15064(a)(2).
[28] (2013) 217 Cal. App. 4th 503, 528.
[29] (2012) 211 Cal. App. 4th 1209, 1232.

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therefore lacks the basic information required by CEQA that the EIR's in the *Panoche* and *Banning Ranch* cases contained which allowed the court to uphold the 2:1 and 3:1 mitigation ratios adopted by those agencies.

ABJC-A11 *cont'd*

Moreover, bare conclusions, such as those contained in the FEIR's discussion of its 2:1 mitigation ratio, violate CEQA's basic requirements that conclusions in an EIR must be supported by substantial evidence.[30] The courts have held that conclusory statements "unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind" are insufficient to support a finding of insignificance.[31] An EIR must provide the reader with the analytic bridge between its ultimate findings and the facts in the record.[32] The FEIR fails to bridge this gap. Because it fails to include a biological analysis of the viability of the 2:1 ration proposed in MM BIO-7 and MM BIO-8, the FEIR fails to comply with CEQA, and the City's proposed CEQA findings that these measures would adequately mitigate the loss of wetlands caused by the Project are unsupported.

ABJC-A12

C. The FEIR Fails to Disclose and Mitigate Significant Cumulative Impacts to Swainson's Hawk.

The City does not dispute that the Project site provides foraging habitat for the Swainson's hawk. However, the FEIR fails to require any mitigation measures for the incremental loss of Swainson's hawk habitat that will be caused by the Project. Instead, the FEIR incorrectly concludes that the Project's cumulative impacts are insubstantial, and that no mitigation is required, based on an unsupported rationale that the foraging habitat that will be eliminated by the Project represents only 0.1% of the mean home range of a Swainson's hawk.[33] As a result, the FEIR dismisses the Project's cumulative impacts on Swainson's hawk as insignificant by claiming that they are a "drop in a bucket" of overall hawk habitat. This approach has been rejected by the courts, and fails to comply with CEQA's requirement that a project mitigate impacts that are "cumulatively considerable."[34]

ABJC-A13

[30] PRC § 21081.5; 14 CCR § 15091(b).
[31] *People v. County of Kern* (1974) 39 Cal. App. 3d 830, 841-842.
[32] *Topanga Ass'n for a Scenic Comty. v. County of Los Angeles* (1974) 11 Cal. 3d 506, 515; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692, 733.
[33] DEIR, p. 5.3-47.
[34] PRC § 21083(b)(2); 14 CCR § 15130; *Friends of Oroville v. City of Oroville* (2013) 219 Cal. App. 4th 832, 841-42; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692, 721.

4140-006j

A12 Commenter is referred to responses ABJC-B18, ABJC-B20 as noted in response A11 above in addition to the responses to Mr. Cashen's letter attached hereto.

A13 Commenter is referred to responses to comments by Mr. Cashen attached to the May 17, 2018 ABJC letter (comments ABJC-B3, ABJC-B7, ABJC-B8, ABJC-B10 and ABJC-B14). A June 7, 2018 Memorandum from Tony Bomkamp, Glenn Lukos Associates, again confirmed that no Swainson's hawks were nesting or foraging during any of the surveys, the most recent of which were conducted on April 10, 2018 and May 15, 2018.

As Mr. Cashen explains, the FEIR's contention that the Project would impact only a small portion of a bird's home range wholly ignores the cumulative impact from the incremental loss of habitat caused by the Project in conjunction with existing development and in conjunction with each newly approved development project within the City and County.[35] As he further explains, the FEIR's approach also contradicts well-established evidence demonstrating that persistence of the Swainson's hawk in California is threatened by the incremental, unmitigated loss of habitat from numerous "small" projects.[36]

ABJC-A13
cont'd

CDFW mitigation guidelines call for the provision of compensatory habitat mitigation for all projects that would impact ***five or more acres of foraging habitat***.[37] The CDFW mitigation guidelines are based on scientific evidence, and recognize that incremental reductions in Swainson's hawk foraging habitat can have significant impacts on the viability of the species. Thus, the CDFW mitigation guidelines set a significance threshold of five acres as the basis for requiring mitigation for cumulative loss of foraging habitat.

The Project would impact 11.5 acres of foraging habitat, more than double the five-acre threshold designated by CDFW as triggering the need for compensatory mitigation. The Project will therefore have a significant cumulative impact as described in the CDFW guidelines. The FEIR fails to disclose this significant cumulative impact, and fails to require *any* mitigation for lost foraging habitat. This cumulative impact must be disclosed in a recirculated EIR, and mitigation measures incorporated to require compensation for the 11.5 acres of foraging habitat lost to the Project.

IV. CONCLUSION

ABJC-A14

We urge the Planning Commission to continue this hearing and remand the Project to City Staff to prepare and circulate a revised EIR which includes all studies and evidence relied upon for its significance conclusions, which identifies all of the Project's potentially significant impacts, and which requires all feasible

[35] Exhibit A, p. 4.
[36] *Id.*
[37] *Id.*; see https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83992

4140-006j

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A14 The City of Napa Planning Commission meeting was held on May 31, 2018, as scheduled, and the Trinitas Mixed Use Project was recommended for approval by the City Council. A Statement of Overriding Considerations will be included for approval at the City Council meeting.

mitigation measures and analyzes all feasible alternatives to reduce impacts to a less than significant level.

ABJC-A14
cont'd

If a Statement of Overriding Considerations is adopted for the Project, we urge the City to consider whether the Project will result in employment opportunities for highly trained workers. The Planning Commission cannot recommend approval of the Project until the City prepares a revised EIR that resolves these issues and complies with CEQA's requirements.

Thank you for your consideration of these comments. Please include them in the record of proceedings for the Project.

Sincerely,

Christina M. Caro

CMC:

Attachments

4140-006j

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EXHIBIT A

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Scott Cashen, M.S.—Independent Biological Resources Consultant

May 31, 2018

Ms. Christina Caro
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Subject: Comments on CAA Planning's responses to Comments on the Final Environmental Impact Report Prepared for the Trinitas Mixed-Use Project

Dear Ms. Caro:

CAA Planning prepared responses to my May 16, 2018 comments on the Final Environmental Impact Report ("FEIR") issued by the City of Napa ("City") for the Trinitas Mixed-Use Project. The City provided those responses after close of business two days ago, on May 29, 2018, in support of the Planning Commission meeting that will be held today, May 31, 2018. The following comments address a few of the issues associated with the responses provided by CAA Planning. However, given the limited timeframe and outstanding missing studies and reports, I was unable to address all of the issues raised in the City's responses. I will be submitting supplemental comments at a later date on outstanding issues.

ABJC-A Exh A A1

Supplemental Surveys

The City's response to my DEIR comments stated that two additional surveys had been completed at the Project site:

1. Reconnaissance level survey by Bargas Environmental Consulting (referred to as the "Bargas report" in the FEIR).
2. Dry-season surveys for vernal pool fairy shrimp.

The FEIR claimed the "Bargas report" was included as Appendix A to the FEIR.[1] It was not. My FEIR comment letter (dated 16 May 2018) explained that the Bargas report was not included with the FEIR. CAA Planning's responses to my FEIR comment letter fail to address this issue, and more importantly, the City has yet to provide a copy of the Bargas report.

Based on the summary of the Bargas report in the FEIR, it appears the author of the Bargas report correctly concluded that the Project site provides potential nesting habitat for the Swainson's hawk.[2] This conflicts with the DEIR's (and Biological Technical Report's) conclusion that there is no potential for Swainson's hawks to nest at the Project site due to a lack of suitable, large nesting trees.[3] Based on the summary of the Bargas report contained in the FEIR, it is possible that the Bargas report contains additional conclusions that may conflict with those initially provided in the DEIR. For this reason, it is critical that the public be given access to the Bargas report prior to Project approval.

ABJC-A Exh A A2

[1] FEIR, RTC B-2.
[2] FEIR, RTC C-B10.
[3] DEIR, pp. 5.3-18 and -19.

Exh A

A1 Commenter notes that responses to his May 17, 2018 comments were not made available until May 29, two days prior to the Planning Commission meeting. Under CEQA §15088, the lead agency is only required to prepare written responses to comments submitted during the public review period. The lead agency *may* respond to late comments but is not required to do so. Nevertheless, the City has continued to provide responses to Mr. Cashen's comments. It should be noted that responses to the May 17 comments were available on the City's website several days prior to the Planning Commission meeting.

Mr. Cashen's comments in his February 25, 2018 letter (during the DEIR review period) were fully addressed in the Responses to Comments document dated April 2018 which is a part of the Final Environmental Impact Report (FEIR). Late comments submitted on May 17, 2018, were similar in nature and content to the original comments and were fully addressed in a written response which was available to Mr. Cashen prior to the Planning Commission meeting. Additional comments were submitted by Mr. Cashen to the City late in the afternoon on May 31, 2018, the day of the Planning Commission meeting. All CEQA requirements have been met with respect to comments which the Planning Commission was required to review prior to making a decision regarding the adequacy of the FEIR and prior to making a recommendation to the City Council for certification of the FEIR.

Exh A

A2 The Bargas Report referenced in Mr. Cashen's comment was sent to the City prior to the Planning Commission meeting. The Bargas Report was a secondary study to confirm whether additional wetlands investigation was warranted and additional surveys were subsequently conducted. The dry-season surveys for vernal pool fairy shrimp were conducted as noted in Responses to Comments document (April 2018) in response C-B33, C-B34, C-B35 and C-B36 on page 165. The 90-Day Survey Report for vernal pool fairy shrimp prepared by Rob Schell of WRA Environmental Consultants was delivered to the City on May 30, after completion of all surveys and prior to the Planning Commission meeting. The survey results remained substantially the same as reported in the DEIR (page 5.3-51) and the Responses to Comments (C-B33 - page165) documents.

Mr. Cashen noted:

> Based on the summary of the Bargas report in the FEIR, it appears the author of the Bargas report correctly concluded that the Project site provides potential nesting habitat for the Swainson's hawk. This conflicts with the DEIR's (and Biological Technical Report's) conclusion that there is no potential for Swainson's hawks to nest at the Project site due to a lack of suitable, large nesting trees. Based on the summary of the Bargas report contained in the FEIR, it is possible that the Bargas report contains additional conclusions that may conflict with those initially provided in the DEIR. For this reason, it is critical that the public be given access to the Bargas report prior to Project approval.

There are two references to Swainson's hawk in the Bargas Report, at the bottom of page 5 the report states:

> The trees along the borders of the project area are large enough to provide suitable nesting habitat for Swainson's hawk and white-tailed kite. Neither species nor existing nests were observed on site.

This is followed on page 6 by the following statement:

> There is low to moderate potential for Swainson's hawk and white-tailed kite to build their nests within the project area or immediately adjacent to the project area in future nesting seasons.

Regarding the first statement, GLA concurs that the trees are large enough for use by Swainson's hawk for nesting; however, this is not the only criteria GLA used for making the determination that the site exhibited low potential for supporting Swainson's hawk nesting. Specifically, in the response to the Cashen May 16, 2018 Letter – Swainson's Hawk Nests - Response C-B10, GLA stated that Swainson's hawk nesting was unlikely and included the following discussion:

> The most important reason provided was because of the urban character of the site. Other reasons not cited include the absence of the types of habitat most commonly used for nesting such as willows and cottonwoods within cottonwood-willow riparian habitat, solitary trees such as valley oaks situated in expanses of grasslands or agricultural fields used for foraging. The California Department of Fish and Wildlife Status Review of Swainson's Hawk in California describes the habitats most commonly used as follows:
>
> > Swainson's Hawks in the Central Valley often nest at the periphery of riparian forests or in riparian corridors where they have greater access to foraging areas, but virtually any suitable tree may be used. Hawks will also use lone trees in agricultural fields or pastures, and roadside trees when they are adjacent to suitable foraging habitat (Estep 1989, Anderson et al. 2007). Estep (1989) found Valley oak (Quercus lobata), Fremont cottonwood (Populus fremontii), walnut (Juglans sp.), and willow (Salix sp.) are the most commonly used nest-tree species, with an average height ranging from 12.6 to 25 m (41.3 to 82.0 ft), Similarly, Anderson et al. (2007) found Valley oak, cottonwood, willow and Eucalyptus spp. were more frequently used, with an average height between 14.8 to 16.2 m (48.6 to 53.1 ft).[1]

As noted in the above-referenced response, the project site does not meet these identified characteristics; therefore, it was appropriately determined in the Draft EIR that "nesting on the site is unlikely."

1 California Department of Fish and Wildlife: Wildlife and Fisheries Division, Nongame Wildlife Program. 2015. *Status Review of Swainson's Hawk in California.* Page 6.

The second statement in the Bargas Report stated that "There is low to moderate potential for Swainson's hawk…to build their nests within the project area or immediately adjacent to the project area in future nesting seasons" is a statement of professional judgment given the lack of observations or records for Swainson's hawks using the site for nesting. GLA's professional judgment is that the potential is low and this is confirmed by the lack of nests detected during the 2018 surveys conducted by GLA during the peak nesting period. Given that the 2018 surveys did not detect Swainson's hawk nests (or any other raptor nests) and the mitigation measure that includes pre-construction surveys the conclusion of the DEIR that there will be no impacts on nesting remains accurate.

CAA Planning's responses to my FEIR comments further states that four additional surveys have been conducted at the Project site:

1. Formal wetland delineation.[4]
2. Rare plants surveys.[5]
3. Wet-season surveys for vernal pool fairy shrimp.[6]
4. Swainson's hawk surveys.[7]

None of these studies were attached to the responses to comments or the Staff Report. CAA Planning asserts that the results from these surveys eliminate many of the issues discussed in my previous comment letters. I am unable to verify these assertions because the City has not provided any of the six surveys listed above.[8]

ABJC-A Exh A A3

For example, according to CAA Planning, the formal wetland delineation confirmed the presence of 0.06 acre of wetlands on the Project site.[9] My review of Google Earth imagery suggests the Project site contains more than 0.06 acre of wetlands. Therefore, I cannot evaluate the validity of the City's conclusion without reviewing the City's sampling data and information on the sampling methods used in its delineation process (e.g., number and location of sampling points).

ABJC-A Exh A A4

Unsupported Wetland Mitigation Ratio

Numerous factors determine the mitigation ratio needed to mitigate a project's impacts to wetlands (or other jurisdictional waters) to less than significant levels. For example, higher mitigation ratios are warranted when there will be a time lag between the loss of aquatic resource functions at the impact site and the replacement of aquatic resource functions at the compensatory mitigation site.[10] Although both of my previous comment letters discussed the factors that should be considered in establishing the mitigation ratio, the City still has not provided any evidence that it contemplated those factors before concluding that a 2:1 ratio would mitigate the Project's impacts to less than significant levels.

Moreover, it is impossible to evaluate whether the FEIR's proposed 2:1 mitigation ratio is appropriate for this project because the City has not provided any information pertaining to, or established requirements for, the necessary factors that dictate the appropriate ratio. Specifically, the City has failed to disclose:

ABJC-A Exh A A5

[4] Response to FEIR comments, p. 106.
[5] *Ibid*, p. 69.
[6] *Ibid*, p. 25.
[7] *Ibid*, pp. 22 and 83.
[8] The City provided a copy of the botanical survey report as I was finishing this letter. Given the timeframe, I was unable to review that report.
[9] *Ibid*, p. 106.
[10] *See pages 78-83 in:* California State Water Resources Control Board. 2017. Draft Staff Report Including the Substitute Environmental Documentation: State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State. Available at: <https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/official_Doc_timeline/staff_report_clean.pdf>.

2

Exh A

A3 As noted in response 6 to the ABJC letter, following is information regarding the four specific documents listed in the comment:

- Wetland delineation analysis – A wetland delineation analysis was included in the DEIR, Biological Technical Report (Appendix E to the DEIR). Response to comment ABJC-B18 noted that Tony Bomkamp of Glenn Lukos Associates, conducted an additional formal wetland delineation survey on May 15, 2018. The results were included in a May 15, 2018 Memorandum confirming a 0.06-acre impact as reported in the DEIR. To the extent additional information is required for permitting, the formal surveys will be provided to the resource agencies.
- Rare plant surveys – The April 18, 2018 survey memorandum was updated in a May 15, 2018 Memorandum from Glenn Lukos Associates. Both documents were provided to the City prior to the Planning Commission meeting.
- Dry season/wet season surveys for vernal pool fairy shrimp – Surveys were conducted and reported by Rob Schell of WRA Environmental Consultants in accordance with established dry and wet season protocols and timing. The 90-day Survey Report was delivered to the City on May 30, 2018 prior to the Planning Commission meeting.
- Swanson's hawk surveys – The Biological Technical Report addressed the Swainson's hawk and was included in the DEIR as Appendix E. The information was also included in the Response to Comments document and in response to the May 17, 2018 letter from Adams, Broadwell. Similar to the wetland delineation, to the extent additional information is required for any required permitting, the formal surveys will be provided to the resource agencies. Mitigation Measure Bio-5 has been updated in response to the comments from Adams, Broadwell to include a one-half mile radius of the project site for nesting surveys.

Exh A

A4 GLA has submitted through CAA Planning, a formal wetland determination/delineation for three potential wetland features identified on the site during the August 2, 2017 site visit as reflected in the DEIR. The DEIR identified potential impacts to up to 0.06 acre of seasonal wetland distributed among three features designated as Feature A, Feature B and Feature C. The wetland delineation conducted on May 15, 2018 identified wetland conditions using the U.S. Army Corps of Engineers (Corps) Arid West Supplement, Version 2.0 (which represents the Corps most up-to-date wetland delineation methods and procedures), within Features A and C. Based on field observations in 2018, Feature C was expanded such that wetland impacts still total 0.06 acre. As noted in the delineation report, Feature B does not meet all three of the Corps' criteria for wetlands and was eliminated as a potential wetland.

Exh A

A5 This comment is an expansion of the Cashen May 16, 2018 comment (Wetland Mitigation Ratio - Responses C-B37 and C-B38), which was addressed in the previous responses. Nevertheless, as noted by the commenter, there are a variety of factors considered in determining appropriate mitigation ratios for wetlands subject to loss due to grading. Each of the factors noted by the commenter is addressed below under the relevant factor and include:

(1) whether there will be a time lag between wetland functions lost at the Project site and wetland functions gained at the compensatory mitigation site;

The mitigation will be provided through purchase of credits in an approved wetland mitigation bank. Thus, the replacement wetlands are already established and thus there would be no time lag. Representatives for the applicant have been in discussion with representatives of approved Mitigation Banks which have credits for seasonal wetlands. The functions of the 0.06 acre of wetlands are low: 1) they do not support listed fairy shrimp as determined during protocol wet- and dry-season surveys in 2017 and 2018, 2) they do not support special-status plants, as determined during surveys in 2017 and 2018; 3) they do not support vernal pool endemic species; rather, Feature A supports native creeping spikerush (*Eleocharis macrostachya*), which occurs in wide range of wetland habitats from California to Alaska into the central United States, Mexico and South America and is not a vernal pool endemic. This feature also supports native semaphore grass (*Pleuropogon californicus californicus*), which occurs in vernal pools and wet grassland habitats. Feature A also supports non-native Italian ryegrass (*Festuca perennis*), and non-native Mediterranean grass (*Hordeum marinum gussoneanum*) which are both dominant in the uplands across the site.

Feature C supports creeping spikerush (*Eleocharis macrostachya*), along with the Italian ryegrass (*Festuca perennis*), and non-native Mediterranean grass (*Hordeum marinum gussoneanum*) with one other native species iris-leaved rush (*Juncus xiphioides*), which is common to many types of wetlands throughout California, Nevada, New Mexico and Baja.

It should be noted that the Elsie Gridley Mitigation Bank requires a 2:1 ratio mitigation for impacts to listed fairy shrimp, which was determined in consultation with U.S. Fish and Wildlife Service during creation of the bank. Thus a 2:1 ratio for seasonal wetlands that do not support listed or other special-status species is more than adequate.

(2) whether in-kind mitigation is required (i.e., compensatory mitigation will consist of vernal pools);

As noted in the response above, the subject wetlands are not vernal pools and thus, mitigation would not necessarily consist of vernal pool habitat.

(3) whether compensation wetlands will be in close proximity and within the same watershed as the Project site;

Suitable mitigation banks include watershed requirements (e.g., Mitigation Banks have approved “service areas” based on watersheds).

(4) whether the mitigation site will include buffers around the compensatory wetlands; and

Approved mitigation banks include suitable buffers, long-term conservation instruments and long-term management, which is the reason mitigation banks are the preferred mitigation options for the resource agencies.

(5) the mitigation method (i.e., wetland creation, restoration, enhancement, or preservation) that will be implemented.

The type of mitigation is determined during establishment of the Mitigation Banks with the Bank sponsors and the interagency review team that is responsible for implementing the Mitigation Bank.

(1) whether there will be a time lag between wetland functions lost at the Project site and wetland functions gained at the compensatory mitigation site;
(2) whether in-kind mitigation is required (i.e., compensatory mitigation will consist of vernal pools);
(3) whether compensation wetlands will be in close proximity and within the same watershed as the Project site;
(4) whether the mitigation site will include buffers around the compensatory wetlands; and
(5) the mitigation method (i.e., wetland creation, restoration, enhancement, or preservation) that will be implemented.

ABJC-A Exh A A5 *cont'd*

Without this information, there is inadequate evidence on which to derive an appropriate mitigation ratio, and no substantial evidence to support the City's reliance on the MMRP's proposed 2:1 mitigation ratios included in Mitigation Measures BIO-7 and BIO-8.

The City's failure to justify the 2:1 ratio is further exacerbated by its failure to establish any performance standards or monitoring requirements for the compensatory wetlands should the Applicant elect to satisfy the mitigation requirement through "permittee responsible mitigation" (i.e., means other than the purchase of credits at a wetland mitigation bank). For these reasons, the City has no basis for its conclusion that Mitigation Measures BIO-7 and BIO-8 would reduce the Project's significant impacts on wetlands to less than significant levels.

Cumulative Impacts to Swainson's Hawk Foraging Habitat

The City does not dispute that the Project site provides foraging habitat for the Swainson's hawk. However, the FEIR fails to require any mitigation measures for the incremental loss of Swainson's hawk habitat that will be caused by the Project. The FEIR incorrectly concludes that the Project's cumulative impacts are insubstantial, and that no mitigation is required, based on the following unsupported rationale:

ABJC-A Exh A A6

> Given the large amount of available foraging area in the vicinity of the Study Site relative to the limited impacts to potential foraging habitat (10.24 acres of wild oats grassland) and given that the 10.24 acres of suitable habitat represents about 0.1% of a mean home range, impacts to foraging Swainson's hawk would be less than significant. The Project site represents a small amount of relatively low-quality Swainson's hawk foraging habitat.[11]

As described below, the City's purported analysis is scientifically indefensible, contradicts evidence in the record, and is contrary to State guidelines for mitigation of impacts to Swainson's hawk from loss of foraging habitat.

First, the FEIR fails to provide any evidence to support its assertion that there is a "large amount of available foraging area" in the vicinity of the Project site. CAA Planning's response to my FEIR comments acknowledges that vineyards constitute a significant land cover type in Napa, and that vineyards do not provide foraging habitat for Swainson's hawks.[12] Time lapse imagery

[11] DEIR, p. 5.3-47.
[12] Response to FEIR comments, p. 95.

3

Exh A

A6 In evaluating potential cumulative impacts to Swainson's hawk foraging, previous comments, specifically, Cashen May 16, 2018 – 7 (Swainson's Hawk – Response to Comment C-B15), addressed the relative importance of the site for foraging by the Swainson's hawk and found that the impacts were not significant. Thus, given that there would be no significant impacts, there would be no significant cumulative impacts. Nevertheless, the factors used to determine that impacts are not significant are addressed below, relying in large measure on the previous responses beginning with a previous discussion of foraging area sizes.

> GLA used a range of foraging area sizes, that also included a very conservative range size at the lower end of foraging area sizes as set forth in the March 7, 2018 Responses to Comments:
>
> > As noted in Cashen 16 above, the Biological Technical used the most conservative home range recorded for Central California of 336 acres, this represents under three percent of a home range and would not be considered significant. Using the mean home range size, which is between 6,817 and 6,306 acres, which is less than 0.2 percent of the project site, the conclusion is strengthened. Regarding the quality of the habitat on the site, as noted, the site has been previously graded and is subject to regular maintenance that includes disking and/or mowing. Combined with the location of the site, within an existing commercial park and with adjacent highway, the site is not optimal, supporting the conclusion that impacts associated with the project would not result in a substantial adverse impact on Swainson's hawk, which would be necessary determine that such impacts are significant under CEQA.
>
> In the Biological Technical Report, GLA stated the CEQA threshold for determining whether impacts to any species or habitat would be significant:
>
> > In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:
> >
> > > The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."

This is followed by the Appendix G Guidelines, the first of which is most pertinent in the evaluation of impacts to foraging habitat:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

In each of the excerpts above, it is clear that to make a finding that an impact is "significant" the impact must be "substantial" which is noted as causing a particular wildlife population to below

"self-sustaining levels" or to "reduce the number or restrict the range of an endangered, rare, or threatened species". Development of the project, resulting in the loss of 10.24 acres of habitat within an existing commercial park with an adjacent highway will not cause the Swainson's hawk to drop below self-sustaining levels nor would it reduce the number or restrict the range of the species.

Regarding the appropriate home range size for determining whether potential impacts are significant, the commenter does not know the size of the home range of any Swainson's hawk that could potentially forage on the site nor does he know the potential "core area". For purposes of analyzing impacts for the project site, the best scientific evidence available includes a variety of ranges in the size of foraging areas. At the top of page 12, the commenter makes the following statement:

> For example, Woodbridge (1991) reported that Swainson's hawks in northeastern California had very small home ranges (mean 1,001 acres; range 69 to 7,126 acres). This is consistent with Estep (1989), who reported small home ranges (830 acres) for a pair that occupied a territory with stable foraging opportunities throughout the breeding season.

As noted, GLA used the conservative foraging territory size of 336 acres which is 2.5 times smaller than the "small home range (830 acres)" which included "stable foraging opportunities". Given the variability in foraging territory sizes, GLA's determination to use the very conservative value of 336 acres is consistent with the scientific and commercial data available.

The conclusion that the project would not have significant impacts on foraging. In the context of habitat losses in surrounding areas the conclusion is also based on the site conditions, which were described in Bargas Report and Swainson's Hawk Nests – Response to Comment A3 above. Specifically, the site is located within an existing corporate/commercial park surrounded by development and a major highway as noted. This was further addressed in the March 7, 2018 Responses to Comments under "Cashen Response 20":

> The CDFG 1994 Staff Report includes the following guidance which places the proposed project in context:
>
> > Cities, counties and project sponsors should be encouraged to focus development on open lands within already urbanized areas. Since small disjunct parcels of habitat seldom provide foraging habitat needed to sustain the reproductive effort of a Swainson's hawk pair, Staff does not recommend requiring mitigation pursuant to CEQA nor a Management Authorization by the Department for infill (within an already urbanized area) projects in areas which have less than 5 acres of foraging habitat and are surrounded by existing urban development, unless the project area is within ¼ mile of an active nest tree.
>
> While it is recognized that the project is greater than 5 acres, it is an infill project within an existing and extensive commercial development bordered by a major highway on the east. Based on data provided by Mr. Cashen, the nearest nesting tree is 0.65 miles from the site and thus the site is not within ¼ mile of an active nest tree. While the commenter suggests that the site must be considered as exhibiting high values for foraging, the lack of any nesting recorded on the site or within trees immediately adjacent to the site during the last 5 years suggests the opposite. Swainson's hawks have not nested at this location for a

> variety of possible reasons which have already been addressed including its location within an urbanized setting.

Given all of the considerations, set forth in this and previous responses, there would be no significant impacts to Swainson's hawk foraging and no requirement for associated mitigation.

Finally, as noted in Cashen May 16, 2018 Letter - Foraging Habitat Quality -Response to Comment C-B20, surveys on April 10 and May 15, 2018 did not detect nesting activities and in fact did not observe any activities by Swainson's hawks on the site or over the site. Nevertheless, it is noteworthy that with the numerous eBird sightings in Napa, that there have been no sightings for this location, which 1) is fully accessible to the public (i.e., no fences or other restrictions) and 2) is located along a highly travelled highway with open views. While GLA does not in any way equate this to directed surveys on the site, when combined with the 2018 surveys, that the site is not high-quality habitat. This is further supported by the relationship between nesting sites and foraging areas, as referenced from Woodbridge (1998) that:

> Nest site selection by Swainson's Hawks does not appear to be strongly influenced by the characteristics of the vegetation immediately surrounding the nest tree. They will use trees in dense riparian forest, scattered trees, or solitary trees along roadsides or field edges, with understories of native shrubs, cultivated crops, or mowed lawns…During the breeding season, Swainson's Hawks travel long distances (up to 29 km [approximately 17 miles) in search of habitats with abundant prey.

This is consistent with GLA's observations regarding the lack of suitable nesting areas on the site as well as the ability of Swainson's hawks to traverse large areas for foraging, further supporting that the project would not have significant impacts.

available through Google Earth further reveals that most of the foraging habitat in the vicinity of the Project site (and nearby Swainson's hawk territories) has been incrementally converted to vineyards over the past 15 to 20 years. Indeed, based on a review of Google Earth imagery, the Project site contains one of the few patches of foraging habitat remaining in the vicinity of the Project.

ABJC-A Exh A A6 *cont'd*

Second, the argument that the Project would impact only a small portion of a bird's home range completely ignores the cumulative impact from the incremental loss of habitat caused by this Project, and each newly approved Project within the City and County. Indeed, if this "drop in the bucket" approach were permissible, it is unlikely that any project would ever be considered to have a cumulative impact. The FEIR's approach contradicts well-established evidence demonstrating that persistence of the Swainson's hawk in California is threatened by the incremental, unmitigated loss of habitat from numerous "small" projects. As a result, CDFW mitigation guidelines call for the provision of compensatory habitat mitigation for *all* projects that would impact five or more acres of foraging habitat.[13] CDFW mitigation guidelines are based on scientific evidence.

The Project would impact 11.5 acres of foraging habitat, more than double the five-acre compensatory mitigation recommended by CDFW. Nevertheless, the FEIR fails to require any mitigation for lost foraging habitat, and provides no evidence to support its conclusion that no mitigation is required. Rather, the City continues to argue that the Project would not significantly impact the Swainson's hawk, even though the EIR never analyzed the cumulative impact to Swainson's hawk foraging habitat in the first place. Based on my review of Google Earth imagery and the City's failure to incorporate compensatory mitigation for projects that affect Swainson's hawk foraging habitat, the cumulative impact to Swainson's hawk foraging habitat is significant.

ABJC-A Exh A A7

Third, the argument that the Project site only provides relatively "low-quality" foraging habitat is unsupported. By contrast, there is ample scientific evidence demonstrating the importance of disced fields (grasslands) as foraging habitat for Swainson's hawks.[14] Given the cumulative impact scenario that would be caused by implementation of the Project, the loss of habitat from the Project site could very well be the "tipping point" that causes any remaining nearby Swainson's hawk territory to become unviable.

ABJC-A Exh A A8

[13] See https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83992.
[14] Estep JA. 1989. Biology, movements, and habitat relationships of the Swainson's Hawk in the Central Valley of California, 1986-87. Calif. Dept. Fish and Game, Nongame Bird and Mammal Section Report. Table 8.

4

Exh A
A7 See Response to Comment A6 above.

Exh A
A8 See Response to Comment A6 above.

Cumulative Impacts to Vernal Pool Habitat

The City's analysis of cumulative impacts to vernal pools is limited to the statements:

> Any impacts to wetlands will be contained on the Project site and not contribute to off-site wetland area impacts. The potential wetlands are considered isolated; therefore, no downstream or adjacent cumulative impacts will occur.[15]

The City's analysis misses the point. Any impact of the Project on wetlands offsite (i.e., downstream) would be considered an indirect impact—not a cumulative impact. In this case, the cumulative impact of concern is the cumulative loss wetlands that multiple projects have had, and will have, on wetlands in Napa County and the Lake-Napa vernal pool region. As the DEIR acknowledges:

> Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. The cumulative impact from several projects is the change in the environment resulting from the incremental impact of the Project when added to other closely related past, present and reasonably foreseeable probably future projects.[16]

Napa County had approximately 1,207 acres of vernal pools in 1987.[17] Over 86% (1,042 acres) of those vernal pools were eliminated by 2005. This represents an extremely significant cumulative impact to vernal pool habitat in Napa County. Although Project impacts to vernal pool habitat are relatively minor from the project perspective, they would further the decline of the few vernal pools that remain in the county (i.e., approximately 165 acres in 2005).[18]

ABJC-A Exh A A9

The FEIR proposes to require the Applicant to mitigate Project impacts to wetlands at a 2:1 ratio. However, as discussed above, it fails to incorporate the provisions necessary to ensure the mitigation would mitigate the Project's contribution to the cumulative loss of vernal pools in Napa County and the Lake-Napa vernal pool region. Specifically, MM BIO-8 indicates: "[t]he mitigation may be satisfied through purchase of credits in an approved mitigation bank with a service area that covers the Project site, or in an acceptable manner to the City, so long as the 2:1 ratio is met." Thus, the mitigation measure provides no assurances that the compensatory mitigation would occur in the county, or that it would replace the vernal pool habitat eliminated from the Project site (i.e., in-kind mitigation).

I previously commented that the clause "or in an acceptable manner to the City, so long as the 2:1 ratio is met" was too vague to assure Project impacts to wetlands are effectively mitigated. CAA Planning's response to this issue was that: "[i]f permittee responsible mitigation is selected as an option, the project would be responsible for selecting and obtaining a suitable site and developing a Habitat Mitigation and Monitoring Plan that would be approved by the City prior to issuance of a final grading permit."[19] CAA Planning's response is unsupported because the EIR's Mitigation Monitoring and Reporting Program (revised May 2018) fails to require a

ABJC-A Exh A A10

[15] DEIR, Table 7-1.
[16] DEIR, p. 5.3-40.
[17] Holland RF. 2009. California's Great Valley Vernal Pool Habitat Status and Loss: Rephotorevised 2005. Report prepared for Placer Land Trust. 19 pp.
[18] *Ibid.*
[19] Response to FEIR Comment ABJC-B20.

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Exh A

A9 As noted in the Response to Comment A5 - Wetland Mitigation Ratios - above and as set forth in detail in the Jurisdictional Delineation Report, dated June 5, 2018, the two seasonal wetlands, Features A and C are not vernal pools as they do not support fairy shrimp (including listed species) and do not support vernal pool endemic plants. Rather, the features support perennial marsh species such as creeping spikerush (*Eleocharis macrostachya*), iris-leaved rush (*Juncus xiphioides*), along with the non-native grasses such as Italian ryegrass (*Festuca perennis*) and Mediterranean grass. In short, these features are not vernal pools; rather they are non-vernal pool seasonal wetlands. Thus, the project will not contribute to the cumulative loss of vernal pools.

Regarding the adequacy of the proposed mitigation ratio of 2:1, see Response to Comment A5 - Wetland Mitigation Ratios - above.

Exh A

A10 See Response to Comment A9 above.

Habitat Mitigation and Monitoring Plan for "permittee responsible mitigation." This issue is compounded by the EIR's lack of any performance standards for the permittee responsible mitigation.

ABJC-A
Exh A
A10
cont'd

Sincerely,

Scott Cashen, M.S.
Senior Biologist

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Navigant Bird and Mammal Section Report # 94.18

State of California

Memorandum

To : Div. Chiefs - IFD, BDD, NHD, WMD
Reg. Mgrs. - Regions 1, 2, 3, 4

Date : November 8, 1994

From : Department of Fish and Game

Subject : Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California

I am hereby transmitting the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California for your use in reviewing projects (California Environmental Quality Act [CEQA] and others) and in developing 2081 Management Authorizations and 2090 Biological Opinions which may affect Swainson's hawk habitat in the Central Valley. The staff report has been developed during the last 18 months by the Environmental Services Division (ESD) in cooperation with the Wildlife Management Division (WMD) and Regions 1, 2, and 4. It has been sent out for public review on several occasions and redrafted as appropriate.

Either the mitigation measures in the staff report may be used or project specific measures may be developed. Alternative project specific mitigation measures proposed by the Department Divisions/Regions or by project sponsors will also be considered. However, such mitigation measures must be submitted to ESD for review. The review process will focus on the consistency of the proposed measure with Department, Fish and Game Commission, and legislative policy and with laws regarding raptors and listed species. ESD will coordinate project specific mitigation measure review with WMD.

If you have any questions regarding the report, please contact Mr. Ron Rempel, Program Supervisor, Habitat Conservation Planning and Endangered Species Permitting, Environmental Services Division at (916) 654-9980.

COPY Original signed by
A. Petrovich, Jr.
For
Boyd Gibbons
Direction

Enclosure

cc: Mr. Ron Rempel
Department of Fish and Game
Sacramento

file; d, exfile, esd, chron
Vouchilas/seh/pdl SRPBUTEO.DS1

**Staff Report regarding Mitigation
for Impacts to Swainson's Hawks (*Buteo swainsoni*)
in the Central Valley of California**

INTRODUCTION

The Legislature and the Fish and Game Commission have developed the policies, standards and regulatory mandates which, if implemented, are intended to help stabilize and reverse dramatic population declines of threatened and endangered species. In order to determine how the Department of Fish and Game (Department) could judge the adequacy of mitigation measures designed to offset impacts to Swainson's hawks in the Central Valley, Staff (WMD, ESD and Regions) has prepared this report. To ensure compliance with legislative and Commission policy, mitigation requirements which are consistent with this report should be incorporated into: (1) Department comments to Lead Agencies and project sponsors pursuant to the California Environmental Quality Act (CEQA); (2) Fish and Game Code Section 2081 Management Authorizations (Management Authorizations); and (3) Fish and Game Code Section 2090 Consultations with State CEQA Lead Agencies.

The report is designed to provide the Department (including regional offices and divisions), CEQA Lead Agencies and project proponents the context in which the Environmental Services Division (ESD) will review proposed project specific mitigation measures. This report also includes "model" mitigation measures which have been judged to be consistent with policies, standards and legal mandates of the Legislature and Fish and Game Commission. Alternative mitigation measures, tailored to specific projects, may be developed if consistent with this report. Implementation of mitigation measures consistent with this report are intended to help achieve the conservation goals for the Swainson's hawk and should complement multi-species habitat conservation planning efforts currently underway.

The Department is preparing a recovery plan for the species and it is anticipated that this report will be revised to incorporate recovery plan goals. It is anticipated that the recovery plan will be completed by the end of 1995. The Swainson's hawk recovery plan will establish criteria for species recovery through preservation of existing habitat, population expansion into former habitat, recruitment of young into the population, and other specific recovery efforts.

During project review the Department should consider whether a proposed project will adversely affect suitable foraging habitat within a ten (10) mile radius of an active (used during one or more of the last 5 years) Swainson's hawk nest(s). Suitable Swainson's hawk foraging habitat will be those habitats and crops identified in Bechard (1983), Bloom (1980), and Estep (1989). The following vegetation types/agricultural crops are considered small mammal and insect foraging habitat for Swainson's hawks:

- alfalfa
- fallow fields
- beet, tomato, and other low-growing row or field crops
- dry-land and irrigated pasture

- rice land (when not flooded)
- cereal grain crops (including corn after harvest)

The ten mile radius standard is the flight distance between active (and successful) nest sites and suitable foraging habitats, as documented in telemetry studies (Estep 1989, Babcock 1993). Based on the ten mile radius, new development projects which adversely modify nesting and/or foraging habitat should mitigate the project's impacts to the species. The ten mile foraging radius recognizes a need to strike a balance between the biological needs of reproducing pairs (including eggs and nestlings) and the economic benefit of developments) consistent with Fish and Game Code Section 2053.

Since over 95% of Swainson's hawk nests occur on private land, the Department's mitigation program should include incentives that preserve agricultural lands used for the production of crops, which are compatible with Swainson's hawk foraging needs, while providing an opportunity for urban development and other changes in land use adjacent to existing urban areas.

LEGAL STATUS

Federal

The Swainson's hawk is a migratory bird species protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in Section 50 of the Code of Federal Regulations (C.F.R.) Part 10, including feathers or other parts, nests, eggs or products, except as allowed by implementing regulations (50 C.F.R. 21).

State

The Swainson's hawk has been listed as a threatened species by the California Fish and Game Commission pursuant to the California Endangered Species Act (CESA), see Title 14, California Code of Regulations, Section 670.5(b)(5)(A).

**LEGISLATIVE AND COMMISSION POLICIES,
LEGAL MANDATES AND STANDARDS**

The FGC policy for threatened species is, in part, to: "Protect and preserve all native species ... and their habitats...." This policy also directs the Department to work with all interested persons to protect and preserve sensitive resources and their habitats. Consistent with this policy and direction, the Department is enjoined to implement measures that assure protection for the Swainson's hawk.

The California State Legislature, when enacting the provisions of CESA, made the following findings and declarations in Fish and Game Code Section 2051:

a) "Certain species of fish, wildlife, and plants have been rendered extinct as a consequence of man's activities, untempered by adequate concern and conservation";

b) "Other species of fish, wildlife, and plants are in danger of, or threatened with, extinction because their habitats are threatened with destruction, adverse modification, or severe curtailment because of overexploitation, disease, predation, or other factors (emphasis added)";and

c) "These species of fish, wildlife, and plants are of ecological, educational, historical, recreational, esthetic, economic, and scientific value to the people of this state, and the conservation, protection, and enhancement of these species and their habitat is of statewide concern" (emphasis added).

The Legislature also proclaimed that it "is the policy of the state to conserve, protect, restore, and enhance any endangered or threatened species and its habitat and that it is the intent of the Legislature, consistent with conserving the species, to acquire lands for habitat for these species" (emphasis added).

Section 2053 of the Fish and Game Code states, in part, "it is the policy of the state that state agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species and or its habitat which would prevent jeopardy" (emphasis added).

Section 2054 states "The Legislature further finds and declares that, in the event specific economic, social, and or other conditions make infeasible such alternatives, individual projects may be approved if appropriate mitigation and enhancement measures are provided" (emphasis added).

Loss or alteration of foraging habitat or nest site disturbance which results in:

(1) nest abandonment; (2) loss of young; (3) reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be, a violation of Section 2080 of the Fish and Game Code. This interpretation of take has been judicially affirmed by the landmark appellate court decision pertaining to CESA (DFG v. ACID, 8 CA App.4, 41554). The essence of the decision emphasized that the intent and purpose of CESA applies to all activities that take or kill endangered or threatened species, even when the taking is incidental to otherwise legal activities. To avoid potential violations of Fish and Game Code Section 2080, the Department recommends and encourages project sponsors to obtain 2081 Management Authorizations for their projects.

Although this report has been prepared to assist the Department in working with the development community, the prohibition against take (Fish and Game Code Section 2080) applies to all persons, including those engaged in agricultural activities and routine maintenance of facilities. In addition, sections 3503, 3503.5, and 3800 of the Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

To avoid potential violation of Fish and Game Code Section 2080 (i.e. killing of a listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1 - September 15 annually). Delineation of specific activities which could cause nest abandonment (take) of Swainson's hawk during the nesting period should be done on a case-by-case basis.

CEQA requires a mandatory findings of significance if a project's impacts to threatened or endangered species are likely to occur (Sections 21001 (c), 21083, Guidelines Sections 15380, 15064, 15065). Impacts must be avoided or mitigated to less than significant levels unless the CEQA Lead Agency makes and supports findings of Overriding Consideration. The CEQA Lead Agency's Findings of Overriding Consideration does not eliminate the project sponsor's obligation to comply with Fish and Game Code Section 2080.

NATURAL HISTORY

The Swainson's hawk (Buteo swainsoni) is a large, broad winged buteo which frequents open country. They are about the same size as a red-tailed hawk (Buteo jatnaicensis), but trimmer, weighing approximately 800-1100 grams (1.75 - 2 lbs). They have about a 125 cm. (4+foot) wingspan. The basic body plumage may be highly variable and is characterized by several color morphs - light, dark, and rufous. In dark phase birds, the entire body of the bird may be sooty black. Adult birds generally have dark backs. The ventral or underneath sections may be light with a characteristic dark, wide "bib" from the lower throat down to the upper breast, light colored wing linings and pointed wing tips. The tail is gray ventrally with a subterminal dusky band, and narrow, less conspicuous barring proximally. The sexes are similar in appearance; females however, are slightly larger and heavier than males, as is the case in most sexually dimorphic raptors. There are no recognized subspecies (Palmer 1988).

The Swainson's hawk is a long distance migrator. The nesting grounds occur in northwestern Canada, the western U.S., and Mexico and most populations migrate to wintering grounds in the open pampas and agricultural areas of South America (Argentina, Uruguay, southern Brazil). The species is included among the group of birds known as "neotropical migrants". Some individuals or small groups (20-30 birds) may winter in the U.S., including California (Delta Islands). This round trip journey may exceed 14,000 miles. The birds return to the nesting grounds and establish nesting territories in early March.

Swainson's hawks are monogamous and remain so until the loss of a mate (Palmer 1988). Nest construction and courtship continues through April. The clutch (commonly 3-4 eggs) is generally laid in early April to early May, but may occur later. Incubation lasts 34-35 days, with both parents participating in the brooding of eggs and young. The young fledge (leave the nest) approximately 42-44 days after hatching and remain with their parents until they depart in the fall. Large groups (up to 100+ birds) may congregate in holding areas in the fall and may exhibit a delayed migration depending upon forage availability. The specific purpose of these congregation areas is as yet unknown, but is likely related to: increasing energy reserves for migration; the timing of migration; aggregation into larger migratory groups (including assisting the young in learning migration routes); and providing a pairing and courtship opportunity for unattached adults.

Foraging Requirements

Swainson's hawk nests in the Central Valley of California are generally found in scattered trees or along riparian systems adjacent to agricultural fields or pastures. These open fields and pastures are the primary foraging areas. Major prey items for Central Valley birds include: California voles (*Microtus californicus*), valley pocket gophers (*Thomomys bottae*), deer mice (*Peromyscus maniculatus*), California ground squirrels (*Spermophilus beecheyi*), mourning doves (*Zenaida macroura*), ring-necked pheasants (*Phasianus colchicus*), meadowlarks (*Sturnella neglecta*), other passerines, grasshoppers (*Conocephalinae sp.*), crickets (*Gryllidae sp.*), and beetles (Estep 1989). Swainson's hawks generally search for prey by soaring in open country and agricultural fields similar to northern hariers (*Circus cyaneus*) and ferruginous hawks (*Buteo regalis*). Often several hawks may be seen foraging together following tractors or other farm equipment capturing prey escaping from farming operations. During the breeding season, Swainson's hawks eat mainly vertebrates (small rodents and reptiles), whereas during migration vast numbers of insects are consumed (Palmer 1988).

Department funded research has documented the importance of suitable foraging habitats (e.g., annual grasslands, pasture lands, alfalfa and other hay crops, and combinations of hay, grain and row crops) within an energetically efficient flight distance from active Swainson's hawk nests (Estep pers. comm.). Recent telemetry studies to determine foraging requirements have shown that birds may use in excess of 15,000 acres of habitat or range up to 18.0 miles from the nest in search of prey (Estep 1989, Babcock 1993). The prey base (availability and abundance) for the species is highly variable from year to year, with major prey population (small mammals and insects) fluctuations occurring based on rainfall patterns, natural cycles and agricultural cropping and harvesting patterns. Based on these variables, significant acreages of potential foraging habitat (primarily agricultural lands) should be preserved per nesting pair (or aggregation of

nesting pairs) to avoid jeopardizing existing populations. Preserved foraging areas should be adequate to allow additional Swainson's hawk nesting pairs to successfully breed and use the foraging habitat during good prey production years.

Suitable foraging habitat is necessary to provide an adequate energy source for breeding adults, including support of nestlings and fledglings. Adults must achieve an energy balance between the needs of themselves and the demands of nestlings and fledglings, or the health and survival of both may be jeopardized. If prey resources are not sufficient, or if adults must hunt long distances from the nest site, the energetics of the foraging effort may result in reduced nestling vigor with an increased likelihood of disease and/or starvation. In more extreme cases, the breeding pair, in an effort to assure their own existence, may even abandon the nest and young (Woodbridge 1985).

Prey abundance and availability is determined by land and farming patterns including crop types, agricultural practices and harvesting regimes. Estep (1989) found that 73.4% of observed prey captures were in fields being harvested, disced, mowed, or irrigated. Preferred foraging habitats for Swainson's hawks include:

- alfalfa;
- fallow fields;
- beet, tomato, and other low-growing row or field crops;
- dry-land and irrigated pasture;
- rice land (during the non-flooded period); and
- cereal grain crops (including corn after harvest).

Unsuitable foraging habitat types include crops where prey species (even if present) are not available due to vegetation characteristics (e.g. vineyards, mature orchards, and cotton fields, dense vegetation).

Nesting Requirements

Although the Swainson's hawk's current nesting habitat is fragmented and unevenly distributed, Swainson's hawks nest throughout most of the Central Valley floor. More than 85% of the known nests in the Central Valley are within riparian systems in Sacramento, Sutter, Yolo, and San Joaquin counties. Much of the potential nesting habitat remaining in this area is in riparian forests, although isolated and roadside trees are also used. Nest sites are generally adjacent to or within easy flying distance to alfalfa or hay fields or other habitats or agricultural crops which provide an abundant and available prey source. Department research has shown that valley oaks (Quercus lobata), Fremont's cottonwood (Populus fremontii), willows (Salix spp.), sycamores (Platanus spp.), and walnuts (juglans spp.) are the preferred nest trees for Swainson's hawks (Bloom 1980, Schlorff and Bloom 1983, Estep 1989).

Fall and Winter Migration Habitats

During their annual fall and winter migration periods, Swainson's hawks may congregate in large groups (up to 100+ birds). Some of these sites may be used during delayed migration periods lasting up to three months. Such sites have been identified in Yolo, Tulare, Kern and San Joaquin counties and protection is needed for these critical foraging areas which support birds during their long migration.

Historical and Current Population Status

The Swainson's hawk was historically regarded as one of the most common and numerous raptor species in the state, so much so that they were often not given special mention in field notes. The breeding population has declined by an estimated 91% in California since the turn of the century (Bloom 1980). The historical Swainson's hawk population estimates are based on current densities and extrapolated based on the historical amount of available habitat. The historical population estimate is 4,284-17,136 pairs (Bloom 1980). In 1979, approximately 375 (± 50) breeding pairs of Swainson's hawks were estimated in California, and 280 (75%) of those pairs were estimated to be in the Central Valley (Bloom 1980). In 1988, 241 active breeding pairs were found in the Central Valley, with an additional 78 active pairs known in northeastern California. The 1989 population estimate was 430 pairs for the Central Valley and 550 pairs statewide (Estep, 1989). This difference in population estimates is probably a result of increased survey effort rather than an actual population increase.

Reasons for decline

The dramatic Swainson's hawk population decline has been attributed to loss of native nesting and foraging habitat, and more recently to the loss of suitable nesting trees and the conversion of agricultural lands. Agricultural lands have been converted to urban land uses and incompatible crops. In addition, pesticides, shooting, disturbance at the nest site, and impacts on wintering areas may have contributed to their decline. Although losses on the wintering areas in South America may occur, they are not considered significant since breeding populations outside of California are stable. The loss of nesting habitat within riparian areas has been accelerated by flood control practices and bank stabilization programs. Smith (1977) estimated that in 1850

over 770,000 acres of riparian habitat were present in the Sacramento Valley. By the mid-1980s, Warner and Hendrix (1984) estimated that there was only 120,000 acres of riparian habitat remaining in the Central Valley (Sacramento and San Joaquin Valleys combined). Based on Warner and Hendrix's estimates approximately 93% of the San Joaquin Valley and 73% of the Sacramento Valley riparian habitat has been eliminated since 1850.

MANAGEMENT STRATEGIES

Management and mitigation strategies for the Central Valley population of the Swainson's hawk should ensure that:

- suitable nesting habitat continues to be available (this can be accomplished by protecting existing nesting habitat from destruction or disturbance and by increasing the number of suitable nest trees); and

- foraging habitat is available during the period of the year when Swainson's hawks are present in the Central Valley (this should be accomplished by maintaining or creating adequate and suitable foraging habitat in areas of existing and potential nest sites and along migratory routes within the state).

A key to the ultimate success in meeting the Legislature's goal of maintaining habitat sufficient to preserve this species is the implementation of these management strategies in cooperation with project sponsors and local, state and federal agencies.

DEPARTMENT'S ROLES AND RESPONSIBILITIES IN PROJECT CONSULTATION AND ADMINISTRATION OF CEQA AND THE FISH AND GAME CODE

The Department, through its administration of the Fish and Game Code and its trust responsibilities, should continue its efforts to minimize further habitat destruction and should seek mitigation to offset unavoidable losses by (1) including the mitigation measures in this document in CEQA comment letters and/or as management conditions in Department issued Management Authorizations or (2) by developing project specific mitigation measures (consistent with the Commission's and the Legislature's mandates) and including them in CEQA comment letters and/or as management conditions in Fish and Game Code Section 2081 Management Authorizations issued by the Department and/or in Fish and Game Code Section 2090 Biological Opinions.

The Department should submit comments to CEQA Lead Agencies on all projects which adversely affect Swainson's hawks. CEQA requires a mandatory findings of significance if a project's impacts to threatened or endangered species are likely to occur (Sections 21001 fc), 21083. Guidelines 15380, 15064, 15065). Impacts must be: (1) avoided; or (2) appropriate mitigation must be provided to reduce impacts to less than significant levels; or (3) the lead agency must make and support findings of overriding consideration. If the CEQA Lead Agency makes a Finding of Overriding Consideration, it does not eliminate the project sponsor's obligation to comply with the take prohibitions of Fish and Game Code Section 2080. Activities

which result in (1) nest abandonment; (2) starvation of young; and/or (3) reduced health and vigor of eggs and nestlings may result in the take (killing) of Swainson's hawks incidental to otherwise lawful activities (urban development, recreational activities, agricultural practices, levee maintenance and similar activities. The taking of Swainson's hawk in this manner may be a violation of Section 2080 of the Fish and Game Code. To avoid potential violations of Fish and Game Code Section 2080, the Department should recommend and encourage project sponsors to obtain 2081 Management Authorizations.

In aggregate, the mitigation measures incorporated into CEQA comment letters and/or 2081 Management Authorizations for a project should be consistent with Section 2053 and 2054 of the Fish and Game Code. Section 2053 states, in part, "it is the policy of the state that state agencies should not approve projects as proposed which would jeopardize the continued existence of'any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species and or its habitat which would prevent jeopardy" - Section 2054 states: "The Legislature further finds and declares that, in the event specific economic, social, and or other conditions make infeasible such alternatives, individual projects may be approved if appropriate mitigation and enhancement measures are provided."

State lead agencies are required to consult with the Department pursuant to Fish and Game Code Section 2090 to ensure that any action authorized, funded, or carried out by that state agency will not jeopardize the continued existence of any threatened or endangered species. Comment letters to State Lead Agencies should also include a reminder that the State Lead Agency has the responsibility to consult with the Department pursuant to Fish and Game Code Section 2090 and obtain a written findings (Biological Opinion). Mitigation measures included in Biological Opinions issued to State Lead Agencies must be consistent with Fish and Game Code Sections 2051-2054 and 2091-2092.

NEST SITE AND HABITAT LOCATION INFORMATION SOURCES

The Department's Natural Diversity Data Base (NDDB) is a continually updated, computerized inventory of location information on the State's rarest plants, animals, and natural communities. Department personnel should encourage project proponents and CEQA Lead Agencies, either directly or through CEQA comment letters, to purchase NDDB products for information on the locations of Swainson's hawk nesting areas as well as other sensitive species. The Department's Nongame Bird and Mammal Program also maintains information on Swainson's hawk nesting areas and may be contacted for additional information on the species.

Project applicants and CEQA Lead Agencies may also need to conduct site specific surveys (conducted by qualified biologists at the appropriate time of the year using approved protocols) to determine the status (location of nest sites, foraging areas, etc.) of listed species as part of the CEQA and 2081 Management Authorization process. Since these studies may require multiple years to complete, the Department shall identify any needed studies at the earliest possible time in the project review process. To facilitate project review and reduce the potential for costly

project delays, the Department should make it a standard practice to advise developers or others planning projects that may impact one or more Swainson's hawk nesting or foraging areas to initiate communication with the Department as early as possible .

MANAGEMENT CONDITIONS

Staff believes the following mitigation measures (nos. 1-4) are adequate to meet the Commission's and Legislature's policy regarding listed species and are considered as preapproved for incorporation into any Management Authorizations for the Swainson's hawk issued by the Department. The incorporation of measures 1-4 into a CEQA document should reduce a project's impact to a Swainson's hawk(s) to less than significant levels. Since these measures are Staff recommendations, a project sponsor or CEQA Lead agency may choose to negotiate project specific mitigation measures which differ. In such cases, the negotiated Management Conditions must be consistent with Commission and Legislative policy and be submitted to the ESD for review and approval prior to reaching agreement with the project sponsor or CEQA Lead Agency.

Staff recommended Management Conditions are:

1. No intensive new disturbances (e.g. heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities) or other project related activities which may cause nest abandonment or forced fledging, should be initiated within 1/4 mile (buffer zone) of an active nest between March 1 - September 15 or until August 15 if a Management Authorization or Biological Opinion is obtained for the project. The buffer zone should be increased to ½ mile in nesting areas away from urban development (i.e. in areas where disturbance [e.g. heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities] is not a normal occurrence during the nesting season). Nest trees should not be removed unless there is no feasible way of avoiding it. If a nest tree must be removed, a Management Authorization (including conditions to off-set the loss of the nest tree) must be obtained with the tree removal period specified in the Management Authorization, generally between October 1- February 1. If construction or other project related activities which may cause nest abandonment or forced fledging are necessary within the buffer zone, monitoring of the nest site (funded by the project sponsor) by a qualified biologist (to determine if the nest is abandoned) should be required . If it is abandoned and if the nestlings are still alive, the project sponsor shall fund the recovery and hacking (controlled release of captive reared young) of the nestling(s). Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within 1/4 mile of an active nest should not be prohibited.

2. Hacking as a substitute for avoidance of impacts during the nesting period may be used in unusual circumstances after review and approval of a hacking plan by ESD and WMD. Proponents who propose using hacking will be required to fund the full costs of the effort, including any telemetry work specified by the

Department.

3. To mitigate for the loss of foraging habitat (as specified in this document), the Management Authorization holder/project sponsor shall provide Habitat Management (HM) lands to the Department based on the following ratios:

(a) Projects within I mile of an active nest tree shall provide:

- one acre of HM land (at least 10% of the HM land requirements shall be met by fee title acquisition or a conservation easement allowing for the active management of the habitat, with the remaining 90% of the HM lands protected by a conservation easement [acceptable to the Department] on agricultural lands or other suitable habitats which provide foraging habitat for Swainson's hawk) for each acre of development authorized (1:1 ratio); or

- One-half acre of HM land (all of the HM land requirements shall be met by fee title acquisition or a conservation easement [acceptable to the Department) which allows for the active management of the habitat for prey production on-the HM lands) for each acre of development authorized (0.5:1 ratio).

(b) Projects within 5 miles of an active nest tree but greater than 1 mile from the nest tree shall plovide 0.75 acres of HM land for each acre of urban development authorized (0-75:1 ratio). All HM lands protected under this requirement may be protected through fee title acquisition or conservation easement (acceptable to the Department) on agricultural lands or other suitable habitats which provide foraging habitat for Swainson's hawk.

(c) Projects within 10 miles of an active nest tree but gleater than 5 miles from an active nest tree shall provide 0.5 acres of HM land for each acre of urban development authorized (0.5:1 ratio). All HM lands- protected under this requirement may be protected through fee title acquisition or a conservation easement (acceptable to the Department) on agricultural lands or other suitable habitats which provide foraging habitat for Swainson's hawk.

4. Management Authorization holders/project sponsors shall provide for the long-term management of the HM lands by funding a management endowment (the interest on which shall be used for managing the HM lands) at the rate of $400 per HM land acre (adjusted annually for inflation and varying interest rates).

Some project sponsors may desire to provide funds to the Department for HM land protection. This option is acceptable to the extent the proposal is consistent with Department policy regarding acceptance of funds for land acquisition. All HM lands should be located in areas which are consistent with a multi-species habitat conservation focus. Management

Authorization holders/project sponsors who are willing to establish a significant mitigation bank (> 900 acres) should be given special consideration such as 1.1 acres of mitigation credit for each acre preserved.

PROJECT SPECIFIC MITIGATION MEASURES

Although this report includes recommended Management Measures, the Department should encourage project proponents to propose alternative mitigation strategies that provide equal or greater protection of the species and which also expedite project environmental review or issuance of a CESA Management Authorization. The Department and sponsor may choose to conduct cooperative, multi-year field studies to assess the site's habitat value and determine its use by nesting and foraging Swainson's hawk. Study plans should include clearly defined criteria for judging the project's impacts on Swainson's hawks and the methodologies (days of monitoring, foraging effort/efficiency, etc.) that will be used.

The study plans should be submitted to the Wildlife Management Division and ESD for review. Mitigation measures developed as a result of the study.must be reviewed by ESD (for consistency with the policies of the Legislature and Fish and Game Commission) and approved by the Director.

EXCEPTIONS

Cities, counties and project sponsors should be encouraged to focus development on open lands within already urbanized areas. Since small disjunct parcels of habitat seldom provide foraging habitat needed to sustain the reproductive effort of a Swainson's hawk pair, Staff does not recommend requiring mitigation pursuant to CEQA nor a Management Authorization by the Department for infill (within an already urbanized area) projects in areas which have less than 5 acres of foraging habitat and are surrounded by existing urban development, unless the project area is within 1/4 mile of an active nest tree.

REVIEW

Staff should revise this report at least annually to determine if the proposed mitigation strategies should be retained, modified or if additional mitigation strategies should be included as a result of new scientific information.

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Draft Staff Report

Including the Substitute Environmental Documentation

State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State

[Proposed for Inclusion in the Water Quality Control Plans for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California]

July 21, 2017

c. *Amount: The amount of compensatory mitigation will be determined on a project-by-project basis in accordance with the State Supplemental Dredge or Fill Guidelines, section 230.93(f). The permitting authority may take into account recent anthropogenic degradation to the aquatic resource and the potential and existing functions and conditions of the aquatic resource. A minimum of one-to-one acreage or length of stream reach replacement is necessary to compensate for wetland or stream losses unless an appropriate function or condition assessment method clearly demonstrates, on an exceptional basis, that a lesser amount is sufficient. A reduction in the mitigation ratio for compensatory mitigation will be considered by the permitting authority if buffer areas adjacent to the compensatory mitigation are also required to be maintained as part of the compensatory mitigation management plan. The amount of compensatory mitigation required by the permitting authority will vary depending on which of the following strategies the applicant uses to locate the mitigation site within a watershed.*

General Considerations: The amount of compensatory mitigation required by the Water Boards would be the amount necessary to compensate for aquatic resource losses that is sufficient in replacing the full range of aquatic resources and/or functions of the aquatic resource. Functions are the physical, chemical, and biological processes that occur in ecosystems. In general, compensatory mitigation projects that are fully established prior to the adverse impacts to aquatic resource(s) will require a lower amount of compensatory mitigation because there will be no temporal losses in aquatic functions and absolute certainty in the success of the compensatory mitigation project. Similarly, compensatory mitigation projects that are implemented prior to or concurrent with the adverse impacts to aquatic resource(s) will generally require a lower amount of compensatory mitigation because temporal losses in aquatic functions will be lower and certainty in the success in the compensatory mitigation project will be greater. In addition, compensatory mitigation projects that take a relatively long time to develop a full range of functions will require a greater amount of compensatory mitigation to account for temporal losses in aquatic functions.

The ability to adjust the required mitigation ratio to account for recent anthropogenic degradation of an aquatic resource creates a disincentive for an applicant to intentionally degrade an aquatic resource in advance of a project so that less compensatory mitigation would be required. When recent anthropogenic degradation occurs that is wholly independent of the project applicant's activity, a higher mitigation ratio would likely not be appropriate.

In-kind mitigation is preferred and will generally require a lower amount of compensatory mitigation because it provides greater assurance that the full range of lost aquatic resource(s) and/or functions will be replaced. Locational factors, such as proximity to the impact site, hydrological conditions, soil characteristics, adjacent land uses, and biological conditions, will affect the level of certainty that a compensatory mitigation project will replace lost acres, functions, and services (i.e., likelihood of success).

Compensatory mitigation projects with a high likelihood for success will generally require a lower amount of compensatory mitigation because a high likelihood of success will ensure no overall net loss and achieve a long-term net gain in the aquatic resource acres, functions and services. For instance, mitigation projects located in close proximity and within the same watershed as the impacted aquatic resources will generally require a lower amount of mitigation. Lastly, impacts to aquatic resources with potentially medium to high level of aquatic functions will require a greater amount of compensatory mitigation.

Buffers: Compensatory mitigation projects that include buffers will generally require a lower amount of compensatory mitigation because risk and failure will be lower when buffers are provided. The Procedures allow for buffer areas to be included as a component of compensatory mitigation, to ensure the ecological sustainability of a compensatory mitigation site, when necessary. Buffers are important to ensuring the long-term viability of aquatic resources and may provide habitat and wildlife corridors that improve the ecological functioning of an aquatic resource. In order for buffer areas to be considered as a component of compensatory mitigation, those buffer areas would need to be maintained and protected in long-term management plans.

Watershed Approach: In addition to condition assessments and buffer area components, the Water Boards will take into consideration the application of the watershed approach. As a component of a draft compensatory mitigation plan, an applicant must submit a watershed profile which contains data on the abundance, diversity and condition of aquatic resources in a project evaluation area sufficient to provide information to evaluate direct, secondary (indirect), and cumulative impacts of a project and compensatory mitigation alternatives on sustaining and enhancing the aquatic resources in the watershed. The Water Boards will take into consideration the following two strategies when determining compensatory mitigation amounts based on the applicant submittal of a watershed profile.

> *Strategy 1: Applicant locates compensatory mitigation using a watershed approach based on a watershed profile developed from a watershed plan that has been approved by the permitting authority and analyzed in an environmental document, includes monitoring provisions, and includes guidance on compensatory mitigation opportunities;*
>
> *Strategy 2: Applicant locates compensatory mitigation using a watershed approach based on a watershed profile developed for a project evaluation area, and demonstrates that the mitigation project will contribute to the sustainability of watershed functions and the overall health of the watershed area's aquatic resources.*
>
> *Generally, the amount of compensatory mitigation required under Strategy 1 will be less than the amount of compensatory mitigation required under Strategy 2 since the level of certainty that a compensatory mitigation project will meet its performance standards increases if the compensatory mitigation project complies with a watershed plan as described above. Certainty*

increases when there is a corresponding increase in understanding of watershed conditions, which is increased when using a watershed plan as described above to determine compensatory mitigation requirements.

The Water Boards aim to sustain and enhance the quality and quantity of aquatic resources within watersheds by applying the watershed approach to strategically select compensatory mitigation sites. As stated above, by relying on a Water Board approved watershed plan, compensatory mitigation quantities for the applicant could be reduced due to a higher level of certainty that the compensatory mitigation project would improve the overall health of the watershed.

Minimum Mitigation Ratio: The minimum mitigation ratio establishes the baseline ratio which is then increased based on such factors as mentioned above (e.g., risk, type and location of compensatory mitigation). Normally, a minimum quantity of one-to-one ratio of impacted waters to areas restored through compensatory mitigation is required. The Water Boards could consider a mitigation ratio of less than one-to-one, but upon adoption of the Procedures, a lesser ratio will be considered "on an exceptional basis." Given the uncertainties associated with mitigation (as described in section 5.2 *Impacts of Compensatory Mitigation*), there is a relatively heavy burden on applicants to clearly demonstrate that mitigation less than a one-to-one would compensate for the proposed impacts. Examples of factors that individually, or in combination with other factors, may lead to consideration of a less that one-to-one minimum mitigation ratio by the Water Boards, include:

- Where condition assessments of the mitigation site and the impact site a significant lift in functional capacity within the watershed based on an analysis of attainable condition at both sites. A significant increase in functional capacity is indicated when there is a categorical difference in assessed condition scores at the mitigation site and the impact site (e.g., "good condition" offsetting "poor condition"). If this is the case, the mitigation project must also demonstrate a high likelihood of achieving its performance standards. Operationally, a site's attainable condition may be evaluated by considering the ecological stressors impacting the site and whether those stressors may be expected to naturally continue or dissipate in the near future, or be ameliorated without much difficulty or cost.
- Where mitigation projects include maintenance of substantial buffers to protect the mitigation as part of the mitigation plan, because those buffers are not included in the calculation of the ratio.
- Where mitigation projects include multiple benefits, such as addressing climate change, sea level rise, or similar issues, as long as those issues are not related to impacts of the project, and
- Where mitigation projects are part of a watershed plan, if the mitigation project when evaluated in conjunction with other nearby mitigation projects in the watershed plan, has additional cumulative watershed benefits.

Mitigation Ratio Factoring. The Water Boards intend to implement standardized procedures to determine compensatory mitigation requirements which are open and transparent to the applicant. It

will be consistent with the procedures developed by the South Pacific Division of the Corps for determining and documenting mitigation ratios (Regulatory Program Standard Operating Procedures for Determination of Mitigation Ratios[57]), but will also include consideration of the additional factors discussed above. In the Corps procedures, the following factors are evaluated using a "checklist" approach to adjust the mitigation ratio:

- Quantitative or qualitative impact-mitigation comparison: The mitigation ratio is adjusted based on the degree of gain in aquatic resource function and condition. A comparison of the sites is made quantitatively based on field scores from an approved function/condition assessment method, or qualitatively by assessing the functional loss at the impact site verses expected functional gain at the mitigation site.
- Mitigation site location – Generally, a lower ratio is prescribed when mitigation is located within the same watershed as the impacted aquatic resource since to would replace the permanent loss of aquatic resource functions and beneficial uses. An increase in the mitigation ratio would be justified if the mitigation was located outside of the watershed to account for permanently removing the aquatic resource unless it is determined that the proposed mitigation is ecologically preferable.
- Net loss of aquatic resource surface area – The mitigation ratio is adjusted based on the compensatory mitigation method since compensatory mitigation in the form of establishment (creation) or re-establishment results in a gain of area and a gain in function; compensatory mitigation in the form of rehabilitation or enhancement results in a gain of function only; mitigation in the form of preservation results in neither a gain of area or a gain in function. Thus, the latter method of compensatory mitigation would require the highest increase in the mitigation ratio, while the first method would result in the least increase.
- Type conversion – Out-of-kind mitigation is compensatory mitigation that replaces a resource that is structurally and functionally different from the impacted aquatic resource. For out-of-kind mitigation generally a higher mitigation ratio is prescribed unless the mitigation is ecologically preferable based on aquatic resource needs in the greater ecoregion.
- Risk and uncertainty – The ratio is adjusted to reflect the uncertainty mitigation success. Factors considered include, but are not limited to, whether the mitigation is permittee responsible, difficulty of replacement (e.g., vernal pools, streams) modified hydrology or artificial hydrology, supporting structures requiring long-term maintenance (e.g., bank stabilization, outfalls), planned vegetation maintenance, and absence of a long-term preservation mechanism.

[57] Special Public Notice. "Standard Operating Procedure for Determination of Mitigation Ratios" U.S. Army Corps of Engineers, South Pacific Division, February 20, 2012

- Temporal loss – Temporal loss describes the time lag between the loss of aquatic resource functions caused by permanent or temporary impacts and the timing of the replacement of aquatic resource functions at the compensatory mitigation site. If temporal loss is expected, a higher mitigation ratio is prescribed. If compensatory mitigation is established before a proposed impact, such as at a mitigation bank, temporal loss would not be considered.

Other factors that could be taken into consideration when determining mitigation ratios might include: (1) mitigation projects that include maintenance of substantial buffers to protect the mitigation as part of the mitigation plan, because those buffers are not included in the calculation of the ratio, (2) mitigation projects that have multiple benefits, such as addressing climate change, sea level rise, or similar issues, as long as those issues are not related to impacts of the project, and (3) mitigation projects that are part of a watershed plan, if the mitigation project, when evaluated in conjunction with other nearby mitigation projects in the watershed plan, has additional cumulative watershed benefits.

d. *Type and Location: The permitting authority will evaluate the applicant's proposed mitigation type and location based on the applicant's use of a watershed approach based on a watershed profile. The permitting authority will determine the appropriate type and location of compensatory mitigation based on watershed conditions, impact size, location and spacing, aquatic resource values, relevant watershed plans and other considerations. In general, the required compensatory mitigation should be located within the same watershed as the impact site, but the permitting authority may approve compensatory mitigation in a different watershed. For example, if a proposed project may affect more than one watershed, then the permitting authority may determine that locating all required project mitigation in one area is ecologically preferable to requiring mitigation within each watershed.*

The Procedures would require that the Water Boards determine that the compensatory mitigation type and location is the most environmentally-preferable by applying the watershed approach to the extent appropriate and practicable. The Procedures provide that the Water Boards may approve all required compensatory mitigation in one area within the larger region if the proposed project impacts more than one watershed while taking into consideration watershed conditions, impact size, location and spacing, aquatic resource values, watershed plans and other considerations. Compensatory mitigation should be located where it is most likely to successfully replace the lost functions and services of the impact site, taking into account the watershed profile.

As described in the state Guidelines, the following compensatory mitigation types would be considered: 1) mitigation banks, 2) In-Lieu fee programs, and 3) permittee responsible mitigation. The state Guidelines further provide for a preference hierarchy, with the highest preference given to mitigation banks , and then in-lieu fee programs; permittee-responsible under a watershed approach; permittee-responsible through on-site and in-kind mitigation; and lastly, permittee-responsible off-site and/or out-of-kind. This is considered a "soft preference" because any mitigation type may override the preferred

type if that mitigation type will result in greater benefits to the condition of aquatic resources in the watershed.

e. *Final Compensatory Mitigation Plan: The permitting authority will review and approve the final compensatory mitigation plan submitted by the applicant to ensure mitigation comports with the State Supplemental Dredge or Fill Guidelines, Water Code requirements, applicable water quality standards, and other appropriate requirements of state law. The level of detail in the final plan shall be sufficient to accurately evaluate whether compensatory mitigation offsets the adverse impacts attributed to a project considering the overall size and scope of impact. The compensatory mitigation plan shall be sufficient to provide the permitting authority with a reasonable assurance that replacement of the full range of lost aquatic resource(s) and/or functions will be provided in perpetuity.*

As part of a complete application, the applicant would have already submitted a draft compensatory mitigation plan. Water Board staff will review the draft mitigation plan to ensure all components have been addressed and finalized, including the amount, type, and location of compensatory mitigation. A final compensatory mitigation plan will be adopted as part of the final Order issued by the Water Boards.
If circumstances require that an Order be issued before a compensatory mitigation plan can be finalized, the applicant would need to obtain final approval from the Water Board before impacting waters of the state. In these cases, a final mitigation plan will be approved by amending the Order.

f. *Financial Security: Where deemed necessary by the permitting authority, provision of a financial security (e.g., letter of credit or performance bond) shall be a condition of the Order. In this case, the permitting authority will approve the financial security to ensure compliance with compensatory mitigation plan requirements.*

In some cases, the Water Boards may require the applicant provide financial security to ensure a high level of confidence that the compensatory mitigation project will be completed, successfully. Financial assurances could be provided in the form of a letter of credit, a performance bond, escrow accounts, or casualty insurance.

g. *Term of Mitigation Obligation: The permitting authority may specify in the Order the conditions that must be met in order for the permitting authority to release the permittee from the mitigation obligation, including compensatory mitigation performance standards and long term management funding obligations.*

The Water Boards may include conditions in an Order that would release the permittee from any further compensatory mitigation obligations. A release may be considered by the Water Boards after a real-estate instrument is in place to protect the site in perpetuity, all performance standards agreed to in the compensatory mitigation plan have been met, and an endowment fund has been provided to ensure the long term management and protection of the aquatic resource site in perpetuity. If site-specific environmental factors are present that may jeopardize the condition of the mitigation site, then these

California's Great Valley Vernal Pool Habitat Status and Loss: Rephotorevised 2005

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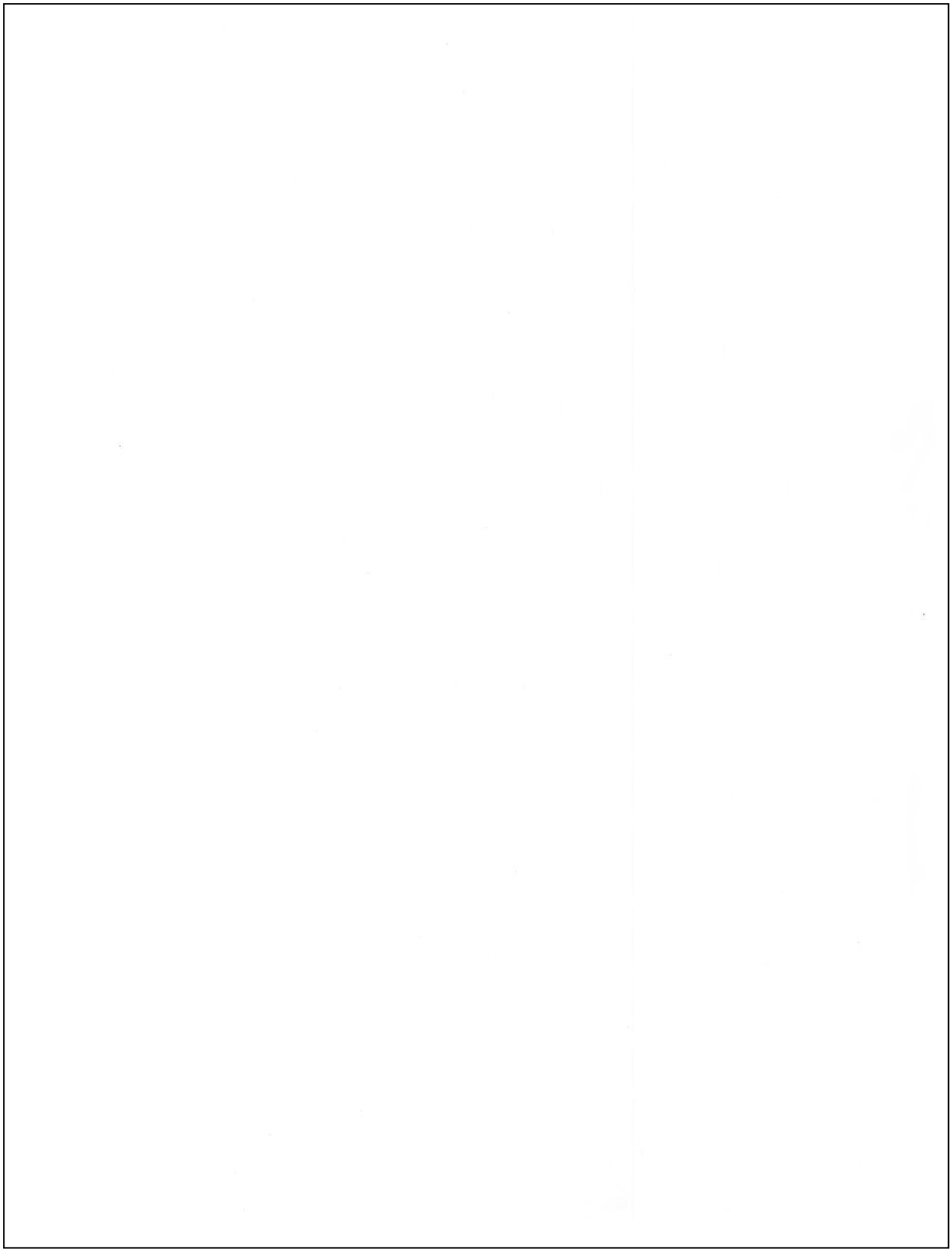

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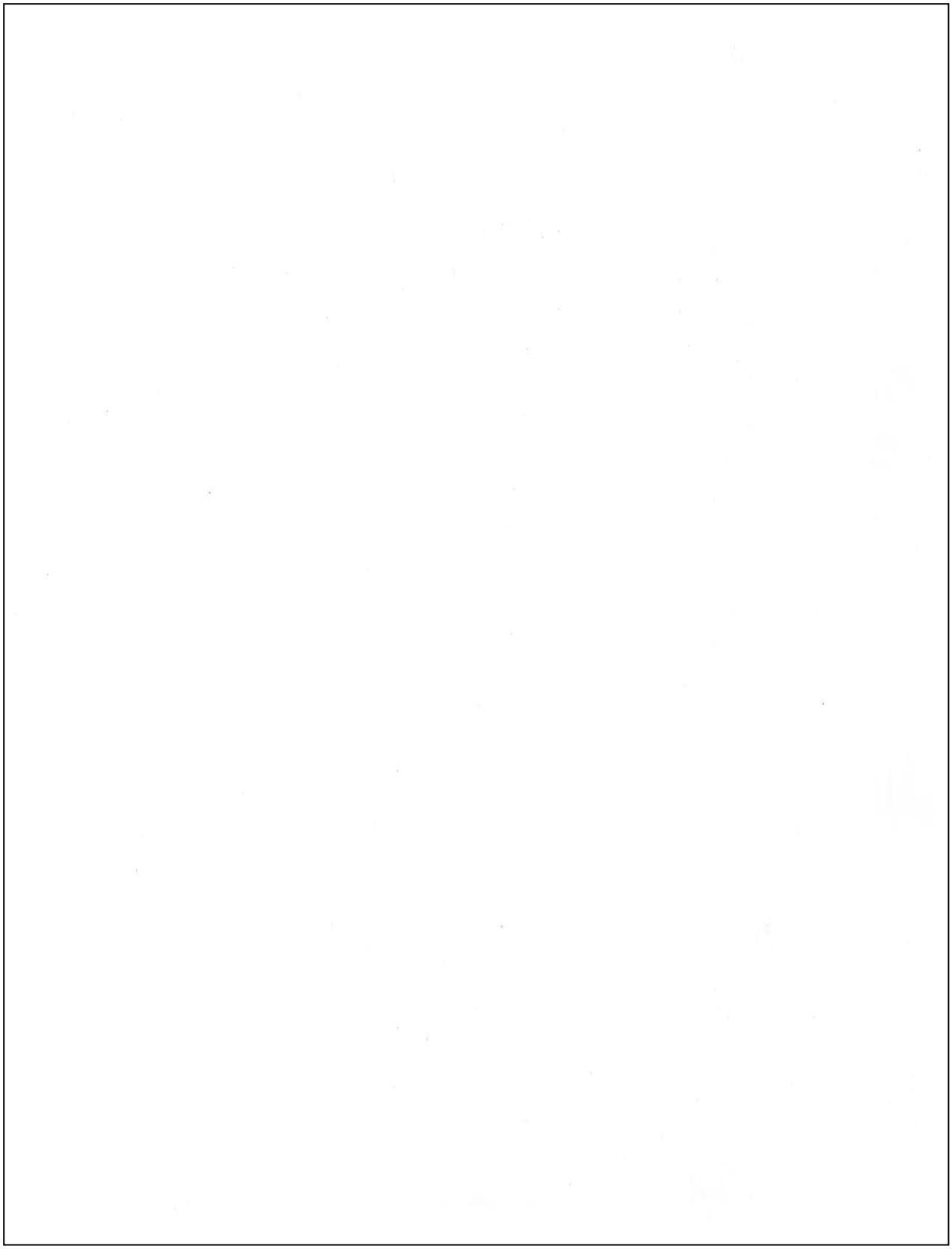

ABSTRACT

Aerial photograph interpretation was used to map the extent of vernal pool habitat in the Great Valley for 2005, and was compared to maps prepared previously for the 1976–1995 period and for 1997. The primary causes of vernal pool habitat loss were also obtained from aerial photograph interpretation. Approximately 1,030,000 acres of vernal pool habitat were documented in the Great Valley for the 1976–1995 period. In 2005, about 895,000 acres remained; a reduction of roughly 135,000 acres. The amount of loss was not distributed evenly across the Great Valley. For example, Mariposa County has not lost any vernal pool habitat since 1976, but at the opposite extreme, Merced County has lost 24,000 acres (or 8 percent) and Placer County 17,000 acres (or 35 percent) of the vernal pool habitat found during initial mapping (in 1987 and 1994, respectively). Counties in the central and western portions of the Great Valley (Colusa, Glenn, Sutter, and Yolo) have also seen high losses, ranging from 40 to 75 percent. Eighty one percent of the total habitat loss between the initial mapping period and 2005 (110,000 acres) was lost due to agricultural land conversions. Establishment of orchards and vineyards represents the largest category of land conversion, or almost 30 percent, which corresponds to an proximately 40,000 acres loss of vernal pool habitat. Most of this loss was concentrated in the southern Sacramento Valley and northern San Joaquin Valley. Urban development accounted for 26,000 acres (19 percent) of total habitat loss. Most urban development caused habitat loss (two-thirds of the total) was concentrated in Placer and Sacramento Counties with relatively small amounts of loss scattered in other parts of the Great Valley.

INTRODUCTION

Vernal pools are ephemeral wetland ecosystems with a specialized biota that includes numerous localized plant and animal species. Typically, they form within shallow depressions in grasslands that are underlain by an impervious soil layer. Beginning in the winter, the pools fill with rain water and then slowly dry out through evaporation in the spring. At the time of initial Spanish exploration in the late 1700s, about half of the area of the Great Valley was likely characterized by vernal pool landscapes (Holland and Hollander 2007). The approximately 7 million acres of vernal pool landscapes present at that time have been much reduced, first by agricultural development and mineral extraction, and more recently by urban expansion. The most recent estimate of remaining vernal pool habitat (i.e., vernal pool wetlands and the surrounding grassland matrix within which vernal pools typically occur) was about 967,600 acres in 1997 (Holland 1998b), an 87 percent reduction in the original habitat acreage. Habitat loss, combined with the intrinsically localized distributions of many vernal pool taxa, has lead to several species of plants and animals being listed by the State of California or federal government as Threatened or Endangered (Table 1). Many more species are considered to be Rare by the California Native Plant Society (2009).

Great Valley vernal pool habitat was initially mapped from aerial photographs over the period from 1976 to 1995 (Holland 1998a). Subsequently, this map was updated in 1997 based on aerial photography for the entire Great Valley, and the loss of habitat over that period was assessed (Holland 1998b). The objectives of the current study were to update the 1997 vernal pool habitat map to 2005 conditions, to evaluate changes to vernal pool habitat distribution, and, for the first time, to identify those land uses to which vernal pool habitat was converted.

MATERIALS AND METHODS

PREVIOUS MAPPING METHODS

1976 to 1995 Map (Baseline)

The first digital map of Great Valley vernal pool habitat (Holland 1998a) documented 1,033,000 acres of remaining habitat. This baseline map was based on air photos taken over the period from 1976 to 1995, with the majority taken between 1982 and 1992 (Holland 1998a). The photos were vertically oriented, 35 mm, true-color slides that covered about 1 x 1.4 miles, with 20 percent front- and side-lap, taken from a specially equipped aircraft that flew at constant height above the ground. The slides were taken as part of a program in the California Department of Water Resources that maps the origin, distribution, and use of agricultural water throughout cultivated California, by mapping crop types in California counties on an approximately 7-year rotation. Every slide in every flight line was visually examined for the characteristic signatures[1] of vernal pools. When habitat was encountered, it was mapped onto paper 7.5' USGS topographic map sheets. Each sheet was digitized on an ArcINFO workstation upon completion. The density of vernal pools within each polygon was subjectively scored as either low, medium, or high and areas of disturbed habitat (e.g., areas of cultivation where extant habitat was still evident) were differentiated from areas of undisturbed habitat. Examples of low, medium, and high density vernal pool habitats are shown in Figures 1 and 2. Over an 18 month period, more than 40,000 slides (covering all or part of 345 7.5' USGS topographic map sheets) were examined in an approximately 18,000,000 acre study area that stretched from Shasta Dam south to the Tehachapi Mountains and west to include several North Bay counties.

1997 Map

In 1997, the California Department of Conservation Farmland Mapping and Monitoring Program sponsored a U2 flight covering the entire Great Valley. The resultant images were 9x9 inch false-color infrared transparencies at 1:130,000 scale. About 1,500 images were required to cover the valley. These images, in combination with readily available black-and-white SPOT satellite imagery, were used to update the baseline map to 1997 conditions. Individual vernal pools were not visible at the mapped scale of the U2 and SPOT images, but changes in land use were readily apparent. Hundreds of vernal pool habitat polygons were converted to other uses. Hundreds more were reduced in size or split into two or more fragments. Polygon boundaries were modified to 1997 conditions. This revised map (Holland 1998b) allowed the first calculation of the rate at which vernal pool habitats in California's Great Valley were vanishing.

The calculation of habitat loss was complicated because the baseline photos were taken county-by-county over several decades. Two counties were mapped from photos just two years old (i.e., 1995 photos). Two other counties were mapped from 1976 photos. Thus, it was possible to calculate annual habitat loss rates for each county, but not for the entire Great Valley. This map (Holland 1998b) has been publicly available for nearly a decade and was the starting point for the present study.

MAPPING METHODS FOR 2005

In 2005, the National Agricultural Imaging Program (NAIP) — administered by the USDA's Farm Service Agency—produced imagery for each of California's counties. The NAIP images are 1-meter pixel true color orthophoto mosaics that can be displayed using Geographic Information Systems over a large range of scales without loss of image quality. Working systematically from north to south, all polygons from the 1997 map (Holland 1998b) were examined in relation to the NAIP imagery. Vernal pool habitat was scored using the same

[1] The photos were taken during peak irrigation demand during the mid summer. During this season, the grassland has completely dried and formerly living annual plants now stand as dead straw. Vernal pools appear as irregularly dendritic features within the tawny matrix of dried annual grassland. See Figures 1 and 2.

methods as employed in the related previous studies. Polygon boundaries were adjusted to 2005 conditions. Due to the enhanced resolution provided by the NAIP imagery, it was possible to add a code indicating the current land use for every polygon, something that was not possible in previous studies. Figure 3 shows several polygons in relation to landscape in Shasta County, California.

Once the 1997 polygons were updated to 2005 conditions and attributed, the map and accompanying attribution underwent an extensive third-party quality assurance and quality control review. The review included attribute checking of random samples of polygons, checking attributes of known areas, assessment and correction of map topology, and comparing of check sums of acreages between years. Each mapped polygon was inspected against the NAIP imagery (and sometimes against other public-domain geospatial datasets if interpretation of a feature or attribute class was unclear). This review did not look outside the mapped polygons to see if additional habitat had been missed in the original mapping efforts. The purpose of the review was to confirm that each polygon was correctly attributed as extant or extirpated and the correct land conversion code was assigned. Overall polygon boundaries were not changed or adjusted, except in the cases of overlapping polygons. Overlapping polygons were adjusted so that the overlap acreage would not be calculated twice. As necessary, polygons were clipped to accurately portray existing land use. This was especially necessary in some of the largest polygons where portions had been converted to agricultural residential land use (e.g., "ranchettes" or "hobby farms"). A total of 222 additional polygons were created. Once all polygons had been reviewed and reattributed as necessary, new areas and acreages were calculated for each polygon.

As a final step, the shapefile was thoroughly checked for topological errors (i.e., minute mapping errors such as edges of adjacent polygons not completely overlapping). Any topological errors were discovered and corrected. The resulting attribute table was exported out of ArcGIS into Microsoft Excel. Excel was used to summarize the data, compute various data cross-tabulations, and display results graphically.

RESULTS

The final 2005 vernal pool habitat map is presented in Figure 4. Figure 5 summarizes the acreage of extant vernal pool habitat, by density class, for each of the three mapping periods. The acreage of habitat loss is also shown for the 1997 map and 2005 update. Tables 2 and 3 list the amount of habitat lost for each mapping period, by county, as well as the rate of habitat loss. Figure 6 summarizes the various land use changes that have resulted in vernal pool habitat loss and lists those counties where the majority of vernal pool habitat has been lost for each land use conversion. Table 4 displays these same data in detail.

Some of the most significant results are described below.

There were 1,033,000 acres of extant vernal pool habitat in the (1976–1995) baseline map. By 1997, the acreage of extant habitat had been reduced to 995,000 acres, and many previously contiguous areas of habitat had been fragmented. By 2005 there were 896,000 acres of extant habitat with additional fragmentation of the habitat that remained. Therefore, a total of 137,000 acres, or roughly 13 percent, of vernal pool habitat has been lost since the baseline map was prepared (Table 2).

About 4 percent of the habitat extant in the original mapping had been eliminated by 1997, an additional 9 percent was lost between 1997 and 2005. This is over 1 percent per year of the extant habitat in the baseline habitat map (Table 2).

While a large amount of habitat has been lost, the amount of loss is not distributed evenly across the study area. For example, Mariposa County has not lost any vernal pool habitat since the baseline mapping year (1976). Merced and Placer Counties occupy the opposite extreme. Merced County lost 6,100 acres between 1986 and 1997, or 552 acres/year. Placer County lost 10,440 acres between 1994 and 1997, or 3,480 acres/year. These two

counties account for almost one-half (46 percent) of the habitat loss documented in 1997. Large acreages of habitat loss continued in these two counties between 1997 and 2005. Merced County lost an additional 18,000 acres of habitat during this period, and Placer County lost 6,600 acres of habitat. In all, these two counties have lost 8 percent and 35 percent, respectively, of their baseline vernal pool habitat acreage. While the percentage of loss in Merced County is only 8 percent of the baseline habitat, this represents a loss of almost 24,000 acres, greatly exceeding the total acreage of loss in any other county during the assessment periods. Areas in the central and western portions of the valley (Colusa, Glenn, Sutter, and Yolo) have experienced dramatic declines in the total proportional of vernal pool habitat, as have Sonoma, Napa, and Marin counties outside the Great Valley in the North Bay Area (Table 2).

Similar to the amount of habitat loss, the rate of habitat loss varies greatly across the study area. Habitat loss rates, in terms of acreage per year, have accelerated markedly in Madera, Stanislaus, Butte, Fresno, Merced, Kings, Kern, Sacramento, San Joaquin, and Sutter counties between 1997 and 2005 relative to the baseline year and 1997. Marked decelerations in habitat loss are evident in Glenn, Placer, and Solano counties. When habitat losses are viewed in terms of the percentage of baseline habitat lost per year slightly different, but equally compelling trends are observed. Six counties (Colusa, Glenn, Napa, Placer, Sutter, and Yolo) have lost more than 3 percent of their baseline habitat *per year*, since the baseline mapping year. For these counties this represents a time span of anywhere from 10 years (Yolo County) to 18 years (Napa County). In some cases the rate of habitat loss is roughly even throughout this period (Colusa and Yolo Counties, both averaging nearly 5 percent of baseline habitat lost per year) while in other cases the rate of loss is declining (Glenn and Placer counties) or increasing (Sutter and Napa counties) (Table 3).

Various forms of agricultural land use conversion plainly exceed urbanization as a source of vernal pool habitat loss. Eighty one percent of the total habitat loss between the baseline year and 2005 was lost due to agricultural land conversions (Table 4 and Figure 6).

Orchards, vineyards, and, less frequently, eucalyptus plantations (for pulp) represent the single largest cause of vernal pool habitat conversion. Almost 30 percent of the total observed vernal pool habitat loss (approximately 40,000 acres) could be attributed to this land conversion. Much of the loss (nearly two-thirds of the total) was concentrated in the northern San Joaquin Valley counties of Merced, Stanislaus, and San Joaquin. Much of the remaining loss occurred in Madera, Glenn, and Colusa counties (Table 4 and Figure 6).

The amount of vernal pool habitat loss attributable to other types of agricultural land conversion (agricultural residential, bare agricultural land, irrigated pasture, and other agricultural activities) was roughly equivalent, ranging from 10 percent to 15 percent of the total habitat loss. With the exception of agricultural residential development, which is most common in the northeastern Sacramento Valley, these activities have been concentrated in the San Joaquin Valley (Table 4 and Figure 6).

Land conversions tied to population growth and urban development accounted for almost 26,000 acres or 19 percent of habitat loss. Most urban habitat loss (two-thirds of the total) was concentrated in Placer and Sacramento Counties (Table 4 and Figure 6).

DISCUSSION

Over 13 percent of the extant vernal pool habitat found in the baseline mapping effort (Holland 1998a) has been eliminated as of 2005. Agricultural conversions (e.g., rangeland being converted to orchards or vineyards) are far and away the primary drivers of vernal pool habitat loss across the Great Valley. The vast majority of these habitat conversions occur outside the normal regulatory processes that apply to urban, commercial, infrastructure, and industrial development (AECOM 2009) and are, therefore, largely unmitigated. In other words, little to no vernal pool habitat is being created or preserved to compensate for this loss, resulting in an overall net loss of vernal pool habitat functions and services. Urbanization exceeds agricultural development as the primary cause of vernal pool habitat loss only in Placer County.

The rate of habitat loss increased sharply between 1997 and 2005, relative to rates of loss prior to 1997. And, while much vernal pool habitat still remains in many counties (despite significant losses), widespread loss of habitat was observed on the western side of the Northern Sacramento Valley, an area that did not have extensive areas of vernal pool habitat initially. If the current rate of annual habitat loss were to continue, vernal pool habitats (with the exception of vernal pool habitat preserves) would be completely eliminated from the Great Valley by 2087.

Given changes in GIS technology since the baseline maps were prepared, a brief discussion of the limitations of the mapping methodology used to prepare the current and historic maps is appropriate. The original maps were sketched by hand from a display screen at about 1: 10,400 scale onto 1: 24,000 scale topographic sheets, and later digitized by a technician using ArcINFO at a dedicated workstation and a digitizing tablet. The 1997 update was drawn by hand on 130,000-scale base maps. These base maps were edited by a technician on-screen using ArcView 3.2. The 2005 update was done entirely on-screen using ArcGIS version 9.2. With this technology, one may zoom in or out, overlay maps of topography, geology, or soils, or compare the photomosaic with other imagery from other dates. The 1997 methods were more accurate than the baseline mapping methods, and the 2005 methods were again more accurate than the 1997 methods.

Because the 2005 NAIP imagery afforded vastly superior image quality to the color aerial photography slides and satellite imagery used to prepare the baseline map and 1997 update, a variety of initial mapping errors were evident. For example, it was not uncommon to find polygons originally mapped from baseline imagery whose boundaries only approximated the detail visible in the 2005 images. There were also instances where habitat that was obviously extant in 2005 was not mapped in the initial baseline map, and, conversely, there were obvious areas of non-habitat that had been lumped with adjacent areas of extant habitat to create a single polygon.

Unfortunately, it would be very time consuming, and likely impossible, to quantify the acres of vernal pool habitat affected by these mapping errors, which are equally likely in both directions. Even if the accuracy of specific acreage estimates for extant and extirpated habitat are somewhat uncertain, the relative amount of loss between the baseline mapping year and 2005 is a valid estimate of the net loss of vernal pool habitat during this period. The clear conclusion is that significant vernal pool habitat loss is occurring throughout the Great Valley and that, despite the attention devoted to urban development, various forms of agricultural development have resulted in over four times more vernal pool habitat loss than urbanization.

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Table 1
Great Valley Vernal Pool Species That Are Listed As Threatened or Endangered by the U.S. Fish and Wildlife Service or the California Department of Fish and Game

Scientific Name	Common Name
Ambystoma californiense	California tiger salamander
Elaphrus viridis	Delta green ground beetle
Branchinecta longiantenna	longhorn fairy shrimp
Branchinecta conservatio	Conservancy fairy shrimp
Branchinecta lynchi	vernal pool fairy shrimp
Lepidurus packardi	vernal pool tadpole shrimp
Neostapfia colusana	Colusa grass
Orcuttia inaequalis	San Joaquin Valley Orcutt grass
Orcuttia pilosa	hairy Orcutt grass
Orcuttia viscida	Sacramento Orcutt grass
Orcuttia tenuis	slender Orcutt grass
Tuctoria mucronata	Solano grass
Tuctoria greenei	Greene's tuctoria
Castilleja campestris ssp. *succulenta*	succulent owl's clover
Chamaesyce hooveri	Hoover's spurge
Limnanthes floccosa ssp. *californica*	Butte County meadowfoam
Lasthenia conjugens	Contra Costa goldfields

Source: Data provided by EDAW in 2009

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Table 2
Acreage of Vernal Pool Habitat Loss, by County

County	Baseline Year	Mapped Extant			Total Acres Lost			Total Percent Lost		
		Baseline	1997	2005	Base–97	97–05	Base–05	Base–97	97–05	Base–05
Alameda	1986	2,751	2,402	2,006	348	396	745	12.7%	14.4%	27.1%
Amador	1983	4,242	4,242	3,846	0	396	396	0.0%	9.3%	9.3%
Butte	1994	59,166	58,714	53,540	452	5,174	5,626	0.8%	8.7%	9.5%
Calaveras	1983	6,419	6,419	5,917	0	502	502	0.0%	7.8%	7.8%
Colusa	1993	5,703	4,410	2,110	1,293	2,300	3,593	22.7%	40.3%	63.0%
Contra Costa	1985	3,150	3,150	3,131	0	19	19	0.0%	0.6%	0.6%
El Dorado	1983	1,274	1,274	1,018	0	256	256	0.0%	20.1%	20.1%
Fresno	1994	27,690	27,539	25,490	151	2,048	2,199	0.5%	7.4%	7.9%
Glenn	1993	10,803	8,113	6,553	2,690	1,560	4,250	24.9%	14.4%	39.3%
Kern	1990	9,543	9,455	8,681	88	774	862	0.9%	8.1%	9.0%
Kings	1991	11,951	11,662	9,676	289	1,986	2,275	2.4%	16.6%	19.0%
Lake	1995	2,541	2,541	2,410	0	131	131	0.0%	5.2%	5.2%
Madera	1987	94,054	90,357	79,706	3,697	10,651	14,348	3.9%	11.3%	15.3%
Marin	1986	260	260	162	0	98	98	0.0%	37.7%	37.7%
Mariposa	1976	6,553	6,553	6,553	0	0	0	0.0%	0.0%	0.0%
Merced	1987	285,215	279,142	261,180	6,073	17,962	24,035	2.1%	6.2%	8.4%
Napa	1987	1,207	994	165	213	829	1,042	17.6%	68.7%	86.3%
Placer	1994	48,298	37,858	31,185	10,440	6,673	17,113	21.6%	13.8%	35.4%
Sacramento	1993	53,757	53,583	47,159	174	6,424	6,598	0.3%	12.0%	12.3%
San Joaquin	1988	37,976	36,527	29,615	1,449	6,912	8,361	3.8%	18.2%	22.0%
Shasta	1995	24,034	23,937	23,019	97	918	1,015	0.4%	3.8%	4.2%
Solano	1994	38,897	37,334	35,400	1,563	1,934	3,497	4.0%	5.0%	9.0%
Sonoma	1986	4,466	3,925	2,464	541	1,461	2,002	12.1%	32.7%	44.8%
Stanislaus	1988	92,346	91,025	78,254	1,321	12,771	14,092	1.4%	13.8%	15.3%
Sutter	1990	1,444	1,374	700	70	674	744	4.8%	46.7%	51.5%
Tehama	1994	137,902	134,641	126,860	3,261	7,781	11,042	2.4%	5.6%	8.0%
Tulare	1993	38,223	36,442	30,969	1,781	5,473	7,254	4.7%	14.3%	19.0%
Tuolumne	1976	4,164	4,164	4,080	0	84	84	0.0%	2.0%	2.0%
Yolo	1989	3,617	2,640	901	977	1,739	2,716	27.0%	48.1%	75.1%
Yuba	1995	14,337	14,061	13,034	276	1,027	1,303	1.9%	7.2%	9.1%
Totals		**1,031,983**	**994,738**	**895,787**	**37,245**	**98,951**	**136,196**	**3.6%**	**9.6%**	**13.2%**
Map Error		**928**				**928**	**928**			
Net Loss						**99,879**	**137,124**		**9.7%**	**13.3%**

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Table 3
Rate of Vernal Pool Habitat Loss, by County

County	Baseline Year	Acres Lost Per Year			Percent Lost Per Year		
		Base–97	97–05	Base–05	Base–97	97–05	Base–05
Alameda	1986	32	50	39	1.2%	1.8%	1.4%
Amador	1983	0	50	18	0.0%	1.2%	0.4%
Butte	1994	151	647	511	0.3%	1.1%	0.9%
Calaveras	1983	0	63	23	0.0%	1.0%	0.4%
Colusa	1993	323	288	299	5.7%	5.0%	5.3%
Contra Costa	1985	0	2	1	0.0%	0.1%	0.0%
El Dorado	1983	0	32	12	0.0%	2.5%	0.9%
Fresno	1994	50	256	200	0.2%	0.9%	0.7%
Glenn	1993	673	195	354	6.2%	1.8%	3.3%
Kern	1990	13	97	57	0.1%	1.0%	0.6%
Kings	1991	48	248	162	0.4%	2.1%	1.4%
Lake	1995	0	16	13	0.0%	0.6%	0.5%
Madera	1987	370	1,331	797	0.4%	1.4%	0.8%
Marin	1986	0	12	5	0.0%	4.7%	2.0%
Mariposa	1976	0	0	0	0.0%	0.0%	0.0%
Merced	1987	607	2,245	1,335	0.2%	0.8%	0.5%
Napa	1987	21	104	58	1.8%	8.6%	4.8%
Placer	1994	3,480	834	1,556	7.2%	1.7%	3.2%
Sacramento	1993	43	803	550	0.1%	1.5%	1.0%
San Joaquin	1988	161	864	492	0.4%	2.3%	1.3%
Shasta	1995	49	115	102	0.2%	0.5%	0.4%
Solano	1994	521	242	318	1.3%	0.6%	0.8%
Sonoma	1986	49	183	105	1.1%	4.1%	2.4%
Stanislaus	1988	147	1,596	829	0.2%	1.7%	0.9%
Sutter	1990	10	84	50	0.7%	5.8%	3.4%
Tehama	1994	1,087	972	1,004	0.8%	0.7%	0.7%
Tulare	1993	445	684	605	1.2%	1.8%	1.6%
Tuolumne	1976	0	11	3	0.0%	0.3%	0.1%
Yolo	1989	122	217	170	3.4%	6.0%	4.7%
Yuba	1995	138	128	130	1.0%	0.9%	0.9%

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Table 4
Amount of Vernal Pool Habitat Loss[1] by Type of Land Conversion and County

County	Urban, Commercial, Industrial		Agricultural Residential		Orchards, Vineyards, & Eucalyptus		Bare, Plowed Agricultural Land		Alfalfa & Pasture		Other Agricultural	
	Acres	Percent of Conversion	Acres	Percent of Conversion	Acres	Percent of Conversion	Acres	Percent of Conversion	Acres	Percent of Conversion	Acres	Percent of Conversion
Alameda	389	1.5%	0	0.0%	151	0.4%	0	0.0%	135	0.9%	69	0.3%
Amador	21	0.1%	69	0.4%	29	0.1%	0	0.0%	121	0.8%	0	0.0%
Butte	1,127	4.3%	2,946	16.8%	936	2.4%	464	2.6%	26	0.2%	368	1.7%
Calaveras	51	0.2%	335	1.9%	2	0.0%	98	0.6%	0	0.0%	16	0.1%
Colusa	22	0.1%	10	0.1%	1,150	2.9%	615	3.5%	432	2.8%	1,364	6.4%
Contra Costa	0	0.0%	0	0.0%	0	0.0%	26	0.1%	0	0.0%	0	0.0%
El Dorado	101	0.4%	155	0.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Fresno	61	0.2%	1,010	5.8%	207	0.5%	366	2.1%	0	0.0%	554	2.6%
Glenn	0	0.0%	54	0.3%	2,643	6.7%	851	4.8%	87	0.6%	615	2.9%
Kern	124	0.5%	293	1.7%	0	0.0%	92	0.5%	0	0.0%	198	0.9%
Kings	372	1.4%	11	0.1%	0	0.0%	798	4.5%	901	5.9%	193	0.9%
Lake	0	0.0%	27	0.2%	22	0.1%	0	0.0%	82	0.5%	0	0.0%
Madera	103	0.4%	2,913	16.6%	3,386	8.6%	473	2.7%	3,453	22.7%	4,018	19.0%
Marin	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	97	0.5%
Merced	1,404	5.4%	63	0.4%	11,105	28.1%	3,684	20.8%	3,636	23.9%	3,961	18.7%
Napa	895	3.4%	31	0.2%	0	0.0%	0	0.0%	0	0.0%	213	1.0%
Placer	15,368	59.2%	172	1.0%	103	0.3%	426	2.4%	188	1.2%	1,363	6.4%
Sacramento	3,267	12.6%	416	2.4%	2,193	5.6%	420	2.4%	69	0.5%	387	1.8%
San Joaquin	60	0.2%	1,137	6.5%	4,503	11.4%	1,654	9.3%	506	3.3%	860	4.1%
Shasta	175	0.7%	722	4.1%	7	0.0%	0	0.0%	36	0.2%	76	0.4%
Solano	743	2.9%	132	0.8%	0	0.0%	1,068	6.0%	217	1.4%	1,335	6.3%
Sonoma	500	1.9%	44	0.2%	822	2.1%	62	0.3%	202	1.3%	373	1.8%
Stanislaus	19	0.1%	1,116	6.4%	9,202	23.3%	2,379	13.4%	489	3.2%	944	4.5%
Sutter	22	0.1%	181	1.0%	14	0.0%	132	0.8%	0	0.0%	341	1.6%
Tehama	325	1.3%	5,286	30.1%	2,570	6.5%	448	2.5%	1,443	9.5%	861	4.1%
Tulare	15	0.1%	326	1.9%	314	0.8%	2,589	14.6%	3,123	20.5%	1,032	4.9%
Tuolumne	39	0.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	44	0.2%
Yolo	626	2.4%	0	0.0%	132	0.3%	924	5.2%	0	0.0%	1,034	4.9%
Yuba	136	0.5%	94	0.5%	0	0.0%	125	0.7%	74	0.5%	873	4.1%
Totals	**25,965**	**100.0%**	**17,542**	**100.0%**	**39,491**	**100.0%**	**17,696**	**100.0%**	**15,228**	**100.0%**	**21,190**	**100.0%**

Note: 1. Vernal pool habitat loss represents the difference between the acreage for 2005 and the 1976–1995 period.

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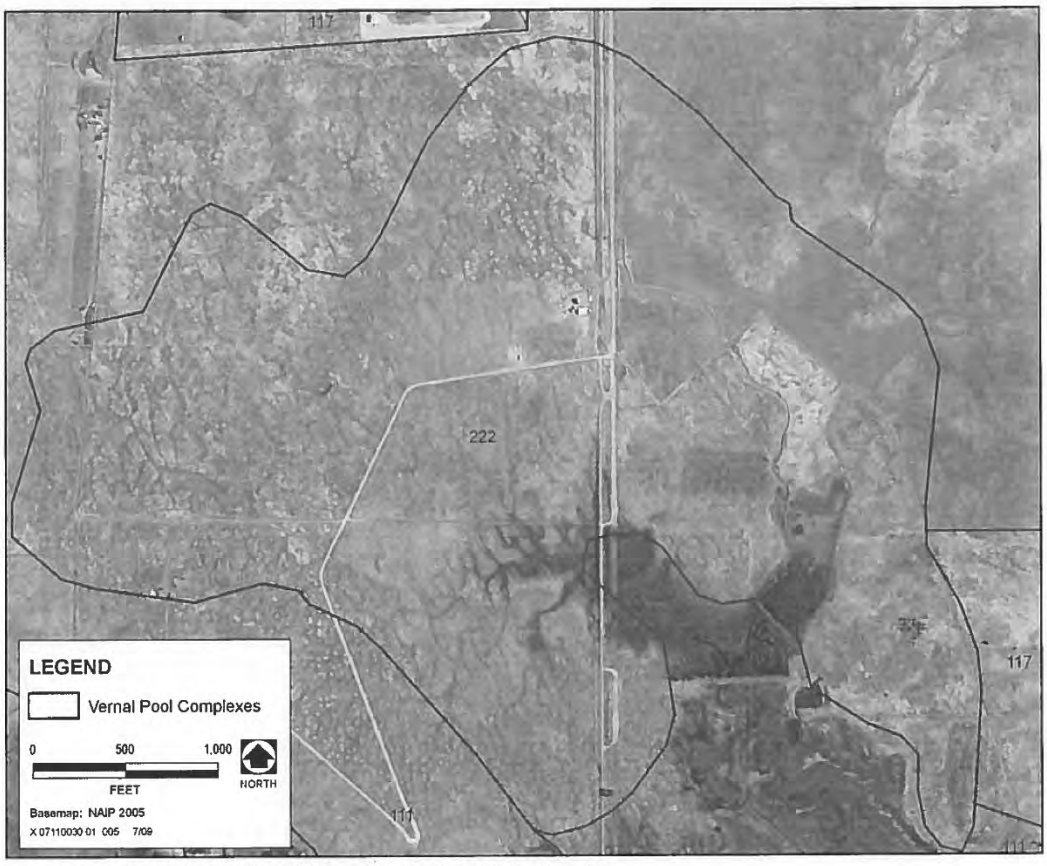


Figure 1. Example Image from Thermalito Afterbay, Butte County

Note: Red numbers indicate habitat scores in the original mapping, 1997, and 2005. Low density habitat (ones) nearly surrounds an area of moderate density habitat (twos). Two areas of low density habitat were converted to agricultural residential (sevens) between 1997 and 2005.

Great Valley Vernal Pool Distribution Rephotorevised 2005 Page 11

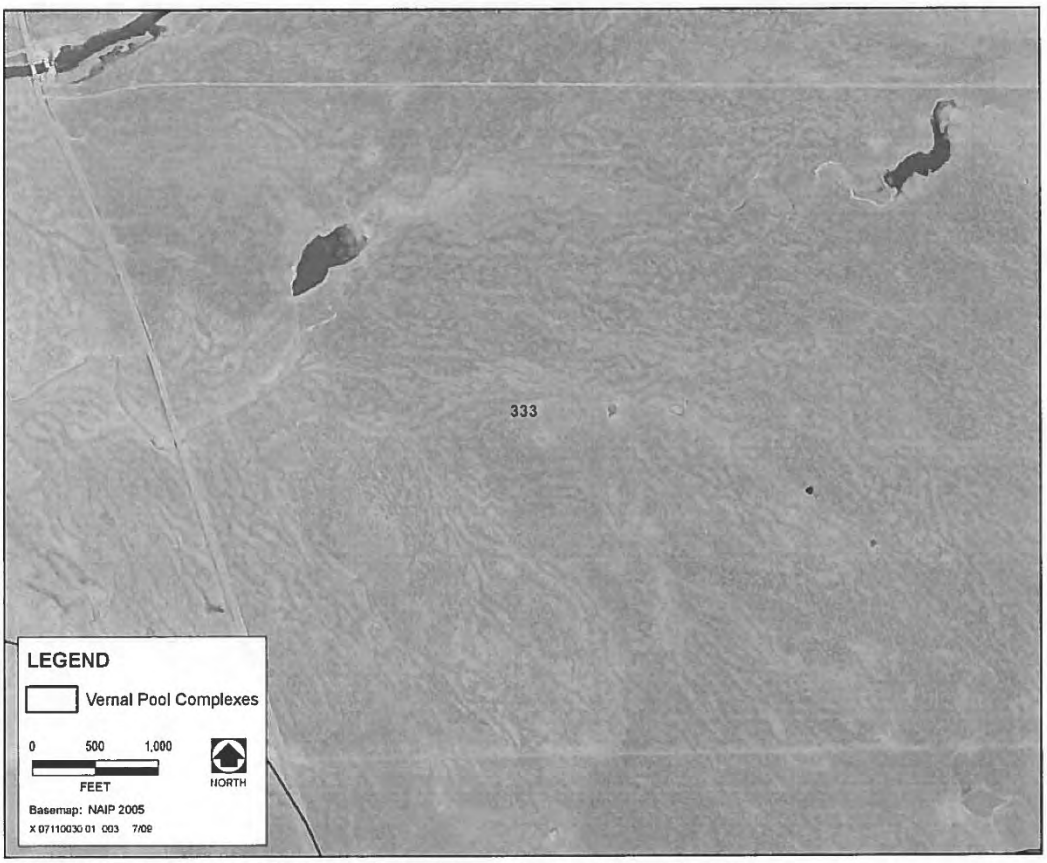


Figure 2. Example Image of High Density Habitat near Snelling, Merced County

Page 12 Great Valley Vernal Pool Distribution Rephotorevised 2005

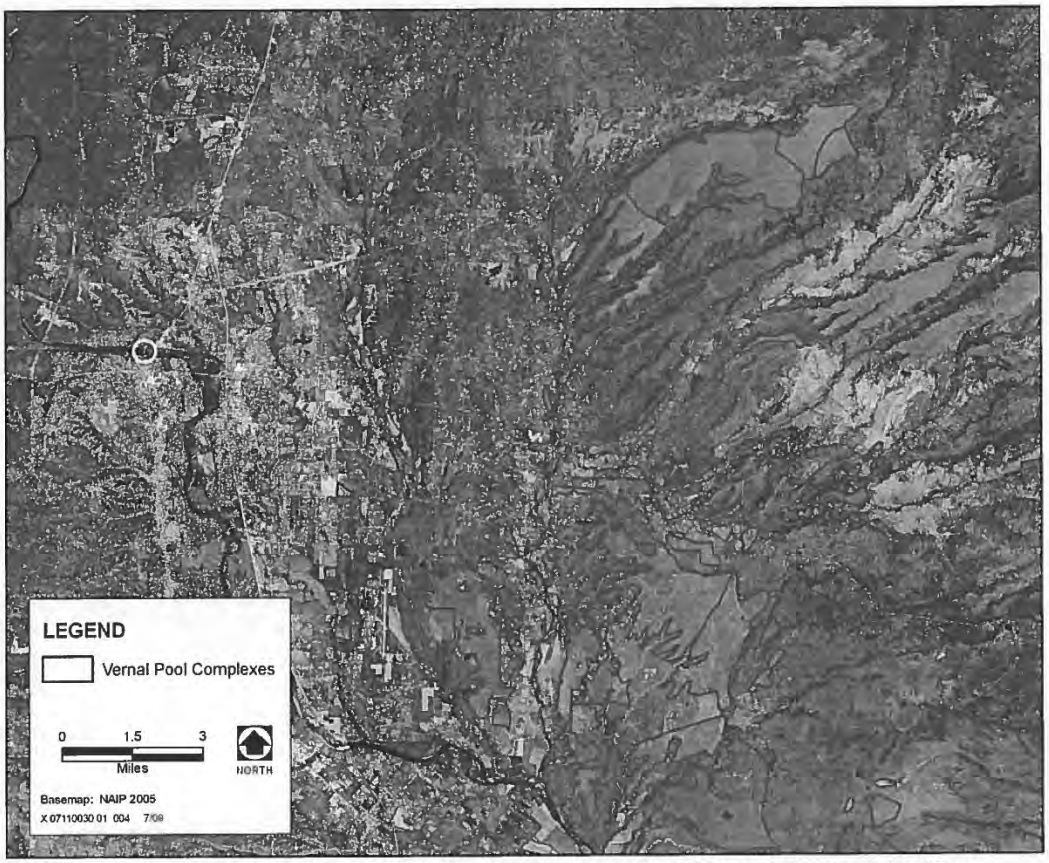


Figure 3. Example Image from Shasta County Showing Several Habitat Polygons in Relation to Landforms

Note: The city of Redding is in the lower left; the 20 foot wide Sundial Bridge over Sacramento River is visible inside the yellow circle. The major north-south road is Interstate 5. The polygon west of the interstate was urbanized after 1997.

Great Valley Vernal Pool Distribution Rephotorevised 2005 Page 13

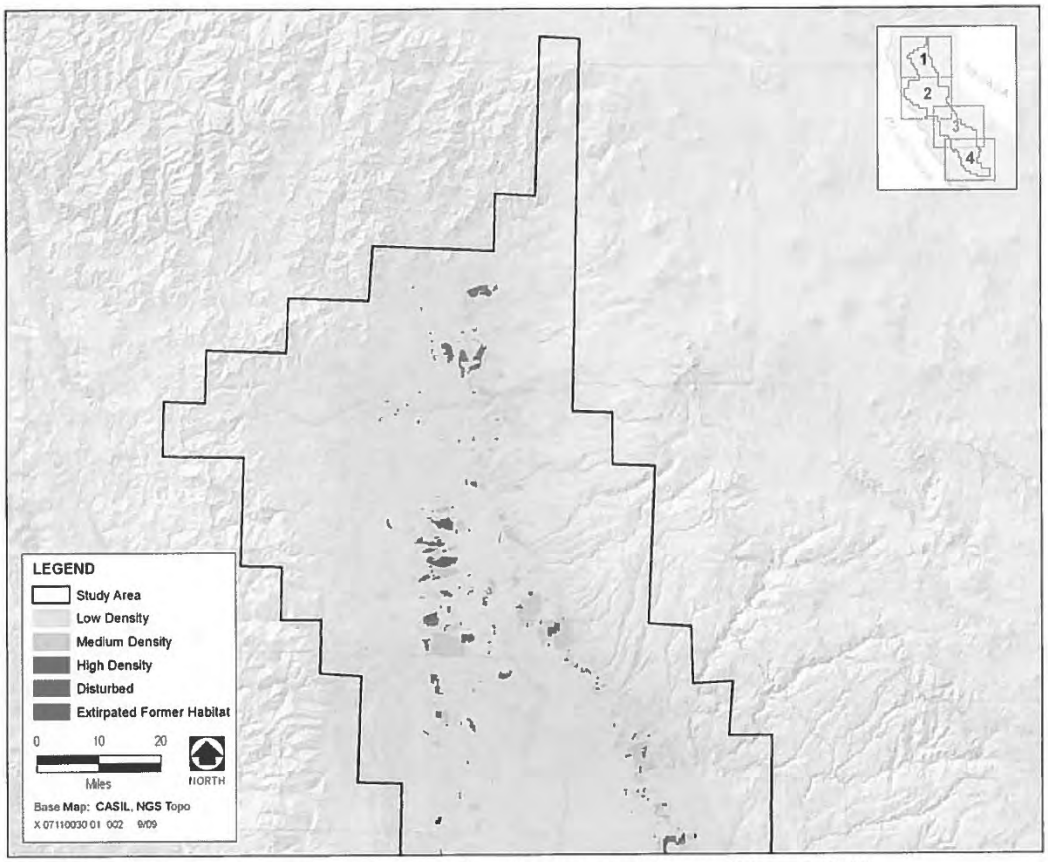


Figure 4a. Distribution of Vernal Pools in the Northern Sacramento Valley as of Summer 2005

Page 14 Great Valley Vernal Pool Distribution Rephotorevised 2005

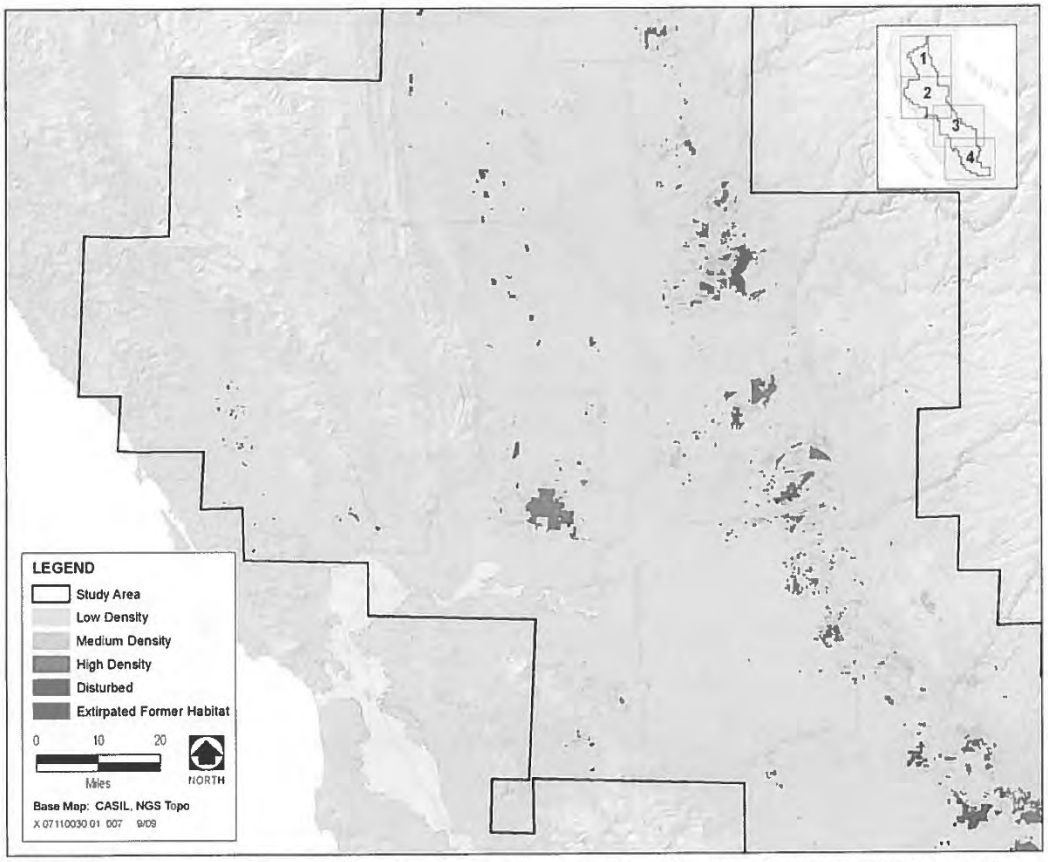


Figure 4b. Distribution of Vernal Pools in the Southern Sacramento and Northern San Joaquin Valleys as of Summer 2005.

Great Valley Vernal Pool Distribution Rephotorevised 2005 Page 15

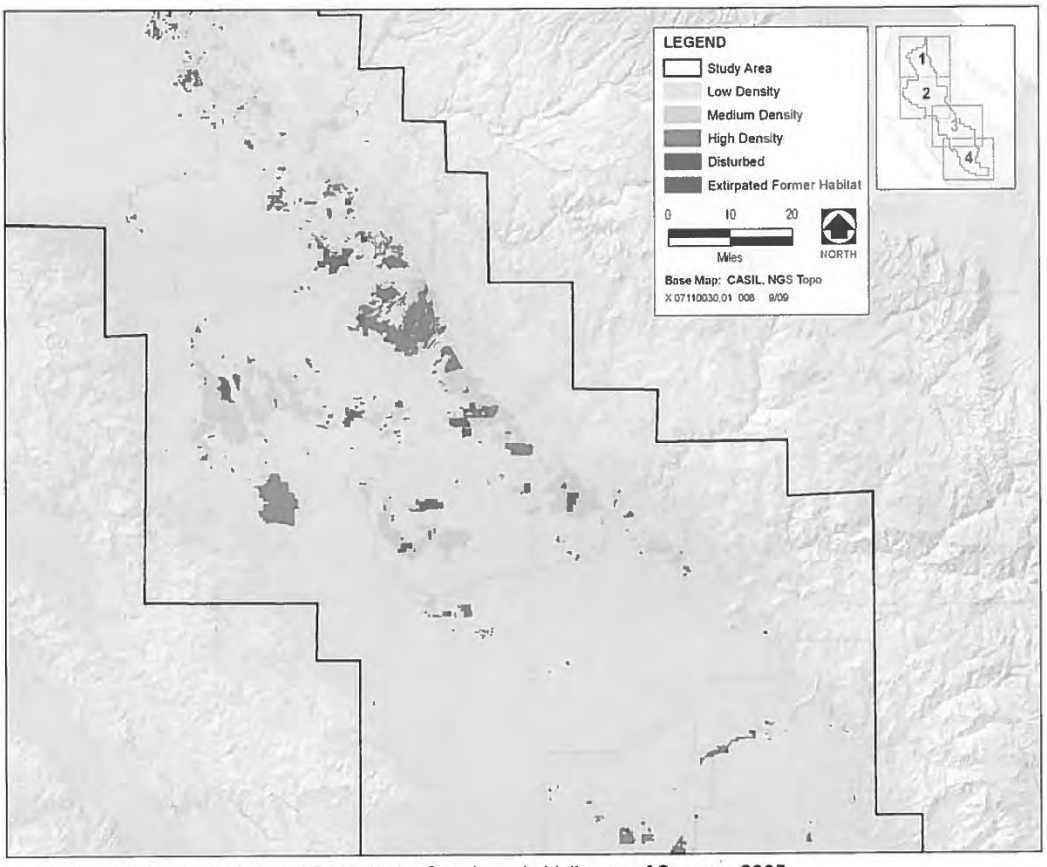


Figure 4c. Distribution of Vernal Pools in the San Joaquin Valley as of Summer 2005.

Page 16 Great Valley Vernal Pool Distribution Rephotorevised 2005

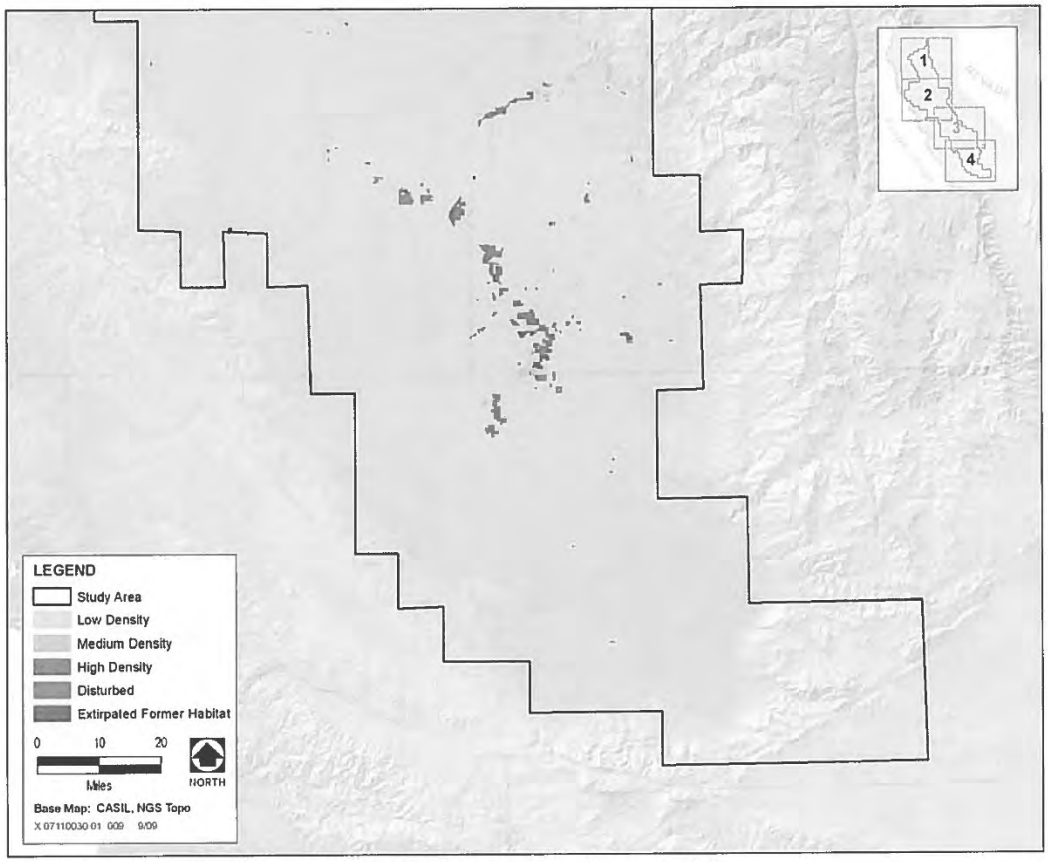
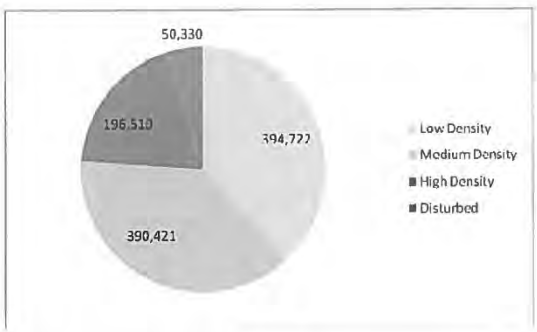
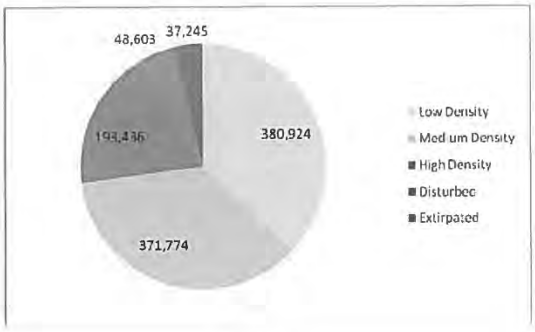


Figure 4d. Distribution of Vernal Pools in the Tulare Basin as of Summer 2005.

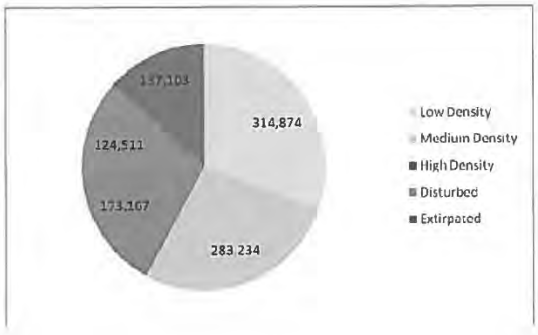
Great Valley Vernal Pool Distribution Rephotorevised 2005 Page 17



Baseline



1997



2005

Habitat Category	Baseline[1]	1997	2005
Low Density	394,722	380,924	314,874
Medium Density	390,421	371,774	283,234
High Density	196,510	193,436	173,167
Disturbed	50,330	48,603	124,511
Extirpated	-	37,245	137,103
TOTAL ACREAGE	1,031,982	1,031,982	1,032,889
% Baseline Habitat Lost		3.61%	13.27%

Note: 1. Baseline represents the period of 1976 to 1995.

Figure 5. Total Existing and Lost Great Valley Vernal Pool Habitat (in acres)

Page 18 Great Valley Vernal Pool Distribution Rephotorevised 2005

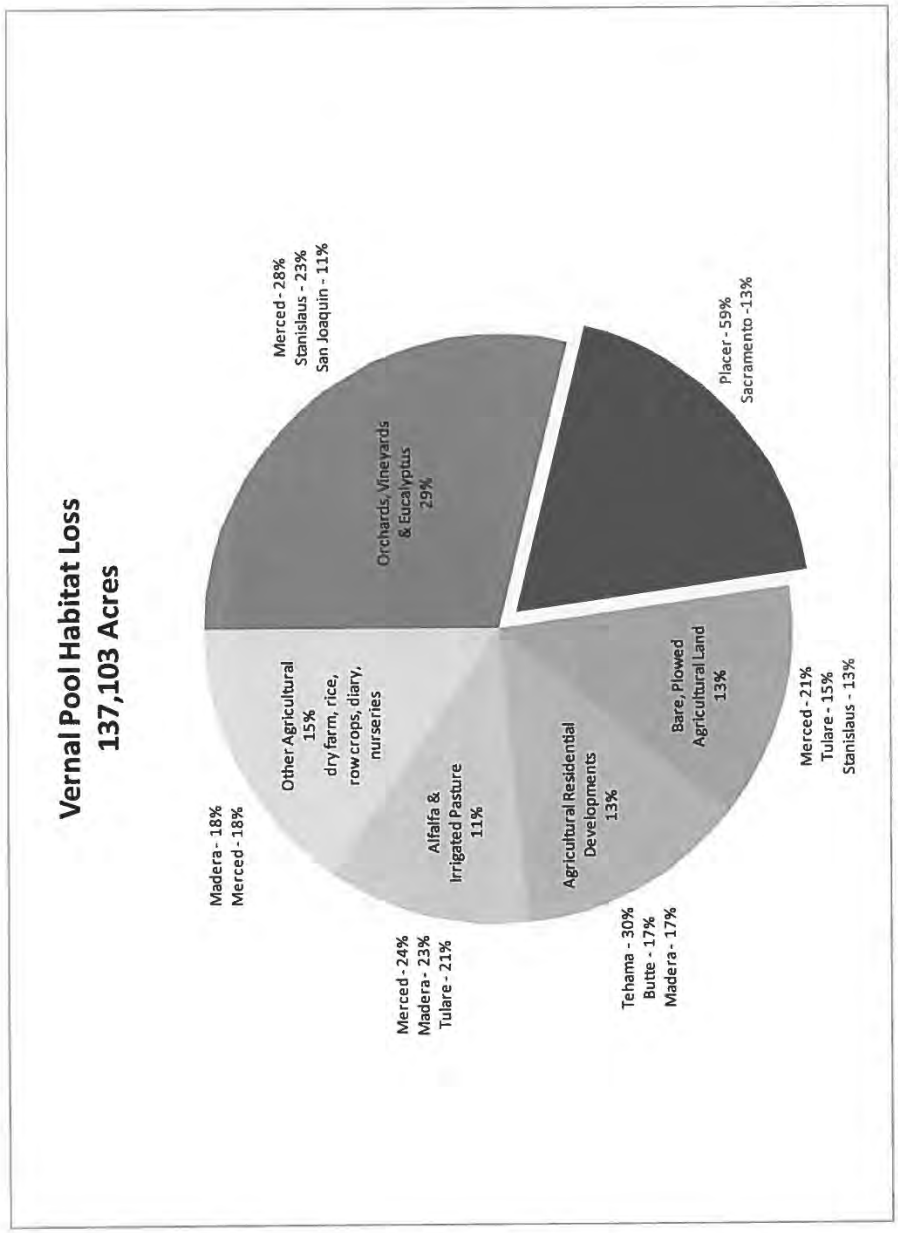


Figure 6. Great Valley Vernal Pool Habitat Loss by Land Use Conversion (percent of baseline) – Counties with Significant Acreages of Loss Highlighted

Note: Percentages for counties indicate the contribution of the county to the Central Valley-wide loss for the category, for example, 59% of all vernal pool loss due to Urban, Commercial and Industrial development occurred in Placer County.

Great Valley Vernal Pool Distribution Rephotorevised 2005

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EXHIBIT B

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May 23, 2018

Via Email and U.S. Mail

Dorothy Roberts
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Office of the City Clerk
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955 School Street
Napa, CA 94559
clerk@cityofnapa.org;
droberts@cityofnapa.org

Erin Morris
Planning Division Manager
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City of Napa
1600 First Street
Napa, CA 94559
emorris@cityofnapa.org

Via Email Only

Victor Carniglia, Contract Planner, vcarniglia@cityofnapa.org

Re: Request for *Immediate Access* to Public Records for the Trinitas Mixed-Use Project, SCH #2017072005

Dear Ms. Roberts, Mr. Morris and Mr. Carniglia:

We are writing on behalf of Napa Residents for Responsible Development ("Napa Residents") to request *immediate access to* any and all public records referring or related to Trinitas Mixed-Use Project, SCH #2017072005, ("Project") ***since the date of our last request on January 23, 2018***. The Project is located at 2650 Napa Valley Corporate Drive (APNs: 046-610-009, -019, -020), at the southern boundary of the City of Napa, near the junction of State Route 29 (SR 29) and State Route 221 (SR 221).

This request includes, but is not limited to, any and all materials, correspondence, electronic mail messages, resolutions, memos, notes, analysis, files, maps, charts, and/or any other documents related to the Project, including but not limited to the following documents:

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- All public comments received by the City regarding the Project that are not included in the Project's Final Environmental Impact Report ("FEIR"), including but not limited to all public comments received by the City at or in conjunction with the May 17, 2018 Planning Commission hearing on the Project.
- All surveys and technical reports prepared by or on behalf of the City's EIR consultant related to the Project that are not included in the Project's Draft Environmental Impact Report ("DEIR") or FEIR, including but not limited to the 2018 fairy shrimp study referenced by Ms. Shana Shaffner during the May 17 Planning Commission hearing on the Project.
- All documents related to the construction status of the Meritage Commons Project, to be located at 850 and 875 Bordeaux Way, also known as the Meritage Resort Expansion Project (PL15-0071).
- All other documents related to the Project that were not previously provided in response to our January 23, 2018 Public Records Act request.

Napa Residents is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential impacts associated with Project development. Napa Residents includes the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Local 343, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483 and their members and their families; and other individuals that live and/or work in the City of Napa and Contra Costa County. Napa Residents have a strong interest in enforcing the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members.

Pursuant to the California Public Records Act, Government Code Section 6250 et seq., we request that the City of Napa, and all of its departments (collectively, "City") make immediately available for inspection and copying the requested documents related to the Project. Citizens requests immediate access to review the above documents pursuant to section 6253(a) of the Public Records Act, which requires public records to be "open to inspection at all times during the office hours of the state or local agency" and provides that "every person has a right to inspect any public record."[1]

[1] Gov. Code § 6253(a).

This request seeks access to the above documents for inspection under Section 6253(a) only, and does not request that the City provide copies of these documents. Therefore, the ten day response period applicable to a "request for a copy of records" under Section 6253(c) does not apply to this request. The City is also directed not to take any action to organize or modify the requested documents. We request access to the documents in the existing form maintained by the City.[2]

If any of the above requested documents are available online, please provide us with the URL web address at which the documents may be downloaded. If any of the requested documents are retained by the City in electronic computer-readable format such as PDF (portable document format), please provide us with PDF copies of the documents via email, or inform us of the location at which we can copy these documents electronically. We reserve the right to have a copy service make copies of any and all of the requested documents depending on the volume.

In responding to this request, please bear in mind that any exemptions from disclosure the City may believe to be applicable are to be narrowly construed.[3] If the City declines to produce any of the requested documents on the grounds of an exemption, please note that the Public Records Act imposes a duty on the City to distinguish between the exempt and the non-exempt portion of any such records, and to attempt in good faith to redact the exempt portion and to disclose the balance of such documents.[4] Furthermore, should the City choose to withhold any document from disclosure, the City has a duty under Government Code section 6255, subd. (a) to "justify withholding any record by demonstrating that the record in question is exempt under express provisions" of the Public Records Act or that "the public interest served by not disclosing the record clearly outweighs the public interest served by disclosure of the record."[5] The City may not seek recovery of costs for any staff time related to responding to this Public Records Act request.[6]

---

[2] *See Sierra Club v. Super. Ct.* (2013) 57 Cal. 4th 157, 161.
[3] *Marken v. Santa Monica-Malibu Unif. Sch. Dist.* (2012) 202 Cal. App. 4th 1250,1262; *Citizens for Ceres v. Super. Ct.* (2013) 217 Cal.App.4th 889, 913 (the common interest doctrine cannot apply to communications between a developer and a reviewing public agency made before project approval.)
[4] Gov. Code § 6253(a).
[5] *Id.*
[6] *North County Parents v. Dept. of Education* (1994) 23 Cal.App.4th 144; *County of Los Angeles v. Super. Ct.* (2000) 82 Cal.App.4th 819, 826.

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If any of the requested items are available on the Internet, we request that the City direct us to the appropriate URL web address or other site for accessing the documents. Pursuant to Government Code section 6253.9, if the requested documents are in electronic format and are 10 MB or less (or can be easily broken into chunks of 10 MB or less), please email them as attachments. We request access to the above documents, including any electronic documents, in their original form, as maintained by the City.[7]

Please use the following contact information for all correspondence regarding these requests:

Christina Caro
Janet Laurain
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Ste. 1000
South San Francisco, CA 94080
jlaurain@adamsbroadwell.com

Thank you for your assistance with this matter.

Sincerely,

Christina M. Caro

CMC:acp

[7] Gov. Code § 6253.9(a)(1); *See Sierra Club v. Super. Ct.* (2013) 57 Cal. 4th 157, 161.

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Attachment A

June 5, 2018

Tim Coon
Pacific Hospitality Group
2532 Dupont Drive
Irvine, California 92612

SUBJECT: Jurisdictional Delineation for the Trinitas Mixed Use Project Site, City of Napa, California.

Dear Mr. Coon:

This letter report summarizes our preliminary findings of U.S. Army Corps of Engineers (Corps), California Department of Fish and Wildlife (CDFW) and Regional Water Quality Control Board Porter Cologne jurisdiction for the above-referenced property.

The Trinitas Mixed Use Project in Napa County [Exhibit 1], comprises approximately 10.8 acres and contains no drainage courses as depicted on the U.S. Geological Survey (USGS) topographic map Cuttings Wharf, California [dated 1949 and photorevised in 1981] [Exhibit 2]. On August 2, 2017, April 10 and May 15, 2018 Senior Biologist and Wetland Specialist Tony Bomkamp of Glenn Lukos Associates, Inc. (GLA) examined the project site to determine whether any features on the site were subject to (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act, (2) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code or the Regional Water Quality Control Board (Regional Board) pursuant to the Waste Discharge Requirements of the Porter Cologne Act. Enclosed is a 100-scale map [Exhibit 3] that depicts the features examined for Corps, CDFW and Regional Board jurisdiction. Exhibit 4 is a map of the soils on the site. Wetland data sheets are attached as Appendix A.

There are no areas that would be considered Waters of the United States (WoUS) subject to Corps jurisdiction. The site contains two isolated features that meet three wetland criteria; however, because these areas are isolated and would not be regulated by the Corp pursuant to Section 404 of the Clean Water Act.

The two isolated wetland features do not meet CDFW's definition of a stream or a lake and would not therefore be subject to CDFW jurisdiction pursuant to Section 1602 of the California Fish and Game Code.

The two isolated wetland features, totaling 0.06 acre, may meet the definition of Waters of the State pursuant to the Waste Discharge Requirements of the Porter Cologne Act and as such impacts to these features may require authorization from the Regional Board in accordance with the Waste Discharge Requirements.

I. METHODOLOGY

Prior to beginning the field initial field review on August 2, 2017, a variety of aerial photographs, topographic base maps, and the previously cited USGS topographic map were examined to determine the locations of potential areas of Corps/CDFW/Regional Board jurisdiction. Potential jurisdictional areas were field checked during the August 2, 2017 and May 15, 2018 site visits for the presence of wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[1] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Arid West Region, Version 2.0),[2] While in the field the limits of wetlands were recorded using sub-meter GPS technology. While observations made during each of the site visits was used in making the wetland determination, the data recorded on the wetland data sheets (Appendix A) were collected on May 15, 2018.

The Natural Resource Conservation Service (NRCS) identifies one soil type (series) as occurring (currently or historically) within the Project site [Exhibit 4]:

Coombs Gravelly Loam, 2 to 5 percent slopes

The Coombs soils are well drained, moderately slowly permeable soils on gravelly terraces. They formed in gravelly alluvium from mixed sources. Slopes are nearly level to gently sloping.

In a typical profile, the first 0 to 4 inches consists of dark brown (10YR 3/3 when moist) gravelly loam, and 4 to 13 inches consists of very dark grayish brown (10YR 3/2 when moist) clay loam.

[1] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

[2] U.S. Army Corps of Engineers. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement, Version 2.0. Ed. J.S. Wakeley, R.W. Lichevar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

The Coombs Gravelly Loam soil unit is identified as hydric in the NRCS's publication, Hydric Soils of the United States[3], which classifies this soil unit as Hydric Criterion 2, which includes:

> *Map unit components in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, or Andic, Cumulic, Pachic, or Vitrandic subgroups that:*
>
> - *Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or*
>
> - *Show evidence that the soil meets the definition of a hydric soil*

This soil is considered hydric when the water table is within six inches of the surface during the growing season, which is not the case for the wetland features on the site.

II. JURISDICTION

A. Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a) as:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
> *(2) All interstate waters including interstate wetlands;*
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:*
> *(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
> *(ii) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or*

[3] United States Department of Agriculture, National Resource Conservation Service, Soils. March 2014. Hydric Soils of the United States. Available at: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed September 2014.

(iii) Which are used or could be used for industrial purpose by industries in interstate commerce...

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;

(6) The territorial seas;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.

Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term “wetlands” (a subset of “waters of the United States”) is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement Version 2.0 generally require that, to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Arid West Region Version 2.0 provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National Wetland Plant List: Arid West 2016 Regional Wetland Plant List [4]);

- soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include quantitative criteria with the exception for areas with “problematic hydrophytic vegetation”, which require a minimum of 14 days of ponding to be considered a wetland.

[4] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List*: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

1. Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, the U.S. Environmental Protection Agency (EPA) asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the Clean Water Act.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc*.) was for a wetland that abutted a navigable water and that the court did not express any opinion on the question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

> *In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.*

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the Clean Water Act (regardless of any interstate commerce connection).

The two wetland features on the site are clearly isolated (i.e., exhibit no hydrological connection to offsite Waters of the U.S.) and are not adjacent to any potential Waters of the U.S. and as such, would not be subject to Corps jurisdiction pursuant to Section 404 of the Clean Water Act.

B. California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Wildlife Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs."

As noted, there are no areas on the site that meet CDFW's definition of a stream or lake, including the two wetland features. As such, construction of the project would not require notification to CDFW in accordance with the Section 1602 notification requirements.

C. Regional Water Quality Control Board

The two wetland features described below are isolated and not subject to regulation by the Corps under Section 404 of the Clean Water Act and thus are not subject to Section 401 Water Quality Certification. Nevertheless, the isolated wetlands may be subject to the Waste Discharge Requirements of Porter Cologne, pending review by the Regional Board.

III. RESULTS

The site contains no streams or lakes; however, the site contains three small isolated areas that exhibit seasonal ponding, in at least some years [Features A, B, and C on Exhibit 3]. Feature A occurs along the northern project boundary and the Features B and C near the southeast corner of the site.

Features A and C support a predominance of wetland plants, dominated by pale spikerush (*Eleocharis macrostachya*). The areas also exhibit hydric soil indicators with a soil color of 10YR 3/2 and at least five-percent redoximorphic features of 10YR 5/8 and 7.5Y 4/6 (Redox Dark Surface - F6) and wetland hydrology indicators consisting of shallow ponding (Surface Water - A1) and dried algal mats (Biotic Crust - B12). The potential jurisdictional status of these features is addressed below relative to Section 404/401, 1602, and Porter Cologne.

Feature A is a depression with a well-defined boundary, both topographically and relative to the vegetation. During the August 2, 2017 site visit, Feature A was dominated by pale spikerush (*Eleocharis macrostachya*, OBL). During the April 10 and May 15, 2018 site visits the feature continued to be dominated by the pale spikerush with annual semaphoregrass (*Pleuropogon californicus* var. *californicus*, OBL) and Italian ryegrass (*Festuca perennis*, FAC) also dominant. Other species included toad rush (*Juncus bufonius*, FACW), hyssop loosestrife (*Lythrum hyssopifolium*, OBL) and curly dock (*Rumex crispus*, FAC). As described above, the feature also exhibits indicators for the presence of hydric soils and for wetland hydrology. Feature A covers 0.027 acre. The limits of this feature were determined by the coincidence of wetland hydrology based on observations of ponding, algal mats, and by areas with a predominance of wetland vegetation, which as noted was abrupt at the edges.

Feature B is a depression with a well-defined boundary topographically but with a mix of upland and facultative species. During the August 2, 2017 site visit, Feature B supported a mix of facultative species such as English Plantain (*Plantago lanceolata*, FAC), Italian ryegrass (*Festuca perennis*, FAC), and curly dock (*Rumex crispus*, FAC) as well as upland species such as bur clover (*Medicago polymorpha*, FACU) and Roundleaf cancerwort (*Kickxia spuria*, UPL). During the May 15, 2018 site visit the feature was dominated by Italian ryegrass (*Festuca perennis*, FAC) and hare barley (*Hordeum murinum leporinum*, FACU), which combined accounted for nearly 100-percent cover in the feature. As such, this feature did not exhibit a predominance of wetland vegetation. The feature also did not exhibit positive indicators for hydric soils and is not a wetland.

Feature C is a shallow depression that is no well-defined topographically. During the August 2, 2017 site visit, the lowest portions of Feature C were dominated by pale spikerush (*Eleocharis macrostachya*, OBL) with Italian ryegrass (*Festuca perennis*, FAC) also common beyond the area dominated by the pale spikerush. During the April 10 and May 15, 2018 site visits the feature continued to be dominated by the pale spikerush with iris-leaved rush (*Juncus xiphioides*, OBL) locally dominant in the northern portion of the feature. Hare barley (*Hordeum murinum leporinum*, FACU) and Italian ryegrass (*Festuca perennis*, FAC) were also present but not dominant becoming more dominant along the outer edges but present throughout. As described above, the feature also exhibits indicators for the presence of hydric soils and for wetland hydrology. Feature C covers 0.036 acre. The boundaries of this feature were determined by the observed limits of surface water and algal mats where such area exhibited a predominance of wetland vegetation.

A. Corps Jurisdiction

While Features A and C potentially meet the three criteria required for the presence of wetlands pursuant to Section 404, the areas are clearly isolated and do not connect to downstream

navigable waters. Because of the nature of the site, which is bermed on all sides, rainfall that reaches these features exhibits no potential for reaching the Napa River to the west. As such, both features are "isolated' waters and not subject to Section 404 jurisdiction. Because the features are not subject to Section 404 jurisdiction, they are accordingly, not subject to jurisdiction under Section 401 of the Clean Water Act.

B. CDFW Jurisdiction

As noted, there are no areas that meet CDFW's definition of a stream or a lake on the site. The seasonal wetlands do not meet CDFW's definition of a stream or a lake and any potential impacts to these features would not be regulated under Section 1602.

C. Regional Water Quality Control Board Jurisdiction

The two wetland features described below are isolated and not subject to regulation by the Corps under Section 404 of the Clean Water Act and thus are not subject to Section 401 Water Quality Certification. Nevertheless, the isolated wetlands may be subject to the Waste Discharge Requirements of Porter Cologne, pending review by the Regional Board. Combined, the features cover 0.063 acre (rounded to 0.06 acre in the DEIR)

IV. DISCUSSION

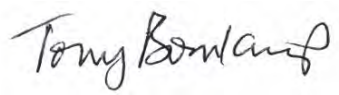
A. Impact Analysis

The Proposed Project proposes to fill the seasonal features resulting in impacts to 0.063 (0.06) acre of isolated wetlands potentially subject to the Regional Board in accordance with the Waste Discharge Requirements of the Porter Cologne Act.

If you have any questions about this letter report, please contact either Tony Bomkamp at (949) 837-0404, ext. 41.

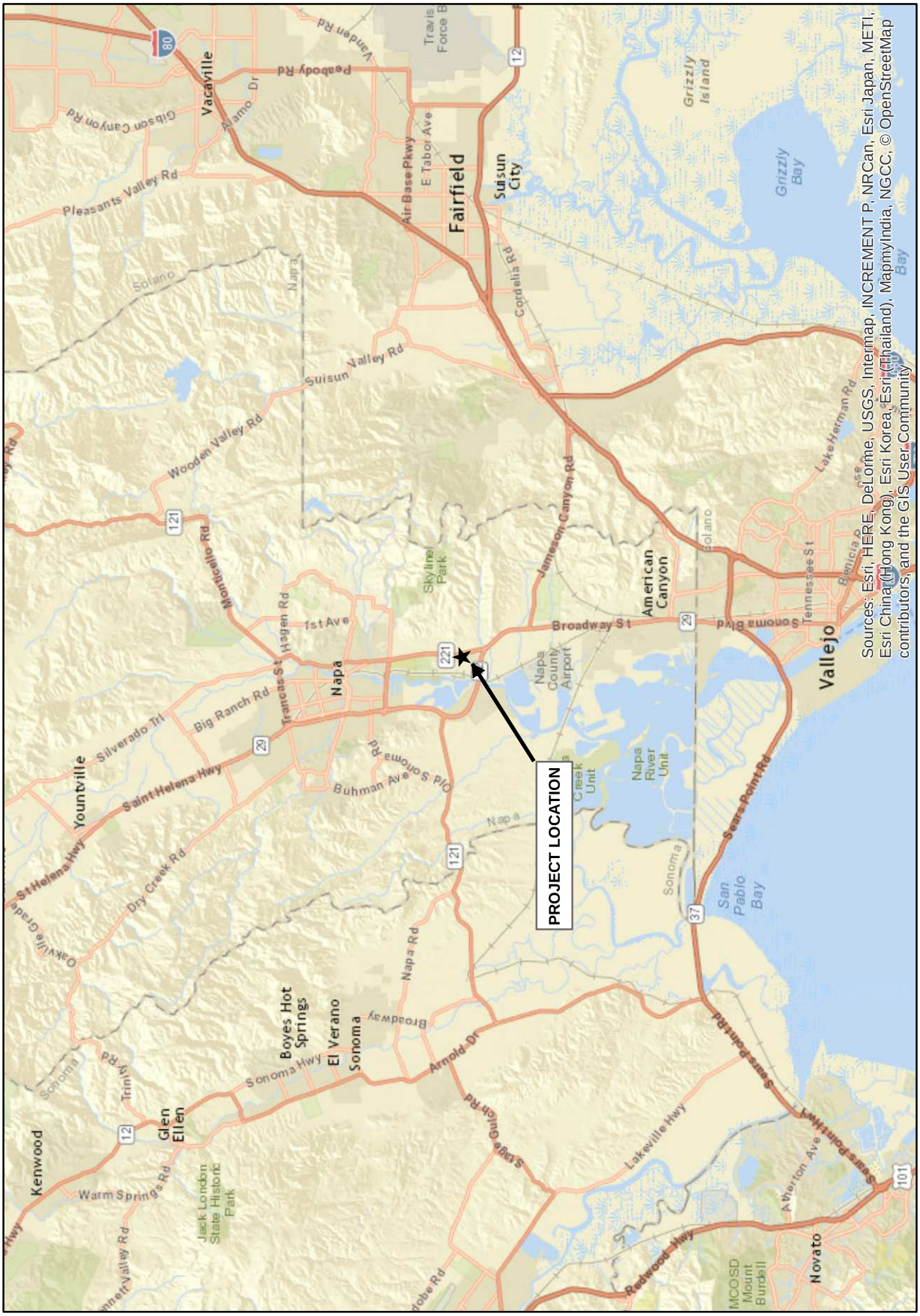
Sincerely,

GLENN LUKOS ASSOCIATES, INC.



Tony Bomkamp
Senior Biologist and Wetland Specialist

ATTACHMENT 8



GLENN LUKOS ASSOCIATES

Exhibit 1

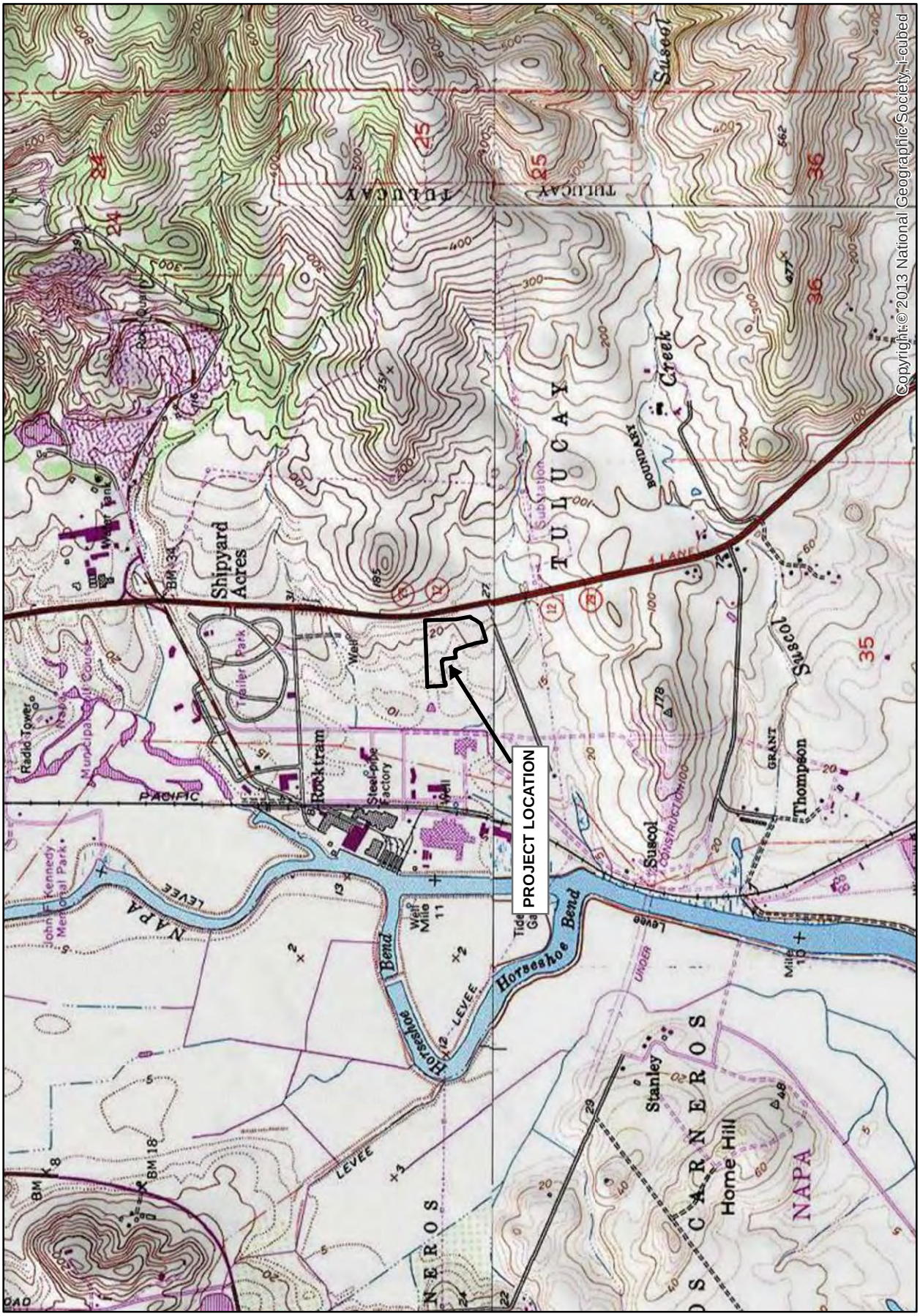
TRINITAS MIXED USE PROPERTY

Regional Map

Source: ESRI World Street Map

N

0 2 4 8 Miles



GLENN LUKOS ASSOCIATES

Exhibit 2

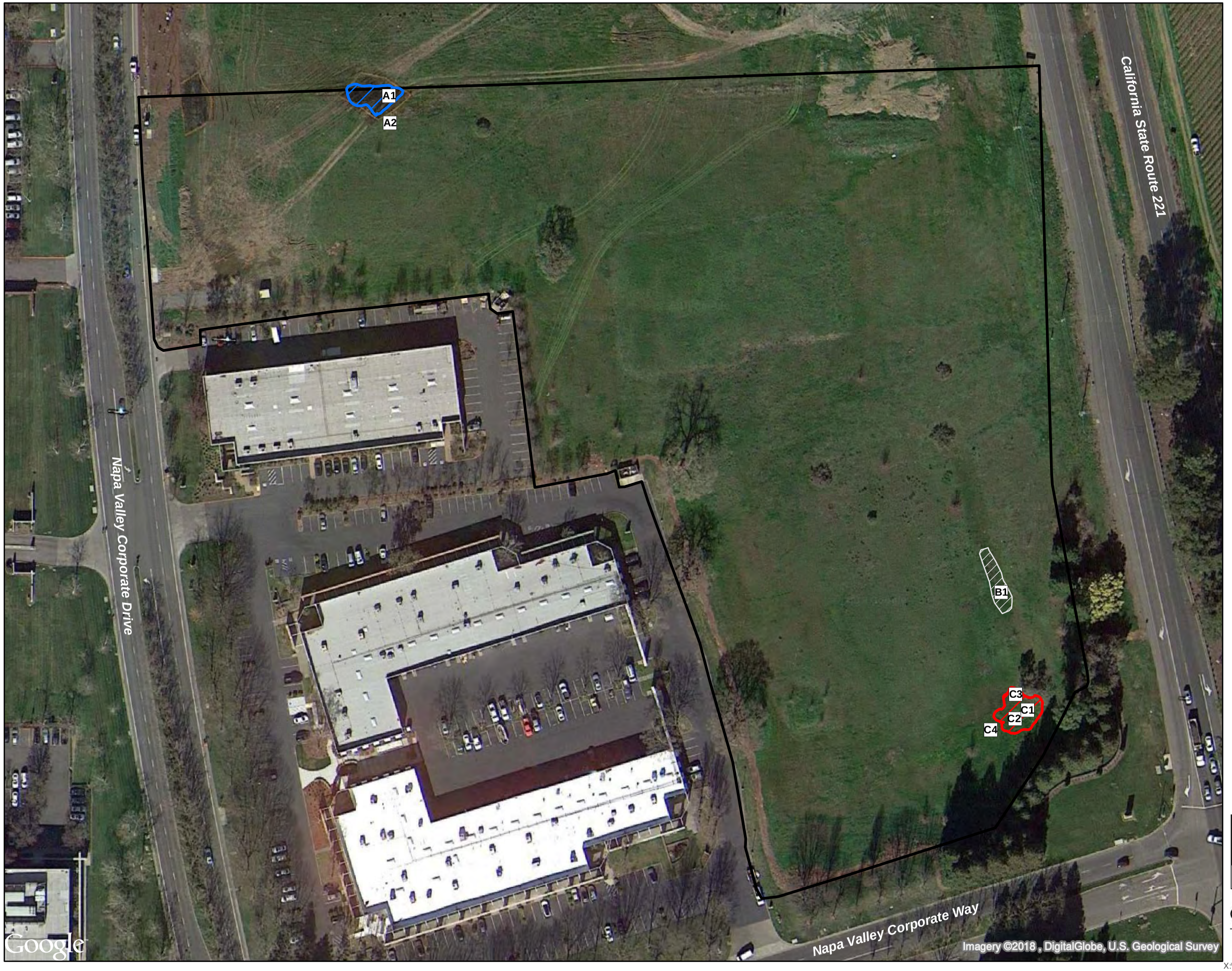
TRINITAS MIXED USE PROPERTY

Vicinity Map

Adapted from USGS Napa, CA quadrangle

N

0 1,000 2,000 4,000 Feet



Data Points
Feature A
Feature C
Feature B (Non-Jurisidctional)
Approximate Property Boundary

N

0 50 100 200
Feet

1 inch = 100 feet

TRINITAS MIXED USE PROPERTY

Isolated Seasonal Wetlands

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\0363-THE REST\1085-05TRIN\1085-5GIS\Delineation\REV1\1085-5 JD REV 1.mxd

ATTACHMENT 8

Approximate Property Boundary

123 - Coombs gravelly loam, 2 to 5 percent slopes

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 2 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: C. Lukos, GLA
Date Prepared: August 28, 2017

TRINITAS MIXED USE PROPERTY

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 4

X:\0363-THE REST\1085-05TRIN\1085-5GIS\Soils\1085-5Soils.mxd

ATTACHMENT 8

ATTACHMENT 8

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Trinitas Project City/County: City of Napa, Napa County Sampling Date: 05/15/18

Applicant/Owner: Pacific Hospitality State: CA Sampling Point: A-1

Investigator(s): Tony Bomkamp Section, Township, Range: Cuttings Wharf Section 35 Township 5 Range 4

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR): Mediterranean California Lat: 38°15'08.98"N Long: 122°16'26.11"W Datum: NAD 83

Soil Map Unit Name: Coombs gravelly loam, 2-5% slopes NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

2013-2014 rainfall was significantly lower than average.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 meters)			
1. Eleocharis macrostachya	60	Yes	OBL
2. Pleuropogon californicus	25	Yes	OBL
3. Hordeum brachyantherum	10	No	FACW
4. Rumex crispus	5	No	
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 80

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	85	x 1 =	85
FACW species	10	x 2 =	20
FAC species	5	x 3 =	15
FACU species	_____	x 4 =	
UPL species	_____	x 5 =	
Column Totals:	100 (A)		120 (B)

Prevalence Index = B/A = 1.20

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: A-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	10YR 3/2	85	7.4YR 4/4	15	C	PL, M	clay loam	Redox Prominent

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ✓ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 4

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water observed during April 10, 2018 site visit. Biotic crust (dried algae) observed on May 15, 2018.

ATTACHMENT 8

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Trinitas Project City/County: City of Napa, Napa County Sampling Date: 05/15/18

Applicant/Owner: Pacific Hospitality State: CA Sampling Point: A-2

Investigator(s): Tony Bomkamp Section, Township, Range: Cuttings Wharf Section 35 Township 5 Range 4

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR): Mediterranean California Lat: 38°15'08.64"N Long: 122°16'25.98"W Datum: NAD 83

Soil Map Unit Name: Coombs gravelly loam, 2-5% slopes NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 meters)			
1. Eleocharis macrostachya	60	Yes	OBL
2. Pleuropogon californicus	25	Yes	OBL
3. Hordeum brachyantherum	10	No	FACW
4. Rumex crispus	5	No	
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 80

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	85	x 1 =	85
FACW species	10	x 2 =	20
FAC species	5	x 3 =	15
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	100 (A)		120 (B)

Prevalence Index = B/A = 1.20

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: A-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 3/2	100	None	0	None	None	loam	No Redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water observed in adjacent wetland during April 10, 2018 site visit. Biotic crust (dried algae) observed in adjacent wetland on May 15, 2018.

ATTACHMENT 8

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Trinitas Project City/County: City of Napa, Napa County Sampling Date: 05/15/18

Applicant/Owner: Pacific Hospitality State: CA Sampling Point: B-1

Investigator(s): Tony Bomkamp Section, Township, Range: Cuttings Wharf Section 35 Township 5 Range 4

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR): Mediterranean California Lat: 38°15'03.93"N Long: 122°16'17.92"W Datum: NAD 83

Soil Map Unit Name: Coombs gravelly loam, 2-5% slopes NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 meters)			
1. Hordeum marinum	5	No	FAC
2. Lolium (Festuca) perenne (perennis)	85	Yes	FAC
3. Hordeum Brachyantherum	5	No	FACW
4. Avena fatua	5	No	UPL
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 20

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	90	x 3 =	270
FACU species	_____	x 4 =	_____
UPL species	5	x 5 =	25
Column Totals:	100 (A)		305 (B)

Prevalence Index = B/A = 3.05

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: B-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12"	10YR 3/2	100	None	0.0	None	None	loam	Upland soils

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 2 inches

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Shallow ponding observed on April 10, 2018 approximately 24 hours following cessation of over two inches of rainfall.

ATTACHMENT 8

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Trinitas Project City/County: City of Napa, Napa County Sampling Date: 05/15/18

Applicant/Owner: Pacific Hospitality State: CA Sampling Point: C-1

Investigator(s): Tony Bomkamp Section, Township, Range: Cuttings Wharf Section 35 Township 5 Range 4

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR): Mediterranean California Lat: 38°15'02.42"N Long: 122°16'17.75"W Datum: NAD 83

Soil Map Unit Name: Coombs gravelly loam, 2-5% slopes NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 meters)			
1. Eleocharis macrostachya	75	Yes	OBL
2. Juncus xiphioides	5	No	OBL
3. Hordeum marinum	15	No	FAC
4. Rumex crispus	5	No	FAC
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 90

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	_____	x 2 =	_____
FAC species	20	x 3 =	60
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	100 (A)		140 (B)

Prevalence Index = B/A = 1.40

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: C-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	10YR 3/2	90	7.4YR 4/6	10	C	PL, M	clay loam	Redox Prominent

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ✓ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 4

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water observed during April 10, 2018 site visit. Biotic crust (dried algae) observed on May 15, 2018.

ATTACHMENT 8

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Trinitas Project City/County: City of Napa, Napa County Sampling Date: 05/15/18

Applicant/Owner: Pacific Hospitality State: CA Sampling Point: C-2

Investigator(s): Tony Bomkamp Section, Township, Range: Cuttings Wharf Section 35 Township S Range 4

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR): Mediterranean California Lat: 38°15'02.42"N Long: 122°16'17.83"W Datum: NAD 83

Soil Map Unit Name: Coombs gravelly loam, 2-5% slopes NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 meters)			
1. Eleocharis macrostachya	90	Yes	OBL
2. Lolium perenne	5	No	FAC
3. Hordeum marinum	5	No	FAC
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 100

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 90	x 1 = 90
FACW species _____	x 2 = _____
FAC species 10	x 3 = 30
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 100 (A)	120 (B)

Prevalence Index = B/A = 1.20

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: C-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	10YR 3/2	90	7.4YR 4/6	10	C	PL, M	clay loam	Redox Prominent

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ✓ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 4

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water observed during April 10, 2018 site visit. Biotic crust (dried algae) observed on May 1S, 2018.

ATTACHMENT 8

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Trinitas Project City/County: City of Napa, Napa County Sampling Date: 05/15/18

Applicant/Owner: Pacific Hospitality State: CA Sampling Point: C-3

Investigator(s): Tony Bomkamp Section, Township, Range: Cuttings Wharf Section 35 Township 5 Range 4

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR): Mediterranean California Lat: 38°15'02.65"N Long: 122°16'17.80"W Datum: NAD 83

Soil Map Unit Name: Coombs gravelly loam, 2-5% slopes NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 meters)			
1. Eleocharis macrostachya	90	Yes	OBL
2. Lolium perenne	5	No	FAC
3. Hordeum marinum	5	No	FAC
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 100

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	_____	x 2 =	_____
FAC species	10	x 3 =	30
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	100 (A)		120 (B)

Prevalence Index = B/A = 1.20

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: C-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	10YR 3/2	90	7.4YR 4/6	10	C	PL, M	clay loam	Redox Prominent

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ✓ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 4

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water observed during April 10, 2018 site visit. Biotic crust (dried algae) observed on May 15, 2018.

ATTACHMENT 8

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Trinitas Project City/County: City of Napa, Napa County Sampling Date: 05/15/18

Applicant/Owner: Pacific Hospitality State: CA Sampling Point: C-4

Investigator(s): Tony Bomkamp Section, Township, Range: Cuttings Wharf Section 35 Township 5 Range 4

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR): Mediterranean California Lat: 38°15'02.42"N Long: 122°16'18.10"W Datum: NAD 83

Soil Map Unit Name: Coombs gravelly loam, 2-5% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Soil pit just outside western boundary of wetland feature

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 meters)			
1. Hordeum marinum	60	Yes	FAC
2. Lolium perenne	30	YES	FAC
3. Avena fatua	10	No	UPL
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species _____	x 2 =	_____
FAC species 90	x 3 =	270
FACU species _____	x 4 =	_____
UPL species 10	x 5 =	50
Column Totals: 100 (A)		320 (B)

Prevalence Index = B/A = 3.2

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: C-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	10YR 3/2	100	0	0	None	None	clay loam	Upland soils

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water in adjacent wetland areas observed during April 10, 2018 site visit. Biotic crust (dried algae) in wetlands observed on May 15, 2018. This sampling location is in uplands.

Attachment B

PROJECT NUMBER: 10850005TRIN

TO: Shawna Schaffner

FROM: Tony Bomkamp

DATE: June 7, 2018

SUBJECT: Surveys for Swainson's Hawk, Trinitas Project, Napa California

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GLA Senior Biologist conducted focused surveys for the Swainson's hawk on the Trinitas site on April 10 and May 15, 2018. Specifically, I conducted focused surveys for Swainson's hawk nests on the site and within trees adjacent to the site and for soaring and/or foraging Swainson's hawks during each of the site visits. The first (April 10) survey coincided with the general return date of about April 1 noted in *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley*[1] and specifically coinciding with the period of increased activity at nest sites, which is listed as April 5 to April 20. The May 15 survey occurred during the nesting period which is listed as April 21 to June 10. No Swainson's hawk nests or nesting activity were detected within trees growing on the project site or within trees bordering the southern boundary of the site between the site and Napa Valley Corporate Way or within trees growing along the eastern site boundary between the site and SR-221 or within the trees growing in the median of SR-221, confirming the conclusions within the Draft EIR.

During the April 10, 2018 site visit, a (presumed) pair Swainson's hawks were observed to the northeast of the site. In both instances, approximately one hour apart, the hawks appeared to catch as thermal, soaring ("kettling") upwards and then moving to the northeast away from the site, eventually moving out of visual range in each instance. At no time were the birds seen over the project site, but remained to the northeast, further confirming that the site was not being used for nesting. On May 15, a brief ("split-second") potential occurrence was detected to the east of the site; however, the hawk dropped out of site very quickly and because of the "angle" and distance, a definitive identification was not possible. No Swainson's hawks were observed on the site or foraging over the site during either survey.

CONCLUSION

During 2018, there was no evidence of Swainson's hawk nesting on the site. Nevertheless, pre-construction surveys in accordance with the measures set forth in the EIR will be implemented.

[1] Swainson's Hawk Technical Advisory Committee. May 31, 2000. *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley.*

Attachment C

Memorandum

To: Sarah Markegard
Biologist, Recovery Branch
US Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825

From: Rob Schell
Senior Wildlife Biologist
TE-212445

Cc: Shawna Schaffner, CEO
CAA Planning, Inc.
65 Enterprise, Suite 130
Aliso Viejo, CA 92656
sschaffner@caaplanning.com

Date: May 30, 2018

Subject: 90-Day Survey Report of Wet-season Surveys for Listed Vernal Pool Branchiopods at Trinitas Mixed Use Project, City of Napa, California.

Executive Summary

This memorandum serves as the 90-day Survey Report on behalf of CAA Planning, Inc. regarding the presence of federally-listed vernal pool branchiopods Trinitas Mixed-use Project. Dry-season surveys were performed in 2017 by Glenn Lukos Associates, Inc. and were negative for branchiopod cysts (eggs) in soil samples collected from three mapped depressional wetlands. Wet-season surveys were performed by WRA during the 2017-2018 wet-season. Despite an irregular winter precipitation pattern, wetlands remained inundated for sufficient periods for branchiopods to complete their lifecycle, if present. Wet-season surveys were negative for all adult branchiopods. It is therefore concluded that vernal pool branchiopods listed under the Federal Endangered Species Act (ESA) are absent from the site.

Introduction

A request to perform surveys was sent to USFWS via email on October 27, 2017. Authorization to perform surveys was received by WRA on October 31, 2017. The Draft Environmental Impact Report for the Project was published in January, 2018.

The Project Site is comprised of a 10.8-acre infill site within the largely built-out Napa Valley Commons corporate park consisting primarily of ruderal annual grasslands, with several mature oaks and ornamental trees around the perimeter. The site is immediately bordered by Highway 221 to the east, industrial/commercial development to the north, west, and south (see Exhibit 1). Land uses in the vicinity of the Project include wineries, residential/commercial development, industrial development, golf courses, the Napa County Airport, and open space.

Critical habitat for vernal pool ecosystems has been designated immediately opposite of Highway 221 to the east and several occurrences of vernal pool fairy shrimp (*Branchinecta lynchi*; VPFS) are documented within 5-miles of the site (CNDDB 2018). The site contains three small depressional features listed as potentially jurisdictional wetlands in the EIR (Exhibit 3). Feature A is located near the northern Project boundary and is mapped at 0.03-acre. Features B and C are located in the southeast corner of the site and are mapped as 0.02-acre and 0.01-acre respectively. Features A and C are dominated by spikerush (*Eleocharis macrostachya*), while Feature B is dominated by a mix of facultative and upland plants.

Methods

Surveys for vernal pool branchiopod species listed under the ESA were performed by U.S. Fish and Wildlife Service Permitted Biologist Rob Schell (TE-212445) during the 2017-2018 wet season at the three aforementioned depressional features (see Exhibit 3). Surveys were performed according to the current *Survey Guidelines for Listed Large Branchiopods* (USFWS 2015) for Survey Zone A, which includes Southern Oregon, Sacramento Valley, San Francisco Bay Area, North Coast Ranges, Northern Sierra Valley Foothills, Cascade Range foothills, and South Coast Ranges. Surveys specifically focused on VPFS, as no other listed branchiopods have distributional ranges that overlap the location of the Project Site, or are documented to occur within 5-miles of the Site (CNDDB 2018).

The survey requirements of Survey Zone A are listed below:

I. All potential habitat must be adequately sampled at 14-day intervals after initial inundation of habitat.
II. Sampling will continue within each potential habitat until it dries or a minimum of 90 consecutive days of inundation has occurred.
III. Sampling will be reinitiated within 14 days of an individual habitat drying and inundating during the same wet season.

Prior to initiation of sampling, hydrologic monitoring of the site was performed immediately following the conclusion of any storm event resulting in 0.25-inch of precipitation in a 24-hour period according to National Weather Service data in for the Napa area. Hydrologic monitoring occurred until inundation of depressional features reached 3cm of depth 24 hours following a rain event.

Monitoring occurred on the following dates:

- October 21, 2016
- November 6, 2017
- December 6, 2017
- January 10, 2018
- February 21, 2018
- February 27, 2018
- March 6, 2018
- May 9, 2018

Following the inundation of the depressional features, surveys for branchipods commenced. Surveys were performed on the following dates:

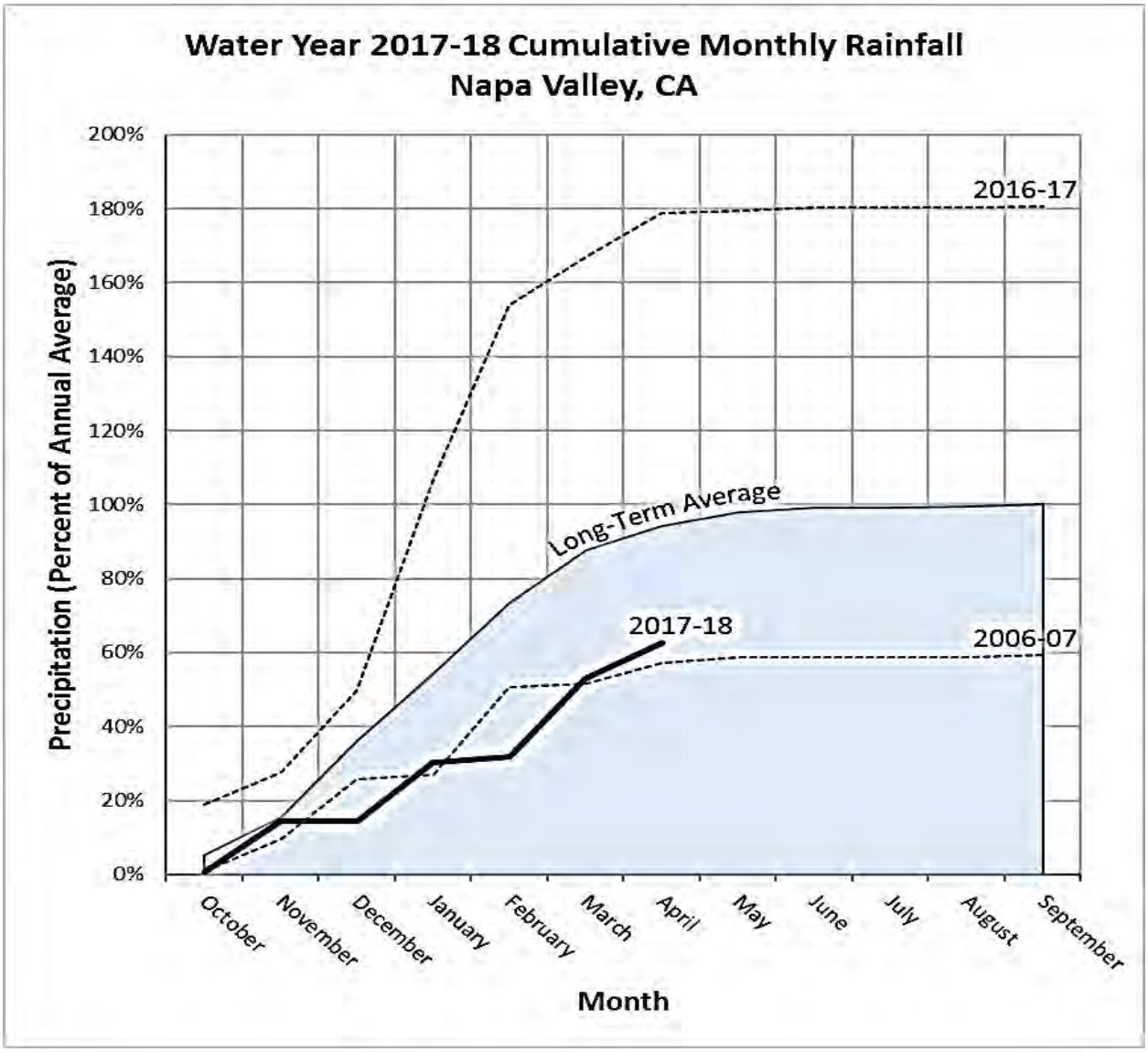
- January 24, 2018
- February 7, 2018
- March 15, 2018
- March 28, 2018
- April 13, 2018
- April 25, 2018

During each survey, the permitted biologist conducted focused visual inspections of the water column upon arrival and prior to disturbing the substrate. Following the observation period, the biologist used a standard D-shaped dip net to sample open-water and vegetated portions of the pools. Each feature was sampled comprehensively during each survey event. Physical habitat characteristics, such as water depth, clarity, and temperature were recorded, as well as the biotic condition of each feature including vegetative cover and distribution and observed or captured aquatic organisms.

Results

Depressional features were first found to contain the requisite amount of inundation to begin surveys on January 10, 2018. Sampling occurred on January 24th and February 7. During the third survey on February 21, 2018, all depressional features were found to be dry. Following a significant storm event in early-March, the depressional features once again inundated on March 6, 2018. Sampling resumed and occurred on March 15, March 28, April 13, and April 25. By May 9, 2018, all features were once again found to be dry and wet-season surveys concluded for the 2017-2018 sampling period.

Figure 1. Monthly Rainfall Data for Napa Valley, California 2017-2018 Water Year (Napa County Resource Conservation District)



Wet-season surveys did not detect any *Anostracans* (fairy shrimp) or *Notostracans* (tadpole shrimp) of any species. Data sheets of all sampling events are attached to the end of this memorandum.

Despite the mid-season dry-down of the depressional features, the first and second inundation periods of approximately 6-weeks (42-days) and 9-weeks (63-days) respectively is sufficient for VPFS to hatch, mature (18 days) and reproduce (39.7 days) (Helm 1998). Combined with the negative dry-season survey results, and the negative results of these wet-season surveys, it can be concluded that VPFS or other Branchipod species do not occur at the Project Site.

Sincerely,

Rob Schell
Senior Wildlife Biologist
TE-212445

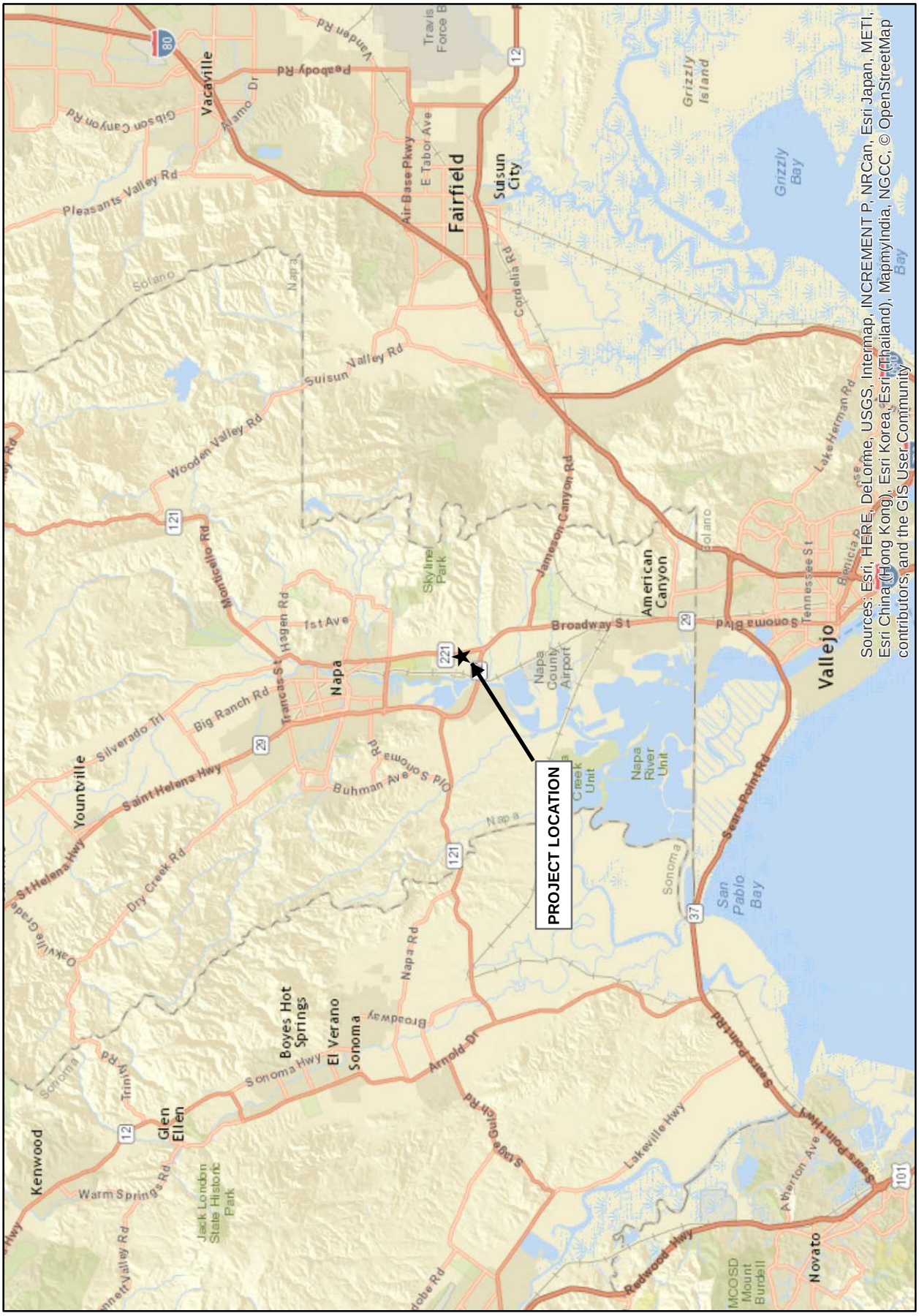
References

CNDDB. California Department of Fish and Wildlife, Natural Diversity Database. April 2018. Special Animals List. Periodic publication. 66 pp.

Eriksen, C. H., and D. Belk. 1999. Fairy shrimps of California's puddles, pools, and playas. Mad River Press, Inc. Eureka, CA. 196 pp.

Helm, B. P. 1998. Biogeography of eight large branchiopods endemic to California. Pages 124-139 in Witham, C. W., E. T. Bauder, D. Belk, W.R. Ferren Jr., and R. Ornduff. (eds.). Ecology, conservation, and management of vernal pool ecosystems – proceeding from a 1996 conference. California Native Plant Society, Sacramento, CA. 285 pp.

U.S. Fish and Wildlife Service. 2015. Survey Guidelines for the Listed Large Branchiopods. Pacific Southwest Region. Sacramento, California 95825-1846. https://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/VernalPoolBranchiopodSurveyGuidelines_20150531.pdf



GLENN LUKOS ASSOCIATES

Exhibit 1

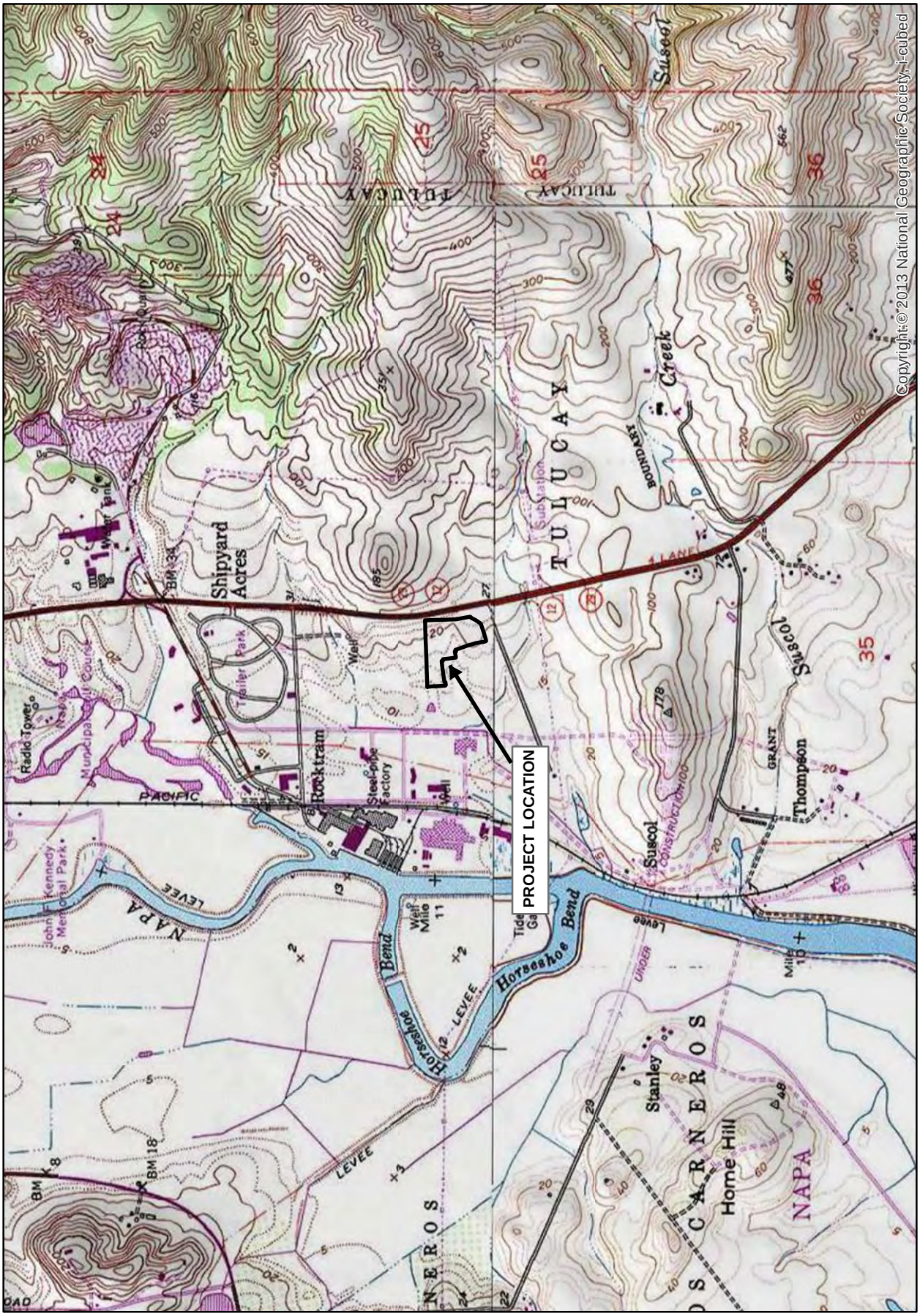
TRINITAS MIXED USE PROPERTY

Regional Map

Source: ESRI World Street Map

N

0 2 4 8 Miles



GLENN LUKOS ASSOCIATES

Exhibit 2

TRINITAS MIXED USE PROPERTY

Vicinity Map

Adapted from USGS Napa, CA quadrangle

N

0 1,000 2,000 4,000 Feet

Approximate Property Boundary

Fairy Shrimp Survey Areas

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 2 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: C. Lukos, GLA
Date Prepared: August 28, 2017

TRINITAS MIXED USE PROPERTY

Fairy Shrimp Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\0363-THE REST\1085-05TRIN\1085-5GIS\FairyShrimp\1085-5FairyShrimpSurveyMap.mxd

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: TRINITAS NAPA	County: NAPA	Quad: NAPA	Township:	Range:	Section:

SURVEYOR / Permit Number: Rob Schell TE-212445

Date: 1/24/18 | Time: 13:24 | Weather Conditions: MOSTLY CLOUDY, WINDS 8-12MPH

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
FEATURE A		54°F	49°F	20cm	25cm	125m²	130m²			✓				✓	✓	✓		D-TT	NO CATTLE
FEATURE B		54°F	52°F	12cm	15cm	75m²	80m²			✓					✓			UD	GRAZING OCCURS AT SITE
FEATURE C		54°F	52°F	10cm	12cm	35m²	40m²			✓					✓			UD	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli)*.
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: TRINITAS - NAPA	County: NAPA	Quad: NAPA	Township:	Range:	Section:
SURVEYOR / Permit Number: ROB SCHELL TE-212445					
Date: 2/7/18	Time: 10:12	Weather Conditions: CLEAR SKIES, WARM, WINDS 3-8 MPH			

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
FEATURE A		61°F	72°F	18 cm	25cm	100 m²	130 m²			✓	✓		✓	✓	✓	✓		D-TT	
FEATURE B		64°F	77°F	8 cm	10cm	50 m²	80 m²			✓				✓	✓			UD	
FEATURE C		64°F	N/A	0	—	0	40 m²	—	—	—	—	—	—	—	—	—		DRY	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli)*.
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

ATTACHMENT 8

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: TRINITAS - NAPA	County: NAPA	Quad: NAPA	Township:	Range:	Section:

SURVEYOR / Permit Number: R. SCHELL

Date: 2/21/18 | Time: 16:00 | Weather Conditions: CLEAR SKIES, 53°F, WINDS 7-12 MPH

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
FEATURE A		53°F	—	—													—	DRY	
FEATURE B		55°F	—	—													—	DRY	
FEATURE C		53°F	—	—													—	DRY	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli)*.
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: TRINITAS - NAPA	County: NAPA	Quad: NAPA	Township:	Range:	Section:

SURVEYOR / Permit Number: R. SCHELL TE-212445

Date: 3/15/2018 Time: 09:56 Weather Conditions: OVERCAST SKIES, LIGHT RAIN, WINDS 2-5 MPH

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
A		45°F	40°F	25cm	30cm	130m²	130m²			X	X	X	X	X	X	X		D-TT	AXB30+PSLE
B		45°F	42°F	12cm	15cm	80m²	80m²			X	X			X	X	X		UD	PSLE CCCS
C		45°F	44°F	10cm	12cm	40m²	40m²			X					X	X		UD	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli)*.
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

ATTACHMENT 8

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: TRINITAS - NAPA	County: NAPA	Quad: NAPA	Township:	Range:	Section:

SURVEYOR / Permit Number: R. SCHOLL TE-212495

Date: 3/28/18 | Time: 14:27 | Weather Conditions: CLEAR SKIES, PARTLY CLOUDY (~20%), WINDS 5-9 MPH

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
FEATURE A		72°F	67°F	25CM	30CM	150M²	150M²			X	X	X	X	X	X	X		DTT	AXOLOTL LARVAE
FEATURE B		74°F	DRY	—	—	—	—	—	—	—	—	—	—	—	—	—		DRY	
FEATURE C		71°F	DRY	—	—	—	—	—	—	—	—	—	—	—	—	—		DRY	

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli)*.
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

ATTACHMENT 8

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: TRINITAS - NAPA	County: NAPA	Quad: NAPA	Township:	Range:	Section:

SURVEYOR / Permit Number: R. SCHELL TE-212445

Date: 4/13/2018 | Time: 10:10 | Weather Conditions: CLEAR SKIES, NO CLOUDS, WINDS 0-5 MPH

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
A		65°F	61°F	25cm	30cm	130m²	130m²			X	X	X	X	X	X	X		D-TT	AXSO LARVAE PSRE LARVAE
B		55°F	59°F	15cm	18cm	80m²	80m²			X	X			X	X	X		UD	PSRE - EGGS + LARVAE
C		56°F	59°F	10cm	12cm	40m²	40m²			X	X			X	X	X		UD	AXSO LARVAE

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli)*.
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

ATTACHMENT 8

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: TRINITAS - NAPA	County: NAPA	Quad: NAPA	Township:	Range:	Section:

SURVEYOR / Permit Number: R. Schell TE-212498

Date: 4/25/18 | Time: 13:05 | Weather Conditions: CLEAR SKIES, CALM WINDS

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
A		68°F	77°F	25cm	30cm	$100m^2$	$130m^2$			X	X	X	X	X	X	X		DTT	AXLO + PSAE LARVAE
B		68°F	81°F	15cm	18cm	$60m^2$	$80m^2$			X	X			X	X	X		UD	AXLO LARVAE
C		71°F	81°F	10cm	12cm	$30m^2$	$40m^2$			X	X			X	X	X		UD	AXLO LARVAE

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli)*.
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

ATTACHMENT 8

Attachment D

MEMORANDUM

ATTACHMENT 8

GLENN LUKOS ASSOCIATES
Regulatory Services

PROJECT NUMBER: 1085-5TRIN

TO: Shawna Schaffner

FROM: Tony Bomkamp

DATE: April 18, 2018 [Updated May 15, 2018]

SUBJECT: Focused Botanical Surveys for Trinitas Project, Napa, California

---

On April 10 and May 15 2018, I conducted focused botanical surveys for special-status plants on the above-referenced sites. Specifically, focused surveys were conducted for Saline clover (*Trifolium hydrophilum*, CRPR 1B.2), dwarf downingia (*Downingia pusilla*, CRPR 2B.2), alkali milk-vetch (*Astragalus tener* var. *tener*, 1B.2), Legenere (*Legenere limosa*, CRPR 1B.1) and Lobb's aquatic buttercup (*Ranunculus lobbii* CRPR 4.2).

Surveys during both site visits followed the recommendations from the California Department of Fish and Wildlife (SDFW) submitted in response to the project's Notice of Preparation. Specifically, the botanical surveys addressed the above referenced special-status plant species, which are listed by the California Native Plant Society (http://www.cnps.org/cnps/rareplants/inventory/). The initial survey was conducted at the beginning of the documented blooming period for all sensitive plant species noted above. The second survey was conducted during the peak of the blooming period. Surveys were conducted in accordance with CDFW's guidelines set forth at https://www.wildlife.ca.gov/Conservation/Plants.

None of the five special-status species referenced above were detected during either of the focused surveys including within the seasonally ponded features designated as Features A, B, and C. Based on the results of the two focused surveys, it is concluded that note of the five special-status species referenced above occur on the site.

29 Orchard ▪ Lake Forest ▪ California 92630-8300
Telephone: (949) 837-0404 Facsimile: (949) 837-5834

Attachment E

BARGAS
Environmental Consulting

September 13, 2017

Ms. Shawna L. Schaffner
CAA Planning, Inc.
65 Enterprise, Suite 130
Aliso Viejo, California 92656

Subject: DRAFT Reconnaissance-level survey for Trinitas Mixed Use Project in response to Notice of Preparation comments by California Department of Fish and Wildlife (letter dated 20 July 2017)

Ms. Schaffner:

This report summarizes the results of the reconnaissance-level biological site assessment survey conducted by a Bargas Environmental Consulting (Bargas) biologist for the Trinitas Mixed Use Project. The project is located on approximately 11.5 acres and comprised of parcel APNs 046-610-009, 046-610-019, and 046-610-020, at the corner of Napa Valley Corporate Way and State Route 221, Napa County, California (**Figures 1** and **2**). The survey was conducted on 12 September 2017, focusing on the following items:

- Presence of suitable habitat that may support special-status species and nesting migratory birds, including those called out in the California Department of Fish and Wildlife's (CDFW) comment letter to the circulated Notice of Preparation, dated 20 July 2017. These species include Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), burrowing owl (*Athene cunicularia*), tricolored blackbird (*Agelaius tricolor*), saline clover (*Trifolium hydrophilum*), dwarf downingia (*Downingia pusilla*), and alkali milkvetch (*Astragalus tener*).
- Evaluating potential for "take" of special-status species; loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alternation of soils and hydrology, and removal of habitat structural features; permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic or human presence; and obstruction of movement corridors, fish passage, or access to water sources and other core habitat features.
- Presence of wetland habitat.

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Methods

Prior to conducting the survey of the site, and per accepted protocol, a thorough review of habitat, special-status species, and jurisdictional wetland databases was performed. The databases queried to obtain background information for the site included; the Natural Resources Conservation Service Soil Survey, California Department of Fish and Wildlife Natural Diversity Database (CNDDB), US Fish and Wildlife Service Information Planning and Conservation (IPaC) and Critical Habitat Mapper, and the US Environmental Protection Agency National Wetlands Inventory (NWI). The CNDDB/Bios data was drawn from the Napa, Mt. George, Cuttings Wharf, and Cordelia USGS 7.5-minute quadrangles. The IPaC compiles a list of species from Napa County.

Bargas biologist Krystal Pulsipher conducted a reconnaissance-level survey of the site on 12 September from 9:30 am to 12:15 pm. Weather conditions were partly to mostly cloudy with temperatures from 70-82°F and southwestern winds from 0-10 mph. The pedestrian survey consisted of meandering transects throughout the site with an evaluation of; current site conditions, potential habitat for special-status species, potential nesting bird habitat, presence of wetlands and waterways, and identification of vegetation. Photos were taken throughout the project area (**Photos 1** through **12**). Location of site photos are labelled in **Figure 2**.

Results

Table 1: Summary of the preliminary database review.

Database	Summary of Results
NRCS Soil Survey	Coombs gravelly loam, 2-5% slopes. Well drained soils with more than 80 inches to the restrictive layer. Parent material is alluvium derived from igneous and/or sedimentary rock and is non-saline to very slightly saline. High availability for water storage in approximately 9.4 inches of the upper profile.
CDFW CNDDB (within a 4-quad area)	Records on project site, from 1980s, extirpated: saline clover. Animals, no records exist directly on site: California giant salamander, foothill yellow-legged frog, California red-legged frog, Coast Range newt, American peregrine falcon, bald eagle, bank swallow, Belding's savannah sparrow, burrowing owl, California black rail, California least tern, California Ridgeway's rail, golden eagle, mountain plover, northern harrier, saltmarsh common yellowthroat, San Pablo song sparrow, Suisun song sparrow, Swainson's hawk, tricolored blackbird, western snowy plover, white-tailed kite, yellow rail, yellow warbler, California freshwater shrimp, valley elderberry longhorn beetle, vernal pool fairy shrimp, chinook salmon – Central Valley fall/late-fall run ESU, Delta smelt, longfin smelt, river lamprey, Sacramento splittail, steelhead –

	central California coast DPS, white sturgeon, American badger, salt-marsh harvest mouse, Suisun shrew, pallid bat, western pond turtle. Plants, no records exist directly on site: alkali milkvetch, big-scale balsamroot, Brewer's western flax, California beaked-rush, Carquinez goldenbush, Contra Costa goldfields, Delta tule pea, dwarf downingia, Greene's narrow-leaved daisy, holly-leaved ceanothus, Jepson's coyote thistle, Jepson's leptosiphon, legenere, Lyngbye's sedge, Mason's lilaopsis, Napa bluecurls, Napa checkerbloom, narrow-anthered brodiaea, Northern California black walnut, oval-leaved viburnum, pappose tarplant, San Joaquin spearscale, soft salty bird's-beak, Suisun Marsh aster, Tiburon paintbrush, two-fork clover.
USFWS IPaC (within Napa County)	Salt marsh harvest mouse, California least tern, northern spotted owl, California red-legged frog, Delta smelt, steelhead, California freshwater shrimp, conservancy fairy shrimp, Contra Costa goldfields, two-fork clover.
USEPA NWI	There is a channelized seasonal tributary to the Napa River along the east side of State Route 221, approximately 200 feet east of the project area. This channelized seasonal tributary crosses under State Route 221 and flows west immediately south of the office building complex south of Napa Valley Corporate Way, approximately 700 feet south of the project.
USFWS Critical Habitat Mapper	No USFWS designated critical habitats within proximity of the site.

Site Conditions

The project area is bordered by State Route 221 to the east, Napa Valley Corporate Way to the south, an existing office building complex to the southwest, Napa Valley Corporate Drive to the west, and a small vacant lot to the north then additional office buildings. The project area is currently undeveloped annual grassland and has been rough graded in the past and experiences regular mowing for fire abatement. There is existing landscaping containing ornamental lawn and/or trees along the southern third of the eastern border of the project area, at the southeast corner, southern border, and all edges bordering the existing office building complex.

The terrain is open with relatively gentle/shallow slopes and evidence of grading of raised "pads" to be used in future construction activities, one located in the northern central portion of the project area and the other located in the southern central portion. The land along the eastern border gently slopes down from the highway shoulder for approximately 50 feet then levels, relatively, within the project area. The landscaping along the southeast corner and southern edge are on raised berms. The lawn along the western border adjacent to the office building complex is also on a raised berm. The western border adjacent to Napa Valley Corporate Drive is not landscaped but has a berm present. There is spoils pile present in the northeastern corner of the project area.

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Three potential wetland areas of interest (AOI) were identified in the project area and their approximate locations drawn in Google Earth as depicted in **Figure 3**. These may be anthropogenic in origin and caused by the rough grading of the southern "pad" and the spoils pile in the northeastern corner that now intercept sheet flow during rain events.

Habitat and Wildlife Observations

Vegetation identified on site ranged in size, and all trees/shrubs with a diameter at breast height (dbh) greater than 6 inches were noted. Species identified on site included:

- Valley oak (*Quercus lobata*)
- Interior live oak (*Quercus wislizeni*)
- Northern red oak (*Quercus rubra*)
- Coast redwood (*Sequoia sempervirens*)
- Cherry plum (*Prunus cerasifera*)
- Blue gum (*Eucalyptus globulus*)
- Japanese zelkova (*Zelcova serrata*)
- Fremont cottonwood (*Populus fremontii*)
- Himalayan blackberry (*Rubus armeniacus*)
- Willow (*Salix* sp.)
- Honeysuckle (*Lonicera* sp.)
- Periwinkle (*Vinca* sp.)
- Wild oats (*Avina fatua*)
- English plantain (*Plantago lanceolate*)
- Prickly lettuce (*Lactuca serriola*)
- Chicory (*Cichorium intybus*)
- Bermuda grass (*Cynodon dactylon*)
- Crabgrass (*Digitaria* sp.)
- Cheeseweed (*Malva parviflora*)
- Field hedge parsley (*Torilis arvensis*)
- Lawn grass (*Festuca* sp.)
- Curly dock (*Rumex crispus*)
- Wild radish (*Raphanus raphinistrum*)
- Field bindweed (*Convolvulus arvensis*)
- Bur clover (*Medicago polymorpha*)
- Sweet fennel (*Foeniculum vulgare*)
- California poppy (*Eschscholzia californica*)
- Pokeberry (*Phytolacca* sp.)
- Pepperweed (*Lepidium latifolium*)
- Coyote brush (*Baccharis pilularis*)
- Little seed canary grass (*Phalaris minor*)
- Dallas grass (*Paspalum dilatatum*)
- Purple salsify (*Tragopogon porrifolius*)
- Poverty brome (*Bromus sterilis*)
- Roundleaf cancerwort (*Kickxia spuria*)
- Tumbleweed (*Amaranthus albas*)
- Spikeweed (*Centromadia fitchii*)
- Tall flatsedge (*Cyperus eragrostis*)

Three potential wetland features (AOIs) were identified in the project area (**Figure 3**). A full wetland delineation was not completed for the project and is beyond the scope of this letter report. Signs of hydrology and hydrophytic vegetation were identified to the fullest extent possible given the timing of the survey (dry season, outside of blooming periods). Based on topography and vegetation, an isolated swale-like feature was identified along the eastern side of the project area at approximately 38.251159°, -122.271675° (WGS84). This feature, AOI-1, is oblong in shape with a concave profile, shallower in the northern half and deeper in the southern half (**Photos 8** through **10**). The two halves are roughly separated by a narrow berm but most likely flow into each other in the rainy season. Vegetation observed within the shallower northern half included bur clover and English plantain; within the southern half included curly dock and tall flatsedge (facultative wetland) in addition to bur clover, English plantain, and roundleaf cancerwort. Bur clover, English plantain, and curly dock are listed on the US Army Corps of Engineers (USACE) National Wetland Plant List for the Arid West Region (2016) as facultative, meaning they can be

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more or less equally found in upland and wetland habitats. Bur clover is listed as a facultative upland plant, meaning that it is found more often in upland habitats but can withstand some inundation. Tall flatsedge is listed as a facultative wetland plant, meaning it is found more often in wetlands but can withstand some desiccation. This feature may be a remnant natural wetland or may be anthropogenic in origin and created by the rough grading of a raised "pad" in the southern interior portion of the project.

There are two small isolated features, AOI-2 and AOI-3, adjacent to the spoils pile in the northeast corner of the project (**Figure 3**). AOI-2 is just south of the southeastern corner of the spoils pile and was not visibly concave in profile (**Photo 11**). The feature contained sediment that was dry and cracked throughout. There was little vegetation observed within the feature and included field bindweed, English plantain, chicory, and tumbleweed. Per the USACE National Wetland Plant list, field bindweed is an upland plant while English plantain is a facultative plant, chicory and tumbleweed are facultative upland plants. AOI-3 is just east of the southeastern corner of the spoils pile and was not visibly concave in profile (**Photo 12**). The feature also contained sediment that was dry and cracked throughout. There was no vegetation present within the feature.

Wildlife observed on site or in the immediate vicinity are listed below. Sign of two species were observed, American crow (*Corvus brachyrhynchos*) feathers and coyote (*Canis latrans*) scat. There was also evidence of either pocket gopher or meadow vole burrows throughout the project area.

- Turkey vultures (*Cathartes aura*)
- Red-tailed hawk (*Buteo jamaicensis*)
- Killdeer (*Charadrius vociferous*)
- California scrub-jay (*Aphelocoma californica*)
- Acorn woodpecker (*Melanerpes formicivorus*)
- House finch (*Haemorhous mexicanus*)
- European starlings (*Sturnus vulgaris*)
- Common raven (*Corvus corax*)
- Northern mockingbird (*Mimus polyglottos*)
- Western fence lizard (*Sceloporus occidentalis*)

A red-tailed hawk was observed foraging in the project area upon arrival. It was then observed flying to one of the redwoods at the southeast corner of the project area to perch momentarily prior to flying off-site to the south. California scrub-jays, acorn woodpeckers, and house finches were observed foraging in the project area. American crow feathers were observed by the Himalayan blackberry at the southeastern corner. A pair of adult killdeer were observed on the north side of the spoils pile, outside of the northeastern corner of the project area. The killdeer did not exhibit nest or young defensive behavior and an active nest was not identified. Coyote scat was observed at several widespread locations within the project area. Other than gopher and vole burrows, mammal burrows or dens were not observed in the project area. Existing avian nests, including raptors, were not observed in the trees in the project area or immediately adjacent. A row of large blue gum trees along the east side of State Route 221 opposite the project area were also scanned for raptor nests, none were observed.

<u>Swainson's hawk, white-tailed kite, burrowing owl, and tricolored blackbird</u>:

The trees along the borders of the project area are large enough to provide suitable nesting habitat for Swainson's hawk and white-tailed kite. Neither species nor existing nests were observed on site. The

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nearest CNDDB occurrence for Swainson's hawk is approximately 0.75 miles southeast of the project. There are no CNDDB occurrences for white-tailed kite within 2 miles of the project area.

There is no suitable nesting or foraging habitat for burrowing owl and tricolored blackbird within the project area. Burrowing owls require burrows excavated by other mammals, such as ground squirrels, or man-made structures, such as culverts, for breeding and wintering burrows. Ground squirrels were not observed on site and there were no other structures observed that could provide suitable burrow-like habitat for burrowing owl. Burrowing owl tend to forage in close proximity to their occupied burrows and the nearest CNDDB occurrence is approximately 1.75 miles southeast of the project area. Tricolored blackbirds require cattails, tules, or shrubby vegetation near surface water for nesting and are colonial nesters requiring large areas of nesting substrate. The nearest CNDDB occurrence for tricolored blackbird is 0.5 mile southwest of the project area in emergent wetlands associated with a tributary of the Napa River. Tricolored blackbirds forage in grasslands and crop fields such as alfalfa. Although the project area is a highly disturbed grassland, it is unlikely that tricolored blackbirds would use the project area as foraging habitat due to the high presence of human activity surrounding the site.

Alkali milkvetch, dwarf downingia, and saline clover:

There are Calflora and CNDDB records for saline clover recorded in 1982 from the project area and immediate vicinity where the existing office building complexes are. There are also Calflora and CNDDB records for alkali milkvetch and dwarf downingia recorded in 1960 and the 1980s from the adjacent office building complex southwest of the project area. The records state that all of these populations have been extirpated from the development activity and were not observed on site during this survey. Alkali milkvetch requires alkaline flats or vernally moist meadows. Dwarf downingia requires vernal pools or roadside ditches. Saline clover requires salt marshes or open areas in alkaline soils. The project area likely does not contain alkaline wetland habitat to support alkali milkvetch or saline clover. The potential wetland features discussed above, AOI-1 through AOI-3, may provide suitable habitat to support dwarf downingia.

Conclusions

Potential for "take" of special-status species.

There is low to moderate potential for Swainson's hawk and white-tailed kite to build their nests within the project area or immediately adjacent to the project area in future nesting seasons. There is low potential for dwarf downingia to be present within the potential wetland features identified in the project area (AOI-1 through AOI-3, **Figure 3**).

Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alternation of soils and hydrology, and removal of habitat structural features.

The proposed Trinitas Mixed Use Project is an in-fill project, occurring within a larger existing commercial building complex. There were no existing raptor or migratory bird nests identified during the survey. Raptor foraging activity was observed on site (red-tailed hawk) and there is evidence of gopher and/or

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vole presence throughout the project area. This project would result in the loss of raptor foraging habitat and prospective nesting habitat.

Depending on the full nature of the potential wetland features (AOI-1 through AOI-3) and other potential features that may be identifiable during the rainy season within blooming periods of wetland vegetation, the proposed project may result in loss of wetland habitat and associated species.

Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic or human presence.

The proposed project is an in-fill project surrounded by office buildings and roads that experience regular vehicular traffic and associated noise and light disturbance. The existing office buildings and roads with their associated human and vehicular presence present a high level of noise, lighting, reflection, and air pollution. Therefore, it is anticipated that the proposed project will not create significantly more disturbance, as described above, beyond the ambient conditions.

Obstruction of movement corridors, fish passage, or access to water sources and other core habitat.

Due to the in-fill location of the proposed project, the project area does not behave as a movement corridor or core habitat for wildlife. There are not waterways within the project area that would provide fish passage. Depending on the full nature of the potential wetland features (AOI-1 through AOI-3) and other potential features that may be identifiable during the rainy season within blooming periods of wetland vegetation, the proposed project may result in loss of temporary water sources for wildlife.

Although there was no evidence of active nesting birds or existing avian nests, compliance with CEQA may require that surveys be conducted for active use within 60 days of the construction start date. A wetland delineation is recommended to determine the full nature of the potential wetland features identified during the survey. Due to the presence of potential wetland features, a botanical survey is also recommended to identify special-status plant species associated with seasonal wetlands.

Should you have any questions or comments regarding this report, please do not hesitate to contact James Stewart (jstewart@bargasconsulting.com) or (kpulsipher@bargasconsulting.com) at our listed emails, or the office at (916) 993-9218.

Sincerely,

Krystal Pulsipher
Biologist – Assistant Project Manager

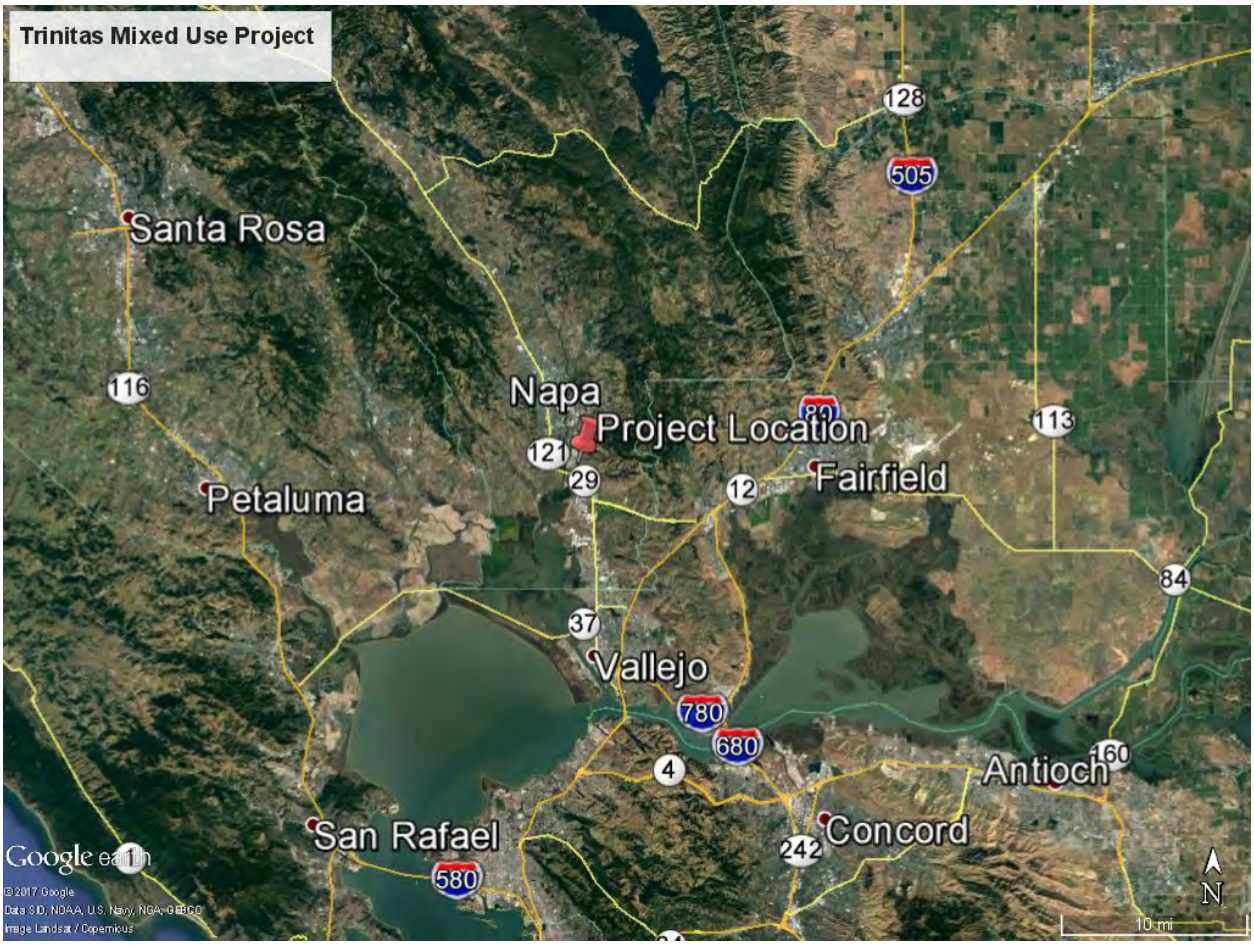

Figure 1: Aerial image of the vicinity of the site located at the corner of Napa Valley Corporate Way and State Route 221, Napa County, California.

Figure 2: Aerial image of the site located at the corner of Napa Valley Corporate Way and State Route 221, Napa County, California, labelled with corresponding photo numbers from images taken during the 12 September 2017 site survey.

Figure 3: Aerial image of the site located at the corner of Napa Valley Corporate Way and State Route 221, Napa County, California, labelled with the potential wetland features, AOI-1 through 3, identified during the 12 September 2017 site survey.

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Photo 1: Site photo of the proposed location of the Trinitas Mixed Use Project, looking north from the southwest corner adjacent to Napa Valley Corporate Way (38.250172°, -122.272420° WGS84). There is a strip of landscaped lawn along the edge of the project, adjacent to the parking of the existing office building complex. Also pictured is a large valley oak tree that is to be preserved in the proposed project design.

Photo 2: Site photo of the proposed location of the Trinitas Mixed Use Project, looking north from the southwest corner adjacent to Napa Valley Corporate Way (38.250172°, -122.272420° WGS84). There is a landscaped berm with a lawn and northern red oak and redwood trees along the edge of the project, adjacent to Napa Valley Corporate Way. The lawn continues to the corner of Napa Valley Corporate Way and State Route 221, then continues northward for approximately 130 feet. The row of landscaped and native trees adjacent to State Route 221 include interior live oak, valley oak, blue gum, coast redwood, Fremont cottonwood, and willow. There is an understory of Himalayan blackberry, honeysuckle, and periwinkle on the inner edge of the southeast corner. This landscaping, including the trees, is to be preserved in the proposed project design.

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Photo 3: Site photo of the proposed location of the Trinitas Mixed Use Project, looking south from the northeast corner adjacent to State Route 221 (38.252555°, -122.271795° WGS84). The land gently slopes down from the highway shoulder for approximately 50 feet then levels, relatively, within the project area.

Photo 4: Site photo of the proposed location of the Trinitas Mixed Use Project, looking southwest from the northeast corner adjacent to State Route 221 (38.252555°, -122.271795° WGS84). The land gently slopes down from the highway shoulder for approximately 50 feet then levels, relatively, within the project area.

Photo 5: Site photo of the proposed location of the Trinitas Mixed Use Project, looking east from the northwest corner adjacent to Napa Valley Corporate Drive (38.252419°, -122.274720° WGS84). The terrain within the project area is relatively level with infrequent very gentle, shallow slopes.

Photo 6: Site photo of the proposed Trinitas Mixed Use Project, looking north from the southwest corner adjacent to Napa Valley Corporate Drive (38.251843°, -122.274701° WGS84). There is a low berm along the edge of the project area and adjacent to the road.

Photo 7: Site photo of the proposed Trinitas Mixed Use Project, looking northwest from an interset corner adjacent to the existing office building complex (38.251420°, -122.273255° WGS84). The small trees in the photo, including valley oaks and cherry plum.

Photo 8: Site photo of AOI-1, looking south across the shallower northern half of the oblong swale-like feature.

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Photo 9: Site photo of AOI-1, looking south across the deeper southern half of the oblong swale-like feature.

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Photo 10: Site photo of AOI-1, looking north across the deeper southern half of the oblong swale-like feature.

Photo 11: Site photo of AOI-2 in the northeastern corner of the project area, looking north towards the southeastern corner of the spoils pile.

Photo 12: Site photo of AOI-3 in the northeastern corner of the project area, looking west towards the southeastern corner of the spoils pile.