Final EIR

Vista Lucia Project

State Clearinghouse Number 2020039056

May 2, 2024

Prepared by

EMC Planning Group

FINAL EIR

VISTA LUCIA PROJECT

(ANNEXATION, PREZONING, SPECIFIC PLAN AND NEIGHBORHOOD 1 TENTATIVE MAP)

STATE CLEARINGHOUSE NUMBER
2020039056

PREPARED FOR

City of Gonzales
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May 2, 2024

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1.0 Introduction

1.1 CEQA Requirements

Before approving a project that may cause a significant environmental impact, the California Environmental Quality Act (CEQA) requires the City of Gonzales ("City"), acting as the Lead Agency under CEQA, to prepare and certify a final environmental impact report ("final EIR"). The contents of a final EIR are specified in CEQA Guidelines Section 15132, which states that:

The final EIR shall consist of:

a) The draft EIR or a revision of the draft.

b) Comments and recommendations received on the draft EIR either verbatim or in summary.

c) A list of persons, organizations, and public agencies commenting on the draft EIR.

d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.

e) Any other information added by the Lead Agency.

All comments addressing environmental issues received on the draft EIR during the public review period from February 2, 2024 to March 18, 2024 have been addressed in this final EIR. Acting in good faith, the City also has responded to comments from the California Department of Fish and Wildlife dated April 8, 2024, 21 days after the close of the public review period. CEQA Guidelines section 15204(a) states that in reviewing a draft EIR, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project. Per CEQA Guidelines section15204(a), CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. Likewise, a lead agency also need not respond to general reference materials submitted in support of comments, comments that repeat those already considered, or comments that are clearly irrelevant.

According to CEQA Guidelines section 15204(a), when responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR, as also described in CEQA Guidelines sections 15088(c) and 15132(d).

CEQA Guidelines section 15204(c) states that reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to section 15064, an effect shall not be considered significant in the absence of substantial evidence.

CEQA Guidelines section 15088 requires the lead agency to provide a written proposed response to a public agency on comments made by that public agency at least 10 days prior to certifying an EIR. Written responses to comments have been prepared to address comments on the project and have been sent to the commenting agencies and organizations.

CEQA Guidelines 15095(a) also requires that the lead agency file a copy of the final EIR with the appropriate planning agency of any city, county, or city and county where significant effects on the environment may occur. A copy of this final EIR is available for review at the City of Gonzles Community Development Department, 147 Fourth Street, Gonzales.

1.2 Purpose of Public Review

CEQA Guidelines section 15200 indicates that the purposes of the public review process include the following:

- sharing expertise;
- disclosing agency analysis;
- checking for accuracy;
- detecting omissions;
- discovering public concerns; and
- soliciting counter proposals.

In compliance with CEQA public noticing requirements, the school district prepared a draft EIR for the proposed project that was circulated for public review from February 2, 2024 to March 18, 2024. The City received seven comment letters and emails during this public comment period.

1.3 Final EIR

This final EIR has been prepared to address timely comments received on the draft EIR in the manner specified in the Notice of Completion/Availability and, together with the draft EIR, constitutes the complete *Vista Lucia Project Final EIR*. This final EIR is organized into the following sections:

- Section 1 contains an introduction to this final EIR;
- Section 2 contains a list of persons, organizations, and public agencies that commented on the draft EIR, written comments on the draft EIR and the responses to those comments; and
- Section 3 contains changes to the draft EIR. Such changes clarify, amplify, or otherwise make modifications to the draft.

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2.0
Draft EIR Comments and Responses

2.1 CEQA Requirements

CEQA Guidelines section 15132(c) requires that a final EIR contain a list of persons, organizations, and public agencies that have commented on the draft EIR. A list of the correspondence received during the public review period is presented in the following section below.

CEQA Guidelines sections 15132(b) and 15132(d) require that a final EIR contain the comments that raise significant environmental points in the review and consultation process, and written response to those comments be provided. A copy of each comment letter or other form of correspondence received during the public review period is provided, with each letter identified by a number at the top of the first page. Individual comments to which responses are provided are numbered along the right margin in each letter. Responses corresponding to the numbered comments are presented immediately following each letter.

Where required, revisions have been made to the text or graphics of the draft EIR in response to comments. Comments that trigger changes to the draft EIR are so noted as part of the response. Revisions to the draft EIR are included in Section 3.0, Changes to the Draft EIR.

2.2 Written Comments on the Draft EIR

The City received written comments from the following agencies and organizations during the public review period:

1. California Department of Toxic Substances Control (March 14, 2024;
2. LandWatch of Monterey County (March 15, 2024);
3. California Department of Transportation (Caltrans) (March 15, 2024);
4. Monterey County Local Agency Formation Commission (LAFCO) (March 15, 2024);
5. Monterey County Housing and Community Development – Planning (March 18, 2024);
6. Monterey County Housing and Community Development – Engineering Services (March 19, 2024);
7. Monterey County Agricultural Commissioner (March 19, 2024); and

8. California Department of Fish and Wildlife (April 8, 2024 – 21 days past the close of the public comment period).

Comments on environmental topics and responses are provided on the following pages.

Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Yana Garcia
Secretary for
Environmental Protection

Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

March 14, 2024

Taven Kinison Brown
Community Development Director
City of Arcata
147 Fourth Street
Gonzales, CA 93926
tkinisionbrown@ci.gonzales.ca.us

RE: DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR THE VISTA LUCIA PROJECT, DATED JANUARY 31, 2024 STATE CLEARINGHOUSE # 2020039056

Dear Taven Kinison Brown,

The Department of Toxic Substances Control (DTSC) received a DEIR for the Vista Lucia Project. The proposed project would facilitate development of a portion of the City's growth area and has been anticipated since the General Plan was adopted in 2010. The requested entitlements include a general plan amendment (specific plan), pre-zoning, annexation, and the first of several anticipated tentative maps. Up to 3,498 dwelling units at various densities; 96,000 square feet of local serving retail (mixed use), 79 acres of parks, promenades, and village greens; two elementaries and one middle school on a total of 48 acres; roads, stormwater detention, agricultural buffers and other open space comprise the planned improvements and uses.

DTSC has identified that this project may affect a nonactive mitigation and clean-up site, Fanoe Ranch which is located near or within the project boundaries. The Site is located in a rural agricultural area cultivated with row crops. Agricultural chemicals

historically used onsite include herbicides, fungicides, insecticides, and pesticides. A dairy farm business leased and used a portion of the Site from 1938 until 1970. Two petroleum tanks were reportedly buried in the vicinity of the former dairy area. Sturdy Oil Company leased a portion of the former dairy area for bulk storage of gasoline and diesel beginning in 1972. The company also used an approximately 15-acre area at the northeastern corner of the Site for treatment/disposal of hydrocarbon impacted soil excavated from Sturdy Oil service stations in the south Monterey County area with approval from the Monterey County Health Department. A Phase I and II Environmental Site Assessment Report was completed in 2004 for the Site in advance of the planned purchase and development of the Site by the Wellington Corporation and provides the Site history and chemical use, presents the results of a soil quality evaluation, and identifies known or possible impacted areas. Three debris areas and two burning areas were identified in the Phase I/II Environmental Site Assessment Report. DDT and toxaphene were detected in some soil samples above residential screening levels. Based on our project review, we request the consideration of the following comments:

1. The City of Gonzales enter into DTSC's Standard Voluntary Agreement (SVA) program, so a proper evaluation of the Project is completed. If entering into an SVA with DTSC, the FLUXX portal link is provided and the page also has a link to the Fluxx User Guide that can help you navigate the system. You will need to create a new profile and once in the system, click "Start a Request for Lead Agency Oversight Application. If you have any questions about the application portal, please contact the DTSC Brownfield Coordinator Gregory Shaffer or contact the Application Portal Inbox. 1

2. DTSC recommends that all imported soil and fill material should be tested to ensure any contaminants of concern are within approved screening levels for the intended land use. To minimize the possibility of introducing contaminated soil and fill material there should be documentation of the origins of the soil or fill material and, if applicable, sampling be conducted 2

2 con't. to ensure that the imported soil and fill material meets screening levels for the intended land use. The soil sampling should include analysis based on the source of the fill and knowledge of the prior land use.

DTSC believes the City of Gonzales must address these comments to determine if any significant impacts under the California Environmental Quality Act (CEQA) will occur and, if necessary, avoid significant impacts under CEQA. DTSC recommends the City connect with our unit if any hazardous waste is discovered.

DTSC appreciates the opportunity to comment on the DEIR for the Vista Lucia Project. Thank you for your assistance in protecting California's people and environment from the harmful effects of toxic substances. If you have any questions or would like any clarification on DTSC's comments, please respond to this letter or via email for additional guidance.

Sincerely,

Tamara Purvis

Tamara Purvis
Associate Environmental Planner
HWMP - Permitting Division – CEQA Unit
Department of Toxic Substances Control
Tamara.Purvis@dtsc.ca.gov

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

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Letter 1 – California Department of Toxic Substances Control

1. The commenter recommends that the City enter into a DTSC Standard Voluntary Agreement.

   As is suggested by its title, the DTSC Standard Voluntary Agreement is voluntary. The *Site Mitigation Plan*, included in Appendix D of the draft EIR, includes a comprehensive review of hazardous material conditions on the site and includes a detailed remediation plan and implementation actions that must be taken to mitigate health and safety and environmental impacts posed by those conditions. While the City recognizes the function of the DTSC Standard Voluntary Agreement, it is not needed/required as a process for overseeing hazardous conditions remediation activities. Nevertheless, the City has elected to modify mitigation measure 11-2 to require that the remediation completion report to be submitted to the City per the *Site Mitigation Plan* be reviewed by a qualified hazardous management professional, as well as by the City Public Works Director, prior to approval of grading permits. This will ensure additional oversight by a qualified hazardous materials management professional. Refer to Section 3.0, Changes to the Draft EIR, for the changes to mitigation measure 11-2.

2. The commenter recommends that if soil needs to be imported to implement the proposed project, that the soil be tested to ensure any contaminants are within approved screening levels for the intended use.

   At this time, detailed grading plans have not been prepared, nor are such necessary at this time. Therefore, it is currently unknown whether the site can be developed with a balance between cut and fill volumes or whether soil export or import may be required.

   Section 4.0, Import Soil Evaluation, of the *Site Mitigation Plan*, included in Appendix D of the draft EIR, addresses soil import testing. It notes that imported soil, if needed, must have adequate documentation to verify if they are appropriate for the site. That documentation must include detailed information on the previous land use of the fill source, any environmental site assessments performed and the findings, and the results of any testing performed. If no documentation is available or the documentation is inadequate, samples of the potential fill material will be collected and chemically analyzed. The analyses selected will be based on the fill source and knowledge the previous land use. The project environmental consultant, McCloskey Consultants, would perform this review of potential soil import sources, with results subject to review and approval of a qualified hazardous materials management professional and City Public Works Director. The results for and documentation of testing of important soils, if needed, must be part of the site remediation completion report. This process would ensure that any potential public health and safety and environmental impacts associated with soil import would be minimized.

LANDWATCH
MONTEREY COUNTY

March 15, 2024

Taven Kinison Brown, Community Development Director
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Gonzales, CA 93926
TKinisonBrown@ci.gonzales.ca.us

Re: LandWatch's comments on Vista Lucia Specific Plan Draft Environmental Impact Report

Dear Mr. Kinison Brown:

1 Despite almost tripling the size of Gonzales, the proposed Vista Lucia Specific Plan fails to meet the housing needs of the City's working families and individuals. Gonzales' median household income is $73,906. To meet the needs of at least half of Gonzales' households earning less than the median income, half of the Vista Lucia units should be located in areas zoned for high density housing - that is, 20 units or more per acre. In addition, more units should be multifamily apartments rather than for-sale housing. Nevertheless, only 18% of the units are zoned for high density.

The failure of the Vista Lucia Specific Plan to meet the needs of Gonzales' working families is both a social justice and an environmental issue.

This mismatch between City's residents' incomes, housing densities, and housing types will perpetuate the need for low wage workers who live elsewhere to commute into Gonzales, and it will transform Gonzales into a bedroom community for commuters who work elsewhere. The environmental consequence is unnecessary and avoidable vehicle miles traveled, and associated greenhouse gas (GHG) and air pollutants. The social justice consequence is a failure to provide housing affordable to those who live and work in Gonzales, bypassing the needs of current residents in favor of the only market that can afford $700,000+ single family homes- commuters.

The project should be revised to provide that half of the units are on sites zoned for densities that support affordable housing and to include a larger percentage of rental housing than for-sale housing. A significant reduction in VMT, made possible by matching housing to the local workforce, would enable the project to meet post-2030 goals for reduction of GHG. However, the EIR simply fails to demonstrate that it will meet the 2050 goal for GHG reductions that was adopted in the City's Climate Action plan and in the DEIR itself. The City cannot find that the project makes no considerable contribution to GHG impacts.

1 con't.

The project proposes to increase households in the City from 1,987 to 5,485 units by 2045, increasing the size of the City 2.7 times. This growth is not needed to meet the growth projected by the Association of Monterey Bay Area Governments (AMBAG), which did not anticipate that Gonzales would seek to transform itself into a bedroom community. But because this growth exceeds the growth planned by the Monterey Bay Unified Air Pollution Control District (MBUAPCD), the project will have a significant impact on its Air Quality Plan. Because the EIR fails to acknowledge this significant impact, it must be revised and recirculated.

The EIR fails to consider adopting increased density as a mitigation measure to reduce VMT despite the recommendation and evidence in the California Air Pollution Control Officers (CAPCOA) guidance document, which the EIR acknowledges as the standard reference source for VMT and GHG reduction measures. Where the EIR does consider an increased density alternative, it erroneously dismisses the VMT and GHG benefits without any analysis.

The DEIR also fails to assess mitigation of VMT by matching affordability levels to the household incomes of the local workforce. Again, the project should be redesigned to provide that at least half of the units would be affordable to the local households and workers earning less than the median income.

The EIR's alternatives analysis is flawed. Not only does it fail to acknowledge the VMT and GHG benefits of increased density, but it misidentifies the environmentally superior alternative. The discussion fails to acknowledge that Alternative 3, which reduces the project footprint by 138 acres by increasing its density, substantially reduces more significant impacts than Alternative 2, which reduces the project footprint by only 52 acres by reducing the number of units but retaining its overall low density. And, despite the obvious need to assess an alternative that increases density and reduces the number of units, the EIR simply ignores comments seeking this analysis.

Our detailed comments follow.

A. The Vista Lucia Specific Plan should be revised to provide that half of the units are on sites zoned at densities that support affordable housing.

Gonzales should plan for housing that will actually meet the affordability needs of those who live and work in the City. Half of Gonzales' population qualifies as lower income, earning less than 80% of the area median income. Yet only 18% of the units in the Specific Plan would be zoned at the 20 units per acre density that supports housing affordable to lower income households. (DEIR, p. 4-14, Table 4-1.)

1 con't.

Household median income in Gonzales is only $73,906.[1] These households cannot realistically expect to purchase housing and they could not likely afford rental housing without vouchers or overcrowding – if, that is, rental housing were even available.

The failure to provide housing that is actually affordable to lower and moderate income households results in overcrowding and causes households to be housing cost burdened. Over 50% of renters in Gonzales are cost burdened. [2] 18% of households in Gonzales are overcrowded.

8% of Gonzales' households are Extremely Low-Income; 9.5% are Very Low-Income, and 28.1% are Low-Income.[3] Thus, 45.6% of Gonzales' households are classified as lower income, earning less than 80% of the area median income. Another 6% of households earn only 80% to 100% of the area median income.[4] The area median income for a family of four is only $90,100.[5] A household earning that median income would be cost burdened by housing that cost more than $270,000. Households earning less – half of the City's households – could not afford even that housing cost.

If half of Gonzales' residents need housing affordable to lower income households, then the Vista Lucia Specific Plan should ensure that half of its new development is affordable to such households.

Housing affordable to lower income households should be zoned at densities of at least 20 units per acre, the "Mullin" density for Monterey County, in order to accommodate the economies of scale needed to produce affordable housing.[6] Despite this, only 18% of the units – 640 of the 3,498 units

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[1] City of Gonzales, Housing Element Update, Sixth Housing Element Cycle, 2024-2031, Public Review Draft, ("Draft HE"), Section 1, Table 2, available at https://cityofgonzales1-my.sharepoint.com/personal/aflores_ci_gonzales_ca_us/_layouts/15/onedrive.aspx?ga=1&id=%2Fpersonal%2Faflores%5Fci%5Fgonzales%5Fca%5Fus%2FDocuments%2FCIty%20of%20Gonzales%20Housing%20Element%20Update%2FPublic%20Review%20Draft%2FGonzales%20Housing%20Element%20Public%20Draft%20Sections%201%2D3%2Epdf&parent=%2Fpersonal%2Faflores%5Fci%5Fgonzales%5Fca%5Fus%2FDocuments%2FCIty%20of%20Gonzales%20Housing%20Element%20Update%2FPublic%20Review%20Draft.

[2] Draft HE, Section 5, p. 82, available at https://cityofgonzales1-my.sharepoint.com/personal/aflores_ci_gonzales_ca_us/_layouts/15/onedrive.aspx?ga=1&id=%2Fpersonal%2Faflores%5Fci%5Fgonzales%5Fca%5Fus%2FDocuments%2FCIty%20of%20Gonzales%20Housing%20Element%20Update%2FPublic%20Review%20Draft%2FGonzales%20Housing%20Element%20Public%20Draft%20Sections%204%2D5%2Epdf&parent=%2Fpersonal%2Faflores%5Fci%5Fgonzales%5Fca%5Fus%2FDocuments%2FCIty%20of%20Gonzales%20Housing%20Element%20Update%2FPublic%20Review%20Draft.

[3] Draft HE, Section 5, Table 36, Figure 16.

[4] Id.

[5] Draft HE, Section 5, p. 12.

[6] Government Code, § 65583.2(c)(3); HCD, Default Density Standard Option – 2020 Census Update, March 21, 2022, p. 3, available at https://www.hcd.ca.gov/community-development/housing-element/housing-element-memos/docs/defaultdensity2020censusupdate.pdf; HCD, Site Inventory Guidebook, May 2020, p. 13, available

1 con't.

– are on sites that are zoned at 20 units per acre and can therefore be expected to support housing affordable to lower income households. (DEIR, p. 4-14, Table 4-1.) The site plan and map should be revised to ensure that at least half of the units are on sites zoned to accommodate 20 units per acre.

Indeed, the City has had a long-standing General Plan policy and program to require that new development in specific plan areas, such as the proposed Vista Lucia Specific Plan, be provided in the proportion set out in the City's RHNA.[7] Honoring this proportionality requirement would require that Vista Lucia design half of its units at densities that would make the units affordable to lower and moderate income households.

Designing this project with densities that can accommodate the City's current and future RHNAs is critical because the City looks to Vista Lucia as the locus of future residential growth for the City. Vista Lucia's 3,498 units represent 31 years of growth – roughly four RHNA cycles – at the 111 units per year growth rate projected by AMBAG.[8] Unless the Specific Plan is revised to zone enough sites at high density to support future housing element cycles, the City may not be able to meet its 7th, 8th, and 9th Cycle RHNAs without completely redesigning the Vista Lucia Specific Plan or annexing yet more farmland. This is bad planning.

And, as set out below, providing housing that is actually affordable to those who work in the City has the environmental benefit of reducing vehicle miles traveled (VMT) and associated greenhouse gasses (GHG), since the City's lower wage workers would not have to commute from other locations where housing is affordable.

2

B. The DEIR fails to demonstrate that the project would meet the 2050 goal for emissions reduction adopted in the City's Climate Action Plan.

The City's Climate Action Plan (CAP) adopts emission reduction targets for 2020, 2030, and 2050.[9] The 2050 target is based on the 2005 Executive Order No. S-3-05, requiring a reduction of 80% below 1990 levels by 2050.[10] The DEIR acknowledges that the CAP is based on these emission reduction targets for 2020, 2030, and 2050. (DEIR, p. 10-2.)

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https://www.hcd.ca.gov/community-development/housing-element/docs/sites_inventory_memo_final06102020.pdf.

[7] Gonzales General Plan, pp. IV-53, IV-82 [Policy HE-1.1, Implementing Action HE-1.1.1], available at https://gonzalesca.gov/sites/default/files/2018-08/General-Plan-Housing-Element.pdf.

[8] AMBAG, Regional Growth Forecast, available at https://www.ambag.org/sites/default/files/2022-12/REVISED_PDFAAppendix%20A_2022%20RGF.pdf.

[9] City of Gonzales, Gonzales Climate Action Plan, 2018 Update, Aug. 20, 2018, ("CAP"), Table CAP-6, available at https://gonzalesca.gov/sites/default/files/2018-11/Adopted%202018%20Gonzales%20CAP%20Update.pdf.

[10] CAP, p. IV-1.

2 con't.

The DEIR calculates project GHG emissions as of the expected 2045 buildout and then concludes that GHG emissions from the project would be less than significant "based on consistency with the CAP." (DEIR, p. 10-6.) In particular, the DEIR finds that the project implements the "applicable" reduction measures from the CAP.

The fundamental problem with this analysis is that it does not and cannot determine whether the CAP measures are sufficient to meet the 2050 emissions reduction goal adopted by the CAP and the DEIR. This is because the CAP itself fails to document emissions reduction attributable to the CAP measures past 2030. There is simply no evidence in the CAP or in the DEIR that the emissions reduction measures adopted in the CAP would be sufficient to meet the 2050 reduction target.

For each year, 2020, 2030, and 2050, Table CAP-6 calculates baseline emissions, new emissions from projected growth, total emissions, reductions achieved by statewide reduction strategies, and the additional local reductions that are needed to meet the adopted emissions reduction targets. For example, Table CAP-6 calculates that reductions attributable to the local CAP needed to meet its 2030 reduction target would be at least 29,553 tons. Reductions needed to meet the 2050 reduction target would be 71,250 tons. The CAP graphs the needed reductions over time in Figure CAP-5 and states that the "GHG reduction measures set forth in a later chapter will be tailored to meet this reduction target."[11]

In that later chapter, Table CAP-8 purports to calculate emissions reductions that would be achieved by 2030 through the adoption of ten specific emissions reduction measures for residential, commercial, transportation, solid waste, and government operations. Table CAP -8 shows that the City expected 2030 reductions attributable to these ten local CAP reduction measures to total 29,956 tons, which is 403 tons more than the 29,553 ton reduction target for 2030 set out in Table CAP-6. CAP Appendices B and C document how the 2030 reductions were calculated for each of these ten measures.

However, the CAP provides no calculation for the expected 2050 emissions reductions that would be attained by Local CAP measures for 2050. Table CAP-8 documents reductions only for 2020 and 2030. It does not provide any information about expected reductions from CAP measures in 2050. Nor are 2050 reductions calculated in Appendices B and C. In short, there is simply no evidence that the adopted CAP measures will achieve the needed 71,250 ton reduction to meet the adopted 2050 emission reduction target.

The DEIR also claims that emissions would be less than significant based "on showing additional progress toward meeting the Assembly Bill 1279 emissions reduction target." (DEIR, p. 10-6.) The DEIR explains that the 2022 AB 1279 target requires net zero GHG emissions and an 85% reduction in human-induced emissions by 2045. (DEIR, p. 10-4.) The DEIR argues that because AB 1279 is so new, agencies have not had time to implement its reduction targets in their CAPs and "[c]onsequently, the CAP is considered to remain valid as a qualified GHG reduction plan pursuant to CEQA Guidelines Section 15183.5(b)." (DEIR, p. 10-4.) However, as discussed above, neither the

[11] CAP, p. IV-3.

2 con't.

CAP nor the DEIR provide any evidence that the CAP will attain the less stringent but long-standing emission reduction target for 2050, set out 19 years ago in the 2005 Executive Order No. S-3-05.

The DEIR proposes one additional measure, Mitigation Measures 10-2, that it argues will demonstrate "progress toward" the AB 1279 emissions reduction target. (DEIR, p. 10-8 to 10-9.) However, the DEIR does not quantify the effect of this measure, and, even if it did, there is still no showing that the project would meet the older, less-stringent emissions reduction target for 2050 adopted by the CAP and EIR.

The DEIR acknowledges that it took Mitigation Measures 10-2 from the Bay Area Air Quality Management District's (BAAQMD) GHG reduction plan guidance (DEIR, p. 10-8), but it is careful to disavow reliance on "BAAQMD's GHG reduction plan as the basis for evaluating GHG significance." (DEIR, p. 10-9.) The reason for this disavowal is obviously that the project is inconsistent on its face with BAAQMD's guidance because it fails to attain the needed 15% reduction in Vehicle Miles Traveled.[12] Indeed, the DEIR's discussion of GHG significance admits that transportation emissions would be significant and unavoidable because the project's VMT would not meet the 15% reduction threshold of significance. (DEIR, p. 10-9.)

In sum, because there is no evidence that the compliance with the CAP measures or with the additional mitigation measure would, in fact, ensure attainment of the adopted 2050 GHG reduction goal, there is no evidence to support the finding that GHG impacts are less than significant.

3

C. The DEIR erroneously concludes that the project's air quality impacts are less than significant because it fails to acknowledge that the project proposes more housing units than expected by the air quality plan.

In its analysis of Impact 6-1, Conflict with Air Quality Plan, the DEIR concludes that "[s]ince the project is within the AMBAG projections for housing units, the proposed project is consistent with the air quality plan and would have no impact from conflict with the air quality plan." (DEIR, p. 6-6.) The DEIR reaches the same conclusion with respect to cumulative air quality impacts. (DEIR, p. 20-7.)

These conclusions are based on the analysis in Appendix B that presents the number of new housing units estimated to be constructed in each five-year increment from 2025 to buildout in 2045. (DEIR, App. B, pdf page 3, MBUAPCD Consistency Determination Procedure Ver. 4.0.) The analysis is erroneous because the line 26 data for "proposed New Project DUs," is not cumulative; instead, it reflects only the number of units to be built in each discrete 5-year period. As a result, the line 27 row for "TOTAL, New Project + Built & Approved DUs" fails to reflect the cumulative

[12] Bay Area Air Quality Management District, Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans, April 2022, p. 18, available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en.

3 con't.

total number of dwelling units in the City. In fact, the total number of dwelling units will greatly exceed the AMBAG projections. For example, the sum of the project's 3,498 units estimated to be built by 2045 and the City's existing housing stock of 1,987 units is 5,487 units, well in excess of AMBAG's projection of 4,626 units in 2045.[13] (DEIR, App. B, pdf page 3.)

And, indeed, in the VMT analysis in Appendix F, the EIR admits that to determine the project's VMT, it was necessary to update the AMBAG Travel Demand Forecasting Model with the project's assumed 3,498 units and 15,391 population. (DEIR, App. F, p. 3.) Had the project assumptions been consistent with the AMBAG model assumptions, it would not have been necessary to update the model to project VMT.

The EIR must be revised and recirculated since new information reveals that the draft EIR fails to identify this significant impact.[14]

Again, the fundamental problem here is that the project proposes too many housing units in the wrong place.

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D. The DEIR fails to consider effective VMT mitigation from increased density and provides no evidence to ignore CAPCOA's finding that increased density substantially reduces VMT.

The EIR acknowledges VMT impacts are significant but fails to propose adequate mitigation. The only mitigation measures proposed by the DEIR's VMT study are transit rerouting, transit stops, safe and well-lit access to transit, implementation of an on-street bicycle facility, and provision of a bicycle repair station. (DEIR, App. F, pp. 4-5.) The DEIR identifies some of these measures as included in the project design or identifies them as proposed mitigation. (DEIR, pp. 6-10 to 6-15.) The DEIR also identifies some other measures that have been included in the project design or Mitigation Measure 6-3, such as a pedestrian network, traffic calming, discounted transit passes, and end-of-trip facilities.

The DEIR reports that consideration was given to the VMT mitigation measures recommended by the California Air Pollution Control Officers (CAPCOA) in its 2021 Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, identifying CAPCOA's handbook as the "common reference source for such measures." (DEIR, p. 14-9.) However, the DEIR fails to consider the number one VMT mitigation measure recommended by CAPCOA, Measure T-1, Increasing Residential Density. CAPCOA reports that increased density can reduce VMT as much as 30% and that for each 1% increase in density there is a 0.22% percent decrease in VMT.[15]

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[13] The AMBAG 2022 Regional Growth Forecast projects that residential units will increase from 1987 in 2025 to 4,626 in 2045. (AMBAG, 2022 Regional Growth Forecast, p. A-37, available at https://ambag.org/sites/default/files/2022-12/REVISED_PDFAAppendix%20A_2022%20RGF.pdf.)

[14] CEQA Guidelines, § 15088.5.

[15] CAPCOA, Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, Dec. 2021, pp. 70-71, available at https://www.caleemod.com/documents/handbook/full_handbook.pdf.

4 con't.

CAPCOA illustrates the VMT reduction attainable by increasing the density of a typical large residential project. Laying out the formula, CAPCOA calculates that an increase in density from 9.1 du/ac to 15 du/ac would reduce VMT by 14.2%.[16]

The same analysis is applicable here. This project dedicates 452 acres to 3,498 units (DEIR, Table 4-2) for an overall density of 7.7 units per acre. Alternative 3 proposes to increase densities of the low and medium density residential areas by 33%, thereby reducing the residential acreage by 138 acres. (DEIR, Table 22-1.) This 138 acre reduction would reduce the total residential acreage from 452 acres to 314 acres without reducing the number of units. Thus, the overall density would increase from 7.7 units per acre to 11.1 units per acre. Applying CAPCOA's formula, this would reduce VMT by 9.7%.[17]

Even though the DEIR fails to consider increased density as VMT mitigation, it does purport to assess the effect of increased density on VMT in the alternatives analysis section. However, in the alternatives discussion, without providing any analysis, the DEIR dismisses the potential reduction in VMT from increased density as "minor" and "unlikely to avoid the significant unavoidable impact identified for the proposed project." (DEIR, p. 22-22.) Incredibly, the DEIR's discussion concludes that the VMT from Alternative 3 would be "similar to the proposed project," effectively denying any VMT benefit from increased density. (DEIR, p. 22-22, emphasis added.) The DEIR fails to provide any quantification of the VMT reduction attributable to Alternative 3 or to explain why its conclusion is so starkly divergent from the CAPCOA guidance otherwise identified as an authoritative source for quantifying VMT and GHG reductions.

In sum, the DEIR should have identified increasing the project density as an effective mitigation measure for VMT.

Furthermore, increasing density has an affordable housing co-benefit because denser, attached housing is more likely to be affordable by design than large lot detached units. As discussed below, providing more affordable housing units for local low-wage households would avoid commute trips for some workers who would otherwise have to commute into Gonzales from affordable housing located elsewhere.

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E. The DEIR fails to assess mitigation of VMT by matching affordability levels to the household incomes of the local workforce.

The DEIR's VMT projections are based on the reality that occupants of the project would "commute outside Gonzales." (DEIR, p. 14-10.) This is borne out by the City's 2024-2031 Housing Element update, which finds that "Gonzales has a high number of workers commuting in and out of the City,

[16] CAPCOA, Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, Dec. 2021, p. 72.

[17] Calculated as (11.1 du/ac less 7.7 du/ac) divided by 7.1 du/ac) times 0.22 = 9.7%.

5 con't.

with few residents working in the City."[18] The DEIR admits that the project would not change the "travel behavior" already assumed in the VMT modeling by AMBAG. (DEIR, p. 14-8.)

The Housing Element documents an extreme mismatch in the location of housing and jobs: 2,408 workers commute into Gonzales to work every day, 2,512 workers commute out of Gonzales to work elsewhere, and only 254 workers both live and work in Gonzales.[19]

The EIR acknowledges that a reduction in VMT depends on provision of local jobs for those who live in Gonzales, e.g., the hoped-for jobs in agricultural processing. (DEIR, p. 14-2.) But because the DEIR does not and cannot assume that these jobs will in fact materialize in sufficient numbers to substantially reduce VMT, the DEIR concludes that the project's transportation impacts, measured by its failure to attain the needed 15% reduction in VMT, will be significant and unavoidable. (DEIR, p. 14-2.)

If the hoped-for agricultural processing jobs do materialize, it will be critical to VMT reduction that these jobs be matched with housing these low-wage workers can actually afford. The Housing Element acknowledges that "[t]here is a particular need for more moderate- and lower income housing units to support workers in agriculture, retail, manufacturing, and other lower-wage industries."[20] Unless the project provides housing affordable to these low-wage workers, it will only aggravate the pattern of high-wage workers using Gonzales as a bedroom community from which to commute to jobs elsewhere, and low-wage workers commuting into Gonzales from more affordable housing elsewhere.

In sum, a fundamental problem with the project is that it provides the wrong kind of housing in the wrong place. The project provides expensive housing for commuters who will travel to areas where the high-wage jobs needed to afford that housing are located. The project will not provide sufficient affordable housing for local workers in low-wage jobs.

To address this problem and to mitigate VMT, the DEIR should propose mitigation that would increase the number and accelerate the provision of housing units affordable to very low and low income households. Affordable units would most likely be multi-family rental units.

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F. **The alternatives analysis is flawed because it fails to acknowledge that Alternative 3, which reduces the project footprint by 138 acres, substantially reduces more significant impacts than Alternative 2, which reduces the project footprint by only 52 acres**.

In addition to the obligatory "no project" alternative, the EIR evaluates only two substantive alternatives. Alternative 2 is a 12% reduction in the number of units, with a concomitant 52-acre reduction in the project footprint, but without any change in the assumed density of development. (DEIR, pp. 22-10 to 22-17.) Alternative 3 is a 33% increase in density of the low density and medium density neighborhoods, with a 138-acre reduction in the project footprint, but without any change in the number of units. (DEIR, pp. 22-17 to 22-23.) The stated purpose of Alternative 2 is to

18 Draft HE, Section 4-5, p. 81.

19 Draft HE, Section 4-5, p. 82, Figure 29, Inflow and Outflow of Workers in Gonzales.

20 Draft HE, Section 4-5, p. 80.

6 con't.

reduce a single impact, VOCs, whereas the stated purpose of alternative 3 is to reduce all impacts related to the overall footprint of the project or to project density. (DEIR, pp. 22-10, 22-17.)

The alternatives analysis comparison of Alternative 2 to Alternative 3 to identify the environmentally superior alternative is flawed. The EIR claims that Alternative 2 is superior because it "avoids a significant unavoidable impact (VOC emissions) and substantially reduces the significance of a greater number of significant impacts relative to Alternative 3, the Increased Residential Density alternative." (DEIR, p. 22-23.) This conclusion is inconsistent with the DEIR's own analyses.

Alternative 3 reduces the footprint of the project by 138 acres whereas Alternative 2 only reduces the footprint by 52 acres. The EIR's discussion of impacts under Alternative 3 finds that its 138-acre reduction in the development footprint substantially lessens at least seven significant impacts related to the size of that development footprint, including aesthetics, agricultural resources, construction emissions of fugitive dust and TACs, biological resources, cultural and tribal resources, hazards and hazardous materials, and on-site wastewater conveyances construction. While Alternative 2 would reduce these footprint-determined impacts somewhat, it would not do so to the same extent as Alternative 3 because it does not reduce the footprint as much.

Alternative 2 would only attain greater impact reductions for three impacts, where impacts are determined by population or dwelling units rather than by development footprint. This includes only VOC emissions, traffic noise, and water demand.

Thus, by its own analyses, the EIR demonstrates that Alternative 3, would result in the greater number of reductions to significant impacts "relative to" Alternative 2. It is simply not true that Alternative 2 "substantially reduces the significance of a greater number of significant impacts relative to Alternative 3." (DEIR, p. 22-23.) The EIR's own analysis shows that increasing the density of the project is more effective at reducing impacts than reducing the unit count.

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G. The DEIR fails to evaluate a reasonable range of alternatives because it fails to assess an alternative that increases density and reduces the number of units.

The analysis of Alternative 2 and Alternative 3 show that some impacts are reduced by reducing the development footprint and some by reducing the unit count. As LandWatch requested in its NOP comments, the DEIR should have evaluated an alternative that reduces the unit count and increases the density, i.e., one that reduces the number of units to reflect the actual housing needs of local workers and increases the project density to provide the kind of housing that local workers could afford. (DEIR, App. A, pdf page 61.) This alternative would realize the benefits of both Alternative 2 and Alternative 3, reducing significant impacts across the board. The DEIR provides no justification for declining to evaluate this obvious alternative.

In conclusion, LandWatch requests that the City redraft and recirculate an updated EIR that addresses the failures and inconsistencies identified herein.

Sincerely,

Michael D. DeLapa
Executive Director

Letter 2 – LandWatch Monterey County Responses

The first two pages of the comment letter summarize major comments on the draft EIR related to the project description, greenhouse gas (GHG) emissions, air quality plan consistency, vehicle miles traveled (VMT), and alternatives analysis. Detailed comments are provided on subsequent pages of the letter. Responses to each detailed comment are provided below.

1. The commenter states that the specific plan should be revised to provide that half the units are on sites zoned at densities that support affordable housing.

   The comment is about the project description (specific plan) and does not raise specific issues about the environmental analysis in the draft EIR. No further response is necessary.

2. The commenter states that the draft EIR fails to demonstrate that the project would meet the 2050 goal for GHG emissions reduction adopted in the City's Climate Action Plan (CAP), because the CAP itself does not identify whether the CAP GHG reduction measures are sufficient to meet the 2050 goal.

   The CAP projects that in 2050, GHG emissions generated in the city would need to be reduced by 71,250 metric tons of carbon dioxide equivalent (MT CO_2e) per year to meet the City's goal of reducing emissions to 80 percent below 1990 levels by 2050. The 2050 goal is based on guidance in California Executive Order No. S-3-05, which identifies the same GHG reduction goal for the state as a whole in 2050. As raised in the comment, the CAP does not conclude whether or not the GHG emissions reduction measures included in the CAP would be sufficient to achieve this reduction. The CAP does demonstrate how the measures are sufficient to meet the City target of reducing emissions to 40 percent 1990 levels by 2030.

   The CAP is an implementation tool that guides the City's actions to reduce cumulative GHG emissions from land use development projects over time. It is, in part, intended to disclose how the City will contribute its fair share towards reducing GHG emission in a manner that supports the state's GHG emission reduction targets and goals. As has been held by the courts, lead agencies are not inherently required to use emission reduction goals in executive orders as a significance threshold for assessing GHG impacts in 2050 because an executive it is not an "adopted" GHG reduction target within the meaning of CEQA Guidelines section 15054.4(b)(2). Rather, executive orders can be used as a goal towards which local agencies can orient their GHG reduction strategies, including in plans for reducing GHG emissions.

   The CAP includes a discussion of Executive Order No. S-3-05, a 2050 GHG emissions projection, and a GHG reduction volume required by 2050 to align with the state goal, primarily for informational purposes. The information can be compared to the projection and reduction target for 2030 as a basis for the public to understand the magnitude of further GHG reductions that could be needed by 2050. That said, it is common knowledge that the methodologies for

assessing climate change impacts of land use projects under CEQA are constantly evolving. The approach has shifted continuously over time with the state's continual passage of new climate change legislation and adoption of associated regulations, and with CEQA court cases regarding climate change impact analysis and mitigation approaches. The information, science, regulatory environment, and technology related to GHGs and reduction measures continues to change and is constantly in flux. Analysis of impacts under CEQA should be based on currently available scientific and factual information and should not be speculative. This fundamental CEQA premise is reflected in CEQA Guidelines section 15145, Speculation: "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."

Over the 32 years between the City's 2018 adoption of the CAP and 2050, legislation, regulation, technology, etc., associated with assessing GHG impacts and defining GHG mitigation, will continue to be in flux. Consequently, it could be speculative and potentially infeasible for a CAP to identify a roadmap of specific GHG reduction measures that would achieve a distant GHG 2050 reduction goal. Consequently, the City's CAP, like many climate action plans prepared by other local agencies, focuses on reduction measures needed to achieve the more immediate 2030 state reduction target, codified in Assembly Bill (AB) 32, of reducing GHG emissions by 40 percent below 1990 levels by 2030, using current, specific, demonstrable and feasible GHG emissions reduction measures.

The changing nature of GHG emissions reduction planning, legislation, and regulation is exemplified in the state's adoption of AB 1279 in 2022. AB 1279 set a new state emissions reduction target that provides guidance for beyond the year 2030. The bill target is to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter, and to ensure that by 2045, statewide anthropogenic (human-induced) GHG emissions are reduced to at least 85 percent below 1990 levels. This legislation sets a state GHG emissions reduction target that is more stringent than the emissions reduction goal in Executive Order No. S-3-05 for 2050. CARB's 2022 Scoping Plan is the regulatory tool that specifies how the state will achieve the 2045 target. It includes actions that can be taken by local agencies to support achieving the target. The City's CAP could not have foreseen this new legislation or plan for meeting the reduction target.

Mitigation measure 10-2 was included in the draft EIR to illustrate the City's effort to respond to fundamental changes in the climate change legislative and regulatory environment that have occurred since the CAP was adopted in 2018, specifically AB 1279 and the 2022 Scoping Plan. It is the City's effort to evaluate GHG impacts and mitigation measures that are consistent with the legislative and technological context at the time the draft EIR was drafted. The mitigation requires that new development is all electric (natural gas is prohibited as an energy source) and that new development incorporate transportation electrification supporting site development

design and infrastructure. These are two of the fundamental strategies identified by the state in the 2022 Scoping Plan as actions that can be employed by local agencies to contribute their fair-share to meeting the 2045 reduction target. The draft EIR references GHG analysis and threshold of significance guidance provided by the Bay Area Air Quality Management District, which includes these two performance standards as requirements for new development proposed within its boundary. The commenter asserts that the draft EIR "disavows" reliance on the Bay Area Air Quality Management District's guidance as a basis for evaluating GHG impacts of the project because under that guidance, the GHG impact of the project would be significant. Contrary to that assertion, the draft EIR references Bay Area Air Quality Management District guidance solely to illustrate how recent state regulation has been translated into even more recent regional GHG reduction plan guidance from a nearby air district.

Despite the City's CAP not having engaged in speculation by defining specific GHG reduction measures for meeting a distant 2050 emissions reduction goal, and the City having defined additional mitigation for the project consistent with local actions defined in the 2022 Scoping Plan, the City has, in good faith, undertaken additional analysis in response to the comment. A quantified 2045 threshold of significance has been developed for the project that is based on Gonzales-specific conditions. The threshold builds on information in the CAP so that the threshold is aligned with the City's GHG reduction strategy. The threshold applies to individual projects proposed starting 2031 or later. For the years prior to and including 2030, the CAP remains the applicable plan for reducing GHG emissions and mitigation measure 10-1 remains applicable.

Refer to Section 3.0, Changes to the Draft EIR, for the additional analysis and two additional mitigation measures that addresses post-2030 GHG reduction requirements.

3. The commenter states that the draft EIR erroneously concludes that the project's air quality impacts are less than significant because it fails to acknowledge that the project proposes more housing units than expected by the air quality plan.

   The draft EIR clearly and specifically evaluates the significance of criteria air emissions impacts of the proposed project. The analysis concluded that the volatile organic compound (VOC), formally termed ROG or reactive organic gases, emissions impact is significant and unavoidable and that the impacts associated with other criteria emissions are less than significant with mitigation measures.

   The commenter is actually referring to the draft EIR analysis and conclusion that the project does not conflict with the Monterey Bay Air Resources District's ("air district") Clean Air Plan and therefore, has no associated impact. The air district has prepared a series of clean air plans over time whose purpose is to manage air quality in the air basin to bring it into attainment with state 8-hour ozone regulations. Ozone is comprised of two primary pollutants, VOCs and

nitrogen oxides. The most recent of these plans is the *2012-2015 Clean Air Plan* as referenced in the draft EIR. The draft EIR conclusion was based on a consistency determination analysis process that had been historically recommended by the air district. That process has been to compare the number of residential units proposed by a project against the Association of Monterey Bay Area Governments' (AMBAG) forecast of residential unit growth in the subject project jurisdiction over time. Those forecasts have historically been used by air district as an input to its Clean Air Plan. If the proposed unit number were to exceed the projection, the proposed project would have potential to generate VOCs and/or nitrogen oxides at volumes that would conflict with the air district's efforts to reduce these emissions consistent with the Clean Air Plan.

Air district staff has identified the fact that the air basin has now been in attainment with the 8-hour ozone regulation since 2020. Consequently, the air district is no longer required to prepare a clean air plan. The air district is in the process of updating its CEQA guidelines and will be addressing this issue as part of the update (personal communication with David Frisbee, Planning and Air Monitoring Manager, Monterey Bay Air Resources District, March 20, 2024). This change in attainment status was not reported in the draft EIR, as the EIR process had started before the attainment finding was made.

Refer to Section 3.0, Changes to the Draft EIR, where the draft EIR discussion of the *2012-2015 Clean Air Plan* has been modified to reflect the information above, and where the draft EIR discussion under Impact 6-1 regarding conflict with the Clean Air Plan has been modified to describe the information presented above. The draft EIR conclusion of no impact from conflict with a clean air plan remains unchanged. The consistency determination worksheet included in Appendix B of the draft EIR should no longer be considered as an input to the analysis of impacts associated with air quality plan consistency.

4. The commenter generally states that the draft EIR fails to: 1) consider effective VMT mitigation from increased density and provides no evidence to ignore CAPCOA's (California Air Pollution Control Officer's Association) finding that increased density substantially reduces VMT; 2) include increased density as an effective mitigation measure; and 3) adequately address VMT reduction as part of the analysis of Alternative 3, Increased Density, in Section 22.0, Alternatives.

   It is agreed that increasing density can lead to reductions in VMT as identified in CAPCOA's *2021 Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health an Equity*. As the commenter noted, this same source was used as reference to develop mitigation in the draft EIR that includes measures to reduce interrelated air quality/GHG impacts, particularly those from mobile sources, and VMT impacts.

To address comments about the VMT analysis for Alternative 3, and to further explore the relationship between density and VMT reduction as suggested by the commenter, additional discussion has been added to Alternative 3 regarding VMT, and a new Alternative 4, High Density Alternative, has been added to the draft EIR. Refer to Section 3.0, Changes to the Draft EIR for this information.

5. The commenter states that the draft EIR fails to assess mitigation of VMT by matching affordability levels to the household incomes of the local workforce.

   The VMT impacts of the proposed project are evaluated in Section 14.0, Transportation, in the draft EIR. The purpose of the draft EIR is to assess the impacts of the proposed project and to evaluate impacts of alternatives to the proposed project than can avoid or substantially lessen one or more of significant impacts of the proposed project. There is no inherent basis or requirement for the draft EIR to have evaluated the impacts of a project (including VMT impacts) that matches affordability levels to the household incomes of the local workforce.

   The commenter has suggested per Comment 6 below, that the draft EIR should include an additional alternative that increases density to reduce housing costs to better match the incomes of local residents. A new alternative, Alternative 4, High Density Alternative, has been added to planes Section 3.0, Changes to the Draft EIR. This new analysis includes assessment of VMT reductions that would accrue to a project design that is similar to that being requested for analysis by the commenter.

6. The commenter suggests that the alternatives analysis is flawed because it fails to acknowledge that Alternative 3, which reduces the project footprint by 138 acres, is environmentally superior to Alternative 2, which reduces the project footprint by 52 acres. The commenter states that Alternative 3 is environmentally superior because it reduces more significant impacts than does Alternative 2.

   The comment is noted. Though not explicitly stated, the analysis on p. 22-23 of the draft EIR regarding the environmentally superior alternative takes into consideration the extent to which an alternative avoids a significant unavoidable impact of the project versus lessening the significance of an impact that is reduced to less than significant by implementation of mitigation measures. The total number of significant impacts that are lessened is not the only consideration in selecting an environmentally superior alternative. Alternative 2 is designed to avoid a significant unavoidable impact, though it does lessen fewer significant mitigable impacts than does Alternative 3.

As noted in the response to comment 4, an additional alternative, Alternative 4, High Density, has been added to the draft EIR. The environmentally superior alternative discussion on pages 22-23 of the draft EIR has been modified in light of the comment and addition of Alternative 4. Alternative 4 is now considered to be the environmentally superior alternative. The change in conclusion language is reflected in Section 3.0, Changes to the Draft EIR.

7. The commenter suggests that the draft EIR fails to evaluate a reasonable range of alternatives because it fails to assess an alternative that increases density and reduces the number of units.

   The choice about the range of alternatives to be discussed in an EIR is at the discretion of the lead agency, in this case the City of Gonzales, subject to guidance provided in CEQA Guidelines section 15125.6(f), Consideration and Discussion of Alternatives to the Proposed Project:

   > Rule of reason. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.

   The draft EIR is not flawed because it doesn't evaluate specific alternative(s) requested in comments on the Notice of Preparation for the project. The alternatives selected by the City are its effort to foster public participation and informed decision making. Nevertheless, analysis of a new high density alternative has been completed to address a key concern of the commenter regarding increasing density as a means to reduce VMT impacts. Refer to Section 3.0, Changes to the Draft EIR, for discussion of the new Alternative 4, High Density Alternative.

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

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March 15, 2024

MON/101/71.37
SCH# 2020039056

Taven Kinison Brown
Community Development Director
City of Gonzales
147 Fourth Street
Gonzales, CA 93926

COMMENTS FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) – VISTA LUCIA PROJECT

Dear Mr. Brown:

The California Department of Transportation (Caltrans), District 5, Local Development Review, has reviewed the Vista Lucia Project DEIR which builds off the General Plan that was adopted in 2010. The proposed project would facilitate the development of a portion of the City's growth area, which includes 3,498 dwelling units and up to 96,000 square feet of neighborhood commercial land use. Caltrans offers the following comments in response to the DEIR:

1. We look forward to reviewing additional traffic studies, and specifically analysis of the three interchanges. A better understanding of the traffic demand and proposed mitigation on the State Highway system is crucial for a project this size.

2. Implementing ramp meters at the 5th Street and northern interchange is recommended for baseline mitigation. This could address the platooning of vehicles during peak hours in addition to the increase in demand with this proposed project and the existing shopping plaza that has travelers coming in and out of.

3. Any proposed improvements to the three interchanges would require the Lead Agency to participate in the Intersection Safety and Operational Assessment Process (ISOAP). With the ISOAP process, Intersection geometry and traffic control shall be determined through a performance-based analysis that considers all users and prioritizes safety. The determination shall support the principles of the Safe System approach.

3 con't.

4. ISOAP shall consider alternative intersection/interchange types that are proven to reduce the number of crashes or crash severity in project alternatives, including but not limited to roundabouts, median U-Turn configurations, such as Restricted U-Turn (RCUT) and Median U-Turn (MUT), and Diverging Diamond Interchanges (DDI). Preference should be given to viable alternatives that best embody the Safe System Intersection principles of reducing speed, reducing conflict points and conflict severity, reducing exposure, and reducing complexity.

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5. Ensure that all increased post-development runoff is captured within detention basins and/or other drainage features and facilities as proposed and that there is no flow increase to Caltrans' drainage systems along Highway 101.

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6. The Monterey Salinas Transit's involvement in the development process for the incorporation of transit facilities into the project is ideal. Please clarify whether this collaboration is only for the initial phases of the project or will be an ongoing partnership. In addition, regarding the subsidized/discounted daily or monthly public transit passes, please explain how this plan would be implemented. For example, would this effort be part of a collaboration with Monterey Salinas Transit and what members of the community would be eligible for this program.

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7. Caltrans appreciates the consideration of Mitigation Measure 10-2. Caltrans encourages the applicant to look into installing electric vehicle (EV) charging stations at the project location. EV charging stations can help assist in SB 743's goal of reducing greenhouse gas (GHG) emissions by providing a sustainable transportation option through electric vehicles. Many local and statewide programs offer grants and incentives for EV charging stations.

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8. We encourage considering increased residential density. Increased densities affect the distance people travel and provide greater options for the mode of travel they choose. Increasing residential density results in shorter and fewer trips by single-occupancy vehicles. While the impact of VMT is significant and unavoidable, it's important to try and mitigate the level of impact wherever possible for the proposed project.

Thank you for the opportunity to review and comment on the proposed project. If you have any questions or need further clarification on the items discussed above, please contact me at (805) 835-6543 or email Jacob.m.Hernandez@dot.ca.gov.

Sincerely,

Jacob Hernandez

Jacob Hernandez
Transportation Planner
District 5 Local Development Review Coordinator

Letter 3 – Caltrans Responses

1. The commenter states that Caltrans looks forward to reviewing additional traffic studies, and specifically, analysis of the three interchanges in the city.

   The draft EIR includes information about Caltrans' role as a responsible agency for addressing the environmental effects of projects over which it has discretionary authority.

2. The commenter suggests implementing ramp meters at the 5th Street and northern interchange.

   Comment is noted. No further response is necessary.

3. The commenter notes that improvements at any of the three interchanges would require the City to participate in the Intersection Safety and Operational Assessment Process.

   Comment is noted. No further response is necessary.

4. The commenter states that post-development runoff from facilities under Caltrans' jurisdiction must be managed to ensure no net flow increase to Caltrans facilities.

   Issues related to storm water runoff under post-development conditions are described in draft EIR Section 12, Hydrology. All future development within the site and development of off-site infrastructure must comply with the Regional Water Quality Control Board regulations. Those regulations include a performance standard that new development must retain storm water runoff to ensure that post-development rates and volumes of runoff do not exceed pre-development conditions.

5. The commenter asks for clarification regarding Monterey-Salinas Transit's involvement in the development process for incorporating transit facilities.

   Monterey-Salinas Transit's involvement is expected to be continuous until such time as transit facilities needed to meet project demand are completed. The specific plan includes a requirement that project developers consult with Monterey-Salinas Transit to identify the location(s) of transit facilities and required improvements for them. The specific plan requirement is reinforced through draft EIR mitigation measure 6-3c. The mitigation requires that Monterey-Salinas Transit be consulted prior to the City's approval of individual tentative maps to identify locations for incorporating transit facilities into the proposed project and that facilities be constructed to Monterey-Salinas Transit standards.

   Subsidized transit passes are required per mitigation measure 6-3e. Passes can be readily obtained through Monterey-Salinas Transit's Group Discount Program. The program provides transit passes at reduced cost based on the number of passes ordered. There is no distinction in the mitigation measure for what residents/employees within the site would be eligible for subsidized transit passes. All should be eligible.

6. The commenter states support for incorporating electric vehicle infrastructure into the project as required in mitigation measure 10-2.

   Comment noted. No further response is necessary.

7. The commenter states Caltrans' support for considering increased residential density for the vehicle miles traveled reductions created and for the potential for increased travel mode options.

   As proposed, the project meets the City's general plan density requirements. Alternative 3 in the draft EIR includes analysis of an increased density alternative. As described in Section 3.0, Changes to the Draft EIR, a new high density alternative has been incorporated into the draft EIR. Both alternatives recognize the vehicle miles traveled benefits, and AQ and GHG co-benefits, of increased density.

LAFCO *of Monterey County*

LOCAL AGENCY FORMATION COMMISSION OF MONTEREY COUNTY

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March 15, 2024

Taven Kinison Brown, Community Development Director
Gonzales Community Development Department
147 Fourth Street, Gonzales, CA 93926 (via email)

RE: Vista Lucia Project Draft Environmental Impact Report (EIR)

Dear Mr. Kinison Brown,

LAFCO appreciates your ongoing coordination on the review of the Vista Lucia project. LAFCO provided comments on the Notice of Preparation (NOP) and revised NOP of this EIR in April 2020 and October 2021, respectively. The project proposes primarily residential (3,498 dwelling units) and commercial (96,000 square feet of local serving retail) land uses on a 768-acre currently unincorporated site adjacent to current city limits and within the city's LAFCO-designated Sphere of Influence.

The purpose of this letter is to provide comments on the City of Gonzales' Vista Lucia project Draft EIR. LAFCO's comments are provided in consultation with LAFCO General Counsel. In order to comply with the deadline for commenting on the Draft EIR, I am providing the following comments in draft form. This letter is subject to review and authorization at the next regular meeting of the Local Agency Formation Commission on March 25, 2024.

Background

Development of the project would include urban-type development on approximately 768 acres of lands designated as Prime Farmland and other farmland classifications on the State's Important Farmlands Map. State LAFCO law provides that "Among the purposes of a [LAFCO] are discouraging urban sprawl [and] preserving open-space and prime agricultural lands." Therefore, LAFCO's comments in this letter primarily address impacts and mitigation to agricultural resources.

Of note, on February 26, 2024, following extensive public outreach and numerous workshops, the Commission published interpretive guidelines for LAFCO's existing Policy for Preservation of Open-Space and Agricultural Lands. These provide instructive guidance for applicants regarding LAFCO's ag mitigation policy with respect to City annexation proposals and how their related CEQA documents should address and mitigate impacts to farmland. Both the City of Gonzales and the applicant/developer for the Vista Lucia project were in attendance and participated.

Comments on the Draft EIR

Section 3.4, Plan Consistency

1 In reference to the plan for providing services to be included in the LAFCO application on pages 3-32 and 3-33, LAFCO requests that the City's application include a comprehensive financing plan, which provides financial feasibility information for the various public services needed to serve the proposed project. The financing plan should identify the facilities, infrastructure, equipment, and staffing needed to provide public services to the proposed project along with accurate costs associated with these services and how these costs will be funded.

2 LAFCO understands that the applicant intends to propose up to four phases for the timing of ag land mitigation in the project's LAFCO application, which is discussed in

2 con't. LAFCO's implementation guidelines. On page 3-40, under Part E. Preservation of Open-Space and Agricultural Lands, LAFCO requests that the applicant include LAFCO's policy implementation guidelines in the table's analysis and describe how the application is consistent with the guidelines.

Section 4, Project Description

3 On page 4-5, under the sixth paragraph, the sentence that reads "LAFCO has discretionary approval over reorganizations of city and county boundaries..." ought to be corrected to state "city and special district boundaries." LAFCO regulates city and special district boundaries, but not county boundaries.

On page 4-39, under the heading 'Monterey County LAFCO Actions,' LAFCO requests the removal of the last bullet point since, as a factual matter, approval of a Property Tax Transfer Agreement is not a LAFCO action.

Section 5, Agricultural Resources

4 LAFCO has a number of comments regarding this issue. In sum, as presented, the Draft EIR does not adequately identify, discuss, or analyze feasible mitigation measures for significant impacts to agricultural lands as required by CEQA.

For example, State CEQA guidelines section 15126.4(a)(1)(B) clearly provide that formulation of mitigation measures should not be deferred until some future time, yet the Draft EIR refers to the City of Gonzales' recently adopted ordinance and asserts that identification and discussion of agricultural mitigation will occur at some undefined time in the future. The Draft EIR states the project's conversion of 767 acres of Prime Farmland and Farmland of Statewide Importance, as designated by the State Department of Conservation's Important Farmland Map, to non-agricultural use will be mitigated by implementing one or a combination of the mitigation options included in the City's farmland mitigation ordinance (Ordinance No. 2023-136). The mitigation measure also states (without any citation to any legal authority): "Mitigation shall not be required for planned uses that are exempt from mitigation requirements per Section 12.150.040(D) of the ordinance including schools, trails, public parks, and land planned for residential products that would be available to very low- and low-income residents."

This ordinance, CEQA's permitted exceptions, and the shortcomings and legal inadequacies of what is now the draft EIR's approach, were discussed during LAFCO's ag mitigation policy workshops.

5 LAFCO must also note that the City did not consult with LAFCO on the Draft EIR as required by PRC Sections 21104(a), 21153(a); and State CEQA Guidelines Section 15086. LAFCO requests that the City engage in the legally required consultation process. Consultation will foster an environment where the City can craft a legally sufficient CEQA document which contains appropriate identification, discussion, and analysis of feasible mitigation measures for significant impacts to agricultural lands.

6 The Draft EIR should use LAFCO's policy implementation guidelines as the basis for determining mitigation measures. If a different standard is used, LAFCO will not be able to rely on the EIR as a Responsible Agency. Neither CEQA nor LAFCO's policy implementation guidelines provide for broad exemptions from mitigation requirements as written in this mitigation measure.

7 As a responsible agency which must exercise independent discretion, LAFCO is requesting that the Draft EIR be revised to address these comments and be consistent with LAFCO's policy (e.g. the mitigation measure should include a specific agricultural mitigation proposal at least for the first annexation phase that the City will be requesting for recordation. In accordance with the guidelines, the first annexation phase must be at least 25% of the total acreage. If the applicant is planning to pay in-lieu fees, please be aware that the guidelines require a good-faith effort to identify and attempt to secure suitable conservation easement receiver sites before proceeding to the required steps to make an in-lieu fee payment. Etc.)

8 In the third paragraph of page 5-2, LAFCO notes the number '656 acres of "Farmlands"' appears inconsistent with the 767 acres of impacted farmland described on page 5-8. The two references should be made consistent. LAFCO further requests that the EIR clarify that portions of Associated Lane and Fanoe Road improvements (off-site improvements) are not part of the annexation since they will remain in the unincorporated county. Completion of these off-site improvements will involve a City-County agreement, which is separate from the LAFCO process and will be subject to County ag mitigation and other requirements.

Sections 14, 15, & 16, Transportation, Public Services, and Wastewater

9 With the exception of Vehicle Miles Traveled (VMT) impacts, the EIR does not adequately analyze impacts and feasible mitigation measures related to construction or provision of circulation, fire protection, police protection, and wastewater facilities and services in accordance with CEQA. The thresholds of significance would be met since increase in demand for provision of these services generated by the proposed project would trigger the need to construct (and operate) new public facilities. Such new facilities would include off-site roadway improvements, a new fire station, a new police substation, and wastewater collection and treatment facilities. As described in the EIR, the City's capacity to provide each of these services would reach its limits at various points before buildout of the project unless the City makes public facilities, infrastructure, and operational (staffing) investments.

As required by State CEQA guidelines 15126, the City must include impacts/significance conclusions for the provision of these services and include appropriate feasible mitigation measures. The mitigation measures should be designed to ensure that the City's service capacity is planned, built, and operational prior to implementation of the project's development phase when the City's existing service capacity limit will be reached. Other appropriate mitigation measures should include requiring development within the project site

10 to pay the TAMC Regional Fee to mitigate impacts on the regional circulation network and pay the appropriate development impact fee to mitigate impacts to specific public facilities.

Conclusion

LAFCO looks forward to working with the City of Gonzales and the property owners in the future. Please continue to keep us informed throughout your process. City staff and consultants are welcome to contact LAFCO staff for further discussions.

Sincerely,

Kate McKenna, AICP
Executive Officer

Letter 4 – Monterey County Local Agency Formation Commission Responses

1. The commenter requests that the City include a comprehensive financing plan in the City's reorganization application to LAFCO.

   Upon direction and approval of the City Council, the City will file an application to Monterey County LAFCO to annex the project area. The application will include all necessary financial plan information for the various public services needed to serve the proposed project. Studies already completed to assist in this review include the Gonzales Sphere of Influence Area Annexation Fiscal Impact Analysis completed by Wildan Financial Services (April 18, 2023), the Future Growth Area Development Impact Fee Nexus Study Update prepared by Wildan Financial Services (May 6, 2022), and infrastructure Master Plans including the Sphere of Influence Water Master Plan prepared by Kimley Horn (December 2019), Sphere of Influence Waste Water Master Plan prepared by Kimley Horn (December 2019) and the Sphere of Influence Circulation Study – Transportation Impact Analysis Final Report (December 2019).

2. The commenter notes the understanding that up to four annexation phases will be proposed, and requests that the City evaluate project consistency with LAFCO's policy implementation guidelines as part of the LAFCO policy consistency analysis on page 3-40 of the draft EIR.

   As noted in the comment, it is anticipated that the annexation will include up to four phases. As recommended, information regarding project consistency with LAFCO's newly adopted policy implementation guidelines for Part E, Preservation of Open-Space and Agricultural Lands, contained in LAFCO's *Policies and Procedures Relating to Spheres of Influence and Changes of Organization and Reorganization*, has been added to draft EIR Table 3-4, LAFCO Standards Consistency Review. Refer to Section 3.0, Changes to the Draft EIR.

3. The commenter asks for two wording corrections to text on page 4-5 and 4-39 of the draft EIR.

   The noted corrections have been made. Refer to Section 3.0, Changes to the Draft EIR, for the revised language.

4. The commenter identifies LAFCO's concern that the agricultural land conversion mitigation in the draft EIR is inadequate in that the City's adopted farmland mitigation ordinance on which the mitigation is based results is deferred mitigation per CEQA Guidelines section 15126(a)(1)(B), and that it allows for exemptions to mitigation requirements that are not legally supported.

The commenter's reference to State CEQA Guidelines section 15126.4(a)(1)(B) is not complete. The referenced section of the CEQA Guidelines specifically states:

> (B) Where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures shall not be deferred until some future time. The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the project's environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will considered, analyzed, and potentially incorporated in the mitigation measure.
>
> Compliance with a regulatory permit or other similar process may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards.

By adopting mitigation measure 5-1 in the draft EIR that requires the applicant to provide agricultural mitigation consistent with the City's Agricultural Resource Mitigation Ordinance (which is uniformly applied to all development for which the City is the local discretionary approval agency), the City is committing itself to implementing agricultural mitigation (condition 1). The Agricultural Resource Mitigation Ordinance contains specific performance standards that include, but are not limited to a requirement to provide conservation easements equivalent to the acreage of agricultural land being converted and/or providing in-lieu fees (condition 2). The Agricultural Resource Mitigation Ordinance also identifies the mechanisms by which the performance standards are to be met (e.g., quality and location of agricultural conservation easements and a mechanism to determine the appropriate fees to be paid in-lieu of providing conservation easements (condition 3). Given these factors, the City does not agree that mitigation measure 5-1 constitutes deferred mitigation.

The City has determined that it is commonly impractical for project developers to provide specific details about the specific agricultural mitigation prior to the City approving a project. This would involve applicants spending significant time and money to identify specific mitigation before applicants can determine whether or not their projects will be approved by the City Council. The City feels this is one element of a range of potential disincentives to future development that it wishes to avoid. And in the context of the Agricultural Resource Mitigation Ordinance, meeting the conditions in CEQA Guidelines section 15126.4(a)(1)(B) by allowing developers to define specific mitigation after project approval is a legally defensible way to avoid the disincentive.

The approach to agricultural mitigation as identified in CEQA documentation to be adopted or certified by a lead agency is at the discretion of the lead agency, in this case the City of Gonzales.

There is no implicit or explicit requirement that the City cite "legal authority" for the exemptions to agricultural mitigation included in the Agricultural Resource Mitigation Ordinance. LAFCO's recently adopted changes to Part E. Preservation of Open-Space and Agricultural Lands, contained in its *Policies and Procedures Relating to Spheres of Influence and Changes of Organization and Reorganization* reflects the notion that alternative agricultural mitigation may be appropriate on a case-by-case basis. Section 4, Alternative Agricultural Mitigation Proposals, included in those changes, states in part:

> Examples of projects that may qualify for alternative agricultural mitigation include, but not limited to, those proposals, or areas of a proposal, that provide certainty with respect to the proposed future uses of public benefit, such as deed-restricted affordable, inclusionary, and/or agricultural housing.
>
> While alternative mitigation may be accepted by the Commission, the Commission's intent remains for agricultural mitigation to be provided in a ratio as close as possible to the 1:1 overall goal as identified in these Guidelines.

The exemptions to agricultural mitigation in the Agricultural Resource Mitigation Ordinance are the City's interpretation of land uses that provide public benefit, including providing housing at densities that facilitate housing affordability, a particularly salient issue at present. Section 4 provides one example where alternative mitigation may be appropriate. It does not exclude others of the type included in the Agricultural Resource Mitigation Ordinance. Further, the reference in Section 4 that agricultural mitigation should be provided "in a ratio as close as possible to the 1:1 overall goal" creates uncertainty about expectations under an alternative mitigation scenario. Given that the Agricultural Resource Mitigation Ordinance was adopted before LAFCO's changes to Part E, the ordinance could not have reflected the new Part E guidance, but nevertheless anticipated fundamental components of it.

Section 12.150.010 of the Agricultural Resource Mitigation Ordinance includes a brief summary of the basis for the City's crafting and adoption of the ordinance. The summary includes several City of Gonzales General Plan policies that specify how and why the City is to conserve agricultural land. These policies were developed in consultation with LAFCO, as was the City's focus on growing in a direction that conserves the most productive agricultural soils adjacent to the city. It also references the City's March 25, 2014 *Memorandum of Agreement, City of Gonzales and County of Monterey Regarding Cooperation on Planning, Growth and Development Issues, Memorandum of Agreement* with Monterey County, which includes a focus on agricultural land conservation. The timing of when agricultural mitigation should occur is identified in the General Plan and was re-memorialized in the Memorandum of Agreement. The point is that the City's approach to agricultural land conservation as defined in the Agricultural Resource Mitigation Ordinance has a long history rooted in the City's effort to assure consistency with its General Plan land use strategy to grow away from the most productive agricultural land, assure consistency with its General Plan policies that reinforce this strategy, provide specificity to how the City's will meet

its agricultural land conservation obligations, and assure consistency with the 2014 Memorandum of Understanding. LAFCO was consulted as part of these fundamental City approaches to agricultural land conservation and has been well aware of the City's conservation direction for many years.

5. The commenter states that the City did not consult with LAFCO on the draft EIR as required by Public Resources Code sections 21104(a) and 21153(a), and CEQA Guidelines section 15086.

   The Public Resources Code sections and CEQA Guidelines section referenced in the comment state that the lead agency consult with responsible agencies "prior to completing an environmental impact report". The City has not yet completed the EIR. The EIR will be complete once the Gonzales City Council acts to certify the final EIR. LAFCO received and responded to the Notice of Preparation for the project and has commented on the draft EIR. Consequently, LAFCO was afforded consultation and comment opportunities. Further, the City has communicated with LAFCO staff on multiple occasions regarding the City's agricultural mitigation ordinance, and met with LAFCO staff on May 24, 2024 to discuss agricultural mitigation for Vista Lucia and another City-approved project and other project-related issues. The City looks forward to continuing to consult with LAFCO.

6. The commenter states that the draft EIR should use LAFCO's policy implementation guidelines as a basis for determining mitigation measures, and that if different standards are used, LAFCO cannot rely on the EIR as a Responsible Agency. LAFCO notes that neither CEQA, nor LAFCO's implementation guidance provide for broad exemptions from agricultural mitigation requirements.

   LAFCO's policy implementation guidance for Part E, Preservation of Open-Space and Agricultural Lands, was adopted in February 2024, after the draft EIR was released for public review. Therefore, the implementation guidance could not have been considered in the draft EIR. In response to comment 2 above, an analysis of project consistency with the implementation guidance has been included in Section 3.0, Changes to the Draft EIR, where additions to draft EIR Table 3-2, LAFCO Standards Consistency Review, have been made.

   LAFCO's policy implementation guidelines (Section 4, Alternative Agricultural Mitigation Proposals), include the concept of allowing alternative agricultural mitigation for a proposal or areas of a proposal that provide certainty with respect to proposed future uses of public benefit. The implementation guidelines include one example of public benefit use – deed-restricted, affordable, inclusionary, and/or agricultural housing. There is no explicit guidance about other possible types of public benefit uses that may or may not quality for alternative agricultural mitigation. Consequently, the City's Agricultural Resource Mitigation Ordinance, which defines a broader range of public uses as exempt from agricultural mitigation, is not explicitly inconsistent with the new policy implementation guidelines.

The CEQA Guidelines (assuming the commenter is referring to the CEQA Guidelines) do not provide direction about specific agricultural mitigation requirements. Consequently, CEQA does not provide direction about exceptions from agricultural mitigation requirements. Lead agencies have the discretion to identify mitigation measures to be included in CEQA documentation they intend to adopt or certify that address conversion of agricultural land to non-agricultural use. Conversion of Farmland to non-agricultural use is considered to be a significant unavoidable impact. Mitigation is required to partially mitigate the unavoidable impact.

The City intends to continue collaborating with LAFCO to reconcile differences between LAFCO's newly adopted agricultural mitigation implementation guidance and the City's Agricultural Resource Mitigation Ordinance where such exist.

7. The commenter asks that agricultural mitigation for the project include a specific agricultural mitigation proposal, at least for the first annexation phase, states that the first annexation phase must be at least 25 percent of the total acreage, and notes that a good faith effort must be made to secure agricultural conservation easements prior to proposing to pay in-lieu fees for agricultural mitigation.

   In response to comment 2 above, project consistency with the LAFCO's newly adopted agricultural mitigation implementation guidance, which references the 25 percent threshold, has been included in the draft EIR. Refer to Section 3.0, Changes to the Draft EIR.

   A tentative map that includes more than 25 percent of the total residential units anticipated for the project as a whole is part of the initial entitlements to be considered by the City. The City recognizes LAFCO's guidance and the first tentative map would be consistent with the approach to phase agricultural mitigation as identified in that guidance. The City also recognizes LAFCO's new guidance regarding prioritizing agricultural conservation easements over paying in-lieu fees as a mitigation approach, and for providing evidence that a good-faith effort was made to secure easements prior to proposing in-lieu fees as mitigation.

8. The commenter asks that inconsistencies regarding farmland acreage to be converted, described as 656 acres on page 5-2 of the draft EIR, and 767 acres on page 5-8, be rectified and that a distinction be made between agricultural land conversion resulting from constructing Associated Land and Fanoe Road (which would remain in unincorporated Monterey County) versus that to be converted from constructing the proposed project once the project site is annexed.

   The reference to 656 acres on page 5-2 is a typographical error. It should be 756 acres. Refer to Section 3.0, Changes to the Draft EIR, for the correction. As described on page 5-8 of the draft EIR, the project would convert a total of 767 acres of Farmland to non-agricultural use. Of that total, 756 acres within the project site would be converted. An additional 11 acres would be converted as a result of planned improvements to Fanoe Road and Associated Lane.

9. The commenter suggests that the EIR does not adequately analyze impacts or provide mitigation for constructing circulation, fire protection, police protection and wastewater services. The project would trigger the need to construct such facilities and the EIR should identify the significance of associated construction impacts and provide mitigation that ensures the facilities will be constructed commensurate with demand created by the project.

   The threshold of significance for assessing public services impacts (e.g., fire and police services) as included in the draft EIR and referenced from Appendix G of the CEQA Guidelines is as follows:

   > Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, and other public facilities. (underline emphasis added)

   An impact does not result from a project triggering the need for facilities. Rather, impacts can result from physical changes associated with actually constructing necessary facilities. The need for such facilities is identified in the draft EIR as the basis for determining that constructing such facilities is required and could give rise to adverse environmental effects. The impacts of constructing these facilities within the project site would be similar to the impacts arising from constructing other elements of the proposed project, including residential units, commercial uses, etc. There generally are no environmental effects unique to constructing fire, police or school facilities relative to other types of improvements proposed as part of the project as described on pages 15-4 to 15-11 of the draft EIR. Consequently, there is no need to differentiate between impacts from constructing facilities and impacts resulting from constructing other major components of the proposed project, as stated on the above-referenced pages of the draft EIR. Those impacts (and mitigation measures for them) are identified in other sections of the draft EIR and also listed in the draft EIR in the discussions of fire, police, school and park facility effects. The commenter can refer to draft EIR Section 2.0, Summary, for all of the significant impacts of the project (including construction impacts) and mitigation measures designed to avoid or substantially lessen those impacts.

   The draft EIR project description defines the reasonably foreseeable off-site facility/infrastructure improvements that would be needed to accommodate the proposed project. These include circulation, water supply infrastructure, and wastewater conveyance infrastructure. The physical environmental setting for these improvement locations is identified in the respective sections of the draft EIR, as that setting may differ from the setting for constructing on-site improvements, including public facilities. Significant impacts of

constructing these facilities are identified separately from those associated with constructing on-site improvements and mitigation measures which specifically reference off-site facility impacts are provided where needed.

Mitigation is not required to mandate the timing for constructing required facilities. An EIR should determine whether new facilities are required and include mitigation that addresses the physical environmental impacts of constructing both on- and off-site improvements, not the timing for requiring the facilities. The City recognizes that facilities must be provided commensurate with demand created by the proposed project. The City would not issue building permits without prior confirmation by appropriate City staff that adequate service capacity is in place or will be in place to meet demand.

10. The commenter states that new development should pay the Transportation Agency for Monterey County Regional Fee.

    Payment of the Regional fee will be required as a condition of obtaining building permits for new development within the site.

COUNTY OF MONTEREY
HOUSING AND COMMUNITY DEVELOPMENT
Craig Spencer, Director

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18 March 2024

SENT VIA EMAIL ONLY
TKinisonBrown@ci.gonzales.ca.us

Taven Kinison Brown
Community Development Director
City of Gonzales
147 Fourth Street
Gonzales, CA 93926

Subject: Vista Lucia Specific Plan and Tentative Map for Neighborhood #1 (Vista Lucia Project) Draft Environmental Impact Report (DEIR), State Clearinghouse (SCH) Number 2020039056 (County File REF240010)

Dear Taven,

The County of Monterey appreciates the opportunity to provide comments on the Draft EIR for the City of Gonzales Vista Lucia Project that includes the Specific Plan, pre-zoning, annexation, and the first of several anticipated tentative maps.

Comments from the Water Resources Agency (WRA) and HCD-Planning are included within this letter, and Monterey County Agricultural Commissioner's Office comments are included as an attachment.

Water Resources Agency comments are as follows:

The draft EIR, in section 17.1, cites MCWRA's groundwater elevation contours from Fall 2017 as being the most recently available, which is inaccurate. Groundwater elevation contours that include the area near the proposed project are available through Fall 2023 on MCWRA's website: https://www.co.monterey.ca.us/government/government-links/water-resources-agency/documents/groundwater-elevation-contours. The draft EIR should utilize the most recent data in its analysis of potential water supply impacts.

HCD-Planning comments are as follows:

Section 4.0 Project Description

1
- ***Figure 4-1 Tentative Map*** – The Vicinity Map shows the correct direction of the north arrow. Revise the Site Map north arrow to the correct direction.

- ***Figure 4-7 SOI Circulation Study – Study Intersections*** – Correct the direction of the north arrow.

2
- ***Figure 4-2 Specific Plan Land Use Plan*** shows the Fanoe Road extension proposed completely outside of the LAFCO-approved sphere of influence (SOI). As opposed to

2 con't.

conforming to the SOI edge, Fanoe Road would lay between active agricultural parcels. Fanoe Road would end with intersection at Associated Lane.

Although the Specific Land Use Plan is conceptual, the discussion for Circulation Hazards and Emergency Access Impact 14-2 does not include mention of potential impacts to circulation related to agricultural activities.

HCD-Planning recommends inclusion specifically, or by reference, the 2014 MOA Section 3.1 which reads as follows:

> *c) Access Limitations to Gloria and Iverson Road & Associated Lane. The City agrees to coordinate with the County and plan the arterial roadways along Associated Lane, Iverson Road and Gloria Road in a manner that supports the free-flow of both automobile and truck traffic, utilizing method(s) determined by a traffic engineer to be practical, including but not limited to: utilizing existing County Road as a frontage road/by-pass road, round-abouts, directional barriers or medians, trap lanes and right-turn-I and right-turn-out intersections.*
>
> *The language of this section is to be interpreted in a manner that most facilitates the movement of agricultural vehicles from agricultural fields to the highway, agricultural plants, or rail yards with little to no interference from City traffic.*

Inclusion of this would be important in a finding of less than significant impact for Impact 14-2.

3

- ***Figure 4-2 Specific Plan Land Use Plan*** – The agricultural buffer along Iverson Road is identified as "Temporary". This is inconsistent with the discussion for Other Changes with Potential to Convert Farmland Impact 5-2 as follows:

  > *The eastern project site boundary is also adjacent to land to be preserved in agricultural use in perpetuity. Thus, the buffer along Iverson Road at the eastern boundary of the project site is also planned as permanent…The permanent buffer on the east includes land within the project site as well as the adjacent Iverson Road.*

  Figure 4-1 Tentative map indicates that the proposed urban development abuts land that also planned for future urban development. This would indicate that a temporary agricultural buffer would be appropriate along Iverson Road as shown in Figure 4-2.

  HCD-Planning urges consistent description of proposed agricultural buffers as either temporary or permanent on maps and in text.

4

- ***Infrastructure Planning and Construction*** – Water Supply Infrastructure On-Site Improvements discussion of domestic water storage within the site indicates the following:

  > *The tank site, assumed to be approximately one acre, is conceptually planned within the temporary agricultural buffer at the southwest corner of the project site. Two 500,00-gallon tanks are proposed in this location. Each would be about 30 feet tall and 60 feet in diameter.*

  HCD-Planning recommends including a phasing plan for placement and removal of the tanks that accounts for timing of implementation and removal of the temporary agricultural buffer. The phasing plan should also include transition of the tanks to a proposed

4 con't. permanent location. For infrastructure improvements expected during implementation of Neighborhood 1 Tentative Map and that would be located within agricultural buffers (temporary or permanent), provide phasing plans integrated with timing of agricultural buffer location and development.

5 HCD-Planning strongly urges consideration of the tanks in the Aesthetics category. Section 18.2 Aesthetics of the EIR points to Section B.8 of specific plan Appendix B and general plan AES-1 to address landscape screening within permanent agricultural buffers to reduce visual impacts from development of the urban fringe. Mitigation Measure 18-1 address reduction of glare. Address potential visual impacts of the tanks which are planned in a temporary agricultural buffer and that may be poor candidates for landscape screening. HCD-Planning acknowledges that impacts to Aesthetics are significant and unavoidable with mitigations incorporated.

Section 5.0 Agricultural Resources

6
- ***5.4 Analysis, Impacts, and Mitigation Measures, Other Changes with Potential to Convert Farmland.*** HCD-Planning recommends discussion of agricultural land conversion during transitional time periods before conversion to urban land uses, as well as transitional uses on those lands. Potential urban/agricultural land use conflicts could be reduced if there is intentional timing and phasing of interim agricultural uses integrated with timing and phasing of plan implementation. HCD-Planning acknowledges that impacts to Agricultural Resources are significant and unavoidable with mitigations incorporated.

Please feel free to contact me regarding this comment letter.

Sincerely,

for Melanie Beretti, Acting Chief of Planning

Jaime Scott Guthrie, AICP, Planner
Phone: (831) 796-6414
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Cc: File REF240010
Craig Spencer, HCD Director
Melanie Beretti, AICP, Acting Chief of Planning
Amy Woodrow, PG, Senior Water Resources Hydrologist
Nadia Garcia, Agricultural Resources and Policy Manager

Attachment: Comment Letter from the Agricultural Commissioner's Office

Letter 5 - Monterey County Housing and Community Development - Planning Responses

1. The commenter notes that the north arrow on Figures 4-1 and 4-7 needs to be corrected.

   Comment noted.

2. The commenter notes that the planned extension of Fanoe Road from its existing terminus to Associated Lane passes through active agricultural land and that effects on circulation from agricultural activities needs to be addressed. The 2014 Memorandum of Agreement between the City and County is referenced regarding content that about the need to facilitate movement of agricultural vehicles on Associated Lane, Iverson Road, and Gloria Road.

   The City recognizes that Associated Lane and Fanoe Road will function to accommodate both urban traffic from the proposed project and to the extent necessary, agricultural vehicles serving adjacent farm operations to the north, west, and east. Dual use of roadways in this manner is common throughout Monterey County, including in the absence of specific roadway improvements designed to accommodate both types of traffic. The planned improvements to both Associated Lane and Fanoe Road are preliminary, but function to allow analysis of a range of impacts in the draft EIR associated with constructing/improving and operating roads to accommodate traffic from new development. Interim improvements to both roads will be made as the project site builds out before the full improvements to both are required.

   The City recognizes, as noted in response to comment 1 in comment letter 5 from Monterey County Housing and Community Development – Engineering Services, that it will need to enter into an agreement with the County for constructing, operating, and maintaining Associated Lane and Fanoe Road. As part of that process, the City and County can address whether specific design features should be considered for either/both roadways that reflect their dual function.

3. The commenter states the need to ensure consistency with how the agricultural buffer along Iverson Road is characterized – as either permanent or temporary. The discussion of agricultural impact 5-2 states that the agricultural buffer along Iverson Road would be permanent, but Figure 4-2, Specific Plan Land Use Plan, shows this buffer as temporary.

   The text description for impact 5-2 has been revised. The agricultural buffer along Iverson Road is intended to be temporary as identified in the general plan. Refer to Section 3.0, Changes to the Draft EIR, for revisions to the text to ensure consistency.

4. The commenter recommends a phasing plan for placement and removal of water storage tanks proposed within the temporary buffer to account for timing of implementation and removal of the temporary agricultural buffer in this location.

The proposed water storage tank location and the tanks themselves would be permanent once constructed. Removal of the temporary buffer could occur in the future if the land adjacent to the project site, which is within the SOI and planned for urban development, is developed. This would not require that the storage tank location be changed. Therefore, a phasing plan for placement and removal of the tanks would not be necessary.

5. The commenter states that the aesthetic effects of the water storage tanks be considered in Section 18.2, Aesthetics, with the recognition that impacts to aesthetics are significant and unavoidable. The commenter notes that the tanks may be poor candidates for visual screening, a requirement within permanent agricultural buffers per general plan EIR mitigation measure AES-1.

   Water storage tanks are not an uncommon feature in and adjacent to areas of urban development. The general plan EIR notes on page 4-58 that it is unlikely that development within the Urban Growth Area of the city (which includes the project site) would exceed 45 feet. That assumption is considered as part of the general plan EIR conclusion that planned development activity would have a significance and unavoidable impact from degrading visual character. At a projected height of 30 feet, the water tanks would be well below the maximum height of assumed future development within the Urban Growth Area, and thus not inconsistent with the potential scale of such development. Consequently, the discussion in draft Section 18.2 does not discern between visual impacts of the water tanks versus visual impacts of urban development as a whole.

   Because the water tanks are not planned within a permanent agricultural buffer, general plan AES-1 does not apply to the tanks. Their "candidacy" for visual screening is not at issue relative to the visual impact of development at the permanent Urban Growth Area boundary, which mitigation measure AES-1 is designed to address.

6. The commenter notes that potential urban/agricultural land use conflicts could be reduced if there is intentional timing and phasing of interim agricultural uses integrated with timing and phasing of plan implementation.

   This comment is assumed to address urban/agricultural land use conflicts within the project site as it builds out over time, given the comment reference to "interim" agricultural uses. While the comment is acknowledged, two main factors suggest that no specific timing/phasing is necessary in this regard. First, urban/agricultural land use conflicts are generally addressed in the context of an urban development project having potential to indirectly facilitate agricultural land conversion by creating conflicts with agricultural uses that prompt the owners of the subject agricultural land to prematurely cease operations. Second, premature cessation can also be facilitated by raising the value of the adjacent agricultural land in a manner that prompts the subject landowners to also consider converting their land to urban uses.

As noted on page 5-11 of the draft EIR, the general plan includes implementation action COS-4.3.5. It requires right-to-farm disclosure notices for new residential uses adjacent to active agricultural operations. This action would notify prospective buyers of homes within the project site that agricultural operations could occur adjacent to or near their homes until such time as the agricultural land is converted to urban use. Also, it is likely that such homebuyers would be aware of the overall development plan for the proposed project and that over time, nuisances from interim internal agricultural uses would dissipate or be eliminated as the site is built out.

With approval of the proposed project, all land within the project site would have been approved for urban use – there would be no motivation for owners of agricultural land within the site to prematurely convert their land to urban uses because the approval for that conversion would already have been granted.

MONTEREY COUNTY
HOUSING AND COMMUNITY DEVELOPMENT

HOUSING, PLANNING, BUILDING, ENGINEERING, ENVIRONMENTAL SERVICES
1441 Schilling Place, South 2nd Floor
Salinas, California 93901-4527
(831)755-5025
www.co.monterey.ca.us

MEMORANDUM

Date: April 19, 2024

To: Taven Kinison Brown, Community Development Director
City of Gonzales
P.O. Box 647,
147 Fourth Street
Gonzales, CA 93926

From: Armando Fernandez, HCD-Engineering Services

Subject: **Vista Lucia Project – Vista Lucia Specific Plan & Tentative Map for Neighborhood #1**

Dear Mr. Kinison,

The Monterey County Housing and Community Development (HCD) Engineering Services and Public Works Facilities and Parks (PWFP) are submitting comments in response to the Notice of Availability of a Draft Environmental Impact Report (DEIR) for the Vista Lucia Project;

We offer the following comments and recommendations in response to your Draft EIR:

1

- If Associated Lane and Fanoe Road are not incorporated into the City of Gonzales, County staff requires the City to enter into a legally-binding agreement with the county whereby the City will assume responsibility for the construction, operation, and maintenance of the improvements within the existing and future County public right-of-way for the following sections of roadways:
    1) Associated Lane between the Vista Lucia Development Project and Old Stage Road at US 101; and
    2) Fanoe Road between the current northern terminus at the city limits to its intersection with existing Associated Lane (the "Associated Lane/Fanoe Road Segments").
    3) New streets created by the Vista Lucia Development Project that are outside of the City of Gonzales.
- The applicant shall be responsible to secure full width of right of way necessary for the construction of the roadways.

2 | • An encroachment permit will be required for any improvements within County Right of Way.

Thank you for considering our comments, should you have any further questions please call at (831) 755-4873

Sincerely,

Armando Fernandez

Armando Fernandez
Senior Civil Engineer, HCD-Engineering Services

cc: Enrique Saavedra, Chief of Public Works, PWFP

Letter 6 - Monterey County Housing and Community Development - Engineering Services Responses

1. The commenter notes that if Associated Lane, Fanoe Road or any other streets are not incorporated into the city, the City must acquire right-of-way for them and enter into a binding agreement with the County to construct, operate, and maintain the roads.

   The City has discussed this issue with the County and acknowledges its responsibilities regarding these roadways and the need to enter in to an agreement with the County for this purpose.

2. The commenter states that an encroachment permit will be required from the County for any improvements within a County right of way.

   Comment is noted. The list of potential responsible agency approvals on page 4-29 of the draft EIR includes obtaining encroachment permits from the County as needed.

COUNTY OF MONTEREY

AGRICULTURAL COMMISSIONER/SEALER OF WEIGHTS & MEASURES
JUAN HIDALGO, AGRICULTURAL COMMISSIONER/SEALER
1428 ABBOTT STREET – SALINAS, CALIFORNIA 93901
PHONE: (831) 759-7325 FAX: (831) 422-5003
WEBSITE ag.co.monterey.ca.us

March 18, 2024

Jaime Scott Guthrie, AICP
County of Monterey Housing and Community Development
1441 Schilling Place South, 2nd Floor
Salinas, CA 93901

Delivered via email to: GuthrieJS@co.monterey.ca.us

Subject: County of Monterey Agricultural Commissioner's Office comments regarding NOA of the Draft EIR for City of Gonzales Vista Lucia Project- County File No. REF240010

Dear Jaime,

Thank you for providing the above-referenced NOP of the Draft EIR for the City of Gonzales Vista Lucia Project. The County of Monterey Agricultural Commissioner's Office has reviewed the material and provides the following comments:

1 Background: Our office engaged in early consultation with the developer, Pembrook Development, at the developer's request, to discuss temporary agricultural buffers between the agricultural lands and the proposed high-density residential development depicted as *Area 6* in Draft EIR's *Figure 4-2* (enclosed as Attachment 1), further depicted as the brown area in the *Santa Lucia Neighborhood* in Draft EIR's *Figure 4-3* (enclosed as Attachment 2). Pembrook's request was to allow for some of the parking area to extend to portions of the proposed temporary agricultural buffers. From this early consultation, Pembrook agreed to our office recommendation of allowing some of the required parking spaces for the high-density residential development in portions of the temporary agricultural buffer areas, subject to incorporating a six (6) to eight (8) foot high fence or wall in the perimeter of the high-density residential development's parking lot areas as additional buffer protection. On July 18, 2023, Pembrook submitted an email to our department with an exhibit titled *"Block 6 Option"* (enclosed as Attachment 3) for our review and approval showing two locations for an 8-foot fence or wall at the rectangular shaped area of the temporary agricultural buffer and a 6-8 foot fence or wall at the triangular site of the proposed temporary agricultural buffer area. This exhibit showing both fenced areas in the agricultural buffers was acceptable and this was conveyed to Pembrook.

Mitigation Measure 5-2: Therefore, the following is the suggested recommendation for Mitigation Measure 5-2, Section 5.0 Agricultural Resources (with underline (addition) text):

1 con't.

Mitigation Measure 5-2. The proposed temporary agricultural buffers and physical design features, such as fences and/or walls shall remain in place until such time as occupancy permits are granted for planned future development on adjacent agricultural lands that abut the temporary buffers. Any future proposed change in the use of temporary buffers shall be subject to review and approval of the Gonzales Community Development Director, with consultation with the County's Agricultural Commissioner's Office.

I am the contact person for this comment letter and can be reached via email at Ochoan1@co.monterey.ca.us or by direct phone line at (831) 759-7384.

Sincerely,

Nadia Ochoa

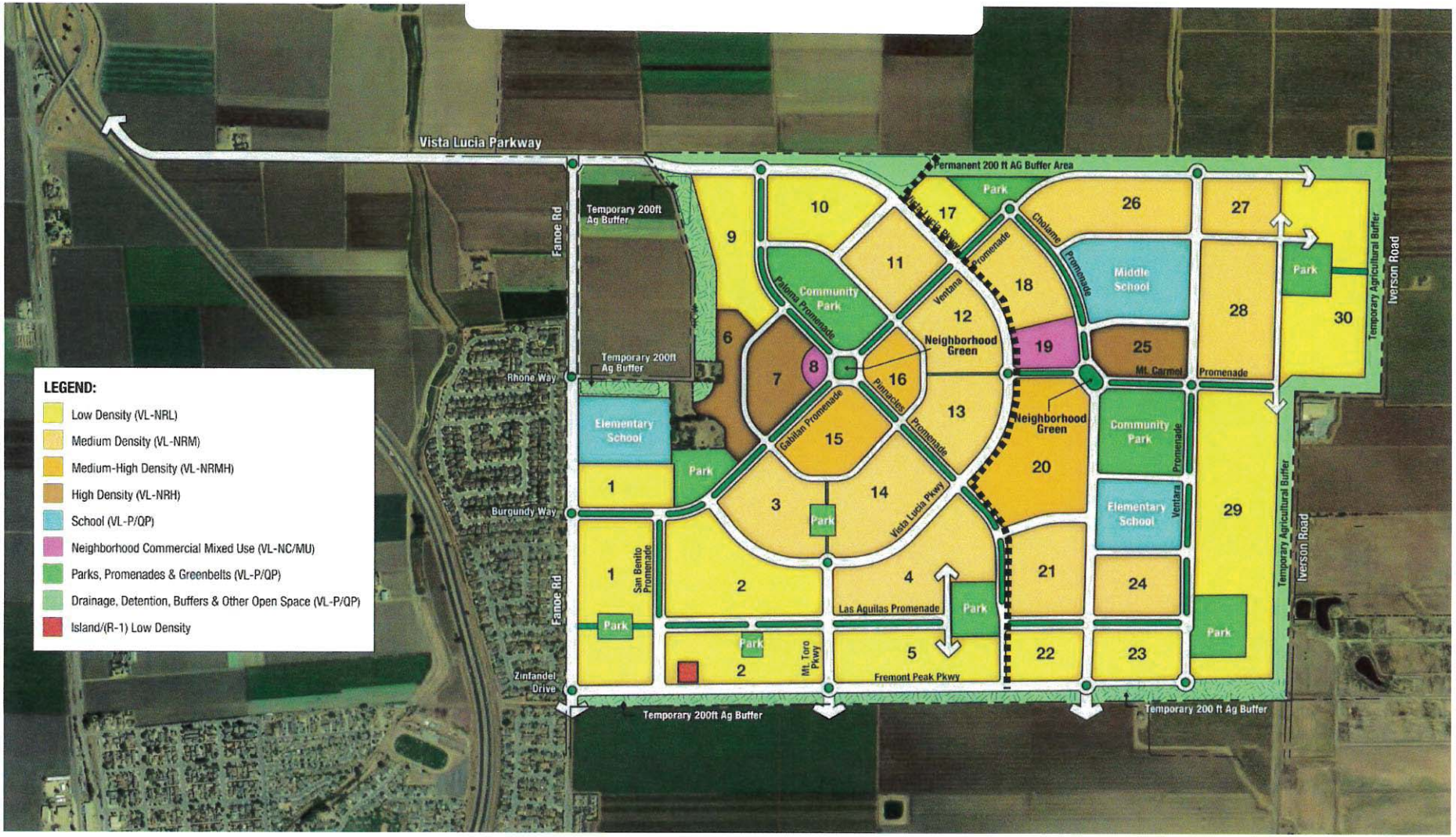
Nadia Ochoa
Agricultural Resource and Policy Manager

Enclosures:

Attachment 1- Area 6, Figure 4-2, Draft EIR

Attachment 2- Santa Lucia Neighborhood, Figure 4-3, Draft EIR

Attachment 3- Pembrook "Block 6 Option" email between Pembrook and County Agricultural Commissioner's Office, dated July 18, 2023

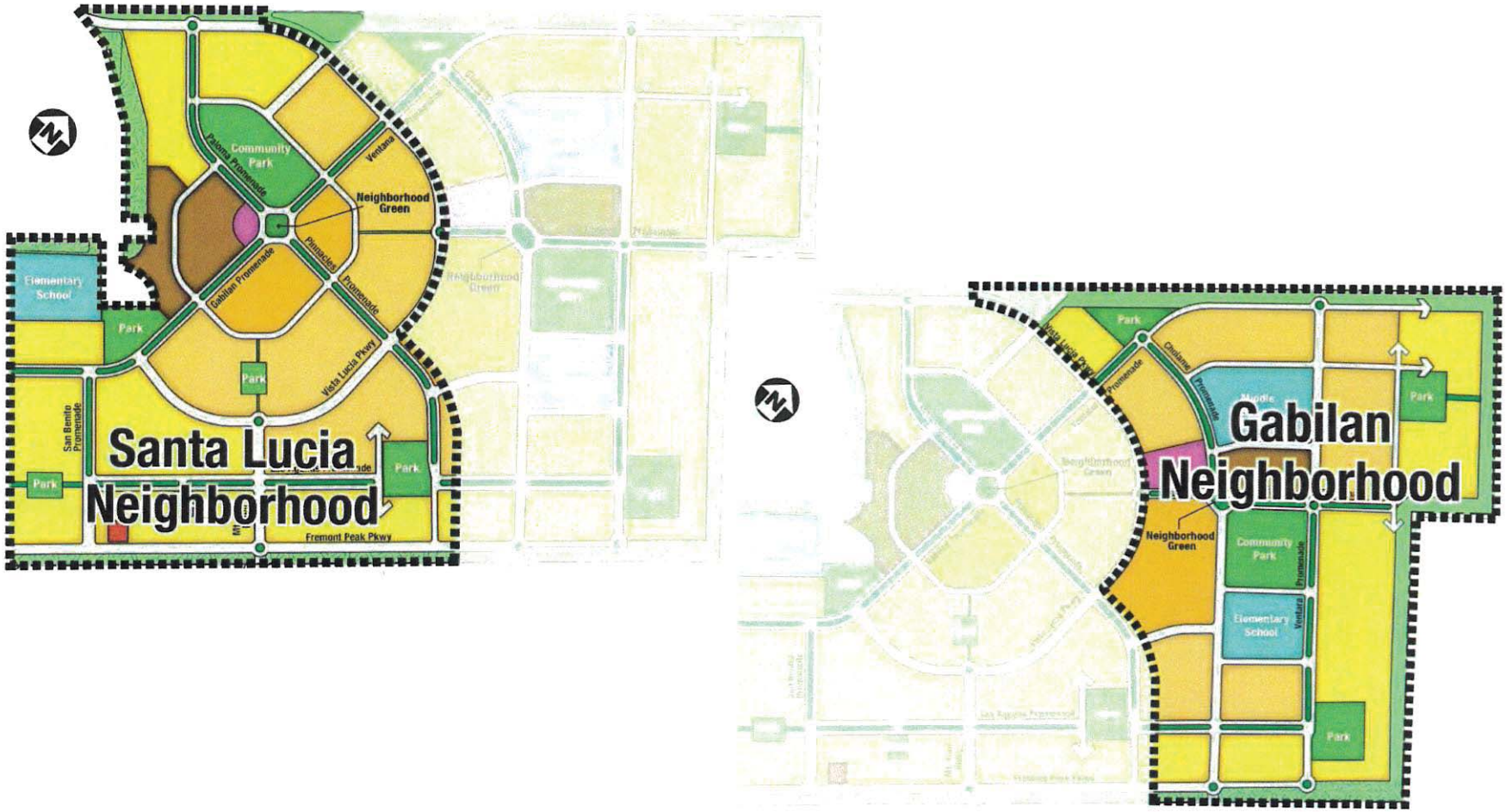


Source: Kimley-Horn 2023

Figure 4-2

Specific Plan Land Use Plan

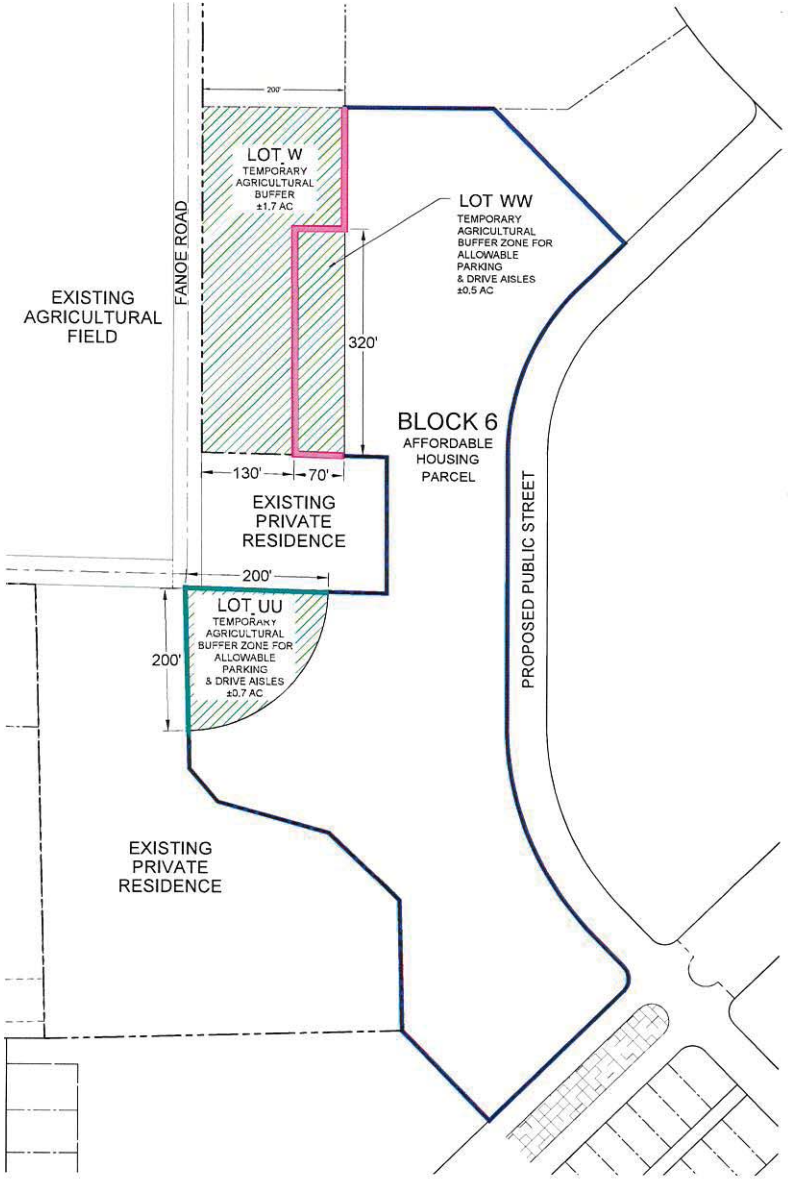
Vista Lucia Project EIR



Source: Kimley-Horn 2023

Figure 4-3
Santa Lucia and Gabilan Neighborhoods
Vista Lucia Project EIR

Attachment 3



LEGEND:

- BLOCK 6 BOUNDARY
- 8' BARRIER FENCE OR WALL
- 6'-8' BARRIER FENCE OR WALL
- AGRICULTURAL BUFFER

0 40 80 160
1 INCH = 80 FEET

HMH
1570 Oakland Road (408) 487-2200
San Jose, CA 95131 HMHca.com

PLOTTED: 6/30/2023 4:19 PM S:\PROJECTS\5707\00\PLUEXHIBIT\MEGA\20230629 5707BLK 6-MEGA.DWG

0 1 2 3 4 5 INCHES

BLOCK 6 OPTION

Scale: 1" = 80'
DRAWN: DO | REVIEWED: JLC
HMH#5707.00 | 6/30/23

From: Garcia, Nadia <GarciaN4@co.monterey.ca.us>
Sent: Tuesday, July 18, 2023 9:21 AM
To: Glenn Pace <glenn@pembrookdevelopment.com>
Cc: Hidalgo, Juan x7302 <hidalgoj@co.monterey.ca.us>; James Pace <james@pembrookdevelopment.com>; David Pace <david@pembrookdevelopment.com>; Katharine Hardt-Mason <katiehardtmason@outlook.com>; Vance, Sandy <sandy.vance@kimley-horn.com>
Subject: RE: Parking in the Temporary Vista Lucia Ag Buffer

Glenn,

Thank you for revising the exhibit (attached) to include the 6 to 8 foot fence in the perimeter of the triangular ag buffer site consistent with our office recommendation. The exhibit showing both fenced areas in the ag buffers is acceptable.

Thank you for contacting our office and working through this situation early in the process.

Feel free in contacting me directly with any questions.

Best, Nadia

Nadia Garcia *(she/her/ella)*
Agricultural Resource and Policy Manager/*Gerente de Politicas y Recursos Agrícolas*
County of Monterey Agricultural Commissioner's Office/*Oficina del Comisionado Agricola del Condado de Monterey*
1428 Abbott Street, Salinas, CA 93901
O: (831) 759-7384
garcian4@co.monterey.ca.us
Agricultural Commissioner's Office Website

From: Glenn Pace <glenn@pembrookdevelopment.com>
Sent: Tuesday, July 18, 2023 9:05 AM
To: Garcia, Nadia <GarciaN4@co.monterey.ca.us>
Cc: Hidalgo, Juan x7302 <hidalgoj@co.monterey.ca.us>; James Pace <james@pembrookdevelopment.com>; David Pace <david@pembrookdevelopment.com>; Katharine Hardt-Mason <katiehardtmason@outlook.com>; Vance, Sandy <sandy.vance@kimley-horn.com>
Subject: RE: Parking in the Temporary Vista Lucia Ag Buffer

Nadia,

Thanks for your feedback. Based on your input we have modified the exhibit to include an 8' fence or wall at the rectangular site and a 6' to 8' fence or wall at the triangular site. Hopefully this will meet your needs.

Since we plan to use this exhibit as a condition to the ultimate transfer of this affordable housing property, probably to a non-profit builder, if this exhibit is acceptable to you we would appreciate your confirmation.

If you have any questions, please contact us.

Thanks,

Glenn

Glenn Pace, Manager
Pembrook Development
305 Vineyard Town Center #295
Morgan Hill, CA 95037
Cell: 408-210-3190
Glenn@PembrookDevelopment.com

Letter 7 – County of Monterey Agricultural Commissioner Responses

1. The commenter identifies that the project applicant and the Agricultural Commissioner's office met to discuss using land within planned temporary agricultural buffers to meet a portion of the parking land requirements for planned high density residential development. The commenter recommends changes to mitigation measure 5-2 in the draft EIR to capture the agreement made with the applicant for this purpose.

   Mitigation measure 5-2 has been changed to incorporate the changes recommended by the commenter. Refer to Section 3.0, Changes to the Draft EIR.

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

April 08, 2024

Taven Kinison Brown, Community Development Director
City of Gonzales
P.O. Box 647, 147 4th Street,
Gonzales, California 93926
(831) 675-5000
tkinisonbrown@ci.gonzales.ca.us

Subject: Vista Lucia Project – Vista Lucia Specific Plan & Tentative Map for Neighborhood #1 (Project)
Draft Environmental Impact Report (DEIR)
SCH No.: 2020039056

Dear Taven Kinison Brown:

The California Department of Fish and Wildlife (CDFW) received a Draft Environmental Impact Report (DEIR) from the City of Gonzales for the Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code. While the comment period may have ended, CDFW respectfully requests that the City of Gonzales still consider our comments.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, section 711.7, subd. (a) & 1802; Pub. Resources Code, section 21070; CEQA Guidelines section 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id*., section 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing

specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, section 21069; CEQA Guidelines, section 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, section 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, section 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include Sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

Fully Protected Species: CDFW has jurisdiction over fully protected species of birds, mammals, amphibians and reptiles, and fish, pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except as follows:

- Take is for necessary scientific research,
- Efforts to recover a fully protected, endangered, or threatened species, live capture, and relocation of a bird species for the protection of livestock, or
- They are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (Fish & G. Code, §§ 3511, 4700, 5050, & 5515).

Additionally, specified types of infrastructure projects may be eligible for an Incidental Take Permit (ITP) for unavoidable impacts to fully protected species if certain conditions are met (see Fish & G. Code §2081.15). Project proponents should consult with CDFW early in the project planning process if an ITP may be pursued for the Project.

PLAN DESCRIPTION SUMMARY

Proponent: Cielo Grande Ranch LLC c/o Pembrook Development

Objective: The proposed Project would facilitate development of a portion of the City's growth area, anticipated since the General Plan was adopted in 2010. The requested entitlements include a general plan amendment (specific plan), pre-zoning, annexation, and the first of several anticipated tentative maps. Up to 3,498 dwelling units at various densities; 96,000 square feet of local serving retail (mixed use), 79 acres of parks, promenades and village greens; two elementary and one middle school on a total of 48 acres; and roads, stormwater detention, agricultural buffers and other open space. Individual future projects that implement the specific plan will be subject to CEQA review that may be streamlined based on CEQA Guidelines sections 15183 and/or 15182.

Location: The Project comprises approximately 768 acres of actively farmed agricultural lands, and is located on the east side of the City of Gonzales, between Fanoe Road, Associated Lane, Iverson Road, and Johnson Creek Road. Current land use consists primarily of actively farmed agricultural land. The following Assessor's Parcel Numbers (APNs) comprise the Project Area: 223-032-024, 223-032-026, 223-032-027.

Timeframe: Not specified.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the City of Gonzalez in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document prepared for this Project.

Currently, the DEIR acknowledges that the Project area is within the geographic range of several special status animal species and proposes specific mitigation measures to reduce impacts to less than significant. CDFW has concerns about the ability of some the proposed mitigation measures to reduce impacts to less than significant and avoid unauthorized take for several special status animal species, including the State and federally threatened California tiger salamander - central California DPS (*Ambystoma californiense* pop. 1); and the State fully protected white-tailed kite (*Elanus leucurus*). CDFW is also concerned regarding potential impacts to special-status plant species, including the California Rare Plant Ranked (CRPR) 1B.1 Congdon's tarplant (*Centromadia parryi* ssp*. congdonii*).

1

California Tiger Salamander

Table 7-2 in the DEIR states that California tiger salamander (CTS) is "absent" as "Genetic testing indicates that salamanders found on the property are almost completely non-native". CDFW is concerned by the conclusions drawn in the DEIR for several reasons.
The DEIR notes that CTS was documented on the Johson Canyon Landfill property in 1995 and that larval salamanders were collected from four ponds on the Project site in 2006. The DEIR continues to state that, "results of the genetic testing indicate that salamanders found on the property are almost completely non-native", and that U.S. Fish and Wildlife Service (USFWS) concluded the tiger salamanders on the property were not CTS. The DEIR also states that early consultation occurred with CDFW in 2019 and additional site assessment and genetic studies were completed. Appendix C of the DEIR was referenced to provide the results of the 2019 studies and subsequent correspondence with CDFW. Based on a thorough review of Appendix C of the DEIR, it does not appear that documentation of early consultation with CDFW or the 2019 study results were provided. In addition to the lack of information in Appendix C, CDFW would like to note that hybrid CTS are still protected under CESA as there are no definitions within Fish and Game Code that exempt or exclude the protection of listed species that might hybridize and/or have the genetic traits of multiple species, subspecies, or varieties.

Based on the positive occurrence data documented in the Project site, the lack of documentation of early consultation discussions with CDFW, and the potentially inaccurate conclusions on CTS presence, CDFW recommends the following:

Comment 1: Consultation with CDFW

Consultation is recommended with CDFW to review the 2019 correspondence and surveys, determine when surveys following "Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander" (USFWS 2003) guidance document were last conducted, and to assist with determining whether the Project can avoid take.

Comment 1

Comment 2: CTS Surveys Prior to Project Implementation

CDFW recommends that a qualified biologist evaluate potential Project-related impacts to CTS the survey season(s) immediately prior to Project implementation using the "Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander" (USFWS 2003) guidance document. CDFW advises that the survey include a 100-foot buffer around the Project in all areas of wetland and upland habitat that could support CTS.

1 con't.

Comment 1 (cont'd)

Comment 3: CTS Take Authorization

If through consultation with CDFW, or surveys, it is determined that CTS are occupying the Project and take cannot be avoided, take authorization would be warranted prior to initiating ground-disturbing activities. Take authorization would occur through issuance of an ITP, pursuant to Fish and Game Code section 2081(b). In the absence of protocol surveys, the applicant can assume presence of CTS within the Project area and immediately focus on obtaining an ITP. For information regarding ITPs, please see the following link: https://www.wildlife.ca.gov/Conservation/CESA. Included in the ITP would be measures required to avoid and/or minimize direct take of CTS in the Project area, as well as measures to fully mitigate the impact of the take.

Special-Status Plants

The DEIR states on page 179, under impact 7-1, "Prior to approval of a tentative map(s) for the project area and grading permits for the off-site wastewater main and off-site circulation improvements, a qualified biologist or native plant specialist shall perform seed collection from all special status plants located within the impact areas and implement seed installation at the mitigation area at the optimal time. Additionally, topsoil from the special-status species occurrence area(s) shall be salvaged (where practical) for use in the mitigation area". CDFW would like to note that, for State listed or rare plants, any take, including collection of their seeds, would require an incidental take permit, pursuant to Fish and Game Code § 2081(b). If State listed or rare plants are documented during surveys for the Project, and take cannot be avoided, take authorization would be warranted prior to initiating ground-disturbing activities. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code § 2081(b). Consultation with CDFW is also recommended for non-listed special-status plants prior to initiation of seed collection.

The DEIR states on page 178, "Prior to approval of any tentative map and prior to approval of grading permits for the off-site wastewater main and off-site circulation improvements, a biologist qualified in botany shall conduct a focused survey for Congdon's tarplant in accordance with current CDFW and CNPS rare plant survey protocols (CDFW 2018 and CNPS 2001). The survey shall occur during the peak blooming period for this species to determine its presence or absence (typically August through September). If possible, a known reference population of the target species in the project vicinity shall first be visited to verify that the species is observable, and the focused survey shall be conducted within two weeks of observing the reference population in full bloom". CDFW concurs with this measure and strongly recommends that a reference population be used to ensure the highest probability of finding Congdon's tarplant.

2

White-tailed kite

Table 7-2 of the DEIR states that white-tail kite presence is "unlikely" and that, "Species may fly over site; however active agricultural land is not considered suitable habitat". CDFW would like to note that more natural habitats are located adjacent to the Project area, and agricultural lands, if suitable trees are present within or surrounding the Project site, could be used for foraging. As such, CDFW recommends the following:

Comment 2

Comment 4: White-tailed Kite Avoidance

In the event a white-tailed kite nest is found within ½ mile of the Project site, CDFW recommends that a ½-mile no-disturbance buffer be implemented. If the ½-mile no-disturbance buffer cannot feasibly be implemented, consultation with CDFW is recommended. Fully addressing potential impacts to fully protected raptor species and requiring measurable and enforceable mitigation in the IS/MND is recommended.

Environmental Data

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, Section 21003, subd. (e).) Accordingly, please report any special-status species and natural communities detected during any future project surveys to the CNDDB. The CNDDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

Filing Fees

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, Section 753.5; Fish & G. Code, Section 711.4; Pub. Resources Code, Section 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR to assist the City of Gonzalez in identifying and mitigating this Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (https://www.wildlife.ca.gov/Conservation/Survey-Protocols). Questions regarding this letter or further coordination should be directed to Evelyn Barajas-Perez, Environmental Scientist, at (805) 503-5738 or evelyn.barajas-perez@wildlife.ca.gov.

Sincerely,

DocuSigned by:
FA83F09FE08945A...

Julie A. Vance
Regional Manager

ec: State Clearinghouse
Governor's Office of Planning and Research
State.Clearinghouse@opr.ca.gov

REFERENCES

U.S. Fish and Wildlife Service. 2003. Interim guidance on site assessment and field surveys for determining presence or a negative finding of the California tiger salamander. Sacramento, California, USA.

RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

PROJECT: Vista Lucia Project – Vista Lucia Specific Plan & Tentative Map for Neighborhood #1 (Project) Draft Environmental Impact Report (DEIR)

SCH No.: 2020039056

RECOMMENDED MITIGATION MEASURE	**STATUS/DATE/INITIALS**
Before Disturbing Soil or Vegetation	
Mitigation measure: California Tiger Salamander (CTS)	
Consultation with CDFW	
CTS Surveys Prior to Project Implementation	
CTS Take Authorization	
Mitigation measure: White-tailed Kite	
White-tailed kite avoidance	

Letter 8 – California Department of Fish and Wildlife Responses

1. The commenter references information included in the draft EIR stating that based on genetic testing, native tiger salamander is not present on the site and the project would not impact the species, with no mitigation required. The commenter concludes that due to the presence of California tiger salamander recorded in 1995 and 2006 in the project vicinity and the lack of documentation of early consultation with CDFW, the proposed project may cause take of California tiger salamander and Incidental Take Authorization may be warranted prior to ground disturbing activities. The commenter also references that the draft EIR references information about early consultation with CDFW and about genetic testing conducted in 2019 that is found in Appendix C of the draft EIR, but that information could not be found in the appendix.

   It is the general opinion of experts in California tiger salamander biology at Live Oak Associates that when genetic analysis proves that salamanders in the project area have a high level (75 percent plus) of non-native genes, there is no need or legal requirement for project applicants to seek Incidental Take Authorization from CDFW. Live Oak captured 87 mole salamanders (larvae and adults) at the site in late May 2006 and March-May 2018 and genotyped them. The average hybrid index score was approximately 95 percent non-native and 5 percent native genetic material (Live Oak Associates 2019). These results indicate that salamanders found on the property are almost completely non-native. Like Live Oak Associates, the U.S. Fish and Wildlife Service concluded in 2007 that "…none of the individual tiger salamanders which compromise the salamander population at the subject property are the listed entity under the Act (i.e., California tiger salamanders). Therefore, tiger salamanders utilizing the ponds on the subject property are not afforded the protections of the Act." The term "Act" in the preceding sentences refers to the Federal Endangered Species Act. As described in CEQA Guidelines Section 15151:

   > An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

   The information presented here from Live Oak Associates, the U.S. Fish and Wildlife service and CDFW suggests that there is a potential disagreement among experts about whether potential impacts to hybrid California tiger salamander warrant the need for the applicant to seek an Incidental Take Permit.

CDFW has yet to make a determination on whether it would recommend Incidental Take Authorization for impacts to a hybrid population. Obtaining Incidental Take Authorization from CDFW is a voluntary process meant to protect an applicant or project from violations of the California Endangered Species Act if take of a listed species occurs.

The 2019 report referenced by CDFW as not having been included in Appendix C of the draft EIR was inadvertently omitted from the draft EIR. It has been included as Appendix B to this final EIR. Page 5 of the 2019 report includes reference to an early consultation meeting held with CDFW on September 29, 2010 to discuss the hybrid salamanders at the site.

Independent of the information presented above and in acknowledgement of CDFW's comments, changes have been made to the draft EIR that reflect the potential that CDFW could require Incidental Take Authorization if it determines that hybrid populations warrant protection under the California Endangered Species Act. Refer to Section 3.0, Changes to the Draft EIR, which includes additional mitigation measures to address CDFW consultation and CTS. Potential impacts to California tiger salamander are thoroughly described in the draft EIR. CDFW comments about the species does not constitute significant new information being added to the EIR.

2. Regarding information in Table 7-2 stating that it is unlikely that white-tailed kit is present, the commenter states that, "more natural habitats are located adjacent to the Project area, and agricultural land, if suitable trees are present, within or surrounding the project site, could be used for foraging." The commenter recommends adding related mitigation language.

   White tailed kite (Elanus leucurus) can forage in farmlands. However, nests are typically placed near the top of dense oak, willow, or other tree stands, usually 20-100 feet above the ground (California Wildlife Habitat Relationships System, California Department of Fish and Wildlife 2005). As described on page 7-37 of the draft EIR, dense tree stands are absent from the project site. However, several mature eucalyptus trees (Eucalyptus globulus) and one Peruvian pepper tree (Schinus molle) are located along Iverson Road and additional scattered trees are located within the off-site wastewater main and off-site circulation improvement locations. Mitigation measure 7-4 in the draft EIR requires preconstruction surveys for nesting birds and raptors within 250 feet for passerines, 500 feet for smaller raptors, and 1,000 feet for larger raptors. If the qualified biologist documents active nests within the project site boundary, the off-site wastewater main location, and/or off-site circulation improvement locations, or in nearby surrounding areas, an appropriate buffer between each nest and active construction must be established. Implementation of this mitigation measure is anticipated to detect and protect nesting birds and raptors, including white-tailed kite consistent with the intent of the comment.

3.0 Changes to the Draft EIR

3.1 CEQA Requirements

CEQA Guidelines section 15132 requires that a final EIR contain either the draft EIR or a revision of the draft EIR. This final EIR incorporates the draft EIR by reference and includes revisions to the draft EIR made primarily in response to comments included in Section 2.0, Response to Comments.

This section contains text from the draft EIR with changes indicated. Additions to the text are shown with underlined text (underline) and deletions are shown with strikethrough text (~~strikethrough~~). The changes are described below.

3.2 Changes to Table of Contents

The following clarification is made:

Appendices

Appendix A	Notice of Preparation and Comment Letters
Appendix B	~~Air Quality Plan Consistency Worksheet;~~ Air Quality Memorandum and Updated Criteria Emissions/GHG Modeling Results; and Air Quality, Greenhouse Gas Emissions and Energy Report

3.3 Changes to Section 2.0, Summary

Page 2-1

The following clarification is made:

The applicant is requesting annexation, prezoning, general plan amendment (specific plan adoption) approvals, and approval of the first of what are anticipated to be a series of tentative maps. The types of planned land uses and development capacity projected for the site are summarized in Table 4-2, Projected Overall Development Capacity. Residential uses are the dominant proposed land use. A total of 3,498 dwelling units are proposed on about 452 acres of the total 771-acre site. The first tentative map includes approximately 1,250 of the total dwelling units. A total of about 96,000 square feet of neighborhood commercial building is proposed. Parks, promenades, and village

greens comprise about 79 acres, with two elementary and one middle school planned on a total of about 42 acres. It is possible that based on planned discussions between the City and that applicant, that a fire station and a police substation may also be located within the site.

Page 2-2

The following clarification is made:

This EIR evaluates the environmental impacts of the following three alternatives to the proposed project.

1. No project alternative. This alternative addresses existing conditions and allows decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.

2. Reduced scale alternative. This alternative consists of reducing residential development capacity as a basis for avoiding a significant air quality impact – volatile organic compound emissions that exceed the threshold of significance. This alternative would eliminate 400 residential units as a basis to reduce air emissions from vehicle travel. By eliminating these units, the overall project development footprint/project site size would be reduced by 52 acres. This alternative would also lessen the significance of several other significant impacts, particularly related to development footprint size.

3. Increased residential density. This alternative would increase the average residential density for the Neighborhood Residential Low land use designation from a proposed target of 5.0 units per acre to 7.5 units per acre, and the average density for the Neighborhood Residential Medium land use designation from a proposed target of 7.0 units per acre to 10.5 units per acre. The overall residential development capacity of 3,498 units would be maintained, but the overall project development footprint/project site would be reduced by approximately 277 acres. This alternative would lessen significant impacts of the proposed project that are related to development footprint size, and ~~potentially~~ lessen impacts that are density related.

4. High density alternative. This alternative consists of requiring that 40 percent of the total proposed 3,498 residential units, or 1,400 units, be developed at a minimum density of 20 units per acre. This corresponds to the average assumed density for the Neighborhood Residential High land use designation. These units could be accommodated on 70 acres of the project site. It is assumed that 1,000 of the remaining 2,098 units would be developed at an average density of 7.0 units per acre, consistent with the average density for the Neighborhood Residential Medium land use designation on a total of 143 acres. A total of 1,008 of the balance of 1,098 units is assumed to develop at an average density of 12 units per acre, consistent with the average density for the Neighborhood Residential Medium-High land use designation on a total of 84 acres. The last 89 units would remain developed at an average of 11.0 units per acre as currently proposed for the Neighborhood Commercial/Mixed Use land use designation. All residential development would be accommodated on a total of 304 acres. This is 148 acres less than the 452 acres needed to accommodate all residential uses per the proposed project. This alternative would lessen significant impacts of the proposed project that are related to development footprint size, and lessen impacts that are density related.

Page 2-10

The following clarification is made:

Potential Impact on California tiger salamander	Less than Significant (as reported in the Draft EIR)	Mitigation Measures 7-2a and 7-2b: 7-2a Consultation with the California Department of Fish and Wildlife. Prior to ground disturbing activities, the applicant shall re-initiate consultation with the California Department of Fish and Wildlife to review project documentation, survey results, and genetic reports. If deemed necessary, additional protocol surveys following the Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (USFWS 2003) shall be conducted. 7-2b If, through consultation with the California Department of Fish and Wildlife, it is determined that highly hybridized salamanders are considered protected under the California Endangered Species Act, applicants for future individual development projects shall obtain Incidental Take Authorization pursuant to Fish and Game Code section 2081(b) prior to ground disturbance. Measures to avoid and/or minimize direct take and to fully mitigate impacts of the take shall be implemented per conditions of the Incidental Take Permit. (Refer to Section 2.0, response to CDFW comment 1 for the basis for adding mitigations 7-2a and 7-2b)	Less than Significant

Page 2-18

The following clarification is made:

Mitigation Measure 10-1. To ensure project consistency with Gonzales Climate Action Plan: 2018 Update GHG reduction measure P-1.3 regarding urban forests, applicants for individual tentative maps submitted prior to 2031 that include single-family homes shall demonstrate to the City that a minimum of three trees will be planted for every single-family home proposed as part of the tentative map project, with trees planted either within the tentative map boundary and/or elsewhere within the specific plan boundary. The measure shall also be included as a contractor work specification. The requirement shall be verified by the Community Development Director prior to approval of each individual tentative map in which single-family homes are proposed.

Page 2-18

The following clarification is made:

10-3 If the City has not adopted an updated qualified climate action plan prior to the City's consideration of future individual projects proposed starting 2031 and after, such individual project applicants shall prepare a GHG Reduction Plan for their respective projects. Each GHG Reduction Plan shall include GHG reduction measures that reduce GHG emissions to 0.82 MT CO_2e per service population per year or less. The GHG Reduction plan shall be prepared by a qualified air quality/GHG professional.

The service population threshold of significance is based on an assumed buildout year of 2045 for all individual projects. A higher threshold of significance may be warranted for projects proposed starting 2031 and after that build out prior to 2045. For such projects, individual project developers may provide substantial evidence that a higher threshold of significance is warranted. Any proposed change in the threshold of significance for individual projects or the threshold of significance determination methodology shall be subject to review and approval of the Community Development Director.

Each GHG Reduction Plan shall list the planned reduction measures, identify reductions associated with each, and provide evidence supporting the level of reduction calculated for each. All measures within the control of individual project applicants shall be implemented and operational prior to occupancy of the associated project.

Each GHG Reduction Plan shall prioritize on-site GHG reduction design features and/or other project specific measures that are within the control of individual project applicants. If on-site measures are insufficient to achieve required reductions, direct investments in off-site GHG reduction activities/programs in the vicinity may be made. Examples of direct investments include building retrofit programs that pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting energy efficient windows, and insulation. Other examples include financing programs for installing electric vehicle charging stations, electrifying school buses, or planting local urban forests.

GHG reductions that accrue from current and future state legislation and regulations with which such projects must comply; specific plan design features including coordinating with Monterey-Salinas Transit to incorporate transit facilities into future individual development projects (e.g. tentative maps), including traffic calming measures on roads within the site, supporting electrification of the vehicle fleet by incorporating electric vehicle charging stations and reserving parking spaces for electric vehicles in multi-family and commercial development, including charging outlets in single-family homes, supporting bicycle commuting by including "end-of-trip" bicycle facilities in new

commercial development, installing programmable thermostats in residential buildings, and installing energy efficient appliances in new residential buildings; and required compliance with mitigation measure 10-2 regarding all electric development and transportation electrification improvements may be considered as part of the analysis of individual project GHG reductions.

If the GHG emissions reductions from legislative/regulatory actions, on-site measures, investments in off-site reduction programs, and/or specific plan design features are insufficient to reduce individual project emissions to below the threshold of significance, individual project applicants may secure the reduction balance by purchasing and retiring carbon offset credits. The carbon offset credits shall meet the following performance standards:

- Carbon offset credits shall be issued by a recognized, reputable and accredited registry that mandates the use of established protocols for quantifying and issuing the offset credits. Credits issued based on protocols approved by the California Air Resources Board should be prioritized. Examples of such registries include the Climate Action Reserve, American Carbon Registry, and Vierra.
- In order of priority, the carbon offset credits should be obtained from projects developed in local vicinity/region, the state, national, or international projects. Priority is on offset credits available through registries approved by CARB. Credits from projects developed internationally should not be used unless the applicant demonstrates with substantial evidence that sufficient carbon offsets from projects in vicinity/region, state, or U.S. are unavailable. International offsets must be quantified and issued using established protocols that are recognized in the United States and that are issued by recognized, reputable and accredited registries.
- All carbon offset credits must meet the criteria of being real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2).

Individual project applicants shall submit their respective GHG Reduction Plans for review and approval of the Community Development Director prior to approval of project-specific entitlements. Implementation of the GHG reduction measures shall be made a condition of approval. If carbon offset credits are proposed, applicants shall provide an executed contract or other certification to the Planning Direct that the requisite carbon offset credits have been purchased.

10-4 If the City has adopted an updated qualified climate action plan prior to approval of any individual project(s) proposed starting 3031 and after, conformance of those projects with the applicable GHG reduction measures included in the updated climate action plan would serve as mitigation for GHG impacts of those projects. GHG Reduction Plans as identified in mitigation measure 10-3 would not be required. To ensure conformance with the climate action plan, individual project applicants shall demonstrate that all applicable GHG reduction measures included in the updated climate action plan have been incorporated into their respective project designs, and/or the City shall require such conformance as a condition of approval. Conformance with the updated climate action plan shall be verified by the Community Development Director prior to approval of individual future projects.

Page 2-19

The following clarification is made:

11-2 The applicant shall be responsible for remediating all project site hazardous materials conditions consistent with direction provided in the *Site Mitigation Plan, Vista Lucia* (McCloskey Consultants 2022). All hazardous materials conditions within the boundaries of individual tentative maps, including removal of abandoned underground storage tanks, shall be remediated prior to approval of grading permits for development pursuant to the subject tentative map(s). Grading permits shall not be issued until such time as the applicant submits a remediation completion report for the subject tentative map project for review by a qualified hazardous materials management consultant to be retained by the City and approval of the Public Works Director, and an underground storage tank closure permit is obtained from the Monterey County Environmental Health Department.

3.4 Changes to Section 3.0, Environmental Setting

Page 3-40, Table 3-2

See table presented on the following page.

Table 3-2 LAFCO Standards Consistency Review (Partial)

condition of approval, or may be required as a condition precedent to approval.		
Agricultural Mitigation Guidelines 1 (except): Agricultural mitigation should be provided for lands being annexed that are designated as Prime Farmland, Farmland of Statewide or Local Importance, or Unique Farmland by the State of California Department of Conservation as of the date an annexation application is submitted to LAFCO.	Consistent	Farmlands within the site have been mapped with acreages within each Farmland designation quantified by acreage. Mitigation for conversion of Farmland identified in mitigation measure 5-1 is based on the respective acreages of Farmland.
Agricultural Mitigation Guidelines 2 (excerpt): Specific mitigation is to be proposed prior to the public hearing on the proposed annexation. For proposals involving more than 100 acres of farmland subject to mitigation, applicants may propose a phased approach, wherein LAFCO records a certificate of completion effectuating an annexation for an initial part, phase, or portion consisting of at least 25% of the overall approved annexation area after appropriate agricultural mitigation actions corresponding to that acreage have been completed pursuant to these Guidelines, along with any other terms and conditions.	Consistent	The draft EIR includes mitigation measure 5-1, which requires that the applicant mitigate for Farmland conversion using one or a combination of options identified in the City's Agricultural Resource Mitigation Ordinance. The mitigation measure would be adopted by the City Council during the public hearing for the project as part of the project Mitigation Monitoring Program. It is the City's intention that the applicant identify which of the options or combinations thereof will be utilized for mitigation as part of the City's reorganization application to LAFCO or as soon thereafter as possible, and prior to LAFCO's public hearing to consider the City's reorganization application. As identified in the draft EIR, the first set of entitlements for the project includes the first of several anticipated tentative maps. The first tentative plan includes approximately 1,250 of the proposed total 3,498 residential units. The first tentative map constitutes the first annexation phase of greater than 25 percent of the total project in the context of LAFCO's Agricultural Mitigation Guidelines regarding timing and phasing of agricultural mitigation.
Agricultural Mitigation Guidelines 3 (excerpt): Agricultural mitigation should be provided at a 1-to-1 ratio – meaning one acre of mitigation provided for each acre of applicable farmland being annexed – and should occur on lands with equivalent or higher farmland mapping designations – i.e., "like-for-like or better" with regard to mapping designations. Dedication of permanent agricultural conservation easements on specific sites is generally preferable to payment of in-lieu fees to	Consistent	As of the date of the final EIR, the applicant had not yet identified which agricultural mitigation option(s) identified in the City's Agricultural Resource Mitigation Ordinance will be pursued as part of the agricultural mitigation program needed to meet requirements identified in mitigation measure 5-1. The City and the applicant recognize the applicable conservation easement ratio of 1:1, the preference for conservation easements instead of in-lieu fees, and the requisite evidence to be submitted to support using an in-lieu fee as partial or whole mitigation. The City and the applicant will consider these factors as part of the

fund the future purchase of conservation easements at a later date on sites not yet identified. If in-lieu fee payment is being proposed, LAFCO will require applicants to document having made a good-faith effort to secure conservation easements, as outlined above.		forthcoming agricultural mitigation program to be included in the City's reorganization application to LAFCO or a soon thereafter as possible, but prior to LAFCO's public hearing to consider the reorganization application.
Agricultural Mitigation Guidelines 4 (excerpt): Dedication of conservation easements, or payment of in-lieu fees, should be to a qualified conservation entity (land trust) that is a nonprofit 501(c)(3) corporation eligible to hold a conservation easement, hold a deed restriction, or collect in-lieu fees under California law, and with conserving and protecting agriculture land as one of its primary purposes.	Consistent	The City acknowledges this agricultural mitigation guideline.
Agricultural Mitigation Guidelines 5: Agricultural mitigation should generally occur for all Prime Farmland or Farmland of Statewide/Local Importance, or Unique Farmland, within the area being annexed. However, the Commission retains the independent discretion to accept, on a case-by-case basis, an annexation – or portions thereof – that has a lesser or different agricultural mitigation for annexation purposes, to the extent that such exceptions would be consistent with a project's required mitigation measures under the California Environmental Quality Act. Examples of projects that may qualify for alternative agricultural mitigation include, but are not limited to, those proposals, or areas of a proposal, that provide certainty with respect to the proposed future uses of public benefit, such as deed-restricted affordable, inclusionary, and/or agricultural housing. While alternative mitigation may be accepted by the Commission, the Commission's intent remains for agricultural mitigation to be provided in a ratio as close as possible to the 1:1 overall goal as identified in these Guidelines.	Partially Consistent	The draft EIR identifies mitigation for the farmland classifications noted in this guideline. The City's Agricultural Resource Mitigation Ordinance includes exemptions to agricultural mitigation requirements for a range of public benefit uses including, but not limited to parks, schools and affordable housing. The concept of exempting public benefit uses from agricultural mitigation is reflected in LAFCO Guideline 5. These are the City's interpretation of public benefit uses, which may be broader than those anticipated by LAFCO. The City and LAFCO have communicated about this issue over time. It is the City intent to work with LAFCO to reconcile the potential differences in exemption concepts and resulting agricultural mitigation requirements as part of the City's reorganization application to LAFCO or as soon thereafter as possible.

3.5 Changes to Section 4.0, Project Description

Page 4-5

The following clarification is made:

LAFCO has discretionary approval over reorganizations of city and ~~county~~ special district boundaries, including annexations and attachments/detachments from special districts.

Page 4-39

The following clarification is made:

Monterey County LAFCO Actions

- Adopt CEQA Documentation;
- Approve Reorganization Application including:
  - Annexation; and
  - Detachments from the Monterey County Resource Conservation District and the Gonzales Rural Fire Protection District~~; and~~.
- ~~Approve Property Tax Transfer Agreement (approved by both the City Council and the County Board of Supervisors).~~

3.6 Changes to Section 5.0, Agricultural Resources

Page 5-10

The following clarification is made:

The farmland classifications for the project site as mapped by the California Department of Conservation are shown on Figure 5-1, Important Farmland Map. The 768-acre project site contains 202 acres of Prime Farmland, 544 acres of Farmland of Statewide Importance, for a total of ~~6~~7756 acres of "Farmlands", the loss of which would constitute a significant impact.

Page 5-10

The following clarification is made:

Figure 4-2, Specific Plan Land Use Plan, shows that both permanent and temporary agricultural buffers are included in the specific plan land use plan. Buffers would be provided along all sides of the project site that are adjacent to farmland. Agricultural land to the north in the county is to be preserved in agricultural use in perpetuity. Thus, the buffer along northern property boundary would be permanent. The eastern project site boundary is also adjacent to land ~~to be preserved in agricultural use in perpetuity~~ that could be developed in the future with urban uses. Thus, the buffer along Iverson Road at the eastern boundary of the project site is ~~also planned as permanent~~ temporary.

Page 5-11

The following clarification is made:

Mitigation Measure

5-2 The proposed temporary agricultural buffers and physical design features, such as fences and/or walls, shall remain in place until such time as occupancy permits are granted for planned future development on adjacent agricultural lands that abut the temporary buffers. Any future proposed change in the use of temporary buffers shall be subject to review and approval of the Gonzales Community Development Director, with consultation with the County Agricultural Commissioner's Office.

3.7 Changes to Section 6.0, Air Quality

Page 6-4

The following clarification is made:

Air Quality Plan Consistency

Historically, a~~A~~ consistency determination is a process by which the Lead Agency demonstrates that the population associated with proposed housing projects in their area is accommodated by the Association of Monterey Bay Area Governments ("AMBAG") regional growth forecasts (Association of Monterey Bay Area Governments 2022). AMBAG's regional growth forecasts for population and dwelling units are embedded in the emission inventory projections used in the air quality plan. Projects consistent with AMBAG's regional growth forecasts have been accommodated in the air quality plan, and were considered to be ~~are therefore~~ consistent with the air quality plan. ~~Projects that are not consistent with AMBAG's regional growth forecasts may require mitigation to ensure uniformity with the air quality plan~~. As described in Section 6.4 below, the air district is no longer in non-attainment for ozone and consequently, is no longer required to prepare a clean air plan. The air district is in the process of updating its CEQA Guidelines document to reflect this change.

Page 6-6

The following clarification is made:

Conflict with Air Quality Plan

IMPACT 6-1	Proposed Project Does Not Conflict with the Air Quality Plan	No Impact

The air district has prepared a series of clean air plans over time whose purpose is to manage air quality in the air basin to bring it into attainment with state 8-hour ozone regulations. Ozone is comprised of two primary pollutants, VOCs and nitrogen oxides. The most recent of these plans

was the *2012-2015 Clean Air Plan* as referenced in the draft EIR. The air basin has now been in attainment with the 8-hour ozone regulation since 2020 (personal communication with David Frisbee, Planning and Air Monitoring Manager, Monterey Bay Air Resources District, March 20, 2024). Consequently, the air district is no longer required to prepare a clean air plan. The air district is in the process of updating its CEQA guidelines and will be addressing this issue as part of the update.

~~The air district's *Consistency Determination Procedure for Residential Development Projects* (Monterey Bay Air Resources District, no date) was used to assess whether the proposed project is consistent with AMBAG's housing unit forecasts. The consistency determination procedure uses housing units rather than population because housing units can be easily tracked, while there are no such tracking measures for population.~~

~~AMBAG's current *2022 Regional Growth Forecast* (Association of Monterey Bay Area Governments 2022) housing unit projections are made in five-year increments to the year 2045. The proposed project is projected to be built out over a period of 20 years or more, with the first residential units projected to be completed in 2025. The annual rate of home construction and the buildout period will be contingent on market conditions. The number of new housing units to be constructed in each five-year increment was estimated for purposes of preparing the consistency analysis. Based. Under the assumptions made, through 2045. The results of the consistency determination are included in Appendix B.~~

~~Conclusion~~

~~Since the project is within the AMBAG projections for housing units, the proposed project is consistent with the air quality plan and would have no impact from conflict with the air quality plan.~~

3.8 Changes to Section 7.0, Biological Resources

Page 7-29

The following clarification is made:

It is acknowledged by both CDFW and USFWS that hybrids pose a serious threat to the native California tiger salamander. Based on the genetic sampling and lack of evidence of the presence of native California tiger salamander, Live Oak Associates, Inc. concluded that native California tiger salamander is not present on the site and the project would not impact any state or federally listed threatened or endangered species. ~~No mitigation is required.~~ However, CDFW has yet to make a determination on whether they would recommend Incidental Take Authorization for impacts to a hybrid population.

If California tiger salamanders hybridized populations warrant protection under the CESA, Incidental Take Authorization from CDFW would be required, as soil disturbing activities could result in the loss or disturbance of individual animals. The following mitigation measures would ensure that hybrid California tiger salamanders are adequately protected.

Mitigation Measures

7-2a Prior to ground disturbing activities, the applicant shall re-initiate consultation with the California Department of Fish and Wildlife to review project documentation, survey results, and genetic reports. If deemed necessary, additional protocol surveys following the *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* (USFWS 2003) shall be conducted.

7-2b If, through consultation with the California Department of Fish and Wildlife, it is determined that highly hybridized salamanders are considered protected under the California Endangered Species Act, applicants for future individual development projects shall obtain Incidental Take Authorization pursuant to Fish and Game Code section 2081(b) prior to ground disturbance. Measures to avoid and/or minimize direct take and to fully mitigate impacts of the take shall be implemented per conditions of the Incidental Take Permit.

3.9 Changes to Section 10.0, Greenhouse Gas Emissions

Page 10-1

The following clarification is made:

This section of the EIR identifies the projected GHG emissions sources and volumes resulting from operations of future proposed urban uses within the project site. ~~The purpose is to disclose the magnitude of projected emissions.~~ The significance of GHG impacts for individual development planned within the site prior to the year 2031 is ~~not~~ based on ~~comparing projected emissions volumes to a quantified threshold of significance, but rather by~~ evaluating project consistency with the City's adopted climate action plan, the content of which is fully described herein. Impacts of future individual development projects planned within the site between 2031 and 2045, the latter assumed to be the project buildout year, is based on comparison of projected GHG emissions to a numeric GHG efficiency-based threshold crafted for the year 2045.

Page 10-3

The following clarification is made:

The GHG emissions reduction target percentages shown in CAP Table CAP-6, GHG Reduction Targets, correlate to the statewide GHG emissions reduction targets embodied in Assembly Bill 32 for the year 2020 (reduce 2020 emissions volume to the statewide 1990 emissions volume by 2020)~~,~~

and Senate Bill 32 for the year 2030 (achieve a 40 reduction in 1990 statewide 1990 emissions volume by 2030), and the emissions reduction goal identified in Executive Order No. S-3-05 for the year 2050 (achieve an 80 percent reduction in 1990 statewide emissions volume by 2050).

Page 10-4

The following clarification is made:

Assembly Bill 1279 recognizes that net zero emissions likely cannot be achieved without expanding/managing natural and working lands that serve to sequester CO_2 and without deploying technologies/implementing programs to remove CO_2 from the atmosphere. These are large-scale initiatives that are generally outside the control of local agencies. Therefore, the City's ability to achieve net zero emissions by 2045 is considered infeasible. The City has not had the opportunity to update the CAP to consider the new Assembly Bill 1279 goals, nor have the vast majority of local agencies in California that have adopted otherwise current, qualified CAPs. The City's current CAP does make ~~substantial~~ progress towards meeting the new 2045 anthropogenic emissions reduction ~~goal~~ target due to its 2050 emissions reduction target setting and inclusion of GHG reduction measures that would ~~achieve that target~~ reduce emissions to meet the interim 2030 target. Consequently, the CAP is considered to remain valid as a qualified GHG reduction plan pursuant to CEQA Guidelines Section 15183.5(b).

The CAP does not identify GHG reduction measures to achieve the 2050 reduction goal. Over the 32 years between the City's 2018 adoption of the CAP and 2050, legislation, regulation, technology, etc., associated with assessing GHG impacts and defining GHG mitigation, will continue to be in flux. Consequently, it would be speculative and potentially infeasible for a CAP to identify a roadmap of specific GHG reduction measures that would achieve a distant GHG 2050 reduction goal. Consequently, the CAP, like many climate action plans prepared by other local agencies, focuses on reduction measures needed to achieve the more immediate 2030 state reduction target codified in Sente Bill 32.

Page 10-5

The following clarification is made:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

As described previously, the CAP includes a GHG reduction target for 2030 and GHG reduction measures to be implemented by new development projects to reduced GHG emissions to meet the 2030 reduction target. As also noted, it would be speculative for the CAP to provide specific GHG reduction measures that may be needed to achieve the 2050 emissions reduction target identified in the CAP. Nevertheless, to reduce uncertainty about how post-2030 GHG impacts of projects proposed within the site can be reduced, a quantified efficiency-based threshold of significance for

the anticipated project buildout year of 2045 has been developed based on Gonzales-specific data. The threshold of significance would apply to projects approved after 2030, with CAP measures applying to projects approved prior to 2031. A GHG efficiency metric represents a rate of emissions generation. It is the ratio of the annual GHG emissions volume generated by a project or plan to the "service population" (SP) generated by the project or plan in that same year. Service population is the sum of the number of jobs and the number of residents created by a project. A project that produces a high volume of GHG emissions relative to its SP is considered less GHG efficient than the same project that produces a lower volume of GHG emissions when the SP is held constant. Stated in another way, the rate of emissions for the first project exceeds the rate of emissions for the second project. A lower rate of emissions indicates a more GHG-efficient project.

The CAP includes city-specific information that can be used to craft the 2045 threshold of significance. The CAP identifies a GHG emission reduction target volume of 12,318 MT CO_2e for the year 2030 and 20,865 MT CO_2e for the year 2050. These are the citywide GHG emissions volume reductions needed for the City to meet its GHG reduction target and goal for the respective years. Dividing the 8,547 MT CO_2e difference between these two targets by four yields emissions volume reductions of 2,137 MT CO_2e for each of the five-year increments between these dates. For 2045, the total citywide volume reduction target would be 18,728 MT CO_2e (12,318 MT CO_2e for 2030 plus the 6,410 MT CO_2e sum of the three 2030 to 2045 reduction increments). The service population value is derived from AMBAG's Final 2022 Regional Growth Forecast. Attachment 2 to the forecast includes population and employment projections for Gonzales. The projected 2045 population is 15,711. The projected 2045 employment for the city is 6,920. The service population is the sum of these two values, or 22,631. The 2045 threshold of significance would, therefore, be 18,728 MT CO_2e/22,631 SP, or 0.82 MT CO_2e/SP/year. This is the rate of emissions per service population that would ensure that GHG emissions from individual projects proposed starting 2031 and after would be consistent with the trajectory of emissions reductions identified by the City to reach the 2050 emission reduction goal in the CAP. Individual projects proposed starting 2031 and after would be required to demonstrate that their respective GHG emissions are below this emissions rate for their GHG impacts to be found less than significant.

Page 10-6

The following clarification is made:

The specific plan also references a number of other standards and features that would serve to reduce GHG emissions. These include coordinating with Monterey-Salinas Transit to incorporate transit facilities into future individual development projects (e.g. tentative maps), including traffic calming measures on roads within the site; supporting electrification of the vehicle fleet by incorporating electric vehicle charging stations and reserving parking spaces for electric vehicles in multi-family and commercial development, including charging outlets in single-family homes; supporting bicycle commuting by including "end-of-trip" bicycle facilities in new commercial

development; installing programmable thermostats in residential buildings; and installing energy efficient appliances in new residential buildings. The GHG reductions that would accrue to these measures have not been quantified here, as the significance of GHG impacts for individual projects proposed prior to the year 2031 is based on consistency with the CAP, and for individual projects proposed after 2030, on an efficiency-based threshold of significance where individual projects may "take credit" for quantified reductions that accrue from these measures. ~~rather than a numerical threshold of significance and on showing additional progress towards meeting the Assembly Bill 1279 emissions reduction target.~~

Page 10-7

The following clarification is made:

Project Consistency with Climate Action Plan – Individual Projects Proposed Prior to 2031

As described in Section 10.2 above, the CAP is a qualified plan that can be used to streamline the analysis of GHG impacts. ~~If a~~ Individual projects proposed before 2031 that are ~~is~~ consistent with the CAP~~, it~~ would have a less-than-significant impact from generating GHGs. Planned development would be consistent if it incorporates GHG reduction measures included in the CAP that are applicable to the type of development proposed and/or is required to incorporate such measures.

Page 10-9

The following clarification is made:

Impacts for Individual Project Proposed after 2030

Unless the City updates and approves a qualified GHG reduction plan prior to 2031 that identifies GHG reduction measures needed to meet GHG reduction goals for 2045 identified in that plan, the significance of GHG impacts of such projects must be evaluated against the quantified GHG efficiency threshold of 0.82 MT CO_2e/SP/year as described in Section 10.3 above. If the City does approve an updated GHG reduction plan before 2031, the GHG impacts of future individual projects proposed starting 2031 and after that are consistent with the applicable GHG reduction measures included in that plan would be less than significant.

To reflect the changing nature of GHG impact analysis methodologies, technological innovations and changes, and legislative and regulatory changes likely to occur over the 20-year project buildout period, mitigation for significant impacts must be flexible, but meet the specified performance measure of reducing GHG emissions to 0.82 MT CO_2e/SP/year or less. Implementation of either of the following mitigation measures would ensure that GHG impacts of future individual projects proposed after starting 2031 and after would be reduced to less than significant.

Mitigation Measures

10-3 If the City has not adopted an updated qualified climate action plan prior to the City's consideration of future individual projects proposed starting 2031 and after, such individual project applicants shall prepare a GHG Reduction Plan for their respective projects. Each GHG Reduction Plan shall include GHG reduction measures that reduce GHG emissions to 0.82 MT CO_2e per service population per year or less. The GHG Reduction plan shall be prepared by a qualified air quality/GHG professional.

The service population threshold of significance is based on an assumed buildout year of 2045 for all individual projects. A higher threshold of significance may be warranted for projects proposed after 2031 that build out prior to 2045. For such projects, individual project developers may provide substantial evidence that a higher threshold of significance is warranted. Any proposed change in the threshold of significance for individual projects or the threshold of significance determination methodology shall be subject to review and approval of the Community Development Director.

Each GHG Reduction Plan shall list the planned reduction measures, identify reductions associated with each, and provide evidence supporting the level of reduction calculated for each. All measures within the control of individual project applicants shall be implemented and operational prior to occupancy of the associated project.

Each GHG Reduction Plan shall prioritize on-site GHG reduction design features and/or other project specific measures that are within the control of individual project applicants. If on-site measures are insufficient to achieve required reductions, direct investments in off-site GHG reduction activities/programs in the vicinity may be made. Examples of direct investments include building retrofit programs that pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting energy efficient windows, and insulation. Other examples include financing programs for installing electric vehicle charging stations, electrifying school buses, or planting local urban forests.

GHG reductions that accrue from current and future state legislation and regulations with which such projects must comply; specific plan design features including coordinating with Monterey-Salinas Transit to incorporate transit facilities into future individual development projects (e.g. tentative maps), including traffic calming measures on roads within the site, supporting electrification of the vehicle fleet by incorporating electric vehicle charging stations and reserving parking spaces for electric vehicles in multi-family and commercial development, including charging outlets in single-family homes, supporting bicycle commuting by including "end-of-trip" bicycle facilities in new commercial development, installing programmable thermostats in residential buildings,

and installing energy efficient appliances in new residential buildings; and required compliance with mitigation measure 10-2 regarding all electric development and transportation electrification improvements may be considered as part of the analysis of individual project GHG reductions.

If the GHG emissions reductions from legislative/regulatory actions, on-site measures, investments in off-site reduction programs, and/or specific plan design features are insufficient to reduce individual project emissions to below the threshold of significance, individual project applicants may secure the reduction balance by purchasing and retiring carbon offset credits. The carbon offset credits shall meet the following performance standards:

- Carbon offset credits shall be issued by a recognized, reputable and accredited registry that mandates the use of established protocols for quantifying and issuing the offset credits. Credits issued based on protocols approved by the California Air Resources Board should be prioritized. Examples of such registries include the Climate Action Reserve, American Carbon Registry, and Vierra.
- In order of priority, the carbon offset credits should be obtained from projects developed in local vicinity/region, the state, national, or international projects. Priority is on offset credits available through registries approved by CARB. Credits from projects developed internationally should not be used unless the applicant demonstrates with substantial evidence that sufficient carbon offsets from projects in vicinity/region, state, or U.S. are unavailable. International offsets must be quantified and issued using established protocols that are recognized in the United States and that are issued by recognized, reputable and accredited registries.
- All carbon offset credits must meet the criteria of being real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2).

Individual project applicants shall submit their respective GHG Reduction Plans for review and approval of the Community Development Director prior to approval of project-specific entitlements. Implementation of the GHG reduction measures shall be made a condition of approval. If carbon offset credits are proposed, applicants shall provide an executed contract or other certification to the Planning Direct that the requisite carbon offset credits have been purchased.

10-4 If the City has adopted an updated qualified climate action plan prior to approval of any individual project(s) proposed starting 3031 and after, conformance of those projects with the applicable GHG reduction measures included in the updated climate action plan would serve as mitigation for GHG impacts of those projects. GHG Reduction Plans as

identified in mitigation measure 10-3 would not be required. To ensure conformance with the climate action plan, individual project applicants shall demonstrate that all applicable GHG reduction measures included in the updated climate action plan have been incorporated into their respective project designs, and/or the City shall require such conformance as a condition of approval. Conformance with the updated climate action plan shall be verified by the Community Development Director prior to approval of individual future projects.

3.10 Changes to Section 11.0, Hazards and Hazardous Materials

Page 11-17

The following clarification is made:

11-2 The applicant shall be responsible for remediating all project site hazardous materials conditions consistent with direction provided in the *Site Mitigation Plan, Vista Lucia* (McCloskey Consultants 2022). All hazardous materials conditions within the boundaries of individual tentative maps, including removal of abandoned underground storage tanks, shall be remediated prior to approval of grading permits for development pursuant to the subject tentative map(s). Grading permits shall not be issued until such time as the applicant submits a remediation completion report for the subject tentative map project for review by a qualified hazardous materials management consultant to be retained by the City and approval of the Public Works Director, and an underground storage tank closure permit is obtained from the Monterey County Environmental Health Department.

3.11 Changes to Section 22.0, Alternatives

Page 22-6

The following clarification is made:

The following alternatives to the project are considered:

1. Alternative 1: No Project – Development Consistent with Existing Monterey County Farmland Zoning;
2. Alternative 2: Reduced Scale; ~~and~~
3. Alternative 3: Increased Density; and~~.~~
4. Alternative 4: High Density.

Per CEQA Guidelines section 15130, a no project alternative must be evaluated. Alternatives 2, ~~and~~ 3, and 4 were selected based on their ability to substantially reduce or avoid one or more of the significant mitigable impacts and/or the significant unavoidable impacts of the proposed project as summarized in Section 22.2 above. The City considered NOP comments recommending that a reduced scale alternative and an increased density alternative be evaluated. ~~Alternatives 2 and 3~~ The alternatives consider these recommendations. The City has defined the~~se two~~ alternatives based specifically on their ability to avoid or substantially lessen one or more of the significant project impacts. The descriptions of each alternative identify the significant impacts which each alternative is intended to substantially reduce or avoid.

Page 22-21

The following clarification is made:

Air Quality

The increased density alternative is assumed to ~~slightly~~ lessen the significant and unavoidable and significant criteria emissions impacts of the proposed project. A ~~slight~~ reduction is possible for two primary reasons. First, ~~because~~ the project would become more compact with more future project residents located in closer proximity to schools, planned commercial uses, and other project amenities. This could result in a minor shift in transportation mode from vehicle travel to pedestrian and/or bicycle travel~~.~~, which in turn, would reduce the volume of vehicle trips taken by project residents. Second, with more residents located slightly closer to existing services in the city, vehicle trip lengths taken by project residents to access these services would be slightly lower. These characteristics of this alternative would, overall, reduce VMT relative to the proposed project, thereby reducing criteria air emissions generated by mobile sources, which are the dominant component of the air emissions inventory for the project. The relative magnitude of change in VMT is identified below in the discussion of transportation effects. While the VOC impact of this alternative would be lessened, it is assumed to ~~would~~ remain significant and unavoidable.~~, it would be superior to the proposed project from a criteria emissions impact perspective.~~ The significance of other criteria air emissions impacts would also be lessened. This alternative would be superior to the proposed project from a criteria air emissions perspective.

This alternative would lessen but not avoid the significant impacts of the proposed project regarding fugitive dust and toxic air emissions during construction because this alternative would require 138 fewer acres of land disturbance during construction. Therefore, the reduced scale alternative is superior to the proposed project relative to these effects.

Page 22-21

The following clarification is made:

Greenhouse Gas Emissions

As described above for air quality effects of this alternative, ~~T~~the increased density alternative is assumed to ~~slightly~~ reduce VMT and associated transportation fuel demand because the project would become more compact with more future project residents located closer to schools, planned commercial uses, and other project amenities. This could result in a minor shift in transportation mode from vehicle travel to pedestrian and/or bicycle travel~~.~~, thereby reducing vehicle trip volumes generated by project residents. This could result in ~~a~~ decreased ~~the~~ GHG emissions. Additionally, with more residents located slightly closer to existing services in the city, vehicle trip lengths taken by project residents to access these services would be slightly lower. These characteristics of this alternative would, overall, reduce VMT relative to the proposed project, thereby reducing GHG emissions generated by mobile sources, which are the dominant component of the GHG emissions inventory for the project.

~~However, t~~The significance of GHG impacts for individual projects proposed prior to 2031 is assessed in context of development consistency with the Gonzales CAP. For individual projects proposed after that time, the significance of GHG impacts is based on comparison to a numerical threshold of significance. The increased density alternative impact would be also be less than significant provided the same GHG mitigation required of the proposed project would be required of this alternative. ~~to ensure its consistency with the CAP.~~ However, due to its potential to incrementally decrease VMT and associated mobile source GHG emissions, ~~Thus,~~ the impact of this alternative would be ~~similar~~ reduced relative to the proposed project. ~~For the same reason, this alternative would have a similar impact regarding conflict with the CAP.~~

Page 22-22

The following clarification is made:

Under general plan buildout conditions, cumulative traffic noise along Fanoe Road, Associated Lane, and Iverson Road would increase. The noise analysis in Section 13.0 concludes that traffic noise impacts on residential and school uses planned along Associated Lane could be potentially significant, but mitigated to less than significant. This alternative would potentially contribute ~~similar~~ lower volumes of traffic to the cumulative condition on Associated Lane, and therefore, would likely ~~have a similar~~ lessen this impact as the proposed project.

Page 22-22

The following clarification is made:

Transportation

The proposed project VMT impact is significant and unavoidable. As described above for the air quality and GHG effects of this alternative, it ~~This alternative~~ would ~~potentially~~ reduce VMT by promoting a mode shift ~~because the project would become more compact with more future project residents located closer to schools, planned commercial uses, and other project amenities. This could result in a minor shift in transportation mode~~ from vehicle travel to pedestrian and/or bicycle travel and/or result in slightly shorter trip lengths.

The relative order of magnitude VMT reduction that could potentially occur with increased residential density is addressed in CAPCOA's *Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity,* described in Section 14.0, Transportation. GHG reduction measure T-1 on page 71 in that document, Increase Residential Density, accounts for the VMT reduction achieved by a project that is designed with a higher density of dwelling units compared to the average residential density in the area. The formula uses a U.S-based average existing density of 9.1 units per acre. However, the measure also describes that where VMT reductions are being calculated from a specific baseline derived from a travel demand forecasting model, the residential density of the relevant transportation analysis zone should be used instead of the value for a typical development of 9.1 units per acre. Such is the case for the proposed project – a travel demand model was used to identify the existing average density in the project. Projects that increase average density relative to this number can achieve up to a 30 percent reduction in VMT. This alternative would result in an average residential density increase of 2.5 units per acre for the Neighborhood Low residential land use and 2.5 units per acre for the Neighborhood Residential Medium land use designation.

The CAPCOA measure T-1 includes a formula to calculate VMT reduction from increasing density, where the residential density of existing development is subtracted from the residential density of the proposed development, divided by the residential density of existing development, with that quotient multiplied by 0.22 (elasticity of VMT with respect to residential development).

For the proposed project, average residential density in the immediate project area is about 4.5 units per acre in traffic analysis zones defined in the travel demand model used to calculate project VMT as described in Section 14.0, Transportation (email communication with Ollie Zhou, Hexagon Transportation Consultants, March 22, 2024). This average existing density is used here in lieu of the national average of 9.1 units per acre identified in the measure T-1 description. Under these conditions, VMT could be reduced by up to about 15 percent for Neighborhood Residential Low development (7.5 - 4.5)/4.5 x 0.22) and about 29 percent for Neighborhood Residential Medium development (10.5 – 4.5)/4.5 x 0.22). VMT from the other planned residential and non-residential components of the project is assumed to remain unchanged.

The proposed project VMT impact is significant and unavoidable. After implementation of mitigation measures, VMT for the proposed project would exceed the threshold of significance by about 6.8 percent, as described in Section 14.0, Transportation. This alternative would substantially lessen and possibly avoid the overall significant unavoidable VMT impact of the proposed project. Therefore, this alternative is superior to the proposed project from a VMT impact perspective.

~~It is unlikely that a minor daily VMT reduction that might accrue to this alternative would be sufficient to avoid the significant unavoidable impact identified for the proposed project. Therefore, the VMT impact from this alternative is assumed to be significant and unavoidable, and this alternative is assumed to be similar to the proposed project from a VMT impact perspective.~~

Page 22-23

The following clarification is made:

As described previously, a new Alternative 4, High Density Alternative, has been developed for inclusion in the draft EIR. It should be considered as an insert to Section 22.0 staring on page 22-23, following the discussion of Alternative 3 impacts. The alternative description, its attainment of proposed project objectives, and summary of impacts and their comparison to impacts of the proposed project are included in Appendix A of this final EIR.

Page 22-23

The following clarification is made:

CEQA Guidelines section 15126.6(e)(2) states that if the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Alternative ~~2, the Reduced Scale~~ 4, High Density, ~~alternative~~, is considered to be the environmentally superior alternative among the remaining alternatives. It ~~avoids a significant unavoidable impact (VOC emissions) and substantially reduces~~ lessens the significance of a greater number of significant impacts relative to Alternatives 2 and 3, and has potential to avoid one or more of the significant, unavoidable impacts of the proposed project. ~~the Increased Residential Density alternative.~~

Page 22-43

The following clarification is made:

Table 22-2, Summary of Alternatives Impacts Compared to the Proposed Project, has been edited to include the new Alternative 4, High Density Alternative, and to modify impact determinations for Alternative 3, Increased Density.

Table 22-2 Summary of Alternatives Impacts Compared to the Proposed Project Impacts

Environmental Impact	Proposed Project	Alternative 1 No Project	Alternative 2 Reduced Scale	Alternative 3 Increased Density	Alternative 4 High Density
General Plan EIR Impact AES-1. Substantial degradation of the existing visual character or quality of the site and its surroundings.	SU	NI Avoids Impact	SU Less than Proposed Project	SU Less than Proposed Project	SU Less than Proposed Project
General Plan EIR Impact AES-2. Light trespass, light pollution, and glare – glare from reflective surfaces	SU	NI Avoids Impact	SU Same as Proposed Project	SU Same as Proposed Project	SU Same as Proposed Project
Impact 5-1. Conversion of 767 Acres of Farmland to Non-Agricultural Use	SU	LTS Less than Proposed Project	SU Less than Proposed Project	SU Less than Proposed Project	SU Less than Proposed Project
Impact 5-2. Urban/Agricultural Land Use Conflicts with Potential to Convert Farmland to Non-Agricultural Use	LTSM	NI Avoids Impact	LTSM Less than Proposed Project	LTSM Same as Proposed Project	LTSM Same as Proposed Project
Impact 6-2. Fugitive Dust Emissions During Construction Would Exceed the Air District Thresholds and Degrade Air Quality	LTSM	LTS Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 6-3. Criteria Air Pollutants During Operations Would Exceed Air District Thresholds and Degrade Air Quality	SU	LTS Less than Proposed Project	SU Less than Proposed Project	SU Less than Proposed Project	SU Less than Proposed Project
Impact 6-4. Operation of Construction Equipment Would Expose Sensitive Receptors to Toxic Air Contaminants	LTSM	LTS Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 7-1. Potential Effect on Candidate, Sensitive, or Special-Status Species (Congdon's Tarplant)	LTSM	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project

Environmental Impact	Proposed Project	Alternative 1 No Project	Alternative 2 Reduced Scale	Alternative 3 Increased Density	Alternative 4 High Density
Impact 7-3. Potential Effect on Candidate, Sensitive, or Special-Status Species (Burrowing Owl)	LTSM	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 7-4. Potential Effect on Candidate, Sensitive, or Special-Status Species (Nesting Raptors and Migratory Birds)	LTSM	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 7-5. Loss of Federally Protected Waters of the U.S.	LTSM	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 7-8. Effect on Riparian Habitat or Other Sensitive Natural Communities	LTSM	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 8-1. Adverse Change to Historic Resources and/or Unique Archaeological Resources During Construction	LTSM	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 8-2. Adverse Impact to Native American Human Remains During Construction	LTSM	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 8-3. Adverse Impact to Tribal Cultural Resources During Construction	LTSM	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 10-1. Generation of Greenhouse Gas Emissions That Have a Significant Impact on the Environment	LTSM	LTS Less than Proposed Project	LTSM ~~Same as Proposed Project~~ Less than Proposed Project	LTSM ~~Same as Proposed Project~~ Less than Proposed Project	LTSM Less than Proposed Project
Impact 10-2. Conflict with the Gonzales Climate Action Plan: 2018 Update	LTSM	LTS Less than Proposed Project	LTSM Same as Proposed Project	LTSM Same as Proposed Project	LTSM Same as Proposed Project

Environmental Impact	Proposed Project	Alternative 1 No Project	Alternative 2 Reduced Scale	Alternative 3 Increased Density	Alternative 4 High Density
Impact 11-2. Hazard to the Public or the Environment from Release of Hazardous Materials into the Environment	LTSM	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 13-1. On-and Off-Site Construction Activities Would Cause a Substantial Temporary Noise Increase	LTSM	LTS Less than Proposed Project	LTSM Same as Proposed Project	LTSM Less than Proposed Project	LTSM Less than Proposed Project
Impact 13-3. Commercial Uses Could Result in a Permanent Substantial Noise Increase at On-Site Sensitive Receptors	LTSM	NI Avoids Impact	LTSM Same as Proposed Project	LTSM Same as Proposed Project	LTSM Same as Proposed Project
Impact 13-4. Noise from Schools with a Permanent Substantial Noise Increase at On-Site Sensitive Receptors	LTSM	NI Avoids Impact	LTSM Same as Proposed Project	LTSM Same as Proposed Project	LTSM Same as Proposed Project
Cumulatively Considerable Impact. Traffic Noise Impacts on Future On-Site Residential and School Sensitive Receptors Along Associated Lane	LTSM	LTS Less than Proposed Project	LTSM Less than Proposed Project	LTSM ~~Same as~~ Less than Proposed Project	LTSM Less than Proposed Project
Impact 14-2. Conflict with CEQA Guidelines Section 15064.3 by Exceeding the Applicable Threshold for VMT	SU	LTS Less than Proposed Project	SU Same as Proposed Project	SU ~~Same as Proposed Project~~ Less than Proposed Project	LTSM Less than Proposed Project
Project Objectives	Met	Not Met	Partially Met	Partially Met	Partially Met

SOURCE: EMC Planning Group 2023

NOTE: NI – No Impact; LTS – Less Than Significant; LTSM – Less-Than-Significant with Mitigation; LTS – Less than Significant; SU – Significant and Unavoidable

3.12 Changes to Appendices

Appendix B

The following clarification is made to the cover page of Appendix B:

~~Air Quality Plan Consistency Worksheet;~~ Air Quality Memorandum and Updated Criteria Emissions/GHG Modeling Results; and Air Quality, Greenhouse Gas Emissions and Energy Report

Appendix C

The following clarification is made:

The technical report entitled *Historical and Current Genetic Composition of Mole (Ambystoma) Salamanders at Vista Lucia, City of Gonzales, Monterey County, California* has been included as Appendix B of this final EIR.

Analysis of New Alternative 4, High-Density Alternative

A

APPENDIX

Alternative 4: High Density Alternative Description

This high-density residential alternative consists of requiring that 40 percent of the total proposed 3,498 residential units, or 1,400 units, be developed at a minimum density of 20 units per acre. This corresponds to the average assumed density for the Neighborhood Residential High land use designation identified in Table 4-1, Projected Residential Development Capacity. These units could, therefore, be accommodated on 70 acres of the project site. For purposes of this alternative, it is assumed that 1,000 of the remaining 2,098 units would be developed at an average density of 7.0 units per acre, consistent with the average density for the Neighborhood Residential Medium land use designation identified in Table 4-1, on a total of 143 acres. A total of 1,008 of the balance of 1,098 units is assumed to develop at an average density of 12 units per acre, consistent with the average density for the Neighborhood Residential Medium-High land use designation in Table 4-1, on a total of 84 acres. The last 89 units would remain developed at an average of 11.0 units per acre as currently proposed for the Neighborhood Commercial/Mixed Use land use designation. Under this alternative, all residential development would be accommodated on a total of 304 acres. This is 148 acres less than the 452 acres needed to accommodate all residential uses per the proposed project as identified in Table 4-1.

Figure 22-3, High Density Alternative (Possible Project Site Boundary), presents one possible option for reducing the project site size. This figure is illustrative and not meant to limit the City in defining a different project site boundary if the City Council were to choose this alternative.

It is assumed that the planned off-site circulation and wastewater improvements for the proposed project would remain necessary such that impact of constructing off-site improvements would remain similar to those for the proposed project.

High Density Alternative Attainment of Project Objectives

This alternative would achieve the objectives of the proposed project. However, one objective would be achieved to a lesser degree than for the proposed project. This objective is to "include a wide array of residential densities and housing types for people of different income levels, age groups, and lifestyles." The high-density residential alternative would reduce housing type choice by eliminating the 990 units proposed at an average density of 5.0 units per acre per Neighborhood Residential Low land use designation.

High Density Alternative Impacts Comparison

The environmental effects of the high-density alternative are evaluated below and compared to the significant, mitigable impacts and significant and unavoidable impacts of the proposed project.

Aesthetics

The high-density alternative reduces the developed area footprint of the proposed project by 148 acres. Therefore, this alternative significantly reduces the magnitude of visual change associated with

the proposed change in use of the site from agriculture to urban. This alternative would substantially lessen the proposed project contribution to the significant avoidable visual impact of converting rural/open space landscape (farmland) to developed urban uses as identified in the general plan EIR. This alternative is superior to the proposed project from this visual resource impact perspective.

When compared to the proposed project, this alternative would result in reduced significant unavoidable impacts associated with new sources of night time lighting that could result in light trespass, light pollution, but would be similar to daytime glare impacts from the reflective surfaces of buildings associated with commercial and retail uses.

Agricultural Resources

This alternative reduces the developed area footprint of the proposed project by 148 acres. This alternative substantially reduces the number of acres of Prime Farmland and Farmland of Statewide Importance within the project site that would be converted to non-agricultural use from 756 to 608 acres, a reduction of approximately 20 percent. This alternative would substantially lessen this significant unavoidable impact of the proposed project. This alternative is superior to the proposed project from a loss of agricultural resources perspective.

Regarding project impacts associated with indirect conversion of agricultural land to non-agricultural use, this alternative would be similar to the proposed project. It is assumed that this alternative would also include agricultural buffers similar to the proposed project.

Air Quality

The primary benefit of this alternative is to reduce criteria emissions from mobile sources (e.g., cars and trucks).

Mobile source emissions would be reduced for several reasons. First, the project would become more compact, with more future project residents located closer to schools, planned commercial uses, and other project amenities. This could create a shift in transportation mode from vehicle travel to pedestrian and/or bicycle travel, thereby reducing the number of trips taken by vehicles and lowering criteria emissions from cars and trucks. Second, higher density residential development typically generates fewer vehicle trips per day per residential unit than does lower density residential development. A typical low density detached residential unit commonly is assumed to generate about 9-10 vehicle trips per day, while high density residential units are commonly assumed to generate about 6-7 vehicle trips per day. With a significant increase in higher density residential development, this alternative would generate significantly fewer vehicle trips than the proposed project. Third, with more residents located slightly closer to existing services in the city, vehicle trip lengths taken by project residents to access these services could be slightly lower. These three characteristics of this alternative would, overall, reduce VMT relative to the proposed project, thereby reducing criteria air emissions generated by mobile sources. Refer to the discussion below regarding transportation effects of this alternative for an estimate of its VMT reduction potential.

The high-density alternative is assumed to lessen, but not avoid, the significant and unavoidable VOC impact (area sources, not mobile sources, are the dominant generators of VOC) and lessen the significant criteria emissions impacts of the proposed project. This alternative is superior to the proposed project from a criteria air emissions impact perspective.

This alternative would lessen but not avoid the significant impacts of the proposed project regarding fugitive dust and toxic air emissions during construction because this alternative would require 148 fewer acres of land disturbance during construction. Therefore, the high-density residential alternative is superior to the proposed project relative to these effects.

Biological Resources

By reducing the developed area footprint of the proposed project by 148 acres, this alternative would reduce the area of disturbance within which sensitive biological resources may be located. Consequently, this alternative would lessen the significance of, but not avoid, potentially significant impacts of the proposed project on sensitive biological resources. This alternative is superior to the proposed project from a biological resource perspective.

Cultural and Tribal Resources

This alternative results in approximately 148 acres of agricultural land being retained rather than converted to residential uses. By reducing the developed area footprint of the proposed project, this alternative would reduce the area of disturbance within which unknown cultural and tribal cultural resources could be uncovered and potentially damaged or destroyed. This alternative would substantially lessen the significance of all potential cultural and tribal resources impacts and would be superior to the proposed project from a cultural and tribal resource perspective.

Greenhouse Gas Emissions

Mobile sources are typically the largest component of a residential/mixed-use project's GHG emission inventory. As described above for air quality impacts and below for transportation impacts of this alternative, VMT generated by this alternative would be reduced for the reasons noted in those discussions. Consequently, the annual volume of mobile source GHG emissions from the high-density alternative would be markedly lower than for the proposed project.

The significance of GHG impacts for development within the site that is planned prior to 2031 is assessed in context of development consistency with the Gonzales CAP as described in draft EIR Section 10.0, Greenhouse Gas Emissions. Nevertheless, this alternative would be superior to the proposed project for the GHG emissions reduction it would yield. For development within the site planned after that time, the high-density alternative would also be superior to the proposed project impact from a GHG impact perspective for the same reason.

Regarding consistency with plans for reducing GHG emissions, for development approved prior to 2031 under this alternative, such development would be consistent with the CAP provided mitigation measure 10-1 is implemented – no conflict with the CAP would occur. For development occurring after 2031, no local or regional GHG reduction plan to which development in Gonzales is subject is in place by which to assess project consistency. However, the emissions projections in the CAP have been used as an input to creating a quantified threshold of significance as described in Section 3.0, Changes to the Draft EIR, of the final EIR. Future individual projects whose GHG emissions fall below that threshold or can be mitigated to do so per mitigation measure 10-3, also identified in Section 3.0, Changes to the Draft EIR, would be consistent with the intent of the CAP to reduce GHG emissions to meet long-term state GHG reduction goals. Thus, such projects would not conflict with the applicable plan for reducing GHG emissions.

Hazards and Hazardous Materials

This alternative reduces the physical area of disturbance by 148 acres relative to the proposed project. A number of hazardous materials conditions have been reported to exist within the site. By reducing the size of the project site, the high-density alternative would reduce the acreage of land disturbance on which one or more hazardous materials conditions may exist. Consequently, this alternative could substantially lessen, but not avoid the significant impacts of the project associated with accidental release of hazardous materials and the risks from emitting hazardous materials near existing or planned school site.

Noise

Though the area over which construction activity would occur is reduced relative to the proposed project, construction would still occur in the vicinity of sensitive receptors. Construction noise impacts of this alternative would be similar to the proposed project.

The high-density alternative is assumed to have similar significant impacts as the proposed project regarding exposure of on-site noise sensitive uses to on-site stationary noise sources associated with on-site commercial uses and schools because these uses would remain a part of the project and would likely still be placed adjacent to on-site noise sensitive uses.

Under general plan buildout conditions, cumulative traffic noise along Fanoe Road, Associated Lane, and Iverson Road would increase. The noise analysis in Section 13.0 concludes that traffic noise impacts on residential and school uses planned along Associated Lane could be potentially significant, but mitigated to less than significant. This alternative would generate fewer vehicle trips than the proposed project. Consequently, it would likely lessen the traffic-noise related impacts on these sensitive receptors relative to the proposed project and would be superior to the proposed project from this perspective.

Transportation

The proposed project VMT impact is significant and unavoidable. After implementation of mitigation measures, VMT for the proposed project would exceed the threshold of significance by about 6.8 percent, as described in Section 14.0, Transportation. As described above in the discussion of air quality impacts of this alternative, VMT would be reduced with this alternative relative to the proposed project. Increasing the density of residential development is one of a number of options for reducing VMT.

The relative, order of magnitude VMT reduction that could potentially occur with increased residential density is described in CAPCOA's *Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity,* described in Section 14.0, Transportation. GHG reduction measure T-1 on page 71 in that document, Increase Residential Density, accounts for the VMT reduction achieved by a project that is designed with a higher density of dwelling units compared to the average residential density in the area. The formula uses a U.S-based average existing density of 9.1 units per acre. However, the measure also describes that where VMT reductions are being calculated from a specific baseline derived from a travel demand forecasting model, the residential density of the relevant transportation analysis zones should be used instead of the U.S. based average value of 9.1 units per acre. Such is the case for the proposed project – a travel demand model was uses to identify existing average density in the project area. Projects that increase average density relative to this number can achieve up to a 30 percent reduction in VMT.

CAPCOA measure T-1 includes a formula to calculate VMT reduction from increasing density, where the residential density of existing developed is subtracted from the residential density of the proposed development, divided by the residential density of existing development, with that quotient multiplied by 0.22 (elasticity of VMT with respect to residential development). This alternative would result in average residential density of about 11.5 units per acre (3,498 units/304 acres designated for residential use). Existing average residential density in the project area is about 4.5 units per acre in the nearest traffic analysis zones defined in the travel demand model used to calculate project VMT as described in Section 14.0, Transportation (email communication with Ollie Zhou, Hexagon Transportation Consultants, March 22, 2024). This local average density replaces the default of 9.1 identified in the measure T-1 description.

Under these conditions, VMT from this alternative could potentially be reduced by up to about 34 percent relative to the proposed project (11.5 – 4.5)/4.5 x 0.22). As noted previously, the measure T-1 description caps VMT reductions from increased density to 30 percent. This alternative would substantially reduce the significant unavoidable impact of the proposed project and potentially avoid it. Therefore, this alternative is superior to the proposed project from a VMT impact perspective.

Wastewater

The high-density residential alternative would result in reduced need for constructing on-site wastewater conveyance facilities because the area of development would be reduced by 148 acres. Thus, related construction impacts would be reduced relative to the proposed project.

Water Demand and Supply

Water demand from residential units typically declines with increased residential density. This is reflected in Table 2-1, Summary of Residential Demand Factors for VLSP, in the WSA in Appendix G. Thus, by increasing average residential density, this alternative would result in reduced demand for groundwater. Therefore, this alternative is superior to the proposed project from a groundwater sustainability perspective.

California Tiger Salamander Genetic Testing Report

APPENDIX B

LIVE OAK ASSOCIATES, INC.
an Ecological Consulting Firm

Historical and Current Genetic Composition of Mole (*Ambystoma*) Salamanders at Vista Lucia, City of Gonzales, Monterey County, California

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PN: 570-06 August 28, 2019

EXECUTIVE SUMMARY

Results from a 2006 genotyping study were used in March 2007 to request concurrence from the USFWS that the population of tiger salamanders (genus *Ambystoma*) occupying the ponds at the Vista Lucia site (previously known as Fanoe and/or Cielo Grande Ranch) in Monterey County, California were not subject to protection under the Federal Endangered Species Act (FESA). The USFWS concluded in June 2007 that none of the individual salamanders at the Vista Lucia site were the federally threatened California tiger salamander (CTS; *Ambystoma californiense*), and FESA protection for this salamander population was not warranted.

Following the listing of the California tiger salamander as threatened under the California Endangered Species Act (CESA) in August 2010, a similar request was made to CDFW. In September 2010, the CDFW requested a Site Assessment, additional genetic studies using samples collected earlier in the CTS breeding season, and data on site management to determine if the salamanders on the site would not be regulated. Live Oak Associates, Inc. (LOA) completed the requested Site Assessment and compiled the requested site management data in November 2010. The present study, conducted collaboratively by LOA and the University of California, Los Angeles (UCLA) Shaffer Lab, fulfills CDFW's request for genetic sampling earlier in the CTS breeding season.

We determined the genotypes of 87 mole salamanders (larvae and adults) captured at the Vista Lucia site in late May 2006 and March-May 2018. All salamanders collected and genotyped were genetic hybrids, with individual genomes composed overwhelmingly of BTS genes. The average hybrid index score was approximately 95% non-native and 5% native genetic material. No individual salamander had more than 10% native genes. The percentage of non-native genes at the Vista Lucia site increased significantly between 2006 and 2018.

According to these results and the supporting documents appended to this report, the salamanders present on the Vista Lucia site would not be protected by the CESA and the proposed residential development project would not be obligated to acquire a CDFW Incidental Take Permit prior to impacting these salamanders. In fact, take of these mostly non-native hybrid salamanders, and removal of their habitat, would assist in completing one of the USFWS's Recovery Actions for the Central California tiger salamander, which includes the CDFW and others as responsible parties for this action.

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INTRODUCTION

Mole salamanders (genus *Ambystoma*) are terrestrial salamanders, most of which spend a majority of their lives in underground burrows made and maintained by species such as gophers, ground squirrels, and other burrowing mammals. During the breeding season, usually on rainy nights, adult salamanders migrate to wetland habitats to lay or fertilize eggs. Eggs hatch into tadpoles, which have external gills and an enlarged tail fin. The tadpoles grow in size, grow lungs, and lose their external gills, eventually metamorphosizing into medium- to large-sized salamanders. The metamorphs then usually migrate to underground burrows until they are ready to breed during the following breeding seasons.

In California, three native mole salamanders exist, one of which is the California tiger salamander (CTS; *Ambystoma californiense*). The life history of CTS generally follows that of all mole salamanders; however, CTS usually require standing water for breeding, which should dry by summer to trigger metamorphosis. Historically CTS were probably distributed throughout most of the Central Valley from Tulare County north to Yolo County, and within the south coast ranges from Santa Barbara County north to Sonoma County and around the Colusa-Yolo County line (Jennings and Hayes 1994). Currently, fragmented populations occur within the historical Central Valley range, and much smaller populations occur within the coast ranges; the Sonoma County and Santa Barbara County CTS populations are considered genetically and geographically distinct from other CTS populations. Currently, all CTS are listed as threatened by the California Department of Fish and Wildlife (CDFW). The U.S. Fish and Wildlife Service (USFWS) lists the Sonoma County Distinct Population Segment (DPS) and Santa Barbara DPS as endangered and the Central California DPS as threatened. The reasons for decline of CTS likely include habitat loss and fragmentation; disease; eradication of California ground squirrel (*Otospermophilus beecheyi*); predation by bullfrogs (*Rana catesbeiana*), crayfishes, and fishes; and hybridization with non-native mole salamanders.

One non-native mole salamander that occurs in California and hybridizes with the CTS is the barred tiger salamander (BTS; *Ambystoma mavortium* or *Ambystoma tigrinum*) (Riley et al. 2003), which was likely introduced to California in the early- to mid-1900's to be used as bait for the sport fishing industry. The life history of BTS also generally follows that of all mole salamanders; however, in California, BTS originating from perennial wetland habitats sometimes do not fully metamorphose into terrestrial adults during their first spring/summer and will stay in their natal wetland for one or more years. These paedomorphs grow legs, reach adult size, and sexually mature, yet retain their external gills, remaining in the wetland through the next breeding season, and possibly beyond. Currently, hybrid CTS and BTS populations occur in sporadic locations throughout Central California, with numerous populations located in the Salinas Valley (Riley et al. 2003, Fitzpatrick and Shaffer 2007, Fitzpatrick et al. 2010, Johnson et al. 2011).

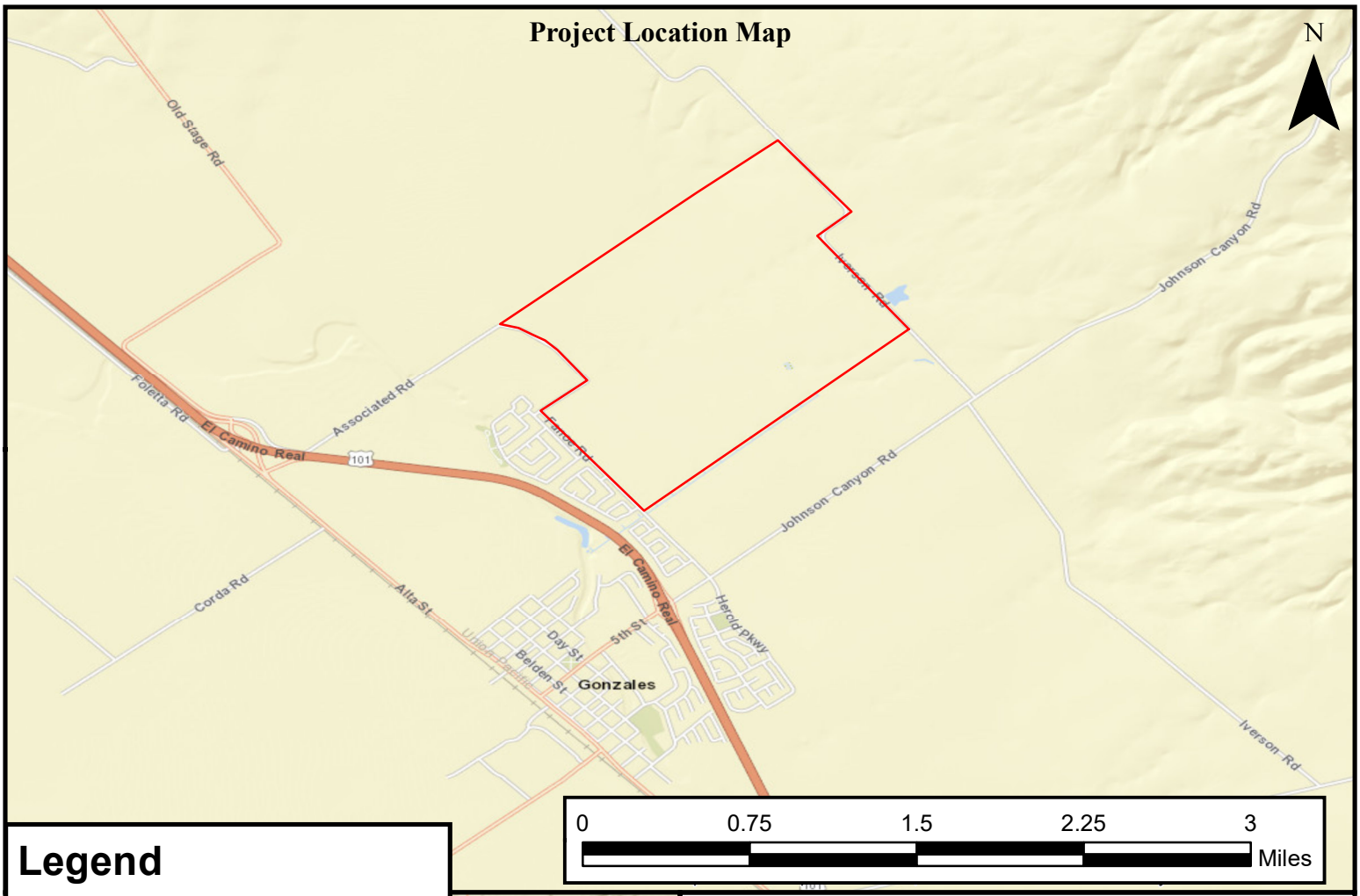
Salinas Valley is located in Monterey County, from northwest of the City of Salinas, southeast along Highway 101 and the Salinas River, to southeast of King City. Within the Salinas Valley lies the Vista Lucia site (or "site"), which is located adjacent to the northeast border of the City of Gonzales, California (Figure 1). The approximately 775-acre site is generally composed of agricultural habitats, which include agricultural fields, roads, and staging areas, and a few residences. As of 2018, six agricultural ponds are also present on the site (Figure 2). This site is proposed for development into a residential area.

In 2006, Dr. Brad Shaffer completed a genetic analysis of the salamanders present on the site (the project site name used was "Fanoe") for Live Oak Associates, Inc. (LOA). The results of these findings indicated that these salamanders were hybrids with approximately 88-92.5% of their genes from non-native BTS (see Appendix A). These findings were then presented to the U.S. Fish and Wildlife Service (USFWS) in March 2007 to request concurrence that the population of mole salamanders occupying the ponds on the site were not subject to protection under the Federal Endangered Species Act. In June 2007 the USFWS concluded that, "none of the individual tiger salamanders which comprise the salamander population at the subject property are the listed entity under the Act (i.e., California tiger salamanders). Therefore, tiger salamanders utilizing the ponds on the subject property are not afforded the protections of the Act." See Appendix B for a copy of this letter.

Following the listing of CTS as threatened under the California Endangered Species Act (CESA) in August 2010, the California Department of Fish and Wildlife (CDFW; formerly the California Department of Fish and Game) was contacted to request concurrence with this determination and the USFWS's conclusion. On September 29, 2010 a meeting was held with CDFW to discuss the hybrid salamanders at the site. The attendees of the meeting included Pembrook Development (Glenn and James Pace), LOA (Melissa Denena and Rick Hopkins), and CDFW (Brandon Sanderson, Annee Ferranti, and Deb Hillyard). During the meeting, CDFW concluded that they would consider the onsite salamanders as CTS and would require an Incidental Take Permit (ITP) for impacts to these salamanders. However, they recommended that additional information be submitted to them for review if the project would like CDFW to determine that the salamanders on the site should not be regulated. They made three requests for information, as follows:

1. A Site Assessment following the requirements of the *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* (CDFG and USFWS 2003).
2. Additional surveys and genetic sampling conducted earlier in the breeding season. CDFW said that due to the 2006 genetic sampling being conducted late in the season (samples collected on May 29, 2006) any native CTS that could have been present in the ponds would likely have already moved into the surrounding upland habitat. Therefore, they requested genetic testing of juveniles in March 2011.
3. Data on site management. This would include information on each of the ponds, such as if each pond is managed for tailwater, has water pumped in, has an outlet present, and supports fish, and what each pond's overall function and maintenance regimen is.

In November 2010, a site assessment and data on site management was prepared by Dr. Mark Jennings (LOA Associate Herpetologist) and submitted to CDFW (see Appendix C) in support of request numbers 1 and 3. Here we investigate the historical and current (as of 2018) genetic composition of mole salamanders present on the site, with 2018 data collected earlier in, and throughout, the 2018 CTS breeding season in support of request number 2. To complete this work, LOA collaborated with Dr. Brad Shaffer and his colleagues at the University of California, Los Angeles (UCLA), Shaffer Lab.



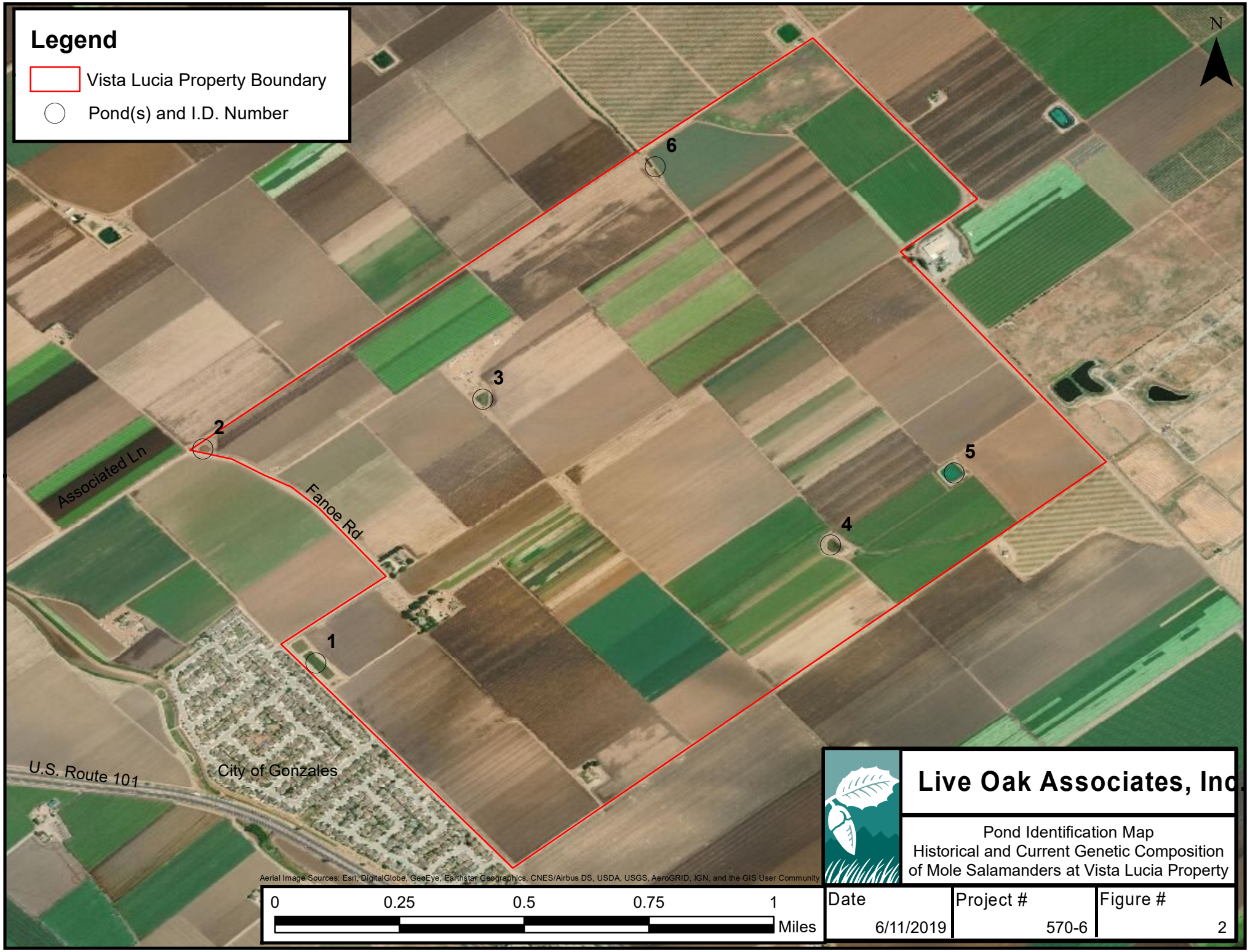
Legend

Vista Lucia Property Boundary

Live Oak Associates, Inc.

Vicinity Map
Historical and Current Genetic Composition of Mole Salamanders at Vista Lucia Property

Date	Project #	Figure #
6/4/2019	570-06	1



Live Oak Associates, Inc.

Pond Identification Map
Historical and Current Genetic Composition
of Mole Salamanders at Vista Lucia Property

Date	Project #	Figure #
6/11/2019	570-6	2

METHODS

Field Sampling Methods

Sampling was completed by Dr. Brad Shaffer's team (UCLA) in May 2006, and by Geoffrey Cline (LOA), Robert Cooper (UCLA), and Robert Shields (LOA) in March and May 2018 (see Table 1 for survey dates). All work was completed under the authorization of Dr. Brad Shaffer's USFWS Recovery Permit (#TE094642) and associated CDFW permits.

Table 1: Number of Samples Collected (in parentheses) by Date and Pond ID

Date	Pond ID and Number of Samples
May 29, 2006	1 (29), 2 (31), 3 (27), 4 (44)
March 8, 2018	1 (10), 2 (0), 3 (0), 4 (0)
March 29, 2018	1 (21), 2 (0), 3 (0), 4 (8), 5 (0), 6 (2)
May 14, 2018	1 (16), 2 (0), 3 (0), 4 (6), 6 (1)

The sampling was completed by netting salamander larvae and adults with seines, dip-nets, and modified shad scoop nets, and collecting tissue samples. Surveyors swept the nets through accessible areas within each sampled pond. When salamanders were captured the net was taken to the edge of the pond. There, the individuals were counted and the total length of the larvae and the snout to vent length of the adults was measured. Disinfected scissors were then used to collect a tail clip tissue sample, which was then transferred to a vial with an alcohol solution. See Appendix D for representative pictures of the 2018 field sampling work.

Laboratory Methods and Genotyping

Up to ten tissue samples per pond, per sample date were subjected to DNA extraction, sequencing, characterization, and analysis in the Shaffer Lab. See Appendix E for a complete description of these methods.

RESULTS

In May 2006, 131 salamander tissue samples were collected. In March and May 2018, 64 salamander tissue samples were collected, five of which were collected from adult salamanders. During the 2018 surveys the total length of the larval salamanders captured ranged from 17mm to 137mm, and during the May 14, 2018 survey a large range in size of captured larvae was observed. (see Table 2). Samples from 87 individual salamanders captured during the 2006 and 2018 surveys were utilized for genotyping. Nearly the entirety of each genome was sequenced, with a mean genotyping rate of 98.07% (min=82.75%, max=99.04%, sd=2.2%). For a more detailed description of the genomic results, see Appendix E.

All salamanders collected and genotyped were genetic hybrids. Overall, the mean hybrid index score, or percent of each genotype that was derived from BTS, was 94.79%. Individual salamanders exhibited a low of 90.86% and a high of 97.97% non-native genetic material. The mean hybrid index score also significantly increased from 94.1% in 2006 to 95.3% in 2018. Within 2018 the differences in the hybrid index scores between sampling dates and ponds was not significant.

Table 2: 2018 Vista Lucia Salamander Survey Results

Date	Pond #/Name	# of Seine Passes	Percent of Pond Surveyed	Salamanders Observed?	Sample Vial Number (total length (TL) of larvae or snout to vent length (SVL) of adult, in mm)	Other species observed	Notes
8-Mar-18	1 - Middle	2	<5	Yes	RDC1120 (TL = 26, 26, 25, 25, 18mm), RDC1121 (TL = 22, 25, 29, 17, 21)		
8-Mar-18	2	5	50	No			
8-Mar-18	3	5	25	No			
8-Mar-18	4 - larger	3	25	No			
8-Mar-18	4 - smaller	3	25	No			
29-Mar-18	1 - North	1	<5	Yes	RDC1155 (24, 25, 34), RDC1156 (17, 18, 19, 19, 23, 24), RDC1157 (22, 26)	Snails	RS collected with RC supervision
29-Mar-18	1 - Middle	2	<5	Yes	RDC1158 (20, 22, 24, 27), RDC1159 (41), RDC1160 (21, 38), RDC1161 (20, 22, 24)	Snails, waterboatman, dragonfly larvae	RS collected with RC supervision. We collected mostly smaller larvae because they may be a separate cohort than the ones collected on March 8
29-Mar-18	1 - South	3	50	No		Waterboatman, beetle	Too deep and steep to survey entire pond with seine
29-Mar-18	2	6	60	No		Snails, waterboatman	
29-Mar-18	3	7	30-40	No		Waterboatman, snails, sand flea, slug	
29-Mar-18	4 - North	17	200+	Yes	RDC1162 (42), RDC1163 (40; tail clip), RDC1164 (SVL=111; adult male; tail clip), RDC1166 (all tail clips; 44, 46, 50, 56)	Snails, waterboatman, leech	RS photo #111, GC tail clipped with RC supervision
29-Mar-18	4 - South	4	100	Yes	RDC1165 (SVL=95; adult male; tail clip)	Waterboatman, worm	RS photo #128, GC tail clipped with RC supervision
29-Mar-18	5	2	<5	No			No aquatic life observed. RS photo #130. Sides along West, South, and East were lined with broken pipe and metal pieces so was unsafe for seine and people.
29-Mar-18	6 - North	40	15	Yes	RDC1167 (all tail clips; 42, 54)		RS tail clip with RC supervision. We used dip nets only because pond was too steep and deep, and lined with broken pipe.
29-Mar-18	6 - South	40	15	No			We used dip nets only because pond was too steep and deep, and lined with broken pipe.
14-May-18	2	6	50	No		snails	
14-May-18	1 - North	3	5	Yes	RDC1237 (91,101,103,83,62,78)		
14-May-18	1 - Middle	2	2	Yes	RDC1238 (102, 69, 71, 52, 34, 40, 33, 51, 45, 47)		Different sizes, clearly different cohorts. The smaller individuals were probably laid in March.
14-May-18	1 - South	4	40	No		waterboatman	
14-May-18	3	6	40	No			
14-May-18	4 - North	10	125	Yes	RDC1239 (105, 121, 133, 137)	waterboatman	
14-May-18	4 - South	5	100	Yes	RDC1240 (SVL = 94, gravid female), RDC1241 (SVL = 91, male)		
14-May-18	5	2	2				Tried out the shad scoop net
14-May-18	6-North	10	100	Yes	RDC1242 (SVL = 99)		Used the shad scoop net. Water level was very low and was being pumped out during our survey.
14-May-18	6 - South	10	100	No			Used the shad scoop net, was only able to sample the surface with the shad scoop net. Water level was much higher than the north pond.

DISCUSSION

The habitats and land uses of the Vista Lucia site and adjacent lands are generally incompatible with CTS life history strategies, greatly favoring BTS. It is composed of agricultural lands and is located within a sea of agricultural land and adjacent to the City of Gonzales. The agricultural ponds on the site are used as catchment basins, usually used to recycle runoff irrigation water back to the agricultural fields. Based on this use and from aerial imagery, these ponds are likely almost always inundated, and most them are annually cleaned out with a bulldozer. During the 2018 surveys, very few potential aestivation burrows were observed, and five adult salamanders were captured in the study ponds well after the 2017/2018 winter rains. This suggests that salamanders at the Vista Lucia site may persist in the site's ponds rather than seeking burrows for aestivation, as has been observed in BTS elsewhere California. Furthermore, in October 2010, Dr. Jennings counted 75 rodent bait traps in the drainage along the western edge of the site, near Pond 2, which would limit the number of rodents available to create new aestivation habitat.

The results from the genotyping analysis show that Vista Lucia site salamanders are genetic hybrids containing overwhelmingly (95.3%) non-native BTS genetic material, and that they have had this genetic make-up since at least the early 2000's. The salamanders collected and genotyped had only approximately 5% native CTS genes, with native genetic material apparently decreasing over the years. Sampling three times in 2018 revealed that multiple cohorts were likely sampled, and the genetic composition of the Vista Lucia site salamanders are all very similar and do not vary significantly between ponds or across the breeding season. The Vista Lucia site appears to support a hybrid swarm of BTS, where all individuals are of hybrid origin. This is consistent with Fitzpatrick and Shaffer's (2007) findings for the Salinas Valley as a whole. Based on the history of the BTS introductions to the area over 50-100 years ago, the extent of these introductions, and the increase in BTS genetic material in the Vista Lucia site salamanders since 2006, these BTS hybrids may likely continue to breed out any CTS genes that remain within the population. Any CTS in the region would be challenged to occur in the agricultural areas due to the perennial inundation of ponds, the lack of suitable aestivation habitat, and the prevalence of non-native BTS.

The Vista Lucia site may function as a genetic and physical sink for CTS. If CTS from the hills along the banks of the Salinas Valley were able to cross the adjacent agricultural and residential lands and end up at the site, not only would their genes be lost to the BTS hybrid swarm, but they could be predated on by the hybrid salamanders on the site. Hybrid salamanders are known to cannibalize CTS (Ryan et al. 2009).

The present study demonstrates that the mole salamanders of the Vista Lucia site are not California tiger salamanders afforded protections under the California Endangered Species Act. Therefore, the residential development project would not be obligated to acquire a CDFW ITP. In fact, removal of these salamanders from the Salinas Valley may benefit CTS. Recovery Action Number 2.1.1 of the USFWS's *Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (Ambystoma californiense)* (2017) is to decrease the threat of hybrid tiger salamanders by conducting targeted eradication of hybrid tiger salamander

populations (Priority Level 1). One of the responsible parties for this recovery action is CDFW. The Vista Lucia residential development project would in fact help the Salinas Valley region work towards this recovery action.

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APPENDIX A: DR. BRAD SHAFFER'S FANOE POND TIGER SALAMANDER GENOTYPING REPORT (2006)

Fanoe Pond Tiger Salamander Genotyping

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Submitted 31 September 2006

Introduction

In early May, 2006, Melissa Denena contacted H. Bradley Shaffer about conducting field sampling and genetic analysis on tiger salamanders from a series of ponds (hereafter referred to as the Fanoe ponds) in the Salinas valley. We agreed to conduct the sampling and laboratory analysis. Our goal was to sample for up to 25 larvae per pond, for five ponds, and to score them for up to 10 genes, and to determine for each gene whether the individual salamander was native *Ambystoma californiense* (CTS) or non-native *A, tigrinum mavortium*. We also agreed to write up a brief report, summarizing our findings across genes and ponds. This document constitutes that final report.

Methods

Tail tips (N=131) were collected from *Ambystoma* larvae at four ponds (Fanoe1-4; Figure 1) 2-3 km NE from Gonzalez, CA on 29 May 2006. No larvae were detected in Fanoe pond 5, even after extensive sampling with a 15 foot long seine. We note, however, that pond 5 is both large and deep, and it may contain animals that we were not able to sample from the deepest part of the pond. Tissue was immediately preserved in 95% ethanol and assigned HBS tissue catalogue #'s (107290-107320, 107350-107449). For each pond, we extracted DNA from 21 individuals for genotyping analyses using standard extraction techniques (Palumbi 1996). We analyzed 21 animals per pond, rather than the full sample of ~32, to retain some samples as backup in case the first round of work was unsuccessful and needed to be repeated.

Individual tissue samples were genotyped for one mitochondrial single nucleotide polymorphism (SNP) locus (Dloop) and up to 7 nuclear SNP loci (FoxG1b, Slc4a4, Dlx3, Contig325, HoxD8, Gnat2, and Gnat1; Voss et al. 2001). For each of these loci, our previous work has identified diagnostic differences between *A. tigrinum* and *A. californiense* (Fitzpatrick and Shaffer 2004). In our previous work, we utilized restriction-fragment-length polymorphism (RFLP) analyses to determine each individual genotype for each animal. However, in the current study, genotyping was performed using the Victor^3 plate reader (Perkin-Elmer) to perform fluorescence polarization (FP) analysis to score each individual's genotype at each locus. FP is a standard technique for the analysis of SNP loci (Xiao and Kwok 2003) and is more efficient and reliable than RFLP analyses. At each SNP locus each individual was scored as 'aa' if it was homozygous for native alleles, 'gg' if it was homozygous for introduced alleles, or 'ga' if heterozygous, with one copy each of a native and introduced allele. These data were summarized, for each gene at each pond, as the total frequencies of each genotype, which provides the basic results of the study. We also summarized the Hybrid Index score for each pond, which simply tallies the proportion of alleles, pooled across individuals and genes, that are native for each pond, using the formula HI=(total # of native alleles

['a'])÷(total # of alleles). The HI score is one way of summarizing the overall level of nativeness/invadedness of a sample of animals from a pond.

Results & Discussion

Raw data are presented in Appendix 1 and genotypic frequency data are presented in Table 1. For the purposes of providing a quantitative assessment of the "nativeness" of each pond, Table 2 contains Hybrid Index (HI) scores for each pond. Higher HI values indicate a greater proportion of native alleles.

The primary conclusion from our data are that all of the animals in all ponds contain primarily non-native gene copies. However, our data also indicate that all ponds contain at least low frequencies of native alleles at some nuclear loci (range=4-7 loci). Interestingly, we detected no native alleles for the single mitochondrial locus. The mitochondrial DNA is a very separate part of an animals overall DNA composition, and our previous work has shown that it sometimes shows a somewhat different pattern than the majority of the nuclear genome (Fitzpatrick and Shaffer, in press). Given this previous work, and the somewhat different pattern seen in the mitochondrial DNA compared to the nuclear DNA, we summarize the data with and without the mtDNA. The nuclear data present a more balanced overall picture of the genetic composition of the populations.

When considering the combined frequencies for all ponds, Table 1 shows that the majority of loci are largely homozygous for introduced alleles. Only HoxD8 displays increased frequencies of heterozygous and homozygous native genotypes. HoxD8 has previously been found to be associated with habitat-dependent heterozygote excess in other study sites in the Salinas Valley (Fitzpatrick and Shaffer 2004), and the pattern found in the Fanoe ponds is consistent with HoxD8 results in other ponds. It is interesting that the same pattern holds, even in the highly impacted ponds in the agricultural landscape of the Fanoe site.

Pond-specific differences among the four ponds do exist, even though all ponds consist of predominantly non-native genes (Tables 1 & 2). Ponds 2 and 4 have the highest HI scores, with about 11-12% native genes, compared to ponds 1 and 3 with 6.5-8% native genes; a similar pattern is present in the higher frequency of heterozygous individuals in ponds 2 and 4, and their lower frequencies of pure non-native (gg) homozygotes. Pond 2 also deviates from the other ponds by the lack of homozygous introduced individuals for the HoxD8 locus. However, even with these differences in the frequency of native alleles among ponds, the raw data indicate that no genotyped individual can be described as putatively "pure" native based on the 8 loci we investigated.

We conclude that the genotypes of salamanders present at Fanoe Ponds 1-4 are comprised of primarily introduced alleles, and that extensive invasion by introduced tiger salamanders and subsequent hybridization has occurred. However, Ponds 2 and 4 each had a somewhat elevated frequency of remnant native California tiger salamander genotypes, and they may have greater biological value than ponds 1 and 3. In addition,

ponds 2 and 4 were also the most "natural" of the ponds on the site—pond 4 was in the process of drying down completely when we visited (as is normally the case for natural vernal pools in the region), and pond 2 had the most extensive open ground with rodent burrows surrounding it.

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Table 1. Observed genotypic frequencies of 8 SNP loci for Fanoe ponds 1-4. 'Combined' values represent the genotypic frequency for all individual pooled among ponds. 'Average (All)' values represent the average genotypic frequency for all 8 loci. 'Average (Nuclear)' values represent the average of only the 7 nuclear loci.

'gg' freq	FoxG1b	Slc4a4	Dlx3	Contig325	HoxD8	Dloop	Gnat2	Gnat1	Average (All)	Average (Nuclear)
Pond1	1.00	1.00	0.95	1.00	0.38	1.00	0.95	0.85	0.89	0.88
Pond2	1.00	1.00	1.00	0.94	0.00	1.00	1.00	0.65	0.82	0.80
Pond3	1.00	1.00	0.95	1.00	0.21	1.00	1.00	1.00	0.90	0.88
Pond4	0.85	0.83	0.81	1.00	0.38	1.00	0.81	0.75	0.80	0.78
Combined	0.96	0.96	0.93	0.99	0.25	1.00	0.94	0.81	0.85	0.83

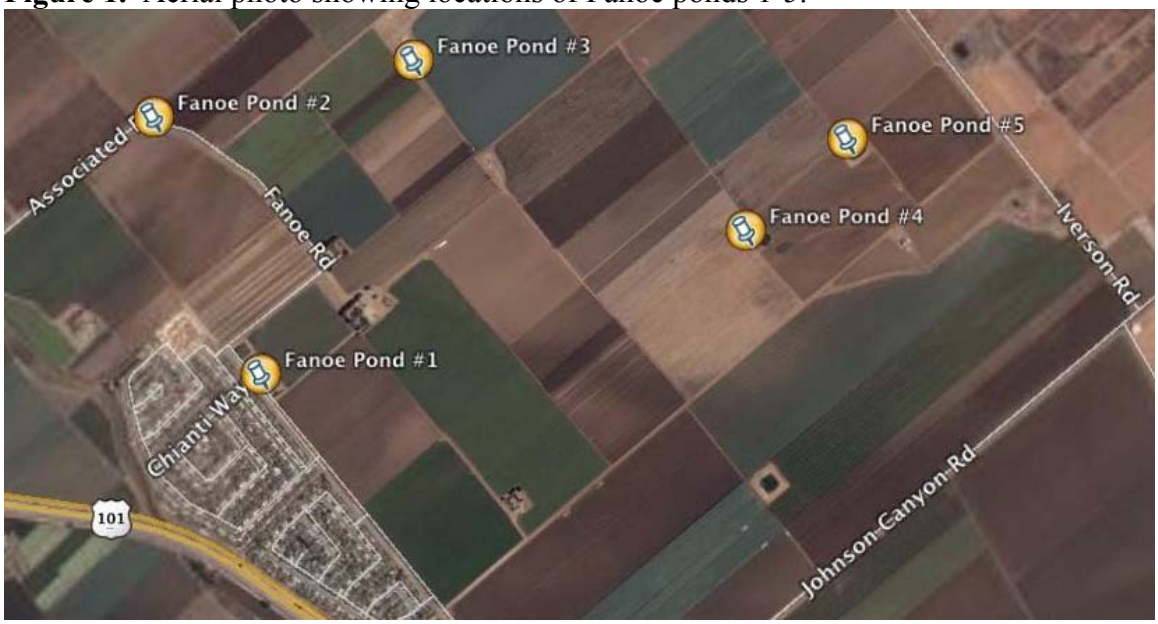
'ga' freq	FoxG1b	Slc4a4	Dlx3	Contig325	HoxD8	Dloop	Gnat2	Gnat1	Average (All)	Average (Nuclear)
Pond1	0.00	0.00	0.05	0.00	0.33	N/A	0.05	0.05	N/A	0.07
Pond2	0.00	0.00	0.00	0.00	0.80	N/A	0.00	0.20	N/A	0.14
Pond3	0.00	0.00	0.05	0.00	0.58	N/A	0.00	0.00	N/A	0.09
Pond4	0.15	0.17	0.14	0.00	0.38	N/A	0.19	0.25	N/A	0.18
Combined	0.04	0.04	0.06	0.00	0.52	N/A	0.06	0.13	N/A	0.12

'aa' freq	FoxG1b	Slc4a4	Dlx3	Contig325	HoxD8	Dloop	Gnat2	Gnat1	Average (All)	Average (Nuclear)
Pond1	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.10	0.05	0.06
Pond2	0.00	0.00	0.00	0.06	0.20	0.00	0.00	0.15	0.05	0.06
Pond3	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.03	0.03
Pond4	0.00	0.00	0.05	0.00	0.24	0.00	0.00	0.00	0.04	0.04
Combined	0.00	0.00	0.01	0.01	0.23	0.00	0.00	0.06	0.04	0.05

Table 2. Hybrid index (HI) score for each Fanoe pond. HI=(total # of native alleles ['a'])÷(total # of alleles).

	HI Scores
Pond1	0.0798
Pond2	0.1132
Pond3	0.0649
Pond4	0.1166

Figure 1. Aerial photo showing locations of Fanoe ponds 1-5.



Appendix 1: Raw genotype data for each individual genotyped at 8 SNP loci. 'gg' represents homozygous introduced, 'aa' represents homozygous native, and 'ga' represents heterozygous genotypes. 'Neg.' refers to absent data.

HBS#	FoxG1b	Slc4a4	Dlx3	Contig325	HoxD8R	Dloop	Gnat2R	Gnat1N	Pond
107350	gg	gg	gg	gg	gg	gg	gg	gg	1
107357	gg	gg	gg	gg	gg	gg	gg	gg	1
107364	gg	gg	gg	gg	gg	gg	gg	aa	1
107351	gg	gg	gg	gg	gg	gg	gg	gg	1
107358	gg	gg	gg	gg	gg	gg	gg	aa	1
107365	gg	gg	gg	gg	gg	gg	gg	Neg.	1
107352	gg	gg	gg	gg	aa	gg	gg	gg	1
107359	gg	gg	ga	gg	ga	gg	gg	gg	1
107366	gg	gg	gg	Neg.	ga	gg	gg	gg	1
107353	gg	gg	gg	gg	ga	gg	gg	ga	1
107360	gg	gg	gg	gg	gg	gg	gg	gg	1
107367	gg	gg	gg	gg	ga	gg	gg	gg	1
107354	gg	gg	gg	gg	aa	gg	gg	gg	1
107361	gg	gg	gg	Neg.	ga	gg	gg	gg	1
107368	gg	gg	gg	gg	aa	gg	gg	gg	1
107355	gg	gg	gg	gg	aa	gg	gg	gg	1
107362	Neg.	gg	gg	gg	aa	gg	gg	gg	1
107369	gg	gg	gg	gg	gg	gg	gg	gg	1
107356	gg	gg	gg	gg	ga	gg	ga	gg	1
107363	gg	gg	Neg.	gg	ga	gg	gg	gg	1
107370	gg	gg	gg	gg	aa	gg	gg	gg	1
107290	gg	gg	gg	gg	aa	gg	gg	aa	2
107297	gg	gg	gg	gg	aa	gg	gg	aa	2
107304	gg	gg	gg	gg	ga	gg	gg	gg	2
107291	gg	gg	gg	gg	ga	gg	gg	ga	2
107298	gg	gg	gg	gg	ga	gg	gg	gg	2
107305	gg	gg	gg	gg	ga	gg	gg	gg	2
107292	gg	gg	gg	Neg.	ga	gg	gg	gg	2
107299	gg	gg	gg	aa	ga	gg	gg	gg	2
107306	gg	gg	gg	gg	ga	gg	gg	ga	2
107293	gg	gg	gg	gg	ga	gg	gg	gg	2
107300	gg	gg	gg	Neg.	ga	gg	gg	gg	2
107307	Neg.	Neg.	Neg.	Neg.	Neg.	gg	gg	gg	2
107294	gg	gg	gg	gg	ga	gg	gg	aa	2
107301	gg	gg	gg	gg	ga	gg	gg	gg	2
107308	gg	gg	gg	gg	ga	gg	gg	gg	2
107295	gg	gg	gg	gg	ga	gg	gg	ga	2
107302	gg	gg	gg	Neg.	ga	gg	gg	gg	2
107309	gg	gg	gg	gg	aa	gg	gg	gg	2

107296	gg	gg	gg	gg	ga	gg	gg	ga	2
107303	gg	gg	gg	gg	ga	gg	gg	gg	2
107310	gg	gg	gg	gg	aa	gg	gg	Neg.	2
107379	gg	gg	gg	gg	ga	gg	gg	gg	3
107386	gg	gg	gg	gg	ga	gg	gg	gg	3
107393	gg	Neg.	gg	gg	ga	gg	gg	gg	3
107380	gg	gg	gg	gg	aa	gg	gg	gg	3
107387	gg	gg	gg	gg	aa	gg	gg	gg	3
107394	gg	Neg.	gg	Neg.	Neg.	gg	gg	gg	3
107381	gg	gg	gg	gg	aa	gg	gg	gg	3
107388	gg	gg	gg	gg	ga	gg	gg	gg	3
107395	gg	gg	ga	gg	gg	gg	gg	gg	3
107382	gg	gg	gg	gg	ga	gg	gg	gg	3
107389	gg	gg	gg	gg	ga	gg	gg	Neg.	3
107396	gg	gg	gg	Neg.	Neg.	gg	gg	gg	3
107383	gg	gg	gg	Neg.	gg	gg	gg	gg	3
107390	gg	gg	gg	gg	gg	gg	gg	gg	3
107397	gg	gg	gg	gg	ga	gg	gg	Neg.	3
107384	gg	gg	gg	gg	ga	Neg.	gg	gg	3
107391	gg	gg	gg	gg	aa	Neg.	gg	gg	3
107398	gg	Neg.	gg	Neg.	gg	Neg.	gg	gg	3
107385	gg	gg	gg	gg	ga	gg	gg	gg	3
107392	gg	gg	gg	gg	ga	gg	gg	gg	3
107399	gg	gg	gg	gg	ga	gg	gg	gg	3
107406	gg	gg	gg	gg	gg	gg	gg	gg	4
107413	gg	Neg.	gg	gg	gg	gg	gg	Neg.	4
107420	gg	Neg.	gg	gg	gg	gg	gg	gg	4
107407	gg	ga	gg	gg	gg	gg	gg	gg	4
107414	gg	gg	gg	gg	aa	gg	ga	gg	4
107421	gg	gg	ga	gg	gg	gg	gg	ga	4
107408	gg	gg	gg	gg	ga	gg	gg	ga	4
107415	Neg.	gg	ga	gg	aa	gg	gg	ga	4
107422	gg	gg	gg	gg	ga	gg	gg	gg	4
107409	gg	gg	gg	gg	ga	gg	ga	gg	4
107416	gg	gg	gg	gg	ga	gg	gg	gg	4
107423	ga	gg	gg	gg	ga	gg	gg	gg	4
107410	gg	gg	gg	gg	gg	gg	ga	gg	4
107417	ga	gg	gg	gg	gg	gg	gg	ga	4
107424	gg	gg	gg	gg	ga	gg	gg	gg	4
107411	gg	gg	aa	gg	gg	gg	gg	gg	4
107418	gg	gg	gg	gg	aa	gg	gg	gg	4
107425	ga	Neg.	gg	gg	aa	gg	ga	gg	4
107412	gg	ga	ga	gg	aa	gg	gg	ga	4

107419	gg	ga	gg	gg	ga	gg	gg	gg	4
107426	gg	gg	gg	gg	ga	gg	gg	gg	4

APPENDIX B: USFWS CONCURRENCE LETTER (JUNE 2007)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
PAS: 3369.5109.7279

June 15, 2007

Robert J. Uram
Sheppard, Mullin, Richter, and Hampton, LLP
Four Embarcadero Center, 17th Floor
San Francisco, California 94111-4106

Subject: Regulatory Status of the Tiger Salamander Population at Cielo Grande Ranch (Assessor's Parcel Numbers 014-030-029 through 014-030-032; 014-030-034 through 014-030-039; and 014-030-056) in Gonzales, Monterey County, California

Dear Mr. Uram:

I am writing in response to your letter, dated March 9, 2007, and received in our office on March 12, 2007, requesting our concurrence that the population of tiger salamanders currently occupying ponds on the subject project site is not subject to protection under the Federal Endangered Species Act of 1973, as amended (Act). On March 19, 2007, we requested clarification of several issues related to your March 9, 2007, letter, including a characterization of aquatic habitats in the vicinity of the project site and details of the genetic research conducted on salamanders from the subject property. You responded to our request with a letter and additional information, dated May 11, 2007, which we received in our office on May 14, 2007.

The U.S. Fish and Wildlife Service's (Service) responsibilities include administering the Act, including sections 7, 9, and 10. Section 9 of the Act prohibits the taking of any federally listed endangered or threatened species. Section 3(18) of the Act defines take to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Service regulations (50 CFR 17.3) define harm to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. Harassment is defined by the Service as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. The Act provides for civil and criminal penalties for the unlawful taking of listed species. Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways: through interagency consultation for projects with Federal involvement pursuant to section 7 or through the issuance of an incidental take permit under section 10(a)(1)(B) of the Act.

On August 3, 2004, the Service published a final rule listing the California tiger salamander (*Ambystoma californiense*) as threatened range-wide, which included down-listing the previously federally endangered Sonoma and Santa Barbara distinct population segments (69 Federal Register

(FR) 47212). On August 19, 2005, U.S. District Judge William Alsup vacated the Service's down-listing of the Sonoma and Santa Barbara populations from endangered to threatened. Therefore, the Sonoma and Santa Barbara populations of the California tiger salamander are listed as endangered, and the Central California populations (including those occurring in Monterey County) are listed as threatened.

In the 1940s and 1950s, bait dealers from the Salinas Valley in Monterey County imported thousands of barred tiger salamander (*Ambystoma tigrinum mavortium*) larvae from Texas and other parts of the southwestern United States (Riley et al. 2003). Many of the non-native barred tiger salamanders were released in the hope of establishing harvestable populations in central California because they attain larger size prior to metamorphosis and can be available further into the summer than native California tiger salamanders. As a result of these introductions, non-native tiger salamanders established reproductive populations within dispersal distance of populations of California tiger salamanders.

One of the primary threats to the California tiger salamander is hybridization with non-native tiger salamanders in areas where the non-native salamanders were introduced and established viable populations (69 FR 47212). Hybridization between California tiger salamanders and non-native tiger salamanders results in introgression (i.e., the exchange of genetic material between different species or sub-species). Depending on the degree and extent of introgression (i.e., the number of reproductive generations between hybrid salamanders), certain populations of California tiger salamanders may become populations of salamanders with primarily non-native genes. Such genetic change has been characterized as a kind of extinction (Rhymer and Simberloff 1996), and may result in a population with fundamentally altered ecological function (Ellstrand and Schierenbeck 2000).

The August 3, 2004, listing rule for the California tiger salamander identified hybridization with non-native salamanders as a serious threat to the species in the Central Coast region of California (69 FR 47239). Research indicates that within this region, many Monterey County populations of the California tiger salamander are compromised by non-native genes to varying degrees (Fitzpatrick and Shaffer 2007).

As outlined in your March 9, 2007, and May 11, 2007, letters, Dr. H. Bradley Shaffer of the University of California at Davis conducted genetic analysis of larval salamanders from four ponds on the subject property and from seven additional aquatic sites in the vicinity of the subject property. To evaluate the genetics of the salamander population at the subject property, Dr. Shaffer and a colleague analyzed tissue from 21 larval salamanders at each of four ponds on the site (Johnson and Shaffer 2006). A fifth pond occurs on the site; however, Dr. Shaffer did not detect any larvae in this pond despite extensive sampling with a 15-foot long seine. Dr. Shaffer then genotyped individual tissue samples for one mitochondrial single nucleotide polymorphism (SNP) locus (Dloop) and up to seven nuclear SNP loci (FoxG1b, Slc4a4, Dlx3, Contig325, HoxD8, Gnat2, and Gnat1 (Voss et al. 2001)). Through previous research, Dr. Shaffer and his colleagues have identified diagnostic differences between *Ambystoma tigrinum* and *A. californiense* at each of these loci (Fitzpatrick and Shaffer 2004).

At each SNP locus, each individual was scored as 'aa' if it was homozygous for native alleles, 'gg' if it was homozygous for introduced alleles, or 'ga' if it was heterozygous, with one copy each of a native and introduced allele. These data were summarized, for each gene at each pond, as the total frequencies of each genotype. Dr. Shaffer then calculated a Hybrid Index score for each pond by tallying the proportion of alleles (pooled across individuals and genes) that are native for each pond,

using the formula Hybrid Index = (total number of native alleles)/(total number of alleles). This Hybrid Index score is one way of summarizing the overall level of "nativeness" of a sample of animals from a pond (Johnson and Shaffer 2006).

Using these methods, Dr. Shaffer calculated Hybrid Index scores of 0.0798, 0.1132, 0.0649, and 0.1166 for the four ponds on the project site. In other words, for the 9 genetic loci analyzed, none of the ponds contained less than 88.34 percent non-native alleles. In addition, none of the 84 larval salamanders that Dr. Shaffer sampled were found to be pure California tiger salamanders. As a result of these investigations, Dr. Shaffer concluded that "all of the animals in all ponds [on the proposed project site] contain primarily non-native gene copies" (Johnson and Shaffer 2006).

In addition to the genetic analysis conducted on tiger salamanders from the ponds on the subject property, Dr. Shaffer and his colleagues conducted genetic analyses between 1997 and 2003 on tiger salamanders from seven additional aquatic sites within 1.2 miles (the maximum known dispersal distance for California tiger salamanders) of the subject property. These earlier genetic analyses were not as advanced or rigorous as the techniques used in 2006 to evaluate the genetics of salamanders from the subject property. Despite these limitations, Dr. Shaffer and his colleagues detected considerable levels of introgression in salamanders sampled from the seven aquatic sites within dispersal distance of the subject property. Specifically, researchers determined (based on evaluating 1 mitochondrial and 4 nuclear genetic loci) that the mean introduced allele frequencies for the seven sites were 0.487, 0.782, 0.697, 0.972, 0.55, 0.76, and 0.518. Considering that between 4 and 10 reproductive seasons have passed since several of these sites were sampled (i.e., since 1997 (10) and since 2003 (4)), the level of genetic introgression at all of these 7 sites may have increased since these allele frequencies were calculated.

We have carefully reviewed the information you provided with your March 9, 2007, and May 11, 2007, letters, including the results of genetic investigations conducted on tiger salamanders from aquatic sites on, adjacent to, and near the subject property. Following our review, we conclude that none of the individual tiger salamanders which comprise the salamander population at the subject property are the listed entity under the Act (i.e., California tiger salamanders). Therefore, tiger salamanders utilizing the ponds on the subject property are not afforded the protections of the Act.

If you have any questions regarding this letter, please contact Roger Root of my staff at (805) 644-1766, extension 336.

Sincerely,

Diane K. Noda

Diane K. Noda
Field Supervisor

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Ellstrand, N.C. and K.A. Schierenbeck. 2000. Hybridization as a stimulus for the evolution of invasiveness in plants? Proceedings of the National Academy of Sciences (USA) 97:7043–7050.

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APPENDIX C: SITE ASSESSMENT AND DATA ON SITE MANAGEMENT (2010)

LIVE OAK ASSOCIATES, INC.
an Ecological Consulting Firm

November 8, 2010

Brandon Sanderson
California Department of Fish and Game, Region 4
3196 Higuera Street, Suite A
San Luis Obispo, CA 93401

RE: Assessment of the Salamanders on the Cielo Grande Ranch, Monterey County, California (PN 570-04)

Dear Brandon:

The following is an assessment of the salamanders occurring on the Cielo Grande Ranch. The approximately 770-acre property is located east of Highway 101, between Fanoe Road and Iverson Road just outside of the City of Gonzales, Monterey County, California. Live Oak Associates, Inc. (LOA) has been surveying the agricultural site for sensitive resources since November 2003 with recent surveys conducted by Dr. Mark R. Jennings in October 2010. As previously discussed, the onsite salamanders are known hybrids between the native California tiger salamander (*Ambystoma californiense*) (CTS) and introduced barred tiger salamander (*Ambystoma tigrinum mavortium*) (TS). It was determined by the U.S. Fish and Wildlife Service on June 15, 2007 that the "tiger salamanders utilizing the ponds on the subject property are not afforded the protections of the [Federal Endangered Species] Act". In light of the recent state listing of the CTS as Threatened on March 19, 2010, LOA is requesting that the California Department of Fish and Game (CDFG) review the project information and determine whether it is possible in this unique situation that the salamander population on the property is not protected under the California Endangered Species Act (CESA) and a Section 2081 Incidental Take Permit (ITP) in not necessary for future impacts to the onsite hybrid salamanders.

CDFG Site Assessment

Element 1. Is the project site within the range of CTS?

CTS may have once been present in the general vicinity of the project site. However, due to extensive agricultural conversion of the property and the immediate surrounding area, coupled with the extensive translocation of larval TS as fish bait from Texas (=thousands of individuals multiple times) over six decades ago, it is highly likely the native CTS has been completely replaced in this part of the Salinas Valley by hybrid individuals. This is well documented by Riley et al. (2003), Fitzpatrick and Shaffer (2007), and subsequent publications by the Dr. H. Bradley Shaffer and his colleagues at the University of California at Davis (e.g., see Fitzpatrick

et al. (2010) and Johnson et al. (2010)). Therefore, it is our professional opinion that purebred native CTS populations do not exist within 1.2 miles of the Cielo Grande Ranch.

Element 2. What are the known localities of CTS within the project site and within 3.1 miles (5.0 kilometers) (km) of the project boundaries? This is to place the project site in a regional perspective.

Figure 1 illustrates the location of the four ponds where salamanders have been found onsite, nine offsite ponds sampled by Dr. Shaffer (enclosed Ecological Applications papers), and the single CNDDB salamander sighting (CDFG 2010). It is likely that the 1995 CNDDB sighting from the landfill is in a pond sampled by Dr. Shaffer and his laboratory as well. All documented occurrences consist of hybrid individuals. The table included in Figure 1 lists the mean introduced allele frequency of the four onsite ponds and nine offsite ponds which ranges from 0.487 to 0.972 with all but one being greater than 0.500. Dr. Shaffer and his colleagues have "found clear genetic evidence of extensive hybridization between the declining native salamander *Ambystoma californiense* and its invasive relative *A. tigrinum*." He has also concluded that there is a "hybrid swarm" throughout the Salinas Valley, with most everything in the region being quite non-native. So far, these hybrid salamanders have not gained a foothold in the hilly areas surrounding the Salinas Valley floor (>3.1 miles away), probably due to the lack of perennial breeding ponds which favor TS and the hybrid individuals.

Element 3. What are the habitats within the project site and within 1.24 miles (2 km) of the project boundaries? This distance is based on the observed mobility of the species.

The surrounding habitat consists primarily of intensively farmed row crop agricultural fields (with drainage ponds), similar to that of the Cielo Grande Ranch (Figure 2). A vineyard is located to the northeast of the property. Additionally, development associated with the City of Gonzales is located immediately to the south-southwest of the site, as is Hwy 101 which acts as a complete barrier to any overland salamander movements. There is only a small area of rangeland habitat (~100 acres) within 1.24 miles of the site. This habitat is located on the southeastern edge of the1.24 mile limit and is completely isolated from the site by agriculture, a cattle feedlot, and Johnson Canyon Landfill (Figure 2).

Summary of Site History and Findings

Examination of the four agricultural ponds on the site shows that there is a very high degree of hybridization and backcrossing between native CTS and introduced TS. The values found by Dr. Shaffer fall between 0.883 and 0.935 for the mean introduced allele frequency for the salamander samples from these four ponds. These are very high values and indicate that essentially you have a reproducing population of TS (i.e. larval "fish bait") at this location. The reason the values are high are probably due to: 1) this is very near the location (adjacent to the City of Gonzales) where the original bait bucket introduction of TS larvae took place, 2) the pond environments are perennial, with the exception of when periodically drained, which favors introduced TS over CTS, and 3) the original introduction occurred over 50 years ago so there has been ample opportunity for the hybrid swarm of CTS x TS to equalize at basically a TS phenotype and genotype. These findings are supported in a recent set of genetic publications by Fitzpatrick et al. (2010) and

Johnson et al. (2010). They show the perennial ponds greatly favor hybrid swarms and that over generations, the TS phenotype and genotype have a significant selective advantage.

Given the above, sampling of CTS x TS at other sites in the vicinity for mean introduced allele frequency indicates that although the values are high, they are not nearly as high as the above four ponds. That would indicate that any potential CTS juvenile or adult that might get washed down to this area of hybrid swarm ponds and attempt to breed would be "swamped out" genetically the closer you got to the four ponds on Cielo Grande Ranch. It is highly unlikely that native CTS move overland to the site because of all the extensive agricultural activities year around. Native CTS populations are not breeding in isolation at any of these four ponds. Rather, you have a chance of other hybrid CTS x TS from other ponds in the area straying into these ponds and breeding with the other salamanders present. Based on the high degree of backcrossing and the recent experiments by Johnson et al. (2010), it is known that there are no isolating mechanisms to prevent CTS and TS from breeding together. Thus the potential of a pure bred CTS making it to any of the four ponds is nearly impossible given the present use of the property (all agricultural with plowed fields within a few feet of each pond's edge, etc.) and the significant distance to more temporary ponded habitats in other parts of the valley and foothill areas where introduced hybrid CTS x TS are rarer (at least in the genetic samples). That being said, it is our professional opinion that the four ponds on Cielo Grande Ranch are actually providing one of the major sources of hybrid CTS x TS in the valley and that they are now so much like TS that they are acting as a sink for any CTS (at on a genetic basis) that enters the region. The mean percentage of introduced alleles can only decrease if you make the breeding and rearing environment more suitable for native CTS and less suitable for the hybrid CTS x TS swarm, which is impossible due to the current level of agricultural activities in the Gonzales vicinity. Thus, it is our contention that these four breeding ponds should not be protected and that the introduced CTS x TS swarm at each of these locations should be eliminated.

Besides the above, we noted that the current land use practices are totally unsuitable for native CTS. Besides the biannual crop rotation of lettuce, broccoli, cabbage, cauliflower, and peas (which means that the entire area on the project site and most of the immediate surrounding area is intensively farmed year around), we also found extensive use of rodenticides, herbicides, and fertilizers on the property. For example, we counted 75 rodent bait traps in the drainage along the western edge of the property (near Pond #2) alone. The only rodent burrows on the property can be found immediately next to the edge of the ponds and in drainage ditches where they are not plowed. However, even these are destroyed on an annual or biannual basis according the attached farming regime document.

All of the ponds in question are the result of irrigation runoff due to the crop farming practices. Thus, they are entirely artificial habitats and would dry up if the farming ceased. Further, we observed things like wash out basins for vehicles and diesel storage and filling locations very close to Pond #3.

Finally, it is the professional scientific opinion of others that hybrid salamanders are a threat to native CTS and other native amphibian populations in the Salinas Valley region. We encourage you to read the opinions stated in the publications of Ryan et al (2009), Fitzpatrick et al. (2010), and Johnson et al. (2010). This issue continues to be of importance to individuals in the Shaffer

laboratory and the following manuscript that is currently being reviewed for publication: Ryan, M. E., J. R. Johnson, B. M. Fitzpatrick, L. J. Lowenstine, A. M. Picco, and H. B. Shaffer. (in review). Agricultural landscape favors introduced hybrid salamanders over threatened California salamanders. Conservation Biology.

Additional Survey Efforts

If CDFG does not feel that the current data are sufficient to support a finding that an ITP is not necessary, additional surveying could be conducted onsite. These surveys could include larvae surveys in the dry season to document the uncharacteristic behaviors of the onsite salamanders and phenotype of the TS hybrid individuals. If necessary, a second set of genetic samples could be collected earlier in the rainy season to determine if the mean introduced allele frequency may be lower. However, it is not believed that these data would be as valuable as the data collected in May 2006 to sufficiently support the low level of native genes remaining in the onsite population and the immediate area in the vicinity of the site due to the fact that extensive hybridization has already been well documented in peer-reviewed scientific publications. CDFG has also mentioned the potential need for modified pitfall arrays to be installed. Pitfall arrays would cost the applicant an exorbitant amount of money and would not likely result in significant data to add to the information we already have. The likelihood of pure or almost pure native salamanders coming into the ponds on site to breed is nearly impossible.

Farming Regime

Enclosed is data obtained from the farmer on the Cielo Grande Ranch farming regime.

Please contact Melissa Denena at 408-224-8300 or mdenena@loainc.com if you have any further questions at this time. We look forward to hearing from you.

Sincerely,

Mark R. Jennings (MD)

Mark R. Jennings, Ph.D.
Associate Herpetologist

Cc: Glenn Pace, Pembrook Development, LLC
Katharine Hardt-Mason, Hardt Mason Law

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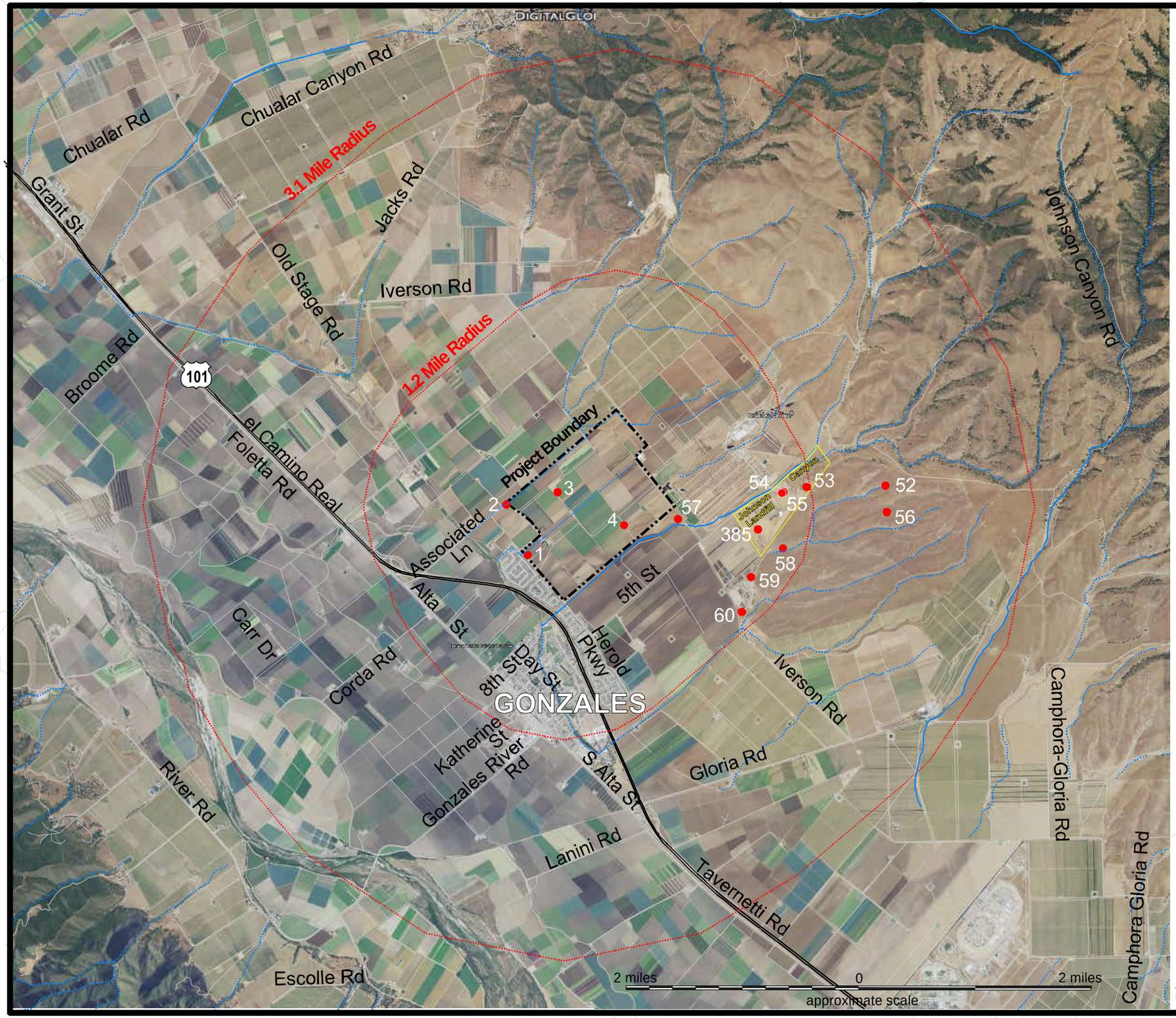


SHAFFER LAB DATA			
Site Number	**Pond Type**	**Number of Larvae Assayed**	**Mean Introduced Allele Frequency**
J.R. Johnson and H.B. Shaffer (2006)			
● 1	Perennial		0.920
● 2	Perennial		0.887
● 3	Perennial		0.935
● 4	Perennial		0.883
B.M. Fitzpatrick and H.B. Shaffer (2007)			
● 52	Seasonal	51	0.641
● 53	Seasonal	65	0.487
● 54*	Perennial	32	0.782
● 55	Perennial	42	0.697
● 56	Seasonal	51	0.561
● 57	Perennial	6	0.972
● 58	Seasonal	49	0.550
● 59*	Seasonal	43	0.760
● 60*	Seasonal	40	0.518

CALIFORNIA NATURAL DIVERSITY DATABASE			
Occur. Number	**Pond Type**	**Number of Larvae Observed**	**Date**
● 385	Two Sedimentation Ponds	2 Adults > 100 Larvae	4-12-1995

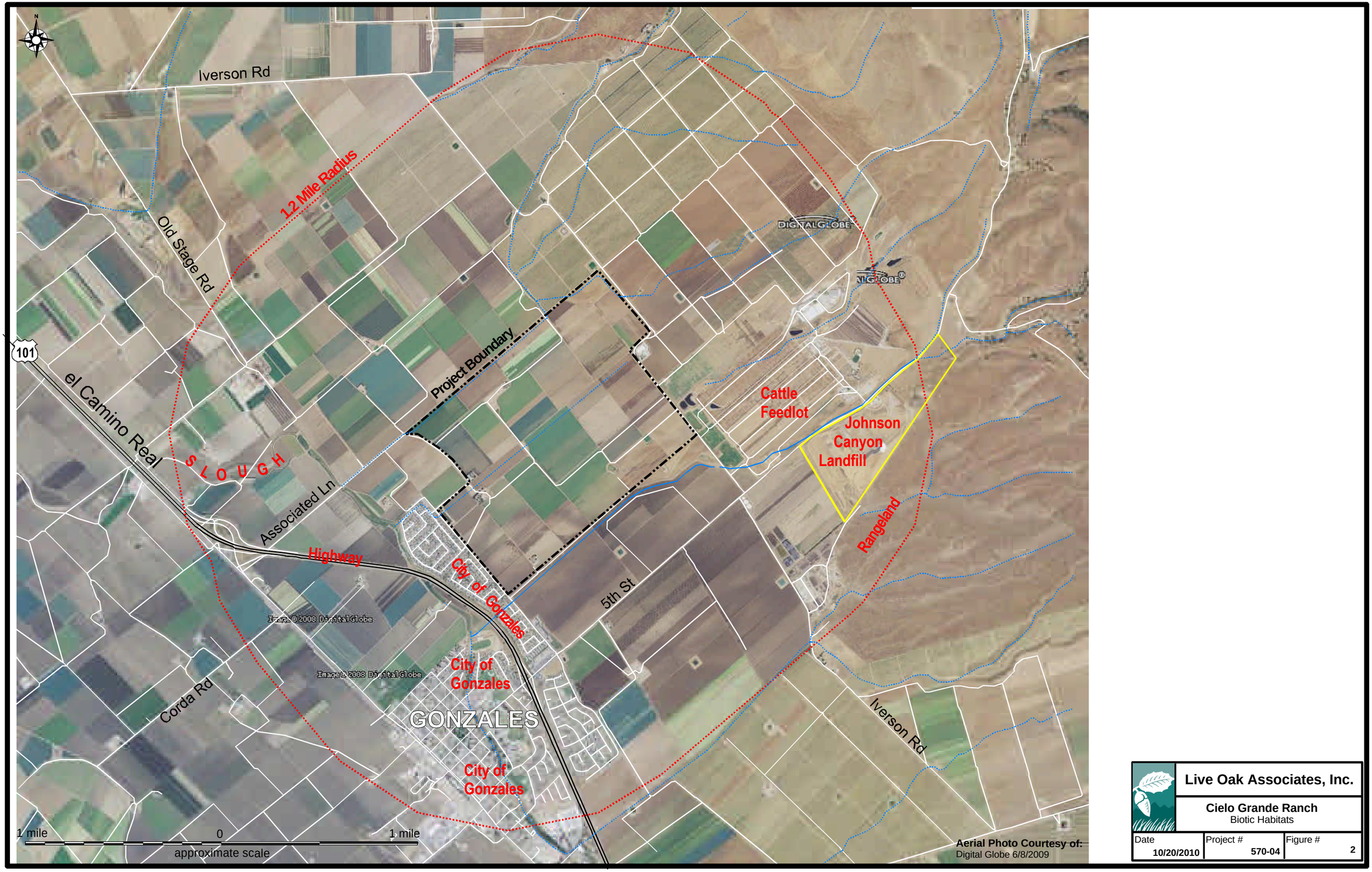
* *Data also published in Riley et al. (2003)*

Aerial Photo Courtesy of:
Digital Globe 6/8/2009

Live Oak Associates, Inc.

Cielo Grande Ranch
Salamander Localities

Date	Project #	Figure #
10/20/2010	**570-04**	**1**



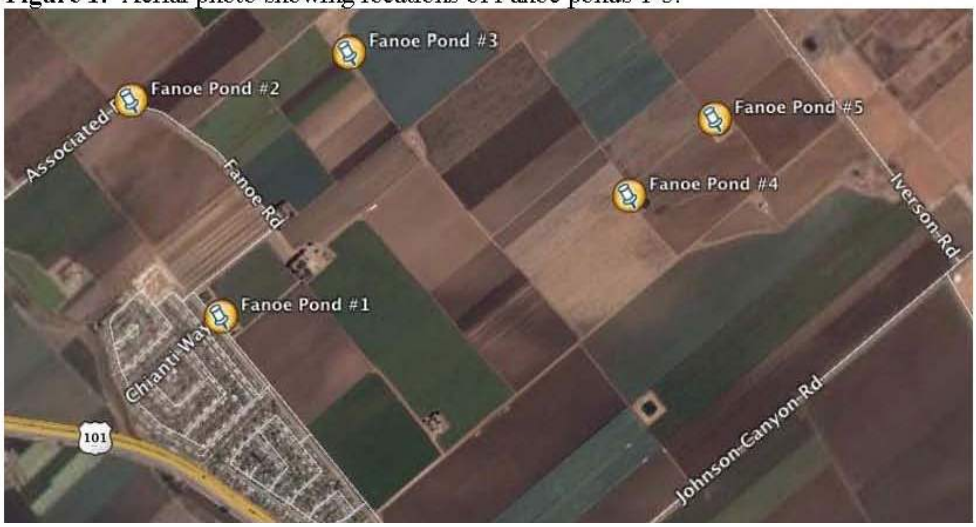
Live Oak Associates, Inc.

Cielo Grande Ranch
Biotic Habitats

Date	Project #	Figure #
10/20/2010	570-04	2

Cielo Grande Ranch Farming Regime

Figure 1. Aerial photo showing locations of Fanoe ponds 1-5.



	Pond 1	Pond 2	Pond 3	Pond 4	Pond 5
Managed for Tailwater (Y/N)	Y	Y	Y	Y	N
Water Pumped In (Y/N)	N	N	N	N	N
Outlet Present (Y/N)	Y	Y	Y	Y	Y
Fish (Y/N)	N	N	N	N	N, planted with fish approx. 40 years ago
Overall Function	Tail water	Tail water	Tail water	Tail water	Irrigation
Cleaned	Every 2-3 years	Every 1-2 years	Every 1-2 years	Annually	None
Barred Tiger Salamanders Introduced or Harvested (Y/N)	N	N	N	N	N
Misc. Notes	Water from Ponds 1-4 is pumped into the nearest creek which flows into Gonzales Slough. All ponds are drained at least annually. Once they are dry, they are bulldozed to remove silt.				

	Agricultural Fields
Regular Maintenance	Normal row crop maintenance
Types of Crops Planted	Lettuce, broccoli, cauliflower, peas
Number of Crops per Year	Two
Type of Irrigation	Drip and sprinklers
Frequency of Irrigation	Approx. average of 10 days

APPENDIX D: REPRESENTATIVE PHOTOS

Picture 1: Middle portion of Vista Lucia site Pond 1 (March 8, 2018).

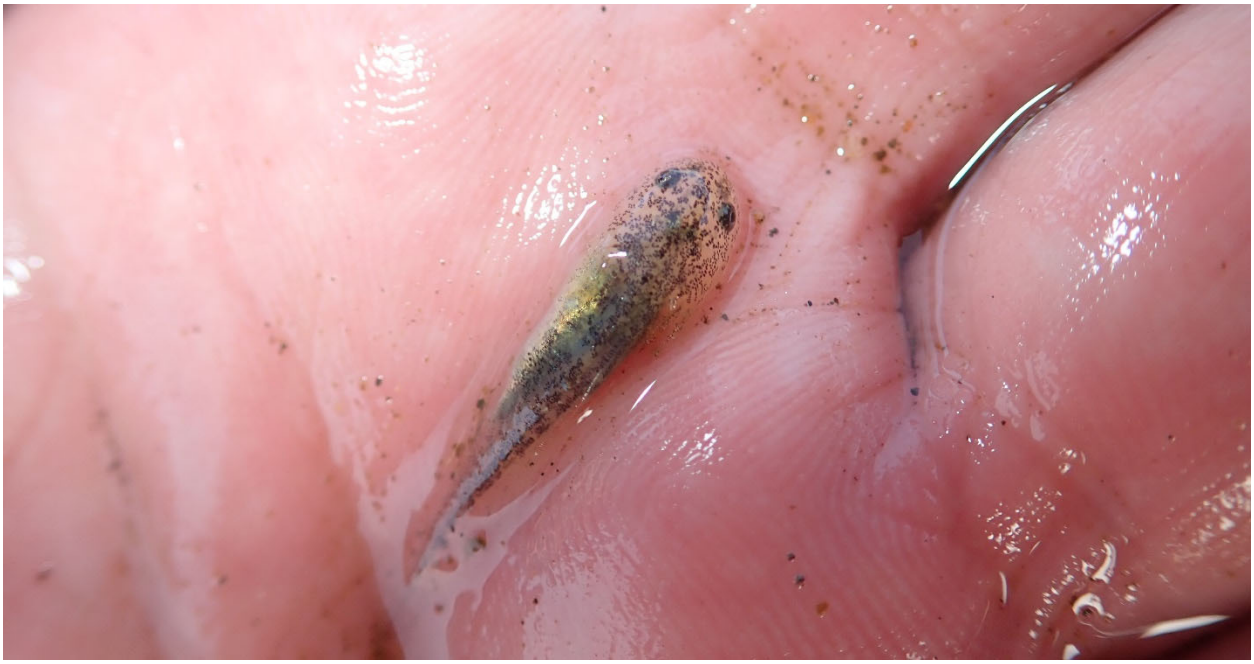
Picture 2: Vista Lucia site Pond 2 with Robert Cooper (UCLA) and Robert Shields (LOA) seining (March 8, 2018).

Picture 3: Vista Lucia site Pond 3 (March 29, 2018).

Picture 4: A portion of Vista Lucia site Pond 4 (March 8, 2018).

Picture 5: A portion of Vista Lucia site Pond 5 (March 8, 2018).

Picture 6: A portion of Vista Lucia site Pond 6 (May 14, 2018).



Picture 7: Salamander larvae captured in Vista Lucia site Pond 1 (March 8, 2018).

Picture 8: Salamander larvae captured in Vista Lucia site Pond 1 (March 29, 2018).

Picture 9: Salamander larvae captured in Vista Lucia site Pond 1 (May 14, 2018).

Picture 10: Salamander adults captured in Vista Lucia site Pond 4 (May 14, 2018).

APPENDIX E: UCLA'S CIELO GRANDE SALAMANDER GENOTYPING REPORT (2019)

Cielo Grande Salamander Genotyping Report

23 April 2019

Prepared for:

Glenn M. Pace

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In fulfillment of
UCLA Agreement Number 20190574

Introduction

In collaboration with colleagues at Live Oak Associates, and in fulfillment of a contract with Cielo Grande Ranch, LLC, we determined the status of the tiger salamander populations on the Cielo Grande Ranch property in Monterey County, California. This report presents our methods and findings, and is the final deliverable in fulfillment of the contract.

Our study site included the Fanoe (or "Cielo Grande") Ponds, which are located adjacent to, and up to 1.1 miles north/northeast of, the boundary of the City of Gonzales in Monterey County, California. The goal of this study was to determine the fractional representation of native and non-native genes of the resident tiger salamanders on the property. In the remainder of this report, we present our genomic methods, results, and conclusions from this genotyping study.

Figure 1: Pond localities, near the city of Gonzalez, Monterey County, California.

Methods

We conducted field sampling, genetic processing of larval tail clips, and downstream bioinformatics and data analysis, to determine the native and non-native allele frequencies from samples collected throughout three sampling periods in 2018 and one sampling period in 2006. Our goals were to use the newest available genomic technologies to quantify the precise fraction

of native and non-native alleles in all samples, and to quantify trends over time across sampling periods.

Field sampling, laboratory methods, and genotyping

Tissue samples of 195 salamanders were collected from 5 ponds (Fanoe Ponds 1, 2, 3, 4, and 6) in 2006 and 2018 (Figure 1, Table 1). Our collections were from a single date in 2006, and three times during the larval period in 2018 (Table 1). Our sampling was not equally successful across ponds and dates, as reported in Table 1. Although we sometimes collected more, we analyzed up to 10 individual salamander samples per pond per collection date for genetic analysis, and analyzed each sample for a panel of 5237 informative genes, allowing an extremely detailed examination of changes in overall genetic composition over space (among ponds) and over time (between 2006 and 2018, and among three sampling periods in 2018). This sampling resulted in a total of 87 salamanders being genotyped: 40 from 2006 (ponds 1, 2, 3 & 4), 10 from March 8th 2018 (pond 1 only), 20 from March 29th 2018 (ponds, 1, 4, 6) and 17 from May 14th 2018 (ponds 1, 4, 6). We are confident that by sampling a large number of genes we provide an adequate representation of genotype frequencies across these sampling periods.

All samples were subjected to DNA extraction using a salt extraction protocol (Sambrook & Russell, 2001). DNA extractions were normalized to 100 ng/uL and sonicated on a BioRuptor NGS (Diagenode) for 28 cycles on high (30s on, 90s off). Sheared extractions were dual-end size selected with SPRI beads to approximately 300-500 bp (0.8x – 1.0x SPRI), and libraries were prepared using KAPA LTP half reactions (KAPA Biosystems) and dual 8-bp indices (Glenn et al., 2016). Libraries were pooled into 4,000 ng enrichment reactions (8 samples with 500 ng apiece) and enriched for a custom set of 5,237 exons using biotinylated RNA probes (Arbor Biosciences, Ann Arbor, MI) in the presence of 30,000 ng of custom *Ambystoma* C_0t-1 (McCartney-Melstad, Mount, & Shaffer, 2016). Enrichment reactions were amplified using 14 cycles of PCR and pooled into approximately one half of an Illumina HiSeq 4000 150 bp PE lane for sequencing at the Vincent J. Coates Genomics Sequencing Laboratory at UC Berkeley.

Date	Pond 1	Pond 2	Pond 3	Pond 4	Pond 6
2006May29	10 / 29	10 / 31	10 / 27	10 / 44	-
2018Mar08	10 / 10	-	-	-	-
2018Mar29	10 / 21	-	-	8 / 8	2 / 2
2018May14	10 / 16	-	-	6 / 6	1 / 1

Table 1: Sample counts for each pond over one sampling period in 2006 and three sampling periods in 2018. The number of samples included for genotyping is indicated to the left of the slash ("/"); the total number of samples collected from the field is indicated to the right of the slash.

Raw sequence reads were trimmed for adapter contamination using *Skewer v.0.2.2* (Jiang, Lei, Ding, & Zhu, 2014). Trimmed reads were mapped to the closely related axolotl (*Ambystoma mexicanum*) reference genome assembly v.4 (Nowoshilow et al., 2018; Smith et al., 2019) using *bwa mem v.0.7.15* (Li, 2013). *Picard v.2.18.22* (Broad Institute, 2014) was then used to add read group information and mark duplicates. *HaplotypeCaller* in *GATK v3.8* (DePristo et al., 2011; Poplin et al., 2017; Van der Auwera et al., 2013) was used to generate gVCF files, followed by

SNP and genotype calling using *GenotypeGVCFs*. SNPs were then filtered according to the following hard filters: QD<2.0, MQ<40.0, FS>60.0, MQRankSum<-12.5, ReadPosRankSum<-8.0, and QUAL<30 for SNPs, and QD<2.0, SOR>10.0, FS>60.0, ReadPosRankSum<-8.0, and QUAL<30 for indels. Genotype calls with GQ<20 or with a depth<8 were set to missing data. The resulting dataset consisted of high-quality genotypes sequenced at high depth, resulting in very accurate sequence data.

Hybrid inference

To characterize stretches of DNA as arising from endangered California tiger salamanders (CTS, *Ambystoma californiense*) or introduced barred tiger salamanders (BTS, *Ambystoma mavortium*), we leveraged a large set of 3,705 additional tiger salamanders that we have genotyped in our lab for other projects. This gave us a large comparative sample, which allowed us to confidently assign DNA sequences occurring at each gene as either native or introduced.

Heterozygous genotype calls were phased to parental chromosomes using *WhatsHap v.0.17* (Patterson et al., 2015). Phased variants were then filtered to remove samples containing more than 75% missing data, and indel variants were discarded. Sites that contained more than 25% missing data across the full group of 3,672 samples were discarded. Two phased haplotypes were extracted for each sample for each of the 4,723 exon targets that aligned a single time to the axolotl reference genome. The non-redundant set of haplotypes for each target was then subjected to maximum likelihood phylogenetic reconstruction using *FastTree v2.1.10* (Price, Dehal, & Arkin, 2010).

Two groups of reference ambystomatid salamanders were designated as pure individuals of their representative lineages: (1) 41 introduced barred tiger salamanders collected at Five Star Fish Farm in Lake County, CA (outside the native range of native California tiger salamanders) as well as 20 barred tiger salamander from other US states to represent the breadth of barred tiger salamander genetic variation; and (2) 50 pure native California tiger salamanders from each of Great Valley Grasslands State Park in Merced County, southern Sonoma County, and northwestern Santa Barbara County to represent the major clades of native genetic variation.

The haplotypes belonging to these two pure reference groups were used to define most recent common ancestor (MRCA) nodes on the gene tree of each exon target. Then, the haplotypes of each salamander (including the 87 salamanders from the Fanoe ponds) were scored as arising from barred tiger salamander, California tiger salamander, or "unable to score" on the basis of the distance of the haplotypes to the MRCA nodes of each species. A new set of reference pure California tiger salamanders was then selected based on animals that did not contain at least two contiguous barred tiger salamander haplotypes on any of the 14 axolotl reference assembly chromosomes, and the scoring of hybrid animals was then re-run using this expanded set of reference pure California tiger salamanders. Final hybrid index scores (also referred to as percent BTS, or %BTS) were calculated for each individual salamander sample by dividing the number of barred tiger salamander alleles by the total number of alleles scored for that sample. For example, if an individual was successfully scored for 4000 genes (8000 alleles, since these

salamanders are diploid and have a maternal and paternal copy of each gene), and 7000 of those alleles were BTS, then its %BTS would be 7000/8000 x 100, or 87.5% BTS.

Analysis of hybrid trends

The set of 87 salamanders collected and genotyped from the Fanoe ponds in 2006 and 2018 were then analyzed for trends in hybrid index score. Welch's two sample t-tests (Welch, 1947) were used to compare year or pond hybrid index score means (depending on the specific question) after confirming normality with Shapiro-Wilk tests (Shapiro & Wilk, 1965). Hybrid index scores were visualized using boxplots with overlaid strip charts.

Results and Discussion

The 87 Fanoe ponds samples each received an average of 2,306,501 read pairs (min=1,472,368, max=3,601,409, sd=430,167), or approximately 700 million base pairs (bp) of raw genetic data per salamander. After discarding genotype calls with depth<8 or GQ<20 and sites with missingness>25% across all samples, the mean genotyping rate of the 87 Fanoe ponds samples was 98.07% (min=82.75%, max=99.04%, sd=2.20%).

A total of 3,564 exon targets contained enough information to cleanly separate barred tiger salamander from California tiger salamander haplotypes, while 1,131 targets were not informative and were discarded. The total number of scored haplotypes (with a theoretical maximum of 7,128) for the Fanoe ponds samples ranged from 5,070 to 6,891 (mean=6,666, sd=217). Individual salamander hybrid index scores ranged from 90.86% to 97.97% (mean=94.79%, sd=1.39%), demonstrating that salamanders in the Fanoe ponds are mostly non-native BTS genetically, with roughly 5% of the genome being native CTS.

Question 1: What are the hybrid index scores of samples collected in 2018?

The hybrid index scores for the samples collected in 2018 from each of the three ponds are shown in Figure 2. The mean hybrid index score of samples collected in 2018 from Fanoe 1 was 95.7% (min=92.5%, max=98.0%, sd=1.2%), from Fanoe 4 was 95.0% (min=93.8%, max=96.1%, sd=0.7%), and from Fanoe 6 was 93.3% (min=92.8%, max=94.2%, sd=0.7%).

Question 2: How do hybrid index scores compare between 2006 and 2018?

Shapiro-Wilk tests were used to test normality of each sampling event, recovering no significant deviations from normality.

To compare 2006 to 2018 hybrid index scores, we pooled the hybrid index scores for all samples collected from the Fanoe Ponds in 2006 and 2018; these results are shown in Figure 3. The mean hybrid index scores rose slightly, but significantly from 2006 (94.1%) to 2018 (95.3%) (Welch two-sample t-test, p=4.67e-5).

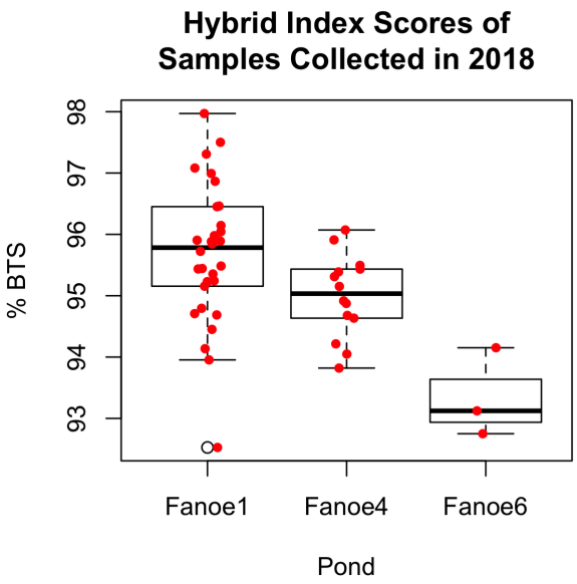

Figure 3: Percent BTS of salamanders collected in 2018 at Fanoe 1, Fanoe 4, and Fanoe 6. Red dots indicate measurements from individual salamanders. Box plots indicate the 25% and 75% quantiles, as well as the median (dark line) and the upper and lower limits of 1.5 times the interquartile range (whiskers). Outliers are plotted as empty circles outside the range of the whiskers.

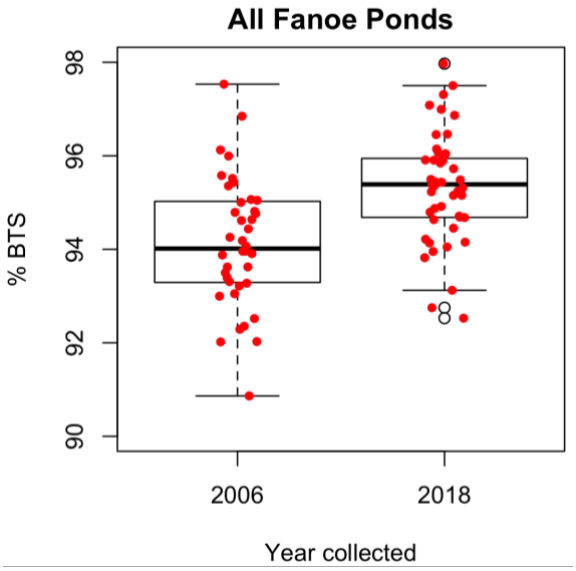

Figure 2: Percent BTS of salamanders collected in 2006 and 2018. Data from all ponds and collection dates are pooled for each year. Red dots indicate the %BTS value of individual salamanders. Box plots indicate the 25% and 75% quantiles, as well as the median (dark line) and the upper and lower limits of 1.5 times the interquartile range (whiskers). Outliers are plotted as empty circles outside the range of the whiskers.

Within ponds: Although mean hybrid index scores increased from 94.7% to 95.7% between 2006 and 2018 in Fanoe 1, this difference was not significant (Welch two sample t-test, p=0.06892), while a significant increase from 93.2% to 95.0% was recovered in Fanoe 4 (Welch two sample t-test, p=0.0008919) (Figure 4).

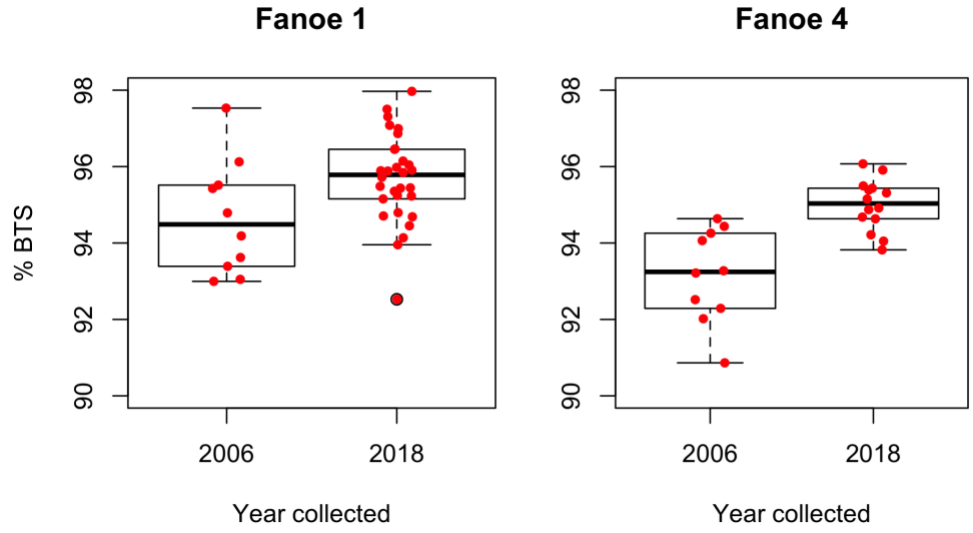

Figure 4: Percent BTS of salamanders collected in 2006 and 2018 at Fanoe 1 and Fanoe 4. Red dots indicate measurements from individual salamanders. Box plots indicate the 25% and 75% quantiles, as well as the median (dark line), the upper and lower limits of 1.5 times the interquartile range (whiskers), and outliers plotted as circles outside the range of the whiskers.

Question 3: Do hybrid index scores change within the 2018 season among the three 2018 sampling dates?

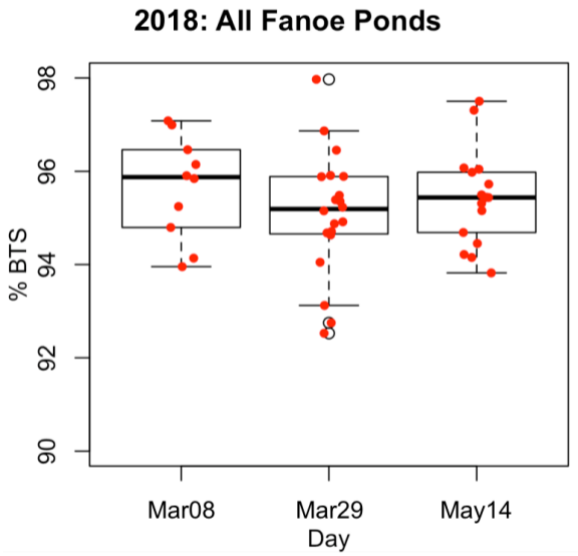

Figure 5: Percent BTS of salamanders collected in the Fanoe ponds on different days in 2018. Red dots indicate measurements from individual salamanders. Box plots indicate the 25% and 75% quantiles, as well as the median (dark line), the upper and lower limits of 1.5 times the interquartile range (whiskers), and outliers plotted as circles outside the range of the whiskers.

Within 2018 sampling days: When combining samples from all Fanoe ponds collected in 2018, the mean hybrid index score from March 8th was 95.7%, from March 29th was 95.1%, and from May 14th was 95.4% These differences were not statistically significant (March 8th vs March 29th : p=0.2304; March 8th vs May 14th : p=0.5946; March 29th vs May 14th : p=0.3912) (Figure 5), indicating that, at least for the 2018 breeding season, there was no significant shift in the hybrid composition of the Fanoe ponds.

Within ponds: Two ponds (Fanoe 4 and Fanoe 6) had two sampling dates in 2018, while Fanoe 1 had three sampling dates in 2018. No statistically significant differences among sampling dates in 2018 within individual ponds were recovered (Figure 6).

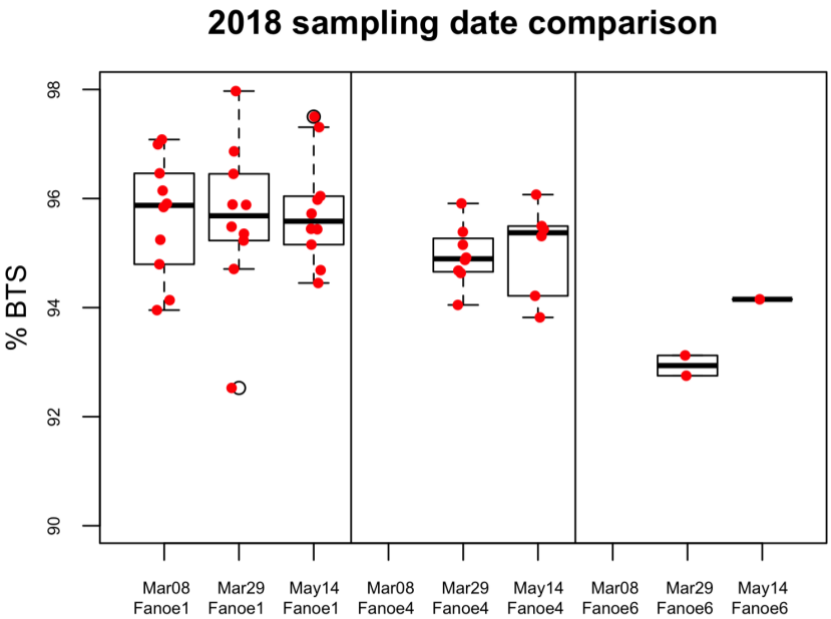

Figure 5: Percent BTS of salamanders collected within each pond on the different sampling dates in 2018. Red dots indicate measurements from individual salamanders. Box plots indicate the 25% and 75% quantiles, as well as the median (dark line), the upper and lower limits of 1.5 times the interquartile range (whiskers), and outliers plotted as circles outside the range of the whiskers.

Conclusion

All samples collected at the Fanoe Ponds in 2006 and 2018 were hybrids that were skewed heavily towards non-native ancestry. The answers to the three questions can be summarized as follows:

1) **What are the hybrid index scores of samples collected in 2018?**
   Hybrid index scores for samples collected in 2018 ranged from 92.5% to 98.0%, with a mean of 95.3% and a standard deviation of 1.2%. (See Appendix for individual salamander values.)
2) **How do hybrid index scores compare between 2006 and 2018?**
   Slight increases in hybrid index scores were observed between 2006 and 2018. Overall (across ponds), mean hybrid index scores significantly increased from 94.1% to 95.3%. Within Fanoe 1, mean hybrid index scores increased from 94.7% to 95.7%, but this was not significant. Within Fanoe 4, mean hybrid index scores significantly increased from 93.2% to 95.0%.
3) **Do hybrid index scores change within the 2018 season?**
   No significant changes in hybrid index score were observed among the three sampling dates in 2018, either across all combined ponds or within each individual pond. These results indicate that in the future a single sample of the annual larval cohort is an adequate representation of the hybrid composition of that pond for that year.

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Appendix

Hybrid index scores for each individual (87 salamanders).

Individual ID	Pond	Date Collected	Hybrid Index Score (%BTS)
107290	Fanoe2	2006May29	95.1%
107294	Fanoe2	2006May29	95.4%
107296	Fanoe2	2006May29	92.4%
107299	Fanoe2	2006May29	92.0%
107308	Fanoe2	2006May29	93.3%
107310	Fanoe2	2006May29	95.6%
107311	Fanoe2	2006May29	93.5%
107314	Fanoe2	2006May29	94.0%
107315	Fanoe2	2006May29	94.0%
107316	Fanoe2	2006May29	94.0%
107350	Fanoe1	2006May29	95.4%
107356	Fanoe1	2006May29	93.0%
107358	Fanoe1	2006May29	93.4%
107360	Fanoe1	2006May29	97.5%
107362	Fanoe1	2006May29	93.0%
107365	Fanoe1	2006May29	96.1%
107370	Fanoe1	2006May29	94.2%
107371	Fanoe1	2006May29	93.6%
107376	Fanoe1	2006May29	95.5%
107377	Fanoe1	2006May29	94.8%
107379	Fanoe3	2006May29	96.8%
107382	Fanoe3	2006May29	94.8%
107384	Fanoe3	2006May29	96.0%
107387	Fanoe3	2006May29	95.0%
107388	Fanoe3	2006May29	95.0%
107391	Fanoe3	2006May29	93.9%
107394	Fanoe3	2006May29	93.9%
107396	Fanoe3	2006May29	93.6%
107399	Fanoe3	2006May29	94.6%
107405	Fanoe3	2006May29	94.8%
107408	Fanoe4	2006May29	94.4%
107411	Fanoe4	2006May29	94.1%
107413	Fanoe4	2006May29	92.3%
107414	Fanoe4	2006May29	93.3%
107419	Fanoe4	2006May29	92.5%
107421	Fanoe4	2006May29	94.6%
107424	Fanoe4	2006May29	90.9%
107426	Fanoe4	2006May29	94.3%
107430	Fanoe4	2006May29	92.0%
107439	Fanoe4	2006May29	93.2%
134101	Fanoe1	2018Mar08	95.2%
134102	Fanoe1	2018Mar08	96.1%
134103	Fanoe1	2018Mar08	95.8%
134104	Fanoe1	2018Mar08	94.8%
134105	Fanoe1	2018Mar08	97.1%
134106	Fanoe1	2018Mar08	96.5%
134107	Fanoe1	2018Mar08	94.1%
134108	Fanoe1	2018Mar08	94.0%
134109	Fanoe1	2018Mar08	97.0%
134110	Fanoe1	2018Mar08	95.9%
134111	Fanoe1	2018Mar29	98.0%

134114	Fanoe1	2018Mar29	95.2%
134116	Fanoe1	2018Mar29	95.5%
134118	Fanoe1	2018Mar29	96.9%
134120	Fanoe1	2018Mar29	95.9%
134122	Fanoe1	2018Mar29	92.5%
134124	Fanoe1	2018Mar29	95.9%
134126	Fanoe1	2018Mar29	95.4%
134127	Fanoe1	2018Mar29	94.7%
134129	Fanoe1	2018Mar29	96.5%
134132	Fanoe4	2018Mar29	94.9%
134133	Fanoe4	2018Mar29	95.4%
134134	Fanoe4	2018Mar29	94.7%
134135	Fanoe4	2018Mar29	94.0%
134136	Fanoe4	2018Mar29	95.2%
134137	Fanoe4	2018Mar29	95.9%
134138	Fanoe4	2018Mar29	94.9%
134139	Fanoe4	2018Mar29	94.6%
134140	Fanoe6	2018Mar29	92.8%
134141	Fanoe6	2018Mar29	93.1%
134142	Fanoe1	2018May14	95.4%
134143	Fanoe1	2018May14	95.2%
134144	Fanoe1	2018May14	94.5%
134145	Fanoe1	2018May14	96.0%
134146	Fanoe1	2018May14	96.0%
134148	Fanoe1	2018May14	97.3%
134149	Fanoe1	2018May14	94.7%
134150	Fanoe1	2018May14	95.4%
134151	Fanoe1	2018May14	97.5%
134152	Fanoe1	2018May14	95.7%
134158	Fanoe4	2018May14	95.5%
134159	Fanoe4	2018May14	94.2%
134160	Fanoe4	2018May14	95.3%
134161	Fanoe4	2018May14	95.4%
134162	Fanoe4	2018May14	93.8%
134163	Fanoe4	2018May14	96.1%
134164	Fanoe6	2018May14	94.2%