Vineyards at Sand Creek

SCH#2014092010

Final
Environmental Impact Report

Prepared for
The City of Antioch

December 2015

Prepared by

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Final Environmental Impact Report
Vineyards at Sand Creek Project

SCH # 2014092010

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1. INTRODUCTION, LIST OF COMMENTERS, AND PROJECT REVISIONS

1 INTRODUCTION, LIST OF COMMENTERS, AND PROJECT REVISIONS

1.1 Introduction

This Final Environmental Impact Report (EIR) contains agency and group comments received during the public review period of the Vineyards at Sand Creek Project Draft EIR. This document has been prepared by the City of Antioch, as lead agency, in accordance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, Section 15132. The Introduction and List of Commenters chapter of the Final EIR discusses the background of the Draft EIR, purpose of the Final EIR, identifies the comment letters received on the Draft EIR, and provides an overview of the Final EIR's organization.

1.2 Background

In accordance with CEQA, the City of Antioch used the following methods to solicit public input on the Draft EIR: a Notice of Preparation (NOP) for the Draft EIR was released for a 30-day review from September 9, 2014 to October 9, 2014. In addition, a public scoping meeting was held on September 17, 2014 to solicit public comments regarding the scope of the Draft EIR. A Notice of Availability (NOA) of the Draft EIR was distributed and the Draft EIR was sent to the State Clearinghouse for distribution on June 23, 2015 for the 45-day public review period. Copies of the document were made available at the City of Antioch Community Development Department, located at Third and "H" Streets, Antioch, and on the City's website at: www.ci.antioch.ca.us. In addition, a public hearing was held on July 15, 2015 to solicit public comments regarding the Draft EIR.

The Draft EIR identified the proposed project's potential impacts and required feasible mitigation measures that would be required to reduce the identified potential impacts. The following environmental analysis chapters are contained in the Vineyards at Sand Creek Project Draft EIR:

- Aesthetics;
- Air Quality and Greenhouse Gas Emissions;
- Biological Resources;
- Cultural Resources;
- Geology, Soils, and Mineral Resources;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning / Agricultural Resources;
- Noise;
- Public Services, Recreation, and Utilities; and
- Transportation and Circulation.

1.3 Purpose of the Final EIR

Under CEQA Guidelines, Section 15132, the Final EIR shall consist of:

1. The Draft EIR or a revision of the Draft.
2. Comments and recommendations received on the Draft EIR.
3. A list of persons, organizations, and public agencies commenting on the Draft EIR.
4. The responses to significant environmental points raised in the review process.
5. Any other information added by the Lead Agency.

As required by CEQA Guidelines, Section 15090(a)(1)-(3), a Lead Agency must make the following three determinations in certifying a Final EIR:

1. The Final EIR has been completed in compliance with CEQA.
2. The Final EIR was presented to the decision-making body of the Lead Agency, and the decision-making body reviewed and considered the information in the Final EIR prior to approving the project.
3. The Final EIR reflects the Lead Agency's independent judgment and analysis.

Under CEQA Guidelines, Section 15091, a public agency shall not approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings (Findings of Fact) for each of those significant effects. Findings of Fact must be accompanied by a brief explanation of the rationale for each finding supported by substantial evidence in the record. The Findings of Fact are included in a separate document that will be considered for adoption by the City's decision-makers.

In addition, pursuant to CEQA Guidelines, Section 15093(b), when a Lead Agency approves a project that would result in significant unavoidable impacts, the agency must state in writing the reasons supporting the action (Statement of Overriding Considerations). The Statement of Overriding Considerations shall be supported by substantial evidence. Here, the proposed project would not result in significant and unavoidable impacts in any resource areas; thus, a Statement of Overriding Considerations would not be required.

1.4 List of Commenters

The City of Antioch received seven comment letters during the public comment period on the Draft EIR for the proposed project. The comment letters were authored by the following agencies and group:

Agencies

Letter 1.....Patricia Maurice, California Department of Transportation
Letter 2..... Trevor Cleak, Central Valley Regional Water Quality Control Board
Letter 3.....Erik Nolthenius, City of Brentwood Community Development Department

Letter 4.....Craig Standafer, Contra Costa County Flood Control & Water Conservation District
Letter 5.....Neoma Lavalle, East Bay Regional Park District
Letter 6.....Scott Morgan, Governor's Office of Planning and Research

Group

Letter 7.....Juan Pablo Galván, Save Mount Diablo

1.5 Project Revisions

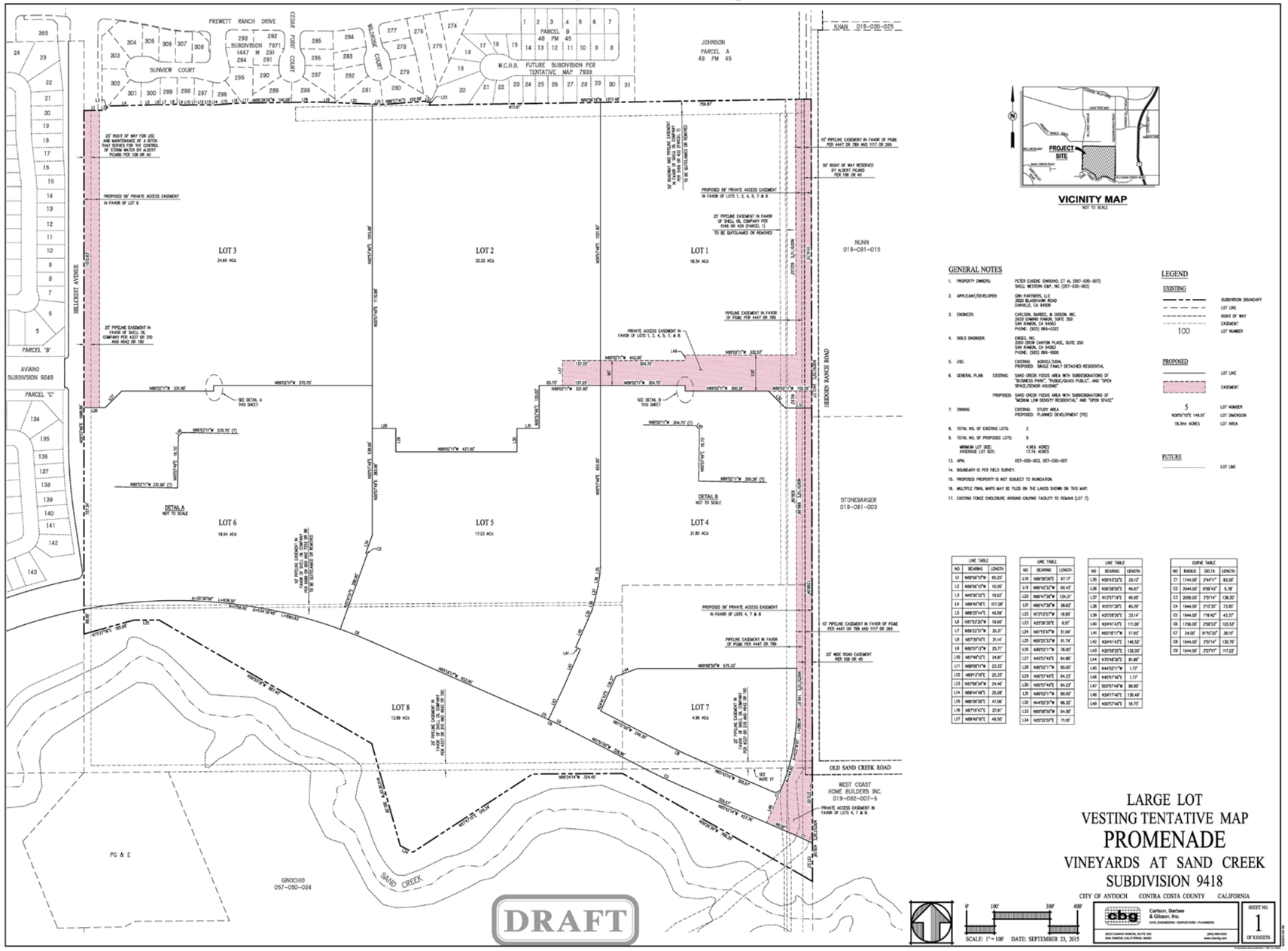
CEQA Guidelines Section 15088.5(a) recognizes that revisions can be made to a project after public notice is given of the availability of a Draft EIR. "Information" can include changes in the project or environmental setting, as well as, additional data or other information. This section of the Guidelines also states that recirculation of the EIR is required when the new information is 'significant,' which is defined as new information that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of a project or a feasible way to mitigate or avoid such an effect that the project's proponents have declined to implement.

CEQA Guidelines Section 15088.5(a) states the following would be considered 'significant new information' that requires recirculation:

(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
(4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

CEQA Guidelines Section 15088.5(b) states that recirculation is not required where the new information merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.
Subsequent to the release of the Draft EIR for this project, the Vineyards at Sand Creek project applicant proposed flexibility to construct either single-family market-rate units or age-restricted active adult housing units. In addition, a large-lot tentative map was submitted by the project applicant subsequent to the release of the Draft EIR for this project. Figure 1-1, Large-Lot Tentative Map, illustrates the phasing of the proposed lots.

Figure 1-1
Large-Lot Tentative Map



Based on the following analyses, the recirculation of the Draft EIR, or portions of the Draft EIR, was determined to not be warranted under CEQA.

(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

The revision to construct either single-family market-rate units or age-restricted active adult housing units would not result in new significant impacts or a substantial increase in the severity of project impacts for the following reasons:

Aesthetics

Construction of age-restricted active adult units would not increase the height of the proposed housing units, and therefore would not result in a greater effect on scenic views than construction of unrestricted market-rate units. Similarly, age-restricted active adult units would not necessitate removal of a greater number of trees compared to construction of unrestricted market-rate units. Therefore, the revisions would not change the overall visual character of the proposed project, and would not introduce more light and glare than unrestricted market- rate units. For the aforementioned reasons, the revisions would not result in new or increased impacts to aesthetics. The impacts were found to be negligible, less-than-significant, or less-than-significant with implementation of mitigation. The mitigations included in the Draft EIR would reduce all impacts related to this resource area to a less-than-significant level.

Air Quality and Greenhouse Gas Emissions

Construction of age-restricted active adult units would occur on the same development footprint as the proposed construction of unrestricted market-rate units, and would use the same construction techniques. Therefore, a change in project-generated construction emissions would not occur. Active adult units tend to contain smaller average households and tend to generate fewer vehicular trips than unrestricted market-rate housing. Accordingly, vehicular emissions, including criteria pollutant emissions, carbon monoxide, toxic air contaminants, and greenhouse gases, associated with age-restricted active adult housing would not be greater than emissions associated with occupancy of unrestricted market-rate housing. In addition, new odors would not be introduced by age-restricted active adult units. For the aforementioned reasons, the revisions would not result in new or increased impacts to air quality or greenhouse gas emissions. The impacts were found to be less-than-significant or less-than-significant with implementation of mitigation. The mitigations included in the Draft EIR would reduce all impacts related to this resource area to a less-than-significant level.

Biological Resources

Construction of age-restricted active adult units would not necessitate any change to the proposed project footprint, and therefore would not change the project's effect on biological resources. Similarly, age-restricted active adult units would not necessitate removal of a greater number of trees compared to construction of unrestricted market-rate units. For the aforementioned reasons,

the revisions would not result in new or increased impacts to biological resources. The impacts were found to be less-than-significant or less-than-significant with implementation of mitigation. The mitigations included in the Draft EIR would reduce all impacts related to this resource area to a less-than-significant level.

Cultural Resources

Construction of age-restricted active adult units would not necessitate any change to the proposed project footprint, and therefore would not change the project's effect on cultural resources. For the aforementioned reason, the revisions would not result in new or increased impacts to cultural resources. The impacts were found to be less-than-significant or less-than-significant with implementation of mitigation. The mitigations included in the Draft EIR would reduce all impacts related to this resource area to a less-than-significant level.

Geology, Soils, and Mineral Resources

Construction of age-restricted active adult units would not necessitate any change to the proposed project footprint, and would not change the applicable building standards that address seismic safety. Therefore, a change in impacts related to geology, soils and mineral resources would not occur. For the aforementioned reasons, the revisions would not result in new or increased impacts to geology, soils, or mineral resources. The impacts were found to be negligible, less-than-significant, or less-than-significant with implementation of mitigation. The mitigations included in the Draft EIR would reduce all impacts related to this resource area to a less-than-significant level.

Hazards and Hazardous Materials

Construction of age-restrictive active adult units would not result in any change to the transport, use, or disposal of hazardous materials, and would not change the project footprint or location. A change to the risk of upset, potential for wildland fires, or emergency access would not occur. For the aforementioned reasons, the revisions would not result in new or increased impacts to hazards or hazardous materials. The impacts were found to be negligible, less-than-significant, or less-than-significant with implementation of mitigation. The mitigations included in the Draft EIR would reduce all impacts related to this resource area to a less-than-significant level.

Hydrology and Water Quality

Construction of age-restricted active adult units would not necessitate any change to the proposed project footprint or construction techniques, and therefore would not change the project's effect on hydrology or water quality. For the aforementioned reasons, the revisions would not result in new or increased impacts to hydrology or water quality. The impacts were found to be less than significant. New mitigation measures would not be required.

Land Use and Planning / Agricultural Resources

Page 4.8-5 of Chapter 4.8, Land Use and Planning / Agricultural Resources, of the Draft EIR notes that senior housing may be developed in any of the residential areas of the Sand Creek Focus Area. Construction of age- restricted housing units would not physically divide a community or result in increased incompatibility with adjacent land uses, in comparison to unrestricted market-rate housing. Age-restricted housing is consistent with the General Plan and Sand Creek Specific Plan, as recognized on page 4.8-5 of the Draft EIR. A change to the project footprint would not occur, and therefore would not result in additional impacts to agricultural resources. For the aforementioned reasons, the revisions would not result in new or increased impacts to land use and planning or agricultural resources. The impacts were found to be negligible or less than significant. New mitigation measures would not be required.

Noise

Construction of age-restricted active adult units would not result in changes to noise-generating construction equipment or to noise from project operations. For the aforementioned reasons, the revisions would not result in new or increased impacts to noise. The impacts were found to be negligible, less-than-significant, or less-than-significant with implementation of mitigation. The mitigations included in the Draft EIR would reduce all impacts related to this resource area to a less-than-significant level.

Public Services, Recreation, and Utilities

Active adult units tend to contain smaller average households than unrestricted market-rate units, and therefore tend to result in lower water demand and sewer demand than unrestricted market-rate units. In addition, age-restricted active adult units result in substantially less demand for school facilities. The same amount of park property would be provided by the project, and a change in demand for public services and utilities such that construction of new facilities would be needed would not occur. For the aforementioned reasons, the revisions would not result in new or increased impacts to public services, recreation, or utilities. The impacts were found to be less-than-significant or less-than-significant with implementation of mitigation. The mitigations included in the Draft EIR would reduce all impacts related to this resource area to a less-than-significant level.

Transportation and Circulation

Active adult units tend to contain smaller average households and tend to generate fewer vehicular trips than unrestricted market-rate housing. Accordingly, an increase in transportation and circulation impacts would not occur. For the aforementioned reasons, the revisions would not result in new or increased impacts to transportation or circulation. The impacts were found to be less-than-significant or less-than-significant with implementation of mitigation. The mitigations included in the Draft EIR would reduce all impacts related to this resource area to a less-than-significant level.

(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

As noted above, the proposed flexibility would not result in an increase in the severity of any environmental impacts. Therefore, additional mitigation measures beyond those identified in the Draft EIR would not be required.

(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.

The revisions to the project submitted by the applicant subsequent to the release of the Draft EIR would not alter the project alternatives or the conclusions of the alternatives analysis. As noted above, the revision to the project would not result in new impacts or a substantial increase in impacts that could trigger the need for a new or revised alternative. Chapter 6, Alternatives Analysis, analyzes an adequate range of alternatives and includes sufficient information to allow a meaningful evaluation of each alternative. Responses to comments on the Draft EIR include revisions for clarification, which do not alter the conclusions of the Draft EIR.

(4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

After careful consideration of the issues raised by the commenters on the Draft EIR, the City staff, as the Lead Agency, has determined that none of the responses to the comments resulted in "significant new information" that would trigger the requirement for recirculation of the Draft. Nor did any comment result in the conclusion, by the Lead Agency, that the Draft EIR was so fundamentally inadequate that the public was precluded from meaningful review and comment. In addition, City staff determined that the revisions to the proposed project submitted by the applicant and in response to City request did not result in "significant new information," as defined by Section 15088.5(a).

1.6 Organization of the Final EIR

The Final EIR is organized into the following chapters:

1. Introduction and List of Commenters

Chapter 1 provides an introduction and overview of the document, describing the background and organization of the Final EIR. Chapter 1 also provides a list of commenters who submitted letters in response to the Draft EIR.

2. Revisions to the Draft EIR Text

Chapter 2 summarizes changes made to the Draft EIR text either in response to comment letters or other clarifications/amplifications of the analysis in the Draft EIR that do not change the intent of the analysis or effectiveness of mitigation measures.

3. Responses to Comments

Chapter 3 presents the comment letters received and responses to each comment. Each comment letter received has been numbered at the top and bracketed to indicate how the letter has been divided into individual comments. Each comment is given a number with the letter number appearing first, followed by the comment number. For example, the first comment in Letter 1 would have the following format: 1-1.

4. Mitigation Monitoring and Reporting Program

CEQA Guidelines, Section 15097, requires lead agencies to adopt a program for monitoring the mitigation measures required to avoid the significant environmental impacts of a project. The intent of the Mitigation Monitoring and Reporting Program (MMRP) is to ensure implementation of the mitigation measures identified within the EIR for the Vineyards at Sand Creek Project.

2. REVISIONS TO THE DRAFT EIR TEXT

2 REVISIONS TO THE DRAFT EIR TEXT

2.1 INTRODUCTION

The Revisions to the Draft EIR Text chapter presents minor corrections and additions made to the Draft EIR initiated by the Lead Agency (City of Antioch), reviewing agencies, the public, and/or consultants based on their review.

It should be noted that the changes represent minor clarifications/amplifications of the analysis contained in the Draft EIR and do not constitute significant new information that, in accordance with CEQA Guidelines, Section 15088.5, would trigger the need to recirculate portions or all of the Draft EIR.

2.2 DESCRIPTION OF CHANGES

New text is double underlined and deleted text is ~~struck through~~. Text changes are presented in the page order in which they appear in the Draft EIR.

1 INTRODUCTION

The following staff-initiated change provides consistency between the Draft EIR and the most recent project submittal. Therefore, pages 1-1 and 1-2 of Chapter 1, Introduction, of the Draft EIR are hereby revised as follows:

> **Project Components**
>
> The proposed project consists of a residential development on 141.6 total acres, including up to 650 single-family residential units on 127.5 acres; 31.6 acres of parks and landscaped areas (some of which overlap with the residential area); extension of Heidorn Ranch Road, Hillcrest Avenue, and Sand Creek Road; extension of a portion of the Sand Creek Trail for connection to other City and regional trails; and utility improvements. In addition, the proposed project would construct off-site improvements (i.e., roadways and utilities) that would affect two adjacent off-site areas totaling approximately 6.47 acres: an area to the north and east that includes an approximately 6.02-acre portion of Heidorn Ranch Road (a dedicated public roadway in Antioch); and a 0.4 acre area to the southeast that includes a portion of Sand Creek in which storm drain lines and a storm drain outfall structure would be constructed. The proposed project would be constructed in two main phases arranged into six neighborhoods. The proposed project could be developed as either a single-family market-rate residential community or as an age-restricted "active-adult" residential community. In addition, the project would include the construction of a detention basin south of the residential area and extension of the Sand Creek Trail, with the remaining acreage as undeveloped open space adjacent to Sand Creek. On-site

> infrastructure for the project would consist of subdivision roads, including curbs, gutters, and sidewalks, and water, sewer, and storm drainage connections and improvements.

The above change is for clarification purposes only. Thus, the change does not affect the technical analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

2 EXECUTIVE SUMMARY

The following staff-initiated change provides consistency between the Draft EIR and the most recent project submittal. Therefore, page 2-1 of Chapter 2, Executive Summary, of the Draft EIR is hereby revised as follows:

> The proposed project consists of a residential development on 141.6 total acres, including up to 650 single-family residential units on 127.5 acres; 31.6 acres of parks and landscaped areas (some of which overlap with the residential areas); extension of Heidorn Ranch Road, Hillcrest Avenue, and Sand Creek Road; extension of a portion of the Sand Creek Trail for connection to other City and regional trails; and utility improvements. In addition, the proposed project would construct off-site improvements (i.e., roadways and utilities) that would affect two adjacent offsite areas totaling approximately 6.47 acres: an area to the north and east that includes an approximately 6.02-acre portion of Heidorn Ranch Road (a dedicated public roadway in Antioch); and a 0.4 acre area to the southeast that includes a portion of Sand Creek in which storm drain lines and a storm drain outfall structure would be constructed. The proposed project would be constructed in two main phases arranged into six neighborhoods. <u>The proposed project could be developed as either a single-family market-rate residential community or as an age-restricted "active-adult" residential community.</u> In addition, the project would include the construction of a detention basin south of the residential area and extension of the Sand Creek Trail, with the remaining acreage as undeveloped open space adjacent to the Sand Creek buffer area.

The above change is for clarification purposes only. Thus, the change does not affect the technical analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

For clarification purposes, Table 2-1 in Chapter 2, Executive Summary, of the Draft EIR is hereby revised for Mitigation Measures 4.3-2(b) on page 2-14, 4.3-3 on pages 2-22 and 2-23, 4.3-4(a) on pages 2-24 and 2-25, 4.3-5 on pages 2-27 and 2-28, 4.3-8(b) on pages 2-34 and 2-35, and 4.9-5(a) on page 2-59. In addition, page 2-22 of Chapter 2 has been revised to include Mitigation Measure 4.3-2(h). Rather than include the entirety of Table 2-1 from Chapter 2, Executive Summary, of the Draft EIR with the revisions shown where appropriate, only the impact that has been revised is presented below. The revision to the Executive Summary table is

for clarification purposes only. Thus, the revision to Table 2-1 does not change the adequacy of the analysis, the conclusions, nor the intent of the mitigation contained in the Draft EIR.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.3 Biological Resources			
4.3-2 Impacts to the California red-legged frog.	PS	*4.3-2(a) Prior to the issuance of a grading permit for project site grading and the installation of the outfall structure in Sand Creek, an education program shall be conducted by a qualified biologist to explain the endangered species concerns to contractors/operators working at the project site. This education/training program shall include a description of the frog and its habitat, a review of the Endangered Species Act and the federal listing of the frog, the general protection measures to be implemented to protect the frog and minimize take, and a delineation of the limits of the work area.* *4.3-2(b) A qualified 10(a)(1)(A) biologist shall conduct preconstruction surveys of the creek work areas no more than 14 days prior to dewatering and other work activities. If any California red-legged frogs are identified in the work area, the Service and the Department shall be notified and, if permitted, relocated outside of the work area. Alternatively, the project applicant could comply with one of the following:* *1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or*	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan. *4.3-2(c) The work areas adjacent to Sand Creek shall be isolated with suitable amphibian exclusion fencing (see below) that would block the movement of California red-legged frogs from entering the work areas. This fence shall be installed prior to the time any site grading or other construction-related activities are implemented. The fence shall remain in place during site grading or other construction-related activities and shall prevent frogs from entering the project site work areas.* *While normally California red-legged frog exclusion fencing consists of silt fencing, owing to the duration of the development project, a more weather resilient fence is recommended. The exclusion fence shall consist of a 4-foot wall of ¼-inch mesh, galvanized wire (i.e., welded wire hardware cloth- no woven wire would be allowed) or other commercially available exclusion fencing (e.g. ERTEC Fence). Initially, staking would be installed along the route of the exclusion fencing in a 4 inch deep trench. Then, the bottom of the fence would be firmly seated in the trench. The fencing above the ground would be anchored to metal staking with wire. Finally, the top 10-inches or less would be*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		bent over in a semi-circle towards the outside of the fence to ensure that the fence cannot be climbed. This fence would be expected to last the duration of the construction period for the development project. *4.3-2(d) A qualified biologist shall be onsite when grading activities occur within 300 feet of Sand Creek to conduct daily inspections of the fencing and to otherwise ensure that stranded animals are salvaged and relocated back to the stream channel. The biological monitor shall be responsible for ensuring that the wildlife exclusion fencing is not compromised, and shall notify the onsite contractor representative when fencing needs to be repaired.* *4.3-2(e) All construction work in Sand Creek associated with the outfall structure shall be scheduled for the dry season (May 15 through October 15) and when there is reduced flow in Sand Creek. No work shall occur when water is flowing within the work area. Any necessary in-drainage work when there are flows shall be isolated from flows via the installation of temporary coffer dams that have flow-through bypass pipes. Flows shall be diverted around isolated work areas either by gravity flow or if necessary by pumping water around the work area. No silty water shall be allowed to reenter the tributary below any in-drainage work area. Methods and materials shall be adapted in the field to match the size, shape, and anticipated flow volume of the drainage, and pre-approved by the biological monitor. All diversions shall conform to the following provisions:*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Drainage diversion shall be practiced only where deemed unavoidable by the proposed project engineer and biological monitor.* • *Diversion shall be limited to the minimum time period necessary to complete the work and restore the channel.* • *Construction equipment would work from above the top-of-bank unless equipment is authorized to operate below the top-of-bank by the Department, Service, USACE, and/or RWQCB pertaining to their respective jurisdictions. Unless permitted by these agencies within their respective jurisdictions, there shall be no vehicle passage, vehicle parking, or materials storage below the top of bank.* • *All in-drainage and diversion work plans shall reflect and incorporate standard erosion control measures and BMP's as prescribed in the Project's SWPPP.* • *In certain cases where water seeps into the dewatered area, sump pits may be excavated in the work area and seepage water would then be pumped back upstream behind the coffer dam. All discharged water shall be silt free. If silt is a problem, water shall be pumped through a silt sock into baker tank(s) prior to discharge back into the channel.* • *All downstream flows shall be maintained throughout the period that coffer dams are installed.* • *The entire work area below the top of bank, including the coffer dam location, shall be restored to the*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		approximate pre-construction contours and would be stabilized as necessary to withstand the expected high water flows. All dam materials shall be completely removed from the channel when work is complete, and not be disposed of in or near the channel. • *A qualified 10(a)(1)(A) biologist shall conduct preconstruction surveys for California red-legged frog prior to isolating any work area within Sand Creek. If any frogs are found in the work area, the Service and the Department shall be notified, and the frogs shall be moved from the work area to up or downstream areas of Sand Creek, whichever is closest to the capture site. Upon completion of the survey, coffer dams may be installed. Any isolated water shall be seined by the proposed project biologist to search for frogs prior to pumping water out of the isolated work areas.* • *The project biological monitor shall be present during all in-drainage work. Dewatered work areas shall not result in stranded aquatic wildlife.* • *All trash that might attract predators to the project site shall be properly contained and removed from the site and disposed of regularly. All construction debris and trash shall be removed from the site when construction activities are complete.* • *All fueling and maintenance of equipment and vehicles, and staging areas shall be at least 20 meters from Sand Creek. The construction personnel shall ensure that contamination of California red-legged frog habitat*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		does not occur and shall have a plan to promptly address any accidental spills. *4.3-2(f) To mitigate for impacts to federally listed species, including impacts to the California red-legged frog, the applicant shall preserve 272 acres as offsite mitigation (hereinafter called the Marsh Creek Property) located off Marsh Creek Road in eastern Contra Costa County. An alternative mitigation property approved by the Service that possesses comparable biological resources for the affected federally listed species may also be used for mitigation in lieu of the Marsh Creek Property. The Marsh Creek Property is located immediately north of and adjacent to East Bay Regional Park District's (EBRPD) Round Valley Regional Preserve. The geographic location of the Marsh Creek Property adjacent to EBRPD Round Valley Regional Park makes it a valuable preservation property that would add permanently preserved acreage to existing regionally significant preserved lands (Round Valley Regional Preserve).* *There is a 1982 record for California red-legged frogs along Marsh Creek on the Marsh Creek Property (CNDDB Occurrence No. 546), and a total of 79 reported occurrences of California red-legged frogs within 5 miles of the property. Hence, the habitat to be preserved at this mitigation property supports grassland habitat that provides upland dispersal habitat and aquatic habitat for California red-legged frogs, and Marsh Creek provides potential breeding habitat for California red-legged frog. The combination of*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		breeding habitat in proximity to suitable upland habitat is most important for the ongoing viability of the California red-legged frog populations. *While the proposed project would not likely impact the California tiger salamander, preservation of the Marsh Creek Property shall nonetheless provide benefits to this salamander. There is a 1982 record for California tiger salamander in a pond in annual grassland adjacent to Marsh Creek, located 0.24 mile upstream from the Marsh Creek Property (CNDDB Occurrence No. 170), and a total of 69 reported occurrences of California tiger salamanders within 5 miles of the Marsh Creek Property. Owing to the abundance of known California tiger salamander records in the vicinity of the Marsh Creek Property and the presence of a robust California ground squirrel colony within the grasslands on the property, which provide necessary refugia habitats for California tiger salamanders, the Marsh Creek Property would most likely be regarded by the U.S. Fish and Wildlife Service and the Department of Fish and Wildlife as supporting suitable upland over-summering habitat for this salamander. Therefore, the proposed mitigation site would provide appropriate mitigation for impacts to 141.6 acres of long-term disked agricultural land (has been farmed annually since at least 1945 based upon aerial photograph research completed by M&A).* *4.3-2(g) The project proponent shall record a conservation easement over the Marsh Creek Property preserving it in perpetuity as*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		wildlife habitat. The easement shall be granted to a qualified conservation organization such as the EBRPD. The project proponent shall also establish an endowment fund to provide for the long-term management, maintenance, and monitoring of the mitigation site. A Resource Management Plan (RMP) shall be developed for the management of natural resources to be preserved on the Marsh Creek Property. *4.3-2(h) Prior to approval of Improvement Plans, the City of Antioch's Engineering Division shall review and approve the Improvement Plans to ensure that the Plans show and note that a wood wire view fence shall be constructed along the southern project site boundary. The fence shall be placed on the Sand Creek side of any trail constructed as part of the project, and shall be located at least 100 feet away from the centerline of Sand Creek.*	
4.3-3 Impacts to the western pond turtle.	PS	*4.3-3 A qualified biologist shall conduct a preconstruction survey of the work area in Sand Creek, and if a western pond turtle is identified in the work area, the turtle will be relocated to suitable habitat downstream. The work areas adjacent to Sand Creek shall be isolated with exclusion fencing that will prevent western pond turtle from entering the work site and accidentally being harmed by construction activities.* *The deeply incised channel with steep slopes makes it very unlikely that a western pond turtle would climb up onto the project site to nest. As such, no potential nesting sites are likely to be affected by the proposed project. Regardless, preconstruction surveys for turtle nest sites in uplands*	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		adjacent to suitable aquatic habitat during spring and summer months shall be conducted within 30 days prior to beginning any activities. If no nests are found, no further consideration for western pond turtle nests is warranted. If nest sites are located during preconstruction surveys adjacent to a proposed work area, the nest site plus a 50-foot buffer around the nest site shall be fenced where it intersects a project work area to avoid impacts to the eggs or hatchlings which over-winter at the nest site. In addition, if nest(s) are located during surveys, moth balls (naphthalene) should be sprinkled around the vicinity of the nest (no closer than 10 feet) to mask human scent and discourage predators. *Construction at the nest site and within the 50-foot buffer area shall be delayed until the young leave the nest (this could be a period of many months) or as otherwise advised and directed by the Department, the agency responsible for overseeing the protection of the pond turtle. If the Department allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the Department.* *A 272 acre Mitigation Property shall be preserved along Marsh Creek Road in eastern Contra Costa County (or an alternative mitigation property with comparable biological resource values may also be used for mitigation in lieu of the Marsh Creek Property) to compensate for project related impacts to the California red-legged frog and the San*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Joaquin kit fox (see mitigation measures for these two species). Marsh Creek runs west to east through the Marsh Creek Property. This creek supports optimal western pond turtle basking pools and supports suitable nesting habitat that can be used by the western pond turtle. Thus, the permanent preservation of the Marsh Creek Property required to compensate for project impacts to the California red-legged frog and the San Joaquin kit fox will also benefit the western pond turtle. Alternatively, the project applicant could comply with one of the following: *1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or* *2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.*	
4.3-4 Impacts to western burrowing owl.	PS	*4.3-4(a) Within 14 days of commencement of ground disturbance, burrowing owl surveys shall be conducted by walking the entire project site and (where possible) in areas within 150 meters (approx. 500 feet) of the proposed project impact zone. The 150-meter buffer zone is surveyed to identify*	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		burrows and owls outside of the proposed project area which may be impacted by factors such as noise and vibration (heavy equipment) during project construction. *Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be 7 meters to 20 meters and shall be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 50 meters (approx. 160 ft.) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons. Alternatively, the project applicant could comply with one of the following:* *1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or* *2) Comply with a habitat conservation plan and/or natural*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.	
4.3-5 Impacts to Swainson's hawk.	PS	*4.3-5 To avoid impacts to nesting Swainson's hawks, the Department has prepared guidelines for conducting surveys for Swainson's hawk entitled: Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (CDFG 2000). These survey recommendations were developed by the Swainson's Hawk Technical Advisory Committee (TAC) to maximize the potential for locating nesting Swainson's hawks, and thus, reduce the potential for nest failures as a result of project activities and/or disturbances. To meet the Department's recommendations for mitigation and protection of Swainson's hawks in this guideline, surveys shall be conducted by a qualified raptor biologist for a 0.25-mile radius around all project activities and shall be completed for at least two survey periods as is found in the Department's 2000 survey guidelines (CDFG 2000). The guidelines provide specific recommendations regarding the number of surveys based on when the proposed project is scheduled to begin and the time of year the surveys are conducted. A copy of this survey report shall be provided to the City of Antioch prior to starting construction.* *The applicant shall prepare a Swainson's Hawk Monitoring and Habitat Management Plan if a qualified raptor biologist determines that a nest site could be impacted or project*	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		activities could otherwise cause "take" of the Swainson's hawk, its eggs, or young. If take could occur as determined by a qualified raptor biologist, protective buffers shall be established on the project site that shall prevent such take from occurring. The protective buffer shall be maintained until such time that the Swainson's hawks have completed their nesting cycle as determined by a qualified raptor biologist. The nest protection buffer shall be coordinated with the Department. *In addition, the 272 acre Marsh Creek Mitigation Property (or an alternative mitigation property with comparable biological resources) shall compensate for project related impacts from the loss of the 141.6 acres of project site farmland that constitutes suitable foraging habitat for the Swainson's hawk. Mitigation that compensates for the loss of suitable Swainson's hawk foraging habitat shall include the preservation of the 272 acre Marsh Creek Property, which supports grasslands that provide suitable foraging habitat for Swainson's hawks. Alternatively, the project applicant could comply with one of the following:* *1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.	
4.3-8 Impacts to the San Joaquin kit fox.	PS	*4.3-8(a) To compensate for the permanent loss of 141.6 acres of potential San Joaquin kit fox migration habitat, albeit farmed land, the proposed project includes the permanent preservation and protection of the Marsh Creek Property. An alternative mitigation property approved by the United States Fish and Wildlife Service that possesses comparable biological resources may also be used for mitigation in lieu of the Marsh Creek Property. The Marsh Creek Property is 272 acres that will be managed to benefit San Joaquin kit fox and that provides suitable mitigation for the loss of 141.6 acres of farmland that otherwise provides marginal San Joaquin kit fox migration habitat. In addition, there is a 1991 occurrence for San Joaquin kit fox that was recorded approximately 0.50 mile to the east of the Marsh Creek Property (CNDDB Record No. 573), and there are 9 additional reported occurrences of San Joaquin kit fox within 5 miles of the property. Thus, the Marsh Creek Property has moderate value to the San Joaquin kit fox, as compared to the project site, an agricultural property that has marginal value to the kit fox as migration habitat.* *The East Contra County Conservancy in concert with the Service and the Department, in the East Contra Costa*	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		county HCP indicate that the Marsh Creek Property is located in an area deemed to have high value for preservation. In the HCP, the property is mapped within an area designated as within the "Medium Level of Acquisition Effort" category in "Suitable Core Habitat" for the San Joaquin kit fox. The mitigation property is also mapped in the HCP as a "Potential Kit Fox Movement Route" indicating that the property has value to the San Joaquin kit fox. The geographic location of the property adjacent to EBRPD Round Valley Regional Park further makes it a valuable mitigation property with significant regional importance as a preservation property. *4.3-8(b) The following measures shall be implemented by a qualified biologist:* • *An education program shall be conducted by a qualified biologist prior to the start of construction to explain the endangered species concerns to contractors working at the project site. The program shall include an explanation of the FESA and CESA and any endangered species concerns in the area.* • *Qualified biologists would conduct preconstruction den surveys no more than 14 days prior to site grading to ensure that potential kit fox dens are not disrupted. If "potential dens" are located, infrared camera stations shall be set up and maintained for 3 consecutive nights at den openings prior to initiation of grading activities to*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		determine the status of the potential dens. If no kit fox is found to be using the den, site grading can proceed unhindered. However, if a kit fox is found using a den site within the project site the Service and the Department shall be notified and consulted before work activities resume. Alternatively, the project applicant could comply with one of the following: *1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or* *2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.* • *To prevent harm to San Joaquin kit fox, any steep-walled holes and/or trenches excavated on the project site shall be completely covered at the end of each workday, or escape ramps shall be provided to allow any entrapped animals to escape unharmed. All pipe sections stored at the project site overnight that are four inches in diameter or greater shall be inspected for San Joaquin kit fox*	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		before the pipes are moved or buried. If San Joaquin kit fox are identified in the work area at any time, the Service and/or the Department shall be notified and consulted before work activities resume. All trash items shall be removed from the site to reduce the potential for attracting predators of San Joaquin kit fox. Contractors shall be prohibited from bringing firearms and pets to the job site.	
4.9 Noise			
4.9-5 Transportation noise at new sensitive receptors.	PS	*4.9-5(a) In conjunction with submittal of Improvement Plans, the applicant shall show on the Improvement Plans that sound walls and/or landscaped berms shall be constructed along Hillcrest Avenue and Sand Creek Road at proposed residential uses. The specific height and location of the noise barrier shall be confirmed based upon the final approved site and grading plans. See* ~~**Error! Reference source not found.**~~ *Figure 4.9-2 for the recommended noise barrier placement and required wall height. Wall height shown in the aforementioned figure is relative to building pad elevations. Noise barrier walls shall be constructed of concrete panels, concrete masonry units, earthen berms, or any combination of these materials. Wood is not recommended due to eventual warping and degradation of acoustical performance. The Improvement Plans shall be subject to review and approval by the City Engineer.* *4.9-5(b) In conjunction with submittal of Building Plans, the applicant shall show on the plans that mechanical*	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		ventilation shall be installed in all residential uses to allow residents to keep doors and windows closed, as desired for acoustical isolation. The building plans shall be subject to review and approval by the City Building Official.	

3 PROJECT DESCRIPTION

The following staff-initiated change provides consistency between the Draft EIR and the most recent project submittal. Therefore, page 3-8 of Chapter 3, Project Description, of the Draft EIR is hereby revised as follows:

> **Residential Concept**
>
> The proposed project includes development of up to 650 single-family residential units on approximately 127.5 acres north of the future alignment of Sand Creek Road. The average density of the residential development would be approximately 5.03 units per gross acre. The proposed project would be constructed in two main phases arranged into six neighborhoods. At least six different housing layouts with three different elevations would be constructed on lots ranging from approximately 4,200 to 5,160 square feet (See Figure 3-5, Tentative Map). The proposed project could be developed as either a single-family market-rate residential community or as an age-restricted "active-adult" residential community.

The above change is for clarification purposes only. Thus, the change does not affect the technical analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

4.3 BIOLOGICAL RESOURCES

The acreage of the waters of the U.S. impacted as a result of the proposed project indicated in the Regulatory Context section of Chapter 4.3, Biological Resources, was erroneous. The following staff-initiated change provides consistency between the Draft EIR and the technical appendix. Therefore, page 4.3-21 of Chapter 4.3, Biological Resources, of the Draft EIR is hereby revised as follows:

> *Applicability to the Proposed Project*
>
> Sand Creek, an intermittent creek, is immediately south of the project site. It flows west to east along the southern project site boundary. Sand Creek is a tributary to Marsh Creek, which is a tributary to the San Joaquin River, a Traditional Navigable Water of the U.S. Therefore, Sand Creek would be regulated as "waters of the U.S." pursuant to Section 404 of the Clean Water Act. A small portion of this creek will be affected by the proposed construction of a stormwater outfall structure. The proposed outfall structure will result in permanent impacts (fill) to ~~330~~300 square feet (0.00~~8~~7 acre) (60 cubic yards of riprap) below the Ordinary High Water Mark (OHWM) of Sand Creek. The remaining portions of Sand Creek south of the project site will be preserved by the proposed project.

The above change is for clarification purposes only. The Impact 4.3-9 discussion was based on the assumption that the proposed outfall structure would result in permanent impacts to 330 square feet (0.008 acres). Thus, the change does not affect the technical biological analysis prepared for the project. In addition, Appendix D, Biological Resources Assessment, of the Draft

EIR has been revised to reflect the above changes. Accordingly, this revision does not alter the conclusions of the Draft EIR.

The following staff-initiated change provides further detail regarding the methods used in the Biological Resources Assessment of the Draft EIR. Therefore, page 4.3-31 of Chapter 4.3, Biological Resources, of the Draft EIR is hereby revised as follows:

Method of Analysis

The *Biological Resource Analysis* prepared for the proposed project by M&A is based on a review of biological resource databases, inventories, regional literature on both plants and animals. The field survey was conducted at the project site by M&A Biologists and M&A round-leaved filaree Botanists on July 30, 2014. The biological study conducted for the project site complies with State and local sources of information, including the California Department of Fish and Wildlife and the California Native Plant Society. The final determinations for collected plants were made by keying specimens using standard references from the *Jepson Manual* (Hickman 1993). The surveys were conducted at the proper time of year when special-status and locally significant plants were both evident and identifiable. The surveys were conducted in a manner that is consistent with conservation ethics and accepted plant collection and documentation techniques. All areas of the project site were examined by walking systematic meandering transects through potential habitat, and by closely examining any existing microhabitats that could potentially support special-status plants. In addition, all plant species were identified to the level needed to determine whether they qualify as special-status plants.

The above change is for clarification purposes only. Thus, the change does not affect the technical biological analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

In order to ensure compliance with the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCC HCP/NCCP), Mitigation Measure 4.3-2(b) on page 4.3-32 of Chapter 4.3, Biological Resources, of the Draft EIR is hereby revised as follows:

4.3-2(b) *A qualified 10(a)(1)(A) biologist shall conduct preconstruction surveys of the creek work areas no more than 14 days prior to dewatering and other work activities. If any California red-legged frogs are identified in the work area, the Service and the Department shall be notified and, if permitted, relocated outside of the work area. Alternatively, the project applicant could comply with one of the following:*

1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or

> *2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.*

The above change is for clarification purposes only. Thus, the change does not affect the technical biological analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

In order to ensure compliance with the ECCC HCP/NCCP, Mitigation Measure 4.3-3 on pages 4.3-36 and 4.3-37 of Chapter 4.3, Biological Resources, of the Draft EIR are hereby revised as follows:

> *4.3-3* *A qualified biologist shall conduct a preconstruction survey of the work area in Sand Creek, and if a western pond turtle is identified in the work area, the turtle will be relocated to suitable habitat downstream. The work areas adjacent to Sand Creek shall be isolated with exclusion fencing that will prevent western pond turtle from entering the work site and accidentally being harmed by construction activities.*
>
> *The deeply incised channel with steep slopes makes it very unlikely that a western pond turtle would climb up onto the project site to nest. As such, no potential nesting sites are likely to be affected by the proposed project. Regardless, preconstruction surveys for turtle nest sites in uplands adjacent to suitable aquatic habitat during spring and summer months shall be conducted within 30 days prior to beginning any activities. If no nests are found, no further consideration for western pond turtle nests is warranted. If nest sites are located during preconstruction surveys adjacent to a proposed work area, the nest site plus a 50-foot buffer around the nest site shall be fenced where it intersects a project work area to avoid impacts to the eggs or hatchlings which over-winter at the nest site. In addition, if nest(s) are located during surveys, moth balls (naphthalene) should be sprinkled around the vicinity of the nest (no closer than 10 feet) to mask human scent and discourage predators.*
>
> *Construction at the nest site and within the 50-foot buffer area shall be delayed until the young leave the nest (this could be a period of many months) or as otherwise advised and directed by the Department, the agency responsible for overseeing the protection of the pond turtle. If the Department allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the Department.*
>
> *A 272 acre Mitigation Property shall be preserved along Marsh Creek Road in eastern Contra Costa County (or an alternative mitigation property with comparable biological resource values may also be used for mitigation in lieu of the Marsh Creek Property) to compensate for project related impacts to the California red-legged frog and the San*

Joaquin kit fox (see mitigation measures for these two species). Marsh Creek runs west to east through the Marsh Creek Property. This creek supports optimal western pond turtle basking pools and supports suitable nesting habitat that can be used by the western pond turtle. Thus, the permanent preservation of the Marsh Creek Property required to compensate for project impacts to the California red-legged frog and the San Joaquin kit fox will also benefit the western pond turtle. Alternatively, the project applicant could comply with one of the following:

1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or

2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.

The above change is for clarification purposes only. Thus, the change does not affect the technical biological analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

Based on recent discussions with the project biologist, Geoff Monk, and to limit access to the undeveloped area between the southern project boundary and Sand Creek, an additional mitigation measure has been added to the Draft EIR. Therefore, page 4.3-36 of Chapter 4.3, Biological Resources, of the Draft EIR is hereby revised as follows:

4.3-2(h) Prior to approval of Improvement Plans, the City of Antioch's Engineering Division shall review and approve the Improvement Plans to ensure that the Plans show and note that a wood wire view fence shall be constructed along the southern project site boundary. The fence shall be placed on the Sand Creek side of any trail constructed as part of the project, and shall be located at least 100 feet away from the centerline of Sand Creek.

The above change would limit access to Sand Creek only. Thus, the change does not affect the technical biological analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

In order to ensure compliance with the ECCC HCP/NCCP, Mitigation Measure 4.3-4(a) on pages 4.3-37 and 4.3-38 of Chapter 4.3, Biological Resources, of the Draft EIR are hereby revised as follows:

4.3-4(a) *Within 14 days of commencement of ground disturbance, burrowing owl surveys shall be conducted by walking the entire project site and (where possible) in areas within 150 meters (approx. 500 feet) of the proposed project impact zone. The 150-meter buffer zone is surveyed to identify burrows and owls outside of the proposed project area which may be impacted by factors such as noise and vibration (heavy equipment) during project construction.*

Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be 7 meters to 20 meters and shall be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 50 meters (approx. 160 ft.) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons. Alternatively, the project applicant could comply with one of the following:

1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or

2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.

The above change is for clarification purposes only. Thus, the change does not affect the technical biological analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

In order to ensure compliance with the ECCC HCP/NCCP, Mitigation Measure 4.3-5 on page 4.3-39 of Chapter 4.3, Biological Resources, of the Draft EIR is hereby revised as follows:

4.3-5 *To avoid impacts to nesting Swainson's hawks, the Department has prepared guidelines for conducting surveys for Swainson's hawk entitled: Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (CDFG 2000). These survey recommendations were developed by the Swainson's Hawk Technical Advisory Committee (TAC) to maximize the potential for locating nesting Swainson's hawks, and thus, reduce the potential for nest failures as a result of project activities and/or disturbances. To meet the Department's recommendations for mitigation and protection of*

Swainson's hawks in this guideline, surveys shall be conducted by a qualified raptor biologist for a 0.25-mile radius around all project activities and shall be completed for at least two survey periods as is found in the Department's 2000 survey guidelines (CDFG 2000). The guidelines provide specific recommendations regarding the number of surveys based on when the proposed project is scheduled to begin and the time of year the surveys are conducted. A copy of this survey report shall be provided to the City of Antioch prior to starting construction.

The applicant shall prepare a Swainson's Hawk Monitoring and Habitat Management Plan if a qualified raptor biologist determines that a nest site could be impacted or project activities could otherwise cause "take" of the Swainson's hawk, its eggs, or young. If take could occur as determined by a qualified raptor biologist, protective buffers shall be established on the project site that shall prevent such take from occurring. The protective buffer shall be maintained until such time that the Swainson's hawks have completed their nesting cycle as determined by a qualified raptor biologist. The nest protection buffer shall be coordinated with the Department.

In addition, the 272 acre Marsh Creek Mitigation Property (or an alternative mitigation property with comparable biological resources) shall compensate for project related impacts from the loss of the 141.6 acres of project site farmland that constitutes suitable foraging habitat for the Swainson's hawk. Mitigation that compensates for the loss of suitable Swainson's hawk foraging habitat shall include the preservation of the 272 acre Marsh Creek Property, which supports grasslands that provide suitable foraging habitat for Swainson's hawks. Alternatively, the project applicant could comply with one of the following:

1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or

2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.

The above change is for clarification purposes only. Thus, the change does not affect the technical biological analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

In order to ensure compliance with the ECCC HCP/NCCP, Mitigation Measure 4.3-8(b) on page 4.3-43 of Chapter 4.3, Biological Resources, of the Draft EIR is hereby revised as follows:

4.3-8(b) *The following measures shall be implemented by a qualified biologist:*

- *An education program shall be conducted by a qualified biologist prior to the start of construction to explain the endangered species concerns to contractors working at the project site. The program shall include an explanation of the FESA and CESA and any endangered species concerns in the area.*
- *Qualified biologists would conduct preconstruction den surveys no more than 14 days prior to site grading to ensure that potential kit fox dens are not disrupted. If "potential dens" are located, infrared camera stations shall be set up and maintained for 3 consecutive nights at den openings prior to initiation of grading activities to determine the status of the potential dens. If no kit fox is found to be using the den, site grading can proceed unhindered. However, if a kit fox is found using a den site within the project site the Service and the Department shall be notified and consulted before work activities resume. Alternatively, the project applicant could comply with one of the following:*

    1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or

    2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.

- *To prevent harm to San Joaquin kit fox, any steep-walled holes and/or trenches excavated on the project site shall be completely covered at the end of each workday, or escape ramps shall be provided to allow any entrapped animals to escape unharmed. All pipe sections stored at the project site overnight that are four inches in diameter or greater shall be inspected for San Joaquin kit fox before the pipes are moved or buried. If San Joaquin kit fox are identified in the work area at any time, the Service and/or the Department shall be notified and consulted before work activities resume. All trash items shall be removed from the site to reduce the potential for attracting predators of San Joaquin kit fox. Contractors shall be prohibited from bringing firearms and pets to the job site.*

The above change is for clarification purposes only. Thus, the change does not affect the technical biological analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

The acreage of the waters of the U.S. impacted as a result of the proposed project indicated in the Impact 4.3-9 discussion was erroneous. The following staff-initiated change provides consistency between the Draft EIR and the technical appendix. Therefore, the last paragraph on page 4.3-43 and the first paragraph on page 4.3-44 of Chapter 4.3, Biological Resources, of the Draft EIR is hereby revised as follows:

> The proposed project will result in impacts to areas that are within the USACE's and Regional Water Quality Control Board's jurisdiction pursuant to Sections 404 and 401 of the Clean Water Act, respectively. Areas subject to potential jurisdiction by these two agencies include Sand Creek, and an "other waters" roadside ditch and other isolated features along the shoulder of Heidorn Ranch Road. The proposed project will result in permanent impacts to 0.02~~8~~7 acre of waters of the U.S. and a total of 0.11 acre of "isolated other waters" that would be regulated as "waters of the State." (see Figure 4.3-1). Therefore, the project site results a ***potentially significant*** impact to waters of the United States and/or State.

The above change is for clarification purposes only. The Biological Resources Assessment and Mitigation Measure 4.3-9 reflected the correct acreage amount. Thus, the change does not affect the technical biological analysis prepared for the project. Accordingly, this revision does not alter the conclusions of the Draft EIR.

4.7 HYDROLOGY AND WATER QUALITY

The Contra Costa County Flood Control & Water Conservation District has requested inclusion of the following information to set the context for the hydrology and drainage of the area. Therefore, page 4.7-2 of Chapter 4.7, Hydrology and Water Quality, of the Draft EIR is hereby revised as follows:

> The Contra Loma Reservoir, built by the Bureau of Reclamation as part of the Central Valley Water Project and currently managed by the Contra Costa Water District, is supplied by the Contra Costa Canal and provides peak demand and emergency water supplies for the Contra Costa Water District. The Antioch Municipal Reservoir is also a key component of the City's water system, as the reservoir provides a means of equalizing demand and ensuring the reliability of the supply from the Contra Costa Canal. Although not situated on the main stem of the creek, some flood protection is also provided in the West Antioch Creek watershed by the Antioch Municipal Reservoir. Another lake, Lake Alhambra, which is a private recreation lake for the surrounding residential area, is located on East Antioch Creek.
>
> Regional Flooding
>
> The proposed project site is located in the Sand Creek watershed. Sand Creek is part of Marsh Creek, Flood Control Zone I, and the Drainage Area 130 (DA 130) Regional Master Plan. The Master Plans are designed to prevent flooding by anticipating

development in the Marsh Creek watershed (including tributary watersheds) through improving channel capacities and constructing various detention basins. The Regional Master Plan includes the Upper and Lower Sand Creek Detention Basins. The Upper and Lower Sand Creek Detention Basins are critical components of the plan to bring flood control to the Sand Creek and Marsh Creek Watersheds. Upper Sand Creek Basin (UCSB) has been completed; however, the Lower Sand Creek Basin (LSCB) is currently in an interim state. Contra Costa Flood Control & Water Conservation District (CCCFCWCD) is working to complete LSCB as soon as possible.

Most flooding that occurs within the City of Antioch is a result of heavy rainfall, high tides, and subsequent runoff volumes that cannot be adequately conveyed by the existing storm drainage system and surface water.

The above change provides additional context and is for clarification purposes only. Thus, the change does not affect the technical analyses prepared for the project (e.g., air quality, noise, traffic, etc.). Accordingly, this revision does not alter the conclusions of the Draft EIR.

The Contra Costa County Flood Control & Water Conservation District has requested inclusion of the following discussion regarding drainage area fees. Therefore, page 4.7-13 of Chapter 4.7, Hydrology and Water Quality, of the Draft EIR is hereby revised as follows:

The proposed project site is under the jurisdiction of the CVRWQCB and is subject to the EC3MSP and Provision C.3 requirements, and, thus, must include appropriate LID techniques to address stormwater runoff pollutant discharges and prevent increases in runoff flows. In order to meet the requirements, the proposed project's IMPs would include two separate on-site stormwater facilities designed to allow for hydromodification management, water quality treatment, and peak flow control during large storm events.

In addition, the project site is under the jurisdiction of the CCCFCWCD and is subject to the drainage area fee set forth in Flood Control Ordinance Number 2007-06. Pursuant to the ordinance, the project applicant would be required to submit the appropriate drainage area fees prior to filing the final map. Generally, the drainage area fees would help fund the construction of planned drainage facilities required to mitigate the increased runoff from development within the drainage area.

According to the Stormwater Control Plan prepared for the proposed project, the project proposes to divide the existing property into two watersheds, Watershed A and Watershed B. Watershed A would consist of approximately 481 single-family residential homes, and Watershed B would consist of approximately 160 single-family residential homes. Watershed A makes up nearly 70 percent of the proposed project site with a total of 102.9 acres, while Watershed B makes up a total of 45.6 acres. In addition to the 148.5 acres anticipated to be disturbed on the entire project site, approximately 11.5 acres to the north of the site needs to be accounted for in the proposed project's Stormwater Control Plan study area. The off-site 11.5 acres, identified as Watershed C, consists of open space with one residence and multiple outbuildings. Changes to Watershed C are not proposed as part of the project. The post-project watersheds and proposed drainage network are shown in Figure 4.7-1. It should be noted that the proposed project includes roughly 23 acres of park and open space, divided between both drainage management areas, which

does not include the 20- to 37-foot-wide frontage landscape that would run along the perimeter of the project site.

The above change provides additional context and is for clarification purposes only. Thus, the change does not affect the technical analyses prepared for the project (e.g., air quality, noise, traffic, etc.). Accordingly, this revision does not alter the conclusions of the Draft EIR.

3. RESPONSES TO COMMENTS

3 RESPONSES TO COMMENTS

This chapter contains responses to each of the comment letters submitted regarding the Vineyards at Sand Creek Project Draft Environmental Impact Report (EIR). Each bracketed comment letter is followed by numbered responses to each bracketed comment. The responses amplify or clarify information provided in the Draft EIR and/or refer the reader to the appropriate place in the document where the requested information can be found. Comments that are not directly related to environmental issues (e.g., opinions on the merits of the project that are unrelated to its environmental impacts) are either discussed or noted for the record, as appropriate. Where revisions to the Draft EIR text are required in response to the comments, such revisions are noted in the response to the comment, and are also listed in Chapter 2 of this Final EIR. All new text is shown as double underlined and deleted text is shown as ~~struck through~~.

The changes to the analysis contained in the Draft EIR represent only minor clarifications/amplifications and do not constitute significant new information. In accordance with CEQA Guidelines, Section 15088.5, recirculation of the Draft EIR is not required.

Letter 1

1 30 2015 8:16AM HP LASERJET FAX p.1

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
P.O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
FAX (510) 286-5559
TTY 711
www.dot.ca.gov

Serious Drought. Help save water!

July 29, 2015

CC0041005
CC-4-R34.284
SCH #2014092010

Ms. Alexis Morris
City of Antioch
P.O. Box 5007
Antioch, CA 94531

Dear Ms. Morris:

The Vineyards at Sand Creek Project - Draft Environmental Impact Report (DEIR)

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. Caltrans' new mission, vision, and goals signal a modernization of our approach to California's transportation system. We review this local development for impacts to the State Highway System (SHS) in keeping with sustainability, livability, economy, safety and health, and our comments are consistent with the State's smart mobility goals that support a vibrant economy, and build communities, not sprawl.

1-1 The project would be located within the City of Antioch (City) and is on the western side of State Route (SR) 4 and is within the northeastern corner of the Sand Creek Focus Area of the General Plan, which contains lands designated by the Antioch General Plan for open space, residential, Business Park, commercial and mixed-use development.

The proposed project consists of a residential development on 141.6 total acres, including up to 650 single-family residential units on 127.5 acres and 31.6 acres of parks and landscaped areas and the following road extensions:

- Heidorn Ranch Road and Hillcrest Avenue, and
- Sand Creek Road and the extension of a portion of the Sand Creek Trail for connection to other City and regional trails.

Traffic Operations

1-2 The Delay Index as presented on pages 4.11-18 through 4.11-35 is not sufficient for use on the SHS; please use level-of-service or vehicles-miles-traveled on the SHS.

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Letter 1 cont'd

Ms. Alexis Morris, City of Antioch
July 29, 2015
Page 2

1-3 Please clarify the following for the SR 4 / Sand Creek Road interchange:

- When will Sand Creek Road be extended west to access the project and,
- Add language, timeline, and implementation of Sand Creek Road extension.

1-4 Please also add a Distribution figure that outlines the completed project trip generation for Existing, Cumulative / near-term, and 20 year with and without project.

1-5 The Jeffery Way and westbound SR 4 interchange needs to be included in the analysis.

Forecasting

Please include the following:

1-6

- Turning movement traffic per study intersection under Cumulative Conditions and Project Only Conditions;
- Project driveways to reflect peak hours generated trips under Project Only Conditions; and
- The year that the cumulative 20 to 25 scenario starts.

Traffic Impact Fees

1-7 Given the Plan's contribution to area traffic and the location of the proposed project, traffic impact fees should be identified for project mitigation. Caltrans also encourages the City to participate in a contribution program and plan for the impact of future growth on the regional transportation system and regionally contribute such fees to the East Contra Costa Regional Fee Program administered by TRANSPLAN. Contributions would be used to help fund regional transportation programs that improve the transportation system to lessen future traffic congestion, improve mobility by reducing time delays, and maintain reliability on major roadways throughout the San Francisco Bay Area. Please also consider a multimodal fee to improve transit.

Caltrans encourages you to locate any needed project related housing, jobs and employee related services near major mass transit centers, with connecting streets configured to facilitate walking and biking, as a means of promoting mass transit use and reducing regional vehicle miles traveled and traffic impacts on the State highways. We also encourage you to develop Travel Demand Management (TDM) policies to encourage usage of nearby public transit reduce vehicle trips on the SHS to the future Hill Crest BART Station and increase service on Tri-Valley Transit for example better headway times on bus lines 380, 383, 385 and 392.

The TDM policies should include appropriate documentation for monitoring TDM measures, including annual reports to demonstrate the ongoing reduction of vehicle trips while continuing to survey the travel patterns of employees and visitors to the facility. Please see the following webpage for more information;
http://www.mtc.ca.gov/planning/smart_growth/parking.

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Jul 30 2015 8:16AM HP LASERJET FAX p.3

Letter 1 cont'd

Ms. Alexis Morris, City of Antioch
July 29, 2015
Page 3

1-8 Should you have any questions regarding this letter, please call Keith Wayne at 510-286-5737 or keith_wayne@dot.ca.gov.

Sincerely,

for PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

LETTER 1: PATRICIA MAURICE, CALIFORNIA DEPARTMENT OF TRANSPORTATION

Response to Comment 1-1

The comment is an introductory statement that does not address the adequacy of the Draft EIR.

Response to Comment 1-2

As noted in the *Transportation Impact Assessment* prepared for the project and included as Appendix O of the Draft EIR, the Contra Costa Transportation Authority's (CCTA's) *East County Action Plan for Routes of Regional Significance* has established the delay index as the Multimodal Transportation Service Objective (MTSO) for State Route 4 (SR 4) through the study area. The delay index is the ratio of actual travel times on a facility divided by the travel times that occur during non-congested, free-flow periods. Should the delay index exceed 2.5 during either the AM or PM peak period, freeway operations would be considered deficient. A delay index of 2.5 would equate to peak hour travel taking 2.5 times as long as off-peak travel or an average travel speed below 26 miles per hour assuming a non-congested free-flow speed of 65 miles per hour.

Results of the delay index calculations show that SR 4 from south of Sand Creek Road to north of Lone Tree Way are projected to operate within the established MTSO and the addition of project-generated traffic trips would not degrade operations beyond the established standard. In addition, the project would be required to pay all applicable local and regional transportation impact fees to fund on-going improvements to the SR 4 corridor in the study area.

Response to Comment 1-3

The Vineyards at Sand Creek Project will be required to build the portion of Sand Creek Road adjacent to the site. The timing of the Sand Creek Road extension is currently not defined and is expected to occur as the area west of SR 4 at Sand Creek Road in both Brentwood and Antioch is developed. ***(NOTE: PERHAPS CITY CAN PROVIDE ADDITIONAL DETAIL)***

Response to Comment 1-4

The requested distribution figures are included in Chapter 4.11, Transportation and Circulation, on pages 4.11-20, 4.11-21, and 4.11-24 of the Draft EIR. In addition, distribution figures for the Existing, Near Term, and Cumulative conditions, both with and without the addition of project-related trips, are provided in the *Transportation Impact Assessment* prepared for the project and included as Appendix O of the Draft EIR.

Response to Comment 1-5

The *Transportation Impact Assessment* prepared for the Aviano Residential Project by Kimley-Horn and Associates evaluated the Jeffery Way at SR 4 intersection. Based on information in the report as well as field observations, the intersection currently operates at LOS B or better during both peak hours. The Jeffery Way at SR 4 intersection is projected to continue to operate

at LOS B or better through the cumulative condition. As the proposed project is expected to add less than 50 peak-hour trips to the intersection in the cumulative condition, the project is not expected to degrade operations below LOS B. Therefore, additional analysis was not conducted. It should be noted that the project would be required to pay all applicable local and regional transportation impact fees to fund on-going improvements to the SR 4 corridor in the area.

Response to Comment 1-6

Please see Response to Comment 1-2 regarding turning movement figures for various scenarios. The cumulative plus project condition trip distribution figure is included on page 4.11-24 of Draft EIR Chapter 4.11. In addition, the cumulative condition trip distribution figure was included on page 33 of the *Transportation Impact Assessment* prepared for the project and included as Appendix O of the Draft EIR.

Appendix C, Vehicle Queue Calculation Worksheets, of the *Transportation Impact Assessment* (Appendix O of the Draft EIR) detail the AM and PM peak hour trip generation and distribution for the proposed project at both access driveways.

As indicated on page 4.11-22 of Chapter 4.11 and in the *Transportation Impact Assessment* prepared for the project, the cumulative condition is reflective of a 20 to 25 year time horizon from 2015, which reflects the expected conditions between 2035 and 2040.

Response to Comment 1-7

As a condition of approval, the project would be required to pay all applicable local and regional transportation impact fees. Additional mitigation would not be required given that all of the impacts related to transportation and circulation were determined to be less-than-significant or less-than-significant with implementation of mitigation included in the Draft EIR.

The project applicant and the City of Antioch have worked with Tri-Delta Transit to identify a potential transit stop along the project frontage that would include a bus shelter, as well as sidewalks connecting to the project's internal street network and the City's sidewalk network. As the project is developed and new roadways are constructed in the area, Tri-Delta Transit would likely adjust their routes to better serve the site, potentially providing a transit connection to the eBART station under construction at the Hillcrest Avenue interchange in Antioch.

Response to Comment 1-8

The comment is a conclusion statement that does not address the adequacy of the Draft EIR.

Letter 2

CALIFORNIA Water Boards

EDMUND G. BROWN JR. GOVERNOR

MATTHEW RODRIQUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION

RECEIVED

Central Valley Regional Water Quality Control Board JUL 16 2015

CITY OF ANTIOCH
COMMUNITY DEVELOPMENT

13 July 2015

Alexis Morris
City of Antioch
P.O. Box 5007s
Antioch, CA 94531

CERTIFIED MAIL
7014 2870 0000 7535 4395

COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, VINEYARDS AT SAND CREEK PROJECT, CONTRA COSTA COUNTY

2-1 Pursuant to the City of Antioch's 23 June 2015 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Environment Impact Report* for the Vineyards at Sand Creek Project, located in Contra Costa County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

2-2 Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

KARL E. LONGLEY SCD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER
11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley

RECYCLED PAPER

Letter 2 cont'd

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

2-3 The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

2-4 Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

2-5 If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Letter 2 cont'd

Clean Water Act Section 401 Permit – Water Quality Certification

2-6 If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements

2-7 If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program.
There are two options to comply:

2-8

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/app_approval/index.shtml; or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.

2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100**. Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently $1,084 + $6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory

Letter 2 cont'd

2-8 cont'd

Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

2-9

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

2-10

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.

Trevor Cleak
Environmental Scientist

LETTER 2: TREVOR CLEAK, CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

Response to Comment 2-1

The comment is an introductory statement that does not address the adequacy of the Draft EIR.

Response to Comment 2-2

As described on page 4.7-17 of Chapter 4.7, Hydrology and Water Quality, of the Draft EIR, the applicant is required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. To do so, the applicant must prepare a project-specific SWPPP, which would incorporate Best Management Practices (BMPs) in order to prevent or reduce to the greatest extent feasible adverse impacts to water quality from erosion and sedimentation.

As described on page 4.7-17 of Chapter 4.7, Hydrology and Water Quality, of the Draft EIR, the applicant is required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Compliance with the Permit requires the project applicant to file a NOI with the SWRCB and prepare a SWPPP prior to construction. The SWPPP would incorporate BMPs in order to prevent, or reduce to the greatest feasible extent, adverse impacts to water quality from erosion and sedimentation. As discussed in impact 4.7-3 of Chapter 4.7, Hydrology and Water Quality, the proposed project could increase the amount of surface runoff and discharge of urban contaminants into the stormwater drainage system and receiving waters; however, in accordance with City's NPDES Phase II Stormwater Permit requirements, the storm drainage system for the proposed project would incorporate water quality treatment consistent with the *Stormwater C.3 Guidebook*. Accordingly, the Draft EIR concludes on page 4.7-18 that because the project's on-site stormwater drainage system will adequately handle anticipated site runoff and eliminate urban contaminants prior to discharging into the City's stormwater system, implementation of the proposed project would not result in substantial additional amounts of contaminants entering the City's stormwater drainage system or receiving waters.

Response to Comment 2-3

As discussed on page 4.7-6 of Chapter 4.7, Hydrology and Water Quality, of the Draft EIR, the City of Antioch requires submission of a SWPPP to the RWQCB and to the City, which would include BMPs to maximize stormwater quality and would be consistent with the City's NPDES Phase II Stormwater Permit. In accordance with City and permit requirements, the storm drainage system for the proposed project would incorporate water quality treatment. For a description of the proposed drainage system, please refer to the discussion in the Draft EIR beginning on page 4.7-13.

As noted on page 34 of Appendix D, the City of Antioch is a Phase I MS4 Area Wide Permittee (Waste Discharge Requirements Order R5-2010-0102, NPDES Permit No. CAS083313). To

remain in compliance with this Order, the City of Antioch is required to enforce development of a project-specific post-construction Stormwater Management Plan (SWMP) that incorporates pre- and post-construction BMPs into the proposed project. Accordingly, the applicant will be required to prepare a SWMP that can be reviewed by the City of Antioch for verification that the proposed project is in compliance with the City's MS4 permit requirements. It should be noted that the Preliminary Stormwater Control Plan was included as Appendix L to the Draft EIR.

Response to Comment 2-4

Comment noted; however, the proposed project does not include industrial uses.

Response to Comment 2-5

The *Biological Resources Analysis* prepared by Monk & Associates indicates that special-status natural communities (i.e., wetlands and other waters under Sections 404 and 401 of the Clean Water Act, Section 1600 *et seq.* of the California Fish and Game Code, and/or the Porter-Cologne Act) are located within the proposed project site and in areas that will be subject to off-site improvements associated with the proposed project. As discussed in impact 4.3-9 of Chapter 4.3, Biological Resources, the proposed project will result in impacts to areas that are within the USACE's and Regional Water Quality Control Board's jurisdiction pursuant to Sections 404 and 401 of the Clean Water Act, respectively. Areas subject to potential jurisdiction by these two agencies include Sand Creek, and an "other waters" roadside ditch and other isolated features along the shoulder of Heidorn Ranch Road. The proposed project will result in permanent impacts to 0.027 acre of waters of the United States as well as "isolated other waters" that would be regulated as "waters of the State."

In order to mitigate impacts to the aforementioned wetland areas, Mitigation Measure 4.3-9 requires the project applicant to mitigate for project-related impacts to waters of the U.S. and waters of the State via purchase of seasonal wetland credits. In addition, as noted on page 4.3-22 of Chapter 4.3, Biological Resources, the project would be required to obtain a Nationwide Permit from the USACE pursuant to Section 404 of the Clean Water Act. Page 29 of Appendix D, Biological Resources Assessment, of the Draft EIR details how the proposed project would be required to comply with Sections 404 and 401 of the Clean Water Act, including the RWQCB's role in issuing a water quality certification.

Response to Comment 2-6

See Responses to Comments 2-2 and 2-5. Development and operation of the proposed project would impact waters of the United States and waters of the State. In order to mitigate impacts to the aforementioned wetland areas, Mitigation Measure 4.3-9 requires the project applicant to mitigate for project-related impacts to waters of the U.S. and waters of the State via purchase of seasonal wetland credits. In addition, as noted on page 4.3-22 of Chapter 4.3, Biological Resources, the project would be required to obtain a Nationwide Permit from the USACE, and a water quality certification of the Nationwide Permit(s), pursuant to Sections 401 and 404 of the Clean Water Act. Page 29 of Appendix D, Biological Resources Assessment, of the Draft EIR

details how the proposed project would be required to comply with Section 401 of the Clean Water Act.

Response to Comment 2-7

The USACE issued an approved jurisdictional determination on July 6, 2015 confirming the presence of jurisdictional waters. As such, the site is not one at which only non-jurisdictional waters of the State are present. See Responses to Comments 2-3 and 2-5. The project would not substantially affect the quality of stormwater runoff during construction, or result in substantial additional amounts of contaminants entering the City's stormwater drainage system or receiving waters.

Response to Comment 2-8

Comment noted; however, the proposed project does not include commercial irrigated agriculture.

Response to Comment 2-9

Dewatering is not anticipated to be required as a result of construction of the proposed project. However, should groundwater be encountered during construction and dewatering become necessary, the applicant would be required to seek the proper NPDES permit for dewatering actvities.

Response to Comment 2-10

The comment is a conclusion statement that does not address the adequacy of the Draft EIR.

Letter 3

THE CITY OF BRENTWOOD
HERITAGE • VISION • OPPORTUNITY

August 7, 2015

City of Antioch Community Development Department
Attn: Alexis Morris
P.O. Box 5007
Antioch, CA 94531

Subject: Vineyards at Sand Creek Project Draft EIR

Dear Ms. Morris:

Thank you very much for the opportunity to review the Vineyards at Sand Creek Project Draft EIR (State Clearinghouse #2014092010). This is certainly an important project for both Antioch and Brentwood, especially given its size and the fact that it is located along a portion of the common boundary between the two cities.

3-1 Staff has reviewed the Draft EIR and does not have any comments relative to its adequacy, pursuant to CEQA. Please keep the City informed as to the status of this project moving forward, including any public hearings with the Planning Commission or City Council.

If you have any questions about this letter or would like to discuss, please feel free to contact me directly at (925) 516-5137 or enolthenius@brentwoodca.gov. Again, thank you very much for the opportunity to review and provide comments on the Vineyards at Sand Creek Project Draft EIR.

Sincerely,

Erik Nolthenius
Planning Manager

Cc: Gustavo "Gus" Vina, City Manager
Casey McCann, Community Development Director
Bailey Grewal, Director of Public Works/City Engineer

COMMUNITY DEVELOPMENT
150 City Park Way • Brentwood, California 94513
Phone: 925-516-5405 • Fax: 925-516-5407
e-mail: dept-comdev@brentwoodca.gov

LETTER 3: ERIK NOLTHENIUS, CITY OF BRENTWOOD COMMUNITY DEVELOPMENT DEPARTMENT

Response to Comment 3-1

As noted in the comment, the City of Brentwood does not have any comments relative to the adequacy of the Draft EIR.

Letter 4

Contra Costa County
Flood Control
& Water Conservation District

Julia R. Bueren,
ex officio Chief Engineer
Steve Kowalewski,
Deputy Chief Engineer

July 27, 2015

Alexis Morris
City of Antioch
P.O. Box 5007
Antioch, CA 94531-5007

RE: GP-14-DEIR SCH #2014092010 —The Vineyards at Sand Creek
Our File: 3104-06 057-030-003, -004 & 057-050-017

Dear Ms. Morris:

4-1 We have reviewed the Draft Environmental Impact Report (DEIR) for the Vineyards at Sand Creek Project located in southeast Antioch, east of Deer Valley Road and west of Heidorn Ranch Road (APNs 057-030-003, -004 and 057-050-017). This development was previously called "The Promenade." We received the DEIR on June 22, 2015, and submit the following comments:

4-2

1. The DEIR should include the following text in Section 4.7.2 (Regional Flooding) to set the context for the hydrology and drainage of the area that surrounds the proposed development. This proposed subdivision is located in the Sand Creek watershed. Sand Creek is part of the Marsh Creek, Flood Control Zone 1, and the Drainage Area 130 (DA 130) Regional Master Plan. These plans are designed to prevent flooding by anticipating development in the Marsh Creek watershed (including tributary watersheds) through improving channel capacities and constructing various detention basins. The plan includes the Upper and Lower Sand Creek Detention Basins. The Upper and Lower Sand Creek Detention Basins are critical components of the plan to bring flood control to the Sand Creek and Marsh Creek Watersheds. Upper Sand Creek Basin (USCB) has been completed, but Lower Sand Creek Basin (LSCB) is currently in an interim state. Contra Costa County Flood Control & Water Conservation District (FC District) is working to complete LSCB as soon as possible.

4-3

2. This project is located within Drainage Area 130 (DA 130), for which a drainage fee is due in accordance with Flood Control Ordinance Number 2007-06. By ordinance, all building permits or subdivision maps filed in this area are subject to the provisions of the drainage fee ordinance. The DEIR should discuss the payment of drainage area fees for development within formed drainage areas as a mitigation measure. Mitigation drainage fees are charged for all newly created

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www.cccpublicworks.org

Letter 4 cont'd

Alexis Morris
July 27, 2015
Page 2 of 3

4-3 cont'd

impervious surface within DA 130. Effective January 1, 2015, the current fee in DA 130 is $0.68 per square foot of newly created impervious surface. Drainage area fees are required for all developments and are collected prior to the developer filing the final map. The DA 130 fees are estimated to be $1,906,099.

4-4

3. The FC District is not the approving local agency for this project as defined by the Subdivision Map Act. As a special district, the FC District has an independent authority to collect drainage fees that is not restricted by the Subdivision Map Act. The FC District reviews the drainage fee rate every year the ordinance is in effect and adjusts the rate annually on January 1 to account for inflation. The drainage fee rate does not vest at the time of tentative map approval. The drainage fees due and payable will be based on the fee in effect at the time of fee collection.

4-5

4. We recommend that the DEIR require as mitigation for the development impacts that the developer design and construct storm drain facilities to adequately collect and convey stormwater entering or originating within the development to the nearest adequate man-made drainage facility or natural watercourse, without diversion of the watershed.

4-6

5. The nearest natural watercourse, Sand Creek, currently does not have adequate capacity to convey the 100-year design storm at locations downstream of the project. The DEIR states that the discharge from the subdivision is mitigated by two proposed detention basins. The DEIR Section 4.7-1 shows a decrease in the discharge into Sand Creek for the 100-year 24-hour storm from 107.5 cfs in the existing condition tp 68.3 cfs in the developed condition. The City of Antioch (City) should ensure the detention basins are listed as a mitigation measure in the DEIR. These basins will not be accepted into the FC District's system, but will be considered private facilities.

6. The DEIR should list the capacities of the proposed detention basins.

4-7

7. The developer should consider adding spillways to the basins to direct flow into Sand Creek and away from the subdivision to mitigate for the potential condition that the basin outlet structures become clogged with debris. Alternatively, a redundant pipe system can be added for overflow.

8. The DEIR needs to discuss how the detention basins will be maintained in perpetuity. We recommend that the City require the development to form Maintenance Benefit Assessment District (MBAD), such as a Geologic Hazard Abatement District (GHAD) funded by property owners of the development. The GHAD would be responsible for maintenance operations, such as sediment

Letter 4 cont'd

Alexis Morris
July 27, 2015
Page 3 of 3

4-7 cont'd

removal, vegetation management, and basin repairs. We recommend that a homeowners association not be the maintenance entity.

9. The developer should be required to construct a minimum 12-foot wide access road that encircles each detention basin to allow maintenance operations, such as sediment removal, to occur. It appears from Figure 4.7-1 that these access roads have been included in the design.

4-8

10. The City should require this development to submit a drainage study, including hydrology and hydraulic analyses, drainage plans, and basin plans, to the FC District for review and approval because of the downstream flooding concerns. The proposed detention basins should be designed according to the FC District's basin design guidelines.

4-9

11. The storm drain outfall structure into Sand Creek at this location is outside of FC District jurisdiction; thus no FC District permit is required. However, the developer should be required to obtain all regulatory permits.

4-10

We appreciate the opportunity to comment on drainage matters and welcome continued coordination. If you have any questions, please e-mail me at craig.standafer@pw.cccounty.us or call me at (925) 313-2018.

Sincerely,

Craig M. Standafer
Civil Engineer
Contra Costa County Flood Control
& Water Conservation District

CMS:cw
G:\fldctl\CurDev\CITIES\Antioch\3104-06\057-030-003, -004, 057-050-017 Promenade\Response to DEIR -Jul-15.docx

c: Mike Carlson, Flood Control
Paul Detjens, Flood Control
Tim Jensen, Flood Control
Teri E. Rie, Flood Control
Carl Roner, Flood Control
Matthew Beinke, GBN Partners LLC
3820 Blackhawk Road
Danville, CA 94506

LETTER 4: CRAIG STANDAFER, CONTRA COSTA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

Response to Comment 4-1

The comment includes introductory statements that do not address the adequacy of the Draft EIR.

Response to Comment 4-2

Comment noted. Page 4.7-2 of Chapter 4.7, Hydrology and Water Quality, of the Draft EIR is hereby revised as follows:

> The Contra Loma Reservoir, built by the Bureau of Reclamation as part of the Central Valley Water Project and currently managed by the Contra Costa Water District, is supplied by the Contra Costa Canal and provides peak demand and emergency water supplies for the Contra Costa Water District. The Antioch Municipal Reservoir is also a key component of the City's water system, as the reservoir provides a means of equalizing demand and ensuring the reliability of the supply from the Contra Costa Canal. Although not situated on the main stem of the creek, some flood protection is also provided in the West Antioch Creek watershed by the Antioch Municipal Reservoir. Another lake, Lake Alhambra, which is a private recreation lake for the surrounding residential area, is located on East Antioch Creek.
>
> Regional Flooding
>
> The proposed project site is located in the Sand Creek watershed. Sand Creek is part of Marsh Creek, Flood Control Zone I, and the Drainage Area 130 (DA 130) Regional Master Plan. The Master Plans are designed to prevent flooding by anticipating development in the Marsh Creek watershed (including tributary watersheds) through improving channel capacities and construction various detention basins. The Regional Master Plan includes the Upper and Lower Sand Creek Detention Basins. The Upper and Lower Sand Creek Detention Basins are critical components of the plan to bring flood control to the Sand Creek and Marsh Creek Watersheds. Upper Sand Creek Basin (UCSB) has been completed; however, the Lower Sand Creek Basin (LSCB) is currently in an interim state. Contra Costa Flood Control & Water Conservation District (CCCFCWCD) is working to complete LSCB is soon as possible.
>
> Most flooding that occurs within the City of Antioch is a result of heavy rainfall, high tides, and subsequent runoff volumes that cannot be adequately conveyed by the existing storm drainage system and surface water.

Response to Comment 4-3

Comment noted. Pursuant to Flood Control Ordinance Number 2007-06, the project applicant would be required to submit the appropriate drainage fees prior to filing the final map for the proposed project. Because the proposed project is required to comply with all applicable laws, regulations, and ordinances, mitigation would not be required to ensure payment of the drainage

area fees. Nevertheless, based on the comment, page 4.7-13 of Chapter 4.7, Hydrology and Water Quality, of the Draft EIR is hereby amended as follows:

> The proposed project site is under the jurisdiction of the CVRWQCB and is subject to the EC3MSP and Provision C.3 requirements, and, thus, must include appropriate LID techniques to address stormwater runoff pollutant discharges and prevent increases in runoff flows. In order to meet the requirements, the proposed project's IMPs would include two separate on-site stormwater facilities designed to allow for hydromodification management, water quality treatment, and peak flow control during large storm events.
>
> In addition, the project site is under the jurisdiction of the CCCFCWCD and is subject to the drainage area fee set forth in Flood Control Ordinance Number 2007-06. Pursuant to the ordinance, the project applicant would be required to submit the appropriate drainage area fees prior to filing the final map. Generally, the drainage area fees would help fund the construction of planned drainage facilities required to mitigate the increased runoff from development within the drainage area.
>
> According to the Stormwater Control Plan prepared for the proposed project, the project proposes to divide the existing property into two watersheds, Watershed A and Watershed B. Watershed A would consist of approximately 481 single-family residential homes, and Watershed B would consist of approximately 160 single-family residential homes. Watershed A makes up nearly 70 percent of the proposed project site with a total of 102.9 acres, while Watershed B makes up a total of 45.6 acres. In addition to the 148.5 acres anticipated to be disturbed on the entire project site, approximately 11.5 acres to the north of the site needs to be accounted for in the proposed project's Stormwater Control Plan study area. The off-site 11.5 acres, identified as Watershed C, consists of open space with one residence and multiple outbuildings. Changes to Watershed C are not proposed as part of the project. The post-project watersheds and proposed drainage network are shown in Figure 4.7-1. It should be noted that the proposed project includes roughly 23 acres of park and open space, divided between both drainage management areas, which does not include the 20- to 37-foot-wide frontage landscape that would run along the perimeter of the project site.

Response to Comment 4-4

The comment describes the CCCFCWCD's role as a special district and does not address the adequacy of the Draft EIR.

Response to Comment 4-5

As discussed beginning on page 3-8 of Chapter 3, Project Description, of the Draft EIR, the proposed project includes two detention basins in order to collect and convey stormwater within the development. Because the basins are included as part of the proposed project, mitigation would not be required to ensure development of the basins.

In addition, as discussed beginning on page 4.7-12 of Chapter 4.7, Hydrology and Water Quality, the proposed project site is under the jurisdiction of the Central Valley Regional Water Quality

Control Board (CVRWQCB) and is subject to the East Contra Costa County Municipal Stormwater Permit (EC3MSP) and Provision C.3 requirements, and, thus, must include appropriate low impact development (LID) techniques to address stormwater runoff pollutant discharges and prevent increases in runoff flows. In order to meet the requirements, the proposed project's integrated management practices (IMPs) would include two separate on-site stormwater facilities designed to allow for hydromodification management, water quality treatment, and peak flow control during large storm events.

The proposed stormwater facilities would be maintained regularly, with maintenance including removal of sediment accumulation and coarse debris that would otherwise have the potential to clog the orifices. In addition, the project would not divert the watershed as a result of the proposed stormwater facilities. Overall, the proposed stormwater facilities and outlet control structures would be effective in attenuating post-project peak flow rates to below existing conditions during large storm events. As a result, the subsequent flow being drained into Sand Creek via the new outfall structure would be less than what is currently discharged into the creek and would not cause any negative effects downstream.

Response to Comment 4-6

See Response to Comment 4-5. The capacities of the proposed detention basins are included in Appendix L, Preliminary Stormwater Control Plan, of the Draft EIR. The capacities of the first and second basins are approximately 530,324 cubic feet and 254,041 cubic feet, respectively.

Response to Comment 4-7

See Response to Comment 4-5. The maintenance requirements for the proposed detention basins are included in Appendix L, Preliminary Stormwater Control Plan, of the Draft EIR. As noted on page 12 of Appendix L, the homeowner's association (HOA) will assume ownership and responsibility for maintenance of IMP2 (Basin B), while a landscape and lighting district (LLD) will assume ownership and responsibility for maintenance of IMP1 (Basin A). Operation and maintenance of the facilities will be the responsibility of the owner until transferred to the HOA or City (LLD). In addition, as shown in Figure 3-5 on page 3-9 of Chapter 3, access would be available for each detention basin to allow for maintenance operations. The commenter's suggestion regarding maintenance of the detention basins will be forwarded to the project applicant and the City for their consideration.

Response to Comment 4-8

The commenter may review the Preliminary Stormwater Control Plan for the proposed project, which was included as Appendix L to the Draft EIR. In addition, the City's standard conditions of approval require submittal of a hydraulic analysis for review.

Response to Comment 4-9

Comment noted. The applicant will obtain all required regulatory permits for the storm drain outfall structure into Sand Creek.

Response to Comment 4-10

The comment is a conclusion statement that does not address the adequacy of the Draft EIR.

Letter 5

East Bay Regional Park District

Healthy Parks Healthy People

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August 7, 2015

Alexis Morris
City of Antioch
Community Development Department
P.O. Box 500
Antioch, CA 94531

Sent via e-mail to
amorris@ci.antioch.ca.us
On August 7, 2015 NL

RE: Notice of Availability of Vineyards at Sand Creek Project Draft Environmental Impact Report

Dear Alexis Morris,

5-1 The East Bay Regional Park District (the "District") appreciates the opportunity to provide comments on the Draft Environmental Impact Report (EIR) for the Vineyards at Sand Creek Project (Project), located in southeastern Antioch on the western side of State Route 4 (SR4) in eastern Contra Costa County. The proposed Project is located in the vicinity of the District's Black Diamond Mines Regional Preserve and Deer Valley Regional Park. The Mokelumne Coast to Crest Trail is to the north of the project site which is identified in the District's 2013 Master Plan and in the Antioch General Plan. The Project proposes to build 650 single-family homes on 127.5 acres with 31.6 maintained parks and landscaped areas, a trail along Sand Creek and open space areas on a total Project area of 141.6 acres. The Project also proposes a mitigation property on Marsh Creek Road in unincorporated Contra Costa County that is of particular interest to the Park District because it is directly adjacent and to Round Valley Regional Preserve.

The District has a long term commitment to protecting and maintaining open space in Contra Costa County and providing public access and recreation opportunities. The District has reviewed the Draft EIR and is concerned about the following points:

5-2 1. Regional Trail Connections – while the Project proposes to construct a segment of Sand Creek Trail, it is not specified the type of trail that would be constructed and the District would be interested to know if the trail will be a Class I Bike Path. Furthermore, in addition to providing Class II bicycle lanes along Hillcrest Avenue, Heidorn Ranch Road and Sand Creek Road, the District encourages the Project to support the construction of the Mokelumne Coast to Crest Trail's Bicycle/Pedestrian Overcrossing which is located to the northeast of the Project site.

   Supporting the construction of the Bicycle/Pedestrian Overcrossing will help guarantee City of Antioch General Plan conformity in regards to Policy 10.6.2.b which requires "developers of large residential and non-residential projects to participate in programs and to take measures to improve traffic flow and/or reduce vehicle trips resulting in decreased vehicular emissions." The Overcrossing, in addition to improving non-vehicular traffic circulation, will also improve the safety

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Robert E. Doyle, General Manager

Letter 5 cont'd

Alexis Morris
August 7, 2015
Page 2

5-2 cont'd

of recreational bicyclists and pedestrians as they make use of the Mokelumne Coast to Crest Trail and recreate throughout the Sand Creek area.

2. Marsh Creek Road Mitigation Property – The Marsh Creek Road Mitigation Property (Mitigation Property) is located directly to the north of Round Valley Regional Preserve. A conservation easement is proposed for the property and would mitigate Project impacts on California red-legged frog, California tiger salamander, western pond turtle, western burrowing owls, Swainson's hawk, San Joaquin kit fox and creek and wetlands. The Project description does not provide sufficient information about the proposed mitigation site.

5-3

Proper management of the site is critical to the District because it is directly adjacent to Round Valley Regional Preserve. The Mitigation Property is frequently mentioned in the Impacts and Mitigations Measures and Biological Resources sections of the DEIR, but there is not sufficient information about plans for the property or who will manage the property or the proposed conservation easement. The Park District is mentioned as a potential holder of the conservation easement. The District is definitely interested in being an active participant in planning on the property whether that is as a conservation easement holder or as a fee title holder working with a qualified third-party conservation easements holder. Additionally, the proposed conservation easement's Resource Management Plan (RMP) should take into consideration potential regional trail alignments identified in the District's 2013 Master Plan connecting Round Valley to Black Diamond Mines and Big Break.

5-4

3. General Plan Amendment and Rezone – The Park District would like to point out that the original intent of Antioch's current General Plan for the Sand Creek Focus Area was to create a mix-use environment of residential and business parks. Currently, the Aviano development was originally approved as an "Adult Community" but as of the last Planning Commission meeting on August 3, 2015 the developer has proposed building small lot single family residences. Changing Vineyards at Sand Creek Project's land use designation from Business Park to Medium Low Density Residential contributes to overall shift in the Sand Creek Focus Area in the current General Plan for a mixture of uses. Shifting away from the original intended uses of the Sand Creek Focus Area should be at the prerogative of the City of Antioch and not at the request of different developers. These incremental shifts in land use throughout the focus area could create a significant cumulative effect on traffic, greenhouse gases, recreational opportunities, biological and aquatic resources which in turn affects the District's mission and goals to provide public access and recreational opportunities to the inhabitants of Contra Costa County.

5-5

Thank you for your review and consideration of our comments. The Park District is very interested in scheduling a meeting with the City of Antioch and the developers to further discuss your proposed Marsh Creek Road Mitigation Property. If you have any questions or concerns, please contact me at (510) 544-2626, or by e-mail at nlavalle@ebparks.org.

Respectfully,

Neoma Lavalle
Planner

Letter 5: Neoma Lavelle, East Bay Regional Park District

Response to Comment 5-1

The comment includes introductory statements that do not address the adequacy of the Draft EIR.

Response to Comment 5-2

As shown in Figure 3-5 on page 3-9 of Chapter 3, Project Description, the proposed Sand Creek Trail segment would be a minimum of ten-feet-wide and would be constructed with asphalt concrete. The trail would be completely separated for the exclusive use of bicycles and pedestrians and, thus, would be considered a Class I Bike Path. The commenter's suggestion regarding construction of the Mokelumne Coast to Crest Trail's Bicycle/Pedestrian Overcrossing will be forwarded to the project applicant and the City decision-makers for their consideration.

Response to Comment 5-3

Description of the Marsh Creek Road Mitigation Property is not appropriate within the Project Description chapter. It should be noted that, as discussed on page 4.3-50 of Chapter 4.3, Biological Resources, management of the Mitigation Property is discussed in-depth in Appendix F, Resource Management Plan, of the Draft EIR. As discussed on page 11 of Appendix F, a resource management plan will be prepared for the Marsh Creek Road Mitigation Property that documents the existing conditions of the property, including special-status species, and addresses both short-term and long-term monitoring and management actions. The commenter's suggestion regarding planning for the Marsh Creek Road Mitigation Property will be forwarded to the project applicant and the City decision-makers for their consideration.

Response to Comment 5-4

The comments regarding land use and zoning designations in the Sand Creek Focus Area will be forwarded to the decision-makers for their consideration. It should be noted that cumulative impacts related to land use and planning as a result of the proposed project were analyzed on page 4.8-30 of Chapter 4.8, Land Use and Planning/Agricultural Resources, of the Draft EIR. In addition, cumulative impacts related to traffic, greenhouse gases, recreation, and biological resources as a result of the proposed project were analyzed in Chapters 4.11, 4.2, 4.10, and 4.3, respectively, of the Draft EIR. All of the cumulative impacts related to land use, traffic, greenhouse gases, recreation, and biological resources as a result of the proposed project were determined to be less-than-significant or less-than-significant with implementation of mitigation included in the Draft EIR.

Response to Comment 5-5

The comment is a conclusion statement that does not address the adequacy of the Draft EIR.

Letter 6

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

August 7, 2015

RECEIVED
AUG 12 2015
CITY OF ANTIOCH
COMMUNITY DEVELOPMENT

Alexis Morris
City of Antioch
P.O. Box 5007
Antioch, CA 94531

Subject: Promenade Project
SCH#: 2014092010

Dear Alexis Morris:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on August 6, 2015, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

6-1

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Letter 6 cont'd

Document Details Report
State Clearinghouse Data Base

SCH#	**2014092010**
Project Title	Promenade Project
Lead Agency	Antioch, City of

Type	**EIR** Draft EIR
Description	The proposed project would include construction of a residential development on 141.6 total acres, including up to 650 single-family residential units on 127.5 acres; 31.6 acres of parks and landscaped areas (some of which overlap with the residential area); the southerly extension of Heidorn Ranch Road, Hillcrest Avenue, and Sand Creek Road; extension of portion of the Sand Creek Trail for connection to other City and regional trails; and utility improvements. In addition, the proposed project would construct off-site improvements (i.e., roadways and utilities) that would affect two off-site adjacent areas totaling approximately 6.47 acres: an area to the north and east that includes an approximately 6.02-acre portion of Heidorn Ranch Road (a dedicated public roadway in Antioch); and a 0.4 acre area to the southeast that includes a portion of Sand Creek in which storm drain lines and a storm drain outfall structure would be constructed.

Lead Agency Contact

Name	Alexis Morris		
Agency	City of Antioch		
Phone	925 779 6141	*Fax*	
email			
Address	P.O. Box 5007		
City	Antioch	*State* CA	*Zip* 94531

Project Location

County	Contra Costa			
City	Antioch			
Region				
Lat / Long	37° 57' 3.64" N / 121° 45' 17.68" W			
Cross Streets	Old Sand Creek Road / Heidorn Ranch Road			
Parcel No.	057-030-003, -004, 057-050-007			
Township	1N	*Range* 2E	*Section* 9	*Base* MDB&M

Proximity to:

Highways	Hwy 4
Airports	
Railways	
Waterways	Sand Creek
Schools	Various
Land Use	Various

Project Issues	Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Geologic/Seismic; Other Issues; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Aesthetic/Visual
Reviewing Agencies	Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 3; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; California Highway Patrol; Caltrans, District 4; Department of Housing and Community Development; Air Resources Board; State Water Resources Control Board, Division of Water Quality; Regional Water Quality Control Board, Region 2; Department of Toxic Substances Control; Native American Heritage Commission

Letter 6 cont'd

Document Details Report
State Clearinghouse Data Base

Date Received	06/22/2015	***Start of Review***	06/23/2015	***End of Review***	08/06/2015

Letter 6: Scott Morgan, Governor's Office of Planning and Research

Response to Comment 6-1

The comment acknowledges that the City has complied with the State Clearinghouse review requirements, pursuant to CEQA. The comment does not address the adequacy of the Draft EIR.

Letter 7

August 5th, 2015

Alexis Morris, Senior Planner
City of Antioch Community Development Department
P.O. Box 5007
Antioch, CA 94531

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Proud Member of
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California Council of Land Trusts
Bay Area Open Space Council

RE: Comments on the Draft Environmental Impact Report (dEIR) for the Proposed Vineyards at Sand Creek Project, SCH #2014092010

Dear Ms. Morris,

Save Mount Diablo (SMD) is a non-profit conservation organization founded in 1971 which acquires land for addition to parks on and around Mount Diablo and monitors land use planning which might affect protected lands. We build trails, restore habitat, and are involved in environmental education. In 1971 there was just one park on Mount Diablo totaling 6,778 acres; today there are almost 50 parks and preserves around Mount Diablo totaling 110,000 acres. We include more than 8,000 donors and supporters.

We appreciate the opportunity to submit comments on the dEIR for the proposed Vineyards at Sand Creek Project (Project). Among other things, the Project proposes the construction of up to 650 houses on approximately 142 acres in south Antioch just north of Sand Creek, and a land use designation change from Business Park to Medium Low Density Residential.

7-1

Our review of the dEIR leaves us with a number of concerns about the Project, some of which were stated in our comments on the Notice of Preparation for the Project (under its former name, the Antioch Promenade) that we submitted in October 2014. We are disappointed that among the issues we pointed out in 2014, the dEIR has failed to address concerns related to California tiger salamander (CTS), a Sand Creek buffer, and others.

Our main concerns are that the current Project proposal lacks 1) an adequate recreational and wildlife movement corridor buffer around Sand Creek, 2) focused surveys for certain special status species, 3) recognition of the presence or need to mitigate for impacts on CTS and 4) an adequate overall amount of mitigation.

These deficiencies should be addressed and the dEIR should be revised. Given the potential significance that new information obtained from these revisions could reveal, a recirculated dEIR should be prepared.

We elaborate on our concerns and recommendations below.

1901 Olympic Blvd., # 320, Walnut Creek, CA 94596 • T (925) 947-3535 • SaveMountDiablo.org • Tax ID # 94-2681735

Save Mount Diablo
PRESERVE • DEFEND • RESTORE • ENJOY

Letter 7 cont'd

Lack of detail on the Sand Creek buffer

The proposed Project footprint abuts Sand Creek to the south. Sand Creek is an important riparian and wildlife corridor, even in a degraded condition. Its three-dimensional vegetation structure and the riparian species found there support a rich biological community and serve as a stopover point for migrating and locally moving wildlife. It is likely the most biodiverse habitat area in the Sand Creek Focus Area.

7-2 The Final EIR (fEIR) for the approved Aviano Adult Community (Aviano), immediately adjacent the Project to the west, features a 100 ft. buffer from creek top-of-bank on the north side, and a 300 ft. buffer from top-of-bank on the creek's south side. The Aviano fEIR also states that the development plan will include the transfer of its on-site open space preserve, including the Sand Creek riparian buffer, into a dedicated parcel and a deed restriction over the parcel to ensure that ecological values are maintained in perpetuity.

Sand Creek riparian protection measures similar to those of Aviano are conspicuously absent from the Project dEIR. While the dEIR describes several policies that require adequate buffer areas, including those found in the Sand Creek Focus Area section of the Antioch General Plan, it provides no detail on the dimensions of the proposed buffer around the portion of Sand Creek affected by the Project. The dEIR only seems to reference a vague "Sand Creek buffer area" in relation to the proposed detention basin and small amount of open space south of the residential area.

7-3 Similar to Aviano, the dEIR should be revised to include the specific dimensions of the proposed buffer around Sand Creek. The 100 ft. north-side buffer and 300 ft. south-side buffer for Aviano would combine for a total 400 ft. buffer from top-of-bank. Unlike Aviano, the Project does not specify any construction or land use changes to the south of the creek. Therefore it would be appropriate for the Project to specify a buffer of at least 300 ft. (the same as Aviano's south-side buffer) on the north-side. Such a buffer would allow the creek to naturally develop over time and help avoid further incision and degradation of Sand Creek. This would also help ensure that an adequate buffer area is maintained from east to west and preserve a fairly similar total buffer area along Sand Creek from the Project to Aviano, while also taking into account the fact that the Project only proposes activities to the north of the creek and therefore may not be necessary to protect both sides of the creek, as Aviano does.

7-4 However, and as will be discussed below in our letter, the amount of land preservation mitigation currently being proposed for the Project is inadequate. The necessity of increased mitigation above that which is already being proposed presents an opportunity for additional protection on the south side of Sand Creek. Such "on-site" land preservation mitigation would be entirely appropriate for the Project, as well as restoration activities in Sand Creek as a component of required mitigation. It is important to note that the Three Creeks Restoration Project and Upper Sand Creek Basin Restoration Project are already implementing restoration in Sand Creek to the east and west of the Project site (http://www.cccounty.us/5795/Three-Creeks-Restoration-Project, http://www.cccounty.us/4253/Upper-Sand-Creek-Basin). Such mitigation via restoration would be extremely desirable and complement current restoration activities.

7-5 The proposed detention basin across the road and south of the residential development should be located outside of the Sand Creek riparian zone buffer. The basin's purpose and function would not be the same as those of the buffer zone, which are focused on wildlife and recreational linkages. Therefore, the detention basin should not count as part of any buffer along the creek. The dEIR seems to recognize that the detention basin itself does not count as open space, as it identifies less than six acres of open space that are proposed around and adjacent to the detention basin. By the same token, no structures should be

Letter 7 cont'd

7-5 cont'd allowed in or immediately adjacent to the riparian zone buffer, as these would conflict with the general wildlife preservation and recreational purposes of the buffer.

7-6 In addition, the dEIR should be revised to include text detailing the transfer of the open space along Sand Creek into a dedicated parcel and a deed restriction over the parcel to ensure that ecological values are maintained in perpetuity. These would be the same requirements as Aviano, immediately adjacent to the Project. Such requirements would not only help ensure the protection of the Sand Creek riparian zone, but re-enforce the consistency and continuity of mitigation and riparian protection requirements for development affecting Sand Creek.

Without such text, the dEIR currently lacks a mechanism for how the proposed buffer and open space along Sand Creek would be protected and maintained.

Presence of CTS and lack of focused surveys

The dEIR asserts that because the Project site has been continually disked and used for hay production since the 1940's, the site does not serve as habitat for CTS despite there being several CNDDB records nearby (at least nine according to the dEIR, one of which only 0.6 miles away). We strongly object to this interpretation of available information. The rationale provided that agricultural activity for the past 70 years is evidence as to why CTS is not present is not scientifically valid.

7-7 While it is true that continuous deep ripping of rodent burrow areas may completely destroy burrows and harm or kill any California tiger salamanders using them, the dEIR does not provide any information that this has occurred on the Project site. It offers only a statement that the site has been disked and farmed since the 1940's. Where are the records that were used as the basis for this statement? If they exist, they should be included in the dEIR.

There are no records shown that demonstrate that disking has occurred on the Project site (Figure 1) on an annual basis for as long as the dEIR claims. Furthermore, no focused surveys for CTS were conducted at the Project site, despite the fact that several records for this rare listed species exist in the immediate vicinity of the Project site. This makes it impossible to determine whether or not CTS is present on the Project site. Indeed, given that there are multiple CNDDB records for the species close to the Project site and no records provided that indicate disking has occurred to the degree and frequency stated in the dEIR, there seems to be more evidence that points to the presence of CTS than its absence.

7-8 It is a certainty that California ground squirrels are abundant and active in at least a dozen burrows on the edge of the Project site. I myself visited the Project site on July 23rd 2015 and took several photographs of ground squirrels and their burrows immediately adjacent the Project site and Heidorn Ranch Road (Figures 2 and 3). These squirrels and burrows would be impacted by activities on the Project site as well as the roadways and utilities activities proposed in off-site impact area #1 (dEIR Section 3.3). The abundance of ground squirrels burrows raises the strong possibility that CTS is present on the site.

Letter 7 cont'd

7-8 cont'd

Figure 1. A copy of Figure 3-4 from dEIR Volume 1. Note location of Aera property and off-site impact area #1.

4

Letter 7 cont'd

7-8 cont'd

X-1

Figure 2. Photograph of the Project site looking west from Heidorn Ranch Road. Two California ground squirrel burrows are in the immediate foreground (see red arrow). The Project site is immediately adjacent. Mount Diablo is in the background. Taken 7/23/15.

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Letter 7 cont'd

7-8 cont'd

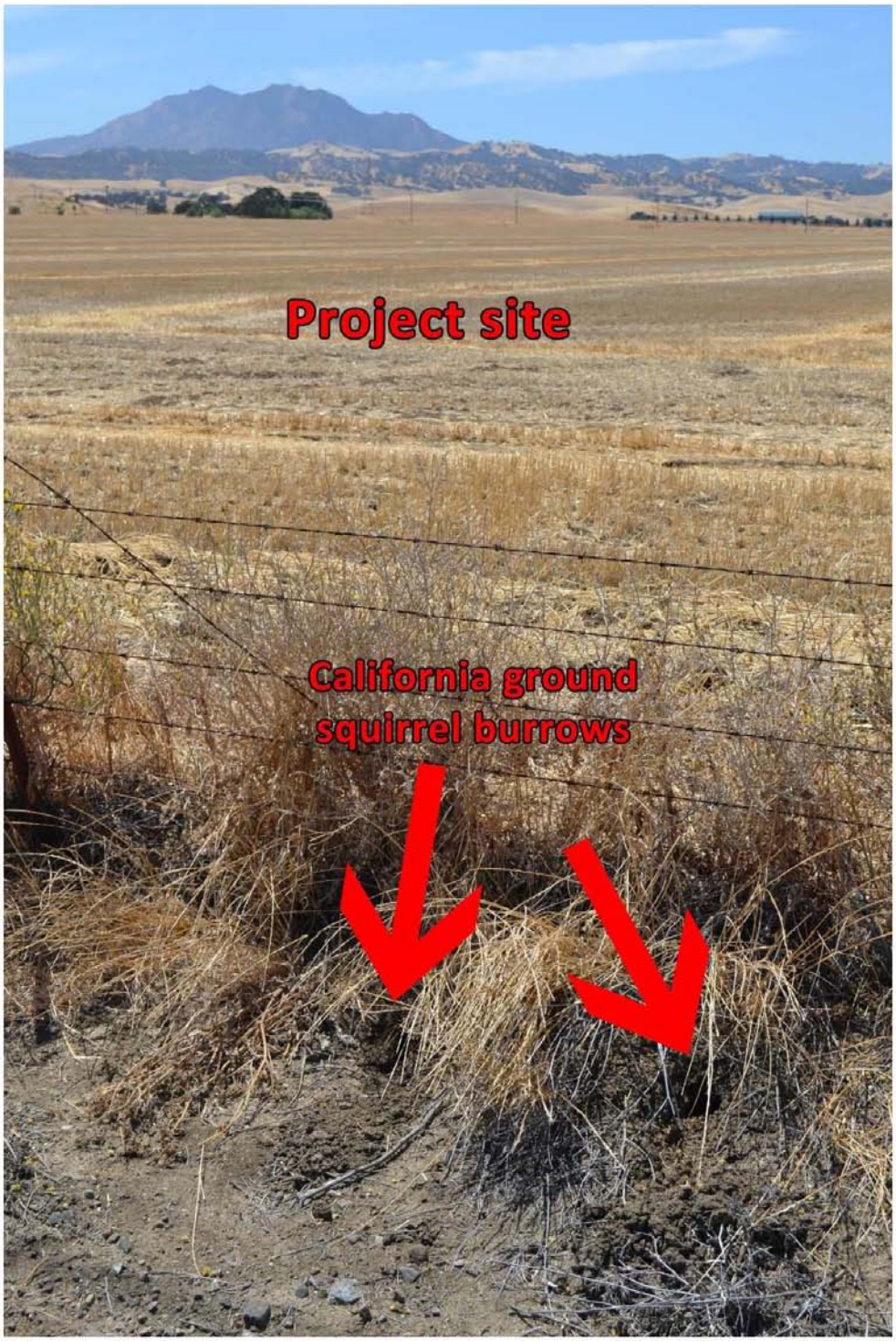

Figure 3. Photograph of the Project site looking west from Heidorn Ranch Road. Two California ground squirrel burrows are in the immediate foreground (see red arrows). The Project site is immediately adjacent. Mount Diablo is in the background. Taken 7/23/15.

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Letter 7 cont'd

The dEIR itself states that California ground squirrel burrows were recently present on the Aera portion of the Project site, at least before a remediation project occurred on that portion of the property. It is possible that ground squirrels recolonized Aera after remediation, and burrows that would be suitable for CTS are present once again. During my site visit on July 23rd, I saw several ground squirrels and burrows along the edge of Heidorn Ranch Road that were extremely close to the Aera portion of the Project site, and heard ground squirrel alarm calls coming from within Aera. The presence of ground squirrels immediately adjacent to Aera, and likely within it, underscores the need for focused surveys to be conducted during the appropriate survey periods throughout the Project site by qualified wildlife biologists.

7-8 cont'd

The neighboring Aviano property has not only assumed presence of CTS, San Joaquin kit fox and Swainson's hawk, but has also obtained an incidental take permit for those species and has developed a mitigation strategy for them. Aviano has also been subjected to human activity for just as long as the Project site has been.

It is troubling that the dEIR seems to be trying to claim that engaging in temporary activities, such as disking or soil remediation, is grounds to assert that the affected land has been permanently and irrevocably impacted and could never serve as habitat for a rare listed species known to be in the immediate vicinity. The cultivation and disking of the majority of the Project site should be considered temporary activities that degrade CTS upland habitat. If the Project were to be constructed, that would be a permanent loss of CTS habitat that would require mitigation.

Given the close proximity of nine CNDDB records for CTS to the Project site and the abundance of California ground squirrels and burrows along Heidorn Ranch Road, and potentially within Aera, it is reasonable to assume that CTS are present on the Project site. Focused surveys for CTS should have been conducted from the very beginning, disking or no. The dEIR should be revised and recirculated to include focused protocol surveys for CTS on the Project site. Without proper focused surveys to characterize the Project site and the potential use thereof by sensitive species, disclosure under CEQA and development of avoidance and minimization measures to mitigate impacts to less than significant levels is impossible.

Round-leaved filaree

7-9

Similar to the situation with CTS, the dEIR seems to be overly dismissive of the potential for round-leaved filaree to be present on the site. This rare plant was identified on the Project site in 2005, despite the decades of intensive farming that the dEIR is all too keen to point out. However, because surveys conducted in 2006 or 2014 failed to find the plant, the dEIR asserts that the population located in 2005 has been extirpated. This is another case of the dEIR mistakenly asserting that the impacts of temporary activities are the same as permanent impacts caused by wholesale destruction of habitat.

However, applying this rationale to round-laved filaree makes even less sense than it does for CTS because this rare plant was found on the Project site in the last decade. If the plant survived more than six decades of intensive farming, how is it that we can assume that an additional nine years of such activity has extirpated the population? It should be noted that this species is present on the Aviano site just west of the Project site, with survey detections in 2006 and 2013.

7-10

In addition, the dEIR never describes the methods for the rare plant surveys conducted at the Project site. Were they conducted during the blooming period of this species from March through May? If so, the dEIR should be revised to say so. If not, focused repeat botanical surveys during the appropriate blooming periods should be conducted for several years in order to determine if the species exists on the site. As we

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Letter 7 cont'd

7-10 cont'd

have already stated for CTS, repeated (several years) of focused surveys conducted during appropriate times are necessary to determine negative presence.

The dEIR should also be revised to include appropriate mitigation for the round-leaved filaree (currently, like CTS, the dEIR states that no mitigation for this species is necessary). It should be noted that increasing buffers around Sand Creek, as has already been discussed in this letter, could help avoid impacts to this species.

Inadequate mitigation and potential mitigation locations

7-11

The Project currently proposes to mitigate for the biological impacts of construction with a suite of measures, including pre-construction surveys, construction zone buffers, and a conservation easement over a 272 acre property adjacent Round Valley Regional Preserve and Marsh Creek Road.

The proposed mitigation property includes a significant portion of Marsh Creek and associated riparian vegetation, as well as grassland and blue oak woodland. The dEIR states that conservation of this property will mitigate for impacts on San Joaquin Kit Fox, Western Burrowing Owl, Swainson's Hawk, California Red-legged Frog and Western Pond Turtle. The dEIR also states that the mitigation property will benefit CTS, while maintaining that the Project will not impact the species.

While we agree that a conservation easement over the proposed property would yield conservation benefits for these species and that the property is desirable from a land preservation viewpoint, more land preservation is required. Placing a conservation easement over the proposed mitigation property alone is not enough. Additional land would have to be protected to fully mitigate for the biological impacts of the Project, in addition to the other mitigation measures already specified in the dEIR.

7-12

The Project proposes to develop 650 houses on 142 acres. 128 of these acres would have actual houses on them; the remainder would contain the proposed detention basins, road, landscaped parks, etc., with some overlap. Because landscaped areas, detention basins, and very small amounts of highly fragmented open space within the Project site should not be regarded in any way as mitigation, we consider the full 142 acres as impacted and judge the adequacy of mitigation by using that amount.

Currently, the 272 acre mitigation property is the only land being proposed for mitigation. When compared with the area of habitat being impacted, this amounts to a mitigation ratio of less than 2:1 (the proposed mitigation ratio is 1.9:1, to be exact). This amount of land preservation as mitigation for biological impacts on rare listed species is insufficient. The dEIR already recognizes that the Project would impact the species listed above, and we have already pointed out that the Project also likely impacts CTS. The typical mitigation ratio for impacts to habitat for such species is 3:1, and this level of mitigation has already been applied to Aviano, located immediately adjacent to the Project.

The mitigation measures in the Aviano fEIR include the preservation of 462 acres of land for 150 acres of impact, a mitigation ratio of 3:1 (actually 3.1:1). This preserved land serves as habitat mitigation for the same species that the Project would impact. Similar to the widths for the Sand Creek riparian buffer zone that we have discussed above, a required mitigation ratio of 3:1 is not only appropriate, but demonstrates a consistent and continuous level of impact mitigation and resource protection for development projects along Sand Creek. Applying a 3:1 mitigation ratio to the Project yields a land preservation acreage of 426 acres. This would be 154 acres in addition to the current proposed mitigation property.

7-13

As we have suggested above, areas south of the portion of Sand Creek that would be impacted by the Project, as well as restoration activities in Sand Creek, would be ideal locations for additional mitigation

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for the Project. Another location where further land preservation mitigation would be particularly suitable would be the western-most square mile of the Sand Creek Focus Area, on the west side of Empire Mine Road. This area is surrounded on three sides by protected land, offers ideal trail connections to Black Diamond Mines Regional Preserve, contains the most rugged topography in the Sand Creek Focus Area and is already designated for significant amounts of open space in the Antioch General Plan. The area west of Empire Mine Road represents, along with Sand Creek itself, the most scenic and biologically diverse areas in the Sand Creek Focus Area.

7-13 cont'd

This area is not only a high biological conservation priority, but it would provide a highly desirable amenity to future residents of the Sand Creek Focus Area that would allow for houses to be sold at a higher price and attract the more affluent range of home buyers that Antioch seems to want to entice to the area. There is now an extensive amount of literature demonstrating that proximity to open space has a significant positive effect on housing prices and quality of life. A wide recreational and wildlife buffer around Sand Creek stretching from the Project site to preserved land west of Empire Mine Road, funneling residents directly to natural protected land right in their neighborhood and connecting to high quality trail networks in Black Diamond Mines Regional Preserve, would be a highly significant enticement for prospective home buyers. For these reasons, the western-most square mile of the Sand Creek Focus Area should be a high priority site for mitigation for the Project as well as other development in the Sand Creek Focus Area.

As for the current proposed mitigation property, we recognize that it possesses a number of characteristics that make it a biologically valuable area to protect. However, it appears that very recent pre-construction activities have occurred on portions of the mitigation property. From what we can see (Figures 1-3), at least two driveways, and what appear to be two housing sites, have been scraped on the property.

Figure 1. Housing site /scraped area #1 (see red arrow) on proposed Marsh Creek mitigation property. Taken 7/23/15.

Letter 7 cont'd

7-13 cont'd

Figure 2. Housing site/scraped area #2 (see red arrow) on proposed Marsh Creek mitigation property. Taken 7/23/15.

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7-13 cont'd

Figure 3. Aerial photo of proposed Marsh Creek mitigation property. Red stars indicate approximate locations of housing sites/scrapes, with numbers corresponding to Figures 1 and 2 above. Image taken and modified from Figure 4 of Appendix F, dEIR Volume 2.

It is puzzling that these activities, which are reducing habitat values for listed species, are occurring at the same time that the property is being proposed as mitigation for impacts to these same species. What is the purpose of these scraped sites? Are there more than two? What habitat was present at these sites before they were scraped? The degradation of habitat values on the mitigation property should be fully explained and detailed in a revised and recirculated dEIR. Such degradation also underscores the need for land preservation mitigation in addition to the proposed Marsh Creek mitigation property.

General Plan consistency and need for a comprehensive vision for the Sand Creek area

7-14 The Project proposes a land use designation change from Business Park (constitutes the vast majority of the Project site) to Medium Low Density Residential, a designation that does not exist in the Sand Creek Focus Area under the current General Plan. In addition, the Project's proposed General Plan amendment would halve the acreage proposed for employment generating uses in the Sand Creek area.

7-15 While the dEIR points out several other areas in Antioch better suited for business park development, the fact remains that the Project's proposed changes, together with approved and proposed development in the rest of the Sand Creek Focus Area, are adding up to a development landscape that is significantly different than what is in Antioch's current General Plan.

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Letter 7 cont'd

7-15 cont'd

For example, the Aviano development was approved as an "Adult Community" project (i.e., senior housing). Now in early August 2015, the developer of that project is proposing market rate housing, which due to the different target-age demographic, has greater impacts on schools and traffic than what was originally approved. In addition, Aviano is seeking smaller lot sizes than what is currently required for low density residential development.

The Ranch project currently being planned west of Kaiser Hospital and east of Empire Mine Rd. is currently proposing 1,700 houses on both sides of Sand Creek. The General Plan designations for this area are golf course/senior housing/open space, but The Ranch is not proposing a golf course, nor is it exclusively oriented to seniors.

7-16

The changes that the Project and other developments in the area propose are not necessarily bad. Given the severe drought taking place, the likelihood of increasing water scarcity in the future, dry local conditions and the presence of four other golf courses within three miles of the area where The Ranch is being proposed, it makes perfect sense to eliminate the golf course designation from the Sand Creek Focus Area. With regard to the smaller lots being proposed, if denser, less extensive developments are desirable, then this should create opportunities for larger well-connected protected open spaces that can be enjoyed by the large numbers of new residents.

What we are saying is that the changes being proposed for the Sand Creek Focus Area should not be reviewed or approved in an isolated, piece-meal fashion. Right now, each developer is presenting its idea for what it wants, leaving city staff, elected officials, and the public to react to it. Instead, the people of Antioch and its elected officials should create a detailed, comprehensive vision for the Sand Creek Focus Area that shapes proposed developments, instead of the other way around.

7-17

The current Land Use Element and Zoning update being conducted by the City is a perfect opportunity to do this. Approval for the Project and others proposed for the Sand Creek area should not occur before this process is complete. As we have stated previously in this letter, comprehensive mitigation standards, including land preservation ratios and buffer areas, that recognize the biological resources in the area and propose adequate requirements, would increase certainty and consistency throughout the planning process and reduce confusion and potential future conflicts.

In addition, making the Sand Creek recreational and wildlife buffer around the creek and the protection of the western square mile of the Sand Creek Focus Area top priorities would signal that Antioch wants to provide enhanced quality of life and important amenities to its residents, not just fit in as many houses as possible. Antioch should not hesitate to seize this opportunity create an open space buffer that will help preserve its community identity, and be not just a Gateway to the Delta, but become a gateway to a national park-sized Diablo wilderness bigger than both Point Reyes National Seashore and the Golden Gate National Recreation Area. Development proposals are already flowing in. The time to craft a community driven, sustainable vision for the Sand Creek Focus Area, and Antioch as a whole, is now.

7-18

Thank you for the opportunity to provide comments.

Sincerely,

Juan Pablo Galván
Land Use Planner

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Letter 7: Juan Pablo Galván, Save Mount Diablo

Response to Comment 7-1

The comment includes introductory statements that do not address the adequacy of the Draft EIR. In addition, general concerns are presented, but are reiterated and expanded upon in subsequent comments. The concerns listed in this comment have been addressed under each of the specific comments below.

Response to Comment 7-2

Sand Creek and the property to the south of Sand Creek are not part of the proposed project site. As shown on Figure 3-3 on page 3-4 of the Draft EIR, the proposed project site does not directly abut Sand Creek to the south, and development south of Sand Creek would not result as part of the proposed project. The project includes a 100-foot setback buffer from the top-of-bank of Sand Creek and the edge of development. Figure 3-1 below, prepared by Monk & Associates, further illustrates the 100-foot setback from the creek and the riparian community. All riparian habitat along Sand Creek is outside of the proposed project disturbance areas, with the exception of the outfall structure that would be installed on the banks of Sand Creek. The location of the outfall structure was specifically selected to avoid riparian vegetation. Therefore, the proposed project would not impact the riparian community along Sand Creek. The 100-foot setback provides adequate riparian protection. It should be noted that the proposed setback is very similar to the setback provided by the Aviano Project.

Response to Comment 7-3

Similar to the Aviano Project, the proposed project includes a 100-foot setback from the north side of Sand Creek. The 100-foot setback provides an adequate buffer from the top-of-bank of Sand Creek and the edge of development. While a small portion of Sand Creek would be impacted during the construction of a stormwater outfall into the creek, the value of the Sand Creek wildlife corridor would remain unaffected. The majority of the project site is a disked agricultural field that has been consistently disturbed for years. Conversely, Sand Creek, just south of the project site, provides a valuable wildlife corridor with suitable cover, foraging and water resources, and migration pathways that lead to other natural habitats. In addition, the diverse riparian woodland provides important avian habitat that is used seasonally by migratory birds and year-round by resident birds. The functions and values of the riparian corridor would remain unaffected because the proposed project includes a 100-foot setback from the creek. Consequently, the proposed project would not interfere with the movement of native wildlife within the Sand Creek riparian corridor. See Response to Comment 7-2 noting that development south of Sand Creek is not proposed. See Response to Comment 7-12 for additional detail regarding the amount of mitigation land required.

Figure 3-1
Aerial Photograph of the Vineyards at Sand Creek Project Site

Response to Comment 7-4

Sand Creek and the property to the south of Sand Creek are not part of the proposed project site. Portions of the project site that are adjacent to the 100-foot setback would accommodate open space with low maintenance landscaping, a detention basin, and the continuation of the Sand Creek trail. It should be noted that the proposed landscaping, detention basin, and Sand Creek trail extension are located outside of the 100-foot setback. The aforementioned improvements would not adversely affect the ecological values of the adjacent setback or Sand Creek. See Responses to Comments 2-11, 7-12, and 7-13 regarding the adequacy of the mitigation measures.

Response to Comment 7-5

As illustrated in Figure 3-5 on page 3-9 of the Draft EIR, the proposed detention basin south of Sand Creek Road is located entirely outside of the Sand Creek riparian zone and the 100-foot setback buffer. Structures are not proposed in or immediately adjacent to the riparian zone buffer, with the exception of the outfall structure that would be installed on the banks of Sand Creek. Installation of the outfall structure will permanently impact 1,200 square feet (approximately 0.027 acres) below top-of-bank, of which only 0.007 acres will be impacted below the Ordinary High Water Mark. As noted on page 4.3-44 of Chapter 4.3, Biological Resources, of the Draft EIR, Mitigation Measure 4.3-9 would reduce impacts to waters of the U.S. and State to a less-than-significant level. While a small portion of the banks of Sand Creek would be impacted during the construction of a stormwater outfall into the creek, the value of this wildlife corridor would not be affected.

Response to Comment 7-6

Sand Creek and the property to the south of Sand Creek are not part of the proposed project site. The City of Antioch's existing General Plan policies will continue to protect the buffer from future development. As explained on pages 4.3-26 and 4.3-27 of Chapter 4.3 of the Draft EIR, City General Plan policies already require setbacks from natural streams to provide buffers and the protection of sensitive habitat areas. Development of the project would not adversely affect the aforementioned areas.

Response to Comment 7-7

As noted on page 4.3-10 of Chapter 4.3, Biological Resources, of the Draft EIR, the closest record for California tiger salamanders (CTS) occurs 0.60 mile south of the project site (CNDDB Occurrence No. 856), and eight additional CTS records are known from within two miles of the project site. CTS are fossorial animals that spend the majority of their lives underground. The species typically only emerges from their subterranean refugia for a few nights each year during the rainy season to migrate to breeding ponds. Consequently, Monk & Associates agrees with the commenter's statement that "continuous deep ripping of rodent burrow areas may completely destroy burrows and harm or kill any California tiger salamanders using them." Therefore, Monk & Associates concluded that the project site does not provide suitable over-summering upland habitat for CTS. The historic aerial photographs provided as Appendix A to this Final EIR clearly illustrate that the project site has been deeply disked or plowed into furrows for the past

seven decades beginning in 1949 or earlier. The deep ridges and plowed furrows are visible on the aerial photographs.

In addition, during all recent site surveys conducted by qualified biologists on the project site, California ground squirrel burrows were not identified on the actively farmed portion of the project site. The Aera property has a few California ground squirrel burrows of recent origin; however, this portion of the project site was subjected to a contaminant remediation project that removed all soils. The soils were then treated and replaced on that parcel, thereby removing any potential that this area provides upland over-summering habitat that could be used by the CTS. Furthermore, breeding habitat does not exist on the project site. As such, CTS habitat would not be affected by the proposed project.

Monk & Associates biologists are qualified 10(a)(1)(A) CTS biologists that have been working with this species for decades. Mr. Geoff Monk, Monk & Associates' principal biologist, is a federally permitted 10(A)(1)(a) CTS biologist with extensive experience with this species. Mr. Monk has been working with CTS since 1988 and co-developed the current CTS presence/absence survey protocol with Dr. John Brode of the California Department of Fish and Wildlife (CDFW) and Mr. Marc Allaback in the late 1980's and early 1990's. Mr. Monk's ability to assess the potential presence of CTS on a given project site is based on many years of experience finding CTS on project sites, and conducting countless U.S. Fish and Wildlife (USFWS)-approved protocol surveys for this species. Mr. Monk strongly believes that the proposed project site would not be occupied by CTS.

Focused surveys for CTS were not conducted on the project site because the USFWS does not consider actively farmed agricultural land to provide suitable over-summering upland habitat for CTS. Evidence indicating that CTS are present on the site is lacking, as suggested by the commenter.

Response to Comment 7-8

While California ground squirrel burrows may be located along the edge of Heidorn Ranch Road, which forms the eastern boundary of the project site, this narrow strip of land would not support a viable population of CTS. It should be noted that the land to the east of Heidorn Ranch Road is an irrigated annual crop field that has been farmed for decades and previously supported an orchard, as indicated on the aerial photographs provided in Appendix A to this Final EIR. In addition, the land to the east of Heidorn Ranch Road would not support upland over-summering habitat that could be used by the CTS. The presence of California ground squirrel burrows along the edge of Heidorn Ranch Road does not raise a strong possibility that CTS is present on the site. The ground squirrel burrows are located in an expansive farming area and, therefore, are unlikely to be used by CTS.

The Aera property has a few California ground squirrel burrows of recent origin; however, this portion of the project site was subjected to a contaminant remediation project that removed all soils. The soils were then treated and replaced on that parcel, thereby removing any potential that this area provides upland over-summering habitat that could be used by the CTS. While California ground squirrels have recently colonized this area, CTS are extremely unlikely to

migrate through the disked/farmed fields on all sides of the Aera property from extant CTS record locations. While Monk & Associates recognizes that disking and soil remediation activities do not irrevocably remove habitat, the project site is extremely unlikely to support CTS at this time due to the on-going activities on the project site for the past seven decades.

Due to the long history of intense disking on the project site on an annual basis, the site is not comparable to the adjacent Aviano Project site located immediately to the west. In addition, Monk & Associates worked on the Aviano Project site and was the biological consulting firm hired for the project; therefore, Monk & Associates is uniquely qualified to evaluate and compare the two adjacent project sites. As shown on aerial photographs, the Aviano Project site supports annual grassland and abundant California ground squirrels burrows and is only infrequently disked and planted with hay crops. Based on Monk & Associates' review of the aerial photographic record, the Aviano Project site has only been farmed on average every five to seven years and was grazed in the intervening years. The Aviano Project site provides suitable upland over-summering habitat that could be used by the CTS, and as the commenter noted, the Aviano Project requested State and federal incidental take authorization for CTS.

The Biological Assessment prepared for the Aviano Project stated that Monk & Associates does not believe that resident San Joaquin kit foxes are located on or near the Aviano Project site; however, the species may use the Aviano Project site as migration habitat. Consequently, the Aviano Project sought State and federal incidental take authorization for San Joaquin kit fox. The Vineyards at Sand Creek Project site does not provide suitable sized burrows for denning and the actively farmed and plowed portions of the project site would not support a resident population of kit fox. Based on all the available information, the project site does not provide suitable habitat that would likely be occupied by the San Joaquin kit fox. Regardless, the proposed project includes the permanent preservation and protection of the Marsh Creek Mitigation Property to compensate for the permanent loss of potential San Joaquin kit fox migration habitat, as further discussed below.

Based on the historical uses of the proposed project site, current site conditions, Monk & Associates' site surveys, and Monk & Associates' knowledge and experience with CTS, San Joaquin kit fox, and other special-status species in the Sand Creek Focus Area, Monk & Associates has substantial data which was relied on to conclude that the Vineyards at Sand Creek Project site would not impact CTS and is extremely unlikely to support rare listed species. Regardless, the Marsh Creek Mitigation Property would compensate for any project-related impacts from the loss of the 141 acres of farmland on the project site.

Response to Comment 7-9

The project site has been planted in wheat on an annual basis for the past decade. The site is disked and plowed early in the year and then seeded. The wheat crop occupies the site when appropriately-timed surveys would be conducted at the site. As such, the conditions of the agricultural field on the project site would not provide suitable habitat for round-leaved filaree to grow on the project site.

Seven round-leaved filaree (*California macrophylla*) plants, formerly known as *Erodium macrophyllum*, were identified on the north end of the project site in a marginal area that disking missed in 2004/2005. The aforementioned portion of the project site has been plowed and planted with wheat on an annual basis for the past decade. The wheat crop would out-compete and completely shade any round-leaved filaree in this area and would preclude round-leaved filaree from successfully replenishing the seedbank year after year; thus, the crops drastically reduce the probability of the plant to persist on the project site. Therefore, Monk & Associates believes that the round-leaved filaree plant has most likely been extirpated from the site.

The baseline for CEQA analysis must reflect current conditions at a project site, not the past conditions. The current condition of the northern portion of the project site has been subjected to intense disking, plowing, and planting of wheat, and the project site no longer provides suitable habitat for the round-leaved filaree plant species.

The populations of round-leaved filaree found at the Aviano Project site were located in areas that had been left fallow for several years and were grazed prior to identifying populations in 2013. Given the small stature of filaree, the plant tends to occur on soils with higher clay content and sparse cover of annual grasses. The fallow time and grazing regime at the Aviano Project site created suitable conditions for the species to persist over time on the Aviano Project site.

Response to Comment 7-10

On July 30, 2014, round-leaved filaree botanists from Monk & Associates conducted a late season rare plant survey of the project site. The surveys followed CDFW (2000) and California Native Plant Society (CNPS) (2001) published survey guidelines. The guidelines state that special-status surveys should be conducted at the proper time of year when special-status and locally-significant plants are both evident and identifiable. In addition, the guidelines state that the surveys should be floristic in nature with every plant observed identified to species, subspecies, or variety, as necessary, to determine their rarity status. Furthermore, the surveys should be conducted in a manner that is consistent with conservation ethics and accepted plant collection and documentation techniques. Following the guidelines, the site surveys were conducted during the months when special-status plant species from the region are known to be evident and flowering and for which suitable habitat is thought to be present. All areas of the project site were examined by walking systematic meandering transects through potential habitat and by closely examining any existing microhabitats that could potentially support special-status plants. Ms. Lynch and Ms. Owens have extensive botanical survey experience and are experts at identifying special-status plants both in flower, and when possible, vegetatively. The quality of the habitat on the proposed project site was evaluated during the 2014 site survey conducted by round-leaved filaree qualified botanists Ms. Sarah Lynch and Ms. Christy Owens. The site was determined to be unsuitable for rare plant species. Special-status plants were not found on or adjacent to the project site during the botanical survey. The proposed project would not result in impacts to rare plants because none were identified on the site in recent surveys. Because implementation of the project would not impact rare plants, mitigation is not required.

Response to Comment 7-11

While the proposed project would not affect CTS, preservation of the Marsh Creek Mitigation Property would provide benefits to CTS. CTS is known to occur within the area of the mitigation site. A 1982 record for CTS exists in a pond in annual grassland adjacent to Marsh Creek, which is located 0.24 mile upstream (west) of the mitigation site (CNDDB Occurrence No. 170). A total of 69 reported occurrences of CTS exist within five miles of the mitigation site.

During a site survey conducted on March 26, 2015 by Monk & Associates, 12 CTS larvae were observed swimming within a seasonal stock pond on the northeast corner of the Marsh Creek Mitigation Property. A CNDDB record was submitted for this observation on July 22, 2015. The stock pond was well over three feet deep at the time CTS were observed in the pond. In addition, several large seasonal ponds occur immediately north and east of the Marsh Creek Mitigation Property. The seasonal pond complex likely supports a local population of breeding CTS. Due to the abundance of known CTS records in the vicinity of the Marsh Creek Mitigation Property and the presence of a robust California ground squirrel colony within the grasslands on the property, which provide necessary refugia habitats for CTS, the Marsh Creek Mitigation Property is regarded by the USFWS and CDFW as supporting suitable upland over-summering habitat for CTS. Therefore, the Marsh Creek Mitigation Property has higher value to CTS as compared to the project site.

In addition, the 272 acre Marsh Creek Mitigation Property would also compensate for project-related impacts from the loss of the 141 acres of project site farmland that constitutes potential habitat for and San Joaquin kit fox, western burrowing owl, Swainson's hawk, California red-legged frog (CRLF), and western pond turtle.

A 1982 record for CRLF exists along Marsh Creek on the Mitigation Property (CNDDB Occurrence No. 546), and a total of 79 reported occurrences of CRLF exist within five miles of the property. Occurrence Number 546, the record on the Mitigation Property, shows that one adult CRLF was observed in November 1981 and March 1982. The next closest record (CNDDB Occurrence No. 112) is located 0.8 miles southwest of the Mitigation Property in Round Valley Regional Park. The record has multiple observations of CRLF from 1982 to 2002 within the vicinity of Hog Creek, which is a tributary to Marsh Creek. In 2001, 20 adults and two tadpoles were observed in Round Valley Regional Park. In 2002, one survey yielded two sub-adults and another survey yielded three adults and three sub-adults in Round Valley Regional Park. Another CNDDB record (Occurrence No. 1320) is located 1.6 miles southeast of the Mitigation Property. Multiple records are associated with this Occurrence Number; however, in 2008, 19 adult CRLF were observed in a pond. The recent records show that CRLF are located in the vicinity of the Mitigation Property and occur within Marsh Creek and within tributaries of Marsh Creek.

A 1991 occurrence for San Joaquin kit fox was recorded approximately 0.5 mile to the east of the Marsh Creek Mitigation Property (CNDDB Occurrence No. 573) and nine additional reported occurrences of San Joaquin kit fox exist within five miles of the property. Thus, the Marsh Creek Mitigation Property has higher value to the San Joaquin kit fox as compared to the project site, as the project site is an agricultural property that has marginal value to the kit fox as migration habitat. The East Contra County Conservancy, in concert with the USFWS and the CDFW,

indicate in the East Contra Costa County Habitat Conservation Plan (HCP) that the Marsh Creek Mitigation Property is located in an area deemed to have high value for preservation. In the HCP, the property is mapped within an area designated as within the "Medium Level of Acquisition Effort" category in "Suitable Core Habitat" for the San Joaquin kit fox. In addition, the mitigation property is mapped in the HCP as a "Potential Kit Fox Movement Route" which indicates that the property has value to the San Joaquin kit fox.

Western pond turtles were observed in Marsh Creek on the Mitigation Property on March 26, July 8, and July 15, 2015. A CNDDB record was submitted on July 22, 2015 detailing the observations. The turtles were observed swimming in deep plunge pools in Marsh Creek. Marsh Creek and the surrounding upland habitats provide valuable habitat for western pond turtle for nesting and as a year-round aquatic environment. The combination of upland nesting habitat in proximity to large deep plunge pools is most important for the ongoing viability of the western pond turtle population within Marsh Creek.

The 272 acre Marsh Creek Mitigation Property would compensate for project-related impacts from the loss of the 141 acres of project site farmland that constitutes suitable foraging habitat for the Swainson's hawk.

Response to Comment 7-12

While Monk & Associates recognizes that the proposed mitigation provides a 1.9:1 mitigation ratio, the farmed condition of the project site does not warrant a greater mitigation ratio. In contrast, the high quality habitats of the mitigation property make this a valuable mitigation property; therefore, Monk & Associates believes that the 272 acre Marsh Creek Mitigation Property would adequately compensate for project-related impacts from the loss of the 141 acres of project site farmland.

The Aviano Project provides a 2.2:1 mitigation ratio (361.2 acres of mitigation land for 161.4 acres of project development land) for project-related impacts to suitable listed species habitat. The USFWS and CDFW did not consider the preservation of the 28.3 acres along the Sand Creek corridor part of the mitigation for impacts to listed species habitats. Regardless, as noted above, the proposed project site, due to the long history of intense disking on an annual basis, is not comparable to the Aviano Project site that supports annual grassland and provides suitable habitat for several listed species.

Response to Comment 7-13

Additional mitigation along Sand Creek is not necessary. As described above, the proposed Marsh Creek Mitigation Property provides suitable and adequate mitigation for the potential biological impacts resulting from the proposed project. Similarly, additional mitigation on the west side of Empire Mine Road is not necessary. Furthermore, the current owner of the land to the west of Empire Mine Road is not interested in establishing a conservation easement on that property.

Based on the site surveys Monk & Associates has conducted and other available data, Monk & Associates believes the proposed Marsh Creek Mitigation Property is ideally located for a mitigation site. The Mitigation Property is located at the northeastern corner of a system of interconnected Regional Preserves, State and local Parks, and open spaces, including Round Valley Regional Preserve, Morgan Territory Regional Preserve, Mount Diablo State Park, Castle Rock Park, and Shell Ridge Open Space. The Mitigation Property shares the southern boundary with Round Valley Regional Park. The preservation of the Mitigation Property as dedicated open space would add preserved acreage to the East Bay Regional Park District (EBRPD) protected lands and would guarantee that the Mitigation Property continues to provide wildlife corridor values and connectivity within an important system of preserved open space.

The commenter questions whether recently disturbed areas on the Marsh Creek Mitigation Property are two new house sites. Monk & Associates spoke with the Mitigation Property owner and new houses are not being built and are not proposed on the mitigation property. As part of the site's ongoing maintenance, the observed scraped areas resulted from surface disturbance associated with recent fencing repair, associated equipment access roads, and disking of fire breaks to prevent fire. The disturbed areas shown in the photographs provided in the comment letter are temporary all-terrain vehicles (ATV) roads and equipment turn-around areas provided for the fencing contractor. The limited area of surface disturbance/scraping and temporary vegetation removal does not reduce the habitat value of the 272 acres of the Marsh Creek Mitigation Property for listed species.

Response to Comment 7-14

The comment includes summary statements that do not address the adequacy of the Draft EIR.

Response to Comment 7-15

The comment does not address the adequacy of the Draft EIR. It should be noted that cumulative impacts related to land use and planning as a result of the proposed project and future probably projects were analyzed on page 4.8-30 of Chapter 4.8, Land Use and Planning/Agricultural Resources, of the Draft EIR. Cumulative impacts are summarized in Chapter 5, Statutorily Required Sections, of the Draft EIR. In addition, cumulative impacts to each resource area are analyzed at the end of each technical chapter of the Draft EIR. The comment addressed City policy, not adequacy of the Draft EIR, and will be forwarded to the decision-makers for their consideration.

Response to Comment 7-16

The comment does not address the adequacy of the analysis in the Draft EIR. The comment relates to City policies and moving forward in the Sand Creek Focus Area. The comments regarding land use and zoning designations in the Sand Creek Focus Area will be forwarded to the decision-makers for their consideration.

Response to Comment 7-17

The comment does not address the adequacy of the Draft EIR. The comments regarding the Land Use Element and Zoning update and the Sand Creek recreational and wildlife buffer will be forwarded to the decision-makers for their consideration.

Response to Comment 7-18

The comment is a conclusion statement that does not address the adequacy of the Draft EIR.

4. MITIGATION MONITORING AND REPORTING PROGRAM

4 MITIGATION MONITORING AND REPORTING PROGRAM

4.1 Introduction

Section 15097 of the California Environmental Quality Act (CEQA) requires all State and local agencies to establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either a "mitigated negative declaration" or specified environmental findings related to environmental impact reports.

The following is the Mitigation Monitoring and Reporting Program (MMRP) for the Vineyards at Sand Creek Project. The intent of the MMRP is to ensure implementation of the mitigation measures identified within the Environmental Impact Report (EIR) for this project. Unless otherwise noted, the cost of implementing the mitigation measures as prescribed by this MMRP shall be funded by the applicant.

4.2 Compliance Checklist

The MMRP contained herein is intended to satisfy the requirements of CEQA as they relate to the EIR for the Vineyards at Sand Creek Project prepared by the City of Antioch. This MMRP is intended to be used by City staff and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMRP were developed in the EIR that was prepared for the proposed project.

The Vineyards at Sand Creek Project EIR presents a detailed set of mitigation measures that will be implemented throughout the lifetime of the project. Mitigation is defined by CEQA Guidelines, Section 15370, as a measure that:

- Avoids the impact altogether by not taking a certain action or parts of an action;
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment;
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project; or
- Compensates for the impact by replacing or providing substitute resources or environments.

The intent of the MMRP is to ensure the implementation of adopted mitigation measures. The MMRP will provide for monitoring of construction activities as necessary and in-the-field identification and resolution of environmental concerns.

Monitoring and documenting the implementation of mitigation measures will be coordinated by the City of Antioch. The table attached to this report identifies the mitigation measure, the monitoring action for the mitigation measure, the responsible party for the monitoring action, and timing of the monitoring action. The applicant will be responsible for fully understanding and effectively implementing the mitigation measures contained within the MMRP. The City will be responsible for monitoring compliance.

4.3 Mitigation Monitoring and Reporting Program

The following table indicates the mitigation measure number, the impact the measure is designed to address, the measure text, the monitoring agency, implementation schedule, and an area for sign-off indicating compliance.

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
4.1 Aesthetics					
4.1-4	Creation of new sources of substantial light or glare that would adversely affect day or nighttime views in the area.	*4.1-4* *Prior to approval of Improvement Plans that include street lights, the City of Antioch's Engineering Division shall review and approve the lighting specifications to ensure that lighting fixtures comply with the Zoning Code's requirements for minimum and maximum ground level illumination. In addition, prior to approval of building permits for new structures that include exterior lighting, the City of Antioch's Planning Division shall review and approve the exterior lighting specifications to ensure exterior lighting is of a low profile and intensity.*	City of Antioch Engineering Division City of Antioch Planning Division	Prior to approval of Improvement Plans that include street lights Prior to approval of building permits for new structures that include exterior lighting	
4.2 Air Quality and Greenhouse Gas Emissions					
4.2-1	Generation of short-term construction-related criteria air pollutant emissions.	*4.2-1* *Prior to issuance of a grading permit, the project applicant shall show on the grading plans via notation that the contractor shall ensure:* • *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.* • *All haul trucks transporting soil, sand, or other loose material off-*	City of Antioch Engineer	Prior to issuance of a grading permit	

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		site shall be covered. • *All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.* • *All vehicle speeds on unpaved roads shall be limited to 15 mph.* • *All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.* • *Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.* • *All construction equipment shall be maintained and properly*			

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT						
Impact Number	**Impact**		**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. • *Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.* • *All diesel-powered equipment larger than 200 horsepower (i.e., rubber tired dozers, scrapers, and cranes) and diesel-powered graders shall meet USEPA emissions standards for Tier 2 engines or equivalent.* *The grading plans shall be submitted for review and approval by the City Engineer.*			
4.3 Biological Resources						
4.3-2	Impacts to the California red-legged frog.	*4.3-2(a)*	*Prior to the issuance of a grading permit for project site grading and the installation of the outfall structure in Sand Creek, an education program shall be*	City of Antioch Planning Division	Prior to the issuance of a grading permit for project site	

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		conducted by a qualified biologist to explain the endangered species concerns to contractors/operators working at the project site. This education/training program shall include a description of the frog and its habitat, a review of the Endangered Species Act and the federal listing of the frog, the general protection measures to be implemented to protect the frog and minimize take, and a delineation of the limits of the work area.		grading and the installation of the outfall structure in Sand Creek	
		4.3-2(b) *A qualified 10(a)(1)(A) biologist shall conduct preconstruction surveys of the creek work areas no more than 14 days prior to dewatering and other work activities. If any California red-legged frogs are identified in the work area, the Service and the Department shall be notified and, if permitted, relocated outside of the work area. Alternatively, the project applicant could comply with one of the following:* *1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy),*	City of Antioch Planning Division USFWS CDFW	No more than 14 days prior to dewatering and other work activities within Sand Creek	

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or *2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.*			
		4.3-2(c) The work areas adjacent to Sand Creek shall be isolated with suitable amphibian exclusion fencing (see below) that would block the movement of California red-legged frogs from entering the work areas. This fence shall be installed prior to the time any site grading or other construction-related activities are implemented. The fence shall remain in place during site grading or other construction-related activities and shall prevent frogs from entering the project site work areas. *While normally California red-legged frog exclusion fencing consists of silt fencing,*	City of Antioch Planning Division	Prior to the time any site grading or other construction-related activities are implemented adjacent to Sand Creek	

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT						
Impact Number	**Impact**		**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			owing to the duration of the development project, a more weather resilient fence is recommended. The exclusion fence shall consist of a 4-foot wall of ¼-inch mesh, galvanized wire (i.e., welded wire hardware cloth- no woven wire would be allowed) or other commercially available exclusion fencing (e.g. ERTEC Fence). Initially, staking would be installed along the route of the exclusion fencing in a 4 inch deep trench. Then, the bottom of the fence would be firmly seated in the trench. The fencing above the ground would be anchored to metal staking with wire. Finally, the top 10-inches or less would be bent over in a semi-circle towards the outside of the fence to ensure that the fence cannot be climbed. This fence would be expected to last the duration of the construction period for the development project.			
		4.3-2(d)	*A qualified biologist shall be onsite when grading activities occur within 300 feet of Sand Creek to conduct daily inspections of the fencing and to otherwise ensure that stranded animals are salvaged and relocated back to the stream channel. The biological monitor shall be responsible for ensuring that the wildlife exclusion fencing is not compromised, and shall*	City of Planning Division	During grading activities within 300 feet of Sand Creek	

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT						
Impact Number	**Impact**		**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			notify the onsite contractor representative when fencing needs to be repaired.			
		4.3-2(e)	*All construction work in Sand Creek associated with the outfall structure shall be scheduled for the dry season (May 15 through October 15) and when there is reduced flow in Sand Creek. No work shall occur when water is flowing within the work area. Any necessary in-drainage work when there are flows shall be isolated from flows via the installation of temporary coffer dams that have flow-through bypass pipes. Flows shall be diverted around isolated work areas either by gravity flow or if necessary by pumping water around the work area. No silty water shall be allowed to reenter the tributary below any in-drainage work area. Methods and materials shall be adapted in the field to match the size, shape, and anticipated flow volume of the drainage, and pre-approved by the biological monitor. All diversions shall conform to the following provisions:* • *Drainage diversion shall be practiced only where deemed unavoidable by the proposed project engineer and biological monitor.*	City of Antioch Planning Division CDFW, USFWS, USACE, and/or RWQCB (if one or more of these agencies authorizes construction equipment below the top-of-bank)	During construction work in Sand Creek associated with the outfall structure (May 15 through October 15)	

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		• *Diversion shall be limited to the minimum time period necessary to complete the work and restore the channel.* • *Construction equipment would work from above the top-of-bank unless equipment is authorized to operate below the top-of-bank by the Department, Service, USACE, and/or RWQCB pertaining to their respective jurisdictions. Unless permitted by these agencies within their respective jurisdictions, there shall be no vehicle passage, vehicle parking, or materials storage below the top of bank.* • *All in-drainage and diversion work plans shall reflect and incorporate standard erosion control measures and BMP's as prescribed in the Project's SWPPP.* • *In certain cases where water seeps into the dewatered area, sump pits may be excavated in the work area and seepage water would then be pumped back upstream behind the coffer dam. All discharged water shall be silt free. If silt is a problem, water*			

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		shall be pumped through a silt sock into baker tank(s) prior to discharge back into the channel. • *All downstream flows shall be maintained throughout the period that coffer dams are installed.* • *The entire work area below the top of bank, including the coffer dam location, shall be restored to the approximate pre-construction contours and would be stabilized as necessary to withstand the expected high water flows. All dam materials shall be completely removed from the channel when work is complete, and not be disposed of in or near the channel.* • *A qualified 10(a)(1)(A) biologist shall conduct preconstruction surveys for California red-legged frog prior to isolating any work area within Sand Creek. If any frogs are found in the work area, the Service and the Department shall be notified, and the frogs shall be moved from the work area to up or downstream areas of Sand Creek, whichever is closest to the capture site. Upon completion of the survey, coffer*			

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		dams may be installed. Any isolated water shall be seined by the proposed project biologist to search for frogs prior to pumping water out of the isolated work areas. • *The project biological monitor shall be present during all in-drainage work. Dewatered work areas shall not result in stranded aquatic wildlife.* • *All trash that might attract predators to the project site shall be properly contained and removed from the site and disposed of regularly. All construction debris and trash shall be removed from the site when construction activities are complete.* • *All fueling and maintenance of equipment and vehicles, and staging areas shall be at least 20 meters from Sand Creek. The construction personnel shall ensure that contamination of California red-legged frog habitat does not occur and shall have a plan to promptly address any accidental spills.*			

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		4.3-2(f) *To mitigate for impacts to federally listed species, including impacts to the California red-legged frog, the applicant shall preserve 272 acres as offsite mitigation (hereinafter called the Marsh Creek Property) located off Marsh Creek Road in eastern Contra Costa County. An alternative mitigation property approved by the Service that possesses comparable biological resources for the affected federally listed species may also be used for mitigation in lieu of the Marsh Creek Property. The Marsh Creek Property is located immediately north of and adjacent to East Bay Regional Park District's (EBRPD) Round Valley Regional Preserve. The geographic location of the Marsh Creek Property adjacent to EBRPD Round Valley Regional Park makes it a valuable preservation property that would add permanently preserved acreage to existing regionally significant preserved lands (Round Valley Regional Preserve).* *There is a 1982 record for California red-legged frogs along Marsh Creek on the Marsh Creek Property (CNDDB Occurrence No. 546), and a total of 79 reported occurrences of California red-legged frogs within 5 miles of the property. Hence, the habitat to be*	City of Antioch Planning Division USFWS	Prior to issuance of a grading permit	

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		preserved at this mitigation property supports grassland habitat that provides upland dispersal habitat and aquatic habitat for California red-legged frogs, and Marsh Creek provides potential breeding habitat for California red-legged frog. The combination of breeding habitat in proximity to suitable upland habitat is most important for the ongoing viability of the California red-legged frog populations. *While the proposed project would not likely impact the California tiger salamander, preservation of the Marsh Creek Property shall nonetheless provide benefits to this salamander. There is a 1982 record for California tiger salamander in a pond in annual grassland adjacent to Marsh Creek, located 0.24 mile upstream from the Marsh Creek Property (CNDDB Occurrence No. 170), and a total of 69 reported occurrences of California tiger salamanders within 5 miles of the Marsh Creek Property. Owing to the abundance of known California tiger salamander records in the vicinity of the Marsh Creek Property and the presence of a robust California ground squirrel colony within the grasslands on the property, which provide necessary*			

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT						
Impact Number	**Impact**	**Mitigation Measure**		**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
			refugia habitats for California tiger salamanders, the Marsh Creek Property would most likely be regarded by the U.S. Fish and Wildlife Service and the Department of Fish and Wildlife as supporting suitable upland over-summering habitat for this salamander. Therefore, the proposed mitigation site would provide appropriate mitigation for impacts to 141.6 acres of long-term disked agricultural land (has been farmed annually since at least 1945 based upon aerial photograph research completed by M&A).			
		4.3-2(g)	*The project proponent shall record a conservation easement over the Marsh Creek Property preserving it in perpetuity as wildlife habitat. The easement shall be granted to a qualified conservation organization such as the EBRPD. The project proponent shall also establish an endowment fund to provide for the long-term management, maintenance, and monitoring of the mitigation site. A Resource Management Plan (RMP) shall be developed for the management of natural resources to be preserved on the Marsh Creek Property.*	City of Antioch Planning Division	Prior to issuance of a grading permit	
		4.3-2(h)	*Prior to approval of Improvement Plans,*	City of Antioch	Prior to approval	

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		the City of Antioch's Engineering Division shall review and approve the Improvement Plans to ensure that the Plans show and note that a wood wire view fence shall be constructed along the southern project site boundary. The fence shall be placed on the Sand Creek side of any trail constructed as part of the project, and shall be located at least 100 feet away from the centerline of Sand Creek.	Engineering Division	of Improvement Plans	
4.3-3	Impacts to western pond turtle.	*4.3-3* *A qualified biologist shall conduct a preconstruction survey of the work area in Sand Creek, and if a western pond turtle is identified in the work area, the turtle will be relocated to suitable habitat downstream. The work areas adjacent to Sand Creek shall be isolated with exclusion fencing that will prevent western pond turtle from entering the work site and accidentally being harmed by construction activities.* *The deeply incised channel with steep slopes makes it very unlikely that a western pond turtle would climb up onto the project site to nest. As such, no potential nesting sites are likely to be affected by the proposed project. Regardless, preconstruction surveys for turtle nest sites in uplands adjacent to suitable aquatic habitat during spring and*	City of Antioch Planning Division CDFW (if construction will occur near an active nest)	Prior to grading or construction activities within or adjacent to Sand Creek	

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		summer months shall be conducted within 30 days prior to beginning any activities. If no nests are found, no further consideration for western pond turtle nests is warranted. If nest sites are located during preconstruction surveys adjacent to a proposed work area, the nest site plus a 50-foot buffer around the nest site shall be fenced where it intersects a project work area to avoid impacts to the eggs or hatchlings which over-winter at the nest site. In addition, if nest(s) are located during surveys, moth balls (naphthalene) should be sprinkled around the vicinity of the nest (no closer than 10 feet) to mask human scent and discourage predators. *Construction at the nest site and within the 50-foot buffer area shall be delayed until the young leave the nest (this could be a period of many months) or as otherwise advised and directed by the Department, the agency responsible for overseeing the protection of the pond turtle. If the Department allows translocation of any nestling pond turtles this shall be completed by a qualified biologist under the direction of the Department.* *A 272 acre Mitigation Property shall be preserved along Marsh Creek Road in*			

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
Impact Number	**Impact**	**Mitigation Measure**	**Monitoring Agency**	**Implementation Schedule**	**Sign-off**
		eastern Contra Costa County (or an alternative mitigation property with comparable biological resource values may also be used for mitigation in lieu of the Marsh Creek Property) to compensate for project related impacts to the California red-legged frog and the San Joaquin kit fox (see mitigation measures for these two species). Marsh Creek runs west to east through the Marsh Creek Property. This creek supports optimal western pond turtle basking pools and supports suitable nesting habitat that can be used by the western pond turtle. Thus, the permanent preservation of the Marsh Creek Property required to compensate for project impacts to the California red-legged frog and the San Joaquin kit fox will also benefit the western pond turtle. Alternatively, the project applicant could comply with one of the following: *1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with*			

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
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		the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or *2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.*			
4.3-4	Impacts to western burrowing owl.	*4.3-4(a) Within 14 days of commencement of ground disturbance, burrowing owl surveys shall be conducted by walking the entire project site and (where possible) in areas within 150 meters (approx. 500 feet) of the proposed project impact zone. The 150-meter buffer zone is surveyed to identify burrows and owls outside of the proposed project area which may be impacted by factors such as noise and vibration (heavy equipment) during project construction.* *Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be 7 meters to 20 meters and shall be reduced to account for differences in*	City of Antioch Planning Division	Within 14 days prior to commencement of ground disturbance	

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		terrain, vegetation density, and ground surface visibility. Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 50 meters (approx. 160 ft.) wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons. Alternatively, the project applicant could comply with one of the following: *1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or* *2) Comply with a habitat*			

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		conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.			
		4.3-4(b) *If burrowing owls are detected on the site, the following restricted activity dates and setback distances are recommended per the Department's Staff Report (2012):* • *From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200 meter buffer while high disturbance activities shall have a 500 meter buffer from occupied nests.* • *From October 16 through March 31, low disturbance activities shall have a 50 meter buffer, medium disturbance activities shall have a 100 meter buffer, and high disturbance activities shall have a 500 meter buffer from occupied nests.* • *No earth-moving activities or other disturbance shall occur within the aforementioned buffer zones of occupied burrows. These*	City of Antioch Planning Division	If burrowing owls are detected on the site	

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		buffer zones shall be fenced as well. If burrowing owls were found in the proposed project area, a qualified biologist would also need to delineate the extent of burrowing owl habitat on the site.			
		4.3-4(c) *The proposed preservation of the Marsh Creek Mitigation Property shall preserve 272 acres that will benefit western burrowing owls. The permanent preservation of this mitigation land provides suitable mitigation for impacts that would occur to 141.6 acres of marginal western burrowing owl habitat. The Marsh Creek Property supports grassland habitat and a robust California ground squirrel population that provides suitable habitat for western burrowing owls.*	City of Antioch Planning Division	Prior to issuance of a grading permit	
4.3-5	Impacts to Swainson's hawk.	*4.3-5* *To avoid impacts to nesting Swainson's hawks, the Department has prepared guidelines for conducting surveys for Swainson's hawk entitled: Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (CDFG 2000). These survey recommendations were developed by the Swainson's Hawk Technical Advisory Committee (TAC) to maximize*	City of Antioch Planning Division	Prior to start of construction	

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		the potential for locating nesting Swainson's hawks, and thus, reduce the potential for nest failures as a result of project activities and/or disturbances. To meet the Department's recommendations for mitigation and protection of Swainson's hawks in this guideline, surveys shall be conducted by a qualified raptor biologist for a 0.25-mile radius around all project activities and shall be completed for at least two survey periods as is found in the Department's 2000 survey guidelines (CDFG 2000). The guidelines provide specific recommendations regarding the number of surveys based on when the proposed project is scheduled to begin and the time of year the surveys are conducted. A copy of this survey report shall be provided to the City of Antioch prior to starting construction. *The applicant shall prepare a Swainson's Hawk Monitoring and Habitat Management Plan if a qualified raptor biologist determines that a nest site could be impacted or project activities could otherwise cause "take" of the Swainson's hawk, its eggs, or young. If take could occur as determined by a qualified raptor biologist, protective buffers shall be*			

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		established on the project site that shall prevent such take from occurring. The protective buffer shall be maintained until such time that the Swainson's hawks have completed their nesting cycle as determined by a qualified raptor biologist. The nest protection buffer shall be coordinated with the Department. *In addition, the 272 acre Marsh Creek Mitigation Property (or an alternative mitigation property with comparable biological resources) shall compensate for project related impacts from the loss of the 141.6 acres of project site farmland that constitutes suitable foraging habitat for the Swainson's hawk. Mitigation that compensates for the loss of suitable Swainson's hawk foraging habitat shall include the preservation of the 272 acre Marsh Creek Property, which supports grasslands that provide suitable foraging habitat for Swainson's hawks. Alternatively, the project applicant could comply with one of the following:* *1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra*			

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		Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or *2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan.*			
4.3-6	Impacts to nesting raptors.	*4.3-6 In order to avoid impacts to nesting raptors, a nesting survey shall be conducted within 14 days prior to commencing with construction if this work would commence between February 1st and August 31st. The raptor nesting surveys shall include examination of all trees within 300 feet of the entire project site, not just trees slated for removal.* *If nesting raptors are identified during the surveys, the dripline of the nest tree must be fenced with orange construction fencing (provided the tree is on the project site), and a 300-foot radius around the*	City of Antioch Planning Division	Within 14 days prior to commencement of construction between February 1st and August 31st	

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		nest tree must be staked with bright orange lath or other suitable staking. If the tree is located off the project site, then the buffer shall be demarcated per above where the buffer intersects the project site. The size of the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance. If this occurs, the raptor biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity shall occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1st. This date may be earlier or later, and would have to be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors then the buffers shall be maintained in place through the month of August and work within the buffer can commence September 1st.			
4.3-7	Impacts to nesting special-status bird	*4.3-7* *If project site disturbance associated with the proposed project would commence*	City of Antioch Planning	Within 14 days prior to	

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	species and nesting common bird species.	*between March 1st and September 1st, a preconstruction nesting survey shall be completed in the 14 day period prior to commencing with any proposed project related disturbance on the project site. The nesting survey shall be conducted on the project site and within a zone of influence around the project site. The zone of influence includes those areas off the project site where birds could be disturbed by earth-moving vibrations or noise. Accordingly, the nesting survey(s) must cover the project site and an area around the project site boundary.* *If special-status birds are identified nesting on or adjacent to the project site, a non-disturbance buffer of 100 feet shall be established or as otherwise prescribed by a qualified ornithologist. If common (that is, not special-status) birds for example, California towhee, western scrub jay, or acorn woodpeckers are identified nesting on or adjacent to the project site, a non-disturbance buffer of 75 feet shall be established or as otherwise prescribed by a qualified ornithologist. The buffer shall be demarcated with painted orange lath or via the installation of orange construction fencing. Disturbance within the buffer shall be postponed until it is determined by a qualified ornithologist that the young*	Division	commencement of construction between March 1st and September 1st	

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			have fledged and have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed. *Typically, most passerine birds in the region of the project site are expected to complete nesting by August 1st. However, many species can complete nesting by the end of June or early to mid-July. Regardless, nesting buffers shall be maintained until September 1st unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to September 1st, the qualified biologist conducting the nesting surveys shall prepare and submit a report to the City of Antioch that provides details about the nesting outcome and the removal of buffers. This report shall be submitted prior to the time that nest protection buffers are removed if the date is before September 1st.*			
4.3-8	Impacts to the San Joaquin kit fox.	*4.3-8(a)*	*To compensate for the permanent loss of 141.6 acres of potential San Joaquin kit fox migration habitat, albeit farmed land, the proposed project includes the permanent preservation and protection of the Marsh Creek Property. An alternative mitigation property approved by the United States Fish and Wildlife Service*	City of Antioch Planning Division USFWS	Prior to issuance of a grading permit	

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		that possesses comparable biological resources may also be used for mitigation in lieu of the Marsh Creek Property. The Marsh Creek Property is 272 acres that will be managed to benefit San Joaquin kit fox and that provides suitable mitigation for the loss of 141.6 acres of farmland that otherwise provides marginal San Joaquin kit fox migration habitat. In addition, there is a 1991 occurrence for San Joaquin kit fox that was recorded approximately 0.50 mile to the east of the Marsh Creek Property (CNDDB Record No. 573), and there are 9 additional reported occurrences of San Joaquin kit fox within 5 miles of the property. Thus, the Marsh Creek Property has moderate value to the San Joaquin kit fox, as compared to the project site, an agricultural property that has marginal value to the kit fox as migration habitat. *The East Contra County Conservancy in concert with the Service and the Department, in the East Contra Costa county HCP indicate that the Marsh Creek Property is located in an area deemed to have high value for preservation. In the HCP, the property is mapped within an area designated as within the "Medium Level of Acquisition Effort" category in*			

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		"Suitable Core Habitat" for the San Joaquin kit fox. The mitigation property is also mapped in the HCP as a "Potential Kit Fox Movement Route" indicating that the property has value to the San Joaquin kit fox. The geographic location of the property adjacent to EBRPD Round Valley Regional Park further makes it a valuable mitigation property with significant regional importance as a preservation property.			
		4.3-8(b) *The following measures shall be implemented by a qualified biologist:*	USFWS and/or CDFW (if kit fox are identified in the work area)		
		• *An education program shall be conducted by a qualified biologist prior to the start of construction to explain the endangered species concerns to contractors working at the project site. The program shall include an explanation of the FESA and CESA and any endangered species concerns in the area.*	City of Antioch Planning Division	Prior to start of construction	
		• *Qualified biologists would conduct preconstruction den surveys no more than 14 days prior to site grading to ensure that potential kit fox dens are not*	City of Antioch Planning Division	Within 14 days prior to site grading	

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		disrupted. If "potential dens" are located, infrared camera stations shall be set up and maintained for 3 consecutive nights at den openings prior to initiation of grading activities to determine the status of the potential dens. If no kit fox is found to be using the den, site grading can proceed unhindered. However, if a kit fox is found using a den site within the project site the Service and the Department shall be notified and consulted before work activities resume. Alternatively, the project applicant could comply with one of the following: *1) Comply with the applicable terms and conditions of the ECCC HCP/NCCP, as determined in written "Conditions of Coverage" by the East Contra Costa County Habitat Conservancy (Conservancy), provided that the City has first entered into an agreement with the Conservancy for coverage of impacts to ECCCHCP/NCCP Covered Species; or*			

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		2) Comply with a habitat conservation plan and/or natural community conservation plan developed and adopted by the City, including payment of applicable fees, provided that CDFW and FWS have approved the conservation plan. • *To prevent harm to San Joaquin kit fox, any steep-walled holes and/or trenches excavated on the project site shall be completely covered at the end of each workday, or escape ramps shall be provided to allow any entrapped animals to escape unharmed. All pipe sections stored at the project site overnight that are four inches in diameter or greater shall be inspected for San Joaquin kit fox before the pipes are moved or buried. If San Joaquin kit fox are identified in the work area at any time, the Service and/or the Department shall be notified and consulted before work activities resume. All trash items shall be*	USFWS and/or CDFW (if kit fox are identified in the work area)	During construction	

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		removed from the site to reduce the potential for attracting predators of San Joaquin kit fox. Contractors shall be prohibited from bringing firearms and pets to the job site.			
4.3-9	Impacts to Waters of the United States and/or State.	*4.3-9* *The applicant is proposing to mitigate for project-related impacts to 0.027 acre of waters of U.S. and a total of 0.11 acre of "waters of the State" via the purchase of 0.20-acre seasonal wetland credits from the Cosumnes Mitigation Bank or other Mitigation Bank, or as otherwise required by the USACE and the RWQCB, provided that the mitigation is no less than 1:1 (replacement : impact). The Service Area for the Cosumnes Mitigation Bank covers the project site.* *Alternatively, the applicant may create, preserve, and manage new seasonal wetlands at the Marsh Creek Property (or comparable offsite location) at a 2:1 mitigation ratio (acres created and preserved: acre impacted). A project-specific Wetland Mitigation and Monitoring Plan prepared by a qualified restoration ecologist that includes the following information shall be provided to the City/USACE/RWQCB prior to conducting any activity that would result*	City of Antioch Community Development Director	Prior to issuance of a grading permit	

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		in the placement of any fill material into a water of the U.S. or water of the state: a description of the impacted water; a map depicting the location of the mitigation site(s) and a description of existing site conditions; a detailed description of the mitigation design that includes: the location of the new seasonal wetlands; proposed construction schedule; a planting/vegetation plan; specific monitoring metrics, and objective performance and success criteria, such as delineation of created area as jurisdictional waters using USACE published methods; contingency measures if the created wetlands do not achieve the specified success criteria; and short-term and long-term management and monitoring methods. *If the wetland mitigation site is a separate mitigation property that is not subject to mitigation measure BIO-1, the applicant shall grant a conservation easement to a qualified entity, as defined by Section 81.5.3 of the California Civil Code, preserving the created seasonal wetland(s) in perpetuity, and establish an endowment fund to provide for the long-term management, maintenance, and monitoring of the created seasonal*			

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			wetland(s). *Proof of compliance with the mitigation measure shall be submitted to the Community Development Director prior to the issuance of grading permits.*			
4.3-10	Impacts to Department of Fish and Wildlife Fish and Game Code Section 1602 jurisdictional areas	*4.3-10(a)*	*The applicant shall implement appropriate BMPs to prevent construction related impacts that could introduce de minimus fill or other pollutants into Sand Creek. These measures include the installation of wildlife friendly hay wattles and/or silt fence that shall prevent unintended de minimus fill impact to Sand Creek while the stormwater outfall is constructed. In addition, orange silt fencing shall be installed at the top-of-bank of Sand Creek to prevent unintended human and equipment traffic in areas that are not relevant to the construction of the proposed project. Finally, the dripline of all protected trees within the footprint of the proposed project including trees that could be impacted by the construction of the outfall structure in Sand Creek shall be protected via the installation of orange construction fencing.*	City of Antioch Engineering Division	During construction	
		4.3-10(b)	*The applicant may satisfy this mitigation by providing the City of Antioch with a fully executed copy of a Streambed*	City of Antioch Engineering Division	Prior to issuance of a grading permit	

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			Alteration Agreement with the Department for the proposed outfall structure that includes these, or other functionally equivalent, BMPs. The implementation of the executed Streambed Alteration Agreement shall become a condition of project approval.	CDFW		
4.3-12	Impacts to protected trees under the City of Antioch's Tree Preservation and Regulation Ordinance.	*4.3-12(a)*	*The final site plan shall indicate the location of any protected trees within the development footprint that the City has required to be saved as a condition to project approval. Compliance with the City of Antioch's Tree Preservation and Regulation ordinance shall occur as follows:* • *There shall be no excavation within the drip line of any protected trees to be saved unless specific plans are submitted to the Department of Community Development that indicate how grading within the drip line is to be carried out within critically harming the tree. Additional arborist's studies must be provided to support the grading proposed.* • *Prior to the granting of a building permit the Applicant shall post a bond for each*	City of Antioch Planning Division	Prior to Final Map approval During construction	

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		protected tree at which grading will occur within the drip line. The bonding schedule will be as listed in Section 9-5.1206 of the Municipal Code. The City will conduct ongoing inspections during the course of the grading to assure adherence to approved plans. Should the protected tree(s) die during the course of property development, the bond shall be forfeited to the city and used for tree replacement. A percentage of the bond will be retained in either case to assure tree survival for up to five years after the issuance of a certificate of occupancy. • *Unless specific exceptions are granted prior to the initiation of construction, all construction activity and traffic shall be prohibited from the area within the drip line of a protected tree.* • *Should a protected tree be damaged during site development, the Applicant shall administer all reasonable methods of treatments as approved by the Director of Community Development. The*			

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		repair of the damage shall be at the expense of the Applicant. • *Any time after initial approval of a site plan, an applicant's request to remove a protected tree as shown on the approved site plan will require a hearing. A new public hearing will be held on the issue of tree removal and the applicant will be required to re-notice the surrounding property owners.* • *All future owners of parcels on which trees were required to be maintained (as a condition of approval) shall be responsible for continued maintenance of such trees. Buyers of property with such trees, as well as buyers of all new single-family homes, shall be given disclosure notices of this requirement, and all other responsibility of tree management and/or preservation as required by the Tree Preservation and Regulation Ordinance.*			
		4.3-12(b) To compensate for the loss of up to 34 trees, 136 replacement trees equivalent to a 4:1 mitigation ratio	City of Antioch Planning Division	Prior to Improvement Plan approval	

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		(replacement trees: removed trees) shall be planted as alternatively and equally compliant with the City of Antioch's Tree Preservation and Regulation ordinance as follows: • *Four 5-gallon potted trees shall be planted for the loss of each "established" or "mature" tree at the Vineyards at Sand Creek Project site. Four 5-gallon potted trees shall be planted for the loss of the one "landmark" tree since the tree is non-native and in poor condition. A 4:1 mitigation ratio (replacement trees: removed trees) is suitable for the loss of the landmark tree at the Vineyards at Sand Creek Project site because the tree is non-native and is in poor health. This landmark tree will decline regardless of treatment.* • *All of the mitigation trees shall be native trees indigenous to the region. Trees planted as mitigation may be incorporated into the landscape plans.* • *All planted trees shall be provided with a temporary irrigation system that would be*			

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		maintained over a minimum three-year establishment period. The irrigation system shall be placed on electric timers so that trees are automatically watered during the dry months of the establishment period. At the end of a suitable establishment period, the irrigation system may be removed. • *All of these replacement trees shall be monitored annually for a minimum of three years by a qualified biologist or arborist, and an annual monitoring report shall be submitted to the City of Antioch's Planning Department. Maintenance will include measures to minimize predation of planted trees by rodents including, but not limited to, pocket gophers (Thomomys bottae) and/or California ground squirrels (Spermophilus beechyi).* • *At the end of a three-year monitoring period, at least 75 percent of planted trees should be in good health. If so, yearly monitoring and reporting is complete. If the numbers of planted trees falls below a 75*			

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			percent survival rate, additional trees shall be planted to bring the total number of planted trees up to 100 percent of the original number of trees planted, and irrigation, monitoring and reporting to the City shall continue until the survival rate is achieved.			
4.2-14	Cumulative loss of biological resources in the City of Antioch and the effects of ongoing urbanization in the region.	*4.4-14*	*Implement Mitigation Measures 4.3-1 through 4.3-12(b).*	See Mitigation Measure 4.3-1 through 4.3-12(b)	See Mitigation Measure 4.3-1 through 4.3-12(b)	
4.4 Cultural Resources						
4.4-2	Archaeological resources and human remains.	*4.4-2(a)*	*In the event of the accidental discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur until the County Coroner has been notified to*	City of Antioch Community Development Department NAHC County Coroner	During construction	

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		determine if an investigation into the cause of death is required. If the coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 24 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the City's			

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			Community Development Department.			
		4.4-2(b)	*If any prehistoric or historic artifacts, or other indications of cultural deposits, such as historic privy pits or trash deposits, are found once ground disturbing activities are underway, all work within the vicinity of the find(s) shall cease and the find(s) shall be immediately evaluated by a qualified archaeologist. If the find is determined to be a historical or unique archaeological resource, contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation shall be made available (CEQA Guidelines Section 15064.5). Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place (Public Resources Code Sections 21083 and 21087).*	City of Antioch Community Development Department	During construction	
4.4-3	Paleontological resources.	*4.4-3*	*The applicant shall retain the services of a professional paleontologist to educate the construction crew that will be conducting grading and excavation at the project site. The education shall consist of an introduction to the geology of the project site and the kinds of fossils that may be encountered, as well as what to do in case of a discovery. Should any vertebrate fossils (e.g., teeth, bones), an unusually*	City of Antioch Community Development Department	Prior to initiation of construction	

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		large or dense accumulation of intact invertebrates, or well-preserved plant material (e.g., leaves) be unearthed by the construction crew, then ground-disturbing activity shall be diverted to another part of the project site and the paleontologist shall be called on-site to assess the find and, if significant, recover the find in a timely matter. Finds determined significant by the paleontologist shall then be conserved and deposited with a recognized repository, such as the University of California Museum of Paleontology. The alternative mitigation would be to leave the significant finds in place, determine the extent of significant deposit, and avoid further disturbance of the significant deposit. Proof of the construction crew awareness training shall be submitted to the City's Community Development Department in the form of a copy of training materials and the completed training attendance roster.			
4.5 Geology, Soils, and Mineral Resources					
4.5-1	Risks to people and structures associated with seismic activity, including ground shaking and ground	*4.5-1 Prior to final project design, the project applicant shall submit to the City of Antioch Engineering Department, for review and approval, a design-level geotechnical engineering report produced by a California*	City of Antioch Engineering Division	Prior to final project design	

MITIGATION MONITORING AND REPORTING PROGRAM VINEYARDS AT SAND CREEK PROJECT					
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	failure, such as liquefaction or landslides.	*Registered Civil Engineer or Geotechnical Engineer. The design-level report shall include measures to address construction requirements to mitigate, at a minimum, slope stability, liquefiable soils, and ground shaking. Measures to address the aforementioned geological concerns shall include, at a minimum, the following:* • *The use of post-tensioned concrete mat foundations for liquefaction-induced settlement;* • *The over-excavation of a minimum of three feet of soil to remove existing structure foundations and non-engineered fill in order to place the soil back on-site as engineered fill; and* • *Soil borings and/or cone penetration tests within the development areas and laboratory soil testing to provide date for preparation of specific recommendations regarding grading, foundations, and drainage for the proposed construction.*			
4.5-2	Risks to people and structures associated with expansive soils.	*4.5-2 Prior to final project design, the project applicant shall submit to the City of Antioch Engineering Department, for review and approval, a design-level geotechnical*	City of Antioch Engineering Division	Prior to final project design	

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		engineering report produced by a California Registered Civil Engineer or Geotechnical Engineer. The design-level report shall include measures to address construction requirements to mitigate, at a minimum, expansive/unstable soils. Measures to address the aforementioned geological concerns shall include, at a minimum, the following: • *The use of post-tensioned concrete mat foundations or similarly stiffened foundations systems which are designed to resist the deflections associated with soil expansion. The foundations are anticipated to be 10 to 12 inches thick;* • *The over-excavation of a minimum of three feet of soil to remove existing structure foundations and non-engineered fill in order to place the soil back on-site as engineered fill; and* • *Soil borings and/or cone penetration tests within the development areas and laboratory soil testing to provide date for preparation of specific recommendations regarding grading, foundations, and drainage for the proposed*			

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		construction. *All grading and site development plans should be coordinated with the Engineering Geologist and the Geotechnical Engineer to modify plans for the mitigation of known soil and geologic hazards during the planning process. The final 40-scale grading plans for the project site should be reviewed by the Geotechnical Engineer before submittal to the appropriate regulatory agencies in order to develop a corrective grading plan and provide a detailed review.*			
4.5-3	Risks associated with substantial erosion or loss of topsoil.	*4.5-3* *Prior to final project design, the project applicant shall submit, for the review and approval by the City Engineer, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Measures shall include, but are not limited to, the following:* • *Hydro-seeding;* • *Placement of erosion control measures within drainageways and ahead of drop inlets;* • *The temporary lining (during construction activities) of drop inlets with "filter fabric" (a*	City of Antioch Engineering Division	Prior to final project design	

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		specific type of geotextile fabric); • *The placement of straw wattles along slope contours;* • *Directing subcontractors to a single designation "wash-out" location (as opposed to allowing them to wash-out in any location they desire);* • *The use of siltation fences; and* • *The use of sediment basins and dust palliatives.*			
4.6 Hazards and Hazardous Materials					
4.6-2	An upset or accidental release of hazardous materials into the environment.	*4.6-2(a)* *Prior to commencement of grading and construction, the construction contractor, a representative from PG&E, Calpine, and a representative from the City's Engineering Department shall meet on the project site and prepare site-specific safety guidelines for construction in the field to the satisfaction of the City Engineer. The safety guidelines and field-verified location of the pipelines shall be noted on the improvement plans and be included in all construction contracts involving the project site.*	City of Antioch Engineering Division	Prior to commencement of grading and construction	
		4.6-2(b) *All abandoned oil pipelines within the areas of the project site planned for development shall be removed. Any*	See Mitigation Measure 4.6-2(c)	See Mitigation Measure 4.6-2(c)	

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			associated apparent soil contamination (soil staining, odors, debris fill material, etc.) shall be properly evaluated and mitigated where necessary, in accordance with Mitigation Measure 4.6-2(c).			
		4.6-2(c)	*If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered at the project site, specifically in the vicinity of abandoned oil/gas wells or during removal of abandoned oil pipelines, the impacted area should be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern and comparison with applicable regulatory residential screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). Where the soil contaminant concentrations exceed the applicable regulatory residential screening levels, the impacted soil shall be excavated and disposed of offsite at a licensed landfill facility to the satisfaction of the Contra Costa Environmental Health Department.*	Contra Costa Environmental Health Department	During removal of abandoned oil pipelines	
		4.6-2(d)	*Prior to final map approval, the project*	City of Antioch	Prior to Final	

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		applicant shall submit to the City of Antioch Engineering Department, for review and approval, plans which show that inhabited structures will not be located directly over the three on-site abandoned oil/gas wells. The plans shall be completed in compliance with the DOGGR Construction Site Review Program, which includes guidelines and recommendations for setbacks and mitigation measures for venting systems.	Engineering Division	Map approval	
4.9 Noise					
4.9-2	Impacts related to a substantial temporary or periodic increase in ambient noise levels in the project vicinity.	*4.9-2(a)* *Noise-generating activities at the construction site or in areas adjacent to the construction site that are associated with the proposed project in any way shall adhere to the requirements of the City of Antioch Zoning Ordinance with respect to hours of operations, subject to review and approval by the City Building Official. Specifically, construction activities shall not occur during the hours specified below:* • *On weekdays prior to 7:00 AM and after 6:00 PM;* • *On weekdays within 300 feet of occupied dwellings, prior to 8:00 AM and after 5:00 PM; and* • *On weekends and holidays, prior*	City of Antioch Building Official	During construction	

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		to 9:00 AM and after 5:00 PM, irrespective of the distance from the occupied dwellings.			
		4.9-2(b) *Prior to issuance of the grading permit, the project contractor shall ensure that all intake and exhaust ports on power construction equipment shall be shrouded or shielded from sensitive receptors according to industry best practices, subject to review and approval by the City Building Official.*	City of Antioch Building Official	Prior to issuance of the grading permit	
		4.9-2(c) *Prior to issuance of the grading permit, the project contractor shall designate a disturbance coordinator and conspicuously post the coordinator's number around the project site and in adjacent public spaces, subject to review and approval by the City Building Official. The disturbance coordinator shall receive any and all public complaints about construction noise disturbances and shall be responsible for determining the cause of the complaint and implementing any feasible measures to be taken to alleviate the problem.*	City of Antioch Building Official	Prior to issuance of the grading permit	
		4.9-2(d) *Prior to the issuance of the grading permit, the applicants shall submit a construction-related noise mitigation plan*	City of Antioch Building Official	Prior to issuance of the grading permit	

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		to the City Building Official for review and approval. The plan shall depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of the project through the use of such methods as: • *The construction contractor shall use temporary noise-attenuation fences, where feasible, to reduce construction noise impacts on adjacent noise sensitive land uses.* • *During all project site excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.* • *The construction contractor shall locate equipment staging in areas that will create the greatest*			

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		distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.			
4.9-5	Transportation noise at new sensitive receptors.	*4.9-5(a)* *In conjunction with submittal of Improvement Plans, the applicant shall show on the Improvement Plans that sound walls and/or landscaped berms shall be constructed along Hillcrest Avenue and Sand Creek Road at proposed residential uses. The specific height and location of the noise barrier shall be confirmed based upon the final approved site and grading plans. See Figure 3.9-2 for the recommended noise barrier placement and required wall height. Wall height shown in the aforementioned figure is relative to building pad elevations. Noise barrier walls shall be constructed of concrete panels, concrete masonry units, earthen berms, or any combination of these materials. Wood is not recommended due to eventual warping and degradation of acoustical performance. The Improvement Plans shall be subject to review and approval by the City Engineer.*	City of Antioch Engineering Division	In conjunction with submittal of Improvement Plans	
		4.9-5(b) *In conjunction with submittal of Building Plans, the applicant shall show on the plans that mechanical ventilation shall be*	City of Antioch Building Official	In conjunction with submittal of Building Plans	

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			installed in all residential uses to allow residents to keep doors and windows closed, as desired for acoustical isolation. The building plans shall be subject to review and approval by the City Building Official.			
4.9-7	Cumulative impacts on noise-sensitive receptors.	*4.9-7*	*Implement Mitigation Measures 4.9-5(a) and 4.9-5(b).*	See Mitigation Measures 4.9-5(a) and 4.9-5(b)	See Mitigation Measures 4.9-5(a) and 4.9-5(b)	
4.10 Public Services, Recreation, and Utilities						
4.10-6	Adequate school capacity.	*4.10-6*	*Prior to building permit issuance for any residential development, the developer shall submit to the Community Development Department written proof from the BUSD and the LUHSD that appropriate school mitigation fees have been paid.*	City of Antioch Community Development Department	Prior to building permit issuance for any residential development	
4.10-7	Adequate parks and recreation facilities.	*4.10-7*	*Per the Antioch Municipal Code, at the time of the filing of the final subdivision map, the subdivider shall provide a combination of parkland dedication and the payment of in-lieu fees into the City of Antioch's Park Fee Trust Fund to the satisfaction of the City Engineer/Director of Public Works.*	City of Antioch Engineer / Director of Public Works	In conjunction with Final Map recordation	
4.11 Transportation and Circulation						
4.11-1	Traffic related to construction activities.	*4.11-1*	*Prior to issuance of grading and building permits, the developer shall submit a Traffic Control Plan, subject to review*	City of Antioch Engineering Division	Prior to issuance of grading and building permits	

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		and approval by the City Engineer. The requirements within the Traffic Control Plan shall include, but are not necessarily limited to, the following: • *Project staging plan to maximize on-site storage of materials and equipment;* • *A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak hours; lane closure proceedings; signs, cones, and other warning devices for drivers; and designation of construction access routes;* • *Permitted construction hours;* • *Identification of parking areas for construction employees, site visitors, and inspectors, including on-site locations; and* • *Provisions for street sweeping to remove construction-related debris on public streets.*			
4.11-5	Site access, circulation, and emergency access.	*4.11-5* *Prior to approval of Improvement Plans, the Improvement Plans shall show that the northbound left-turn pocket from Heidorn Ranch Road and the southbound left-turn pocket from Hillcrest Avenue shall be*	City of Antioch Engineering Division	Prior to approval of Improvement Plans	

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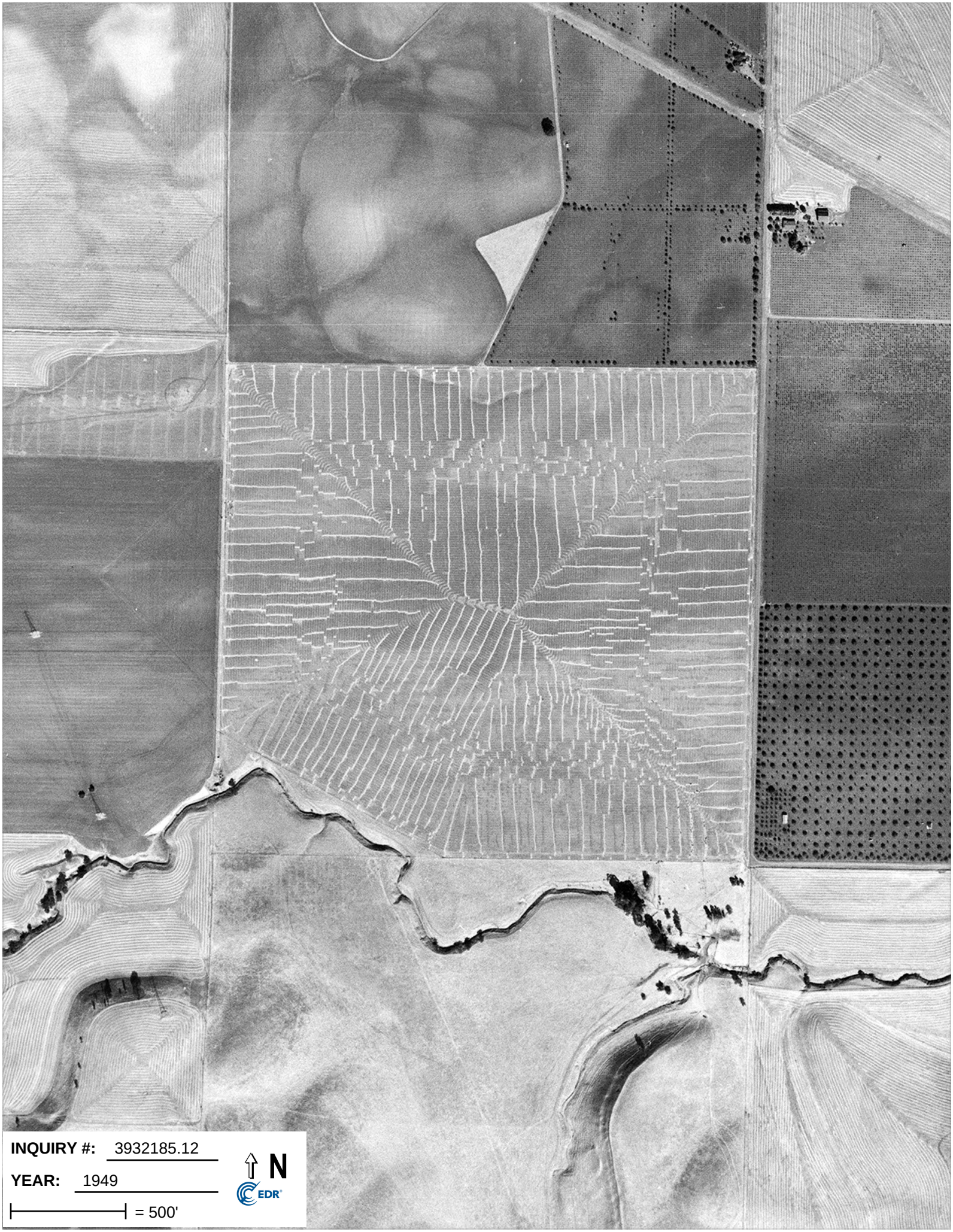
		designed to provide approximately 75 to 100 feet of vehicle storage, plus the taper length. The Improvement Plans shall be subject to review and approval by the City Engineer.			
4.11-6	Study roadway intersections and freeway facilities under Cumulative Plus Project conditions.	*4.11-6* *Prior to issuance of a building permit, the project applicant shall pay regional transportation impact fees to the East Contra Costa Regional Fee and Financing Authority (ECCRFFA) that would fund construction of additional improvements at the Sand Creek Road interchange, which includes a slip-ramp for the eastbound Sand Creek to southbound State Route 4 movement, eliminating the conflicting left-turn movement at the intersection. Construction of this improvement would result in acceptable operations (as shown in Table 4.11-14).*	City of Antioch Community Development Department	Prior to issuance of a building permit	

APPENDIX A

Attachment A
Historical Aerial Photographs of the Vineyards at Sand Creek Project Site
Antioch, Contra Costa County, California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YEAR: 1949
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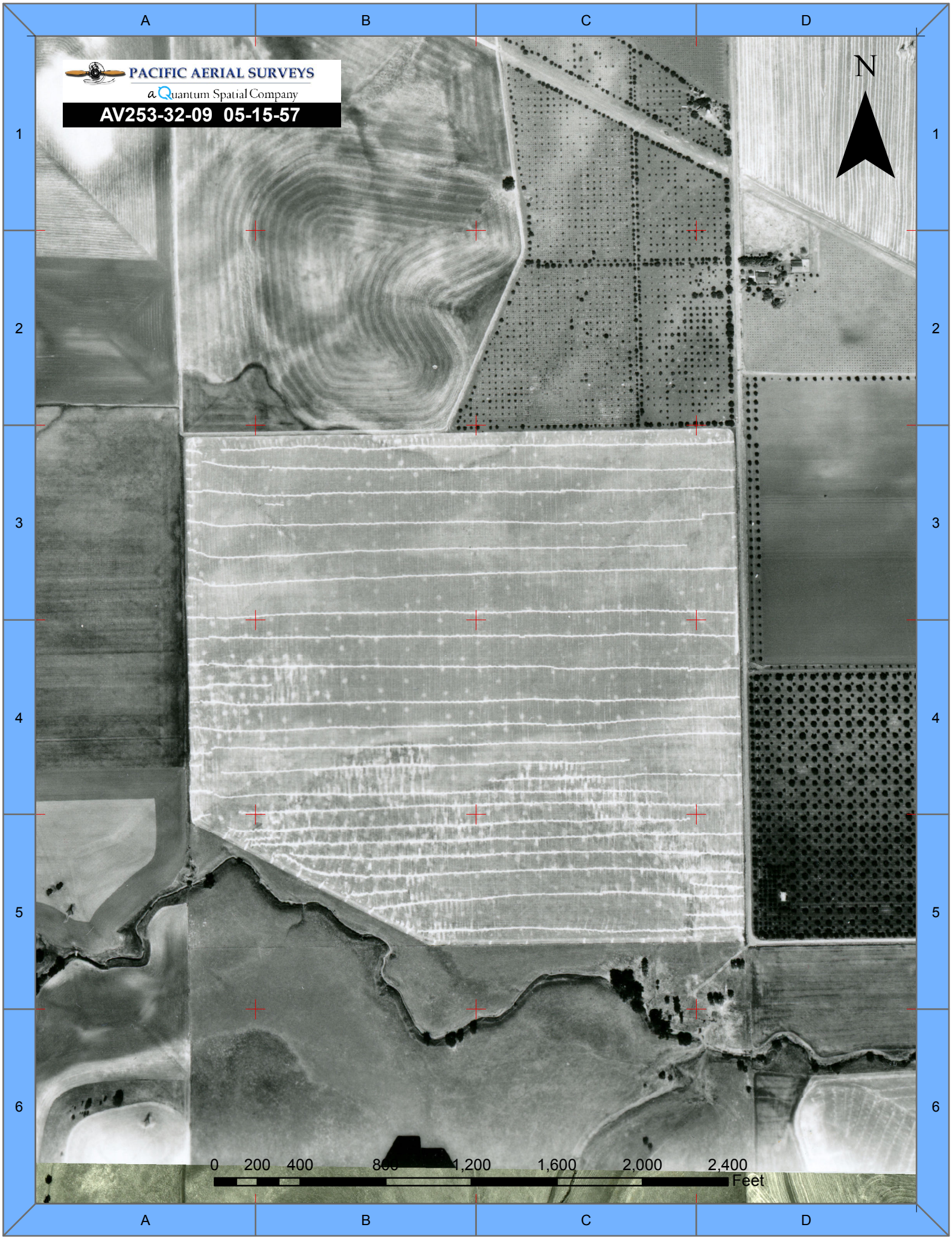
EDR


PACIFIC AERIAL SURVEYS
a Quantum Spatial Company
AV253-32-09 05-15-57
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Feet

INQUIRY #: 3932185.12
YEAR: 1968
= 500'
N
EDR

PACIFIC AERIAL SURVEYS
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Feet

PACIFIC AERIAL SURVEYS
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Feet

PACIFIC AERIAL SURVEYS
a Quantum Spatial Company
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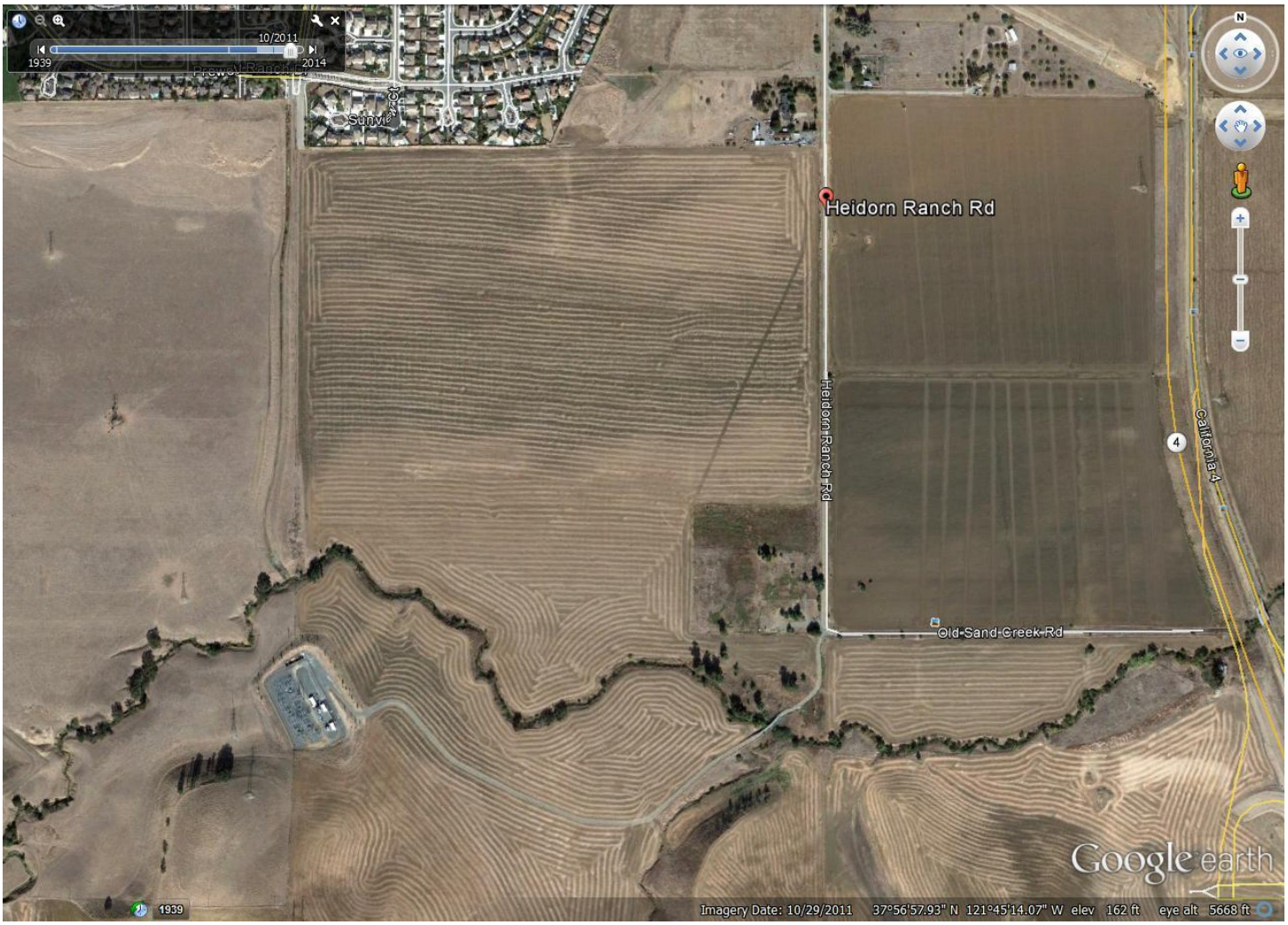
Feet

August 31, 2008

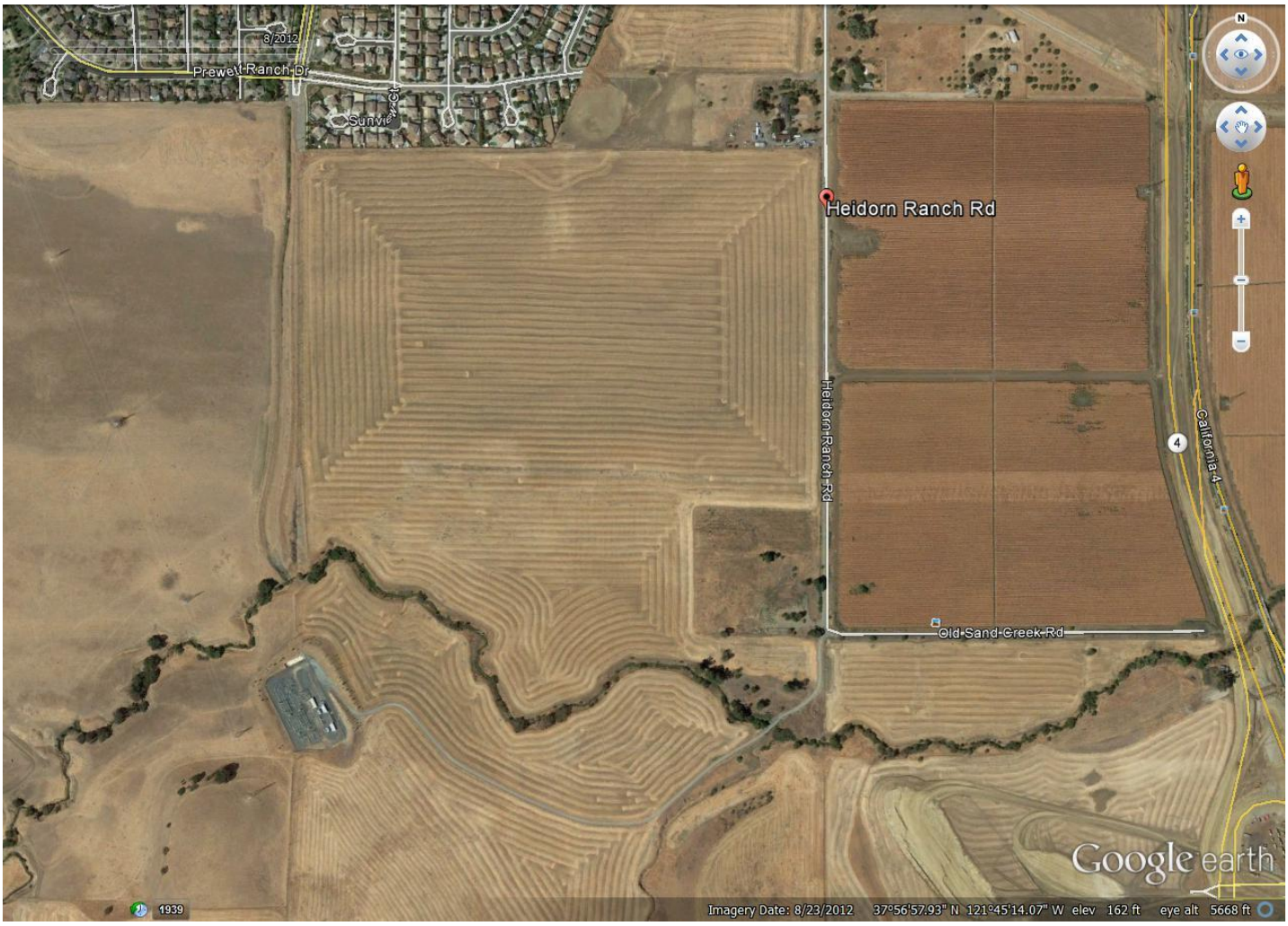
INQUIRY #: 3932185.12
YEAR: 2009
= 500'
N
EDR

7/2010
Prewett Ranch Dr
Survio
Heidorn Ranch Rd
Heidorn Ranch Rd
California 4
Old Sand Creek Rd
Image © 2015 DigitalGlobe
Google earth
1939
Imagery Date: 7/5/2010 37°56'57.93" N 121°45'14.07" W elev 162 ft eye alt 5668 ft

July 5, 2010



October 29, 2011



August 23, 2012