City of Oakley
A Place for Families in the Heart of the Delta

East Cypress Corridor Specific Plan - Draft EIR

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TABLE of CONTENTS

Volume 1

Volume 2

Appendices

LIST of FIGURES

Figure

LIST of TABLES

1.0 INTRODUCTION, SCOPE OF EIR, AND EXECUTIVE SUMMARY

1.0 INTRODUCTION, SCOPE OF EIR, AND EXECUTIVE SUMMARY

1.0.1 INTRODUCTION

The East Cypress Corridor Specific Plan Draft Environmental Impact Report (DEIR) is prepared in accordance with the California Environmental Quality Act of 1970 (CEQA) as amended, January 1, 2005. The City of Oakley is the lead agency for the environmental review of the East Cypress Corridor Specific Plan project evaluated herein and has the principal responsibility for approving the project. As required by Section 15121 of the CEQA Guidelines, this Draft EIR will (a) inform public agency decision-makers, and the public generally, of the significant environmental effects of the project, (b) identify possible ways to minimize the significant adverse environmental effects, and (c) describe reasonable and feasible project alternatives that reduce environmental effects. The public agency shall consider the information in the Draft EIR along with other information that may be presented to the agency.

1.0.1.1 BRIEF EAST CYPRESS CORRIDOR SPECIFIC PLAN PROJECT DESCRIPTION

Project Location

The East Cypress Corridor Specific Plan site is located in eastern Contra Costa County as shown in Figure 1-1, Regional Location Map. More specifically, the project is located east of the City of Oakley as shown in Figure 1-2, Local Vicinity Map. The project totals approximately 2,546 acres and includes vacant land, agricultural land, single-family homes, commercial use, overhead power lines, natural gas wells, natural gas pipelines, irrigation canals, and the Summer Lake (formerly Cypress Lake and Country Club) project, which is currently under construction. The topography of the project site and the surrounding area is shown in Figure 1-3, USGS Topographic Map. An aerial photograph of the site and the area immediately surrounding the site is shown in Figure 1-4, Aerial Photograph.

East Cypress Corridor Specific Plan

The East Cypress Corridor Specific Plan proposes planned development of mixed-uses for the 2,546-acre site. The project proposes to allow up to 5,609[1] residential units (detached and attached units), 92.6 acres of commercial use (638,600 square feet), 52.6 acres of public schools (2 elementary, one middle), 152.3 acres of man-made lake, 190 acres of open space/easements, 20.5 acres of existing and proposed gas well sites, 122.1 acres of wetlands/dunes, 112.5 acres of flood-control levees (46,100 linear feet), 101.7 acres of parks (neighborhood and community), 5.7 acres of light industrial use (166,356 square feet), 37.3 acres of commercial recreation (162,500 square feet) and a 6-acre beach club. The land use plan is shown in Figure 1-5, East Cypress Corridor Specific Plan Land Use Plan Map.

[1] 150 residential units may replace up to 20 acres of the 40 net acres of the Village Center site, which results in a maximum development of 5,759 residential units.

Planning Areas

The East Cypress Corridor Specific Plan is divided into six Planning Areas (PAs) as shown in Figure 1-6, East Cypress Corridor Specific Plan Planning Areas. PAs 1, 3, and 4 have site-specific plans for their development. The EIR evaluates the development of PAs 1, 3, and 4 at a project level analysis based on the specific development plan proposed for these planning areas. Figures 1-7, 1-8, and 1-9 show the proposed development plans for PAs 1, 3 and 4, respectively.

Planning Area 6 includes property that is developed or not proposed for development at this time, thus no development plans have been prepared and are proposed for any property in PA 6. The EIR evaluates the potential development of the property in PA 6 based on the Oakley General Plan land use designations at a Program level. Planning Area 6 is shown in Figure 1-10. Site specific development plans for the development of property in PA 6 in the future would require additional environmental analysis required by the California Environmental Quality Act (CEQA).

Summer Lake

The East Cypress Corridor Specific Plan includes the previously approved Summer Lake (formerly known as Cypress Lake and Country Club) project that comprises Planning Areas 2 and 5. The project developer of Summer Lake, Shea Homes, proposes changes to PA 2, which is the area north of East Cypress Road. The proposed changes include the elimination of the 18-hole golf course and in its place construct a 20-acre middle school, 113 residential units, 10,000 square feet of commercial use and change 5.7 acres of Delta Recreation to Light Industrial land use. The 113 units proposed for PA 2 are in addition to the 1,330 total units approved for the Summer Lake project (PA 2 and PA 5) by the County in 1993. The Summer Lake development plan currently allows the development of 1,330 residential units with 628 units approved for PA 5 and 702 units for PA 2. The proposed changes to PA 2 would allow the development of an additional 113 residential units for PA 2.

The East Cypress Corridor Specific Plan EIR evaluates the proposed land use changes described above for PA 2 at a program level analysis. Final development plans for PA 2 in the future may require additional environmental analysis pursuant to CEQA. The proposed development plan for PA 2 of the Summer Lake project is shown in Figure 1-11, Proposed Summer Lake. No additional units or any other changes are proposed to PA 5, which is currently under construction. Planning Area 5 is shown in Figure 1-12. Therefore, this EIR does not provide any environmental analysis of the existing development approved by the County for PA 5.

Contra Costa Local Agency Formation Commission (LAFCO) Annexation

The East Cypress Corridor Specific Plan area would require the approval from the Contra Costa Local Agency Formation Commission (LAFCO) to be annexed into the City of Oakley. The project site is located outside the Oakley city limit boundary, but within the sphere of influence of the city. Therefore, the project would require annexation into the City of Oakley. The East Cypress Corridor Specific Plan Final Environmental Impact Report would serve as the required environmental document pursuant to CEQA for the annexation process of the project by LAFCO. The annexation process would include three concurrent boundary reorganization applications covering

the entire 2,546-acres, including annexation to the City of Oakley, Contra Costa Water District, and Diablo Water District.

1.0.1.2 PROJECT BACKGROUND

Prior to the city's incorporation July 1, 1999, Contra Costa County was responsible for planning and land use in Oakley. Such activities were guided by the 1996 Contra Costa County General Plan. Upon incorporation, the City of Oakley adopted the County General Plan as the City's General Plan, as well as the County Zoning Code and other County regulations.

In 2002, the City of Oakley adopted its own General Plan – The Oakley 2020 General Plan. As part of the General Plan, the City prepared an Oakley 2020 General Plan Background Report. An Environmental Impact Report (EIR) for the General Plan was adopted and certified concurrently with the adoption of the Oakley 2020 General Plan. The Background Report is used in this Draft EIR as a source for descriptive text and not for policy or General Plan determinations.

The City of Oakley city limit boundary and its Sphere of Influence (SOI) were originally coterminous. Oakley expressed an interest to expand its SOI beyond the city limit boundary to the area east of the city in two locations: (1) A 155 acre area located southeast of the intersection of East Cypress and Sellers Avenue; and (2) a 2,546 acre area directly east of the eastern portion of the City. These areas are referred in the Oakley General Plan as Expansion Areas. The East Cypress Corridor Specific Plan comprises the 2,546 acre are referred to in the Oakley General Plan as one of the Expansion Areas. The land within the existing City limits along with the land in the Expansion Area constitutes Oakley's General Plan Planning Area. Figure 1-13, Oakley Sphere of Influence, shows the City of Oakley city limit boundary and its sphere of influence. As shown, the project site is within the city's sphere of influence.

The City of Oakley formally submitted an application to the Contra Costa County Local Agency Formation Commission (LAFCO) to include a portion of the Expansion Area in the City's Sphere of Influence. A portion of the 155-acre Expansion Area (88 acres located southeast of the Sellers and East Cypress Road intersection) and the 2,546-acre site (located east of Jersey Island Road, north of the Contra Costa Canal, east of the Delta slough and south of Delta Road) were formally approved for inclusion in the City of Oakley SOI on August 13, 2003.[2]

The application to LAFCO for the annexation of the proposed East Cypress Corridor Specific Plan site into the City of Oakley is pending upon certification of the Final EIR for the East Cypress Corridor Specific Plan and approval of the East Cypress Corridor Specific Plan. The EIR would serve as the environmental document for the annexation request.

1.0.1.3 EXISTING CONDITIONS

The existing conditions on the project site are shown in Figure 1-14, East Cypress Corridor Specific Plan Existing Conditions. As shown, the site has a variety of existing conditions including natural gas wells, overhead electrical lines, sensitive biological resources, etc. that somewhat constrain its

[2] Contra Costa Local Agency Formation Commission, Resolution No. 03-16.

development. These existing conditions have been taken into account as part of the process to plan its development.

1.0.2 PURPOSE OF THE EIR

As provided in the CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues.

CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. For the purposes of CEQA, the term *project* refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed East Cypress Corridor Specific Plan, the City has determined that the proposed specific plan, annexation and other related proposals are a *project* within the definition of CEQA, which has the potential for resulting in significant environmental effects.

The EIR is an informational document that apprises decision-makers and the general public of the potential significant environmental effects of a proposed project. An EIR identifies possible means to minimize the significant effects and describes a reasonable range of feasible alternatives to the project. The lead agency for the project is the City of Oakley. As the lead agency, the City is required to consider the information in the EIR along with all other available information in deciding whether to approve the East Cypress Corridor Specific Plan project. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, growth-inducing impacts, and cumulative impacts.

1.0.2.1 TYPE OF DOCUMENT

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. The Draft EIR that has been prepared for the East Cypress Corridor Specific Plan is a Program EIR pursuant to CEQA Guidelines §15168 and a Project EIR pursuant to CEQA Guidelines §15161.

Program EIR

A Program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) geographically; (2) as logical parts in the chain of contemplated actions; (3) in connection with issuance or rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or; (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.[3]

There are advantages to preparing a Program EIR, which include: (1) provide an occasion for a more exhaustive consideration of effects and alternatives that will be practical in an EIR on an individual action; (2) ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis; (3) avoid duplicative reconsideration of basic policy considerations; (4) allow the lead

[3] California Environmental Quality Act Guidelines §15168 (a).

agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts; (5) allow reduction in paperwork.[4]

The Program EIR can be used with later activities. Subsequent activities in the program must be examined in the light of the Program EIR to determine whether an additional environmental document must be prepared: (1) if a later activity would have effects that were not examined in the program EIR, a new initial study would need to be prepared leading to either an EIR or a negative declaration; (2) if the agency finds that pursuant to CEQA Guidelines Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required; (3) an agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR, and no new environmental document would be required; (4) where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR; (5) a program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.[5]

The Program EIR can be referenced in conjunction with the development of properties within the specific plan in the future. A Program EIR can be used to simplify the task of preparing environmental documents on later parts of the specific plan. The Program EIR can: (1) provide the basis in an initial study for determining whether the later activity may have any significant effects; (2) be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole; (3) focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before.[6]

Finally, using a Program EIR as CEQA compliance for later activities as part of the specific plan must be disclosed. When a law other than CEQA requires public notice when the agency later proposes to carry out or approve an activity within the program and to rely on the Program EIR for CEQA compliance, the notice for the activity shall include a statement that: (1) this activity is within the scope of the program approved earlier, and (2) the Program EIR adequately describes the activity for the purposes of CEQA.[7]

As discussed above, the preparation of a Program EIR for PA's 2 and 6 for the proposed East Cypress Corridor Specific Plan allows the potential impacts of the specific plan and annexation project to be evaluated in as much detail as possible on a larger scale along with evaluating cumulative effects and project alternatives that may not be practical on an individual project basis.

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[4] California Environmental Quality Act Guidelines §15168 (b).

[5] California Environmental Quality Act Guidelines §15168 (c).

[6] California Environmental Quality Act Guidelines §15168 (d).

[7] California Environmental Quality Act Guidelines §15168 (e).

The Program EIR also allows the lead agency, in this case the City of Oakley, to simplify the environmental process for individual projects in the future as allowed by CEQA.

Project EIR

The EIR also serves as a Project level EIR pursuant to CEQA Guidelines Section 15161 for PA's 1, 3 and 4 within the boundary of East Cypress Corridor Specific Plan. Detailed project information is available for the parcels proposed for development by KB Homes, D.R. Horton, and Bethel Island LLC. The EIR evaluates the environmental impacts associated with the development of PA's 1, 3 and 4 to the extent that more detailed project information is available for these planning areas than other areas of the site. The areas that are evaluated at the more detailed project level analysis include PAs 1, 3 and 4 as shown in Figure 1-6.

1.0.3 SUMMER LAKE – PROGRAMMATIC SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

The Summer Lake project (formerly known as Cypress Lake and Country Club) is located entirely within the boundary of the East Cypress Corridor Specific Plan. The Summer Lake project was approved by Contra Costa County in 1993. The first two phases of Summer Lake (PA 5) are currently under construction by Shea Homes. As part of the East Cypress Corridor Specific Plan, Shea Homes is proposing to revise the development plan for the northern area (PA 2) of their approved Cypress Lake project as discussed above. This EIR will, in conjunction with the East Cypress Corridor Specific Plan, evaluate the potential environmental impacts of the proposed changes to the northern portion of the Summer Lake project, which is PA 2. There are no proposed revisions to PA 5. Therefore, the EIR has no discussion or analysis for the existing development plan and current construction of PA 5.

The environmental impact analysis of the proposed changes to PA 2 of Summer Lake is being prepared as a Programmatic Supplemental EIR to the Cypress Lake and Country Club Project Final EIR that was certified in March 1993 (State Clearinghouse SCH#92023048) pursuant to CEQA Guidelines §15163. The Summer Lake Programmatic Supplemental EIR environmental analysis is included within each environmental discipline evaluated for the East Cypress Corridor Specific Plan under separate heading "Summer Lake – Supplemental EIR". All of the mitigation measures that were adopted by Contra Costa County upon the approval of the project continue to apply to the current development of Summer Lake, except as modified in this EIR. The prior EIR is on file with the City of Oakley Planning Department for reference.

1.0.4 EIR PROCESS

The EIR process begins with the decision by the lead agency (City of Oakley) to prepare an EIR, either during a preliminary review of a project or at the conclusion of an initial study. Once the decision is made to prepare an EIR, the lead agency sends a Notice of Preparation (NOP) to appropriate government agencies, and when required, to the State Clearinghouse in the Office of Planning and Research (OPR), which will ensure that responsible State agencies reply within the required time. The State Clearinghouse assigns an identification number to the project, which then becomes the identification number for all subsequent environmental documents on the project. Applicable agencies have 30 days to respond to the NOP, indicating, at a minimum, reasonable

alternatives and mitigation measures they wish to have explored in the Draft EIR and whether the agency will be a responsible agency or a trustee agency for the project.

The City of Oakley prepared three separate Notices of Preparation and Initial Studies for the East Cypress Corridor Specific Plan. The City mailed the first Notice of Preparation to the State Clearinghouse, surrounding cities and other interested parties for a 30-day review period that began September 2, 2004 and ended October 1, 2004. A copy of the Initial Study and Notice of Preparation are included as Appendix A, which is contained in Volume 2 of the Draft EIR. The City received fifteen letters with written comments regarding potential environmental impacts of the project. The agencies/individuals that submitted written comments include:

- State of California, Governor's Office of Planning and Research, State Clearinghouse, Scott Morgan, Project Analyst
- Contra Costa Water District, Jerry Brown, Director of Planning
- Sierra Club, San Francisco Bay Chapter, Mike Daley
- Greenbelt Alliance, David Reid, East Bay Field Representative
- Reclamation District 799, Barbara Burns, District Engineer
- Martin and Koren Logan, Sandmound residents
- Victoria Leydecker, Sandmound resident
- Antioch Unified School District, Timothy Forrester, Director of Facilities Finance
- Ironhouse Sanitary District, Charmin Roundtree-Baaqee, Consulting Engineer, RMC
- Tri Delta Transit, Justin R. Tracy, Intern
- Transamerica Minerals Company, Terry Allred, Vice President and Manager
- Caltrans, District 4, Timothy Sable, District Branch Chief
- Kerry & Associates
- Comcast, Rodney Cherry
- Robert Booher Consulting

The written comments received to the Notice of Preparation by the above parties are provided in Appendix B of Volume 2 of the Draft EIR.

1.0.5 SECOND NOTICE OF PREPARATION

The project description that was included in the first Notice of Preparation was revised, which prompted the preparation and public review of a second Notice of Preparation. The 30-day public review period for the second Notice of Preparation began December 2, 2004 and ended December 31, 2004. The second Notice of Preparation and Initial Study were mailed to all Responsible Agencies and interested persons that received the first Notice of Preparation. In addition, the second Notice of Preparation was sent to all attendees at the first scoping meeting, described below.

A copy of the second Notice of Preparation and Initial Study are included as Appendix C of Volume 2 of the Draft EIR.

The City received twenty-five letters with written comments regarding potential environmental impacts of the project during the second Notice of Preparation review period. The agencies/individuals that submitted written comments include:

- Contra Costa County Flood Control, Tim Jensen, Associate Engineer
- Sierra Club, San Francisco Bay Chapter, Tim Donahue, Chairman of the Delta Group
- Greenbelt Alliance, David Reid, East Bay Field Representative
- Contra Costa Water District, Mark Seedall, Senior Planner
- Delta Keeper, Bill Jennings, Chairman, California Sport Fishing Protection Alliance
- Maverick Petroleum, Inc., Gary Plotner, Agent for TMC
- East Bay Regional Park District, Linda Chavez, Senior Planner
- Caltrans, District 4, Timothy Sable, District Branch Chief
- California Department of Water Resources, Curt Schmutte, Chief
- Oakley Union Elementary School District, Rick Rogers, Superintendent
- Clark Fratus, resident
- Reclamation District 799, Barbara Burns, District Engineer
- State of California, Governor's Office of Planning and Research, State Clearinghouse, Scott Morgan, Project Analyst
- Ray and Shirley Zurfluh, residents
- East Contra Costa Fire Protection District, Doug Dawson, Fire Chief
- East Contra Costa Fire Protection District, Richard Ryan, Fire Inspector
- California Department of Conservation, Dennis O'Bryant, Acting Assistant Director
- Delta Protection Commission, Margit Aramburu, Executive Director
- Contra Costa County Community Development Department, Patrick Roche, Advance Planning Division
- Sierra Club, San Francisco Bay Chapter, Mike Daley, Chapter Conservation Director
- East Bay Bicycle Coalition, Robert Raburn, Executive Director
- Department of the Army, U.S. Army Engineer District, Sacramento, Corps of Engineers, Michael Finan, Chief, Delta Office
- California Native Plant Society, Jessica Olson
- Delta Pedalers Bicycle Club, Bruce Ohlson

- East Contra Costa Irrigation District, Larry Preston

The written comments received to the second Notice of Preparation by the above parties are provided in Appendix D of Volume 2 of the Draft EIR.

1.0.6 THIRD NOTICE OF PREPARATION

A third Notice of Preparation was prepared for the proposed revisions to the northern portion of the approved Summer Lake project and mailed for a 30-day public review period. The 30-day public review period for the third Notice of Preparation began April 6, 2005 and ended May 5, 2005. The third Notice of Preparation and Initial Study were mailed to all Responsible Agencies and interested persons that received the two previous Notices of Preparation. In addition, the third Notice of Preparation was sent to all attendees at the first two project scoping meetings, described below. A copy of the third Notice of Preparation and Initial Study are included as Appendix E of Volume 2 of the Draft EIR.

The City received seven letters with written comments regarding potential environmental impacts of the project during the third Notice of Preparation review period. The agencies/individuals that submitted written comments include:

- Contra Costa County Flood Control – Tim Jensen, Associate Engineer
- Contra Costa Water District – Mark Seedall, Senior Planner
- California Regional Water Quality Control Board – Christine Palisoc, Environmental Scientist
- Jeff Tamayo, property owner
- Delta Protection Commission – Margit Aramburu, Executive Director
- Caltrans, District 4 – Timothy Sable, District Branch Chief
- Department of Toxic Substances Control, Ken Chiang, Senior Hazardous Substances Scientist

The written comments received to the third Notice of Preparation by the above parties are provided in Appendix F of Volume 2 of the Draft EIR.

1.0.7 SCOPING MEETINGS

The City of Oakley held three public scoping meetings to solicit input from the public at large regarding the potential environmental impacts of the project. The public scoping meetings were held by the City of Oakley on September 16, 2004, December 16, 2004, and April 18, 2005 at the Delta Vista Middle School in Oakley. The people in attendance at the three scoping meetings are listed below:

Scoping Meeting - September 16, 2004

- Barbara Burns, Burns Engineering – representing Reclamation District 799 (RD799).

- Robert A. Booher, Robert A. Booher Consulting - representing several companies that have natural gas wells on the site.
- Harriett Zych, Director of Contra Costa Farm Bureau.
- Evo Baldocchi, local landowner
- Helen Baldocchi, local landowner

Scoping Meeting - December 16, 2004

- Robert A. Booher, Robert A. Booher Consulting.
- Gary Plotner, Maverick Petroleum, Inc.
- Mark Sedall, Contra Costa Water District

Scoping Meeting - April 18, 2005

- LeAnn Wood

1.0.8 EAST CYPRESS CORRIDOR SPECIFIC PLAN DRAFT EIR

The East Cypress Corridor Specific Plan Draft EIR will be circulated for a 45-day public review period pursuant to CEQA Guideline §15105(a). Comments received during the comment period will be addressed in the Final EIR. The Oakley Planning Commission and City Council will review the Draft and Final EIR prior to its certification by the Oakley City Council. Upon any project approval, written findings of fact for each significant environmental impact identified in the EIR will be prepared by the lead agency to:

- Find that the proposed project has been changed to avoid or substantially lessen its significant impacts;
- Determine whether any changes to the proposed project necessary to avoid or substantially lessen any significant impacts are within another agency's jurisdiction, and find that such changes have been or should be adopted by such other agency; and/or
- Find that specific economic, social, or other considerations make infeasible any mitigation measures or project alternatives that will avoid or substantially lessen any significant impacts.

The findings of fact prepared by the lead agency must be based on substantial evidence in the administrative record and must include an explanation that bridges the gap between evidence in the record and the conclusions required by CEQA.

The lead agency may prepare a Statement of Overriding Considerations if it elects to proceed with a project that will have unavoidable significant impacts, balancing the benefits of the project against its unavoidable environmental impacts.

1.0.9 SCOPE OF THE DRAFT EIR

State CEQA Guidelines §15126.2(a) states, in pertinent part:

> An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.

Pursuant to these guidelines, the scope of this Draft EIR includes specific issues and concerns identified as potentially significant. The Initial Studies prepared for the proposed project also identify several environmental issues that will result in a less-than-significant impact.

Resources identified for study in the Draft EIR include:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology
- Hazards
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services and Utilities
- Transportation/Traffic

1.0.10 ORGANIZATION OF THE DRAFT EIR

The East Cypress Corridor Specific Plan Draft EIR is organized into the following sections:

Chapter 1.0 – Introduction, Scope of EIR, Executive Summary

Provides an introduction and overview describing the intended use of the Draft EIR and the review and certification process, as well as summaries of the chapters included in the Draft EIR and summaries of the environmental resources that will be impacted by the project.

Chapter 2.0 – Project Description

Provides a detailed description of the proposed project, including its location, background information, major objectives, and technical characteristics.

Chapter 3.0 – Environmental Setting, Impacts and Mitigation Measures

Contains a project-level analysis of environmental issue areas for those areas of the site for which development plans have been prepared. The properties within the boundary of the specific plan that have preliminary development plans include sites owned or controlled by KB Home, D.R. Horton, and Bethel Island LLC, which are PA's 1, 3 and 4, respectively. The Draft EIR provides a program-level analysis for the remaining areas, PAs' 2 and 6 that do not have preliminary development plans. The subsection for each environmental issue contains an introduction and description of the setting of the project site, identifies impacts and recommends appropriate mitigation measures.

Chapter 4.0 – CEQA Statutorily Required Sections

Provides discussions required by CEQA regarding impacts that will result from the proposed project, including a summary of cumulative impacts, potential growth-inducing impacts, significant and unavoidable impacts, and significant irreversible changes to the environment.

Chapter 5.0 – Alternatives Analysis

Describes the alternatives to the proposed project, their respective environmental effects, and a determination of the environmentally superior alternative.

Chapter 6.0 – EIR Authors / Persons Consulted

Lists report authors who provided technical assistance in the preparation and review of the Draft EIR.

Chapter 7.0 – References

Provides bibliographic information for all references and resources cited.

Appendices

Volume 2 to the Draft EIR is the Appendices, which is a separate volume (Volume II) to the Draft EIR. The Appendices includes the Initial Studies/NOPs, responses to the Initial Studies and all technical reports / information referenced in the Draft EIR.

1.0.11 DEFINITIONS

The following bold and capitalized terms shall have the following meanings unless the context in which they are used clearly requires otherwise:

"City" means the City of Oakley, California

"County" means the County of Contra Costa, California

"CEQA" means the California Environmental Quality Act, as amended January 1, 2005, §§21000-21178, Public Resources Code, State of California

"CEQA Guidelines" means the Guidelines for California Environmental Quality Act as amended December 1, 2005, §§15000-15387, California Code of Regulations Title 14, Chapter 3

"Draft EIR" means the East Cypress Corridor Specific Plan Draft Environmental Impact Report

"Drilling Ordinance" means the draft Oil and Gas Drilling Chapter of the Zoning Code of the City of Oakley

"General Plan" means the general plan of the City of Oakley, adopted December 16, 2002, and as amended from time to time

"Project Area" means the 2,546-acre East Cypress Corridor Specific Plan

"RD 799" means Reclamation District 799

"State" means the State of California

"Zoning Ordinance" means the zoning ordinance of the City of Oakley in effect at the time of project approval of the East Cypress Corridor Specific Plan and as it may be amended from time to time.

1.0.12 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION

Under CEQA, a significant effect on the environment is defined as a substantial or potentially substantial adverse change in any of the physical conditions within the areas affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. For these areas, the Draft EIR discusses the mitigation measures that could be implemented by the City of Oakley to reduce potential adverse impacts to a level that is considered less-than-significant. An impact that remains significant after mitigation is considered an unavoidable adverse impact of the proposed project. The mitigation measures presented in the Draft EIR will form the basis of the Mitigation Monitoring and Reporting Program. Following are the technical environmental issues addressed in this Draft EIR.

Aesthetics

The Draft EIR summarizes existing regional and project-area aesthetic resources and visual settings. Aesthetic resources issues—effects on scenic vistas, trees, historic buildings, scenic highways, existing visual character or quality of the site and its surrounding areas, and light and glare—arising from the development of largely agricultural land are included. The Draft EIR analyzes the existing setting, defines thresholds of significance, identifies impacts, and prescribes mitigation measures.

Agricultural Resources

The Draft EIR summarizes the status of the existing agricultural resources of the site including identification of any Prime or Unique Farmland or Farmland of Statewide Importance on the site. Any conflicts with existing zoning for agricultural use and whether any properties are under a Williamson Act are identified. The analysis further includes a discussion regarding conversion of farmland to non-agricultural uses. Following the setting discussion, this section identifies thresholds of significance applicable to the project. Impacts are measured against the thresholds of significance, and appropriate mitigation measures and monitoring strategies are identified, consistent with the policies of the City of Oakley.

Air Quality

The Air Quality section of the Draft EIR summarizes the regional air quality setting including climate and topography, ambient air quality, and regulatory context. This section discusses the potential effects associated with changes in air quality, exposure of sensitive receptors to substantial pollutant concentrations, cumulative emissions and long-term effects The section analyzes the existing setting with respect to air quality, defines thresholds of significance, identifies impacts, and prescribes mitigation measures and monitoring strategies. The air quality report is contained in Appendix G of Volume 2 of the Draft EIR.

Biological Resources

The East Cypress Corridor Specific Plan Draft EIR describes the setting and details the potential impacts on plant communities, wildlife, and wetlands, giving particular consideration to possible adverse effects on rare, endangered, candidate, sensitive, and special-status species that exist, or may exist, on the project site. The Biological Resources section analyzes the existing biological setting, defines thresholds of significance, identifies impacts, and prescribes mitigation measures and monitoring strategies. The biological resources report is contained in Appendix H of Volume 2 of the Draft EIR.

Cultural Resources

The Cultural Resources section describes the setting and details the potential impacts to historical, archaeological, and paleontological resources that are known to exist on the site. The Draft EIR analyzes the existing setting with respect to possible historical, cultural, and paleontological resources, defines thresholds of significance, identifies impacts, and prescribes mitigation measures and monitoring strategies. The cultural resources report is contained in Appendix I of Volume 2 of the Draft EIR.

Geology

The Geology section of the Draft EIR describes the geological setting and details the potential effects from earthquakes, landslides, liquefaction, peat and expansive soils. This section also identifies any unique geological features within the site and analyzes the existing geological setting,

defines thresholds of significance, identifies impacts, and prescribes mitigation measures and monitoring strategies. The geology report is contained in Appendix J of Volume 2 of the Draft EIR.

Hazards and Hazardous Materials

The Hazards and Hazardous Materials section of the Draft EIR describes the setting from the standpoint of safety issues and details any existing hazardous materials or conditions found on site as well as the potential for any unknown hazardous materials or conditions to be present. The existing setting is analyzed, thresholds of significance are defined, impacts are identified, and mitigation measures and monitoring strategies are prescribed. The hazards report is contained in Appendix J of Volume 2 of the Draft EIR.

Hydrology and Water Quality

The Hydrology and Water Quality section describes the setting and evaluates the project's water characteristics with respect to recharge, surface flows, flooding, and associated quality of water in and around the site. The Hydrology and Water Quality Chapter is largely based on the Hydrology Analysis conducted by Balance Hydrologics, Inc. The Hydrology and Water Quality section analyzes the existing setting, defines thresholds of significance, identifies impacts, and recommends mitigation and monitoring strategies. The hydrology report is contained in Appendix K of Volume 2 of the Draft EIR.

Land Use

The Draft EIR evaluates the consistency of the project with the land uses designated for the site by the City of Oakley 2020 General Plan. The Land Use section further assesses the development of the project in relationship to agricultural lands and the compatibility with adjacent residential and non-residential land uses.

Noise

The Noise section of the Draft EIR analyzes the existing setting, defines thresholds of significance, identifies impacts, and stipulates mitigation measures and monitoring strategies. The noise analysis is based on a report prepared by the consulting firm of Bollard & Brennan. This section describes the setting with respect to regional and local noise characteristics, identifies relevant regulatory information, identifies changes in ambient noise characteristics and the effects on sensitive receptors and potential effects of existing noise source generators. The noise section also analyzes the potential noise impacts of trains on the project that are located approximately two miles west of the site. The noise report is contained in Appendix L of Volume 2 of the Draft EIR.

Public Services and Utilities

The Public Services and Utilities sections summarize setting information and identifies the demand for and potential impacts on public services including water supply, stormwater drainage, sewage collection and treatment, solid waste collection and disposal, law enforcement, fire protection, schools, libraries, parks and recreation, electricity, natural gas, and telephone. The anticipated need for new on-and off-site infrastructure facilities is evaluated.

Transportation/Traffic

The Transportation/Traffic section describes existing traffic conditions, traffic conditions resulting from the project, and cumulative traffic conditions as projected for the year 2025. The analysis includes the definition of standards of significance, identification of impacts, and prescription of mitigation measures and monitoring strategies. The Transportation/Traffic section summarizes the existing and planned regional and local transportation network as well as existing and future traffic conditions. Estimated daily and peak hour traffic numbers and the ability of the existing and proposed circulation system, including level of service standards for critical street segments and intersections, are evaluated. The traffic analysis addresses the potential traffic impacts of the project and the increases in volumes and changes in the nature of traffic and circulation patterns, as well as hazards related to street design features. Emergency access, public transit, and bicycle facilities are also discussed. The transportation/traffic report is contained in Appendix M of Volume 2 of the Draft EIR.

Cumulative Impacts

An analysis of the cumulative impacts of the project, in accordance with Section 15130 of the CEQA Guidelines is discussed in Chapter 4.4. Section 15130 (b) states that an adequate cumulative impact discussion in an EIR must contain either 1) a list of past, present, and probable future projects producing related or cumulative impacts, or 2) a summary of projections contained in an adopted general plan or related planning document. A list of cumulative projects in the cities of Oakley and Brentwood as well as Contra Costa County that could, in conjunction with the East Cypress Corridor Specific Plan, have cumulative environmental impacts has been compiled. The cumulative impact section evaluates the impacts that could occur with respect to the development of the proposed project in conjunction with the cumulative projects.

The Draft EIR found that the project in conjunction with the cumulative projects will contribute to and have significant impacts to several environmental disciplines.

1.0.13 SUMMARY OF THE PROJECT ALTERNATIVES

CEQA Section 15126.6 directs that an EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which will feasibly attain most of the basic objectives of the project but will avoid or substantially reduce any of the significant effects of the project, and evaluate the comparative merits of the alternatives. The following summarizes the alternatives, which are evaluated in the Draft EIR.

No Project Alternative

The No Project Alternative will allow the site to continue in its existing condition, which includes cattle grazing on much of the site, residential and commercial use, power lines, and natural gas wells. The site will remain in Contra Costa County with this alternative and future development of the site will be under the jurisdiction of the county. Although this alternative will not meet the project objectives, nor be consistent with the Oakley 2020 General Plan, CEQA requires the alternative to be analyzed.

No Development Alternative

This project alternative evaluates no development on the site. Under this alternative the project site would remain in its existing condition and no development would occur on the site for the long-term. None of the improvements proposed for the site including residential use, commercial use, public utilities and facilities, flood control levees, roadways, etc. would be constructed.

Reduced Air Quality Emissions Alternative

The Reduced Air Quality Emissions alternative evaluates the development of a project 30% less intense than the current development plan in an attempt to reduce air quality emissions. The 30% development reduction is across the board with 30% fewer residential units and 30% less commercial use. The development allowed with this alternative includes fewer residences, less commercial square footage, and more open space. This alternative results in an overall reduction in the number of dwelling units and commercial square footage to the East Cypress Corridor Specific Plan. The impacts associated with this project alternative would be less than those identified for the proposed project. While the alternative would have fewer impacts than the proposed project, it would still have unavoidable adverse air quality impacts as well as other impacts that would require mitigation measures similar to the proposed project. This project alternative is inconsistent with the land use designations for the site in the Oakley 2020 General Plan.

Environmentally Superior Alternative

Designating a superior alternative depends largely upon which environmental effects one considers most important. Other factors of importance include urban design, economics, social factors, and fiscal considerations. For this project, the environmentally superior alternative would be the No Project alternative.

Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.2	**AESTHETICS**				
3.2-1	Gas drilling equipment would be visible and have a ***significant*** impact.	S	3.2-1	All drilling equipment less than fifteen feet tall shall be screened from direct view from the surrounding area as approved by the Community Development Director and the screening shall be maintained in place until the drilling equipment is removed from the drill site.	LS
3.2-2	Gas drilling equipment would be visible and have a ***significant*** impact.	S	3.2-2	All drilling equipment shall be painted a camouflage or earthen tone to blend with the surrounding landscape. The Community Development Director shall approve the color of the drilling equipment prior to the issuance of a drilling permit.	LS
3.2-3	Gas drilling equipment would be visible and have a ***significant*** impact.	S	3.2-3	All production wells shall be appropriately screened from direct view as recommended in the Specific Plan and approved by the Community Development Director. The landscape and screening materials shall be maintained as approved for the life of the well.	LS
3.2-4	Nighttime lighting for gas drilling operations can impact light sensitive land uses and have a ***significant*** impact.	S	3.2-4	Lighting for development and for drilling activities shall be limited to that necessary for safety and security purposes and shall be directed away from adjacent properties and road rights-of-way. All flares shall be shielded from adjacent properties and road rights-of-way.	LS
3.2-5	Light and glare by an intermediate school could have a ***significant*** impact.	S	3.2-5	A lighting plan shall be submitted to the City prior to the approval of a school site plan to identify the intensity (foot candle) of light that is projected to extend off-site onto adjacent land uses. The light that extends off-site onto adjacent property shall not exceed one-foot candle.	LS
3.2-6	Light and glare by an intermediate school could have a ***significant*** impact.	S	3.2-6	All exterior lights of the school shall have hoods and/or shielded to avoid excessive light spillage onto adjacent properties.	LS
3.2-7	Light and glare by an intermediate school could have a ***significant*** impact.	S	3.2-7	Flood lighting shall not be allowed on the school campus.	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
3.4 AIR QUALITY			
3.4-1 The operations of the project would have a ***significant adverse*** impact on air quality.	SA	3.4-1 All development shall be required to implement feasible BAAQMD mitigation measures for reducing vehicle emissions from suburban residential projects. The site is suburban in nature with only limited transit service available; feasible mitigation measures to reduce vehicle emissions for a suburban project include: • Provide bicycle lanes, sidewalks and/or paths, connecting project residences to adjacent schools, parks, nearest transit stop and nearby commercial areas. • Provide secure and conveniently placed bicycle parking and storage facilities at parks and other facilities. • Implement feasible travel demand management (TDM) measures. This would include a ride-matching program, coordination with regional ride-sharing organizations, provision of transit information, and provision of shuttle service to major destinations such as the Pittsburg BART station. • Allow only natural gas fireplaces, pellet stoves or EPA-Certified wood-burning fireplaces or stoves in single-family houses. Conventional open-hearth fireplaces should not be permitted. EPA-Certified fireplaces and fireplace inserts are 75 percent effective in reducing emissions from this source. • Construct transit amenities such as bus turnouts/bus bulbs, benches, shelters, etc. • Provide direct, safe, attractive pedestrian access from project land uses to transit stops and adjacent development. Utilize reflective (or high albedo) and emissive roofs and light colored construction materials to increase the reflectivity of roads, driveways, and other paved surfaces, and include shade trees near buildings to directly shield them from the sun's rays and reduce local air temperature and cooling energy demand.	UA

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact		*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
3.4-2	The operations of the project would have a ***significant adverse*** impact on air quality.	SA	3.4-2. All commercial uses shall apply Transportation System Management measures as feasible to reduce trips. Appropriate strategies include: • Provide physical improvements, such as sidewalk improvements, landscaping and bicycle parking that would act as incentives for pedestrian and bicycle modes of travel. • Connect site with regional bikeway/pedestrian trail system. • Provide transit information kiosks. • Implement feasible travel demand management (TDM) measures. This would include a ride-matching program, guaranteed ride home programs, coordination with regional ridesharing organizations and transit incentives program. • Provide showers and lockers for employees bicycling or walking to work. • Provide secure and conveniently located bicycle parking and storage for workers and patrons. • Provide electric vehicle charging facilities. • Provide preferential parking for Low Emission Vehicles (LEVs). • Specialty equipment (utility carts, forklifts, etc.) shall be electrically, CNG or propane powered. Utilize reflective (or high albedo) and emissive roofs and light colored construction materials to increase the reflectivity of roads, driveways, and other paved surfaces, and include shade trees near buildings to directly shield them from the sun's rays and reduce local air temperature and cooling energy demand.	UA
3.4-3	Summer Lake would have ***unavoidable adverse*** air emission impacts.	UA	3.4-3 See Mitigation Measures 3.4.1 and 3.4.2 above.	UA
3.4-4	The man-made lakes could emit odors and have a ***potentially significant*** impact.	PS	3.4-4 The project developer of Planning Areas 1, 3 and 4 shall submit lake management plans to the City for approval prior to the issuance of a grading permit for the lake. The lake management plan shall include lake design	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
				criteria, pollutant control, operations, mosquito control program, a list and description of all chemicals that would be used, and a lake maintenance program to control and minimize lake odors.	
3.4-5	The man-made lakes could emit odors and have a ***potentially significant*** impact.	PS	3.4-5	The City of Oakley shall maintain all man-made lakes in PAs 1, 3 and 4 in compliance with an approved lake management plan.	LS
3.4-6	The lake proposed for PA 2 would have a ***potentially significant*** odor impact.	PS	3.4-6	The project developer shall submit lake management plans to the City for approval prior to the issuance of a grading permit for the lake. The lake management plan shall include lake design criteria, pollutant control, operations, mosquito control program, a list and description of all chemicals that would be used, and a lake maintenance program to control and minimize lake odors.	LS
3.4-7	The lake proposed for PA 2 would have a ***potentially significant*** odor impact.	PS	3.4-7	A homeowners association or the City of Oakley shall maintain the man-made lake in compliance with an approved lake management plan.	LS
3.4-8	The lake proposed for PA 2 would have a ***potentially significant*** odor impact.	PS	3.4-8	All projects in the light industrial area of PA 2 that emit odors shall install and maintain in proper working order the mechanical equipment necessary to eliminate odors from extending off-site	LS
3.4-9	Uses allowed in the light industrial area in PA 2 could generate Toxic Air Contaminants and have a ***significant*** impact to residents.	S	3.4-9	All uses in the light industrial area that would emit TACs shall obtain appropriate permits from the Bay Area Air Quality Management District. District regulations and procedures require that risks from new sources of TACs shall be below District thresholds before a permit from BAAQMD to operate or construct will be granted.	LS
3.4-10	Construction dust is considered a ***significant*** impact.	S	3.4-10	The following measures shall be implemented for PA's 1, 3, 4, and 6 to reduce PM_{10} air emissions during project grading and construction. • All active construction areas shall be watered at least twice daily and more often during windy periods; active areas adjacent to existing land uses shall be kept damp at all times, or shall be treated with non-toxic stabilizers or dust palliatives;	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		• All trucks hauling soil, sand, and other loose materials shall be covered or required to maintain at least 2 feet of freeboard; • All unpaved access roads, parking areas, and staging areas at construction sites shall be paved or water applied three times daily, or a non-toxic soil stabilizer applied until the areas are developed or landscaped per final construction plans; • All paved access roads, parking areas, and staging areas at construction sites shall be swept daily (preferably with water sweepers). Water sweepers shall vacuum up excess water to avoid runoff-related impacts to water quality; • All adjacent public streets shall be swept daily (preferably with water sweepers) if visible soil material is carried onto the street. • A non-toxic soil stabilizer shall be applied to all inactive construction areas and maintained until the construction area is developed based on construction plans. • All exposed stockpiles of dirt, sand, etc. shall be enclosed, covered, watered twice daily, or a non-toxic soil binder applied to minimize dust. • The traffic speeds on all unpaved roads shall be limited to a maximum of 15 mph. • Sandbags or other erosion control measures shall be installed and maintained to prevent silt runoff to public roadways. • All disturbed areas shall be planted with vegetation as quickly as possible and the vegetation maintained in good condition until such area is developed. • Wheel washers shall be installed for all exiting trucks, or the tires or tracks of all trucks and equipment leaving the site shall be washed. • Excavation and grading activity shall be suspended when winds (instantaneous gusts) exceed 25 mph.	

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
3.4-11 The Summer Lake project would have a ***potentially significant*** impact to PM_{10} dust emissions.	PS	3.4-11 The following measures shall be implemented: • The traffic speeds on all unpaved roads shall be limited to a maximum of 15 mph. • Sandbags or other erosion control measures shall be installed and maintained to prevent silt runoff to public roadways. • Wheel washers shall be installed for all exiting trucks, or the tires or tracks of all trucks and equipment leaving the site shall be washed.	LS
3.5 BIOLOGICAL RESOURCES			
3.5-1. Implementation of the proposed project may have a ***potentially significant*** impact on jurisdictional waters of the U.S. and State.	PS	3.5-1 To the extent feasible, implementation of the project shall be designed and constructed to avoid and minimize adverse effects to waters of the United States or jurisdictional waters of the State of California within the project.	LS
3.5-2 Implementation of the proposed project may have a ***potentially significant*** impact on jurisdictional waters of the U.S. and State.	PS	3.5-2 A Section 404 permit for fill of jurisdictional wetlands and a Section 10 permit for fill of tidal waters shall be sought and mitigation for impacts to jurisdictional waters that cannot be avoided shall conform with the USACE "no-net-loss" policy and the USACE Regulatory Guidance Letter No. 02-2 establishing policies and guidance on appropriate mitigation for impacts to jurisdictional waters. Mitigation for impacts to both federal and state jurisdictional waters shall be addressed using these guidelines. Mitigation shall be implemented at a watershed scale and shall be compatible with adjacent land uses. This may include the preservation of vegetated buffers that clearly benefit functions of the aquatic ecosystem to be preserved, enhanced and/or avoided. The Mitigation and Monitoring Plan would take a watershed approach and account for the regional requirements of sensitive species and habitats. Mitigation will be reviewed by USACE on a case-by-case basis and take into account the use of vegetated buffers as well as the functions of the preserved/avoided/created and enhanced habitat. A functional assessment of	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
				the existing wetlands, waters, and habitats shall be compared with a functional assessment of the proposed mitigation to ensure no overall net loss to habitat functions.	
3.5-3	Implementation of the proposed project may have a ***potentially significant*** impact on jurisdictional waters of the U.S. and State.	PS	3.5-3	Mitigation shall include creation of wetlands at a minimum 1:1 ratio. If a greater mitigation ratio is necessary, preservation/enhancement would count towards mitigation. For purposes of this document "on-site mitigation" refers to the entire project site. Creation opportunities within the avoided wetland and dune habitat area on the northern portion of PA 1, designated for preservation and mitigation for project impacts, shall be evaluated for hydrology and topography suitable to support creation of wetlands. Preservation/enhancement of wetland habitat shall also be evaluated within the designated wetland and dune habitat area. Public access to this area shall be limited and it shall be managed for the purpose of habitat mitigation according to the Mitigation and Monitoring Plan (MMP) described below. Accomplishment of the wetland creation, preservation, and enhancement on site shall be given first priority. If the total wetland creation, preservation, and enhancement acreage cannot be accomplished within the designated open space area, second priority shall be given to creation and preservation at an off-site location within the City of Oakley that will be acquired and preserved in perpetuity. Third priority shall be given to another off-site location outside the City of Oakley. Alternatively, the applicant can provide the required mitigation either through an in-lieu fee program, purchase of the required acreage in an approved mitigation bank, or an approved Habitat Conservation Plan (HCP). Off-site mitigation habitat shall be presented for approval to the City of Oakley, USACE, RWQCB and CDFG.	LS
3.5-4	Implementation of the proposed project may have a ***potentially significant*** impact on jurisdictional waters of the U.S. and State.	PS	3.5-4	If, in accordance with the above mitigation measure, the applicant implements onsite or offsite mitigation, a Mitigation and Monitoring Plan (MMP) shall be prepared that provides guidance on managing and monitoring the mitigation habitat to ensure its long-term viability. The MMP shall include elements and standards deemed appropriate and acceptable by the applicable approving	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
				agency or agencies (e.g., City of Oakley, USACE, RWQCB, and/or CDFG). Such MMP shall be prepared prior to development plan or tentative map approval.	
3.5-5	If areas are state and/or federally jurisdictional wetlands or waters, the proposed project could have a ***potentially significant*** impact.	PS	3.5-5	As part of any future development plan or rezoning review process and prior to development plan or tentative map approval for property in PAs 2 and 6, a formal jurisdictional determination conducted according to USACE guidelines (Environmental Laboratory 1987) shall be completed by a qualified biologist and submitted to the USACE for verification and to assess potential impacts. If waters of the U.S. and/or State are present, **Mitigation Measures 3.5-1-4** shall be implemented as outlined above.	LS
3.5-6	The removal of riparian areas could have a ***potentially significant*** impact.	PS	3.5-6	Implementation of **Mitigation Measures 3.5-3 and 3.5-4** above shall include riparian habitat compensation at a minimum of a 1:1 ratio.	LS
3.5-7	Great Valley riparian forest/willow scrub could be removed from PAs 2 and 6 and have a ***potentially significant*** impact.	PS	3.5-7	As part of any future development plan or rezoning review process and prior to development plan or tentative map approval for PAs 2 and 6, Great Valley riparian forest/willow scrub shall be delineated by a qualified biologist to assess potential impacts.	LS
3.5-8	Great Valley riparian forest/willow scrub could be removed from PAs 2 and 6 and have a ***potentially significant*** impact.	PS	3.5-8	To the extent feasible, implementation of the project shall be designed and constructed to avoid and minimize adverse effects to Great Valley riparian forest/willow scrub. If avoidance is not feasible, **Mitigation Measures 3.5-3 and 3.5-4** shall be implemented as described above and shall include riparian habitat compensation at a minimum ration of 1:1.	LS
3.5-9	The project would result in the loss of approximately 10 acres of alkali meadow and could have a ***potentially significant*** impact.	PS	3.5-9	Implementation of **Mitigation Measures 3.5-3 and 3.5-4** above shall include alkali meadow and grassland habitat compensation at a 1:1 ratio.	LS
3.5-10	The removal of alkali meadow could have a ***potentially significant*** impact.	PS	3.5-10	As part of any future development plan or rezoning review process and prior to development plan or Tentative Map approval for PAs 2 and 6, alkali meadow and grassland shall be delineated by a qualified biologist to assess potential impacts.	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
3.5-11 The project could have a ***potentially significant*** impact to alkali meadows.		3.5-11 To the extent feasible, implementation of the project shall be designed and constructed to avoid and minimize adverse effects to alkali meadow and grassland. If avoidance is not feasible, **Mitigation Measures 3.5-3 and 3.5-4** shall be implemented as described above and shall include alkali meadow and grassland compensation at a minimum of a 1:1 ratio.	
3.5-12 The removal of heritage or protected trees as defined by the Contra Costa County Ordinances described above could have a ***potentially significant*** impact.	PS	3.5-12 Avoidance of heritage or protected trees as defined by the Contra Costa County Ordinances shall be exercised to the greatest extent practicable. 3.5-13 Where removal is determined to be necessary, tree removal shall be mitigated at a minimum 3:1 ratio or other ratio acceptable to the City of Oakley. The City of Oakley is currently developing a Heritage Tree Protection Ordinance. If this ordinance is adopted prior to tree removal approval, the City of Oakley may require mitigation for loss of trees as stipulated in the adopted ordinance. The mitigation trees shall be established with appropriate maintenance to ensure long-term self-sustaining survivorship. A performance standard of 80% of the established mitigation trees shall be met after 5 years. The mitigation trees shall not be dependent upon significant maintenance measures within the last 2 years of monitoring, including supplemental irrigation and staking. 3.5-14 As part of any future development plan or rezoning review process and prior to development plan or tentative map approval for PA 2 and 6, a certified arborist shall conduct a tree survey to determine if protected or heritage trees are present within the area proposed for development. 3.5-15 If protected or heritage trees are found on site, mitigation measures 3.5-12 and 3.5.-13 shall be implemented as outlined above.	LS
3.5-12 Given the presence of two CNPS List plant species on site, the project could have a ***potentially significant*** impact.	PS	3.5-16 Areas supporting the special-status plant species shall be avoided 3.5-17 If an area containing a special-status plant species cannot be avoided, mitigation shall occur as follows: 1. Permanently preserve, through use of a conservation easement or other similar method, an equal amount of acreage, either within the project area or off-site, that contains the plant; or	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		2. Harvest the plants to be lost, and relocate them to another suitable and equal sized area either within the project site or off-site that will be permanently preserved through a conservation easement or other similar method; or 3. Harvest seeds from the plants to be lost, or use seeds from another appropriate source, and seed an equal amount of area suitable for growing the plant either within the project site or off-site that will be permanently preserved through a conservation easement or other similar method. 4. These mitigation measures shall be completed by a qualified biologist with experience working with the species included in the mitigation. 5. A Mitigation and Monitoring Plan describing the mitigation and monitoring requirements and performance standards shall be prepared if habitat is preserved or acquired for special-status plant species. This mitigation measure shall be coordinated with the Mitigation Monitoring Plan in **Mitigation Measure 3.5-4**. 3.5-18 As part of any future development plan or rezoning review process and prior to development plan or tentative map approval, a habitat assessment shall be conducted by a qualified biologist to determine if potential habitat for special-status plant species is present. 3.5-19 If suitable habitat is found, surveys for special-status plants shall be conducted during the appropriate blooming period for each target species by a qualified biologist. At least one season of surveys shall be conducted for all areas supporting potential habitat when the target species are detectable in the field. If special-status plant species are not found, no further mitigation is required.	
3.5-13 Special-status insect species have the potential to exist on the site and if present the project could have a ***potentially significant*** impact.	PS	3.5-22 Focused surveys shall be conducted for a sufficient duration of time, to be determined by the entomologist, to determine presence or demonstrate absence of the species. If special-status insect species are not found, no further mitigation is required. 3.5-23 If endemic dune inhabiting special-status insects are documented, occupied	LS

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Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		habitat as well as other highly suitable habitat that is part of dune complexes in the vicinity of where the species is found shall be avoided to the extent feasible. If avoidance is not feasible, suitable habitat shall be preserved at a 1:1 ratio at a location approved by the City and CDFG. The habitat in the amount specified above shall be acquired, permanently protected, and enhanced through management for the benefit of the species, to compensate for the loss of suitable sand dune and mound habitat on PAs 1, 3, and 4. A Mitigation and Monitoring Plan describing the mitigation and monitoring requirements and performance standards shall be prepared if habitat is preserved or acquired for special-status insect species. This mitigation measure shall be coordinated with the Mitigation and Monitoring Plan in **Mitigation Measure 3.5-4**. Alternatively, the applicant can provide the required mitigation either through an in-lieu fee program, purchase of the required acreage in an approved mitigation bank, or an approved Habitat Conservation Plan (HCP).	
3.5-14 There remains a potential for the vernal pool fairy shrimp to occur within aquatic features on PA 6. If this species is present within PA 6, the project could have a ***potentially significant*** impact.	PS	3.5-26 As part of any future development plan for PA 6 or rezoning review process and prior to development plan or tentative map approval, a qualified biologist shall conduct a habitat assessment for vernal pool branchiopods. 3.5-27 If suitable habitat is identified within PA 6, wet season surveys for vernal pool branchiopods shall be conducted prior to initiation of construction activities for one winter survey period according to USFWS protocol (1996) by a qualified biologist. If federally protected vernal pool branchiopods are not found during the wet season survey and it is deemed necessary by the qualified biologist to continue surveying, one additional dry or wet season survey shall be conducted according to USFWS protocol (1996) by a qualified biologist. If federally protected vernal pool branchiopods are not found after completion of protocol-level wet and dry or two wet season surveys, then no further mitigation is required. If federally protected vernal pool branchiopods are found during either survey then the following mitigation measures shall be implemented. 3.5-28 If the vernal pool fairy shrimp is found to occur during protocol surveys on one or more properties, the properties that are connected biologically and hydrologically (via ground or surface water) shall also be considered as potentially	LS

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Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		occupied habitat. Assessment of presence or absence would be determined on a property-by-property basis, taking into account connectivity of the wetland areas. Project impacts shall be evaluated and mitigation shall be based on an analysis of the following: 1. Connectivity of aquatic habitats (both ground and surface water) 2. Habitat quality measured as potential to support listed shrimp species 3. Potential for cyst (egg) dispersal 4. Adjacent land uses, current and anticipated, and resulting effects on the hydrology of aquatic habitats 5. Threats and encroachment on populations of listed species, including edge effects and associated buffers, and habitat fragmentation. 3.5-29 If the vernal pool fairy shrimp is found within the boundary of the Specific Plan, impacts to occupied or potentially occupied aquatic habitats and an associated upland buffer, to be determined according to the criteria above, shall be avoided to the extent feasible. If avoidance is not feasible, aquatic habitat and the amount of watershed associated with the preserved pools necessary to sustain the existing hydrology of the pool habitat shall be replaced at a 1:1 ratio at a location approved by the City and USFWS. The habitat in the amount specified above shall be acquired, permanently protected, and enhanced through management for the benefit of the species, to compensate for the loss of aquatic habitat. A Mitigation and Monitoring Plan describing the mitigation and monitoring requirements and performance standards shall be prepared if habitat is preserved or acquired for special-status vernal pool species. This mitigation measure shall be coordinated with the Mitigation and Monitoring Plan in MM 3.5-4. Alternatively, the applicant can provide the required mitigation either through an in-lieu fee program, purchase of the required acreage in an approved mitigation bank, or an approved Habitat Conservation Plan (HCP). Take authorization shall	

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		be obtained from the USFWS if federally-listed vernal pool branchiopods are present on site. 3.5-30 If presence of the vernal pool fairy shrimp is confirmed during protocol surveys, the uppermost layer of soil in seasonally inundated habitat may contain cysts of listed crustaceans as well as seeds of vernal pool plants. Therefore, before these wetlands are filled, the top layer of soil shall be made available prior to the start of project grading to any vernal pool creation bank that requests it, with USFWS approval, for inoculating newly created pools. Soil stockpiled for this purpose should be shielded from rain with a water-proof cover to ensure that it remains completely dry.	
3.5-15 Special-status vernal pool branchiopods midvalley fairy shrimp and California linderiella and curved-foot hygrotus diving beetle could occur in PAs 2 and 6 and the project could have a ***potentially significant*** impact, if present.	PS	3.5-31 A qualified entomologist shall conduct a focused survey for curved foot hygrotus diving beetle at the appropriate time of year. If curved foot hygrotus diving beetles are not found after completion of seasonal surveys, then no further mitigation is required. 3.5-32 If the curved foot hygrotus diving beetle is found on PAs 1, 3, or 4, occupied aquatic habitat shall be avoided to the extent feasible. If avoidance is not feasible, it shall be replaced at a 1:1 ratio at a location approved by the City. The habitat in the amount specified above shall be acquired, permanently protected, and enhanced through management for the benefit of the species, to compensate for the loss of suitable aquatic habitat on the PAs 1, 3, and 4. This mitigation measure shall be coordinated with the Mitigation and Monitoring Plan in **Mitigation Measure 3.5-4**. Alternatively, the applicant can provide the required mitigation either through an in-lieu fee program, purchase of the required acreage in an approved mitigation bank, or an approved Habitat Conservation Plan (HCP).	LS
3.5-16 Construction, water withdrawals from, and outfalls into the sloughs for the project could have a ***potentially significant*** impact to potential special-status fish species	PS	3.5-35 All water intake features or systems from Dutch Slough, Sandmound Slough or Rock Slough including siphons, flood gates, or pumps shall have USFWS and NOAA Fisheries approved fish screens installed. Any stormwater outfalls shall employ water pumping best management practices. 3.5-36 Consultation with the CDFG, NOAA Fisheries, and USFWS shall be requested	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		in conjunction with USACE Section 404 and CDFG Streambed Alteration Agreement permitting to determine appropriate measures to avoid and mitigate impacts to special-status fish species. As part of the consultation process, a Biological Assessment and Essential Fish Habitat Assessment shall be prepared by a fisheries biologist that evaluates: proposed construction plans (including any vegetation removal); design details for pumps, siphons, outfalls, and/or flood gates; rip-rap or other bank protection measures; and stormwater flow regime (including flow rates, timing and temperature). 3.5-37 A Mitigation Plan shall be prepared that includes measures to avoid take of special-status fish during construction activities (which may include, if necessary, placement of coffer dams and preparation of a Fish Rescue Plan for in-water work) and post construction water withdrawal activities. To ensure compliance and implementation of the Mitigation Plan, a qualified biologist shall be present during construction and pumping activities associated with construction.	
3.5-17 If the Silvery legless lizard is present, the project could have a ***potentially significant*** impact.	PS	3.5-39 A pre-construction survey for silvery legless lizards shall be conducted within interior dune and Sand mound habitat and submitted to the City of Oakley for their review and approval prior to the issuance of grading permits. If silvery legless lizards are not found, no further mitigation is required. If they are found **Mitigation Measure 3.5-40** shall be implemented. 3.5-40 If silvery legless lizards are found, occupied habitat as well as other highly suitable habitat shall be avoided to the maximum extent feasible. If avoidance is not feasible, it shall be replaced at a 1:1 ratio at a location approved by the City and CDFG. The habitat in the amount specified above shall be acquired, permanently protected, and enhanced through management for the benefit of the species, to compensate for the loss of suitable sand dune and mound habitat on the PAs 1, 3 and 4. For purposes of this document "on-site mitigation" refers to the entire project site. First priority for habitat preservation shall be accomplished on site. If the required acreage cannot be preserved within the designated wetland and dune habitat area, designated for preservation and mitigation for project impacts on PA 1, second priority shall be given to habitat preservation at an off-site location within the Oakley city limits that shall be acquired and preserved in perpetuity. Third priority shall be given to another off-	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		site location outside of the Oakley city limits. Public access to this area shall be limited and it shall be managed for the purpose of habitat mitigation. A Mitigation and Monitoring Plan describing the mitigation and monitoring requirements and performance standards shall be prepared if habitat is preserved or acquired for this species. This mitigation measure shall be coordinated with the Mitigation and Monitoring Plan in **Mitigation Measure 3.5-4**. Alternatively, the applicant can provide the required mitigation either through an in-lieu fee program, purchase of the required acreage in an approved mitigation bank, or an approved Habitat Conservation Plan (HCP).	
3.5-18 If the Giant garter snake is present, the project could have a ***potentially significant*** impact.	PS	3.5-43 A habitat assessment shall be conducted by a qualified biologist to develop focused survey methods and a trap array design that will result in the highest probability of detection of giant garter snakes. Focused trapping and visual surveys approved by the USFWS shall then be conducted for the giant garter snake. A qualified biologist shall conduct these surveys during the spring for optimal detection. If giant garter snake is not found during spring protocol surveys, fall surveys are not required. If the giant garter snake is not found during protocol surveys, no habitat mitigation shall be required. 3.5-44 If the giant garter snake is found to occur during protocol surveys within the boundary of the project site mitigation shall be required for PAs 1, 2, 3, 4, and 6. If giant garter snake is found within the boundary of the site, impacts (as defined above) to aquatic habitats plus a 200-foot buffer of such habitat shall be avoided to the extent feasible. If avoidance is not feasible, aquatic habitat and upland habitat within 200 feet of aquatic habitat shall be replaced at a 1:1 ratio at a location approved by the City, USFWS, and CDFG. The habitat in the amount specified above shall be acquired, permanently protected, and enhanced through management for the benefit of the species, to compensate for the loss of aquatic and upland habitat. For purposes of this document "on-site mitigation" refers to the entire project site. First priority for habitat preservation shall be accomplished on site. If the required acreage cannot be preserved within the designated open space area located on the northwest portion of PA 1, second priority shall be given to	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		habitat preservation at an off-site location within the Oakley city limits that shall be acquired and preserved in perpetuity. Third priority shall be given to another off-site location outside of the Oakley city limits. A Mitigation and Monitoring Plan describing the mitigation and monitoring requirements and performance standards shall be prepared if habitat is preserved or acquired for this species. This mitigation measure shall be coordinated with the Mitigation and Monitoring Plan in **Mitigation Measure 3.5-4**. Alternatively, the applicant can provide the required mitigation either through an in-lieu fee program, purchase of the required acreage in an approved mitigation bank, or an approved Habitat Conservation Plan (HCP). 3.5-45 Regardless of the results of focused surveys, the Applicant shall request that the USACE initiate consultation with the Service as part of 404 impacts, and the following measures shall be implemented to avoid potential take of individual garter snakes during construction: 1. A qualified biologist shall provide project contractors and construction crews with a worker-awareness program before initiating any work within aquatic habitats or adjacent upland habitats that are appropriate for giant garter snakes. This program shall be used to describe the species, its habits and habitats, its legal status and required protection, all applicable mitigation measures, and conditions of any state or federal permits as they relate to giant garter snake. Proof of this instruction shall be submitted to the City within 24 hours of completion of the initial worker-awareness program. 2. 24-hours prior to construction activities, the project area shall be surveyed for giant garter snake. Survey of the project area shall be repeated at the start of each construction season and/or if a lapse in construction activity of two weeks or greater has occurred. If a giant garter snake is encountered during construction, activities shall not begin until the USFWS has been consulted and the corrective measures required by the USFWS have been completed or the USFWS has determined that the snake will not be harmed. 3. After pre-construction surveys are completed, animal exclusion fencing shall	

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Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		be installed around all construction sites adjacent to aquatic habitats	
3.5-19 Loss of habitat and potential loss of individuals and nests of the Western pond turtle, if present could have a ***potentially significant*** impact.	PS	3.5-47 A qualified biologist shall conduct pre-construction surveys for western pond turtles in all construction areas identified as potential nesting or dispersal habitat located within 1000 feet of potential aquatic habitat 48 hours prior to initiation of construction activities. If a western pond turtle is found during pre-construction surveys, it shall be relocated by a qualified biologist with permission from CDFG as necessary to a location deemed suitable by the biologist and CDFG (i.e., at a location which is a sufficient distance from construction activities). This survey shall include looking for turtle nests within the construction area. If a nest is found within the construction area, construction shall not take place within 100 feet of the nest until the turtles have hatched and have left the nest or can be safely relocated with assistance from CDFG. 3.5-48 Because attempting to locate pond turtle nests would not necessarily result in detection, after completion of pre-construction surveys, and relocation as necessary, exclusion fencing shall be placed around all construction sites adjacent to aquatic habitats to eliminate the possibility of nest establishment in uplands adjacent to aquatic areas. 3.5-49 If construction activities occur in aquatic areas where turtles have been identified during pre-construction or other surveys, a biological monitor shall be present during disturbance of those aquatic habitats. If a turtle is found, it shall be relocated as necessary to a location deemed suitable by the biologist and CDFG (i.e., at a location which is a sufficient distance from construction activities). 3.5-50 A qualified biologist shall provide project contractors and construction crews with a worker-awareness program prior to the start of any work within aquatic habitats or adjacent upland habitats that are appropriate for western pond turtles. This program shall be used to describe the species, its habits and habitats, its legal status and required protection, and all applicable mitigation measures.	LS
3.5-20 Western Burrowing Owls could be displaced with construction of the project and have a ***potentially significant*** impact.	PS	3.5-51 If not already completed, breeding season and focused winter surveys shall be conducted according to CDFG and California Burrowing Owl Consortium guidelines between April 15 and July 15 and December 1 and January 31, respectively, to determine the number of owls utilizing each of the properties.	LS

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Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		The survey protocol calls for 4 separate survey dates during each season, at the time of day owls are most likely to be detected. 3.5-52 Prior to issuance of a grading permit, pre-construction surveys of all potential burrowing owl habitat shall be conducted by a qualified biologist within the project area and within 250 feet of the project boundary. Presence or sign of burrowing owl and all potentially occupied burrows shall be recorded and monitored according to CDFG and California Burrowing Owl Consortium guidelines. If burrowing owls are not detected, by either sign or direct observation, construction may proceed. Pre-construction surveys must be reinitiated if more than 30 days lapse between surveys dates and construction activities. 3.5-53 If potentially nesting burrowing owl are present during pre-construction surveys conducted between February 1 and August 31 grading shall not be allowed within 250 feet of any nest burrow during the nesting season (February-August), unless approved by the CDFG. 3.5-54 If burrowing owl are detected during pre-construction surveys outside the nesting season (September 1 - January 31), passive relocation and monitoring may be undertaken by a qualified biologist following CDFG and California Burrowing Owl Consortium guidelines, which involve the placement of one-way exclusion doors on occupied and potentially occupied burrowing owl burrows. Owls shall be excluded from all suitable burrows within the project area and within a 160-foot buffer zone of the impact area. A minimum of one (1) week shall be allowed to accomplish this task and allow for owls to acclimate to alternate burrows. These mitigation actions shall be carried out prior to the burrowing owl breeding season (February 1- August 31) and a qualified biologist shall monitor the site weekly until construction begins to ensure that burrowing owls do not re-inhabit the site. 3.5-55 If burrowing owls or signs of burrowing owls are detected at any time on the project site a minimum of 6.5 acres of foraging habitat per pair or individual resident bird, shall be acquired and permanently protected to compensate for the loss of burrowing owl habitat. The acreage shall be based on the maximum number of owls observed inhabiting the property for any given observation	

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Summary of Impacts and Mitigation Measures

Impact		*Level of Significance Prior to Mitigation*	*Mitigation Measures*		*Level of Significance after Mitigation*
				period, pre-construction survey, or other field visit. The protected lands shall be occupied burrowing owl habitat at a location acceptable to CDFG and the City of Oakley. For purposes of this document "on-site mitigation" refers to the entire project site. First priority for habitat preservation shall be accomplished on site. If the required acreage cannot be preserved within the designated open space area, second priority shall be given to habitat preservation at an off-site location within the Oakley city limits that shall be acquired and preserved in perpetuity. Third priority shall be given to another off-site location outside of the Oakley city limits. The habitat in the amount specified above shall be acquired, permanently protected, and enhanced through management for the benefit of the species, to compensate for the loss of burrowing owl habitat on PAs 1, 3, and 4. A Mitigation and Monitoring Plan describing the mitigation and monitoring requirements and performance standards shall be prepared if habitat is preserved or acquired for this species. This mitigation measure shall be coordinated with the Mitigation and Monitoring Plan in **Mitigation Measure 3.5-4**. Alternatively, the applicant can provide the required mitigation either through an in-lieu fee program, purchase of the required acreage in an approved mitigation bank, or an approved Habitat Conservation Plan (HCP).
			3.5-56	Before construction activities begin all construction personnel shall receive training that includes photos of burrowing owl for identification purposes, habitat description, limits of construction activities in the project area, and guidance regarding general measures being implemented to conserve burrowing owl as they relate to the project.	
			3.5-57	A monitoring report of all activities associated with pre-construction surveys, avoidance measures, and passive relocation of burrowing owls shall be submitted to the City and CDFG no later than two weeks before initiation of grading.	
3.5-17	Disturbance of several special-status and common bird species would be considered a ***potentially significant*** impact.	PS	3.5-59	The removal of any buildings, trees, emergent aquatic vegetation, or shrubs shall occur from September 1 through December 15, outside of the avian nesting season. If removal of buildings, trees, emergent aquatic vegetation, or shrubs occurs, or construction begins between February 1 and August 31 (nesting season for passerine or non-passerine land birds) or December 15 and August 31 (nesting season for raptors), a nesting bird survey shall be performed by a	LS

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Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		qualified ornithologist within 14 days prior to the removal or disturbance of a potential nesting structure, trees, emergent aquatic vegetation, or shrubs, or the initiation of other construction activities during the early part of the breeding season (late December through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). During this survey, a qualified biologist shall inspect all potential nesting habitat (trees, shrubs, structures, grasslands, pastures, emergent aquatic vegetation, etc.) in and immediately adjacent to the impact areas for nests. 3.5-60 All vegetation and structures with active nests shall be flagged and an appropriate non-disturbance buffer zone shall be established around the nest site. The size of the buffer zone shall be determined by the project biologist in consultation with CDFG and will depend on the species involved, site conditions, and type of work to be conducted in the area. 3.5-61 A qualified biologist shall monitor active nests to determine when the young have fledged and are feeding on their own. The project biologist and CDFG shall be consulted for clearance before construction activities resume in the vicinity. Mitigation Measure 3.5-66 shall be enforced for all raptors.	
3.5-18 Loss of occupied Swainson's hawk nest would be considered a ***significant*** impact. If during the pre-construction surveys, Swainson's hawks are found nesting on or adjacent to the site, the project could have a ***potentially significant*** impact on Swainson's hawks.	PS	3.5-62 In order to ensure that nesting Swainson's hawks would not be affected by construction of the project, a qualified biologist shall conduct pre-construction surveys according to CDFG and Swainson's Hawk Technical Advisory Committee guidelines (2000). Survey Period I occurs from January 1 – March 20, Period II from March 20 – April 5, Period III from April 5 – April 20, Period IV from April 21 – June 10, and Period V is from June 10 – July 30. Three surveys shall be completed in at least each of the two survey periods immediately prior to a project's initiation and encompass the area within ½ mile of the project site. If a nest site is found, then, either of the following measures shall be followed: 3.5-63 Trees containing known or potential raptor nest sites may be removed during the non-breeding season to discourage future nesting attempts on the condition that no Swainson's hawk pair is currently utilizing the nest site. Monitoring evidence that any nests in trees planned for early removal are unattended by reproductive-aged birds must be provided; or 3.5-64 If an active Swainson's hawk nest is found sufficiently close (as determined by	LS

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Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		the qualified biologist and CDFG) to the construction area to be affected by construction activities, a qualified biologist shall determine the extent of a construction-free buffer zone to be established around the nest. Intensive new disturbances (e.g., heavy equipment activities associated with construction) that may cause nest abandonment or forced fledging shall not be initiated within this buffer zone between March 1 and September 1 until it is determined by a qualified biologist in coordination with CDFG that the young have fledged and are feeding on their own.	
3.5-19 In the event that white-tailed kites are found nesting on site, construction activities within close proximity to a nest site could result in ***potentially significant*** impacts.	PS	3.5-65 If nesting white-tailed kite are observed on site during the pre-construction raptor surveys, CDFG shall be consulted regarding appropriate avoidance and mitigation measures to meet the specific needs of the nesting birds. Avoidance of impacts shall be accomplished through the implementation of a CDFG-approved buffer zone to protect the nest from disturbance until the young birds have fledged and are feeding on their own. 3.5-66 If, after the young are determined to have fledged by a qualified biologist, avoidance of the nesting tree is infeasible, it shall be removed under supervision of qualified biologist.	LS
3.5-20 If special-status bats are found roosting on site, destruction or disturbance of roosting sites could have a ***potentially significant*** impact.	PS	3.5-67 A pre-construction survey for roosting bats shall be performed by a qualified biologist within 30 days prior to any removal of trees or structures on the site. If no active roosts are found, then no further action would be warranted. If either a maternity roost or hibernacula (structures used by bats for hibernation) is present, the following mitigation measures shall be implemented. 3.5-68 If active maternity roosts or hibernacula are found in trees or structures which would be removed as part of project construction, the project shall be redesigned to avoid the loss of the tree or structure occupied by the roost to the extent feasible as determined by the City. If an active maternity roost is located and the project cannot be redesigned to avoid removal of the occupied tree or structure, demolition can commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). Disturbance-free buffer zones as determined by a qualified biologist in coordination with CDFG shall be observed during the maternity roost season (March 1 - July 31).	LS

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Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		3.5-69 If a non-breeding bat hibernacula is found in a tree or structure scheduled for removal, the individuals shall be safely evicted, under the direction of a qualified biologist (as determined by a Memorandum of Understanding with CDFG), by opening the roosting area to allow airflow through the cavity. Demolition can then follow at least one night after initial disturbance for airflow. This action should allow bats to leave during darkness, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Trees or structures with roosts that need to be removed shall first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours.	
3.6 CULTURAL RESOURCES			
3.6-1 Significant buried deposits associated with site CA-CCO-652H might exist and would be disturbed during earth-moving activities, which would have a ***significant*** impact.	S	3.6-1 To insure that any previously unknown, potentially significant buried cultural deposits are not adversely affected by project construction, archaeological monitoring shall be conducted within 100 feet of the recorded boundaries of CA-CCO-652H during any ground-disturbing activities (i.e., grading, excavation, drilling, etc.). An archaeological monitor shall be present until all ground disturbances are completed. Prior to the beginning of construction, the developer shall establish protocols that will allow for the redirection of ground-disturbing activities until an assessment of the buried resources can be conducted and measures to protect resources are approved by the City.	LS
3.6-2 A ***significant*** impact would occur if ground-disturbing activities damage or destroy buried prehistoric or historic features and deposits in association with the construction of East Cypress Road.	S	3.6-2 Site CA-CCO-138/129 shall be protected from damage through the following mitigation measures: a. Plan construction to avoid archeological sites and record a conservation easement over the site. b. If avoidance is not feasible, incorporate the archeological site within a park, green space, or open space, record a conservation easement over	LS

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Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		the site, and, in consultation with a professional archeologist certified by the Register of Professional Archeologists (RPA), cap the site by installing a water permeable protective barrier that is covered with a layer of chemically stable soil as follows: 1. The thickness of the cap shall be determined by a registered archeologist to ensure protection of the site from disturbance, but the cap shall be at least 18" thick; 2. Minimal or no surface preparation shall be allowed prior to the placement of the cap unless required by a qualified soils engineer; 3. To minimize ground disturbance to and compaction of previously undisturbed areas within the site boundaries, all equipment used in the installation of the site cap shall be equipped with inflatable rubber tires (i.e., no tracked equipment); 4. The cap shall be in place before constructing non-intrusive facilities on the site; and 5. If facilities or excavation are to occur below the cap, a registered archeologist shall be present to monitor the activities so as to avoid disturbance of the site. c. Prior to the construction of East Cypress Road, stake the road alignment in the vicinity of the toe of the mound. An archaeological survey of the portion of the new alignment in the vicinity of the toe of the mound shall be conducted and any significant visible resources recovered. During construction of East Cypress Road archaeological monitoring shall be conducted in the vicinity of the toe of the mound. d. If disturbance of the archeological site cannot be avoided, data recovery within the affected area shall be conducted by a certified archeologist in accordance with CEQA Guideline § 15064.5 so as to record and preserve the significant characteristics of the site.	
3.6-3 If archaeological site CA-CCO-128 is disturbed a ***significant*** impact would	S	3.6-3 Site CA-CCO-128 shall be protected from damage with implementation of the following:	LS

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Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
occur.		a. Plan construction to avoid archeological sites and record a conservation easement over the site. b. If avoidance is not feasible, incorporate the archeological site within a park, green space, or open space, record a conservation easement over the site, and, in consultation with a professional archeologist certified by the Register of Professional Archeologists (RPA), cap the site by installing a water permeable protective barrier that is covered with a layer of chemically stable soil as follows: 1. The thickness of the cap shall be determined by a registered archeologist to ensure protection of the site from disturbance, but the cap shall be at least 18" thick; 2. Minimal or no surface preparation shall be allowed prior to the placement of the cap unless required by a qualified soils engineer; 3. To minimize ground disturbance to and compaction of previously undisturbed areas within the site boundaries, all equipment used in the installation of the site cap shall be equipped with inflatable rubber tires (i.e., no tracked equipment); 4. The cap shall be in place before constructing non-intrusive facilities on the site; and 5. If facilities or excavation are to occur below the cap, a registered archeologist shall be present to monitor the activities so as to avoid disturbance of the site. c. If disturbance of the archeological site cannot be avoided, data recovery within the affected area shall be conducted by a certified archeologist in accordance with CEQA Guideline § 15064.5 so as to record and preserve the significant characteristics of the site.	
3.6-4 If archaeological site CA-CCO-368 is disturbed there would be a ***potentially significant*** impact.	PS	3.6-4 Site CA-CCO-368 shall be protected from damage through the following mitigation measures: a. Plan construction to avoid the sites and record a conservation easement over the site.	LS

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		b. If avoidance is not feasible, incorporate the archeological site within a park, green space, or open space, record a conservation easement over the site, and, in consultation with a professional archeologist certified by the Register of Professional Archeologists (RPA), cap the site by installing a water permeable protective barrier that is covered with a layer of chemically stable soil as follows: 1. The thickness of the cap shall be determined by a registered archeologist to ensure protection of the site from disturbance, but the cap shall be at least 18 inches thick; 2. Minimal or no surface preparation shall be allowed prior to the placement of the cap unless required by a qualified soils engineer; 3. To minimize ground disturbance to and compaction of previously undisturbed areas within the site boundaries, all equipment used in the installation of the site cap shall be equipped with inflatable rubber tires (i.e., no tracked equipment); 4. The cap shall be in place before constructing non-intrusive facilities on the site; and 5. If facilities or excavation are to occur below the cap, a registered archeologist shall be present to monitor the activities so as to avoid disturbance of the site. c. If disturbance of the archeological site cannot be avoided, data recovery within the affected area shall be conducted by a certified archeologist in accordance with CEQA Guideline § 15064.5 so as to record and preserve the significant characteristics of the site.	
3.6-5 If ground-disturbing activities expose to erosion, inadvertent damage or vandalism buried prehistoric or historic features and deposits that contribute to site CA-CCO-767's evaluation as a significant resource there would be a	S	3.6-5 Site CA-CCO-767 shall be protected from damage with implementation of the following: a. Plan construction to avoid archeological sites and record a conservation easement over the site.	LS

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Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
	significant impact.			b. If avoidance is not feasible, incorporate the archeological site within a park, green space, or open space, record a conservation easement over the site, and, in consultation with a professional archeologist certified by the Register of Professional Archeologists (RPA), cap the site by installing a water permeable protective barrier that is covered with a layer of chemically stable soil as follows: 1. The thickness of the cap shall be determined by a registered archeologist to ensure protection of the site from disturbance, but the cap shall be at least 18 inches thick, 2. Minimal or no surface preparation shall be allowed prior to the placement of the cap unless required by a qualified soils engineer; 3. To minimize ground disturbance to and compaction of previously undisturbed areas within the site boundaries, all equipment used in the installation of the site cap shall be equipped with inflatable rubber tires (i.e., no tracked equipment); 4. The cap shall be in place before constructing non-intrusive facilities on the site; and 5. If facilities or excavation are to occur below the cap, a registered archeologist shall be present to monitor the activities so as to avoid disturbance of the site. c. If disturbance of the archeological site cannot be avoided, data recovery within the affected area shall be conducted by a certified archeologist in accordance with CEQA Guideline § 15064.5 so as to record and preserve the significant characteristics of the site.	
3.6-6	Project grading and construction of site CA-CCO-7687 would have a ***significant*** impact.	S	3.6-6	In accordance with CEQA Guideline §15064.5 (f), should any previously unknown historic or prehistoric resources, including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable soils, glass, metal, ceramics, wood or similar debris, be discovered during grading, trenching, or other on-site excavation(s), earthwork within 100 feet of these materials shall be stopped. A professional archaeologist certified by the Register of Professional Archaeologists (RPA)	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		shall evaluate the significance of the find and suggest appropriate mitigation measure(s), as determined necessary to protect the resource and be approved by the City.	
3.6-7 If the Biggs Mound (CA-CCO-767) is destroyed prior to evaluation it could be a ***significant*** impact.	S	3.6-7 In accordance with CEQA Sections 15064.5 and 15126.4, any architectural resources over 45 years shall be recorded on appropriate Department of Parks and Recreation Primary Record (DPR 523) and associated (e.g., Building-Structure-Object) forms. Such structures shall be evaluated for significance (California Register of Historic Resources eligibility) in accordance with the criteria in CEQA Section 15064.5. Appropriate mitigation measures shall be developed for those structures determined to be potentially significant so that project-related impacts to the structures are reduced to less-than-significant.	LS
3.6-8 CA-CCO-139 (Simone Mound) is one of the Delhi sand mounds considered to be a component of the Hotchkiss Mound complex and if disturbed could have a ***potentially significant*** impact.	PS	3.6-8 Site CA-CCO-139 shall be protected with implementation of the following mitigation measures: a. Demolition of any buildings and structures located within the boundaries of CA-CCO-139 shall be monitored by the Project Archaeologist. 1. The demolition contractor shall attempt to minimize ground disturbance whenever possible, although heavy equipment and standard demolition practices may be used to remove surface improvements and structures. 2. In-place foundations and subsurface infrastructure improvements shall be left in place where possible to minimize ground disturbance in areas with known or with a high potential for subsurface archaeological resources. 3. At least ten (10) days prior to the commencement of demolition activities, the applicant shall notify the Corps of such activities and provide the Corps with the name and contact details of the monitoring archaeologist. 4. Within thirty (30) days of the close of demolition activities, the Project Archaeologist shall prepare and the Applicant shall submit to the Corps a site-specific written closure report or closure memo	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		reporting the results of the monitoring. b. The Applicant shall place a soil fill cap of at least eighteen (18) inches within the recorded site boundaries of CA-CCO-139 or other areas with a high potential for subsurface archaeological resources. 1. Minimal or no surface preparation shall be undertaken prior to the placement of the fill unless otherwise required or recommended by the Project Soils Engineer or the Contra Costa County Public Works, Building, or Planning departments. 2. A geotextile layer approved by the Project Soils Engineer/Contra Costa County shall be placed on the surface to be filled prior to the installation of the fill cap. c. To minimize ground disturbance and compaction in non-disturbed areas, non-tracked (i.e. rubber-tired) equipment shall be used whenever possible for the placement of the soil fill cap within the recorded site boundaries or other areas with a high potential for subsurface archaeological deposits. d. Excavation for landscaping or irrigation shall be confined to the fill cap. If necessary in order to meet code or other reasonable requirements, excavation below the fill cap may proceed to install underground utilities, park lighting, foundations for restroom facilities, etc. All excavation in native soils shall be monitored by the Project Archaeologist and Native American observer according to the monitoring procedures prescribed in Item 1 of Section B of Stipulation III (in the MOA).	
3.6-9 A ***significant*** impact would occur if ground-disturbing activities either disturb, damage, or destroy buried prehistoric or historic features and deposits that contribute to site CA-CCO-	S	3.6-9 Site CA-CCO-647 shall be protected from damage through the following mitigation measures: a. Avoidance to minimize impacts to the site is not feasible. Therefore, in consultation with the SHPO and the USACOE mitigation shall include	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
647 potential as a significant resource.		systematic data recovery; incremental removal of any cultural deposit within the footprint of the levee by light mechanical equipment (e.g., Bobcat) with intensive monitoring by an archaeologist; scientific removal and recovery of any human remains and significant artifacts and features during removal of the cultural deposit; and, monitoring by an archaeologist of any excavation below the cultural deposits to a depth of 10 feet. All discoveries shall be analyzed and reported in an appropriate professional report. The specific mitigation measures shall be developed in consultation with the USACOE and the SHPO.	
3.6-10 If ground-clearing or ground-disturbing activities disturb, damage, or destroy human remains, including Native American human remains and/or funerary objects, which are known to exist in the project, there would be a ***significant*** impact.	S	3.6-10 In the event that Native American human remains or funerary objects are discovered, the provisions of the California Health and Safety Code shall be followed. Section 7050.5(b) of the California Health and Safety Code states: a. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. b. The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the Native American Heritage Commission within twenty-four hours. The Commission has various	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for "protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction." A combination of preconstruction worker training and intermittent construction monitoring by a qualified archaeologist will serve to achieve compliance with this requirement for protection of human remains. Worker training typically instructs workers as to the potential for discovery of cultural or human remains, and both the need for proper and timely reporting of such finds, and the consequences of failure thereof. Once the find has been identified, the archaeologist will make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be significant according to CEQA.	
3.6-11 The construction of the proposed Summer Lake levee could have a ***significant*** impact to previously unknown buried deposits associated with CA-CCO-26.	S	3.6-11 Archaeological monitoring shall be conducted within 100 feet the recorded site boundary during all ground-disturbing activities (i.e., grading, excavation, drilling, etc.) associated with the construction of the levee (Colin Busby, pers. comm., June 3, 2005). An archaeological monitor shall be present until all ground disturbances are completed. Prior to the beginning of construction, the developer shall establish protocols are to be established that will allow for the redirection of ground-disturbing activities until an assessment of the buried resources can be conducted in compliance with Section 15064.5 of the CEQA Guidelines.	LS
3.7 GEOLOGY AND SOILS			
3.7-1 Ground shaking could cause structural damage to levees, buildings, bridges, and other permanent developments and have	PS	3.7-1 The proposed developments shall comply with the seismic design provisions of the Uniform Building Code (UBC). Because of the relatively close presence of the CRCV fault system, it is conceivable that the site may experience ground	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
a ***potentially significant*** impact.		shaking higher than the UBC-specified ground shaking (produced by the more distant Greenville Fault), but the probability of occurrence is lower. For this reason, structures shall be designed for a horizontal ground acceleration of at least 0.32g.	
3.7-2 There may be areas within a few hundred yards of the existing canal, unimproved levees, and the proposed man-made lakes in which lateral spreading may be a hazard and have a ***potentially significant*** impact.	PS	3.7-2. A design-level geotechnical report shall be completed for each project development (e.g., housing subdivisions, schools, commercial/retail centers, new levees) and submitted to the City Engineer for approval prior to issuance of a grading permit or building permit, whichever is issued first. Geologic hazards that shall be included in the study are lateral spreading, or other types of ground failure that could affect the project. Development design recommendations to correct geologic hazards that would impact development shall be included in each study and implemented during project construction. Acceptable corrective measures by the City Engineer shall be implemented as appropriate, based on the specific soil conditions and the type of facility being constructed.	LS
3.7-3 There may be areas within a few hundred yards of the existing canal, unimproved levees, and the proposed man-made lakes in which lateral spreading may be a hazard and have a ***potentially significant*** impact.	PS	3.7-3 Developers shall prepare for City review and approval an Earthquake Response Plan for all proposed pipelines and facilities outlining post-earthquake inspection and repair plans to evaluate any damage that may have occurred. Inspection procedures shall ensure the integrity of the mechanical systems, and, if service is disrupted, determine what is necessary to make facilities operational as soon as possible.	LS
3.7-4 There may be areas within a few hundred yards of the existing canal, unimproved levees, and the proposed man-made lakes in which lateral spreading may be a hazard and have a ***potentially significant*** impact.	PS	3.7-4 A design-level geotechnical report shall be completed by the project developers for the new master interior levee and submitted to the City Engineer, Reclamation District 799, and FEMA for approval prior to issuance of a grading permit for levee construction. In addition to the City Engineer, Reclamation District 799 and FEMA, CCWD shall review and approve the levee plan adjacent to the Canal.	LS

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	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.7-5	The project could have ***potentially significant*** impacts on soil erosion unless compliance with the NPDES, County DAMP, and City of Oakley Water Quality Ordinance for erosion control is met.	PS	3.7-5	A Storm Water Pollution Prevention Plan (SWPPP) shall be completed for each project and submitted to the City of Oakley Public Works and Engineering Division for approval prior to the issuance of a grading permit. The SWPPP shall include BMPs acceptable to the City to reduce and minimize soil erosion and siltation. BMPs shall be installed prior to the start of grading and maintained throughout the duration of the project as determined by the City.	LS
3.7-6	Information and data obtained from previous studies indicate that a moderate to highly plastic and moderately expansive clay covers the southern portion of the site and could have a ***potentially significant*** impact on development of the project.	PS	3.7-6	A design-level geotechnical report shall be completed for each project development (e.g., housing subdivisions, schools, commercial/retail centers, new levees) and submitted to the City Engineer for approval prior to issuance of a grading permit or building permit, whichever is issued first. Geologic hazards that shall be included in the study include expansive soil and subsidence. Development design recommendations to correct expansive soil and subsidence, if present, shall be included in each study and implemented during project construction. Acceptable corrective measures by the City Engineer shall be implemented as appropriate, based on the specific expansive soil and subsidence conditions and the type of facility being constructed.	LS
3.7-7	The pH values ranged from 6 to 7.5, indicating a slightly acidic to neutral condition, which could have a ***potentially significant*** impact.	PS	3.7-7	A soil corrosion report shall be completed for each project development and submitted to the City Engineer for approval prior to issuance of a grading permit or building permit, whichever is issued first. The report shall include measures to address corrosive soils and identify measures to be incorporated into the project to minimize and control corrosive soils where damage to underground facilities may occur.	LS

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Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.8	**HAZARDS AND HAZARDOUS MATERIALS**				
3.8-1	The use, storage, and transport of chemicals for maintenance of lakes in PAs 1, 3 and 4 could have a ***potentially significant*** impact if not applied, stored and transported properly.	PS	3.8-1	All chemicals transported, used and stored for lake maintenance shall comply with all applicable laws and regulations.	LS
3.8-2	The use, storage, and transport of chemicals for maintenance of lake in PA 2 could have a ***potentially significant*** impact if not applied, stored and transported properly.	PS	3.8-2	All chemicals transported, used and stored for lake maintenance shall comply with all applicable laws and regulations.	LS
3.8-3	An operating gas well requires the storage of fuel to operate internal combustion engines and lubricants. The accidental release of these chemicals could have a ***potentially significant*** impact.	PS	3.8-3	The drilling and operation of gas wells shall comply with all applicable laws and regulations to drill and operate gas wells, including D.O.G.G.R, Regional Water Quality Control Board, and the City of Oakley.	LS
3.8-4	Grading and development adjacent to and over abandoned gas wells could have a potentially ***significant*** impact if hazardous materials are present.	PS	3.8.4	Abandoned and past wells (that are not longer expected to be operational) may be difficult to locate. If they can be located the soils surrounding the wellhead they should be evaluated for constituents of concern. For abandoned or past wells that cannot be located, grading or development activities may uncover these wells. If a well head and or discolored soil or unusual odors are noted (indication of potential drilling muds) the soil shall be tested and analyzed for constituents of concern. If shallow groundwater is encountered water sampling shall also be conducted. Soil with elevated constituents as compared to site Residential Preliminary Remedial Goals (PRGs) (soil) shall either be removed from the site or used in a manner to reduce the risk of exposure based on the proposed land use and under applicable laws and regulations. If impact to shallow groundwater is found the RWQCB and the local health	LS

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Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
				department shall be contacted for further consultation.	
3.8-5	Existing buildings that require demolition could have asbestos, lead paint, mercury, etc. These materials, if present, could have a ***potentially significant*** impact if not properly removed and disposed.	PS	3.8-5	Prior to issuance of a demolition permit for any structures, the project developer shall provide a building survey to determine whether any structures to be demolished contain asbestos, mercury, or lead paint. An asbestos and lead paint survey shall be conducted by a Cal-OSHA Certified Asbestos Consultant prior to the demolition of a structure. If lead paint and or asbestos is found, all lead containing paint and or asbestos shall be removed and disposed of by a licensed and certified lead paint and or asbestos removal contractor, as applicable in accordance with local, state, and federal regulations. The demolition contractor shall be informed that onsite buildings shall be considered as potentially containing lead and asbestos. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing lead paint and/or asbestos in accordance with local, state, and federal regulations subject to the City Building Official approval. If mercury is present it shall be removed and properly disposed in compliance with all applicable laws and regulations.	LS
3.8-6	Existing buildings that require demolition could have asbestos, lead paint, mercury, etc. These materials, if present, could have a ***potentially significant*** impact if not properly removed and disposed.	PS	3.8-6	An assessment of all buildings to be demolished shall be completed to evaluate if lead, mercury, CFCs, or universal waste are present. The assessment shall be submitted to the Oakley Building Department prior to the issuance of a demolition permit. If any are present, the assessment shall identify the measures that would be implemented to safely remove them from the building in compliance with all applicable laws and regulations.	LS
3.8-7	If present, pesticides and herbicides could have a ***potentially significant*** impact.	PS	3.8-7	Prior to the issuance of a grading permit the project developer shall submit a shallow soil sampling assessment to the City to evaluate if environmentally persistent pesticides are present. If present, the pesticide concentrations shall be compared to EPA Residential Preliminary Remedial Goals (PRGs) to evaluate if pesticide concentrations are appropriate for residential use. If Residential PRGs are exceeded, a site-specific health risk assessment shall be prepared to further evaluate risk. Potential remedial measures based on a risk	LS

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	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
				assessment shall include that the soil be treated, removed, or other mitigation methods employed to limit exposure/risk and to comply with applicable local, county, state and federal regulations. A health risk assessment and or confirmation soil samples, and supporting data shall be provided, if remedial activities are deemed necessary. This data shall be provided, as needed, to the City for said purposes prior to the issuance of a grading permit.	
3.8-8	The presence of several existing site conditions, including the natural gas transmission lines, natural gas wells, and overhead power lines could have a ***potentially significant*** impact to schools.	PS	3.8-8	A school site constraint analyses shall be prepared by each respective school district for each school based on standards for school site selection and procedures for site acquisition set forth in California Code of Regulations (CCR), Title 5 at the time individual schools are proposed for either of the elementary school sites. The school site constraint analysis shall meet California Department of Education and Department of Toxic Substance Control requirements and include a Phase I report and or a Preliminary Endangerment Assessment or remedial actions, as required by the regulatory agencies to address existing gas line, electrical transmission lines, the potential for residual soil contamination and any other identified potential hazard.	LS
3.8-9	The development of a high school on the northern portion of PA 2 could have a ***potentially significant*** impact in terms of safety.	PS	3.8-9	A school site constraint analyses shall be prepared by the Oakley Union Elementary School District for a middle school or Liberty Union High School District for the high school, whichever is proposed for construction, based on standards for school site selection and procedures for site acquisition set forth in California Code of Regulations (CCR), Title 5 at the time a middle or high school is proposed. The school site constraint analysis shall meet California Department of Education and Department of Toxic Substance Control requirements and include a Phase I report and or a Preliminary Endangerment Assessment as required by the regulatory agencies to address existing gas line, electrical transmission lines, the potential for residual soil contamination and any other identified potential hazard.	LS
3.8-10	The proposed construction of residences and the elementary school in PA 4 in close proximity to the CCWD water canal could have a ***potentially significant*** impact on human safety.	PS	3.8-10	The developers of PAs 3 and 4 shall install a CCWD approved fence along the east Canal property line from East Cypress Road to its intersection with Rock Slough.	LS

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	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.8-11	Two Leaking Underground Storage Tank (LUST) sites are onsite. Their presence as well as the potential for additional sites is a ***potentially significant*** impact.	PS	3.8-11	All property shall be investigated to determine if it is a hazardous material site pursuant to Government Code Section 65962.5 and that evidence provided to the City prior to the issuance of a demolition or grading permit, whichever is issued first. If a property is listed as a hazardous materials site pursuant to Government Code Section 65962.5, remedial measures to remove the hazardous materials in compliance with all local, county, state and federal laws and regulations shall be provided to and approved by the City prior to the issuance of a grading or building permit.	LS
3.8-12	The project would have a ***potentially significant*** impact if secondary access were not provided for the project in a timely manner.	PS	3.8-12	Bethel Island Road, including the construction of either a two or four-lane bridge, as determined by the City Engineer, shall be constructed to Byron Highway for emergency access before 20% of the project is occupied. The construction cost of the bridge shall be paid by the project developers on a fair-share basis to be determined by the City Engineer.	LS
3.8-13	The project would have a ***potentially significant*** impact if secondary access were not provided for the project in a timely manner. The construction of an east-west road through the middle of PA 1 during the early development phase of the project would provide additional emergency evacuation routes for residents prior to and in addition to the bridge over Rock Slough.	PS	3.8-13	The project developer of PA 1 shall construct the east-west road through the middle of PA 1 connecting Bethel Island Road with Jersey Island Road prior to the occupancy of 5% of the residential units of PA 1. This roadway at a minimum shall be constructed to allow two-way travel in addition to supporting the weight of a fire truck and meeting fire department emergency roadway standards.	LS
3.8-14	The construction of a bridge over Rock Slough and the Contra Costa Canal could have a ***significant*** impact to the water, which is a source of CCWD's drinking water supply.	S	3.8-14	The bridge over Rock Slough shall be designed to minimize the discharge and release of liquids and material into the Contra Costa Canal from motorist and pedestrians on the bridge. The bridge shall also be designed to prevent easy access to the Canal from the bridge. The bridge plans shall be reviewed and approved by CCWD before a building permit is issued by the City of Oakley.	LS
3.8-15	Peat fires represent a special hazard that once ignited are extremely difficult to extinguish and could have a ***potentially significant*** impact, if ignited.	PS	3.8-15	A geotechnical engineer shall survey the property within a proposed development for the presence of peat soil prior to the issuance of a grading permit. If present, peat soil shall be removed or protected from potential fire hazard as recommended by the geotechnical engineer.	LS

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	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.8-16	The overhead electrical power lines would have a ***potentially significant*** impact with the use of recreational watercraft on the lakes within the electrical easements.	PS	3.8-16	Prior to the issuance of a lake grading permit by the City of Oakley, the project developers shall submit their lake plans for PA 1 and 4 to Pacific Gas and Electric for review and approval. The City approved lake management plan shall include information that specifically and categorically identifies the types of recreational and maintenance watercraft that are allowed on the lakes within the electrical power line easements.	LS
3.8-17	The development of multi-use trails and landscape improvements in the utility easements could have a ***potentially significant*** impact if not developed in compliance with WAPA and PG&E requirements.	PS	3.8-17	All multi-use trails and open space landscape plans within the WAPA and PG&E electrical easements shall be approved by the respective public utility prior to the issuance of a grading or building permit, whichever is issued first, by the City of Oakley for any development within the easements.	LS
3.8-18	The encroachment of the levee into the minimum vertical height between the top of the levee and the power lines would have a ***significant*** impact.	S	3.8-18	All levee plans within the PG&E and WAPA utility easements shall be submitted to the respective public utility for review and approval for adequate vertical height separation prior to the issuance of a grading permit	LS
3.9	**HYDROLOGY AND WATER QUALITY**				
3.9-1	Urban pollutants from the project can have a ***potentially significant*** impact on water quality.	PS	3.9-1	The City of Oakley shall require comprehensive Stormwater Management Plans (SWMPs) for all new developments within the project. Each SWMP shall clearly identify the stormwater management strategy related to water quality such that the regulations and standards of the City, County of Contra Costa and Central Valley Regional Water Quality Control Board are met. At a minimum, each SWMP document shall provide treatment for storm water runoff consistent with the requirements in the C3 Guidebook prepared by the CCCWP.	LS

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	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.9-2	Failure to maintain the lake infrastructure and implement the required management practices could create impaired beneficial uses in the ultimate receiving waters resulting in a ***potentially significant*** impact.	PS	3.9-2	To maintain long-term water-quality objectives for the lakes, the City shall require a comprehensive Lake Management Plan (LMP) for all individual projects that will construct lake features. The plan shall clearly identify the management activities that are needed, the anticipated costs of conducting the required activities and the funding source to implement the LMP. Wherever practical, the City of Oakley shall own the lakes and associated infrastructure and shall be the entity responsible for implementing the LMP. The Lake Management Plan shall be approved by the Building Department prior to the issuance of a final grading permit for the lake.	LS
3.9-3	Shallow groundwater levels and related moisture in surface soils has the potential to cause damage to buildings, roads, and other structures. Similar groundwater studies performed at Cypress Grove, a development lying west of the Specific Plan area, showed similar shallow groundwater and proposed particular building and infrastructure designs to address possible effects from shallow groundwater. Such interaction between shallow groundwater and developed structures is considered a ***potentially significant*** impact.	PS	3.9-3	Prior to issuance of a grading permit, individual project proponents shall conduct design-level geotechnical study. Measures recommended in that study shall be incorporated into the design of roadway and infrastructure improvements, building foundations, and building designs.	LS
3.9-4	If required, groundwater dewatering could have a ***potentially significant*** impact on receiving water.	PS	3.9-4	The developers shall obtain NPDES Construction General Permits prior to the start of grading. The applications for such permits shall include, in the required SWPPP, appropriate BMPs and mitigation measures. If dewatering is not allowed by the NPDES Construction General Permit, a separate Waste Discharge Requirement permit shall be obtained before dewatering is commenced.	LS

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	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.9-5	Increased surface water volume and quantity from the project would have a ***potentially significant*** impact to the slough channels if the maximum discharge rate of the existing RD 799 pump stations is increased.	PS	3.9-5	All project drainage infrastructure shall be designed such that it is not necessary to increase peak discharge rates at the existing RD 799 pump station outfalls into Dutch Slough and Sand Mound Slough. Any installation or replacement of pumps and/or outfalls shall be completed with approval from the appropriate agencies (U.S. Army Corps of Engineers, Regional Water Quality Control Board, etc.) and in consultation with federal and state fish and wildlife agencies.	LS
3.9-6	Make-up water needs for the lakes will peak in the summer months, precisely the time that the historical irrigation withdrawals have peaked, which could have a ***potentially significant*** impact on irrigation water supply.	PS	3.9-6	The City of Oakley shall require consideration of surface water supplies as an irrigation water source in the approval of all development in the project area. In cases where on-site lakes would be constructed, details of surface water use for irrigation shall be a component of the required Lake Management Plan. Where continued surface water withdrawals are needed they would be made in a manner that most closely approximates the rate and timing of customary surface water withdrawals. All surface water withdrawal infrastructure shall be updated to the prevailing standards for protection of fisheries resources where applicable.	LS
3.9-7	There may be instances where improvements for the proposed project would require the elimination of existing irrigation systems. This is a ***potentially significant*** impact.	PS	3.9-7	The City of Oakley shall confirm whether continued access to irrigation water from the Jersey Island Road Canal is needed as part of the interior levee design review. Delivery of surface water to existing users shall be maintained as needed and any required new or updated irrigation infrastructure shall be constructed on a schedule that precludes interruption of customary deliveries. Replacement of irrigation waters, if any, would be small and could be provided by pumping the small amount of water from Little Dutch Slough or the east end of the truncated Jersey Island Road Canal to the affected properties along the alignment. All surface water withdrawals shall be based on design requirements of NOAA Fisheries and other resource agencies to protect fishery resources from adverse impacts.	LS
3.9-8	Construction of the master interior levee, elimination of irrigation runoff and rerouting of stormwater flows may	PS	3.9-8	The Mitigation and Monitoring Plan prepared for Mitigation Measure 3.5-4 shall include the interior levee design. The plan shall recognize the sources of water supporting any preserved wetland habitats between the interior levee and	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
	obstruct flow to wetlands on the DSWRP property and have a ***potentially significant*** impact to the hydroperiod.			the existing perimeter levee as well as maintain the DSWRP. Adequate provisions for maintaining the quantity and quality of flow shall be included in the mitigation plan and implemented on a schedule that does not impair the functions and values of the wetland habitats. An appropriate monitoring program shall be implemented to assess the effectiveness of any flow augmentation solutions that are used.	
3.9-9	Development of the project would increase impervious surfaces and lead to substantial increases in the rate and volume of stormwater runoff resulting in localized flooding and excessive work-load on the RD 799 pumps. This is a ***potentially significant*** impact.	PS	3.9-9	Project proponents shall prepare a detailed design level drainage study as part of the flood control levee design review. The final drainage design shall present detailed calculations and modeling that demonstrate that peak discharge rates would not be increased to those portions of the existing drainage system that will remain in place. This includes existing drainage ditches and channels, as well as the pump stations operated by RD 799. The City shall work closely with RD 799 as part of this study to assure that all improvements are consistent with mutually agreed long-term drainage management goals.	LS
3.9-10	Construction of new outfalls would lead to temporary impacts such as raising the turbidity of the sloughs during construction and over the long-term could alter flow patterns at the point of discharge. This is a ***potentially significant*** impact.	PS	3.9-10	All required outfalls for drainage improvements for the project shall be located at existing RD 799 pump station outfalls. Detailed engineering studies shall be carried out with RD 799 during the interior levee design process. The resulting designs shall coordinate the construction of any new outfalls with other improvements at the pump stations. Construction best management practices shall be strictly implemented and detailed in the SWPPP for control of erosion or degradation of water quality in the receiving waters.	LS
3.9-11	Construction of the flood control levee west of Jersey Island Road may have a ***potentially significant*** impact on jurisdictional waters of the U.S. and State.	PS	3.9-11	Biology mitigation measure 3.5-1-4 shall be implemented.	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.9-12	Construction of the flood control levee west of Jersey Island Road may have a ***potentially significant*** impact on jurisdictional waters of the U.S. and State.	PS	3.9-12	A geotechnical report shall be submitted along with levee design plans to the City of Oakley, RD 799, FEMA, and CCWD for approval. The geotechnical report shall identify all geotechnical and soils constraints with levee construction and recommend measures accordingly to correct all identified soil and/or geotechnical constraints. All measures to correct soil and geotechnical constraints shall be incorporated into the design and construction of the levee.	LS
3.9-13	Soil erosion could occur during levee construction, especially during periods of high wind or during the winter months when rainfall typically occurs and have a ***potentially significant*** impact.	PS	3.9-13	A soil erosion control plan to reduce and minimize soil erosion during and after levee construction shall be submitted to the City for approval. The soil erosion control plan for both construction and post-construction shall be approved by the City prior to the start of construction.	LS
3.9-14	Groundwater would be encountered during construction of the flood control levee west of Jersey Island Road and have a ***potentially significant*** impact.	PS	3.9-14	Hydrology mitigation measure 3.9.3.1.7 shall be incorporated into the levee construction	LS
3.9-15	The operation of construction equipment during levee construction would generate noise to existing residents in close proximity to the construction and have a ***potentially significant*** impact.	PS	3.9-15	All levee construction activity shall comply with the City of Oakley Noise Element with regards to hours and days of construction.	LS
3.9-16	The construction of the levee across Bethel Island Road and East Cypress Road would have a ***potentially significant*** impact to traffic and circulation.	PS	3.9-16	Traffic mitigation measure 3.13-18 shall be incorporated into the construction of the levee.	LS
3.9-17	The loss of individual burrowing owls, western pond turtle nests, giant garter snakes, silvery legless lizards, nesting	PS	3.9-17	The following Biology mitigation measures shall be required: 3.5-42, 44, 45, 47- 50, 58, 59-69. The Hollywood junipers may be considered protected or heritage trees according to the Contra Costa County Tree Ordinance. Biology	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
	birds, or bats could be a ***potentially significant*** impact.			mitigation measures 3.5-14-15 shall be followed to reduce impacts to heritage and protected trees.	
3.9-18	New habitable structures constructed in the inter-levee area would remain in the floodplain. This is a ***potentially significant*** impact.	PS	3.9-18	All new levees shall be constructed to the latest FEMA standards such that all interior areas can be removed from the one-percent chance floodplain. Compliance with FEMA regulations and standards shall be documented through the filing, and FEMA approval of a Letter of Map Revision. All new habitable structures located in a designated floodplain shall be protected by adequate levees, elevated above the base flood elevation or otherwise flood-proofed to FEMA standards.	LS
3.9-19	Obstruction of existing drainage patterns could potentially lead to flooding on- or off-site and this is a ***significant*** impact.	S	3.9-19	The City of Oakley shall require a detailed design level drainage study as part of the interior levee design review that supplements the analyses presented in the Hydrology and Water Quality report appended to this document. The final design analysis shall include a thorough assessment of existing drainage facilities that may be impacted by construction of the levee. Detailed calculations shall be provided of the peak flow and volume of runoff from any areas that will be impacted, consistent with the analytical methodologies used by the City of Oakley and CCCFCWCD, and must be reviewed and approved by RD 799. Adequate alternative drainage facilities shall be required as identified in the study, and shall be constructed on a schedule that precludes any impairment of existing drainage routes. In the case of the drainage that originates south of East Cypress Road, the ultimate solution may involve a small pump at the intersection of East Cypress Road and Jersey Island Road to direct the flow toward Little Dutch Slough at the existing RD 799 outfall for PS-1a or to the truncated end of the irrigation canal on the DWR property, along an alignment outside of the internal levees.	LS
3.9-20	Inundation of the inter-levee area would occur much more quickly with construction of the proposed master interior levee and have a ***potentially***	PS	3.9-20	The City of Oakley shall cooperate with RD 799, the County of Contra Costa and other pertinent agencies to update the emergency response plan for a perimeter levee failure. The updated emergency response plan shall include consideration of the changes in land use and public facilities proposed by the	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
	significant impact.			project. The emergency response plan shall include a detailed levee failure analysis study to identify all areas of high risk, and select appropriate evacuation routes and staging areas accordingly. The emergency response plan shall be approved by the City, RD 799 and the County of Contra Costa before the extension of the interior levees beyond the southern phase of the Summer Lake project.	
3.9-21	Rising sea levels could reduce the safety factors of existing and proposed levees if they are not built to protect from the currently mapped base flood elevation. This is a ***potentially significant*** impact.	PS	3.9-21	All levees shall be constructed using design criteria identified in the NFIP regulations. Levees shall be constructed in a manner that takes into account the potential for future increase in sea level. The City of Oakley and RD 799 shall prohibit any structures or encroachments that would compromise future remedial actions to raise levee crest heights to maintain levee safety factors to FEMA standards.	LS
3.9-22	There is the potential for seiche inundation that could have a ***significant*** impact.	S	3.9-22	All man-made lakes shall be designed and constructed to contain wind- and seismically-generated (seiche) waves within the boundary of the lake. All structures and buildings, surrounding and within 20 feet of a lake shall be placed at a minimum of two feet above the maximum lake.	LS
3.10	**LAND USE AND PLANNING**				
3.10-1	Complaints by new residents moving into the project with the on-going agricultural activities could have a ***potentially significant*** impact.	PS	3.10-1	All perspective residents shall be notified prior to the purchase of a residence that existing agricultural activities exist on the site and the agricultural activities may continue into the future. In addition, future project residents shall acknowledge during and prior to the close of escrow they have been properly notified and are aware that agricultural activities exist and may continue to exist.	LS
3.10-2	The storage of maintenance equipment for RD 799 could have ***significant***	S	3.10-2	The site shall be screened from the surrounding residences with screening methods proposed in the Specific Plan for the water tank site or other	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
	impacts to adjacent residents due to noise and aesthetics.			screening methods allowed by the Community Development Director. At a minimum screening shall include chain link fencing with slats to prevent direct views from surrounding residential areas.	
3.11	**NOISE AND VIBRATION**				
3.11-1	The near-term traffic noise levels are expected to exceed 65 dB Ldn which is a ***significant*** impact.	S	3.11-1.	A 6-foot noise barrier shall be constructed along the rear yards of those residences located adjacent to Bethel Island Road. If the building pad elevations of the residences are more than 2 feet below the roadway elevation, a revised barrier calculation shall be conducted to confirm the 6-foot noise barrier is adequate to reduce noise levels to meet City noise criteria.	LS
3.11-2	The roadways that would experience a noise level increase greater than 3 Db include East Cypress Road between Main Street and east of Bethel Island Road, Jersey Island Road from Cypress Road to Dutch Slough Road, and Bethel Island Road from East Cypress Road to Delta Road. This is a ***potentially significant*** impact.	PS	3.11-2	An 8-foot noise barrier shall be constructed along the rear yards of residences that are located adjacent to the north side of East Cypress Road between Jersey Island Road and Bethel Island Road. A 6-foot noise barrier shall be constructed along the south side of the pedestrian trail and the north side of the existing East Cypress Road, between Jersey Island Road and Bethel Island Road. If the building pad elevations of those residences are more than 2 feet below the roadway elevation, a revised barrier calculation shall be conducted to confirm the 8-foot and 6-foot noise barriers are adequate to reduce noise levels to meet City noise criteria.	LS
3.11-3	Residential land use adjacent to the Village Center could have a ***potentially significant*** impact due to the operation of the commercial center.	PS	3.11-3	A noise analysis shall be submitted to the City along with development plans for the Village Center. The noise analysis shall identify all on-site noise sources, including mechanical equipment, and determine the noise levels that could extend to adjacent residences. Measures to reduce exterior and interior noise levels of the residential use to City standards shall be identified.	LS
3.11-4	Noise from the operation of mechanical equipment and other stationary noise	PS	3.11-4	All loading docks shall be located a minimum of 150 feet from the closest residence.	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
	sources that exceed the City's noise ordinance are considered to be ***significant*** impacts.				
3.11-5	Noise from the operation of mechanical equipment and other stationary noise sources that exceed the City's noise ordinance are considered to be ***significant*** impacts.	S	3.11-5	Sound walls shall be constructed along property lines or adjacent to loading docks between commercial unloading areas or commercial truck routes, and adjacent residential uses. The final locations and heights of walls shall be determined at the time a site plan is submitted to the City for approval.	LS
3.11-6	Noise from the operation of mechanical equipment and other stationary noise sources that exceed the City's noise ordinance are considered to be ***significant*** impacts.	S	3.11-6	Loading dock activities and on-site truck traffic shall be limited to the daytime hours between 7:00 a.m. and 10:00 p.m.	LS
3.12	**PUBLIC SERVICES AND UTILITIES**				
3.12-1	The Specific Plan will substantially increase demand for potable water, such increase in demand represents a ***potentially significant*** impact.	PS	3.12-1	To address potential impacts on DWD water service infrastructure and provide the necessary looping in the southern part of the DWD service area, the developments within the Specific Plan area shall implement one or more of the following options: o Install 18" water main in Neroly Road, and extend the 16" water main in Laurel Road to Sellers Avenue. Install 24" main in Sellers Avenue from Laurel Road to East Cypress Road. o Install 24" main in Carpenter Road west of O'Hara Avenue, and extend the 16" water main in Laurel Road to Sellers Avenue. Install 24" main in Sellers Avenue from Laurel Road to East Cypress Road. o Install 18" water main in Neroly Road, and install 24" main in Neroly and Delta Roads from O'Hara Avenue to Sellers Avenue. Install 24"	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		main in Sellers Avenue from Delta Road to East Cypress Road. o Install 24" main in Carpenter Road west of O'Hara Avenue, and install 24" main in Neroly and Delta Roads from O'Hara Avenue to Sellers Avenue. Install 24" main in Sellers Avenue from Delta Road to East Cypress Road.	
3.12-2 Without appropriate water conservation measures, consistent with CVP provisions, use of CVP water would represent a ***potentially significant*** impact.	PS	3.12-2 Implement water conservation measures approved by USBR under Section 3406 of the CVPIA that shall include, but are not limited to: o Installation of water measuring devices (i.e., water meters); o Adoption of California Urban Water Agencies (CUWA) BMPs for residential/commercial water usage, including, but not limited to the following: ▪ Irrigating large turf/landscape areas with local groundwater wells; ▪ Landscape road medians and other similar areas with xeriscape and low water use plants; ▪ Install low water use fixtures in residential and non-residential buildings; and ▪ Use high efficiency irrigation equipment in public and common areas.	LS
3.12-3 The Specific Plan will substantially increase demand for potable water, such increase in demand represents a ***potentially significant*** impact.	PS	3.12-3 DWD shall prepare a Water Supply Assessment in accordance with SB 610. Before final map approval, DWD must provide Written Verification of sufficient water supply to serve the subdivision.	LS

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Table 1-1
Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.12-4	Accordingly, the potential impacts of levee construction within the project area could present a ***potentially significant*** impact.	PS	3.12-4	The developers shall furnish all plans regarding FEMA levees proposed along the Canal (between the Rock Slough Headworks and East Cypress Road) to CCWD, RD 799, and the USBR. Plans shall include proposed levees within or adjacent to USBR property. All final plans shall be subject to approval by these three cooperating agencies in accordance with NEPA and other applicable state and federal regulations.	LS
3.12-5	The proposed widening of East Cypress Road at the Canal represents a ***potentially significant*** impact to CCWD's water system.	PS	3.12-5	To ensure proper coordination of the roadway improvements and replacement of the Canal siphon underlying East Cypress Road, design specifications and construction of roadway improvements and siphon replacement are subject to CCWD and Bureau of Reclamation direction and approval and must comply with NEPA, the Endangered Species Act, and other applicable federal and state regulations. Performance bonds for design and construction of the roadway improvements and siphon replacement shall be advanced prior to construction consistent with CCWD and Bureau of Reclamation requirements.	LS
3.12-6	The proposed widening of East Cypress Road at the Canal represents a ***potentially significant*** impact to CCWD's water system.	PS	3.12-6	Proposed residential developments within the Specific Plan Area shall provide reimbursement for a fair share of the administrative costs necessary for CCWD and the Bureau of Reclamation to review and approve the roadway and siphon designs and construction. Such administrative costs may include, for example, administration, design review, and inspection.	LS
3.12-7	The proposed widening of East Cypress Road at the Canal represents a ***potentially significant*** impact to CCWD's water system.	PS	3.12-7	Any modifications to the Canal itself shall follow and be consistent with CCWD and Bureau of Reclamation design and construction management approaches. The siphon may be designed and constructed either by CCWD, the City of Oakley, or a private party (as specifically approved by CCWD and the Bureau of Reclamation). In any event, the design of the siphon, including the designer used, shall be reviewed and approved by CCWD and/or the Bureau of Reclamation. Any private party design and/or construction of the siphon shall be subject to a design and construction agreement between the developer, CCWD and/or the Bureau of Reclamation.	LS

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Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.12-8	The proposed widening of East Cypress Road at the Canal represents a ***potentially significant*** impact to CCWD's water system.	PS	3.12-8	According to CCWD, during the early winter (typically October through December) the Canal can be taken offline without impacting the water supply system. If possible, the modifications to the Canal should occur during this down time. In the event that construction must proceed outside this period, the East Cypress Road widening shall require that a portion of the Canal flows be diverted around the construction area to maintain ongoing service to customers in the area. The timing of the construction of the facilities shall only occur at a time approved by CCWD and the Bureau of Reclamation.	LS
3.13	**TRANSPORTATION/TRAFFIC**				
3.13-1	The project would contribute to the unacceptable LOS E or LOS F at intersections along Main Street at Southbound SR 160 Ramps, Northbound SR 160 Ramps, Empire Avenue, O'Hara Avenue, East Cypress Road, and Laurel Road during both the AM and PM peak hours and have a ***potentially significant*** impact.	PS	3.13-1	Mitigation of the unacceptable traffic conditions along Main Street can partially be achieved through the construction of Segment 1 of the SR 4 Bypass, the Laurel Road Interchange and the extension of Laurel Road to the SR 4 Bypass. This mitigation would provide an alternative route to Main Street and alleviate some of its congestion. The SR 4 Bypass Authority is responsible for the construction of this mitigation. The project would contribute to this mitigation by paying its fair share of the cost through the payment of regional traffic fees to the East Contra Costa Regional Fee and Finance Authority (ECCRFFA).	LS
3.13-2	The project would contribute to the unacceptable LOS F traffic conditions at intersections along East Cypress Road at Jersey Island Road and Sellers Avenue during both AM and PM peak hours under Near Term and have a ***potentially significant*** impact.	PS	3.13-2	Mitigation of the unacceptable conditions along East Cypress Road between Sellers Avenue and Jersey Island Road can partially be achieved through widening the roadway to three lanes in each direction to provide more capacity on this portion of East Cypress Avenue and alleviate some of the congestion along the roadway. This roadway improvement has been identified in the City's General Plan and is included in the City's Transportation Impact Fee Program. The project would contribute to this mitigation constructing the improvement or by paying its fair share of the cost through the payment of the City's Transportation Impact Fee.	LS

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Summary of Impacts and Mitigation Measures

	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
3.13-3	The project would contribute to the unacceptable LOS E or LOS F operations at study intersections along East Cypress Road at Jersey Island Road, Sellers Avenue, and Main Street, and intersections along Main Street at O'Hara Avenue, Empire Avenue, and SR 160 Interchange during both AM and PM peak hours and have a ***potentially significant*** impact.	PS	3.13-3	Mitigation of the unacceptable conditions along East Cypress Road and Main Street can partially be achieved through extending Laurel Road from its current eastern terminus just west of the Union Pacific Railroad to Sellers Avenue as a four-lane arterial and upgrading Sellers Avenue between East Cypress Road and Laurel Road to a four-lane arterial. This mitigation measure in conjunction with the construction of Segment 1 of the SR 4 Bypass and extension of Laurel Road west to SR 4 Bypass (Mitigation 1) would provide an alternative route to and from the SR 4 freeway, and alleviate some of the congestion along East Cypress Road and Main Street. This roadway improvement project has been identified in the City's General Plan and is included in the City's Transportation Impact Fee Program. The project would contribute to this mitigation by paying its fair share of the cost through the payment of the City's Transportation Impact Fee.	LS
3.13-4	The project would contribute to or cause study intersections along East Cypress Road at Jersey Island Road, Sellers Avenue, and Main Street to operate at unacceptable LOS F and have a ***potentially significant*** impact.	PS	3.13-4	Mitigation of the unacceptable conditions along East Cypress Road can partially be achieved with the construction of a four-lane roadway with bridge over Rock Slough to connect Bethel Island Road with Byron Highway and Delta Road that are south of the project site. This connection would provide an alternative access to the south. Tow lanes of the roadway and a bridge, with the exact width and configuration of the bridge to be determined through further engineering analysis, shall be constructed before 20% of the project (800 residential units) has been completed and the ultimate four-lane roadway should be constructed before 80% of the project (3,100 units) has been completed. This improvement project has been identified in the Contra Costa County General Plan. However, no funding sources have yet been identified. The project would contribute to this mitigation by constructing the improvement.	LS
3.13-5	The project contribute to the unacceptable LOS E or LOS F operations at intersections along Laurel Road at Empire Avenue, and Main Street	PS	3.13-5	Mitigation of the unacceptable conditions along Laurel Road can partially be achieved through widening Laurel Road to a four-lane arterial between Empire Avenue and Main Street. This mitigation measure would alleviate some of the congestion along Laurel Road. This roadway improvement project has been	LS

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	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
	and have a ***potentially significant*** impact.			identified in the City's General Plan and is included in the City's Transportation Impact Fee Program. The project would contribute to this mitigation by paying its fair share of the cost through the payment of the City's Transportation Impact Fee.	
3.13-6	The project traffic would contribute to the unacceptable LOS F operations the Main Street/O'Hara Avenue intersection and have a ***potentially significant*** impact.	PS	3.13-6	Mitigation of the unacceptable conditions at Main Street/O'Hara Avenue intersection can be achieved through the construction of the Main Street Downtown Bypass. This project would realign Main Street north of its current alignment as a new four-lane arterial between west of Vintage Parkway and 2nd Street to provide an alternative to Main Street through Downtown Oakley. The Main Street Downtown Bypass was included in the *Old Town Oakley Specific Plan* in 1999 and is also included in the City's General Plan and the City's Transportation Impact Fee Program. Developers of the East Cypress Corridor Specific Plan would contribute to this mitigation by paying its fair share of the cost through the payment of the City's Transportation Impact Fee.	LS
3.13-7	The addition of project traffic would cause the West Cypress Road/O'Hara Avenue intersection to operate at unacceptable LOS F during both AM and PM peak hours under Near Term with Project conditions and have a ***potentially significant*** impact.	PS	3.13-7	Mitigation of the unacceptable conditions at West Cypress Road/O'Hara Avenue intersection can be achieved through the installation of traffic signals at the intersection. The forecasted AM peak hour and PM peak hour intersection volumes would satisfy the MUTCD peak hour traffic signal warrants.[8] This signal installation is included in the City's Transportation Impact Fee Program. The proposed project would contribute to this mitigation by paying its fair share of the cost through the payment of the City's	LS

[8] This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in the Federal Highway Administration *Manual on Uniform Traffic Control Devices* and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. The City of Oakley should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

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	Impact	*Level of Significance Prior to Mitigation*		*Mitigation Measures*	*Level of Significance after Mitigation*
				Transportation Impact Fee.	
3.13-8	The project traffic would contribute to the unacceptable LOS F operations at the West Cypress Road/Main Street intersection and have a ***potentially significant*** impact.	PS	3.13-8	Mitigation of the unacceptable conditions at West Cypress Road/Main Street intersection can be achieved through the addition of a second southbound left-turn lane, the reconfiguration of the eastbound right-turn lane to a shared through/right-turn lane, and the reconfiguration of the westbound through lane to a shared through/right-turn lane. The reconfiguration of the West Cypress Road/Main Street intersection is included in the City's Transportation Impact Fee Program. The project would contribute to this mitigation by paying its fair share of the cost through the payment of the City's Transportation Impact Fee.	LS
3.13-9	The project would contribute to the unacceptable LOS F operations at the East Cypress Road/Sellers Avenue intersection and have a ***potentially significant*** impact.	PS	3.13-9	Mitigation of the unacceptable conditions at East Cypress Road/Sellers Avenue intersection can be achieved through the reconfiguration of the intersection to provide a right-turn, a shared through/right-turn, a through, and a left-turn lane on the southbound approach; a shared through/right-turn, a through, and two left-turn lanes on the westbound approach; two left, two through, and a free right-turn lane on the northbound approach; and a right, two through, and one left-turn lane on the eastbound approach. The reconfiguration of the East Cypress Road/Sellers Avenue intersection is included in the City's Transportation Impact Fee Program. The project would contribute to this mitigation by paying its fair share of the cost through the payment of the City's Transportation Impact Fee.	LS
3.13-10	The traffic would cause the East Cypress Road/Jersey Island Road intersection to operate at unacceptable LOS F and have a ***potentially significant*** impact.	PS	3.13-10	Mitigation of the unacceptable conditions at East Cypress Road/Jersey Island Road intersection can be achieved through the installation of a traffic signal at this intersection. The forecasted AM peak hour and PM peak hour intersection volumes would satisfy the MUTCD peak hour traffic signal warrant.[9] The installation of a signal is included in the City's Transportation	LS

9 Please see footnote 5.

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Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
		Impact Fee Program. The project would contribute to this mitigation by paying its fair share of the cost through the payment of the City's Transportation Impact Fee.	
3.13-11 The traffic would contribute to the unacceptable LOS F operations at Laurel Road/Empire Avenue and have a ***potentially significant*** impact.	PS	3.13-11 Mitigation of the unacceptable conditions at the Laurel Road/Empire Avenue intersection can be achieved through installing traffic signals at the intersection and providing a right-turn, two through, and a left-turn lane on the northbound approach and a shared through/right-turn lane, a through lane, and a left-turn lane on the other approaches. The signalization of the Laurel Road/Empire Avenue intersection is included in the City's Transportation Impact Fee Program. The project would contribute to this mitigation by paying its fair share of the cost through the payment of the City's Transportation Impact Fee.	LS
3.13-12 The addition of project traffic would cause the Laurel Road/Main Street intersection to operate at unacceptable LOS E during the AM peak hour under Near Term with Project conditions and have a ***potentially significant*** impact.	PS	3.13-12 Mitigation of the unacceptable conditions at the Laurel Road/Main Street intersection can be achieved by providing an additional eastbound right-turn lane on Laurel Road. This improvement project is not included in any funding document. The proposed project would contribute to this mitigation by paying its fair share of the cost.	LS
3.13-13 The traffic would cause the Balfour Road/Byron Highway intersection to operate at unacceptable LOS E and have	PS	3.13-13 Mitigation of the unacceptable conditions at the Balfour Road/Byron Highway intersection can be achieved through installing a traffic signal at the intersection. The forecasted PM peak hour intersection volumes would satisfy	LS

10 This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in the Federal Highway Administration *Manual on Uniform Traffic Control Devices* and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. The County of Contra Costa should

LS=Less-Than-Significant; PS=Potentially Significant Impact; S=Significant; SA=Significant Adverse; UA=Unavoidable Adverse

Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
a ***potentially significant*** impact.		the MUTCD peak hour traffic signal warrant for rural areas.[10] The Balfour Road/Byron Highway intersection signalization is not identified in any funding documents, but this mitigation measure is consistent with the findings of previous environmental documents[11]. If an agreement regarding cooperative funding of this improvement exists between Contra Costa County and the City of Oakley at the time of vesting map, the proposed project would contribute to this mitigation by paying its fair share of the cost to Contra Costa County.	
3.13-14 The traffic would cause the Sandmound Boulevard/Bethel Island Road intersection to operate at unacceptable LOS F and have a ***potentially significant*** impact.	PS	3.13-14 Mitigation of the unacceptable conditions at Sandmound Boulevard/Bethel Island Road intersection can be achieved through widening the Bethel Island Road to two lanes in each direction and the installation of traffic signals at the intersection. The forecasted AM peak hour and PM peak hour intersection volumes would satisfy the MUTCD peak hour traffic signal warrant.[12] No funding sources have been identified for this project. The proposed project would construct this improvement.	LS
3.13-15 The traffic would contribute to the segment of SR 4 freeway between Loveridge Road and Hillcrest Avenue to exceed the established Delay Index of 2.5 and have a ***potentially significant*** impact.	PS	3.13-15 Mitigation of the unacceptable conditions on SR 4 freeway can be achieved through widening the freeway to provide three mixed-flow travel lanes and one high-occupancy vehicle (HOV) lane in each direction between Loveridge Road and Hillcrest Avenue. This improvement project is currently in the planning stages and a variety of funding sources, including ECCRFFA and Measure C, have been identified. The proposed project would contribute by paying its fair share of the cost through the payment of the regional fees.	LS
3.13-16 Emergency access to the project and evacuation from the project can	PS	3.13-16 Mitigation of the potential insufficient emergency access can be achieved by providing an additional access point to the site with the construction of a	LS

undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

11 *Discovery Bay West General Plan Amendment Environmental Impact Report* (Contra Costa County, 1994).

12 Please see footnote 5.

LS=Less-Than-Significant; PS=Potentially Significant Impact; S=Significant; SA=Significant Adverse; UA=Unavoidable Adverse

Table 1-1
Summary of Impacts and Mitigation Measures

Impact	*Level of Significance Prior to Mitigation*	*Mitigation Measures*	*Level of Significance after Mitigation*
potentially be insufficient because East Cypress Road provides the only external access and have a ***potentially significant*** impact..		bridge over Rock Slough to connect Bethel Island Road south to Byron Highway and Delta Road. The project would construct this improvement.	
3.13-17 The site plan for the individual neighborhoods may result in increased hazards due to a design feature, inadequate emergency access, or conflicts with adopted alternative transportation policies, plans, or programs and have a ***potentially significant*** impact.	PS	3.17-17 Mitigation of the potential impact can be achieved through a review of the tentative map for each neighborhood by the City Engineer to ensure the adequacy of the site plan.	LS
3.13-18 On-going construction in the project may result in potential temporary hazardous conditions and have a ***potentially significant*** impact.	PS	3.13-18 Mitigation of the potential temporary hazardous conditions can be achieved through preparation of a Construction Phasing and Management Plan for each construction phase. The Construction Phasing and Management Plan shall be approved by the City and may include the following elements: • A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak hours; lane closure procedures; signs, cones, and other warning devices for drivers; and designation of construction access routes. • Location of construction staging, and provision of on-site parking for all construction employees, site visitors, and inspectors. • Provision for monitoring surface streets used for haul routes so that any damage attributable to the haul trucks can be identified and corrected. Note: The impact would be reduced to less than significant with the implementation of this mitigation measures.	LS

LS=Less-Than-Significant; PS=Potentially Significant Impact; S=Significant; SA=Significant Adverse; UA=Unavoidable Adverse

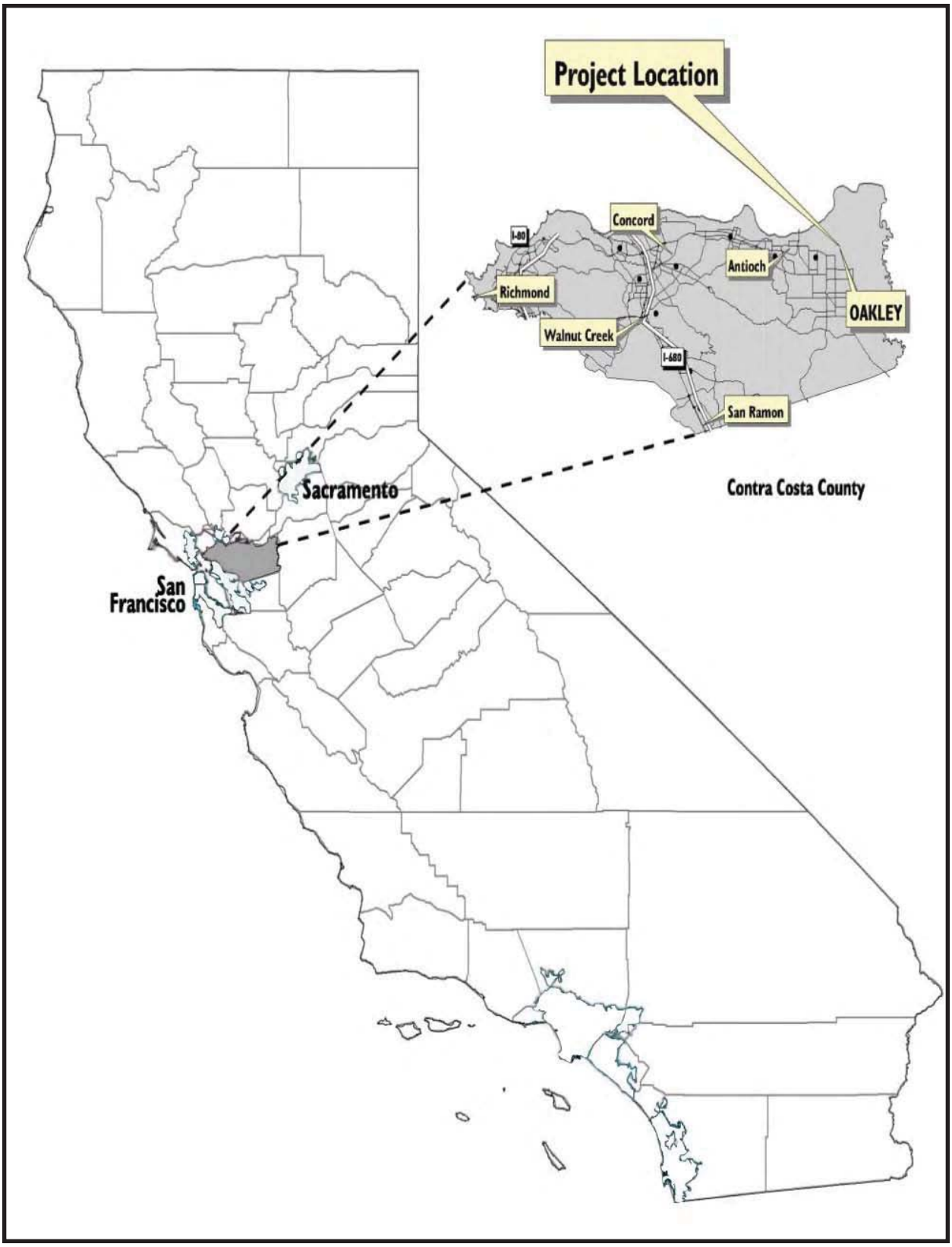
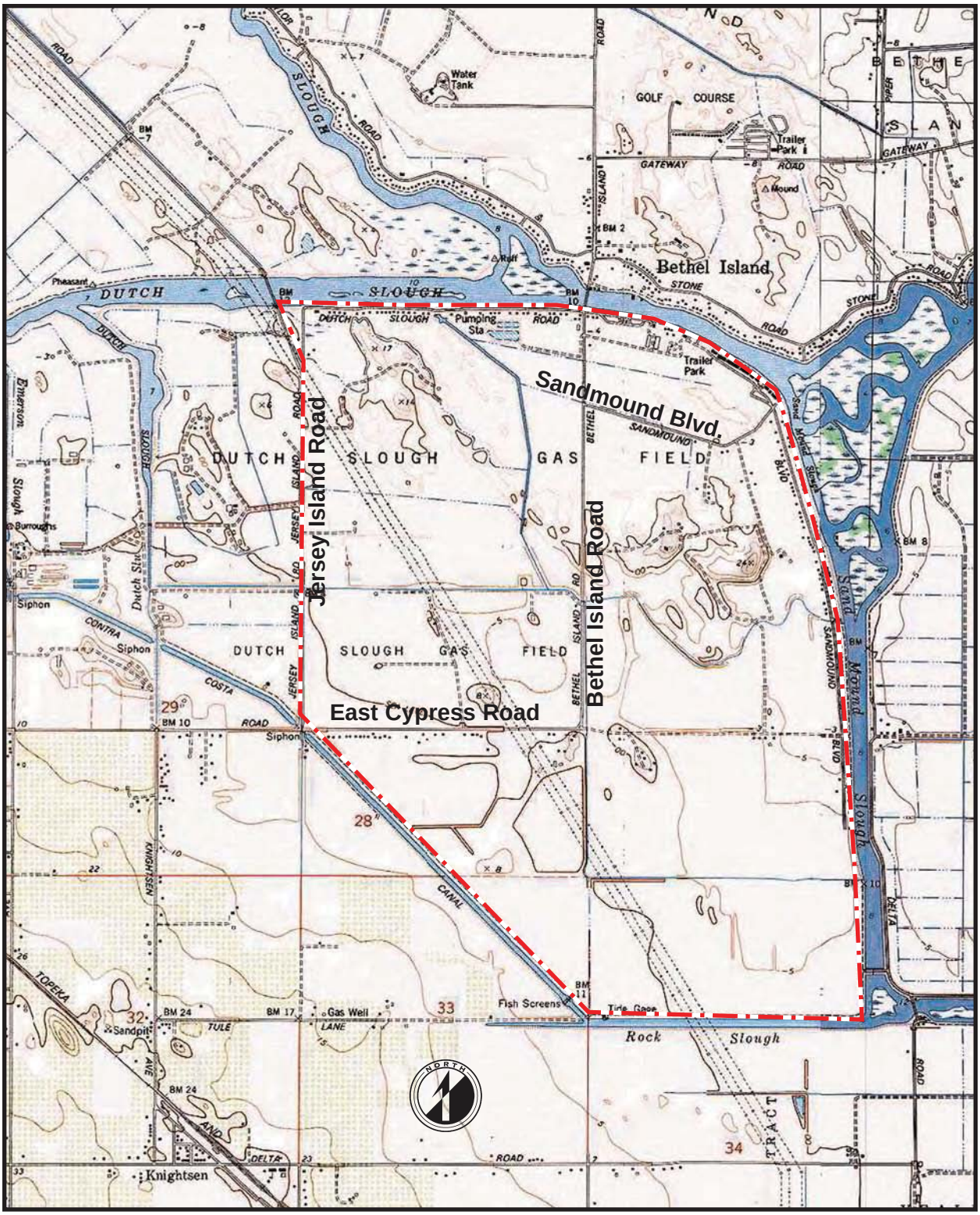


Figure 1-1
Regional Location Map

Source: City of Oakley, 2005

Source: Phil Martin & Associates, 2005

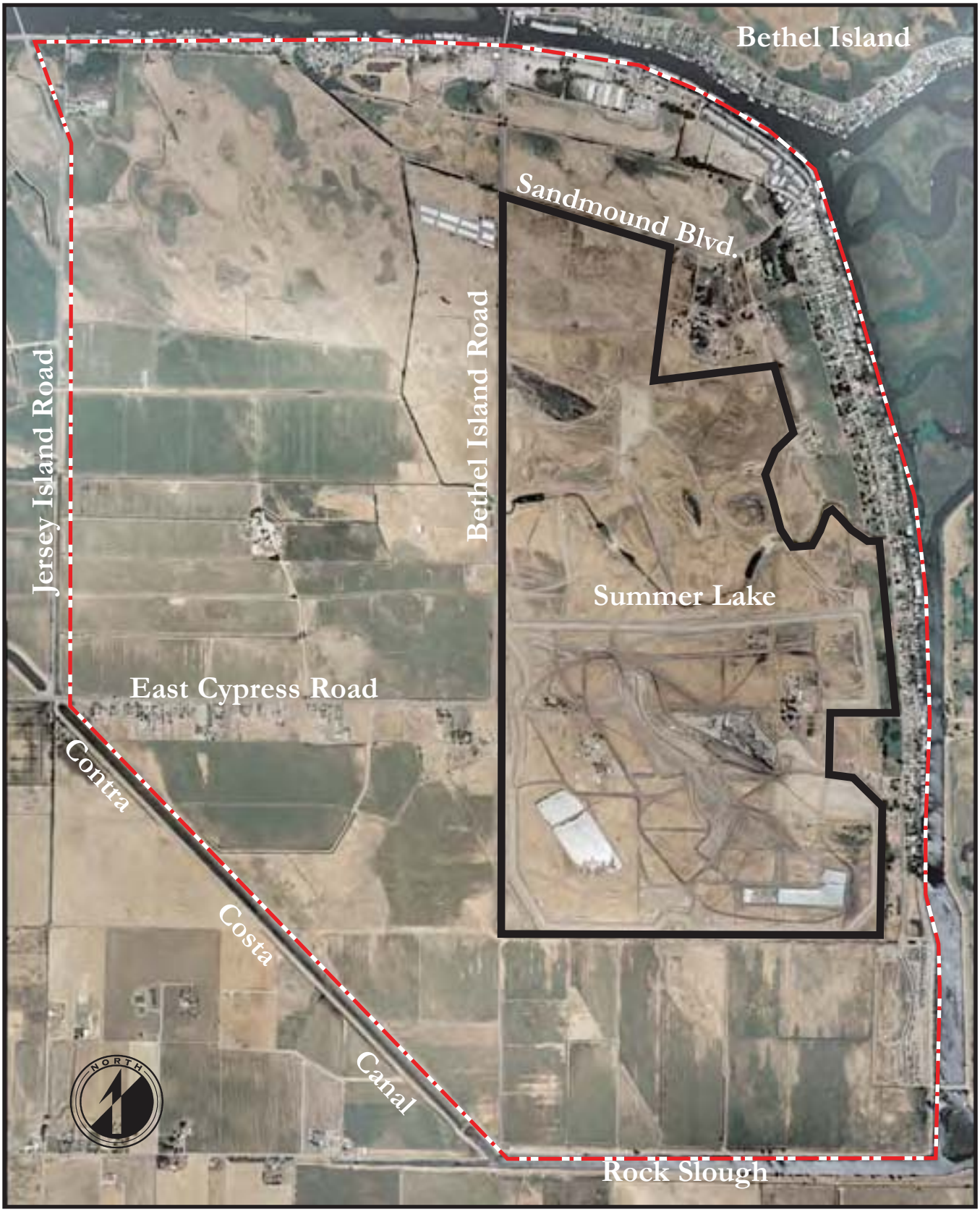
Figure 1-2
Local Vicinity Map



Project Site Boundary

Source: 2001 USGS Topographic Maps and Phil Martin & Associates, 2005

Figure 1-3
USGS Topographic Map



Summer Lake Boundary

Project Boundary

Source: McLarand, Vasquez, Emsiek & Partners, Inc., 2005

Figure 1-4
Aerial Photograph