

RECLAMATION

Managing Water in the West

Draft Environmental Assessment

Contra Costa Water District Emerson Property Inclusion

EA-13-032



**U.S. Department of the Interior
Bureau of Reclamation
Mid Pacific Region
South-Central California Area Office
Fresno, California**

September 2014

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Table of Contents

Section 1	Introduction	1
1.1	Background.....	1
1.2	Need for the Proposed Action.....	3
Section 2	Alternatives Including the Proposed Action	4
2.1	No Action Alternative.....	4
2.2	Proposed Action.....	4
2.2.1	Primary Development.....	4
2.2.2	Infrastructure Improvements	5
2.2.3	Environmental Commitments.....	6
Section 3	Affected Environment and Environmental Consequences	7
3.1	Resources Eliminated from Further Analysis.....	7
3.2	Water Resources	7
3.2.1	Affected Environment	7
3.2.2	Environmental Consequences.....	8
3.3	Land Use.....	10
3.3.1	Affected Environment	10
3.3.2	Environmental Consequences.....	11
3.4	Biological Resources	12
3.4.1	Affected Environment	12
3.4.2	Environmental Consequences.....	12
3.5	Cultural Resources.....	13
3.5.1	Affected Environment	14
3.5.2	Environmental Consequences.....	14
3.6	Socioeconomic Resources	15
3.6.1	Affected Environment	15
3.6.2	Environmental Consequences.....	16
3.7	Environmental Justice.....	16
3.7.1	Affected Environment	16
3.7.2	Environmental Consequences.....	17
3.8	Air Quality.....	17
3.8.1	Affected Environment	18
3.8.2	Environmental Consequences.....	18
3.9	Energy Use and Global Climate	19
3.9.1	Affected Environment	20
3.9.2	Environmental Consequences.....	20
3.10	Traffic	21
3.10.1	Affected Environment	21
3.10.2	Environmental Consequences.....	21
3.11	Noise.....	22
3.11.1	Affected Environment	22
3.11.2	Environmental Consequences.....	23
Section 4	Consultation and Coordination	24
4.1	Public Review Period	24
4.2	Endangered Species Act (16 U.S.C. § 1531 et seq.).....	24

4.3	Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.)	24
4.4	National Historic Preservation Act (16 U.S.C. § 470 et seq.)	24
Section 5	Preparers and Reviewers	26
Section 6	References.....	27

List of Tables

Table 2-1	Environmental Protection Measures and Commitments	6
Table 3-1	Resources Eliminated from Further Analysis.....	7
Table 3-2	Population, Housing, and Job Trends, 2000-2020	16
Table 3-3	Contra Costa County Demographic Data (2012)	17
Table 3-4	Contra Costa County Economic Data (2012).....	17
Table 3-5	Estimated Short-Term and Long-Term Emissions.....	19

List of Figures

Figure 1-1	Property Location.....	2
------------	------------------------	---

Appendices

Appendix A	Tentative Site Plan
Appendix B	Indian Trust Assets Determination
Appendix C	Cultural Resources Determination

Section 1 Introduction

1.1 Background

The Bureau of Reclamation (Reclamation) has a long-term contract with the Contra Costa Water District (Contra Costa WD) (Contract No. 175r-3401A-LTR1) to deliver Central Valley Project (CVP) water to Contra Costa WD for municipal and industrial (M&I) use. Contra Costa WD delivers raw water to Diablo Water District (Diablo WD), who treats the water and then delivers it to customers in the City of Oakley, among others.

In December 2002, the City of Oakley (City) adopted the Oakley 2020 General Plan, which outlined the City's plans for future development (City of Oakley 2002). This included several new residential areas, among them the 140-acre parcel now known as the Emerson Property, shown below in Figure 1-1. The property is zoned for mixed residential and commercial use. Current plans call for about 578 residential lots, a park with a stormwater pond, and 23.74 acres of commercial development on the property (See Appendix A).

The proposed development is currently located outside of Contra Costa WD's contractual service area for CVP water. However, the Contra Costa County Local Area Formation Commission has given Contra Costa WD and Diablo WD permission to extend service outside their jurisdictional boundaries for the purpose of providing water service to the new development. Contra Costa WD is now requesting that Reclamation also approve inclusion of the Emerson Property into the Contra Costa WD contractual service area for receipt of CVP water supplies.

In accordance with the California Environmental Quality Act, the City of Oakley prepared a Final Environmental Impact Report (EIR, State Clearinghouse Number 2007052073; City of Oakley 2010). The EIR evaluated and disclosed potential environmental impacts that could result from project implementation, and included mitigation measures for those impacts that were determined to be significant. The Draft EIR was circulated for public comment from November 19, 2008 to February 4, 2009. In addition, four chapters of the Draft EIR were revised and recirculated for public comment from April 30 to June 14, 2010. Portions of the EIR have been adapted and incorporated into this Environmental Assessment (EA)¹.

Until the fall of 2013, the Emerson Property consisted of pastureland with a small amount of rural residential development clustered in the central and northeastern portion of the site. The property included a rural residence/former school building (Iron House School), a second home (Ralph Emerson home), a barn (Tuberculosis barn), and other small ancillary buildings. As the City of Oakley had already approved the Emerson Property project and issued a grading permit in 2013, the project applicant, Brookfield Homes, decided to move forward with site preparation. Reclamation advised Brookfield Homes that commencement of construction prior to completion of the CVP inclusion review places the CVP inclusion review at risk and would substantially

¹The Emerson Property project analyzed in the EIR is substantially the same as the project that was finally approved by the City of Oakley. The project as analyzed in the EIR included 662 residential units, a 10.5-acre commercial center, a 5-acre lake feature, and an approximately 3-acre park. Numbers of lots and acreages have changed, but the general layout and function of the proposed development remains the same.

delay that review. Brookfield ceased construction in late December 2013 after it became clear that Reclamation was unable to process the CVP inclusion review or National Environmental Policy Act (NEPA) analysis while the site was actively under construction.

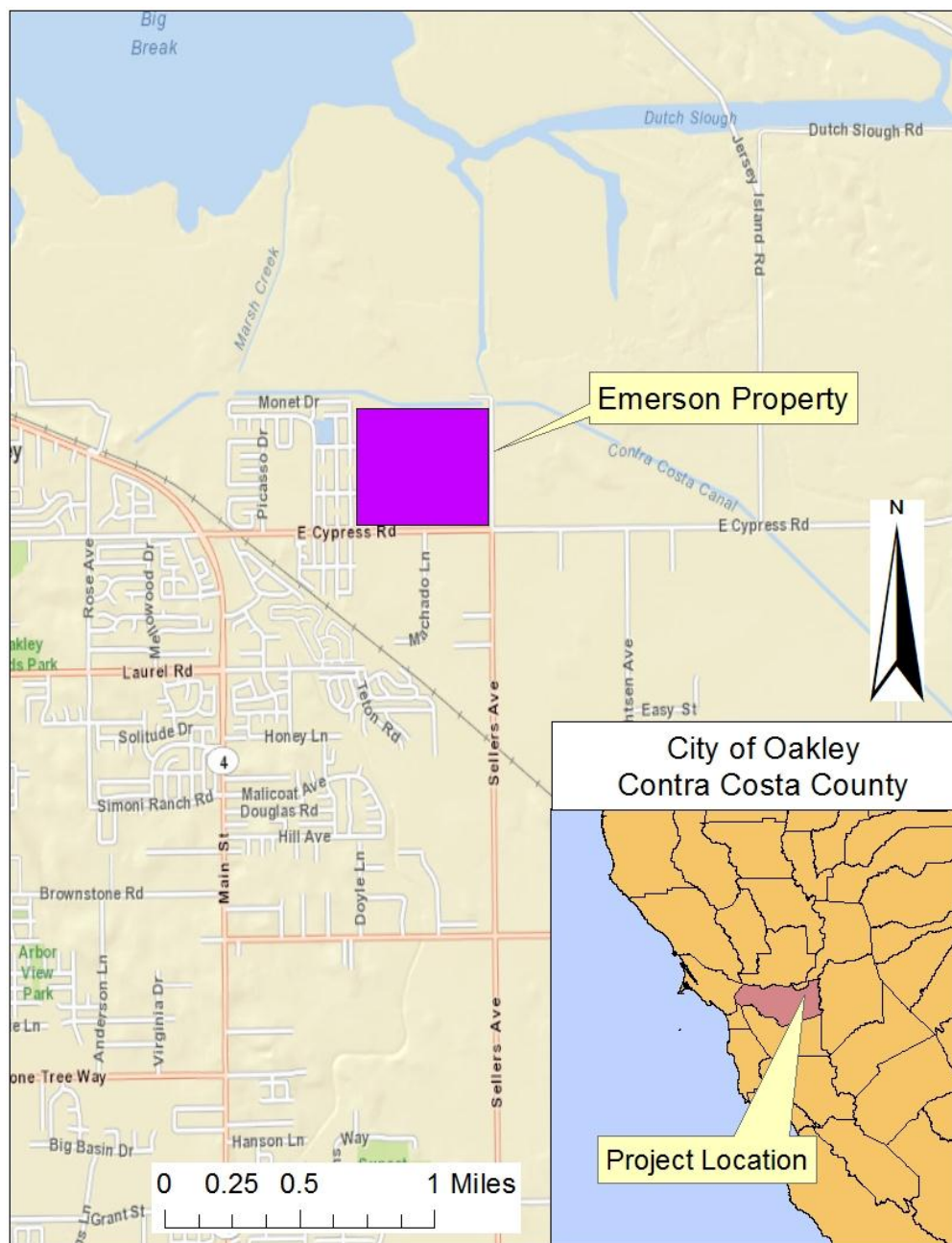


Figure 1-1 Property Location

As a result of the site work completed through December 2013, the site has been altered from its previous condition. The western portion of the project site (“Phase 1” area) has been graded in preparation for the first phase of development. In addition, the Ralph Emerson home, which was located in the center of the project site within the Phase 1 area, has been relocated to the eastern portion of the project site (“Phase 2” area). No mass grading has been conducted within the

Phase 2 area, and the Iron House School building, the Tuberculosis barn and other ancillary buildings, which are located within the Phase 2 area, have not been disturbed or removed. Activities within the Phase 2 area include the placement of a stockpile of soil amassed from grading operations in the Phase 1 area, equipment and worker staging areas and the creation of three temporary dewatering fields on top of the existing fields using the existing levees and dirt berms. Work at the site has been suspended pending completion of NEPA by Reclamation. Any further ground disturbance prior to the point in time when Reclamation finalizes its NEPA review would require additional NEPA analysis in order for Reclamation to process the CVP Inclusion review.

1.2 Need for the Proposed Action

The City of Oakley's General Plan calls for single-family residential development on the property under consideration. However, Contra Costa WD and Diablo WD cannot deliver water to the proposed development without Reclamation's inclusion of the area into the CVP place of use. The purpose of the Proposed Action is to allow Contra Costa WD to add the proposed development to their service area.

Section 2 Alternatives Including the Proposed Action

This EA considers two possible actions: the No Action Alternative and the Proposed Action. The No Action Alternative reflects future conditions without the Proposed Action and serves as a basis of comparison for determining potential effects to the human environment.

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not approve the inclusion pursuant to Article 35 of the M&I water service Contract Number I75r-3401A-LTR1 between Contra Costa WD and Reclamation. Alternative sources of surface water would have to be found, as the area does not provide adequate groundwater supplies. At the time of writing this EA, no willing sellers of water or other specific alternative water sources have been identified.

As described above, Brookfield Homes commenced construction in October 2013, including grading of the site and movement of a number of the structures. In December 2013, Brookfield Homes halted construction pending completion of the CVP Inclusion review. Under the No Action Alternative, the site would remain in its current state.

2.2 Proposed Action

Reclamation proposes to approve the inclusion of Contra Costa County Assessor's Parcel Numbers 037-192-015 and 037-192-023 into Contra Costa WD's CVP service area.

Under the Proposed Action, Reclamation would approve the inclusion requested by Contra Costa WD under Article 35 of M&I water service Contract Number I75r-3401A-LTR1 between Contra Costa WD and Reclamation. This would add the Emerson Property into the Contra Costa WD CVP service area boundary and allow Contra Costa WD (via the Diablo WD) to deliver CVP water to the property.

Although a source of water is necessary to develop the property, Reclamation does not have land use authority. Following approval of the inclusion, the developer would begin construction on the site in accordance with City and County approvals and permits. As currently planned, the development would include up to 578 residential units, 23.74 acres of commercial uses, 10.13 acres of park and stormwater detention pond area, trails, and various infrastructure improvements (See tentative map in Appendix A).

2.2.1 Primary Development

Residential

The residential portion of the project would consist of high-density single-family homes on varying lot sizes, in neighborhoods as described below:

- One neighborhood of 71 lots, each approximately 6,000 square feet (ft²)
- One neighborhood of 193 lots, each approximately 4,800 ft²
- One neighborhood of 99 lots, each approximately 4,000 ft²
- One neighborhood of 117 lots, each approximately 3,800 ft²
- One neighborhood of 98 lots, each approximately 3,500 ft²

Commercial

The commercial component of the project would involve a shopping center located at the southeast corner of the site, at the corner of Cypress Road and Sellers Avenue. Approximately 278,046 ft² of commercial space would be available, including space for four major retail tenants, a garden center, retail pads for two smaller shops, and four pads at the southern portion of the site for restaurants, banks or similar uses. Landscaping would be provided throughout, and signalized access would be provided to Cypress Road.

Parks and Trails

A park, roughly 4 acres in area, would be located adjacent to a 6-acre stormwater pond near the center of the development. A trail system would connect the residential area with the commercial development, and would tie into existing nearby trail features. In addition, the developer would contribute to construction of trails along the north side of Cypress Road, the west side of Sellers Avenue, and the north edge of the property adjacent to the Contra Costa Canal.

2.2.2 Infrastructure Improvements

In addition to residential, commercial and open space construction, infrastructure improvements would be necessary to serve the new development. These include noise barriers, as well as upgrades to roadways and utilities.

Roadway and Access Improvements

Primary access to the proposed residential neighborhoods would be provided by a signalized entrance on Cypress Road at Machado Lane, with secondary access on Sellers Avenue. Internal streets would also connect to two roads in the Cypress Grove subdivision to the west. A signalized primary entrance would provide access to the commercial portion of the site, with an additional right-in/right-out access point on Cypress Road. A secondary entrance and service entrance would also be provided on Sellers Avenue.

Improvements to adjacent streets would be necessary to mitigate increased traffic volume generated by the new development. On Cypress Road these include two westbound lanes, a landscaped median and one new eastbound lane along the entire property frontage. Sellers Avenue would be improved between Cypress Road and the Contra Costa Canal right of way to the north. Transitions would be provided to adjacent roadway segments at each end, and existing driveways would be modified to tie into the improved streets.

Utility Improvements

Some utility facilities would need to be relocated to accommodate construction, and others would require upgrades to handle additional load. Proposed improvements are described below.

- A new sanitary sewer pump would be installed to collect on-site sewer flows. The pump would discharge to an existing 14-inch force main located in Cypress Road.
- New water mains would be installed for the development, in accordance with Diablo WD's master plan and specifications.
- Overhead and underground utilities would be relocated as needed, which may require adjustments to facilities serving adjacent properties.
- Stormwater management facilities would be installed to direct drainage to the central 6-acre detention pond. From the pond, water would be pumped to Emerson Slough.

2.2.3 Environmental Commitments

Brookfield Homes must implement the following environmental protection measures to reduce environmental consequences associated with the proposed development approved by the City as the local land use authority (see Table 2-1). Environmental consequences for resource areas assume the measures specified would be fully implemented. Copies of all reports would be submitted to Reclamation. Additional measures may also be required under CEQA. Refer to the EIR for more information.

Table 2-1 Environmental Protection Measures and Commitments

Resource	Protection Measure
Water Supply	Water mains adequate to serve the proposed development shall be incorporated into the project.
Water Quality	The developer shall comply with Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP) requirements.
Water Quality	The developer shall contribute to Contra Costa WD's project to enclose the Contra Costa Canal.
Water Quality	The central water feature of the development shall be designed to handle flows from a 100-year design storm, and to settle sediment adequately to meet discharge standards for Emerson Slough.
Air Quality	The developer shall implement all feasible measures recommended by the Bay Area Air Quality Management District (BAAQMD) to reduce emissions during project operation.
Air Quality	The developer shall incorporate measures to limit fugitive dust during construction, as directed by BAAQMD.
Traffic	A Traffic Control Plan identifying measures such as construction worker parking, additional street sweeping, and traffic flaggers, shall be prepared to decrease congestion caused by construction-related traffic.
Traffic	The developer shall coordinate with any nearby construction projects in order to reduce the potential for cumulative construction traffic impacts.
Traffic	The shopping center driveway on East Cypress Road shall be restricted to right turns only.
Traffic	Sidewalks and trails shall be incorporated into the development to encourage pedestrian and bicycle travel.
Traffic	A Tri-Delta Transit bus stop shall be provided on the north side of Cypress Road near Sellers Avenue to serve the project site.
Traffic	The developer shall contribute to municipal signal and roadway improvements to accommodate increased area traffic.
Noise/ Land Use	All noise-generating machinery shall be maintained in good working order, and noise-generating stationary equipment shall be located as far as practicable from noise-sensitive land uses.
Noise	The developer shall install noise barriers along Cypress Road to reduce residential exposure to high levels of traffic noise.

Section 3 Affected Environment and Environmental Consequences

This section identifies the potentially affected environment and the environmental consequences involved with the Proposed Action and the No Action Alternative, in addition to environmental trends and conditions that currently exist.

3.1 Resources Eliminated from Further Analysis

Reclamation analyzed the affected environment and determined that neither Proposed Action nor the No Action Alternative have the potential to cause direct, indirect, or cumulative effects to the resources listed in Table 3-1.

Table 3-1 Resources Eliminated from Further Analysis

Resource	Reason Eliminated
Indian Sacred Sites	No impact to Indian Sacred Sites would occur under the No Action Alternative as conditions would remain the same as existing conditions. The Proposed Action would not impact Indian Sacred Sites as there are no known Indian Sacred Sites in the project area. No direct or indirect impacts to Indian Sacred Sites would occur as a result of the Proposed Action.
Indian Trust Assets	No impact to Indian Trust Assets would occur under the No Action Alternative as conditions would remain the same as existing conditions. The Proposed Action would not impact Indian Trust Assets as there are none in the Proposed Action area (see Appendix B).

3.2 Water Resources

3.2.1 Affected Environment

Water Supply

The project site is not currently connected to the local municipal water system. Prior to the fall of 2013, when the existing home on the project site was relocated, it was supplied by onsite groundwater wells.

Water in the City of Oakley is supplied by Diablo WD, which receives its primary water supply from the Contra Costa WD, supplemented with groundwater. Contra Costa WD's primary source of water is the Reclamation's CVP. Contra Costa WD's contract for CVP water is for a maximum of 195,000 acre-feet per year (AF/y), subject to regulatory and other temporary restrictions that may be imposed due to drought or other conditions.

Water Quality

Potential sources of water pollution on the site include eroded sediment and organic waste produced by dairy cattle. There could also be impacts to the site from lead paint on structures, or previous fuel use associated with farming operations.

3.2.2 Environmental Consequences

No Action

In the event that the proposed inclusion is denied, construction of the Emerson Property project would be delayed until another source of water is secured. No specific alternative water supplies have been identified. The No Action alternative would result in no change to hydrology or water quality.

Proposed Action

Water Supply Diablo WD prepared a Water Supply Assessment (WSA) for the proposed project, in order to determine whether available supplies could meet anticipated demand from the new development. The WSA was developed based on an expectation that the Emerson Ranch development would include 662 residential units, a 10.5 acre commercial center, a 5 acre lake feature pond, and a 3-acre park. Using an assumption of 525 gallons per day (gpd) per dwelling unit for residential uses, 2,250 gpd per acre for commercial uses, and 1.45 gpd per acre for park uses, the WSA determined that additional demand would be approximately 420 AF/y. This increase in demand was determined to be within Diablo WD's long-term demand and supply projections, and to not require development of additional supply (Diablo WD 2007).

The proposed development was later modified to include 578 residential units, 23.74 acres of commercial uses, and approximately 10 acres of park uses. Based on the same use rates for different development types, the water demand for the new layout would be around 400 AF/y. Since this represents less demand than the layout evaluated in the original WSA, the revised plan would also not increase demands beyond available supply.

Although Diablo WD has determined that adequate supply is available to meet the needs of the proposed new development, the existing distribution infrastructure would need to be upgraded to provide adequate service. New water mains would be installed in accordance with Diablo WD's master plan, and would be dedicated to Diablo WD upon completion.

Water Quality To control for soil erosion during construction, the Regional Water Quality Control Board requires any development that would disturb one-acre or more to obtain a National Pollutant Discharge Elimination System (NPDES) general construction permit (General Permit). The General Permit requires the developer to file an NOI for the proposed project and to prepare and implement a SWPPP. The SWPPP is a dynamic document prescribing site-specific Best Management Practices (BMPs), with the BMP types and locations based on the construction timeline and monitoring. Compliance with the NPDES General Permit would help prevent sediment from leaving the site during construction.

The Contra Costa Canal borders the project site to the north. Due to the proximity of the waterway to the planned residential properties on the project site, stormwater runoff generated from roofs, roadways, and other new impervious surfaces could affect water quality as a result of increased runoff as well as increased loading of urban pollutants into receiving waters. Contra Costa WD has expressed concern that drainage and seepage originating from the housing development could impact the canal's water quality. In order to mitigate this concern, the project applicant has agreed to provide a contribution towards the cost of Contra Costa's project

to replace the unlined canal with a pipeline, which has been approved and is being built in phases as funding becomes available.

Runoff from the Emerson property currently discharges to Emerson Slough. In order to reduce the potential for degradation of water quality in the slough, the development's stormwater would be directed to the central lake feature for flow control and sediment settling. The lake would include lining to separate lake/stormwater from the water table, be graded to a minimum of 10 feet below normal water surface elevation to discourage the growth of aquatic plants, and would have exterior slopes graded to no greater than 4:1. The storage volume associated with the drainage basin would accommodate the runoff from large events up to, and including, the Contra Costa Flood Control District 100-year design storms (City of Oakley 2010).

Cumulative Impacts

In addition to the Emerson property project, other actions in the area which could affect water resources include similar commercial/residential developments, the Contra Costa Canal Replacement Project, and the Dutch Slough Restoration Project.

Other Proposed and Approved Land Development Projects There are numerous residential subdivisions and other land development projects in the area, including Delta Coves on Bethel Island, Summer Lakes South and North, the East Cypress Corridor, and the Baldocchi parcel. All of these, with the exception of Delta Coves and Summer Lakes, require CVP inclusion review (City of Oakley 2010).

Contra Costa Canal Replacement Project Contra Costa WD plans to encase the segment of the Contra Costa Canal from Marsh Creek to Sellers Avenue (including the portion directly to the north of the Emerson Property) in a pipeline, and install a flood isolation structure at the Rock Slough Headworks at the entrance to the Contra Costa Canal just downstream of Rock Slough. This would be the second segment of the unlined Canal that would be placed in a pipeline. Once the pipeline in this area is installed, the berms adjacent to the unlined Canal would be removed and the approximately 300-foot right of way would be graded flat (Reclamation 2007). As described above, the applicant has agreed to contribute funding to this project as mitigation.

Dutch Slough Restoration Project The California Department of Water Resources (DWR) and the City of Oakley have proposed the Dutch Slough Restoration Project, which would restore wetland and upland habitats for native fish and wildlife and include development of a City Community Park Project on a 1,166-acre property located to the north of the Emerson Property. The project would also provide public access, educational, and recreational opportunities along the shoreline. Construction activities, including levee grading and construction, utilities relocation, and marshplain grading would occur during the dry season from mid-April to mid-October and take at least two years to complete (DWR 2008).

Water Supply The Proposed Action, along with other planned residential and commercial developments in the area, would represent new demand on Diablo WD's water supply. However, Diablo WD and Oakley have already accounted for this additional demand, and infrastructure improvements are planned to accommodate it. No cumulative impacts to the water supply are anticipated beyond the individual developments' needs. The other major construction

projects in the area, the Dutch Slough Restoration Project and Contra Costa Canal Replacement project, are not expected to increase demand on the water supply.

Water Quality Development of the Emerson Property project and other nearby construction projects would have the potential to increase the sediment load to area waterways during construction. However, each of these projects would be required to comply with the measures described above for land disturbance, including a SWPPP. These requirements are anticipated to adequately address water quality concerns during construction.

Following the initial construction period, the Dutch Slough Restoration Project and Contra Costa Canal Replacement Project are expected to be a net positive for water quality, through habitat restoration and protection of raw municipal water from external pollution sources. New commercial and residential developments can contribute to water quality degradation, however, as they can be sources of sediment, oils and litter. They also increase impervious area, which causes faster runoff and bypasses natural filtering processes. Contra Costa County regulates stormwater discharges from these areas and requires developers to incorporate stormwater control and improvement measures into their designs. The Proposed Action is within the scope of activities anticipated by this regulatory program, and is not expected to result in cumulative impacts beyond those already considered and evaluated.

3.3 Land Use

3.3.1 Affected Environment

The project site is located in the City of Oakley. Land use policies are established in the City's General Plan and Zoning Code. In addition the project is subject to the East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP), issued in October 2006 (City of Oakley 2013).

Historic land uses on the Emerson Property included rural residential and agricultural purposes, primarily pasture. A private water supply well and septic system served the residents. More recently, some grading has taken place in anticipation of proposed development, taking it out of agricultural use. The property is currently sitting idle pending completion of Reclamation's inclusion process.

Uses bordering the project site include the Cypress Grove subdivision, Iron House Elementary School, and Delta Vista Middle School to the west; Cypress Road to the south; the Contra Costa Canal to the north; and the currently vacant Gilbert and Burroughs properties to the east. The area north of the Contra Costa Canal is owned by the State of California and is anticipated to be restored to wetlands in the future. In addition, a 55-acre portion of land immediately to the north of the canal and the project site at the end of Sellers Avenue is held in escrow, pursuant to a Memorandum of Understanding and Development Agreement, for future conveyance to the City of Oakley as a community park.

The Emerson property is below the 100-year flood stage, but levees on the north and east sides of the property were constructed as part of the Cypress Grove subdivision to the west. Additional levees may be constructed as part of development on the property to the east (known as the

Gilbert property), but existing facilities are considered to be adequately protective in the meantime.

3.3.2 Environmental Consequences

No Action

In the event that the proposed inclusion is denied, the developer would need to secure another source of water to supply the planned development. The construction of the project would be delayed until another source of water is secured. If no source of water could be located, there would be no further change to land use.

Proposed Action

Construction of the Emerson Property project would change the land use from mainly pasture land to a residential subdivision with single-family residential lots of varying sizes, a commercial center, park/open space and a stormwater detention pond. Post-construction development would be much denser (~4.05 dwelling units/acre) than current conditions. However, this area is targeted for development of the type being proposed, the planned development is consistent with the City's 2020 plan (City of Oakley 2010), and building permits have been issued by the City.

The new development would consist of up to 578 residential units organized in 5 neighborhoods, approximately 23.74 acres of commercial space, a 6-acre stormwater detention pond, 4 acres of park space, and internal trails connecting residential areas with the commercial development. More detail on proposed improvements is provided above in Section 2.2, and in Appendix A.

The developer would also include features to integrate on-site improvements into the area's recreational network. These include trails along the north side of Cypress Road, the west side of Sellers avenue, and on the north edge of the property adjacent to the Contra Costa Canal. The Contra Costa Canal trail would provide a connection to the trail which was constructed as part of the subdivision to the west, and which links to the Marsh Creek Trail and the area's larger network. To satisfy the developer's obligations related to green space, a contribution would be made to the park in-lieu fee program, to facilitate provision of community park facilities north of the Canal. The project applicant would also pay applicable fees in accordance with the East Contra Costa County HCP/NCCP.

The area's current sewer service is provided by a 14-inch force main under Cypress Road. The existing main is not expected to be adequate for the full build-out of the planned expansion area. Therefore, Ironhouse Sanitary District plans to install a second 14-inch force main to upgrade capacity. The new main could be located in Cypress Road or in the trail corridor along the Contra Costa Canal. Depending on location and timing, this additional utility work may be coordinated with construction on the Emerson property.

Cumulative Impacts

The Emerson Property project, along with all known projects in the City of Oakley, would change the intensity of land uses in the City's Planning Area. However, the 2020 General Plan designates this area for urban development and anticipates this growth. All developments proposed and constructed within the City are reviewed for consistency with citywide land use

controls and development standards during the course of the project review and approval process.

3.4 Biological Resources

3.4.1 Affected Environment

The western portion of the project site ("Phase 1" area) was graded in preparation for the first phase of development. A stockpile of soil amassed from grading operations in the Phase 1 area was placed in the Phase 2 area and three temporary dewatering fields have been created on top of the existing fields using the existing levees and dirt berms. Ruderal grassland habitat and the sand mounds remain in portions of the Phase 2 area. The small (0.02 acre) freshwater marsh, found along the eastern end of the irrigation ditch in the northeastern portion of the site was filled, possibly around the time of construction of a levee associated with the Cypress Grove development project. Cherry plum trees (*Prunus cerasifera*) remain along Sellers Avenue. A Swainson's Hawk (*Buteo Swainsoni*) nest was observed in 2005 within 1,000 feet of the project site.

3.4.2 Environmental Consequences

No Action

In the event that the proposed inclusion is denied, construction could not begin until another source of water was secured. Impacts due to grading and trenching by the developer have already occurred, so that biological impacts under this alternative would be minimal.

Proposed Action

The Proposed Action would result in few impacts to biological resources, as the developer was issued a grading permit by the City, prior to Reclamation completing environmental review or issuing any approvals. Only the construction permit is contingent upon the Proposed Action, which would allow the houses and roads, etc. to be built. The most this would do is to possibly increase disturbance of nearby habitats by human activity and associated pets such as cats.

Cumulative Impacts

Historically, a majority of the project site consisted of cultivated lands that were used for hay production. The rest of the project site consisted mostly of disturbed land, including dirt roadways, levees and berms, and areas around development such as the two houses, barns, and corrals. Three major land cover types formerly covered the project site which included ruderal grassland (21.4 acres), cropland (116.83 acres), and urban (two acres). The habitat found in the Phase 1 area was removed as a result of grading and trench construction. The wetland was filled previously, as noted above in the Affected Environment section. Part of the Phase 2 area was impacted by stockpiling of spoils from the Phase 1 grading, and by the construction of temporary dewatering fields, which were created on top of the existing fields using the existing levees and dirt berms. Species covered by the HCP that were considered to have been possibly onsite were the Western Burrowing Owl (*Athene cunicularia hypugaea*), Swainson's Hawk, Townsend's big-eared bat (*Corynorhinus townsendii townsendii*), and the giant garter snake (*Thamnophis gigas*). Buildings that were removed would have included potential bat roosting habitat, and other species may have been disturbed and their habitat lost during the work that occurred.

The developer had begun some of this work as of the date that a take certificate was issued for Phase 1 (October 29, 2013), pursuant to the section 10 Endangered Species Act permit that was issued in association with the East Contra Costa County HCP/NCCP, and prior to Reclamation having completed its section 7 consultation with the U.S. Fish and Wildlife Service (Service) (November 12, 2013). The HCP/NCCP required that certain measures be followed, with regard to surveys, monitoring, and minimization of impacts (City of Oakley 2013). The Service gave special permission to deviate from the usual timing restriction for work in giant garter snake habitat on October 29, 2013, as long as additional measures were implemented.

Cumulative Impacts

Contra Costa WD plans to encase the Contra Costa Canal segment directly to the north of the Emerson Ranch parcel in a pipeline and install a flood isolation structure at the Rock Slough Headworks just downstream of Rock Slough at the entrance of the Contra Costa Canal. The Dutch Slough Restoration Project would restore wetland and upland habitats and provide public access to a 1,166-acre property owned by DWR. Reclamation has approved multiple boundary changes to include lands into Contra Costa WD's service area. Reclamation's consent for boundary changes to allow CVP water deliveries to support planned development projects is a contributing factor to the cumulative decline of habitats and biological resources. However, each proposed inclusion and development project undergoes separate environmental reviews and appropriate consultations in accordance with applicable laws, regulations and permits. Measures are imposed to avoid or offset the loss and decline of habitats, fish, wildlife and plants. Furthermore, the East Contra Costa County HCP/NCCP has been expressly developed and designed to mitigate the cumulative impacts from development in the eastern portion of the county.

3.5 Cultural Resources

"Cultural resources" is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation that outlines the Federal Government's responsibility with respect to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places; such resources are referred to as historic properties.

The Section 106 process is outlined in the Federal regulations at 36 Code of Federal Regulations (CFR) Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking will have on historic properties. In summary, Reclamation must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, Reclamation must identify the area of potential effects, determine if historic properties are present within that area of potential effects, determine the effect that the undertaking will have on historic properties, and consult with the State Historic Preservation Office to seek concurrence with Reclamation's findings with respect to effects. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and consult with

individuals or groups who are entitled to be consulting parties or have requested to be consulting parties.

3.5.1 Affected Environment

The Emerson Property is located in an area with a long history of human occupation and use. Archaeological evidence indicates that Native American resource use in the Delta and northern San Joaquin Valley regions extends back 6000 to 10,000 years, perhaps even longer. Historic-era land use in the general project area, beginning in the late 19th Century, has revolved primarily around agricultural enterprises. The railroad was also key to the economic development and growth of this area, transporting agricultural goods, coal, and other resources from Contra Costa County to other parts of California and beyond.

While not considered a major dairy county in California, dairying was an economic endeavor of some significance in and around the Oakley area, where the Emerson Property is located. During the late 19th and early 20th centuries, dozens of dairies were established in this part of Contra Costa County, shipping milk and dairy products to San Francisco and other growing Bay Area cities. Substantial early dairying operations in Oakley included the Burroughs Bros. Dairy, Central Shuey/Golden State Dairy, and Emerson Dairy. These three dairies were located on adjacent lands, with the current 140-acre Emerson Property comprising a portion of what formerly consisted of the 625-acre Emerson Dairy and ranching enterprise.

3.5.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not approve the Emerson Property inclusion; however, once an alternative water source is identified development of the property likely would proceed as planned. The integrity of significant historic-era cultural resources on the property already has been compromised through grading and other development-related activities. Such activities would continue under the No Action Alternative.

Proposed Action

Under the Proposed Action, Reclamation would approve the inclusion requested by Contra Costa WD, which would allow the Emerson Property to continue being developed as planned. In an effort to identify historic properties within the area of potential effects for the current undertaking, Reclamation initiated consultation with Indian tribes seeking information about any sites or resources of concern in the project area, reviewed cultural resources inventory work reported by consultants on behalf of Contra Costa WD and Brookfield Homes, and initiated consultation with the SHPO seeking concurrence on a finding of no historic properties affected pursuant to 36 CFR § 800.4(d)(1).

Reclamation arrived at this finding of effect due, in part, to the extensive grading and relocation of the Ralph Emerson House that occurred on the property in December 2013 (see Section 1.1). Prior to that time, the portion of the old Emerson Dairy within the current project area of potential effects was considered as contributing to the National Register eligibility of a historic property identified as the Dutch Slough Rural Historic Landscape (Dutch Slough RHL). The approximately 1,100-acre Dutch Slough RHL consists of lands formerly comprising the Burroughs Bros., Central Shuey/Golden State, and Emerson dairies, among other properties.

With the relocation of the Ralph Emerson House from its original context and the removal of pastures, trees, and other landscape features formerly associated with dairying activities in the current area of potential effects, Reclamation determined that the historic integrity of the 140-acre Emerson Property had been compromised such that it no longer contributes to the National Register eligibility of the Dutch Slough RHL.

Reclamation initiated SHPO consultation in July 2014 concerning this National Register eligibility determination and Section 106 finding of no historic properties affected as described above. Pursuant to 36 CFR § 800.4(d)(1)(i), if the SHPO does not object to a finding of no historic properties affected within 30 days of receipt of an adequately documented finding, Reclamation's responsibilities under Section 106 are fulfilled. To date, no response from the SHPO has been received. Although the proposed action may go forward with no additional Section 106 review, Reclamation shall continue to seek SHPO concurrence with our finding of effect. If, at some point, the SHPO re-enters the consultation process and has comments or concerns regarding this undertaking, Reclamation would seek to resolve these concerns. In the event of an inadvertent discovery during construction, Reclamation may have additional Section 106 obligations pursuant to the Post Review Discovery portion of the regulations at 36 CFR §800.13.

With the determination that there are no historic properties eligible for National Register inclusion within the Emerson Property area of potential effects, and the Section 106 finding of no historic properties affected, implementation of the Proposed Action would result in no significant impacts to cultural resources.

Cumulative Impacts

The ongoing development of agricultural lands in eastern Contra Costa County has the potential to result in cumulative impacts to significant cultural resources eligible for the National Register, assuming such properties are present. Any future proposed changes to water delivery area, or the means of such delivery, however, that require Reclamation approval would be subject to separate cultural resources Section 106 reviews and consultations as required. In such cases where significant cultural resources (i.e., historic properties) would be impacted by Reclamation action, such impacts would be mitigated or otherwise resolved through the Section 106 process.

3.6 Socioeconomic Resources

3.6.1 Affected Environment

The Association of Bay Area Government (ABAG) compiles data and trends on population and housing, and formulates predictions for housing and population growth for Bay area counties and communities. ABAG data for the City of Oakley and Contra Costa County are presented in Table 3-2. The population of Oakley has been experiencing growth and is expected to continue to grow at a rate faster than Contra Costa County through at least 2020. Oakley experienced negative job growth of 6 percent between 2000 and 2010. However, ABAG predicts that jobs will increase by 61 percent between 2010 and 2020.

Table 3-2 Population, Housing, and Job Trends, 2000-2020

	2000	2010	Percent Increase from 2000 to 2010	Projected in 2020	Percent Increase Projected from 2010-2020
City of Oakley					
Population	25,619	35,250	38%	39,050	11%
Households	7,832	10,720	37%	11,890	11%
Jobs	3,170	2,980	-6%	4,790	61%
Contra Costa County					
Population	948,816	1,090,300	15%	1,177,400	8%
Households	344,129	392,680	14%	424,340	8%
Jobs	371,310	376,820	1%	445,550	18%

Source: ABAG 2009

3.6.2 Environmental Consequences

No Action

In the event that the proposed inclusion is denied, the Emerson Property project would need to secure another source of water to supply the proposed development. The majority of the construction would be delayed until another source of water is secured, causing a delay in the creation of additional housing for the City of Oakley and Contra Costa County.

Proposed Action

The proposed construction would create a short-term increase in economic activity due to purchases of equipment and materials, as well as wages paid to laborers. Long-term, development of the property would also produce a variety of economic benefits. Businesses in the new commercial space would provide services and employment opportunities, and the City would benefit from increased sales and property tax revenues in the newly developed area.

Cumulative Impacts

Population, job, and housing growth in Contra Costa County are expected to continue through year 2020. Reclamation's approval of the change in Contra Costa WD's service area boundary and delivery of CVP water to the Emerson Property would contribute to the trend for increased socioeconomic resources in the region.

3.7 Environmental Justice

Executive Order 12898 (February 11, 1994) mandates Federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

3.7.1 Affected Environment

Contra Costa County's demographic characteristics are similar to California's, although the percentage of the population identifying as Hispanic or Latino is somewhat lower. Economic indicators for the county are better than statewide numbers, with incomes higher and unemployment/poverty rates lower than for California as a whole. See Tables 3-3 and 3-4 for more information.

Table 3-3 Contra Costa County Demographic Data (2012)

	Total Population	White (not Hispanic)	Black or African American	American Indian	Asian	Native Hawaiian/ Pacific Islander	Hispanic or Latino
Contra Costa County	1,094,205	68.3%	9.6%	1.0%	15.6%	0.6%	24.8%
California	37,999,878	73.7%	6.6%	1.7%	13.9%	0.5%	38.2%

Source: Census Bureau 2013

Table 3-4 Contra Costa County Economic Data (2012)

County	Per Capita Income	Unemployment Rate	Poverty Rate
Contra Costa County	\$38,106	9%	10.2%
California	\$29,551	11.4%	15.3%

Source: Census Bureau 2012 , Census Bureau 2013

3.7.2 Environmental Consequences

No Action

If no action were taken, there would be no effect on minority or low-income populations.

Proposed Action

The Proposed Action would lead to construction of a new residential subdivision. Construction laborers often come from low-income and minority populations, so this would provide a short-term benefit to disadvantaged communities in terms of increased employment opportunities.

Cumulative Impacts

The Proposed Action is anticipated to provide short-term employment opportunities for construction laborers. Since construction laborers often come from disadvantaged communities, this is a benefit to minority and low-income populations. The cumulative effect of the Proposed Action, combined with other similar construction projects in the area, is also expected to be a benefit to those communities.

3.8 Air Quality

Section 176 (C) of the Clean Air Act (CAA) (42 U.S.C. 7506 (C)) requires any entity of the federal government that engages in, supports, or in any way provides financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable State Implementation Plan (SIP) required under Section 110 (a) of the federal CAA (42 U.S.C. 7401 [a]) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with the SIP's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the conformity requirements would, in fact conform to the applicable SIP before the action is taken.

On November 30, 1993, the Environmental Protection Agency (EPA) promulgated final general conformity regulations at 40 CFR 93 Subpart B for all federal activities except those covered under transportation conformity. The general conformity regulations apply to a proposed federal action in a non-attainment or maintenance area if the total of direct and indirect emissions of the relevant criteria pollutants and precursor pollutant caused by the proposed federal action equal or

exceed certain *de minimis* amounts thus requiring the federal agency to make a determination of general conformity.

3.8.1 Affected Environment

Despite progress in improving air quality, the San Francisco Bay Area Air Basin remains in non-attainment for the Federal 8-hour ozone standard and the Federal 24-hour PM_{2.5} standard.

California's more stringent 1-hour and 8-hour ozone standards, annual PM₁₀ and PM_{2.5} standards, and 24-hour PM₁₀ standard also have not been attained (CARB 2011). Emissions in the San Francisco Bay Area not only contribute to nonattainment in the immediate area, but also contribute to air quality standard exceedences in air basins downwind.

BAAQMD's most recently adopted ozone plan is Bay Area 2005 Ozone Strategy (BAAQMD 2010a). On September 15, 2010, the Air District adopted the Bay Area 2010 Clean Air Plan (CAP) and a program Environmental Impact Report on the CAP. The CAP is a multi-pollutant plan that provides strategies for attaining standards for ozone, particulate matter, air toxics, and greenhouse gases in a single plan. The CAP is intended to: (1) reduce emissions and decrease ambient concentrations of harmful pollutants; (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities already affected by air pollution; and (3) reduce greenhouse gas (GHG) emissions to protect the climate (BAAQMD 2010b).

3.8.2 Environmental Consequences

No Action

In the event that the proposed inclusion is denied, the Emerson Property project would need to secure another source of water to supply the proposed development. The majority of the construction would be delayed until another source of water is secured, and the impacts associated with construction on the Emerson Property project would also be delayed.

Proposed Action

Approval of the inclusion request would allow Contra Costa WD to supply CVP water to the Emerson Property. The development of a new subdivision on the property would result in short-term, localized air emissions during construction. There would also be long-term emissions from the new subdivision, from vehicle traffic as well as miscellaneous residential sources (lawnmowers, air conditioning units, etc.).

The City of Oakley's EIR included an estimate of construction emissions and a comparison to the BAAQMD's thresholds of significance. All criteria pollutant emissions as a result of construction are anticipated to be less than the thresholds of significance, as shown below in Table 3-5. Further, the developer would be required to comply with BAAQMD's most current standards for controlling fugitive dust on construction sites.

Table 3-5 Estimated Short-Term and Long-Term Emissions

Emission Type	ROG tons/year	NO _x tons/year	PM ₁₀ tons/year	PM _{2.5} tons/year
Construction	1.26	6.95	1.79	0.65
Operation	27.98	26.09	40.80	9.31
Proposed BAAQMD <i>de minimis</i> thresholds	10	10	15	10

Source: City of Oakley 2010

ROG – Reactive Organic Gases

NO_x – Oxides of Nitrogen

PM – Particulate Matter

Italics indicate emissions above the threshold of significance

Although construction emissions are not expected to exceed thresholds of significance, the City estimates that long-term annual emissions from the new development would exceed BAAQMD's thresholds of significance for ROG, NO_x and PM₁₀. Therefore the City would require the developer to incorporate mitigation measures pursuant to BAAQMD guidance. These include, but would not be limited to, such measures as using energy-efficient appliances, restricting the types of fireplaces which may be installed, and incorporating design features which encourage travel on foot, by bicycle, or transit.

Cumulative Impacts

Air quality in the region is impaired but gradually improving as a result of regulatory changes, improvements in technology and adoption of operational practices to reduce criteria pollutant emissions and fugitive dust. It is expected that this overall trend of gradual improvement would continue in the future due to additional innovation and controls on emission sources.

3.9 Energy Use and Global Climate

Climate change refers to significant change in measures of climate (e.g., temperature, precipitation, or wind) lasting for decades or longer. Many environmental changes can contribute to climate change, such as changes in the sun's intensity, changes in ocean circulation, deforestation, urbanization, burning fossil fuels, etc. (EPA 2011a).

Some GHGs, such as carbon dioxide (CO₂), occur naturally and are emitted into the atmosphere through natural processes and human activities. Other GHGs (e.g., fluorinated gases) are created and emitted solely through human activities. The principal GHGs that enter the atmosphere because of human activities are: CO₂, methane (CH₄), nitrous oxide, and fluorinated gases (EPA 2011a).

During the past century humans have substantially added to the amount of GHGs in the atmosphere by burning fossil fuels such as coal, natural gas, oil and gasoline to power our cars, factories, utilities and appliances. The added gases, primarily CO₂ and CH₄, are enhancing the natural greenhouse effect, and likely contributing to an increase in global average temperature and related climate changes. At present, there are uncertainties associated with the science of climate change (EPA 2011b).

Climate change has only recently been widely recognized as an imminent threat to the global climate, economy, and population. As a result, the national, state, and local climate change regulatory setting is complex and evolving.

In 2006, the State of California issued the California Global Warming Solutions Act of 2006, widely known as Assembly Bill 32, which requires California Air Resources Board (CARB) to develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB was further directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020.

In addition, the EPA has issued regulatory actions under the CAA as well as other statutory authorities to address climate change issues (EPA 2011c). In 2009, the EPA issued a rule (40 CFR Part 98) for mandatory reporting of GHG by large source emitters and suppliers that emit 25,000 metric tons or more of GHGs [as CO₂ equivalents (CO_{2e}) per year] (EPA 2009). The rule is intended to collect accurate and timely emissions data to guide future policy decisions on climate change and has undergone and is still undergoing revisions (EPA 2011c).

3.9.1 Affected Environment

Global mean surface temperatures have increased nearly 1.8°F from 1890 to 2006. Models indicate that average temperature changes are likely to be greater in the northern hemisphere. Northern latitudes (above 24° North) have exhibited temperature increases of nearly 2.1°F since 1900, with nearly a 1.8°F increase since 1970 alone (Intergovernmental Panel on Climate Change 2007). Without additional meteorological monitoring systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions, but increasing concentrations of GHGs are likely to accelerate the rate of climate change.

More than 20 million Californians rely on the State Water Project and CVP. Increases in air temperature may lead to changes in precipitation patterns, runoff timing and volume, sea level rise, and changes in the amount of irrigation water needed due to modified evapotranspiration rates. These changes may lead to impacts to California's water resources and project operations.

While there is general consensus in their trend, the magnitudes and onset-timing of impacts are uncertain and are scenario-dependent (Anderson et al. 2008).

3.9.2 Environmental Consequences

No Action

In the event that the proposed inclusion is denied, the Emerson Property project would need to secure another source of water to supply the proposed development. The majority of the construction would be delayed until another source of water is secured. Denial of the inclusion would delay the increase in GHG emissions due to the project.

Proposed Action

The Emerson Property project would result in the direct emissions of GHGs from vehicle and area sources. According to an Air Quality Impact Analysis prepared for the proposed project, the planned development would generate approximately 24,410 tons of CO₂ per year (City of Oakley 2010). BAAQMD's applicable threshold of significance for GHG is 4.6 metric tons of CO₂

equivalent per “service population” per year. Based on an estimate of 3.2 persons per residential household and 26 employees per acre of commercial development, this corresponds to a significance threshold of 11,348 tons per year.

Estimated GHG emissions therefore exceed the significance threshold. However, the City has approved the development, and the proposed development incorporates several features recommended by the California State Attorney General’s office to reduce emissions. These include the mixed-use nature of the development, proposed landscaping features, and construction to energy-efficient building standards. In combination with the mitigation measures described in the air quality section above, these would reduce, but not eliminate, the impacts of the Proposed Action.

Cumulative Impacts

While the GHG emissions from one project would not be substantial enough to adversely affect the global climate, cumulative GHG emissions from multiple projects and sources throughout the world could result in an adverse impact with respect to climate change. GHG control strategies continue to develop over time, through regulation and technological advances.

3.10 Traffic

3.10.1 Affected Environment

A variety of transportation facilities serve the project area. Existing roads in the vicinity include State Route 4/Main Street, Cypress Road, Sellers Avenue, Knightsen Avenue, Laurel Road, Delta Road, and Empire Avenue. There are railroad tracks used by Amtrak and freight trains located to the west of the project site that are crossed by East Cypress Road. Public transit service is provided by Tri-Delta Transit bus routes, which transport people to nearby cities and connect the City of Oakley to the Pittsburg/Bay Point Bay Area Rapid Transit station.

3.10.2 Environmental Consequences

No Action

In the event that the proposed inclusion is denied, the Emerson Property project would need to secure another source of water to supply the proposed development. The majority of the construction would be delayed until another source of water is secured, and traffic impacts associated with the project would be delayed.

Proposed Action

An analysis conducted for the EIR determined that construction-related traffic increases could occur over as much as a 24-month period, with a maximum of approximately 800 truck trips per day during the peak construction period (City of Oakley 2010). In addition, during peak construction, as many as 250 construction worker vehicles could be present on-site, as well as 10 to 15 trucks and automobiles at a given time for deliveries, visits and other miscellaneous short-term needs. A Traffic Control Plan identifying measures such as construction worker parking, additional street sweeping, and traffic flaggers, would be prepared to decrease congestion caused by planned construction-related traffic.

Once constructed, the proposed development would result in increased traffic in the area, which would affect both signalized and unsignalized intersections. A variety of measures have been incorporated into the development to improve traffic and circulation and mitigate these effects. The shopping center driveway on East Cypress Road would be restricted to right turns only, for both entrance and exit. Facilities such as sidewalks and trails would also be incorporated into the development to encourage pedestrian and bicycle travel, and a Tri-Delta Transit bus stop would be provided on the north side of Cypress Road near Sellers Avenue to serve the project site.

Impacts to the area's larger roadway network would be mitigated by funding various local improvements. These include improvements to East Cypress Road and the proposed minor shopping center entrance, the intersection of Laurel Road and Rose Avenue, and the Main Street intersections at Rose Avenue, Brownstone Road, and Delta Road. In addition, traffic signals would be installed at Main Street and Rose Avenue, Main Street and Brownstone Road, Main Street and Delta Road, and Laurel Road and Rose Avenue.

In addition to routine traffic flows, delays occasionally occur at the at-grade railroad crossing on East Cypress Road. This can cause traffic to back up into adjacent signalized intersections at Main Street and Picasso Drive. Since the proposed development is expected to increase vehicular traffic, these backups could increase incrementally during train crossings.

Cumulative Impacts

The Emerson Property project, along with other proposed and planned construction projects in the area, would increase short-term traffic and congestion in the City's Planning Area and nearby unincorporated areas. It is possible that construction periods for some of these projects could overlap, creating a potential for cumulative impacts. The Traffic Control Plan for the proposed development would take into account the potential for overlapping construction periods and conflicting construction traffic.

In addition to short-term construction traffic, the proposed development is also anticipated to generate traffic long-term. However, this additional traffic has been accounted for in the City's 2020 General Plan, and improvements to the area's roadway network are planned to accommodate the additional vehicles.

3.11 Noise

3.11.1 Affected Environment

Agricultural lands are located to the north, south, and east of the project site, while a single-family residential neighborhood is located directly adjacent to the project site to the west. In addition, scattered existing homes are also present along the south side of Cypress Road. The major existing noise sources in the area are traffic on Cypress Road and Sellers Avenue. Other roadways in the area carry minimal traffic and are not significant noise sources.

According to the City of Oakley General Plan, the maximum allowable noise exposure for external and internal residential areas from transportation noise sources is 65 decibels (dB) and 45 dB, respectively. In addition, according to the City of Oakley General Plan, the noise level performance standards for new projects affected by or including non-transportation noise sources

are 55 dB during the daytime (7:00 AM to 10:00 PM) and 45 dB during the nighttime (10:00 PM to 7:00 AM).

3.11.2 Environmental Consequences

No Action

In the event that the proposed inclusion is denied, the Emerson Property project would need to secure another source of water to supply the proposed development. The majority of the construction would be delayed until another source of water is secured, and noise impacts associated with the project would also be delayed.

Proposed Action

Construction associated with the Proposed Action would temporarily increase noise levels in the area. The EIR analysis determined that construction noise levels could range from 70 to 95 dB at 50 feet, depending on the specific piece of equipment in use (City of Oakley 2010). There are no existing noise-sensitive receivers to the east or north, and residences to the south are at a great enough distance that no excessive noise levels are anticipated. To the west, the existing Cypress Grove development does include single-family residences which could experience elevated noise levels. In addition, as new homes are constructed in the proposed development, some could be close enough to continuing construction to experience levels of noise above the City's exterior noise standard of 55 dB for non-transportation sources during daytime hours. In order to reduce and mitigate impacts which exceed the City's standard, noise-generating construction activities would be limited to daytime hours, all equipment powered by internal combustion engines would be maintained in proper working order, and stationary noise-generating equipment would be located at the greatest distance practicable from sensitive land uses.

The Proposed Action includes development of new homes along Cypress Road and Sellers Avenue. These new residences would be close enough to the road that unmitigated traffic noise is expected to exceed the City's exterior standard of 65 dB in the adjacent yards, and the interior standard of 45 dB within the residences. The developer would address the issue by constructing noise barriers along Cypress Road to reduce exterior noise levels at units adjacent to the road to 65 dB or below. In addition, the developer would evaluate additional measures to reduce interior noise levels at residences along the road to below the City's standard of 45 dB.

Cumulative Impacts

Other construction in the area could be under underway concurrently with work on the Emerson property, and could take place adjacent to the same noise-sensitive receivers. In particular, residents in the northeast corner of the Cypress Grove subdivision could receive noise from the Contra Costa Canal Replacement, to the north, and the Dutch Slough Restoration project, on the north side of the Contra Costa Canal, in addition to the Proposed Action. However, all construction projects would be subject to the same restrictions regarding proper equipment maintenance and work hours. Also, each of the individual projects covers a large land area, with a range of construction activities. It is unlikely that particularly noisy work for all three projects would happen to be concentrated at one location for any extended period of time. Therefore the potential for cumulative impacts is limited.

Section 4 Consultation and Coordination

4.1 Public Review Period

Reclamation intends to provide the public with an opportunity to comment on the Draft Finding of No Significant Impact and Draft EA for a 30 day comment period.

4.2 Endangered Species Act (16 U.S.C. § 1531 et seq.)

Section 7 of the Endangered Species Act requires Federal agencies, in consultation with the Secretary of the Interior and/or Commerce, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species.

Reclamation initiated consultation with the Service on September 26, 2013. On November 12, 2013, the Service responded, confirming that all of Reclamation's obligations pursuant to section 7 of the Endangered Species Act had been met by the developer's compliance with the HCP/NCCP and Section 10 permit. Before this memorandum was received, work had begun on the site; however, neither Reclamation or the Service were aware that this had happened until after the fact.

4.3 Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.)

The Migratory Bird Treaty Act implements various treaties and conventions between the United States and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

The HCP contains measures to protect migratory birds sufficiently, including the Swainson's Hawk and Western Burrowing Owl (whose habitat was and still may be present on the project site). Reclamation's Proposed Action would not affect any migratory birds, as only the construction of the houses, roads, etc. is contingent upon the inclusion. Grading of the site, following issuance of a permit by the City, allowed all the impacts to occur to migratory birds.

4.4 National Historic Preservation Act (16 U.S.C. § 470 et seq.)

Section 106 of the NHPA of 1966, as amended (16 U.S.C. 470 et seq.) requires that Federal agencies consider the effects of their undertakings on historic properties (i.e., cultural resources

eligible for inclusion in the National Register) and provide the Advisory Council on Historic Preservation an opportunity to comment on such undertakings. The 36 CFR Part 800 regulations implement Section 106 of the NHPA. Section 106 compliance follows a series of steps that are designed to identify interested parties, determine the area of potential effects, identify historic properties in the area of potential effects, and assess and resolve effects to any historic properties identified through the Section 106 process.

In an effort to identify historic properties within the area of potential effects for the current undertaking, Reclamation initiated consultation with Indian tribes seeking information about any sites or resources of concern in the project area, reviewed cultural resources inventory work reported by consultants on behalf of Contra Costa WD and Brookfield Homes, and initiated consultation with the SHPO seeking concurrence on a finding of no historic properties affected pursuant to 36 CFR § 800.4(d)(1). No response was received within 30 days; therefore, Reclamation's responsibilities under Section 106 have been fulfilled.

Section 5 Preparers and Reviewers

Reclamation

Ben Lawrence, Natural Resources Specialist, SCCAO

Shauna McDonald, Wildlife Biologist, SCCAO

BranDee Bruce, Architectural Historian, MP-153

Joanne Goodsell, Archeologist, MP-153

Patricia Rivera, Native American Affairs Specialist, MP-400

Rain Emerson, Supervisory Natural Resources Specialist, SCCAO

Contra Costa Water District

Mark Seedall, Principal Planner, Contra Costa Water District

Section 6 References

- Anderson, J, F Chung, M Anderson, L Brekke, D Easton, M Ejetal, R Peterson, and R Snyder. 2008. Progress on Incorporating Climate Change into Management of California's Water Resources. *Climatic Change* 87 (Suppl 1):S91–S108 DOI 10.1007/s10584-007-9353-1
- Association of Bay Area Governments. 2009. *Building Momentum: Projections and Priorities 2009*.
- Bay Area Air Quality Management District (BAAQMD). 2010a. *Bay Area 2010 Clean Air Plan*. September 15, 2010.
- Bay Area Air Quality Management District (BAAQMD). 2010b. *California Environmental Quality Act Air Quality Guidelines*. May.
- Bureau of Reclamation (Reclamation). 2007. *Contra Costa Canal Replacement Project Environmental Assessment*. July 11, 2007.
- California Air Resources Board. 2011. California Air Basins. Website: <http://www.arb.ca.gov/knowzone/basin/basin.htm>.
- City of Oakley 2002. *Oakley 2020 General Plan Draft and Final Environmental Impact Report*. September 2002.
- City of Oakley. 2010. *Emerson Property Final Environmental Impact Report*. SCH No. 2007052073. Prepared by Raney Planning and Management, Inc. August 2010.
- City of Oakley. 2013. *Application Form and Planning Survey Report to Comply with and Receive Permit Coverage under the East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan* – Prepared for the Emerson Property Project by Brookfield Emerson Land LLC and Ted Winfield & Associates. July 2013.
- California Department of Water Resources (DWR). 2008. *Draft Environmental Impact Report, Dutch Slough Tidal Marsh Restoration Project*. SCH# 2006042009. November.
- Diablo Water District (Diablo WD). 2007. *Water Supply Assessment for the Emerson Property Project*. Prepared by RBF Consulting.
- Environmental Protection Agency (EPA). 2009. Mandatory Reporting of Greenhouse Gases, Final Rule (40 CFR Parts 86, 87, 89 et al.) *Federal Register*. 74(209): 56260-56519.
- Environmental Protection Agency (EPA). 2011a. Climate Change – Basic Information. Website: <http://www.epa.gov/climatechange/basicinfo.html>.

Environmental Protection Agency (EPA). 2011b. U.S. Greenhouse Gas Inventory. Website: <http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html>.

Environmental Protection Agency (EPA). 2011c. Climate Change – Science. Website: <http://www.epa.gov/climatechange/science/index.html>.

Environmental Protection Agency (EPA). 2011d. Climate Change – Regulatory Initiatives. Website: <http://www.epa.gov/climatechange/initiatives/index.html>.

Intergovernmental Panel on Climate Change. 2007. Climate Change 2007: Synthesis Report. Website: http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf. Accessed April 2011.

U.S. Census Bureau (Census Bureau), 2012. *American Community Survey*. Website: <http://www.census.gov/acs/www/>.

U.S. Census Bureau. 2013. Community facts. Website: http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml.

Appendix A Tentative Site Plan

Appendix B Indian Trust Assets Determination



Kilb, Nicholas <nkilb@usbr.gov>

Request for Determinations, EA-13-032 Contra Costa Water District Emerson Ranch Inclusion

RIVERA, PATRICIA <privera@usbr.gov>
To: Nicholas Kilb <nkilb@usbr.gov>

Fri, May 24, 2013 at 7:16 AM

Nick,

I reviewed the proposed action to approve inclusion of the 140-acre Emerson Ranch property into Contra Costa Water District's CVP Service Area boundary.

The proposed 140-acre Emerson Property project includes the development of up to 578 residential units and 23.74 acres of commercial uses, and would include trails, a park, levees, a stormwater detention pond, and the infrastructure improvements necessary to accommodate the new development located in the City of Oakley, Contra Costa County, California.

The EA will analyze the effects of the inclusion, which would result in a development; as such, we are reviewing the potential impacts of the development under NEPA.

The proposed action does not have a potential to affect Indian Trust Assets, The nearest ITA is the Lytton Rancheria approximately 36 miles West of the project location.

Patricia Rivera
Native American Affairs Program Manager
US Bureau of Reclamation
Mid-Pacific Region
2800 Sacramento, California 95825
(916) 978-5194

Appendix C Cultural Resources Determination



United States Department of the Interior

BUREAU OF RECLAMATION
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, California 95825-1898

IN REPLY
REFER TO:
MP-153
ENV-3.00

VIA ELECTRONIC MAIL ONLY

September 4, 2014
MEMORANDUM

To: Ben Lawrence
Natural Resources Specialist South-Central California Area Office

From: Joanne Goodsell
Archeologist – Division of Environmental Affairs

Subject: National Historic Preservation Act (NHPA) Section 106 Compliance for Contra Costa Water District (CCWD) Emerson Property Inclusion (13-SCAO-185 / EA-13-032)

The Bureau of Reclamation proposes to approve the inclusion of the 140-acre Emerson Property, located in the city of Oakley, Contra Costa County, California into the CCWD contractual service area for receipt of CVP water supplies. The approval of this inclusion constitutes an undertaking as defined in Section 301(7) of the NHPA (16 USC 470), as amended, requiring compliance with Section 106 of the NHPA. In an effort to identify historic properties in the area of potential effects (APE) for this undertaking, Reclamation reviewed and considered cultural resources documentation prepared by consultants working on behalf of developer Brookfield Homes and CCWD. This documentation initially indicated that the APE contained no known prehistoric archaeological sites; historic-era cultural resources within the APE consisted of buildings, structures, and features associated with the Emerson Dairy, an early 20th century operation comprising a portion of the Dutch Slough Rural Historic Landscape (DSRHL). The DSRHL previously was determined eligible for inclusion in the National Register of Historic Places (National Register) by the U.S. Army Corp of Engineers, with SHPO consensus.

Prior to Reclamation's receipt of CCWD's application for the Emerson Property inclusion, the APE was extensively graded and altered by the developer. Specifically, the Ralph Emerson House was relocated from its original location on the parcel, landscape features (a road, trees, and fields) were removed and/or leveled, and a detention pond and other dewatering areas were excavated. At that time, Reclamation did not yet have an undertaking (i.e., the application for inclusion had not been received); however, Reclamation cultural resources staff had been coordinating with CCWD, the developer, and the consultants concerning NHPA Section 106 requirements. Reclamation was in the process of reviewing the consultants' initial cultural resources inventory reports when the earth movement and building relocation occurred. Reclamation subsequently asked the consultants to prepare a current condition assessment of the property for NHPA Section 106 consultations. In this assessment the recommendation was made that the buildings and features within the Emerson Property APE, which previously had been determined contributing elements to the DSRHL, no longer retained integrity of setting, location, feeling, and association sufficient to contribute to the overall National Register eligibility of the DSRHL.

Through correspondence dated July 23, 2014, Reclamation entered into consultation with the California State Historic Preservation Officer (SHPO) concerning the ineligibility of the Emerson Property within the APE and the finding of effect for the undertaking, seeking concurrence with a finding of no historic properties affected pursuant to 36 CFR §800.4(d)(1). As outlined at 36 CFR §800.4(d)(1)(i), if the SHPO does not object within 30 days of

receipt of an adequately documented finding of effect, the agency's Section 106 responsibilities are considered fulfilled. Because the SHPO has failed to comment on Reclamation's finding within the period of time provided for under Section 106 regulations, Reclamation has fulfilled its Section 106 responsibilities. This email memo is intended to conclude the Section 106 process for this undertaking. Although the project may go forward with no additional Section 106 review, Reclamation shall continue to seek SHPO concurrence with our finding of effect. If, at some point, the SHPO re-enters the consultation process and has comments or concerns regarding this undertaking, Reclamation will seek to resolve these concerns while the project is being implemented. In addition, in the event of an inadvertent discovery, Reclamation may have additional Section 106 obligations pursuant to the Post Review Discovery portion of the regulations at §800.13.

Please retain a copy of this memo with the administrative record for this project. This memo fulfills our obligations and commitments under Section 106 as discussed above.