DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

RECORD OF DECISION

ACTION ID: SPK-2004-00888

APPLICANT: Brookfield Sunset, LLC, Attn: John Norman

PROJECT NAME: Amoruso Ranch Project

I have reviewed and evaluated, in light of the overall public interest, the documents and factors concerning the permit application for the Proposed Action, as well as the stated views of interested agencies and the public. In doing so, I have considered the possible consequences of the Proposed Action in accordance with regulations published in 33 Code of Federal Regulations (CFR) Parts 320 through 332 and 40 CFR Part 230.

As described in the Draft and Final Environmental Impact Statement (EIS), the Proposed Action is to construct a large-scale, mixed-use, mixed-density, master planned community on an approximately 674-acre property in western Roseville. As described in the Final EIS, the Applicant has made a series of adjustments to the Proposed Action to reduce the acreage of the waters of the United States (U.S.) that would be affected by the Proposed Action since the Applicant's initial pre-application meetings with the U.S. Army Corps of Engineers. In July 2019, the Applicant submitted a Modified Proposed Action, which includes a revised, land use plan that reduces the area that will be developed and enlarges the Southwest Preserve area, avoiding additional waters of the U.S. The Modified Proposed Action involves the permanent discharge of dredged and/or fill material into 13.97 acres, and a temporary discharge into 0.06 acre of waters of the U.S. The proposed discharges of dredged and/or fill material into waters of the U.S. are subject to Section 404 of the Clean Water Act. As such, a Department of the Army permit under the Regulatory Program is required for the Modified Proposed Action.

I. Background

A complete application for a Department of the Army permit under Section 404 of the Clean Water Act for the Proposed Action was received on March 17, 2014. A revised permit application, which involved additional impacts to aquatic resources as a result of proposed off-site storm-water infrastructure, was submitted by the Applicant on October 30, 2014.

The U.S. Army Corps of Engineers, Sacramento District (Corps), as the lead federal agency for compliance with the National Environmental Policy Act (NEPA), determined on December 22, 2014, that an Environmental Impact Statement (EIS) would be prepared. Scoping for the EIS began on May 6, 2016, with publication of a Notice of Intent to Prepare an EIS in the Federal Register (81 FR 27421). The Corps also issued a public notice for scoping on May 6, 2016. A public scoping meeting was held on May 26, 2016, at Martha Riley Community Library, Rooms 1 & 2, 1501 Pleasant Grove Boulevard, in Roseville, California. The City of Roseville and U.S. Environmental Protection Agency (USEPA) each agreed to be a cooperating agency.

In February 2019, a Draft EIS was issued by the Corps. A Notice of Availability (NOA) was published in the Federal Register on February 1, 2019 (84 FR 1119). A public notice announcing the availability of the Draft EIS was issued on February 1, 2019. During the Draft EIS public review period, five comments were received.

The Corps issued a Final EIS in December 2019. An NOA was published in the Federal Register on December 27, 2019 (84 FR 71409). A public notice announcing the availability of the Final EIS was issued on December 27, 2019.

II. Project Purpose and Need

a. Purpose: The Corps has determined that the project purpose is to construct a large-scale, mixed-use, mixed-density, master-planned community in western and central Placer County.

b. Need: Placer County, especially the City of Roseville and its vicinity, has been undergoing continuous growth, and increased housing needs have been identified within western Placer County. The housing component of the Proposed Action is designed to help serve the diverse housing needs of the region and assist the City of Roseville in planning for its share of housing that is needed in the region. The commercial component is needed because the commercial land uses would ensure that the City will collect sufficient tax revenue from the proposed community to provide necessary public services. In addition, the commercial land uses would provide services to the proposed residential uses and create a more walkable community and reduce vehicle trips outside the project site.

III. Alternatives Considered

A reasonable range of alternatives were considered in the EIS for the proposed project. The EIS also identified those alternatives that were considered, but were rejected from further analysis. On July 15, 2016, the Applicant submitted *Supplemental Information for Section 404(b)(1) Off-Site Alternatives* regarding the practicability of off-site alternatives, and on October 26, 2016, the Applicant submitted *Supplemental Information for Section 404(b)(1) On-Site Alternatives*

regarding the practicability of on-site alternatives in light of the overall project purpose. On February 27, 2018, the Applicant submitted an *Analysis of Granite Bay offsite alternative location for the proposed Amoruso Ranch Development (East of State Route 65)* regarding the practicability of an alternative in Granite Bay. The Applicant also provided *The Amoruso Ranch Modified Alternative 3 Land Use Plan Potential Direct and Indirect Impacts to Waters of the U.S.* on April 24, 2018, and *Constraints information regarding the "South Avoidance" alternative land use plan for the proposed Amoruso Ranch Specific Plan Area* on August 18, 2018. Lastly, the Applicant submitted a *Memorandum for the Amoruso Ranch Specific Plan – Drainage Alternatives* on April 29, 2019, regarding onsite drainage constraints. This information, in conjunction with the analysis of alternatives in Chapter 3.0 of the Draft EIS and Chapter 2.0 of the Final EIS, will be utilized in this Record of Decision (ROD) to conduct the alternatives analysis required for compliance with the USEPA's Section 404(b)(1) Guidelines and is located in the administrative record.

a. Alternatives Considered in the Draft and Final EIS

(1) Alternative 1 (No Action, no permit issued): Under the No Action alternative, the project site would be developed in a manner that completely avoids the discharge of dredged and/or fill material into the waters of the U.S., thereby avoiding the need for the Corps to issue a Department of the Army permit under Section 404 of the Clean Water Act. However, compliance with other Federal, State, and/or local laws would still apply, including potential authorization from the USFWS under the federal Endangered Species Act for incidental take of federally-listed threatened and/or endangered species.

The No Action alternative would develop only the upland portions of the 674-acre site where waters of the U.S. are not present, resulting in a substantial reduction in the amount of residential and commercial development on the site. Developing only uplands and avoiding all waters of the U.S. would reduce the total area available for development to approximately 293.6 acres, comprising 196.6 acres of residential uses (1,679 residential units at build-out), 29.1 acres of commercial and office uses, a 9.6-acre school site, 7.6 acres of other public uses, 12.7 acres of parks, and 39.5 acres of roads. Approximately 305 acres, comprised of avoided aquatic resources and adjacent uplands within 50 feet of waters of the U.S., would be dedicated as open space. The layout of the two major roadways, Westbrook Boulevard and Placer Parkway, under this alternative would be similar to the roadway layout under the Proposed Action while the layout of the internal roadway system under this alternative would be modified compared to the layout of the internal roadway system under the Proposed Action.

Alternative 1 would not meet the overall project purpose, which is to develop a large-scale mixed-use community, as development on the site would be substantially reduced. Therefore, Alternative 1 is not practicable.

(2) Alternative 2 (Draft EIS Proposed Action): The Proposed Action, as identified in the Draft EIS, would implement the Amoruso Ranch project, which involves the construction of a large-scale, mixed-use, master planned community on an approximately 674-acre site with a mix of land uses, predominantly residential uses with commercial use, public and quasi-public uses, parks, and open space, and on-site infrastructure improvements to support these uses. The community would include approximately 337 acres of residential uses, 51 acres of commercial uses, 17 acres of public/quasi-public uses (such as schools), 22 acres of parks, 38 acres of open space, 108 acres of preserved open space, and 52 acres of roadways right-of-ways and landscape corridors. The Proposed Action would provide a total of 2,826 residential units. The site plan includes a right-of-way dedication of approximately 49 acres for the construction of the planned Placer Parkway, within the 5,500-foot radii alignment. The Proposed Action includes two preserves (Southeast Preserve and Southwest Preserve), collectively known as the Open Space Preserve, located in the southern portion of the project site along the University Creek corridor. A smaller, open space area, called the North Avoidance area, is also set aside adjacent to the planned Placer Parkway right-of-way in the northwestern portion of the project site where no development would occur under the Proposed Action. The Proposed Action also includes off-site roadway improvements along Sunset Boulevard and off-site drainage improvements in the Al Johnson Wildlife Area. The Proposed Action would result in the discharge of dredged or fill material into about 18.70 acres and avoidance of about 15.30 acres of waters of the U.S. on-site.

Although Alternative 2 meets the overall project purpose and is available and practicable, this alternative would result in a greater loss of waters of the U.S. than Alternative 6, Modified Proposed Action, and therefore this alternative is not the least environmentally damaging practicable alternative (LEDPA).

(3) Alternative 3 (Southern Avoidance Alternative): This alternative would develop the 674-acre project site with a large-scale, mixed-use, master-planned community. This alternative is generally similar to the Proposed Action in terms of its development footprint and the location of the planned Placer Parkway alignment, in a 5,500-foot radii alignment, within the project site. However, it differs from the Proposed Action and the Modified Proposed Action in two key respects: this alternative eliminates the North Avoidance area in the vicinity of the Placer Parkway alignment and replaces it with low density residential, and expands both the Southwest and the Southeast Preserves (Open Space Preserve) in a northerly direction, increasing the area where impacts to waters of the U.S. would be avoided. Based on its design, this alternative would fill approximately 15.20 acres and avoid approximately 19.09 acres of waters of the U.S. on the project site. Under this alternative, the fill would be about 3.5 acres less, and avoidance 3.8 acres more, than under the Proposed Action.

Under this alternative, the total acreage available for development would decrease by about six percent to 484 acres, compared to 517 acres under the Proposed Action, and the open space/preserve areas would increase by about three percent to 142 acres, compared to 146 acres under the Proposed Action. Specifically, residential development would slightly decrease to 303 acres, compared to 337 acres under the Proposed Action, and as a result, fewer residential units (2,308 residential units) would be constructed under this alternative, compared to 2,826 residential units under the Proposed Action. However, commercial development would slightly increase under this alternative, while the public/quasi-public development (school) acreage would remain the same. The location of roadways and commercial land uses would also be largely similar to the Proposed Action and the Modified Proposed Action. As with the Proposed Action and the Modified Proposed Action, off-site roadway improvements along Sunset Boulevard and off-site drainage improvements in the Al Johnson Wildlife Area are included in this alternative.

Additionally, this alternative would require construction of an open-channel drainage ditch within the Southwest Preserve to convey stormwater runoff from the development site into University Creek. Unlike the Proposed Action and the Modified Proposed Action, the drainage ditch would be required as stormwater cannot be conveyed around the preserve due to low lying topography. The drainage ditch and associated all-weather maintenance road would lead to increased edge effects to the functions and services of the aquatic ecosystem and to federally-listed threatened and endangered species in the preserve areas and also result in direct and indirect effects caused by the discharge of fill and modifications to surface and subsurface hydrology.

Under Alternative 3, the fill would be 1.23 acres more, and avoidance 0.85 acre less, than under Alternative 6, Modified Proposed Action. Although Alternative 3 meets the overall project purpose and is available and practicable, this alternative would result in a greater loss of waters of the U.S. than Alternative 6, Modified Proposed Action, and therefore this alternative is not the LEDPA.

(4) Alternative 4 (Northern Avoidance Alternative): This alternative would also develop the 674-acre project site with a large-scale, mixed use, master planned community. The alternative shifts the alignment of the planned Placer Parkway to a 7,300-foot radii alignment, which moves the alignment about 640 feet to the southeast of the alignment under the Proposed Action and the Modified Proposed Action. As a result of this shift, the size of the open space preserves in the southern portion of the project would be reduced from 98 acres to 55 acres, and the size of the Northern Avoidance Area would increase from 10 acres to 41 acres, than under the Proposed Action and the Modified Proposed Action. However, as a result of the shift in the site plan, there is a corresponding reduction in the acreages of the two southern preserves. Based on its design, this alternative would fill about 22.44 acres and avoid approximately 13.36 acres of waters of the U.S. on the

project site. Under this alternative, fill would be 3.74 acres more, and avoidance about 1.94 acres less, than under the Proposed Action.

Under this alternative, total acreage to be developed would slightly decrease by one percent to 511 acres, compared to 517 acres under the Proposed Action, and avoided area would decrease to 96 acres, compared to 108 acres under the Proposed Action. The residential development footprint would slightly decrease to 327 acres, compared to 337 acres under the Proposed Action. As a result, fewer residential units (2,417 units) would be constructed under this alternative, compared to 2,826 units under the Proposed Action and the Modified Proposed Action.

Acreage designated for commercial uses would increase under this alternative and school acreage would remain the same. The location of roadways and commercial land uses would also be largely similar to the Proposed Action. As with the Proposed Action and the Modified Proposed Action, off-site roadway improvements along Sunset Boulevard West and off-site drainage improvements in the Al Johnson Wildlife Area would be included in this alternative.

Although Alternative 4 meets the overall project purpose and is available and practicable, this alternative would result in a greater loss of waters of the U.S. than Alternative 6, Modified Proposed Action, and therefore this alternative is not the LEDPA.

(5) Alternative 5 (Distributed Avoidance Alternative): This alternative would also develop the 674-acre project site with a large-scale, mixed use, master planned community. This alternative shifts the alignment of the planned Placer Parkway to a 6,200-foot radii alignment, which moves the alignment about 320 feet to the southeast of the alignment under the Proposed Action and the Modified Proposed Action. As a result of this shift, the size of the open space preserves in the southern portion of the project would be reduced from 98 acres to 72 acres, and the size of the Northern Avoidance Area would increase from 10 acres to 20 acres, than under the Proposed Action and the Modified Proposed Action. Based on its design, this alternative would fill about 21.84 acres and avoid approximately 14.32 acres of waters of the U.S. on the project site. Under this alternative, the fill would be 3.14 acres more, and avoidance 0.98 acre less, than under the Proposed Action.

Under this alternative, the total acreage of development would increase slightly, by two percent, to 529 acres compared to 517 acres under the Proposed Action and preserve and open space areas would decrease to 92 acres, compared to 108 acres under the Proposed Action. The acreage of residential development would slightly increase to 348 acres, compared to 337 acres under the Proposed Action. However, fewer residential units (2,730 units) would be constructed under this alternative, compared to 2,826 units under the Proposed Action and the Modified Proposed Action.

Acreage designated for commercial uses would increase slightly under this alternative and school acreage would remain the same. The location of roadways and commercial land uses would also be largely similar to the Proposed Action. As with the Proposed Action and the Modified Proposed Action, off-site roadway improvements along Sunset Boulevard and off-site drainage improvements in the Al Johnson Wildlife Area are included in this alternative.

Although Alternative 5 meets the overall project purpose and is available and practicable, this alternative would result in a greater loss of waters of the U.S. than Alternative 6, Modified Proposed Action, and therefore this alternative is not the LEDPA.

(6) Alternative 6 (Final EIS Modified Proposed Action Alternative): This alternative was identified as the Applicant's Preferred Alternative in the Final EIS and would result in additional avoidance of waters of the U.S. in the southern portion of the project site as compared to the Proposed Action. The Modified Proposed Action alternative would develop a large-scale, master planned community on the 674-acre site with a mix of land uses, predominantly residential use with commercial use, public and quasi-public uses, parks, and open space, and on-site infrastructure improvements to support these uses. The Modified Proposed Action alternative includes 328 acres of residential uses totaling 2,826 single- and multi-family residential units at build-out; 51 acres of commercial and office uses; 17 acres of public/quasi-public uses, including a school; 22 acres of parks; and 155 acres of preserves and other open space. The site plan includes a right-of-way dedication of approximately 49 acres for the construction of the planned Placer Parkway, within the 5,500-foot radii alignment. The alternative also includes off-site roadway improvements along Sunset Boulevard and off-site drainage improvements in the Al Johnson Wildlife Area.

The Modified Proposed Action alternative avoids development in all areas of both the Southwest and Southeast Preserve areas (collectively the Open Space Preserve) under the original Proposed Action and includes additional avoidance of aquatic resources, including vernal pools and swales along the northeastern boundary of the Southwest Preserve. The other two open space areas, i.e., the Southeast Preserve and the North Avoidance Area, would be the same as they are under the Proposed Action. As a result of the expansion of the Southwest Preserve, approximately 155 acres, or 23 percent of the project site, would be either open space and/or preserve. This alternative would fill approximately 13.97 acres and would avoid approximately 19.98 acres of waters of the U.S., which is about 50 percent of all jurisdictional waters on the Amoruso Ranch site. Under this alternative, the fill would be 4.73 acres less than under the Proposed Action, and avoided aquatic resources would be about 4.68 acres more, than under the Proposed Action.

To offset the reduction in land area for residential use and the potential reduction in the number of dwelling units, the density of residential development within the Village District is increased under this alternative. Instead of 109 residential units under the Proposed Action, 159 residential units are included in the Village District under the Modified Proposed Action alternative. As a result, like the original Proposed Action, this alternative would also provide a total of 2,826 residential units.

b. Alternatives not evaluated in the EIS:

The following alternatives were considered by the Corps and the Applicant in their *Supplemental Information for Section 404(b)(1) Off-Site and On-site Alternatives* but were determined to be not practicable by the Corps; therefore, they were not carried forth in the EIS for detailed analysis. With the exception of the Auburn Ravine Ranch alternative, these alternatives are discussed in Section 2.7 of the Draft EIS. Based on information contained in the Draft EIS and the *Supplemental Information for Section 404(b)(1) Off-Site and On-site Alternatives*, the Corps determined all of these alternatives to be not practicable for the reasons stated below.

(1) Alternative 7 (Vernal Pool Focused Preserve Alternative): This on-site alternative disperses the Open Space Preserve areas to capture most of the seasonal, wetland swale complexes and vernal pools that occur throughout the project site**,** as well as places a larger buffer on aquatic resources to offset potential indirect impacts. As a result, the developable area is substantially reduced to ±314 acres, which is only slightly more than Alternative 1 No Action. This alternative would result in approximately 1,032 fewer housing units making it logistically impossible to design a large-scale, mixed-use, mixed-density, master planned community under this alternative due to the locations and configurations of the aquatic resources. Furthermore, this alternative does not support the necessary infrastructure requirements for development of the property. As part of the Drainage Master Plan approved by the City, with agreement from Placer County, a drainage channel must be constructed along the western property boundary in order to re-direct drainage flows to a southern discharge point. The Applicant's *Supplemental Information for Section 404(b)(1) On-Site Alternatives* states that this alternative would not allow for fill in the northwestern portion of the project site; and therefore, eliminates the ability to construct the necessary stormwater drainage system to avoid flooding. Although some development could occur on the site under this alternative, this alternative does not meet the necessary City infrastructure requirements or the overall project purpose; and thus, is not practicable.

(2) Alternative 8 (Additional Northern Preserve Alternative): This on-site alternative includes additional open-space preserve areas on the project site to capture more of the seasonal, wetland swale complex in the northern and southern portions of the property and reduces the area that would be developed to about 405 acres, a 40 percent reduction compared to Alternative 2. This alternative would

result in approximately 513 fewer housing units (a 30% reduction compared to Alternative 2), making it logistically impossible to design a large-scale, mixed-use, mixed-density, master planned community under this alternative due to the locations and configurations of the aquatic resources. Furthermore, this alternative does not support the necessary infrastructure requirements for development of the property. As part of the Drainage Master Plan approved by the City, with agreement from Placer County, a drainage channel must be constructed along the western property boundary in order to re-direct drainage flows to a southern discharge point. The Applicant's *Supplemental Information for Section 404(b)(1) On-Site Alternatives* states that this alternative would not allow for fill in the northwestern portion of the project site; and therefore, eliminates the ability to construct the necessary stormwater drainage system to avoid flooding. Although some development could occur on the site under this alternative, this alternative does not meet the necessary City infrastructure requirements or the overall project purpose; and thus, is not practicable.

(3) Alternative 9 (Antonio Mountain Ranch Alternative): The ±808-acre Antonio Mountain Ranch property is located ±1.8 miles northeast of the proposed project site and is of adequate size to support a large-scale mixed-use development of similar size to the Proposed Action. The Applicant's *Supplemental Information for Section 404(b)(1) Off-Site Alternatives* states that the Antonio Mountain Ranch property consists of four privately-owned parcels. The owner is actively working to establish a conservation/mitigation bank on the parcels (SPK-2007-02181). Therefore, this property is not available for purchase and the alternative is not practicable.

(4) Alternative 10 (Placer Ranch Alternative): The ±2,200-acre Placer Ranch property is located immediately east of the proposed project site within Placer County and is of adequate size to support a large-scale mixed-use development of similar size to the Proposed Action. The Applicant's *Supplemental Information for Section 404(b)(1) Off-Site Alternatives* states that the Placer Ranch property consists of ten parcels owned by a private developer and that the parcels are currently an active development project according to Placer County. Therefore, this property is not available for purchase and therefore this alternative is not practicable.

(5) Alternative 11 (Auburn Ravine Ranch): The ±645 acre Auburn Ravine Ranch is located ±2 miles north of the proposed project site in Placer County and is identified as a reserve acquisition area in the Placer County Conservation Plan (PCCDRA 2011) because it contains approximately 28 acres of vernal pool complex and 3 acres of Auburn Ravine. The Applicant's *Supplemental Information for Section 404(b)(1) Off-Site Alternatives* states that 80% of the site falls within the 100-year floodplain. According to Executive Order (EO) 11988, federal agencies must avoid, to the extent possible, long- and short-term adverse impacts associated with the occupancy and modification of flood plains and avoid direct and indirect support of floodplain development wherever there is a practicable alternative. The Applicant believes that approximately 50% of the floodplain could be reclaimed,

allowing 320 acres to be developed. However, development of this size, given the floodplain constraints, would make it logistically impossible to design a large-scale, mixed-use, mixed-density, master planned community under this alternative. Furthermore, this alternative is not adjacent to or in a location where utilities and infrastructure are available or can be extended at a reasonable cost. Although some development could occur on the site under this alternative, this alternative does not comply with EO 11988 and does not meet the overall project purpose; and thus, is not practicable.

(6) Alternative 12 (Placer Vineyards 815): The Placer Vineyards 815 property is located 4.6 miles southwest of the proposed project in Placer County and consists of nine parcels that together make up about 815 acres. It is of adequate size to support a large-scale, mixed-use development of similar size to the Proposed Action or the Modified Proposed Action. The Applicant's *Supplemental Information for Section 404(b)(1) Off-Site Alternatives* states that the Placer Vineyards 815 property consists of nine parcels owned by three different private entities. The current owners are actively pursuing final entitlements as part of a larger development project known as the Placer Vineyards Specific Plan. Placer County approved the Placer Vineyards Specific Plan and the owners have applied for a CWA Section 404 permit. Therefore, the property is not available for purchase and this alternative is not practicable.

c. Determination of Practicable Alternatives:

We have determined based on the preceding analysis, that Alternatives 1, and 7 through 12 are not practicable, and although Alternatives 2, 3, 4, and 5 are practicable, they would result in greater direct and indirect effects than Alternative 6.

We have determined that Alternative 6, Modified Proposed Action, would meet the overall project purpose, is available, and is practicable. Because this alternative would have fewer adverse effects to waters of the U.S. and special aquatic sites than the other practicable alternatives, we have determined that this alternative is the LEDPA.

d. Alternative(s) Considered to be Environmentally Preferable:

Although Alternative 1 has no impacts to the aquatic environment and appears to be environmentally preferable, it fails to meet the overall project purpose; and therefore, is not practicable. Alternatives 2, 3, 4, and 5 meet the overall project purpose and are practicable; however, these alternatives would have greater impacts to the aquatic environment; and therefore, are not environmentally preferable. Based on the information above, the environmentally preferable alternative is Alternative 6.

IV. Comments on the Final Environmental Impact Statement

a. USEPA: In a comment letter dated January 17, 2020, the USEPA informed the Corps that it supports the expansion of the Southwest Preserve reflected in the Modified Proposed Action. USEPA also expressed support for the proposed use of the Western Placer County In-Lieu Fee Program by the Applicant to provide compensatory mitigation for the Modified Proposed Action.

Corps Response: As the comments from USEPA do not raise any issues not addressed in the Final EIS, no response from the Corps is required.

b. Eric Marshall: In an email dated December 29, 2019, Mr. Marshall expressed concern about traffic congestion on Baseline Road and Sunset Boulevard West from urban development in the project area, and asked that the Corps and the City of Roseville work together to require roadway improvements to Sunset Boulevard before construction of the proposed Amoruso Ranch project is commenced. He also expressed concern about noise and air quality effects from increased traffic.

Corps Response: On January 9, 2020, the Corps responded to Mr. Marshall's email and stated that the Corps cannot impose additional mitigation measures, such as those suggested by the commenter, because they are beyond the scope of mitigation that Corps is authorized to require under 33 CFR Part 320.

The Corps also informed Mr. Marshall that air quality, noise, and traffic impacts are discussed in the Draft EIS, which include measures that support and encourage transit use. These measures are the same as Mitigation Measure 4.4-2 in the Amoruso Ranch Specific Plan Final EIR and will be enforced by the City of Roseville. In accordance with 40 CFR 1503.4, the Corps will ensure that the commenter's concerns are considered in the Record of Decision, prior to making a permit decision on the proposed project.

V. Consideration of Applicable Laws and Policies

a. National Environmental Policy Act (NEPA): The Modified Proposed Action is in compliance with NEPA. The EIS was completed to evaluate a reasonable range of alternatives and the direct, indirect, and cumulative effects associated with six alternatives. The Corps followed the NEPA process identified in 40 CFR Parts 1500 – 1508, 33 CFR Part 230, and 33 CFR Part 325, Appendix B, including noticing and timeline requirements, to produce an EIS that discloses to the public the probable impacts of each alternative, taking into account mitigation. The EIS is being utilized to make a permit decision on the Modified Proposed Action.

b. Section 401 of the Clean Water Act Section 401 of the CWA: The Modified Proposed Action is in compliance with Section 401 of the CWA. The applicant submitted a 401 Water Quality Certification (WQC) request to the Regional Water Quality Control Board (RWQCB) on August 2, 2019. The 401 WQC request was considered complete by the RWQCB on September 11, 2019. Pursuant to

33 CFR 325.2(b)(1)(ii), since 60-days passed since a complete 401 WQC request was received, and the certifying agency did not act on the 401 WQC request, the 401 WQC requirement was presumed to be waived on March 11, 2020.

c. Endangered Species Act of 1973 (ESA): The Modified Proposed Action is in compliance with Section 7 of ESA. Chapter 2.0 of the Final EIS identifies the impacts of the Modified Proposed Action on Federally-listed threatened and/or endangered species, which are substantially the same as the impacts of the Proposed Action presented in Chapter 3.5 of the Draft EIS.

On June 24, 2020, the U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion (BO) (USFWS # 81420-2008-F-0474-6) for proposed impacts to vernal pool tadpole shrimp (*Lepidurus packardi*) (tadpole shrimp), Conservancy fairy shrimp (*Branchinecta conservatio*), and Sacramento Orcutt grass (*Orcuttia viscida*) (grasses), and the federally threatened vernal pool fairy shrimp) and slender Orcutt grass (*Orcuttia tenuis*) (grasses). Compliance with the BO will be added as a special condition of any DA permit. The BO is located in Attachment 3.

d. Fish and Wildlife Coordination Act (FWCA): The Modified Proposed Action is in compliance with the FWCA. Chapter 2.0 of the Final EIS identifies the impacts of the Modified Proposed Action on fish and wildlife species, which are substantially the same as the impacts of the Proposed Action on fish and wildlife species presented in Chapter 3.5 of the Draft EIS. The Corps has worked with the USFWS on the Modified Proposed Action, including meetings to obtain input on the effects to fish and wildlife. During preparation of the Draft EIS, the Corps requested that USFWS be a cooperating agency. USFWS declined to be a cooperating agency and also did not provide comments on the Draft EIS for compliance with the Fish and Wildlife Coordination Act.

e. Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA): The Modified Proposed Action would not result in any adverse effects to Essential Fish Habitat (EFH), as the site is not located in or near EFH.

f. Section 106 of the National Historic Preservation Act (NHPA): The Modified Proposed Action is in compliance with Section 7 of the NHPA. Chapter 2.0 of the Final EIS identifies the impacts of the Modified Proposed Action on historic properties, which are substantially same as the impacts of the Proposed Action on historic properties presented in Chapter 3.7 of the Draft EIS. The Corps has determined that the Modified Proposed Action would have no effect on historic properties. The State Historic Preservation Officer concurred with this determination on April 29, 2019.

g. Section 176(C) of the Clean Air Act (CAA) General Conformity Rule Review: The Modified Proposed Action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. The Corps has determined that direct emissions from the proposed activities

that require a DA permit will not exceed de minimis levels of a criteria pollutant or its precursors and are exempted by 40 CFR 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons, a conformity determination is not required for this action.

h. Executive Order 11988: Floodplain Management: The Modified Proposed Action is not located within a floodplain.

i. Executive Order 13175: Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: The Modified Proposed Action is in compliance with Executive Order 13175. The Corps initiated tribal coordination on October 3, 2018, through contact with 5 Native American tribes and individuals. Comments were received from 2 tribes. Shingle Springs Bank of Miwok Indians (SS Band) responded that they were not aware of any known cultural resources on the project site. United Auburn Indian Community requested a copy of the draft EIS, and any other NEPA documentation, in order to comment on it. They also stated that they are not interested in monitoring construction of the project, and will work with the City of Roseville as each phase of the project commences. The Corps provided UAIC, via email, a link to download a copy of the draft EIS from the Corps' website. Documentation of all Native American coordination is located in the administrative record.

j. Executive Order 12898: Environmental Justice: The Modified Proposed Action is in compliance with Title VI of the Civil Rights Act and Executive Order 12898. The Modified Proposed Action is not expected to negatively impact any community, and therefore is not expected to cause disproportionately high and adverse impacts to minority or low-income communities.

VI. Consideration of Mitigation Measures

The Draft EIS included a number of practicable mitigation measures to reduce or offset environmental impacts that fall outside of the Corps' responsibility and generally cannot be practicably controlled by the Corps, such as those associated with traffic, air quality, and noise. Many of the mitigation measures are requirements of the local land use agency (City of Roseville). As such, these mitigation measures are enforced by the City of Roseville and are not adopted by the Corps.

The Applicant's initial mitigation proposal to compensate for the loss of waters of the U.S., as described in Appendix 3.4 of the Draft EIS, was to preserve approximately 38.89 acres of existing aquatic resources, both on and off site, and restore up to 18.6 acres of aquatic resources within three off-site mitigation properties under a Permittee-Responsible Mitigation Plan (PRMP). However, the Applicant has re-evaluated the feasibility of the PRMP and has informed the Corps that they would like to utilize the Western Placer County In-Lieu Fee Program (ILF Program) to mitigate for unavoidable direct and indirect impacts to aquatic

resources. As such, in order to compensate for loss of approximately 0.08 acre of intermittent stream, 0.02 acre of farmed wetland, 1.74 acre of marsh, 0.23 acre of stock pond, 2.30 acres of seasonal wetland, 6.68 acres of seasonal wetland swale, and 2.93 acres of vernal pool; including indirect effects to 0.08 acre of marsh, 0.13 acre of stock pond, 0.06 acre of seasonal wetland, 0.20 acre of vernal pool, and 5.84 acres of seasonal wetland swale, the Applicant proposes to purchase; 0.03 credits of seasonal wetland, 0.17 credits of riverine, 0.53 credits of lacustrine, 3.52 credits of fresh emergent marsh, 10.59 credits of vernal pool, and 16.28 credits of vernal pool complex from the Western Placer County In-lieu Fee (ILF) Program. Evidence of this purchase will be provided to the Corps prior to initiation of each phase of construction activities in waters of the U.S. authorized by the permit, if issued. This mitigation measure will satisfy Mitigation Measure AR-1a in the Draft EIS, and ensures all direct and indirect adverse effects to the aquatic ecosystem will be compensated for through the purchase of credits at a Corps approved ILF Program; thereby minimizing temporal losses and resulting in a no net loss of aquatic resource functions and services. In order to minimize adverse effects to the aquatic environment, the applicant will establish a 108.5-acre preserve containing 17.28 acres of waters of the U.S. on the southern portion of the project site. A special condition will be placed on the permit, if issued, requiring the preserve be managed in accordance with the City of Roseville's Open Space Preserve Overarching Management Plan (OSPOMP).

The Corps requires mitigation measures to reduce or offset impacts to waters of the U.S. as special conditions of each DA permit issued. These special conditions are identified in Section IX, and take into account the mitigation measures identified in Chapters 3.0 and 4.0 of the Draft EIS, and also include additional conditions that avoid, minimize, and compensate for effects to waters of the U.S., and those that ensure compliance with Section 7 of the ESA, Section 106 of NHPA, and Section 401 of the Clean Water Act.

The compensatory mitigation identified in Section IX below, was determined using the *South Pacific Division Mitigation Ratio Setting Checklist*, and is sufficient to ensure no net loss of aquatic resource functions and services for effects to waters of the U.S. associated with the Modified Proposed Action. The Corps has considered the compensatory mitigation hierarchy presented in 33 CFR 332.3(b)(2) – (6) and has determined there are not sufficient mitigation bank credits available to satisfy the compensatory mitigation requirements; and therefore, the required compensatory mitigation will be satisfied by purchase of in-lieu fee program credits.

VII. Compliance with 404(b)(1) Guidelines

a. Restrictions on Discharge:

Yes ☐ No ☒ Based on the discussion in Section III, are there available, practicable alternatives having less adverse impact on the aquatic ecosystem and without other significant adverse environmental consequences that do not involve discharges into “waters of the U.S.” or at other locations within these waters?

Yes ☒ No ☐ If the project is in a special aquatic site and is not water dependent, has the applicant clearly demonstrated that there are no practicable alternative sites available?

Will the discharge:

Yes ☐ No ☒ Violate state water quality standards?

Yes ☐ No ☒ Violate toxic effluent standards under Section 307 of the Clean Water Act?

Yes ☐ No ☒ Jeopardize endangered or threatened species or their critical habitat?

Yes ☐ No ☒ Violate standards set by the Department of Commerce to protect marine sanctuaries?

Evaluation of the information in Section III above indicates that the proposed discharge material meets testing exclusion criteria for the following reason(s):

☐ based on the above information, the material is not a carrier of contaminants.

☒ the levels of contaminants are substantially similar at the extraction and disposal sites and the discharge is not likely to result in degradation of the disposal site and pollutants will not be transported to less contaminated areas.

☒ acceptable constraints are available and will be implemented to reduce contamination to acceptable levels within the disposal site and prevent contaminants from being transported beyond the boundaries of the disposal site.

Will the discharge contribute to significant degradation of “waters of the U.S.” through adverse impacts to:

Yes ☐ No ☒ Human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife and/or special aquatic sites?

Yes ☐ No ☒ Life stages of aquatic life and/or wildlife?

Yes ☐ No ☒ Diversity, productivity, and stability of the aquatic life and other wildlife? Or wildlife habitat or loss of the capacity of wetlands to assimilate nutrients, purify water or reduce wave energy?

Yes ☐ No ☒ Recreational, aesthetic and economic values?

Yes ☒ No ☐ Will all appropriate and practicable steps be taken to minimize adverse impacts of the discharge on the aquatic ecosystem? Does the proposal include satisfactory compensatory mitigation for losses of aquatic resources?

b. Factual Determinations:

(1) Physical Substrate Determination: Chapter 3.4, Aquatic Resources, and Chapter 4.0, Cumulative Impacts, in the Draft EIS, and Chapter 2.0 in the Final EIS, identify the nature and degree of effect that the Modified Proposed Action will have, individually and cumulatively, on the characteristics of the substrate at the disposal site for development of the Modified Proposed Action. Avoidance of 19.98 acres of waters of the U.S. and the surrounding uplands on the site and the Special Conditions identified in Section IX would minimize effects to the substrate.

(2) Water circulation, fluctuation, and salinity determinations: Chapter 3.11, Hydrology and Water Quality, and Chapter 4.0, Cumulative Impacts, in the Draft EIS, and Chapter 2.0 in the Final EIS, identify the nature and degree of effect that the Modified Proposed Action will have, individually and cumulatively on water, current patterns, circulation including downstream flows, and normal water fluctuation. The avoidance of 19.98 acres of waters of the U.S., additional upland buffers, and the requirements of the Special Conditions identified in Section IX would minimize effects to water circulation, fluctuation, and salinity.

(3) Suspended particulate/turbidity determinations: Chapter 3.11, Hydrology and Water Quality, and Chapter 4.0, Cumulative Impacts, in the Draft EIS, and Chapter 2.0 in the Final EIS, identify the nature and degree of effect that the Modified Proposed Action will have, individually and cumulatively, in terms of potential changes and concentrations of suspended particulate/turbidity in the vicinity of the disposal site. Avoidance of 19.98 acres of waters of the U.S. and the surrounding uplands on the site, adherence to the Section 401 Water Quality Certification and National Pollutant Discharge Elimination System (NPDES) permit, and the Special Conditions identified in Section IX would minimize effects from suspended particulates and turbidity.

(4) Contaminant determinations: Chapter 3.10, Hazards and Hazardous Materials, Chapter 3.11, Hydrology and Water Quality, and Chapter 4.0, Cumulative Impacts, in the Draft EIS, and Chapter 2.0 in the Final EIS, identify the degree to which the material proposed for discharge will introduce, relocate, or increase contaminants for the Modified Proposed Action. No known contaminants occur on the Modified Proposed Action site, and imported fill material would be obtained from

an existing commercial source. In addition, Special Condition 8 requires that only clean and non-toxic fill material shall be used, which would ensure that imported material does not contain contaminants, thereby minimizing effects.

(5) Aquatic ecosystem and organism determinations: Chapter 3.4, Aquatic Resources, Chapter 3.5, Biological Resources, and Chapter 4.0, Cumulative Impacts in the Draft EIS, and Chapter 2.0 in the Final EIS, identify the nature and degree of effect that the Modified Proposed Action will have, individually and cumulatively, on aquatic ecosystems and organisms. Avoidance of 19.98 acres of waters of the U.S. and the surrounding uplands on the site, the required compensatory mitigation identified in Special Condition 1, and the other Special Conditions identified in Section IX would minimize effects and ensure no net loss of aquatic resource functions and services.

(6) Proposed disposal site determination: Because all work, including the discharge of dredged and/or fill material, would be performed in the dry, no effects to the mixing zone would occur. After taking into account the factors identified in 40 CFR 230.11(f)(2), the mixing zone is confined to the smallest practicable zone within the disposal site that is consistent with the type of dispersion determined to be appropriate.

(7) Determination of cumulative effects on the aquatic ecosystem: Chapter 3.4, Aquatic Resources, Chapter 3.5, Biological Resources, and Chapter 4.0, Cumulative Impacts, in the Draft EIS, and Chapter 2.0 in the Final EIS identify the cumulative effects from the development of the Modified Proposed Action on the aquatic ecosystem. The compensatory mitigation in Special Condition 1 ensures no net loss of aquatic resource functions and services. The avoidance of 19.98 acres of waters of the U.S., as well as the requirements of Special Conditions 2 and 3, would ensure that cumulative effects on the aquatic ecosystem are minimized to the maximum extent practicable.

(8) Determination of secondary effects on the aquatic ecosystem: Chapter 3.4, Aquatic Resources and Chapter 3.5, Biological Resources in the Draft EIS and Chapter 2.0 in the Final EIS identify the secondary (indirect) effects of development of the Modified Proposed Action on the aquatic ecosystem. Avoidance of 19.98 acres of waters of the U.S. and the surrounding uplands on the site, including the Special Conditions identified in Section IX, would minimize effects.

VIII. Public Interest Review

a. The relative extent of the public and private need for the proposed work has been considered: The proposed project is intended to meet a local demand for mixed-use development. As such, local approval indicates a public need for the project. The proposed project would provide a mixed-use development for the public within the target market.

b. The practicability of using reasonable alternative locations and/or methods to accomplish the objective of the proposed structure or work has been evaluated: We have also determined that there is no practicable alternative method to accomplish the purpose of the proposed work that would have fewer direct or indirect impacts than the Modified Proposed Action. The Modified Proposed Action (applicant's preferred alternative) represents the LEDPA, as described above.

c. The extent and permanence of the beneficial and/or detrimental effects that the proposed structures or work may have on the public and private uses for which the area is suited has been reviewed: Detrimental effects to the waters of the U.S. are expected to be both temporary and permanent, due to the placement of fill materials into the waters of the U.S. for the Modified Proposed Action. As discussed in the Draft EIS Section 3.4 and Final EIS Chapter 2.0, the loss of waters of the U.S on the project site and in the area of infrastructure improvements would cause a permanent detrimental effect to the functions and services of the aquatic resources. Additional indirect adverse effects may occur to the avoided waters of the U.S., which would be minimized although not fully avoided due to the buffers on avoided aquatic resources as well as the use of BMPs during construction. However, the detrimental effects to the waters of the U.S would be offset by the required compensatory mitigation. As described above, special conditions would be placed on the permit, if issued, to address direct and indirect effects to waters of the U.S., including requirements for compensatory mitigation to off-set the loss of waters of the U.S.

Beneficial effects are expected to be permanent and would be minor. As described above and in Chapter 2 of the Final EIS, the Modified Proposed Action would provide benefits to the local community and the economy by providing housing and employment opportunities in Roseville. It would also provide a benefit to nearby residents by increasing the recreation and commercial opportunities in western Roseville. In addition, the Applicant's proposed compensatory mitigation will benefit regional aquatic resources by protecting endemic plant and wildlife species associated with local wetlands, including vernal pool ecosystems.

IX. Special Conditions

The following special conditions will be included in the DA permit to ensure the project is not contrary to the public interest and complies with the 404 (b)(1) Guidelines:

Special Condition 1: To compensate for the loss of waters of the U.S., you shall:

a. To compensate for the loss of 0.06 acre of intermittent drainage, 0.02 acre of seasonal creek/stream, 0.02 acre of farmed wetland, 0.70 acre of marsh, 3.23 acres of seasonal wetland swale, 0.23 acre of stock pond, 0.68 acre of seasonal wetland, 1.17 acre of vernal pool, and indirect effects to 1.86 acres of seasonal wetland swale, 0.13 acre of stock pond, and 0.09 acre of vernal pool for Phase 1, you shall

purchase 0.16 riverine credits, 0.57 seasonal wetlands credits, 1.40 fresh emergent marsh credits, 0.53 lacustrine credits, 3.75 vernal pool credits, and 6.85 vernal pool complex credits from the Western Placer County ILF Program. Evidence of this purchase shall be provided to this office prior to initiation of Phase 1 construction activities in waters of the U.S. authorized by this permit.

b. To compensate for the loss of 1.04 acre of marsh, 1.17 acre of seasonal wetland swale, 0.80 acre of seasonal wetland, 0.24 acre of vernal pool, and indirect effects to 2.86 acres of seasonal wetland swale, 0.08 acre of marsh, and 0.11 acre of vernal pool for Phase 2, you shall purchase 3.77 seasonal wetlands credits, 2.13 fresh emergent marsh credits, 1.58 vernal pool credits, and 0.55 vernal pool complex credits from the Western Placer County ILF Program. Evidence of this purchase shall be provided to this office prior to initiation of Phase 2 construction activities in waters of the U.S. authorized by this permit.

c. To compensate for the loss of 2.27 acres of seasonal wetland swale, 0.82 acre of seasonal wetland, and 1.52 acre of vernal pool, and indirect effects to 1.13 acre of seasonal wetland swale, 0.05 acre of seasonal wetland, and 0.01 acre of vernal pool for Phase 3, you shall purchase 3.95 seasonal wetlands credits, 4.72 vernal pool credits, and 1.16 vernal pool complex credits from the Western Placer County ILF Program. Evidence of this purchase shall be provided to this office prior to initiation of Phase 3 construction activities in waters of the U.S. authorized by this permit.

Rationale: This special condition is necessary to ensure successful compensatory mitigation for the unavoidable loss of waters of the U.S. due to the construction of the proposed project. (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332).

Special Condition 2: Prior to initiation of construction activities within waters of the U.S., You shall establish a 108.5-acre preserve, identified as the Open Space Preserve on the project drawings, containing approximately 17.28 acres of preserved waters of the United States (including 1.68 acres of waters of the U.S. that will be indirectly affected by the proposed action), as depicted on the exhibit titled Figure 1. *Proposed Phased Project Impacts to Waters of the U.S. with Shrimp Effects*, dated February 12, 2020. The purpose of this preserve is to ensure that functions of the aquatic environment are protected. You shall place the avoided and preserved wetlands, and any vegetative buffers preserved as part of mitigation for impacts into a separate preserve parcel prior to initiation of construction activities in waters of the U.S. authorized by this permit as outlined below. Prior to initiation of construction activities within waters of the U.S., permanent legal protection shall be established for the preserve, following the Corps approval of the legal instrument.

a. The preserve shall be maintained and managed as “Open Space Preserve” in accordance with the City of Roseville’s Open Space Preserve Overarching Management Plan (OSPOMP) (City of Roseville 2011, and any subsequent amendments approved by the Corps), which is hereby incorporated by reference as a condition of this authorization. Prior to the transfer of the Primary Open Space Preserve property to the City of Roseville, the Primary Open Space Preserve shall be managed by the Permittee in accordance with OSPOMP Section 5.2 Management during Adjacent Project Construction.

b. Notwithstanding any requirements to the contrary in the OSPOMP, you shall not construct any roads, utility lines, outfalls, trails, benches, firebreaks or other structures, and shall not conduct any grading, mowing, grazing, planting, discing, pesticide use, burning, or other activities within the preserve without specific, advance written approval from the Corps. Approvals for and construction of outfalls and any related construction of swales/ditches shall be consistent with the process and design identified in the OSPOMP. You shall not construct any outfalls that flow toward the preserve without prior approval of the Corps. If additional outfalls are approved, outfalls shall be designed such that they do not contribute to erosion of upland areas or stream channels within the preserve.

Special Condition 3: This Corps permit does not authorize you to take vernal pool tadpole shrimp (*Lepidurus packardi*) (tadpole shrimp), Conservancy fairy shrimp (*Branchinecta conservatio*), and Sacramento Orcutt grass (*Orcuttia viscida*) (grasses), and the federally threatened vernal pool fairy shrimp) and slender Orcutt grass (*Orcuttia tenuis*) (grasses). In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a Biological Opinion (BO) under ESA Section 7, with "incidental take" provisions with which you must comply). The enclosed U.S. Fish and Wildlife Service (USFWS) BO (Number 81420-2—8-F-0474-6, dated June 24, 2020) contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BO. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with "incidental take" of the attached BO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its BO, and with the ESA.

Rationale: This condition is necessary to ensure compliance with Section 7 of the Endangered Species Act for impacts to threatened and/or endangered species.

Special Condition 4: You shall remove all temporary fill material in waters of the U.S. and restore the temporarily affected areas to their original contour and condition within 15-days following completion of construction activities. Within 30-days

following completion of construction activities in waters of the U.S., you shall submit to this office a description and photo documentation of all restored waters of the U.S. For temporary fill within waters of the U.S. that have not been restored to pre-project contours or condition, you shall submit a description and photo-documentation of the temporary fill within waters of the U.S., including information on why restoration has not been completed.

Rationale: This special condition is necessary to ensure minimization of impacts to waters of the U.S. and to ensure successful restoration of all authorized temporary impacts (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332; 40 CFR 230).

Special Condition 5: Prior to initiation of any construction activities in waters of the U.S. authorized by this permit, you shall install and maintain construction best management practices (BMPs) on-site to prevent degradation to on-site and off-site avoided waters of the U.S. Methods shall include the use of appropriate measures to intercept and capture sediment prior to entering waters of the U.S., as well as erosion control measures along the perimeter of all work areas within 50-feet of on-site and off-site avoided waters of the U.S. to prevent the displacement of fill material. All BMPs shall be in place prior to initiation of each phase of construction activities in waters of the U.S. authorized by this permit. You shall ensure the BMPs are inspected weekly, and maintained in good condition while ground disturbing activities are occurring, until construction activities in waters of the U.S. authorized by this permit are complete. All BMPs shall remain until construction activities within 50-feet of waters of the U.S. are completed and all disturbed soils are stabilized. You shall submit a description of and photo-documentation of your BMPs to this office within 14-days following commencement of construction activities authorized by this permit. Photos may be submitted electronically to cespk-regulatory-info@usace.army.mil.

Rationale: This condition is necessary to minimize adverse impacts to water quality, from construction activities, to the maximum extent practicable (33 CFR 320.3(a); 33 CFR 320.4(d); 33 CFR 325.4(a)(3)).

Special Condition 6: Prior to initiation of construction activities in waters of the U.S. authorized by this permit, you shall notify this office in writing of the anticipated start date for the work. No later than 15-calendar days following completion of construction activities in waters of the U.S. authorized by this permit, you shall notify this office in writing that construction activities have been completed.

Rationale: This condition is necessary to assist the Corps in scheduling compliance inspections to ensure compliance with the permit and applicable conditions (33 CFR 325.4; 33 CFR 326).

Special Condition 7: Prior to initiation of construction activities in waters of the U.S. authorized by this permit, you shall clearly identify the limits of disturbance in the field with highly visible markers (e.g. construction fencing, flagging, silt barriers, etc.). You shall maintain such identification properly until construction is completed and the soils have been stabilized. You are prohibited from any activity (e.g. equipment usage or materials storage) that impacts waters of the U.S. outside of the permit limits as shown on enclosure 2.

Rationale: This condition is necessary to ensure the construction activities do not occur outside of the project area, which would cause adverse impacts to the aquatic ecosystem (33 CFR 325.4(a)(3)).

Special Condition 8: You are responsible for all work authorized herein and ensuring that all contractors and workers are made aware and adhere to the terms and conditions of this permit. You shall ensure that a copy of the permit, including associated drawings and plans, are available for quick reference at the project site until all construction activities in waters of the U.S. authorized by this permit are completed.

Rationale: This condition is necessary to ensure that all workers on site are aware of the terms and conditions of the permit in order to ensure compliance with the permit and applicable conditions (33 CFR 325.4; 33 CFR 326).

Special Condition 9: You shall use only clean and nontoxic fill material for this project. The fill material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.

Rationale: This condition is necessary to ensure that contaminated material in not placed in waters of the U.S. (33 CFR 325.4(a)(3); 40 CFR 230).

Special Condition 10: Within 60 days following completion of the authorized work or at the expiration of the construction window of this permit, whichever occurs first, you shall submit as-built drawings and a description of the work conducted on the project site to this office for review. The drawings shall include the following:

a. The Department of the Army Permit number;

b. A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale as the permit drawings. The drawing should show all "earth disturbance," wetland impacts, structures, and the boundaries of any avoidance areas. The drawings shall contain, at a minimum, 5-foot topographic contours of the entire site;

c. Aerial photographs/satellite imagery of the restoration area, showing the work conducted in waters of the U.S., to this office; and,

d. A description and list of all minor deviations between the work as authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings the location of any deviations that have been listed.

Rationale: This condition is necessary to ensure compliance with the permit and applicable conditions and to ensure that the proposed work and final restoration work has been conducted in accordance with the permit and all applicable conditions. (33 USC 1344(a); 33 USC 401 et. seq.; 33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 326).

X. Findings

a. The evaluation of the Proposed Action and alternatives was done in accordance with all applicable laws, executive orders, regulations, and agency regulations. The EIS and supporting documents are adequate and contain sufficient information to make a reasoned permit decision.

b. The selected alternative is the Modified Proposed Action alternative, with appropriate and practicable mitigation measures to minimize environmental harm and potential adverse impacts of the discharges on the aquatic ecosystem and the human environment. The Modified Proposed Action alternative, as mitigated by these conditions, is considered the environmentally preferred alternative under NEPA.

c. The discharge complies with the Section 404(b)(l) guidelines, and the Modified Proposed Action is considered the least environmentally damaging practicable alternative, with the inclusion of appropriate and practicable general and special conditions in the permit to minimize pollution or adverse effects to the affected aquatic ecosystem.

d. Issuance of a Department of the Army permit, with the inclusion of the special conditions on the permit identified in Section IX, as prescribed by regulations published in 33 CFR Parts 320 to 330, and 40 CFR Part 230 is not contrary to the public interest.

e. The compensatory mitigation identified in Section IX was determined using the *South Pacific Division Mitigation Ratio Setting Checklist*, and is sufficient to ensure no net loss of aquatic resource functions and services for effects to waters of the U.S. associated with the Modified Proposed Action.

PREPARED BY:

Leah M. Fisher
Senior Project Manager
California North Section

15 APR 2020
Date

REVIEWED BY:

Lisa M. Gibson
Chief, Special Projects Branch

26 JUNE 2020
Date

Nancy A. Haley
Chief, California North Section

June 26, 2020
Date

Lisa H. Clay
Deputy Counsel
Office of Counsel

26 June 2020
Date

APPROVED BY:

Michael S. Jewell
Chief, Regulatory Division

26 JUNE 2020
Date

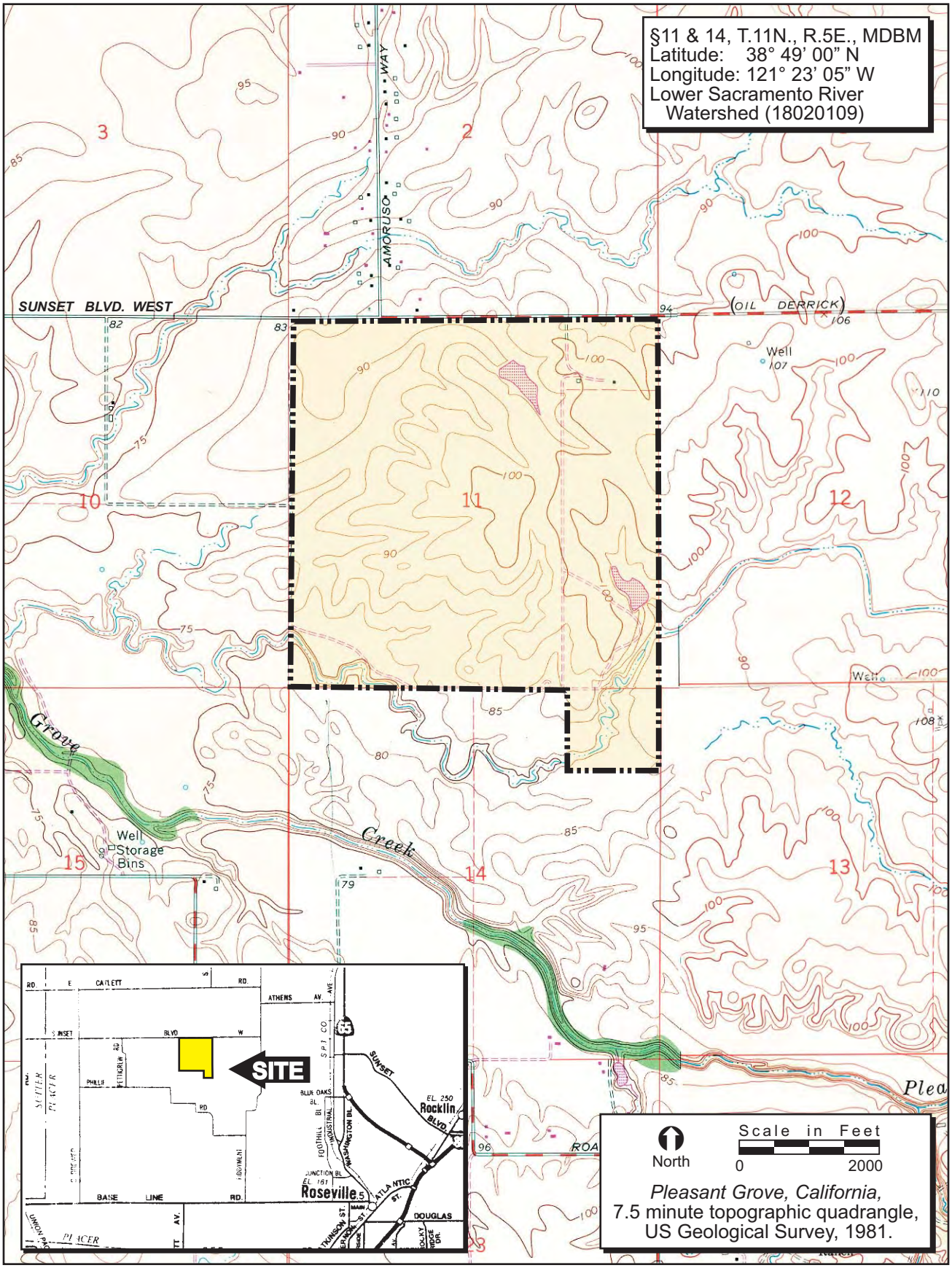

Figure 1. Amoruso Ranch Property and Vicinity

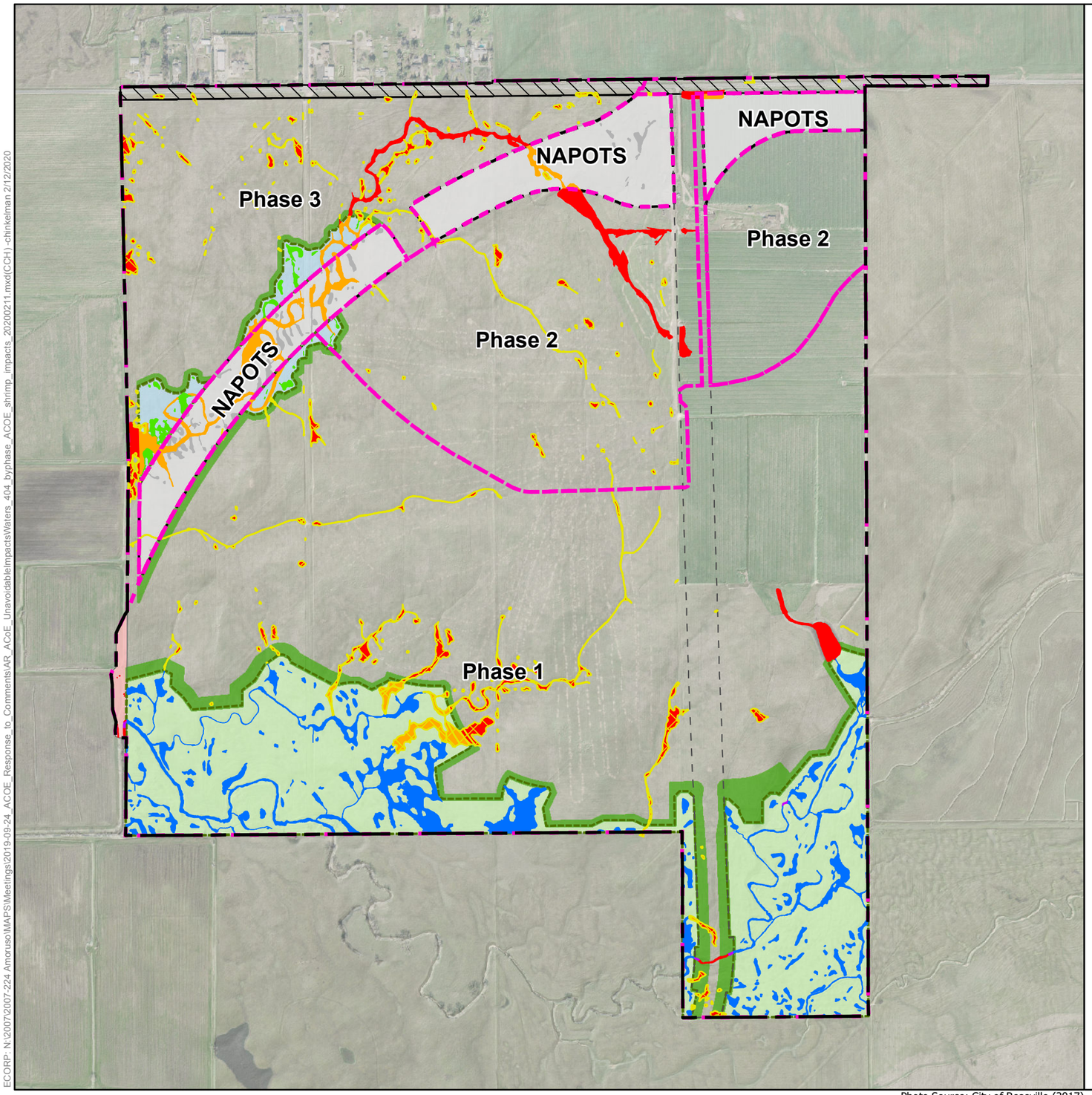

Figure 1. Proposed Phased Project Impacts to Waters of the U.S. with Shrimp Effects

- Amoruso Project Boundary
- Westbrook Impact Area
- Phase Boundary
- General Open Space
- Open Space Preserve
- Transition Zone Open Space
- NAPOTS
- Offsite Drainage Improvements Area
- West Sunset Boulevard Offsite ROW

ACOE Impacts

- Preserved
- Avoided
- Temporary
- Direct
- Indirect
- NAPOTS
- Effected Shrimp Habitat

Phased Impacts to Waters of the U.S.

Waters of the U.S.	Preserved	Avoided	Temporary	Direct	Indirect	NAPOTS	Total (acres)
Phase 1	***15.60***	***0.09***	***0.05***	***6.11***	***2.08***	***0.00***	***23.93***
Ephemeral Drainage	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Farmed Wetland	0.00	0.00	0.00	0.02	0.00	0.00	0.02
Intermittent Drainage	1.82	0.00	0.03	0.06	0.00	0.00	1.91
Marsh	0.00	0.00	0.00	0.70	0.00	0.00	0.70
Seasonal Creek/Stream	0.00	0.00	0.02	0.02	0.00	0.00	0.04
Seasonal Wetland	1.16	0.09	0.00	0.68	0.00	0.00	1.93
Seasonal Wetland Swale	7.08	0.00	0.00	3.23	1.86	0.00	12.17
Stock Pond	0.00	0.00	0.00	0.23	0.13	0.00	0.36
Vernal Pool	5.54	0.00	0.00	1.17	0.09	0.00	6.80
Phase 2	***0.00***	***0.03***	***0.00***	***3.25***	***3.05***	***1.43***	***7.76***
Marsh	0.00	0.00	0.00	1.04	0.08	0.00	1.12
Seasonal Wetland	0.00	0.02	0.00	0.80	0.00	0.66	1.48
Seasonal Wetland Swale	0.00	0.01	0.00	1.17	2.86	0.12	4.16
Vernal Pool	0.00	0.00	0.00	0.24	0.11	0.65	1.00
Phase 3	***0.00***	***1.05***	***0.00***	***4.61***	***1.19***	***0.00***	***6.85***
Seasonal Wetland	0.00	0.53	0.00	0.82	0.05	0.00	1.40
Seasonal Wetland Swale	0.00	0.04	0.00	2.27	1.13	0.00	3.44
Vernal Pool	0.00	0.48	0.00	1.52	0.01	0.00	2.01
Total (acres)	**15.60**	**1.17**	**0.05**	**13.97**	**6.32**	**1.43**	**38.54**

*Avoided habitat contains preserved, avoided, and immediate watershed effects.

Notes:
-Impact calculations are approximate and are based on the best available information to date.
-The acreage value for each feature has been rounded to the nearest 1/1000 decimal.
Summation of these values may not equal the total acreage reported.

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2007-224 Amoruso Ranch

DRAFT

Scale in Feet
0 800

Photo Source: City of Roseville (2017)

Map Date: 2/12/2020

ECORP: N:\2007\2007-224 Amoruso\MAPS\Meetings\2019-09-24_ACOE_Response_to_Comments\AR_ACoE_UnavoidableImpactsWaters_404_byphase_ACOE_shrimp_impacts_20200211.mxd(CCH) -chinkelman 2/12/2020

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846
SFWO_mail@fws.gov

In Reply Refer to:
81420-
2008-F-0474-6

June 24, 2020

Ms. Leah Fisher
Senior Project Manager, California North Section
U.S. Army Corps of Engineers, Regulatory Division
1325 J Street, Room 1350
Sacramento, California 95814-2922
Leah.M.Fisher@usace.army.mil
SPKRegulatoryMailbox@usace.army.mil

Subject: Formal Consultation on the Amoruso Ranch Specific Plan Project, City of Roseville, Placer County, California (Corps File Number SPK-2004-00888)

Dear Ms. Fisher:

This letter is in response to the U.S. Army Corps of Engineers' (Corps) March 20, 2019, request for initiation of formal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Amoruso Ranch Specific Plan Project (proposed project) in the city of Roseville, Placer County, California. Your request and the October 30, 2014, *Amended U.S. Fish and Wildlife Service Biological Assessment to Support Federal Endangered Species Act – Section 7 Consultation* were received by the Service on March 20, 2019. However, all of the information necessary to initiate formal consultation was not received until May 12, 2020. At issue are the proposed project's effects on the federally endangered vernal pool tadpole shrimp (*Lepidurus packardi*) (tadpole shrimp), Conservancy fairy shrimp (*Branchinecta conservatio*), and Sacramento Orcutt grass (*Orcuttia viscida*) (grasses), and the federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*) (fairy shrimp) and slender Orcutt grass (*Orcuttia tenuis*) (grasses). This response is provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq*.) (Act), and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402).

The federal action on which we are consulting is the issuance of a Clean Water Act, Section 404 permit by the Corps to Brookfield Sunset, LLC (applicant) for the fill of waters of the United States associated with construction of the proposed project. Pursuant to 50 CFR 402.12(j), you submitted a biological assessment for our review and requested concurrence with the findings presented therein. These findings conclude that the proposed project may affect, and is likely to adversely affect the fairy shrimp. These findings also conclude that the proposed project may affect, but is not likely to adversely affect the tadpole shrimp, the Conservancy fairy shrimp, and the grasses.

In considering your request, we based our evaluation on the following:

1) The October 30, 2014, *Amended U.S. Fish and Wildlife Service Biological Assessment to Support Federal Endangered Species Act – Section 7 Consultation* prepared by the consultant;
2) The September 2019 revised draft *Biological Assessment: Amoruso Ranch Project* (draft biological assessment) prepared by the consultant;
3) The January 27, 2020, *Amended Biological Assessment: Amoruso Ranch Project* (amended biological assessment) prepared by the consultant;
4) The February 24, 2020, letter prepared by the consultant containing additional information in response to the Service's February 5, 2020, insufficiency letter (additional information letter);
5) The March 27, 2020, *Errata* to the additional information letter prepared by the consultant;
6) The Service's April 15, 2020, letter clarifying the conservation measures and the consultant's May 12, 2020, email concurring with the language proposed in the letter;
7) Meetings (2011-present) between the Service, the Corps, the applicant and their representatives, the consultant, the Environmental Protection Agency, and Placer County;
8) Ongoing correspondence, including telephone calls and emails between the Service, the Corps, the applicant and their representatives, the consultant, the Environmental Protection Agency, the Central Valley Regional Water Quality Control Board, staff from the city of Roseville, and Placer County; and,
9) Other information available to the Service.

Vernal Pool Tadpole Shrimp

Formal protocol-level wet season surveys for the tadpole shrimp were conducted by the consultant during the 2007-2008 and 2008-2009 wet seasons within the Amoruso property and during the 2015-2016 wet season within the offsite drainage area. The tadpole shrimp was not observed during these surveys. Dry-season surveys were not conducted. The action area is mostly composed of vernal pool grassland, and it contains 26.60 acres of suitable habitat for the tadpole shrimp, including 9.81 acres of vernal pools, 4.55 acres of seasonal wetlands, and 12.24 acres of seasonal wetland swales. (All reported acreages are measured on the NAD83 datum in State Plane coordinates. All measurements are in feet and converted to acreages for ease of use, which may lead to minor rounding discrepancies in the reporting of acreage totals.) Of this tadpole shrimp habitat, 14.86 acres are within the Onsite Open Space Preserve and will be preserved in perpetuity. The nearest recorded occurrence of the tadpole shrimp is located approximately 5.5 miles southeast of the proposed project (CNDDB 2019).

After reviewing all of the available information, the Service concurs with your determination that the proposed project may affect, but is not likely to adversely affect the tadpole shrimp. The proposed project reaches the 'may effect' level for the tadpole shrimp due to the fact that the proposed project is within the range of the species and vernal pool habitat exists within the proposed project. However, based on the negative survey results, the distance between the proposed project and the nearest documented occurrence of the tadpole shrimp, and the proposed conservation measures, the Service believes that any potential adverse effects to the tadpole shrimp from the proposed project are extremely unlikely to occur and are therefore discountable for the purposes of this consultation.

Conservancy Fairy Shrimp

Formal protocol-level wet season surveys for the Conservancy fairy shrimp were conducted by the consultant during the 2007-2008 and 2008-2009 wet seasons within the Amoruso property and

during the 2015-2016 wet season within the offsite drainage area. The Conservancy fairy shrimp was not observed during these surveys. Dry-season surveys were not conducted. Many of the vernal pool and seasonal wetland features within the action area are much smaller and dry up earlier in the year than the playa pools which this species generally inhabits. However, it is still possible that these features may provide habitat for the Conservancy fairy shrimp. The largest vernal pool features which are most likely to provide habitat for the Conservancy fairy shrimp are located within the Onsite Open Space Preserve and will be preserved in perpetuity. The nearest population of the Conservancy fairy shrimp is located at the Mariner Ranch Conservation Bank (CNDDB 2019), 8.5 miles north of the proposed project. This population is actually just one isolated location, not a cluster of locality records like most other populations.

After reviewing all of the available information, the Service concurs with your determination that the proposed project may affect, but is not likely to adversely affect the Conservancy fairy shrimp. The proposed project reaches the 'may effect' level for the Conservancy fairy shrimp due to the fact that the proposed project is within the range of the species and vernal pool habitat exists within the proposed project. However, based on the negative survey results, the distance between the proposed project and the nearest documented occurrence of the Conservancy fairy shrimp, and the proposed conservation measures, the Service believes that any potential adverse effects to the Conservancy fairy shrimp from the proposed project are extremely unlikely to occur and are therefore discountable for the purposes of this consultation.

Sacramento Orcutt Grass and Slender Orcutt Grass

Sacramento Orcutt grass is rare and endemic to Sacramento County, within the Southeastern Sacramento Valley Vernal Pool Region. The range of the slender Orcutt grass is more widespread and also includes Sacramento County, but not Placer County. However, the grasses are both native to vernal pool complexes of the Southeastern Sacramento Valley Vernal Pool Region. Therefore, given the presence of the vernal pool grassland habitat within the proposed project, the proximity of the proposed project to occurrences of the grasses in neighboring Sacramento County, and the rarity of the grasses, the consultant conducted rare plant surveys within the action area. Appropriately timed formal protocol-level rare plant surveys were conducted in 2014 within the offsite drainage area and in 2015 within the Amoruso property. The grasses were not observed during these surveys. The nearest recorded occurrence of the Sacramento Orcutt grass is located approximately 17 miles southeast of the proposed project, and the nearest recorded occurrence of the slender Orcutt grass is located approximately 18 miles southeast of the proposed project (CNDDB 2019).

After reviewing all of the available information, the Service concurs with your determination that the proposed project may affect, but is not likely to adversely affect the grasses. The proposed project reaches the 'may effect' level for the grasses due to the fact that the proposed project is within the Southeastern Sacramento Valley Vernal Pool Region in proximity to known occurrences of the grasses and vernal pool habitat exists within the proposed project. However, based on the negative survey results and the distance between the proposed project and the nearest documented occurrences of the grasses, the Service believes that any potential adverse effects to the grasses from the proposed project are extremely unlikely to occur and are therefore discountable for the purposes of this consultation.

The remainder of this document provides our biological opinion on the effects of the proposed project on the fairy shrimp.

Consultation History

June 2011–March 2012: The Service attended ongoing early consultation meetings with the applicant, the Corps, and the City of Roseville. We discussed the consultation process, conservation measures, and the alignment of the future Placer Parkway.

August 8, 2014: The Service received the July 29, 2014, *2014 Guideline-level Wet and Dry Season Sampling for Federally Listed Large Branchiopods* report for the Reason Farms property, on the western border of the proposed project.

June 11, 2015: The Service attended a meeting with the Corps and the applicant. We discussed the off-site mitigation properties.

October 28, 2015: The Service attended a meeting with the applicant and Placer County. We discussed the differences between the section 7 process and the Placer County Conservation Program (PCCP).

November 15, 2017: The Service attended a meeting with the applicant, the consultant, and Placer County. We discussed the project description, the proposed mitigation plan, and how the proposed project fits within the PCCP.

June 8, 2018: The Service attended a meeting with the applicant, the consultant, and Placer County. We discussed how the proposed project fits within the PCCP.

July 24, 2018: The Service received the July 20, 2018 Mitigation Report from the consultant.

March 21, 2019: The Service received the Corps' March 20, 2019, letter requesting initiation of formal consultation. The initiation package included the October 30, 2014, Amended biological assessment, the February 2019 Phased Mitigation Proposal, and the three August 12, 2013 CRAM analyses for the three off-site mitigation properties.

July 23, 2019: The Service attended a meeting with the Corps, the applicant, the consultant, and Placer County. We discussed the updated project description and whether the proposed project should proceed under the PCCP or a traditional section 7 consultation.

August–October 2019: The Service participated in biweekly telephone calls with the Corps, the applicant, the consultant, and the Environmental Protection Agency (EPA). We discussed the project timeline and progress/questions about environmental document preparation.

August 29, 2019: The Service received the draft Permittee Responsible Mitigation (PRM) Plan from the consultant.

September 13, 2019: The Service received the September 2019 draft biological assessment from the Corps with a request to review and provide comments.

September 19, 2019: The Service attended a meeting with the Corps, the EPA, the consultant, and a representative of the applicant to discuss the agencies' comments on the draft biological assessment and the draft PRM plan.

September 25, 2019: The Service sent a letter with our comments on the draft biological assessment and the draft PRM plan to the Corps. The Service was also CCed on the EPA's email to the applicant with their comments on the draft biological assessment.

October 2, 2019: The Service was CCed on the Corps' email to the applicant with their comments on the draft biological assessment.

October 11, 2019: The Service received a copy of the Corps' October 11, 2019, letter to the applicant with their comments on the draft PRM plan. The Corps believed that the draft PRM plan was not the environmentally preferable compensatory mitigation option compared to purchasing credits at a conservation bank or in-lieu fee program.

November 21, 2019: The Service participated in a telephone call with the Corps, the applicant, the consultant, and the EPA. We discussed the Corps' October 11, 2019, letter.

December 4, 2019: The Service attended a meeting with the Corps, the applicant, the consultant, the EPA, and Placer County. We discussed purchasing credits at an in-lieu fee program and how that would relate to the needs of listed species.

December 17, 2019: The Service received the December 17, 2019, letter prepared by the consultant describing an updated impact analysis and participation in the Western Placer In-Lieu Fee Program.

January 17, 2020: The Service received a copy of the Corps' January 17, 2020, letter to the applicant about the current status of the project and accepting the mitigation proposed in the December 17, 2019, letter.

January 27, 2020: The Service received the January 27, 2020, amended biological assessment prepared by the consultant.

January 30, 2020: The Service attended a meeting with the Corps, the applicant, the consultant, the EPA, and Placer County. We discussed the additional information required to begin formal consultation.

February 5, 2020: The Service sent a letter to the Corps requesting the additional information discussed at the January 30, 2020, meeting.

February 24, 2020: The Service received the February 24, 2020, additional information letter prepared by the consultant.

March 6, 2020: The Service sent a letter to the applicant with our comments on the February 24, 2020, additional information letter.

March 13, 2020: The Service received an email from the Corps requesting a draft biological opinion.

March 27, 2020: The Service received the March 27, 2020, *Errata* to the additional information letter prepared by the consultant.

April 15, 2020: The Service sent a letter to the Corps with our comments on the proposed conservation measures and their relation to the PCCP.

April 22, 2020: The Service received the April 22, 2020, letter from the consultant with comments on the conservation measure language proposed in the Service's April 15, 2020, letter.

May 7, 2020: The Service sent a letter responding to the consultant's April 22, 2020, letter with updated conservation measure language.

May 11, 2020: The Service participated in a telephone call with the Corps, the applicant, and the consultant. We discussed the updated conservation measure language.

May 12, 2020: The Service received an email from the consultant stating that the updated proposed conservation measure language is acceptable and is considered part of the project description. This is the date that all of the necessary information was received and consultation begins.

June 12, 2020: The Service issued the draft biological opinion to the Corps.

June 18, 2020: The Service received the applicant's comments on the draft biological opinion.

BIOLOGICAL OPINION

Description of the Proposed Action

The proposed project is the construction of the Amoruso Ranch Specific Plan, a large-scale mixed-use development. The 674-acre Amoruso Ranch property is located immediately south of West Sunset Boulevard, 1.5 miles west of Fiddyment Road, and 0.5 mile north of Please Grove Creek in unincorporated Placer County, California. The 641.8-acre proposed project includes approximately 328 acres of high-, medium-, and low-density residential housing, 51 acres of retail and commercial development, a school, a fire station, public and private parks, open space including the 10.3 acres of General Open Space, new roads, improvements to the 13.5-acre Sunset Boulevard right-of-way adjacent to the Amoruso Ranch property, a 1.7-acre offsite drainage area within the adjacent Al Johnson Wildlife Area, and a 108.5-acre Onsite Open Space Preserve (Figure 1). The applicant is proposing to build a 34-acre segment of Westbrook Boulevard, a planned six-lane regional road running north-to-south through the eastern portion of the proposed project. The future Placer Parkway regional transportation improvement project (Placer Parkway), another regional improvement project, is planned to run east-to-west through the northern portion of the proposed project. However, the Placer Parkway is a separate project and the applicant will not build the 49.3-acre segment that will occur within the Amoruso Ranch property. The proposed project will occur in three phases of development (Figure 2).

Approximately 82% of the proposed project site is vernal pool grassland. The proposed project contains 38.54 acres of waters of the U.S., including 9.81 acres of vernal pools, 4.81 acres of seasonal wetlands, and 19.77 acres of seasonal wetland swales. Of these waters of the U.S., 26.60 acres provide suitable habitat for the fairy shrimp, including 9.81 acres of vernal pools, 4.55 acres of seasonal wetlands, and 12.24 acres of seasonal wetland swales. (All reported acreages are measured on the NAD83 datum in State Plane coordinates. All measurements are in feet and converted to acreages for ease of use, which may lead to minor rounding discrepancies in the reporting of acreage totals.) The majority of these wetland features that provide suitable habitat for the fairy shrimp

occur in the southern portion of the property. The northeast corner of the proposed project is composed of pasture land which is irrigated in the summer and releases water that flows through the northern and southeastern parts of the Amoruso property. This unseasonable water makes the large swale running through the northern part of the Amoruso property unsuitable for the fairy shrimp.

The Onsite Open Space Preserve (Onsite Preserve) will be located along the southern border of the Amoruso property. This will preserve the majority of fairy shrimp habitat and known occurrences of the fairy shrimp within the proposed project and will provide connectivity to other regional open space areas. The Onsite Preserve is bordered by Creekview Specific Plan's Open Space Preserve to the south, West Roseville Specific Plan's Open Space Preserve to the southeast, and the City of Roseville's Al Johnson Wildlife Area to the west. The 108.5-acre Onsite Preserve contains 17.30 acres of waters of the U.S., including 14.86 acres of fairy shrimp habitat. It will be preserved in perpetuity and protected by a Service-approved and recorded conservation easement prior to earthmoving activities.

The 10.3-acre General Open Space will be located adjacent to the corridor for the future Placer Parkway. The General Open Space will be avoided by the proposed project and is intended to provide separation between residential land uses and the future Placer Parkway. It will not be protected by a conservation easement. Prior to the development of the Placer Parkway, this area will be managed as general open space in accordance with the City of Roseville Open Space Preserve Overarching Management Plan (OSPOMP). If the Placer Parkway never comes to fruition, the General Open Space area will remain as general open space and be managed accordingly under the OSPOMP. The General Open Space will not be developed by the proposed project, and the proposed project will avoid the 1.18 acres of fairy shrimp habitat within the General Open Space.

Both the Onsite Preserve and General Open Space are surrounded by an open space transition zone buffer of at least 30 feet. These transition zones will be used for activities such as slope grading, outfall structures, bike trails, weed abatement activities, open space maintenance, and health and safety vehicle access. These transition zones are designed to minimize the potential for indirect effects to the preserved and avoided fairy shrimp habitat within the Onsite Preserve and General Open Space. They will minimize the need for disturbance within the Onsite Preserve to one drainage swale/outfall and one emergency access point. They will also provide a barrier for stormwater/nuisance flows between the development and the Onsite Preserve and convey stormwater to the offsite drainage area, minimizing the risk of changes in hydrologic patterns within the Onsite Preserve. The transition zones will not be included in the conservation easement protecting the Onsite Preserve.

Relationship to the Placer County Conservation Program

The Placer County Conservation Program (PCCP) is a conservation strategy for western Placer County. The goal of the PCCP is to provide an effective framework to protect, enhance, and restore the natural resources in specific areas of western Placer County while streamlining environmental permitting for Covered Activities. Within this framework, the PCCP will achieve conservation goals, comply with state and federal environmental regulations, accommodate anticipated urban and rural growth, and permit the construction and maintenance of infrastructure needed to serve the county's population. The PCCP includes three separate, but complementary, components that support two sets of state and federal permits:

- The Western Placer County Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP or Plan) is a joint HCP and NCCP that will protect fish

and wildlife and their habitats and fulfill the requirements of the federal Endangered Species Act and the California Natural Community and Conservation Planning Act.

- The Western Placer County Aquatic Resources Program (CARP) will protect streams, wetlands, and other water resources and fulfill the requirements of the federal Clean Water Act and analogous state laws and regulations.

- The Western Placer In-Lieu Fee Program (ILF) is a program under which compensatory mitigation requirements under Section 404 of the Clean Water Act can be fulfilled by payment of a fee. The Western Placer ILF will provide wetland mitigation "credits" that can be used to fulfill Section 404 compensatory mitigation requirements. The Western Placer ILF will provide compensatory mitigation for impacts on aquatic resources for all projects and activities that are covered under the HCP/NCCP and the CARP.

The HCP/NCCP has not yet been approved. However, a Notice of Availability for the final HCP/NCCP and the final joint Environmental Impact Report and Environmental Impact Statement (EIS/EIR) was published in the Federal Register on May 22, 2020. The public examination period will close on June 22, 2020. The final HCP/NCCP and EIS/EIR are available on Placer County's website (https://www.placer.ca.gov/3362/Placer-County-Conservation-Program) and the Service' Sacramento Field Office website (www.fws.gov/sacramento).

The proposed project is within the draft HCP/NCCP's Potential Future Growth (PFG) area and is currently within the City of Roseville's land use authority. The Amoruso Ranch Specific Plan area was annexed by the City of Roseville in December 2018. The effects of Covered Activities in the Amoruso Ranch Specific Plan have been evaluated as part of the potential future growth in the Plan Area and are included as part of the potential take covered in the permits; Covered Activities in the Amoruso Ranch Specific Plan do not conflict with the Plan's conservation strategy or the ability of the Placer Conservation Authority (PCA) to meet Plan goals and objectives. Covered Activities in the Amoruso Ranch Specific Plan are therefore eligible for take authorization under the permits and could receive take authorization through the County. As such, the applicant is eligible to secure incidental take coverage under the HCP/NCCP as a Participating Special Entity if the HCP/NCCP is adopted and the Placer Conservation Authority (PCA) determines that the project meets certain conditions.

As the HCP/NCCP has not yet been adopted, the applicant is proceeding with the formal consultation between the Corps and the Service associated with the issuance of a Clean Water Act, Section 404 permit. Currently, it is not anticipated that the applicant will secure incidental take coverage under the HCP/NCCP as a Participating Special Entity. However, the impacts of the proposed project are the same as those considered and analyzed in the draft HCP/NCCP and therefore will be counted against final, permitted HCP/NCCP take limits. Although the applicant is not proceeding under the PCCP at this time, the applicant is proposing to implement conservation measures for the proposed project that are intended to be consistent with the PCCP's conservation strategy. This biological opinion recognizes the potential that the applicant may choose to utilize the adopted and approved PCCP as a means to secure take coverage in the future. If so, the requirements of the adopted PCCP will govern the proposed project's requirements for take coverage.

Compensation Package

As a part of the proposed project, the applicant has proposed to compensate for impacts to the fairy shrimp and other natural resources caused by the proposed project. This compensation package

includes the preservation of the Onsite Preserve and the payment of appropriate fees consistent with the PCCP. All of these measures are intended to be consistent with the PCCP's conservation strategy.

The Onsite Preserve will be preserved in perpetuity and managed in a manner consistent with the PCCP. It will be protected by a Service-approved and recorded conservation easement prior to any earthmoving activities (*i.e.,* prior to Phase 1). The Onsite Preserve will be transferred in fee title to the City of Roseville. Although the City of Roseville is not a Permittee under the draft HCP/NCCP, the proposed project is within the Plan's Potential Roseville Annexation Area and therefore the applicants may be considered a Participating Special Entity. The conservation easement will be held by either the PCA or Placer County.

The conservation easement will refer to an approved management plan that details the long-term management, monitoring, and maintenance of the Onsite Preserve. This management plan will be consistent with the PCCP (as described in the draft HCP/NCCP in Section 5.3.2.1.2 Content of Reserve Unit Management Plans). All of these activities described in the management plan, including associated contingency funds, will be funded by the establishment of the City of Roseville's Community Facilities District (CFD) No. 2. Along with funding the Onsite Preserve, taxes associated with the CFD will fund the General Open Space, maintenance and operations of parks, bike trails, landscape corridors, street sweeping, leaf pickup, stormwater management, and Finance/Parks Department administration. The management plan will include a Property Analysis Records (PAR) analysis for operating the Onsite Preserve in perpetuity. The PAR will include cost and funding details to ensure that the CFD covers all required activities described in the management plan. The CFD will be formed to fund all of these services in perpetuity and includes an annual 4% escalator to cover potential increases in management costs.

The applicant has proposed to purchase ILF credits at the Western Placer ILF consistent with the PCCP for all direct and indirect effects to waters of the U.S. caused by the proposed project. The applicant has proposed to purchase ILF credits at a 2:1 ratio for all direct impacts to waters of the U.S. (2 acres of ILF credits to 1 acre of habitat impacted) and at a 0.5:1 ratio for all indirect impacts to waters of the U.S. Therefore, the applicant has proposed to offset the impacts to 20.30 acres of waters of the U.S., including 10.78 acres of fairy shrimp habitat, with the purchase of 31.10 acres of ILF credits. Table 1 details the total direct and indirect impacts to waters of the U.S. and associated ILF credits to be purchased by aquatic feature type for the project as a whole. Prior to earthmoving on each phase of the proposed project, the applicant will purchase ILF credits sufficient to compensate for impacts within that phase. Tables 2, 3, and 4 detail the total direct and indirect impacts to waters of the U.S. associated with each phase (in total equally the amount summarized in Table 1), and the associated ILF credits to be purchased, by aquatic feature type.

The applicant has also proposed to pay all appropriate fees for impacts as described in the draft HCP/NCCP and consistent with the PCCP fee schedule as confirmed by Placer County or the PCA. The HCP/NCCP utilizes a variety of development-based fees paid as a result of private and public Covered Activities to assist in meeting both Endangered Species Act and NCCP Act requirements. The applicant will pay fees to Placer County or the PCA for the conversion of all land cover types described in the draft HCP/NCCP that are present within the proposed project. Currently, the applicant has proposed to pay fees to the County or PCA for the conversion of 523.1 acres of land cover types, including 418.3 acres of vernal pool complex, 97.0 acres of pasture/grassland, and 7.8 acres of aquatic/wetland complex (Figure 3). The actual acreages may change slightly, and the final acreages will be approved by the County or PCA and by the Service. Prior to earthmoving on each phase of the proposed project, the applicant will pay relevant PCCP fees sufficient to compensate for impacts within that phase. Prior to payment of fees, an accounting

of the proposed fees and written confirmation from Placer County or the PCA that the fees are consistent with PCCP requirements will be provided to the Service.

Conservation Measures

The following is a summary of the proposed conservation measures, as outlined in the biological assessment, to minimize effects on the fairy shrimp. The conservation measures proposed below are considered part of the proposed action evaluated by the Service in this biological opinion.

General Measures

1) Appropriate stormwater management will minimize the potential for changes to hydrology within the Onsite Preserve and other downstream resources. The Project will be conditioned to include source control and Low Impact Development (LID) strategies, treatment control measures, including but not limited to bio-retention treatment as required by the City's then current design standards and the City's then current General Phase II MS4 Permit issued by the State (CEQA MM 4.13-2).

2) A biological monitor approved by the Service will be present during all grading within 250 feet of fairy shrimp habitat.

3) Worker environmental awareness training will be mandatory for all construction personnel.

4) A qualified biological resources monitor will be present during all work within the Onsite Preserve, General Open Space, or other sensitive areas to ensure compliance with conservation measures for the duration of the proposed project.

5) Fencing will be installed to avoid sensitive resources and define haul routes, spoil zones, stockpile zones, creation zones, and other construction areas. The fencing shall be of high visibility material. Fencing shall be maintained until all adjacent construction activities are completed.

6) Disturbed areas will be revegetated after completion of construction activities. This may include hydroseeding, drill seeding, or spreading of upland seed-bearing soil, and will be approved by a qualified wetland specialist.

7) Standard erosion control measures will be implemented, such as silt fences, straw bales, and temporary revegetation. No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months.

8) Construction Best Management Practices (BMPs) will be implemented, including those for water quality, dust control, and erosion reduction and sediment control.

9) Grading activities will be limited to the immediate area required for construction, to the extent feasible.

Onsite Preserve

1) The 108.5-acre Onsite Preserve, which contains 14.86 acres of fairy shrimp habitat, will be preserved in perpetuity. The Onsite Preserve will be protected by a Service-approved and recorded conservation easement prior to earthmoving activities.

2) The Onsite Preserve will be transferred in fee title to the City of Roseville. It will be owned by the City of Roseville and managed under a PCCP-compatible management plan (as described in the draft HCP/NCCP in Section 5.3.2.1.2 Content of Reserve Unit Management Plans).

3) The conservation easement and the associated long-term management plan will be provided to the Service for review and approval prior to earthmoving activities for Phase 1 of the proposed project. Placer County or the PCA will hold the conservation easement over City of Roseville-owned land.

4) Long-term management, monitoring, and maintenance of the Onsite Preserve will be funded by the City of Roseville's Community Facilities District (CFD) No. 2. The CFD will be formed to fund all of these services in perpetuity and includes an annual 4% escalator to cover potential increases in management costs. The long-term management plan will include a Property Analysis Records (PAR) analysis for operating the Onsite Preserve in perpetuity and include cost and funding details to ensure that the CFD funding mechanism covers all required activities described in the management plan.

Fees

1) The applicant will pay fees for impacts as described in the draft HCP/NCCP and consistent with the PCCP fee schedule as confirmed by Placer County or the PCA. This will include the purchase of in-lieu fee (ILF) credits at the Western Placer ILF and the payment of fees to the County or the PCA for the conversion of all land cover types described in the HCP/NCCP that are present within the proposed project.

2) The applicant will purchase ILF credits at the Western Placer ILF consistent with the requirements of the PCCP. The applicant has proposed to purchase ILF credits at a 2:1 ratio for all direct impacts to waters of the U.S. (2 acres of ILF credits to 1 acre of habitat impacted) and at a 0.5:1 ratio for all indirect impacts to waters of the U.S. Therefore, the applicant has proposed to offset the impacts to 20.30 acres of waters of the U.S., including 10.78 acres of fairy shrimp habitat, with the purchase of 31.10 acres of ILF credits (Table 1). If the PCCP is approved, the Applicant may use the applicable ratios set forth in the adopted PCCP.

3) The applicant will pay fees for impacts as described in the PCCP and consistent with the applicable PCCP fee schedule as confirmed by the County or PCA. The actual acreages may change slightly, and the final acreages will be approved by the County or PCA and by the Service. Currently, the applicant has proposed to pay fees to the County or PCA for the conversion of 523.1 acres of land cover types, including 418.3 acres of vernal pool complex, 97.0 acres of pasture/grassland, and 7.8 acres of aquatic/wetland complex.

4) Prior to payment of fees, an accounting of the proposed fees and written confirmation from Placer County or the PCA that the fees are consistent with PCCP requirements will be provided to the Service.

5) Prior to earthmoving on each phase of the proposed project, the applicant will purchase ILF credits and pay other relevant PCCP fees sufficient to compensate for impacts within that phase. Fees will be consistent with the PCCP fee schedule applicable at the time fees are paid.

PCCP Avoidance and Minimization Measures

In order to remain consistent with the PCCP's conservation strategy, the proposed project shall implement all applicable avoidance and minimization measures from the draft HCP/NCCP, as summarized below.

6.3.1 General Conditions

6.3.1.1 General Condition 1, Watershed Hydrology and Water Quality

All project related activities shall comply with the State of California General Construction Permit, including requirements to develop a project-based Storm Water Pollution Prevention Plan (SWPPP) and applicable NPDES program requirements.

6.3.1.1.1 State Water Board Construction General Permit

A project-based SWPPP will be created by a certified Qualified SWPPP Developer.

6.3.1.1.2 West Placer Storm Water Quality Design Manual

The SWPPP will conform to the standards set out in the West Placer Storm Water Quality Design Manual.

6.3.1.1.3 HCP/NCCP Watershed Hydrology and Water Quality BMPs

1) When possible, vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas.

2) Trash generated by project related activities will be promptly and properly removed from the site.

3) Appropriate erosion control measures (e.g., fiber rolls, filter fences, vegetative buffer strips) will be used on site to reduce siltation and runoff of contaminants into avoided wetlands, ponds, streams, or riparian vegetation.

    - Erosion control measures will be of material that will not entrap wildlife (i.e., no plastic monofilament). Erosion control blankets will be used as a last resort because of their tendency to biodegrade slowly and trap reptiles and amphibians.

    - Erosion control measures will be placed between the area of disturbance and any avoided aquatic feature, within an area identified with highly visible markers (e.g., construction and erosion-control fencing, flagging, silt barriers) prior to commencement of construction activities. Such identification will be properly maintained until construction is completed and the soils have been stabilized.

    - Fiber rolls used for erosion control will be certified by the California Department of Food and Agriculture or any agency that is a successor or receives delegated authority during the permit term as weed free.

    - Seed mixtures applied for erosion control will not contain California Invasive

Plant Council–designated invasive species (http://www.cal-ipc.org/paf/) but will be composed of native species appropriate for the site or sterile non-native species. If sterile non-native species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive non-natives.

4) If the runoff from the development will flow within 100 feet of a wetland or pond, vegetated storm water filtration features, such as rain gardens, grass swales, tree box filters, infiltration basins, or similar LID features to capture and treat flows, shall be installed consistent with local programs and ordinances.

6.3.1.2 General Condition 2, Conservation Lands: Development Interface Design Requirements

Project related activities that occur in or adjacent to the Reserve System, or adjacent to existing reserves, mitigation sites, and conservation banks, will incorporate design requirements to minimize the indirect effects of development on these types of conservation lands in the permit area.

6.3.1.2.1 Conservation Lands: Development Interface Design Requirements

The design of development occurring adjacent to conservation lands will consider indirect and long-term effects, such as runoff; changes to hydrological conditions; the establishment of invasive non-native species, and potential structural and biological damage. Application of the following design requirements will help minimize the potential for indirect effects of development on conservation lands.

1) Signage will be posted to notify of any usage restrictions and to educate the public on the sensitivity of the area and usage restrictions.

2) Fencing will be installed at the boundary between developed areas and reserves to prevent illegal access by people and pets, unless the conditions on the reserve make trespass unlikely (i.e., surrounded by canals that are difficult to cross). The type of fence required will be at the discretion of the County or the PCA. Fences will have limited gates and be designed with consideration to not allowing movement of people and their pets. Access will be limited to maintenance and monitoring activities unless a habitat management plan specifies otherwise.

3) Natural or artificial barriers or other access restrictions may be installed around development to protect sensitive land-cover types and Covered Species in the reserves.

4) Roads constructed adjacent to reserves will be fenced to restrict unauthorized public access. Fencing will be appropriate (e.g., chain link, post and cable, barbwire) to allow movement of wildlife between reserves.

5) Development will be designed to minimize the length of the shared boundary between development and the reserves (i.e., minimize the urban edge, perimeter).

6) Incorporation of high-intensity lighting (e.g., floodlights used for recreational facilities and commercial parking lots) into site improvement standards near

reserves will be avoided. Low-glare, no-glare, or shielded lighting will be installed in developed areas adjacent to reserves to minimize artificial lighting of reserve lands at night. The height and intensity of lights shall be kept to a minimum. The intent of this avoidance and minimization measure is to design a lighting system, where determined necessary, that maintains public safety and security in the project area while curtailing the degradation of the nighttime visual environment on the reserve property.

7) Public facilities, such as ballparks and fields that require high-intensity night lighting (i.e., floodlights), will be sited at least 0.5 mile from the reserve boundary to minimize light pollution unless approved by the County or the PCA as appropriate.

8) For any landscaping adjacent to reserve properties, non-invasive plants will be required, and the use of native plants will be highly encouraged.

Any of the above design requirements, or similar requirements that are developed over time, that are incorporated into the project will be located within the development footprint. These project features will be maintained by the property owners.

6.3.1.3 General Condition 3, Land Conversion

For all project related activities that will result in permanent conversion of natural land cover, the applicant will pay fees or otherwise contribute to establishing the Reserve System. These activities are subject to the maximum extent of take proposed under the PCCP.

6.3.1.3.1 Permanent Effect Avoidance in the PFG

Any open space proposed as part of the project will be considered part of the project effects and, therefore, assumed to be permanently affected and not exempted from the PCCP fees, unless the open space meets avoidance criteria described below.

To qualify as "avoided," land within the Potential Future Growth Area must meet all the applicable natural community and Covered Species habitat requirements in Section 6.3.2, Conditions to Avoid and Minimize Effects on Specific Natural Communities, and Section 6.3.5, Conditions to Minimize Effects on Covered Species, of the PCCP. Avoided lands must also meet at least one of the following criteria:

1) It is a minimum of 200 contiguous acres.

2) It is located adjacent to the Reserve Acquisition Area or adjacent to an existing reserve that together totals at least 200 acres (either a PCCP reserve or a non-PCCP reserve protected in perpetuity).

3) It is located in or abuts the Stream System boundary.

4) It contributes to meeting the goals and objectives of the PCCP as described in Chapter 5, *Conservation Strategy*, and as determined by the County or the PCA as appropriate (i.e., the County or PCA may want to acquire the avoided area for the Reserve System).

5) It is set aside to avoid occurrences of certain Covered Species or sensitive land-cover types per the conditions in this chapter.

6) It is required to be avoided by the County or the PCA as appropriate.

6.3.1.4 General Condition 4, Temporary Effects

For all project related activities that result in temporary effects on natural land cover, the applicant will pay fees. These activities are subject to the maximum extent of take proposed under the PCCP.

6.3.1.5 General Condition 5, Conduct Worker Training

All construction personnel will participate in a worker environmental training program that will educate workers regarding the Covered Species and their habitats, the need to avoid impacts, state and federal protection, and the legal implications of violating environmental laws and regulations.

6.3.2 Conditions to Avoid and Minimize Effects on Specific Natural Communities

Additional avoidance and minimization requirements apply to the following natural communities within the Project Area: Vernal Pool Complex and Aquatic/Wetland Complex.

6.3.2.1 Community Condition 1, Wetland Avoidance and Minimization (Vernal Pool and Aquatic/Wetland Complex)

Projects that affect vernal pool constituent habitats and other wetlands must also adhere to applicable Species Conditions to minimize effects on certain Covered Species that may occur in these habitat types.

6.3.2.1.1 Community Condition 1.1, Avoidance of Vernal Pool Complex Constituent Habitat

Projects resulting in direct permanent or temporary effects on certain communities and/or constituent habitats are required to mitigate for the impacts, generally through payment of fees. Fees shall be paid for impacts prior to ground disturbing activities. Immediate Watersheds that will be avoided will be temporarily staked in the field by a qualified professional to ensure construction equipment and personnel completely avoid these features.

6.3.2.1.4 Community Condition 1.4, Salvage of Vernal Pool Constituent Habitat

Project related activities that result in the conversion of vernal pool constituent habitat must grant adequate and timely access to allow for salvage.

Vernal pool constituent habitat wetland soil and other wetland biota may be salvaged through the collection and storage of seeds, cysts, eggs, spores, and similar inocula for other vernal pool constituent habitats that will be created or restored elsewhere in the PCCP Area. Work will be undertaken by the applicant, County or PCA, and the decision regarding whether to salvage, the protocol used to salvage, storage arrangements, and the amount to be collected will be at the discretion of the County or PCA, based on consultation with California Department of Fish and Wildlife (CDFW) and the Service.

Collection from vernal pool constituent habitat will occur when the pool is dry (typically June 15 to October 15), for best possible preservation of seeds and other resources contained in the soil. Prior to collection, the County or PCA staff will determine whether the

vernal pool constituent habitats are infested with invasive plants. If a feature is found to be infested, County or PCA staff will first consult with CDFW and the Service regarding the appropriateness of harvesting inoculum from the affected vernal pool constituent habitats.

6.3.2.1.5 Community Condition 1.5, Wetlands Restoration

Project related activities that permanently or temporarily affect vernal pool constituent habitat and other wetlands, must contribute to restoration or creation of these resources as mitigation.

6.3.2.2 Community Condition 2, Riverine and Riparian Avoidance and Minimization

6.3.2.2.1 Community Condition 2.1, Riverine and Riparian Avoidance

Project activities that avoid effects on the riparian constituent habitat by excluding construction or other ground disturbance from existing riparian vegetation are not subject to special habitat fees.

6.3.2.2.2 Community Condition 2.2, Minimize Riverine and Riparian Effects

Where riverine and riparian constituent habitat avoidance is not feasible, project activities shall minimize effects on riverine and riparian constituent habitat by following design, construction, and operations minimization measures, including the best management practices (BMPs) described in Table 6-1 of the PCCP.

6.3.2.2.3 Community Condition 2.3, Riverine and Riparian Restoration

Project activities that affect riverine or riparian constituent habitat must contribute to restoration as mitigation to compensate for loss of riverine or riparian constituent habitat.

6.3.3 Conditions to Avoid, Minimize, and Mitigate Effects on the Stream System

The primary objective of Stream System Conditions is protection of watershed integrity (health and hydrology) by defining the extent of the Stream System and providing an incentive (in the form of a fee) for the project applicant to avoid land conversion within the Stream System boundary.

6.3.3.1 Stream System Condition 1, Stream System Avoidance and Minimization

Design and implement project activities in such a way as to avoid and minimize adverse effects on the Stream System.

6.3.3.2 Stream System Condition 2, Stream System Mitigation: Restoration

Where project activities result in the permanent or temporary impacts on the Stream System, regardless of the community or constituent habitat type affected, effects shall be mitigated by appropriate restoration or enhancement.

6.3.3.2.1 Fee within the Stream System

Projects that occur in the Stream System but do not avoid permanent effects will pay the Stream System fee. Projects in the Stream System with only temporary effects do not pay the Stream System fee. This will apply to all areas of the project that occur in the Stream System

boundary that is not otherwise assessed a special habitat fee, including affected upland communities within the Stream System.

6.3.5 Conditions to Minimize Effects on Covered Species

The following conditions provide measures to avoid or minimize effects on Covered Species. Survey measures specify when surveys must be conducted and provide seasonal restrictions or spatial buffers to separate species from potential disturbance from project related activities.

6.3.5.1 Surveys for Select Covered Wildlife Species

The timing of species habitat surveys, pre-construction surveys, and construction monitoring relative to impacts are described below. For projects that occur over multiple years, including projects that are phased, surveys and monitoring will be conducted prior to each construction phase if the entire project area is not continuously disturbed between phases. Surveys will be conducted by qualified biologists.

6.3.5.2 Survey Documentation

The applicant must describe to the County or PCA as appropriate, and the Service which surveys were conducted, detail the results of those surveys, and provide a map that displays where the surveys were conducted and where PCCP species, if any, were detected.

6.3.5.3 Construction Monitoring for Certain Covered Wildlife

Construction monitoring will be carried out by a qualified biologist to ensure that these avoidance and minimization requirements are being implemented properly and that they are adequately protecting the target species.

6.3.5.4 Exemptions from Species Surveys, Pre-Construction Surveys, and Construction Monitoring

The following types of project related activities are exempt from species survey and construction monitoring requirements. These activities are not precluded from other avoidance and minimization measures, BMPs, etc.

- No Ground Disturbance. Covered O&M activities, including those on the Reserve System, that do not result in any ground disturbance or removal of natural communities.
- Continuous Ground Disturbance. Ongoing O&M activities with ground disturbance that occur monthly or more frequently within the same location are exempt from repeat surveys so long as applicable surveys are conducted once before initiating the activity, surveys are conducted in the appropriate season (i.e., wildlife and plant surveys must be conducted during the appropriate time of year), and the survey results are negative.

6.3.5.6 Species Condition 1, Swainson's Hawk

6.3.5.6.1 Survey Requirements

Surveys for Swainson's hawk nests are required on the following communities in the Valley, within 0.25 mile (1,320 feet) of the project site:

- Valley oak woodland
- Grassland (if trees are present)
- Riparian
- Semi-natural (if trees are present)
- Other agricultural (if trees are present)
- Rural residential (if trees are present)
- Urban (if trees are present)

In addition, a CNDDB record search is required to determine whether any active nests are present within 1,320 feet of the project site. A nest is assumed active if it has been used within the previous 5 years.

Swainson's Hawk 1. Swainson's hawk surveys and CNDDB record searches are required well in advance of project construction to determine whether Swainson's hawk is nesting on or within 1,320 feet of the project site. If the project cannot be designed to avoid active Swainson's hawk nest trees and the construction must occur during the nesting season (approximately February 1 to September 15), a preconstruction survey must be conducted no more than 15 days prior to ground disturbance. Surveys will be conducted consistent with current guidelines (Swainson's Hawk Technical Advisory Committee 2000), with the following exceptions:

- Surveys will be required within a 1,320-foot radius around the project site. In instances where an adjacent parcel is not accessible to survey because the qualified biologist was not granted permission to enter, the qualified biologist will scan all potential nest tree(s) from the adjacent property, road sides, or other safe, publicly accessible viewpoints, without trespassing, using binoculars and/or a spotting scope to look for Swainson's hawk nesting activity;
- Surveys will be required from February 1 to September 15 (or sooner if it is found that birds are nesting earlier in the year); and
- If a Swainson's hawk nest is located and presence confirmed, only one follow-up visit is required (to avoid disturbance of the nest due to repeated visits).

6.3.5.6.2 Applicable Measures

If surveys determine that a Swainson's hawk nest is occupied, the project must adopt the minimization measure listed below:

Swainson's Hawk 2. During the nesting season (approximately February 1 to September 15 or sooner if it is found that birds are nesting earlier in the year), ground- disturbing activities within 1,320 feet of occupied nests or nests under construction will be prohibited to minimize the potential for nest abandonment. While the nest is occupied, activities outside the buffer can take place provided that they do not stress the breeding pair.

If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the County or PCA as appropriate, and the Service for a reduction in the buffer distance or waiver of this avoidance measure. A qualified biologist would be required to monitor the nest and determine that the reduced buffer does not cause nest abandonment. If a qualified biologist determines nestlings have fledged, Covered Activities can proceed normally.

Swainson's Hawk 3. Active (within the last 5 years) nest trees on a project site will not be removed during the nesting season. If a nest tree must be removed (as determined by the County or PCA as appropriate, and the Service), tree removal shall occur only between September 15 and February 1, after any young have fledged and are no longer dependent on the nest and before breeding activity begins.

6.3.5.6.3 Construction Monitoring

Swainson's Hawk 4. Construction monitoring will be conducted by a qualified biologist and will focus on ensuring that activities do not occur within the buffer zone. The qualified biologist performing the construction monitoring will ensure that effects on Swainson's hawks are minimized. If monitoring indicates that construction outside of the buffer is affecting nesting, the buffer will be increased if space allows (e.g., move staging areas farther away). If space does not allow, construction will cease until the young have fledged from the nest (as confirmed by a qualified biologist).

The frequency of monitoring will be approved by the County or PCA as appropriate, and the Service, and will be based on the frequency and intensity of construction activities and the likelihood of disturbance of the active nest. In most cases, monitoring will occur at least every other day, but in some cases, daily monitoring may be appropriate to ensure that direct effects on Swainson's hawks are minimized. The qualified biologist will train construction personnel on the avoidance procedures and buffer zones.

6.3.5.7 Species Condition 2, California Black Rail

6.3.5.7.1 Survey Requirements

Surveys are required to determine the presence/absence of California black rails, if the project is within 500 feet of the perimeter of a fresh emergent wetland greater than 0.2 acre in size.

California Black Rail 1. Surveys will be initiated sometime between March 15 and May 31, preferably before May 15. A minimum of four surveys will be conducted. The survey dates will be spaced at least 10 days apart and will cover the time period from the date of the first survey through the end of June to early July.

If a California black rail is determined to be present, no project activities are permitted within 500 feet of the outside perimeter of the occupied wetland. Project proponents may conduct activities within 500 feet of an occupied wetland based on site-specific conditions (e.g., noise barriers) and if approved by the County or PCA as appropriate, and the Service, and a qualified biologist monitors construction activities within 500 feet to ensure that California black rail nests are not disturbed.

6.3.5.7.2 Applicable Measures

Projects in occupied wetlands will not be permitted unless approval is granted by the County or PCA as appropriate, and the Service. Nothing in these measures prevents the Applicant from seeking take authorization under state law in the event that the PCCP is not adopted at the time of project implementation.

California Black Rail 2. If the County or PCA as appropriate, and the Service do not approve, a buffer around the avoided wetland will be demarcated 500 feet from the outside perimeter of the occupied wetland with an exclusion fence to prevent construction activities from encroaching into the buffer zone and to identify the occupied wetland and buffer zone as a no-work area within the covered project. If the work would dewater occupied habitat and the County or PCA as appropriate, and the Service do not approve, the activity shall not take place.

California Black Rail 3. If the County or PCA as appropriate, and the Service approve, clearing of the habitat (or dewatering) will occur between September 15 and February 1 (outside the breeding season). For ground disturbing activities, if the project will not convert all of the wetland habitat present, a buffer around the avoided wetland will be demarcated with exclusion fencing to prevent construction activities from encroaching into California black rail habitat and to identify the occupied wetland and buffer zone as a no-work area.

6.3.5.7.3 Construction Monitoring

California Black Rail 4. A qualified biologist will monitor on-site during construction to ensure that no activities occur within the buffer zone established around the occupied wetland, or if implementation of the activity is granted outside of the breeding season, to ensure that adverse effects are minimized.

The frequency of monitoring will be approved by the County or PCA as appropriate, and the Service based on the frequency and intensity of construction activities and the likelihood of disturbance of the active nest. In most cases, monitoring will occur at least every other day, but in some cases daily monitoring may be appropriate to ensure that direct effects on California black rail are minimized. The qualified biologist may increase the buffer size if s/he determines that activities are particularly disruptive (e.g., use of dynamite, or other explosives).

Prior to the start of construction, the qualified biologist will train construction personnel on the avoidance procedures and buffer zones.

6.3.5.8 Species Condition 3, Western Burrowing Owl

6.3.5.8.1 Survey Requirements

Surveys for burrowing owl must be conducted for projects that occur on the following communities and features in the Valley, or as determined by a qualified biologist, to ensure that occupied burrowing owl nests are not taken:

- Grassland
- Vernal pool complex

- Semi-natural (agriculture)
- Other agricultural
- Rural residential and urban community if potential burrow sites are available
- Man-made structures such as underground pipes, irrigation canal banks, ditches
- Banks of intermittent drainages if potential burrow sites are available

Burrowing Owl 1. Two surveys will be conducted within 15 days prior to ground disturbance to establish the presence or absence of burrowing owls. The surveys will be conducted at least 7 days apart (if burrowing owls are detected on the first survey, a second survey is not needed) for both breeding and non-breeding season surveys. All burrowing owls observed will be counted and mapped.

During the breeding season (February 1 to August 31), surveys will document whether burrowing owls are nesting in or within 250 feet of the project area.

During the non-breeding season (September 1 to January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any area to be disturbed. Survey results will be valid only for the season (breeding or non-breeding) during which the survey was conducted.

6.3.5.8.2 Applicable Measurements

If a burrowing owl or evidence of presence at or near a burrow entrance is found to occur within 250 feet of the project site, the following measures must be implemented:

Burrowing Owl 2. If burrowing owls are found during the breeding season (approximately February 1 to August 31), the project applicant will:

- Avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults oryoung (occupation includes individuals or family groups foraging on or near the site following fledging).
- Establish a 250-foot non-disturbance buffer zone around nests. The buffer zone will be flagged or otherwise clearly marked. Should construction activities cause the nesting bird to vocalize, make defensive flights at intruders, or otherwise display agitated behavior, then the exclusionary buffer will be increased such that activities are far enough from the nest so that the bird(s) no longer display this agitated behavior. The exclusionary buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. Construction may only occur within the 250-foot buffer zone during the breeding season only if a qualified raptor biologist monitors the nest and determines that the activities do not disturb nesting behavior, or the birds have not begun egg-laying and incubation, or that the juveniles from the occupied burrows have fledged and moved off site. Measures such as visual screens may be used to further reduce the buffer with the County or PCA as appropriate, and the Service approval and provided a biological monitor confirms that such measures do not cause agitated behavior.

Burrowing Owl 3. If burrowing owls are found during the non-breeding season (approximately September 1 to January 31), the project applicant will establish a 160-foot buffer zone around active burrows. The buffer zone will be flagged or otherwise clearly marked. Measures such as visual screens may be used to further reduce the buffer with approval from the County or PCA as appropriate, and the Service, and provided a biological monitor confirms that such measures do not cause agitated behavior.

Burrowing Owl 4. During the non-breeding season only, if the project cannot avoid occupied burrows after all alternative avoidance and minimization measures are exhausted, as confirmed by the County or PCA as appropriate, and the Service, a qualified biologist may passively exclude birds from those burrows. A burrowing owl exclusion plan must be developed by a qualified biologist consistent with the most recent guidelines from the Wildlife Agencies (e.g., California Department of Fish and Game 2012) and submitted to and approved by the County or PCA as appropriate, and the Service. Burrow exclusion will be conducted for burrows located in the project footprint and within a 160-foot buffer zone as necessary.

6.3.5.8.3 Construction Monitoring

Burrowing Owl 5. A biological monitor will be present on site daily to ensure that no project activities occur within the buffer zone. The qualified biologist performing the construction monitoring will ensure that effects on burrowing owls are minimized. If monitoring indicates that construction outside of the buffer is affecting nesting, the buffer will be increased if space allows (e.g., move staging areas farther away). If space does not allow, construction will cease until the young have fledged from all the nests in the colony (as confirmed by a qualified biologist) or until the end of the breeding season, whichever occurs first.

A biological monitor will conduct training of construction personnel on the avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone (i.e., outside the buffer zone).

6.3.5.9 Species Condition 4, Tricolored Blackbird

6.3.5.9.1 Survey Requirements

The County, CDFW or the PCA will provide a map of active colony sites to help determine where a survey for tricolored blackbird must occur. A colony site is considered active if it has been used for nesting in the prior 10 years. Surveys for nesting tricolored blackbird must occur if the County, CDFW or the PCA- provided map indicates an active colony site occurs on the project site or within 1,300 feet of a colony site. Surveys for nesting tricolored blackbird must also be conducted for project sites below 300 feet elevation, within the following communities:

- Aquatic/Wetland complex
- Field Agriculture when planted in wheat, grain, triticale, or similar crop
- Patches of thorny or spiny vegetation such as blackberry, nettle, or thistle (blackberry is often associated with the riparian constituent habitat)

If an active colony site is within 3 miles of the project site and construction will occur within the nesting season (March 15 to July 31), then a survey of foraging habitat at and immediately surrounding the project site will be conducted within the following communities:

- Grassland
- Rice Agriculture
- Field Agriculture
- Aquatic/Wetland Complex
- Vernal Pool Complex

Tricolored Blackbird 1. *Preconstruction Surveys – Nest Colony Sites.* Prior to initiation of project activities in all project work areas and within 1,300 feet of project work areas, the qualified biologist(s) shall conduct preconstruction surveys to evaluate the presence of tricolored blackbird nesting colonies.

Tricolored Blackbird 2. *Preconstruction Surveys – Foraging Habitat.* If an active colony is known to occur within 3 miles of the project site, a qualified biologist will conduct two surveys of foraging habitat within the project site and within a 1,300-foot radius around the project site to determine whether foraging habitat is being actively used by foraging tricolored blackbirds.

6.3.5.9.2 Applicable Measures

If a tricolored blackbird nesting colony is found, the project applicant will abide by the following measures:

Tricolored Blackbird 3. *Nesting Colony – Avoidance and Minimization.* Construction activity or other covered activities that may disturb an occupied nest colony site, as determined by a qualified biologist, will be prohibited during the nesting season (March 15 through July 31 or until the chicks have fledged or the colony has been abandoned on its own) within a 1,300-foot buffer zone around the nest colony, to the extent practicable. Buffers may be reduced to a minimum of 300 feet with written approval by the County, CDFW or the PCA when buildings or other features buffer Covered Activities from an active nest colony, where there is sufficient topographic relief to protect colony from excessive noise or visual disturbance, or where sound curtains have been installed.

Tricolored Blackbird 4. *Actively used Foraging Habitat – Avoidance and Minimization.* Construction activity or other covered activities that may disturb foraging tricolored blackbirds, as determined by a qualified biologist, will be prohibited within 1,300-feet of the foraging site to the extent feasible during the nesting season (March 15 through July 31 or until the chicks have fledged or the colony has been abandoned on its own) if the foraging habitat was found to be actively used by foraging tricolored blackbirds during at least one of the two foraging habitat surveys conducted under Tricolored Blackbird 2. If surveys indicate the area provides marginal foraging habitat (e.g. birds were observed foraging, but only briefly, and most not successfully capturing prey), the County or PCA as appropriate, and the Service will evaluate whether the project needs to avoid foraging habitat during nesting

season. In such cases, additional surveys may be necessary to assess value of foraging habitat. Buffers may be reduced to a minimum of 300 feet with written approval by the County or PCA as appropriate, and the Service when buildings or other features buffer Covered Activities from active foraging areas, where there is sufficient topographic relief to protect colony from excessive noise or visual disturbance, or where sound curtains have been installed.

6.3.5.9.3 Construction Monitoring

Tricolored Blackbird 5. *Nesting Colony – Construction Monitoring.* Active nesting colonies that occur within the no-disturbance buffer shall be monitored by the qualified biologist(s) to verify the project is not disrupting the nesting behavior of the colony. The frequency of monitoring will be approved by the County or PCA as appropriate, and the Service and based on the frequency and intensity of construction activities and the likelihood of disturbance of the active nest.

If the qualified biologist(s) determines that the project is disrupting nesting and/or foraging behavior, the qualified biologist(s) shall notify the project applicant immediately, and the project applicant shall notify the County or PCA as appropriate, and the Service within 24 hours to determine additional protective measures that can be implemented. The qualified biologist(s) shall have the authority to stop project activities causing the observed change in nesting behavior until additional protective measures are implemented. Additional protective measures shall remain in place until the qualified biologist(s) determine(s) tricolored blackbird behavior has normalized. If additional protective measures are ineffective, the qualified biologist(s) shall have the authority to stop project activities causing the observed change in nesting behavior as needed until the additional protective measures are modified and nesting behavior of tricolored blackbird returns to normal.

Tricolored Blackbird 6. *Actively used Foraging Habitat – Construction Monitoring.* Foraging habitat within the buffer shall be monitored by the qualified biologist(s) to verify that the project is not disrupting tricolored blackbird foraging behavior. The frequency of monitoring will be approved by the County or PCA as appropriate, and the Service and based on the frequency and intensity of construction activities and the likelihood of disturbance of foraging tricolored blackbirds. The biologist will train construction personnel on the avoidance procedures and buffer zones.

If the qualified biologist(s) determines that the project is disrupting foraging behavior, the qualified biologist(s) shall notify project applicant immediately, and the project applicant shall notify the County or PCA as appropriate, and the Service within 24 hours to determine additional protective measures that can be implemented. The qualified biologist(s) shall have the authority to stop project activities causing the observed change in foraging behavior until additional protective measures are implemented. Additional protective measures shall remain in place until the qualified biologist(s) determine(s) tricolored blackbird behavior has normalized. If additional protective measures are ineffective, the qualified biologist(s) shall have the authority to stop project activities causing the observed change in foraging behavior as needed until the additional protective measures are modified and foraging behavior of tricolored blackbird returns to normal.

6.3.5.11 Species Condition 6, California Red-legged Frog, Foothill Yellow-legged Frog, and Western Pond Turtle

California red-legged frog, foothill yellow-legged frog, and western pond turtle are all species that rely on aquatic habitats for a portion of their life cycles. Conditions on Covered Activities that provide avoidance and minimization for California red-legged frog, foothill yellow-legged frog, and western pond turtle that have been included in the conservation measures include:

- 6.3.1.1 General Condition 1, Watershed Hydrology and Water Quality
- 6.3.2.1.1 Community Condition 1.1, Avoidance of Vernal Pool Complex Constituent Habitat
- Species Condition 4, Tricolored Blackbird

In addition to these avoidance and minimization measures, 6.3.1.3 General Condition 3, Land Conversion, provides a process for accounting for loss of natural and semi-natural habitat that is more encompassing than standard practice.

6.3.5.15 Species Condition 10, Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

Surveys are required in vernal pools and seasonal swales that will be lost to determine the occupancy rate of vernal pool fairy shrimp and vernal pool tadpole shrimp in these wetlands.

6.3.5.15.1 Survey Requirements

Surveys to determine occupancy of vernal pools by vernal pool fairy shrimp and vernal pool tadpole shrimp will be required during the Initial Survey Phase for the PCCP. The Initial Survey Phase will last until a minimum of 37 wetted acres of existing vernal pools within the Valley Potential Future Growth Area have been surveyed for vernal pool fairy shrimp and vernal pool tadpole shrimp.

Vernal Pool Fairy Shrimp and Tadpole Shrimp 1. The qualified biologist will conduct protocol-level wet season surveys, using modified Guidelines, as approved by the Service. Exceptions and additions to the Guidelines are as follows:

- If presence is confirmed for vernal pool fairy shrimp and vernal pool tadpole shrimp in an individual vernal pool, surveys may be stopped for that vernal pool.
- All vernal pools on the project site must be surveyed. Surveys cannot be suspended prior to completion, as allowed by the Guidelines, if one or more of the six listed large branchiopods, identified in the Guidelines is determined to be present.
- The Guidelines define a complete survey as consisting of one wet-season and one dry-season survey conducted and completed in accordance with the Guidelines within a 3-year period. For the purposes of the PCCP, only one wet-season survey is required; dry-season surveys are not required. Applicants must plan ahead to allow sufficient time to complete these surveys.
- Data that will be collected at each vernal pool surveyed during the wet season survey will include the presence or absence of vernal pool fairy shrimp and vernal

pool tadpole shrimp, species identity and the estimated abundance (10s, 100s, 1,000s) of immature and mature vernal pool fairy shrimp and vernal pool tadpole shrimp present, and estimated maximum surface area of the vernal pool. Other information on the Service data sheet are not required to be collected (i.e., air and water temperature, average and estimated maximum depth of the vernal pool, presence of non-target crustaceans, insects, and platyhelminths, and habitat condition). This will allow surveys to be conducted more efficiently, while providing the essential information necessary to calculate the Pool-based Occupancy Rate Standard and the Area-based Occupancy Rate Standard. Because these vernal pools will be affected by Covered Activities, collection of additional information is not necessary.

- Information will be recorded on the County, Service, or PCA-provided data sheet, which will be the Service data sheet (included as Appendix A to the Guidelines), modified to include the above information.

Voucher specimens will not be collected during wet season surveys unless the identity of the mature shrimp is uncertain and cannot be identified in the field. The Guidelines allow for a limited number of voucher specimens to be collected for each vernal pool. For the purpose of the PCCP, the modified survey protocol further limits the collection of voucher specimens to instances where identity is uncertain.

6.3.5.15.2 Applicable Measures

The applicant must submit completed data sheets to the County or PCA as appropriate, and the Service prior to ground disturbing activities.

Action Area

The action area is defined in 50 CFR § 402.02, as "all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action." For the proposed project, the action area encompasses the Amoruso property, the Sunset Boulevard right-of-way adjacent to the Amoruso property, and the offsite drainage area.

Analytical Framework for the Jeopardy Determination

Section 7(a)(2) of the Act requires that federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species. "Jeopardize the continued existence of" means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR § 402.02).

The jeopardy analysis in this biological opinion considers the effects of the proposed federal action, and any cumulative effects, on the rangewide survival and recovery of the listed species. It relies on four components: (1) the *Status of the Species*, which describes the current rangewide condition of the species, the factors responsible for that condition, and its survival and recovery needs; (2) the *Environmental Baseline*, which analyzes the current condition of the species in the action area without the consequences to the listed species caused by the proposed action, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the species; (3) the *Effects of the Action*, which determines all consequences to listed species that are caused by the proposed federal action; and (4) the *Cumulative Effects*, which evaluates the effects of future, non-

federal activities in the action area on the species. The *Effects of the Action* and *Cumulative Effects* are added to the *Environmental Baseline* and in light of the status of the species, the Service formulates its opinion as to whether the proposed action is likely to jeopardize the continued existence of the listed species.

Status of the Species

The status of the fairy shrimp has been assessed in the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (Service 2005) (Recovery Plan) and 5-year reviews. For the most recent comprehensive assessment of the range-wide status of the fairy shrimp, please refer to the *Vernal Pool Fairy Shrimp (Branchinecta lynchi) 5-Year Review: Summary and Evaluation* (Service 2007). No change in the fairy shrimp's listing status was recommended in this 5-year review. Threats evaluated during the review and discussed in the final document have continued to act on the species since the 2007 5-year review was finalized, with loss of vernal pool habitat being the most significant effect.

While there have been continued losses of vernal pool habitat throughout the various vernal pool regions identified in the Recovery Plan, including the Southeastern Sacramento Valley Vernal Pool Region where the proposed project is located, to date no project has proposed a level of effects for which the Service has issued a biological opinion of jeopardy for either species.

Environmental Baseline

Environmental baseline refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline.

The action area is located in the Southeastern Sacramento Valley Vernal Pool Region, as described in the Recovery Plan, which contains 18% of the remaining vernal pool grasslands in California's Central Valley (Witham et al. 2014). The action area is not located within any of the Core Recovery Areas identified by the Recovery Plan within this region. Within this Vernal Pool Region, the amount of vernal pools decreased by 6% from 2005 to 2012. The conversion of land by plowing discing, or grading accounted for 48% percent of the loss (Witham et al. 2014).

The action area is largely surrounded by agricultural and undeveloped lands supporting rural residences. There is one housing development north of the action area and numerous Service-approved specific plan areas and existing or proposed preserves surrounding the action area. The action area is comprised of gently rolling terrain at 70-100 feet above mean sea level. The primary vegetation community within the action area is annual grassland, composed primarily of non-native grasses, which supports vernal pools and other seasonal wetland features. The northeastern portion of the Amoruso property consists of irrigated pasture, and agricultural runoff from the pasture has resulted in two small marshy areas on the northwest and south sides of the pasture. The offsite drainage area consists of leveled agricultural fields separated by earthen berms. A portion of University Creek within the offsite drainage area was realigned into a linear ditch during historic farming practices and supports maturing riparian vegetation. Based on the natural communities categories outlined in the draft HCP/NCCP, the action area consists of 526.6 acres of vernal pool

complex, 97.0 acres of pasture/grassland, 8.0 acres of aquatic/wetland complex, and 10.2 acres of rural residential/roads (Figure 3).

There are seven soil types mapped within the action area: (104) Alamo-Fiddyment complex, 0-5% slopes; (141) Cometa-Fiddyment complex, 1-5% slopes; (146) Fiddyment loam, 1-8% slopes; (174) Fiddyment-Kaseberg loams, 2-9% slopes; (193) Xerofluevents, occasionally flooded; (194) Xerofluvents, frequently flooded; (195) Xerofluvents, hardpan substratum (NRCS 2020). These soil types contain hydric components or hydric inclusions and frequently have hardpan layers that slow permeability and can result in pooled water after winter/spring rains. The consultant completed several wetland delineations for the proposed project; the Corps completed verification of the delineations for the Amoruso property and Sunset Boulevard right-of-way on March 23, 2011, and for the offsite drainage area on June 13, 2017. These wetland delineations documented a total of 38.57 acres of waters of the U.S., composed of nine different wetland feature categories (Figure 4).

Formal protocol-level wet season surveys for the fairy shrimp were conducted by the consultant during the 2007-2008 and 2008-2009 wet seasons within the Amoruso property and during the 2015-2016 wet season within the offsite drainage area. In total, the fairy shrimp was observed within 15 vernal pools within the action area (Figure 5). Approximately 26.60 acres of suitable habitat for the fairy shrimp exist within the action area, including 9.81 acres of vernal pools, 4.55 acres of seasonal wetlands, and 12.24 acres of seasonal wetland swales. (All reported acreages are measured on the NAD83 datum in State Plane coordinates. All measurements are in feet and converted to acreages for ease of use, which may lead to minor rounding discrepancies in the reporting of acreage totals.) The wetland features that receive agricultural runoff from the irrigated pasture and are inundated during the summer months are not suitable as fairy shrimp habitat (Figure 5). Dry season surveys were not conducted. Because the proposed project is within the range of the fairy shrimp, suitable habitat exists within the action area, and the fairy shrimp was observed within the action area during wet season surveys, it is reasonably likely that the fairy shrimp is present within the action area.

Effects of the Action

Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action.

The proposed project will result in the conversion and loss of 418.3 acres of vernal pool complex due to grading and the construction of the development. All waters of the U.S., including 8.80 acres of fairy shrimp habitat, within the construction footprint will be filled. Any tadpole shrimp or fairy shrimp eggs in the soil may be crushed by heavy equipment during construction, and any surviving tadpole shrimp or fairy shrimp eggs will not be able to hatch due to the permanent loss of all suitable habitat during development of the proposed project.

Grading and other construction activities will also alter the hydrology of portions of waters of the U.S., including fairy shrimp habitat, that are within the Onsite Preserve, General Open Space, or Placer Parkway corridor that will not be filled but are hydrologically connected to features that will be filled. These portions of fairy shrimp habitat will have their hydrology altered to the point where they will no longer pond water for the duration necessary to support the lifecycle of the tadpole shrimp or the fairy shrimp. Any tadpole shrimp or fairy shrimp eggs within the soil will not be able to hatch due to this permanent loss of suitable habitat. Vernal pools and seasonal wetlands are

considered to no longer support fairy shrimp habitat if more than 10% their immediate watershed will be subject to development or grading. Seasonal wetland swales that are truncated by the proposed project are expected to continue transporting water, but a reduction in watershed is expected to reduce their function near construction boundaries. Therefore, segments of seasonal wetland swales are considered to no longer support fairy shrimp habitat if they are within 50 feet of grading limits. A total of 1.98 acres of fairy shrimp habitat will be lost due to changes in hydrology caused by the proposed project.

Because the proposed project will be constructed in three phases over many years, some waters of the U.S., including fairy shrimp habitat, that are near the border of Phase 1 or Phase 2 may be impacted by an earlier phase even if they are not graded and filled until a later phase. For the purposes of this analysis, waters of the U.S. and any fairy shrimp eggs within the soil are considered effected by the earlier phase if they are within 250 feet of the earlier phase and will be subsequently filled or have their hydrology altered during the later phase. The applicant will compensate for these effects prior to the earlier phase and will not have to pay additional fees prior to the later phase. In total, the proposed project will result in the loss of 6.78 acres of fairy shrimp habitat during phase 1, 0.98 acre during phase 2, and 3.02 acres during phase 3 due to grading and alterations to hydrology.

The remaining 15.81 acres of fairy shrimp habitat within the proposed project's Onsite Preserve, General Open Space, and Placer Parkway corridor will be avoided and is expected to continue functioning as fairy shrimp habitat. Furthermore, the 13.27 acres of avoided fairy shrimp habitat within the Onsite Preserve will be preserved in perpetuity.

As noted previously in the Description of the Proposed Action section, the project proponent has also proposed a set of conservation measures, including the commitment to provide compensatory habitat as a condition of the action. This compensatory habitat is intended to minimize the effect on the species of the proposed project's anticipated incidental take, resulting from the permanent loss of habitat described above. The compensatory habitat proposed will be in the form of the 108.5-acre Onsite Preserve and the appropriate PCCP fees to be paid to Placer County or the PCA.

This component of the action will have the effect of protecting and managing lands for the species' conservation in perpetuity. The compensatory lands will provide suitable habitat for breeding, feeding, or sheltering commensurate with or better than habitat lost as a result of the proposed project. Providing this compensatory habitat as part of a relatively large, contiguous block of conserved land may contribute to other recovery efforts for the species.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. During this consultation, the Service did not identify any future non-federal actions that are reasonably certain to occur in the action area of the proposed project.

Conclusion

After reviewing the current status of the fairy shrimp, the environmental baseline for the action area, the effects of the proposed project, and the cumulative effects, it is the Service's biological opinion that the Amoruso Ranch Specific Plan Project, as proposed, is not likely to jeopardize the continued existence of the fairy shrimp. The Service reached this conclusion because the project-related effects

to the species, when added to the environmental baseline and analyzed in consideration of all potential cumulative effects, will not rise to the level of precluding recovery or reducing the likelihood of survival of the species based on the following:

1) The acreage of habitat that will be affected by the proposed project represents a small portion of habitat available in the Southeastern Sacramento Valley Vernal Pool Region; and
2) The compensatory habitat proposed will ensure that habitat for the tadpole shrimp and the fairy shrimp will be protected and managed in perpetuity.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by Service regulations at 50 CFR 17.3 as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the same regulations as an act which actually kills or injures wildlife. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are non-discretionary, and must be undertaken by the Corps so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps (1) fails to assume and implement the terms and conditions or (2) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the Corps must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR §402.14(i)(3)].

Amount or Extent of Take

The Service anticipates that incidental take of the fairy shrimp will be difficult to detect due to the fact that it is not possible to know how many eggs are in the soil of any wetland feature. Incidental take of the fairy shrimp in the form of harm and mortality will result from the permanent fill and removal of 8.80 acres of fairy shrimp habitat and changes to the hydrology of 1.98 acres of fairy shrimp habitat, for a total of 10.78 acres of fairy shrimp habitat. The life stage affected by this action will be the fairy shrimp's eggs, which are embedded in the soil and are difficult to detect without a detailed microscopic analysis. Therefore, due to the fact that it is not possible to know how many eggs are in the soil of any wetland feature, or how many eggs will occupy any wetland feature later in time, the Service cannot quantify the total number of fairy shrimp eggs that we anticipate will be taken as a result of the proposed project. In instances in which the total number of eggs anticipated to be taken cannot be determined, the Service may use the acreage of habitat impacted as a surrogate for the take of eggs. Therefore, the Service anticipates take incidental to the construction of the

proposed project as the killing of all fairy shrimp eggs within the 8.80 acres of habitat that will be filled and the 1.98 acres of habitat that will be lost later in time due to changes to hydrology.

Upon implementation of the following reasonable and prudent measures, incidental take of the fairy shrimp associated with the Amoruso Ranch Specific Plan Project will become exempt from the prohibitions described in section 9 of the Act. No other forms of take are exempted under this opinion.

Effect of the Take

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species.

Reasonable and Prudent Measures

All necessary and appropriate measures to avoid or minimize effects on the fairy shrimp resulting from implementation of this project have been incorporated into the project's proposed conservation measures. Therefore, the Service believes that the following reasonable and prudent measure is necessary and appropriate to minimize incidental take of the fairy shrimp:

1) The conservation measures, as described in the biological assessment and restated here in the Project Description section of this biological opinion, shall be fully implemented and adhered to. Further, this reasonable and prudent measure shall be supplemented by the terms and conditions below.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the Corps must ensure compliance with the following terms and conditions, which implement the reasonable and prudent measure described above. These terms and conditions are nondiscretionary.

1) The Corps shall include full implementation and adherence to the conservation measures as a condition of any permit or contract issued for the project.
2) In order to monitor whether the amount of extent of incidental take anticipated from implementation of the proposed project is approached, the Corps will adhere to the following reporting requirement. Should this anticipated amount or extent of incidental take be exceeded, the Corps must immediately reinitiate formal consultation, as per 50 CFR §402.16.
    a. For those components of the action that will result in habitat degradation or modification whereby incidental take in the form of harm is anticipated, the Corps shall provide a precise accounting of the total acreage of habitat impacted to the Service after completion of construction.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The Service recommends the following actions:

1) The Corps should work with the Service to assist us in meeting the goals of the Recovery Plan for the tadpole shrimp and the fairy shrimp as outlined in the December 2005, Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (Service 2005).

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION—CLOSING STATEMENT

This concludes formal consultation on the Amoruso Ranch Specific Plan Project. As provided in 50 CFR §402.16, reinitiation of consultation is required and shall be requested by the federal agency or by the Service where discretionary federal involvement or control over the action has been retained or is authorized by law, and:

1) If the amount or extent of taking specified in the incidental take statement is exceeded;

2) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;

3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or written concurrence, or

4) If a new species is listed or critical habitat designated that may be affected by the identified action.

If you have any questions regarding this biological opinion, please contact Ian Perkins-Taylor, Fish and Wildlife Biologist (ian_perkins-taylor@fws.gov) or Josh Hull, Acting Sacramento Valley Division Chief (josh_hull@fws.gov) at the letterhead address, at (916) 414-6585, or by email.

Sincerely,

Michael B. Fris
Acting Field Supervisor

Enclosures

cc:
John Norman, Brookfield Homes, Roseville, California
Joseph Morgan, EPA, San Francisco, California
Gregg McKenzie, Placer County, Auburn, California
Dave Krolick, ECORP, Rocklin, California

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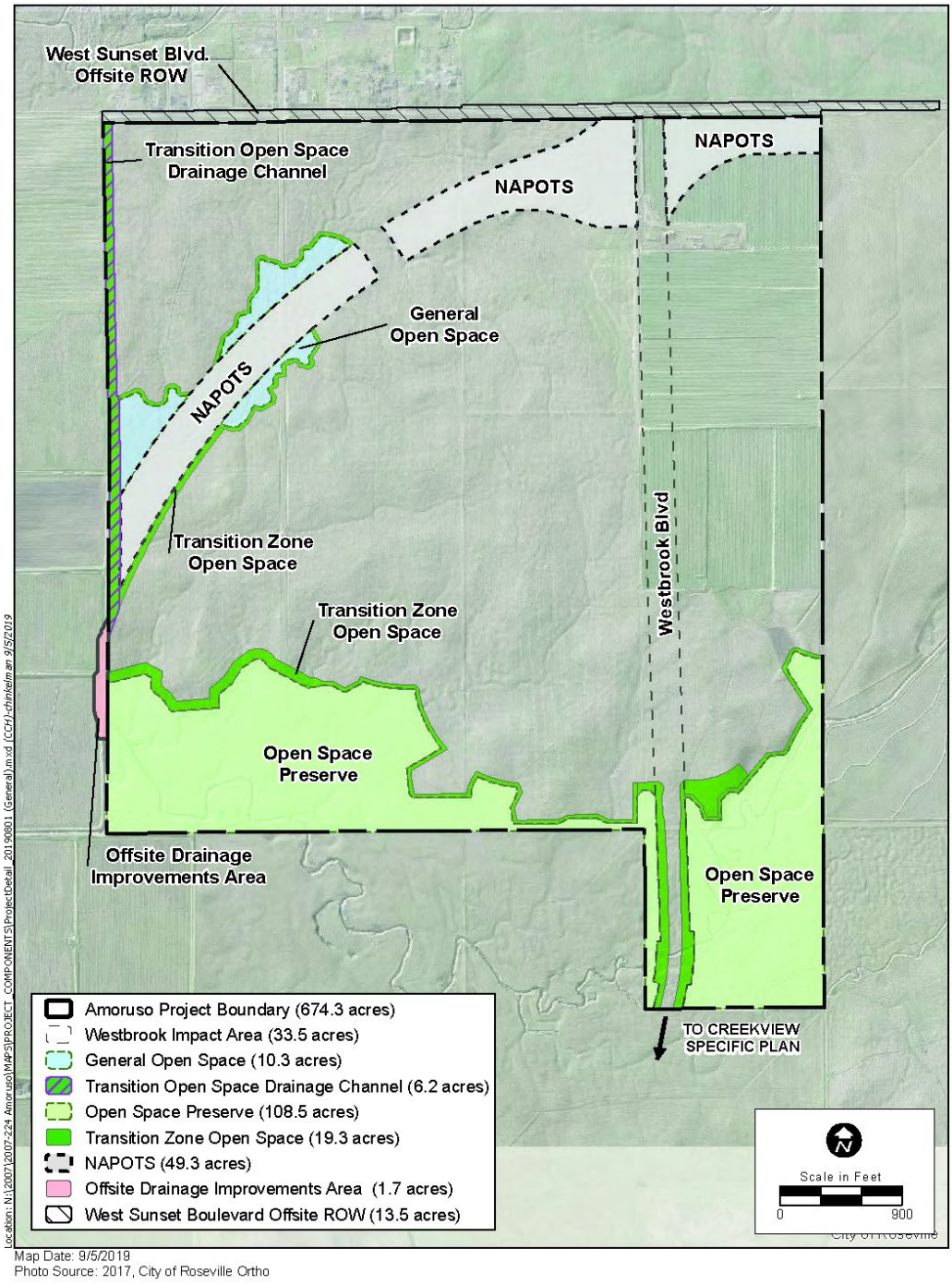


Figure 1. Map of the proposed project and its various components. The future Placer Parkway is labeled as Not A Part Of This Project (NAPOTS). (Taken from Figure 2 of the September 2019 *Biological Assessment: Amoruso Ranch Project* prepared by the consultant).

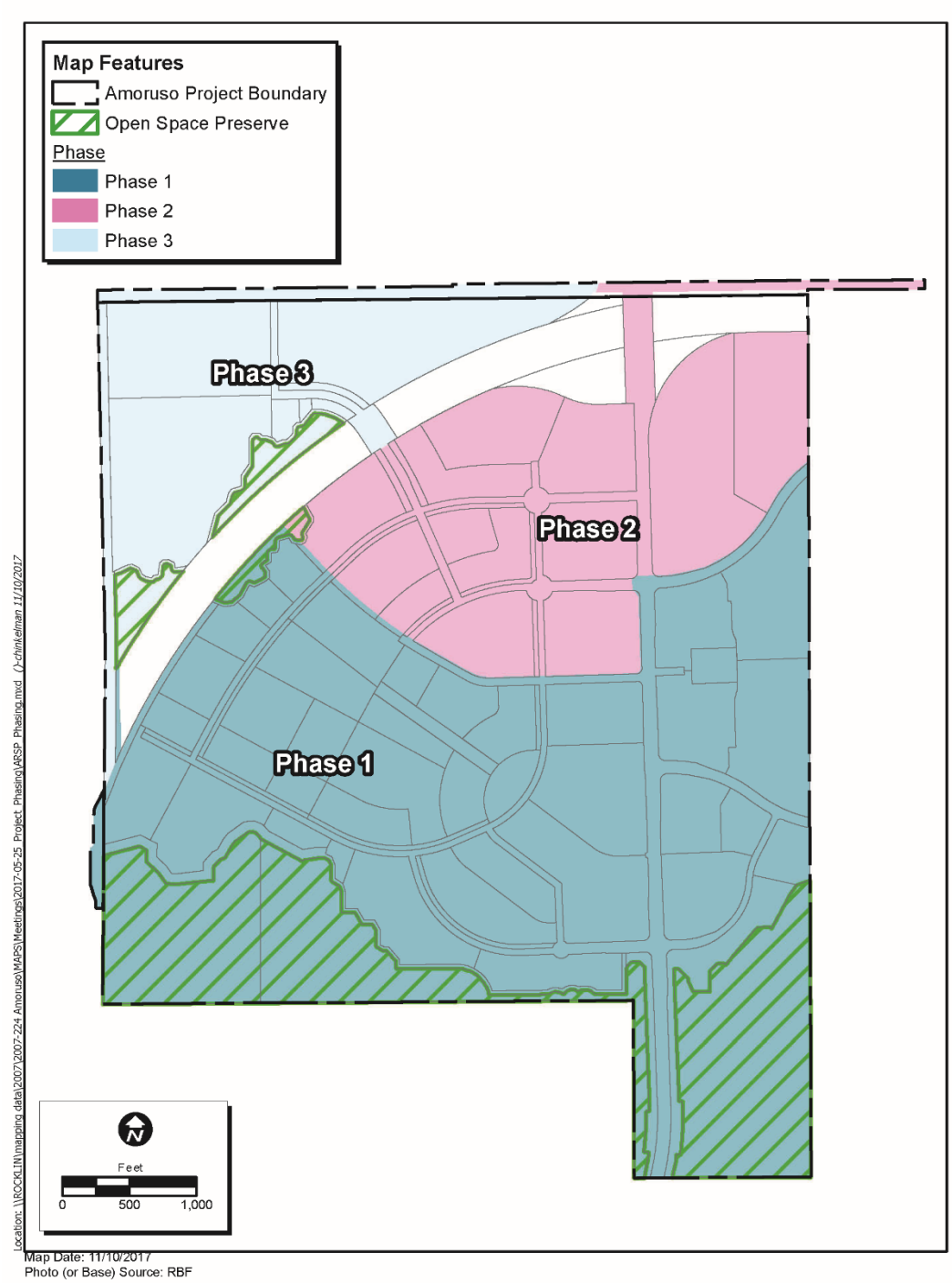
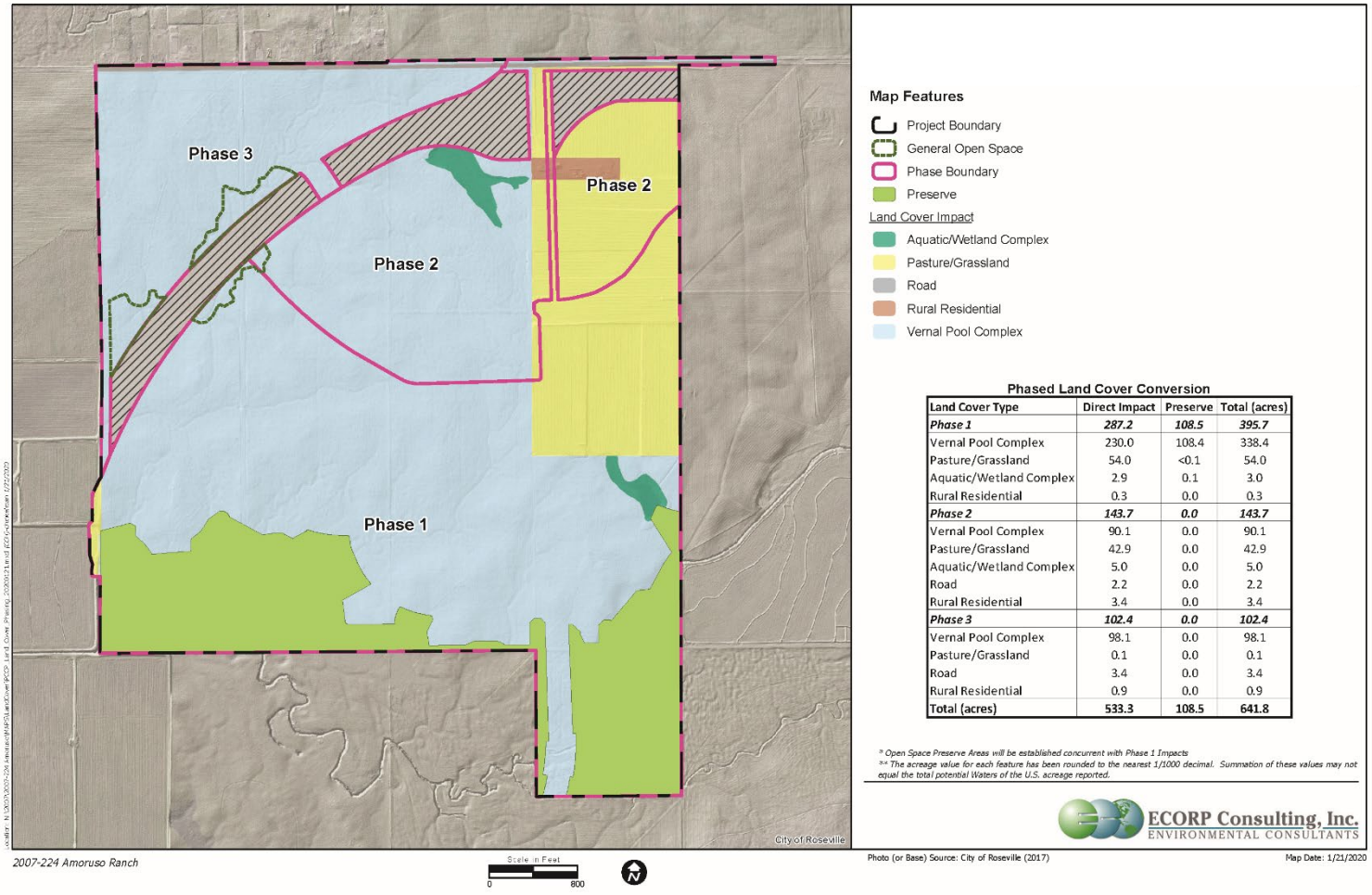


Figure 2. Map of the proposed project's three phases of construction. (Taken from Figure 1 of the February 4, 2019, *Amoruso Project Phased Mitigation Proposal* prepared by the consultant).

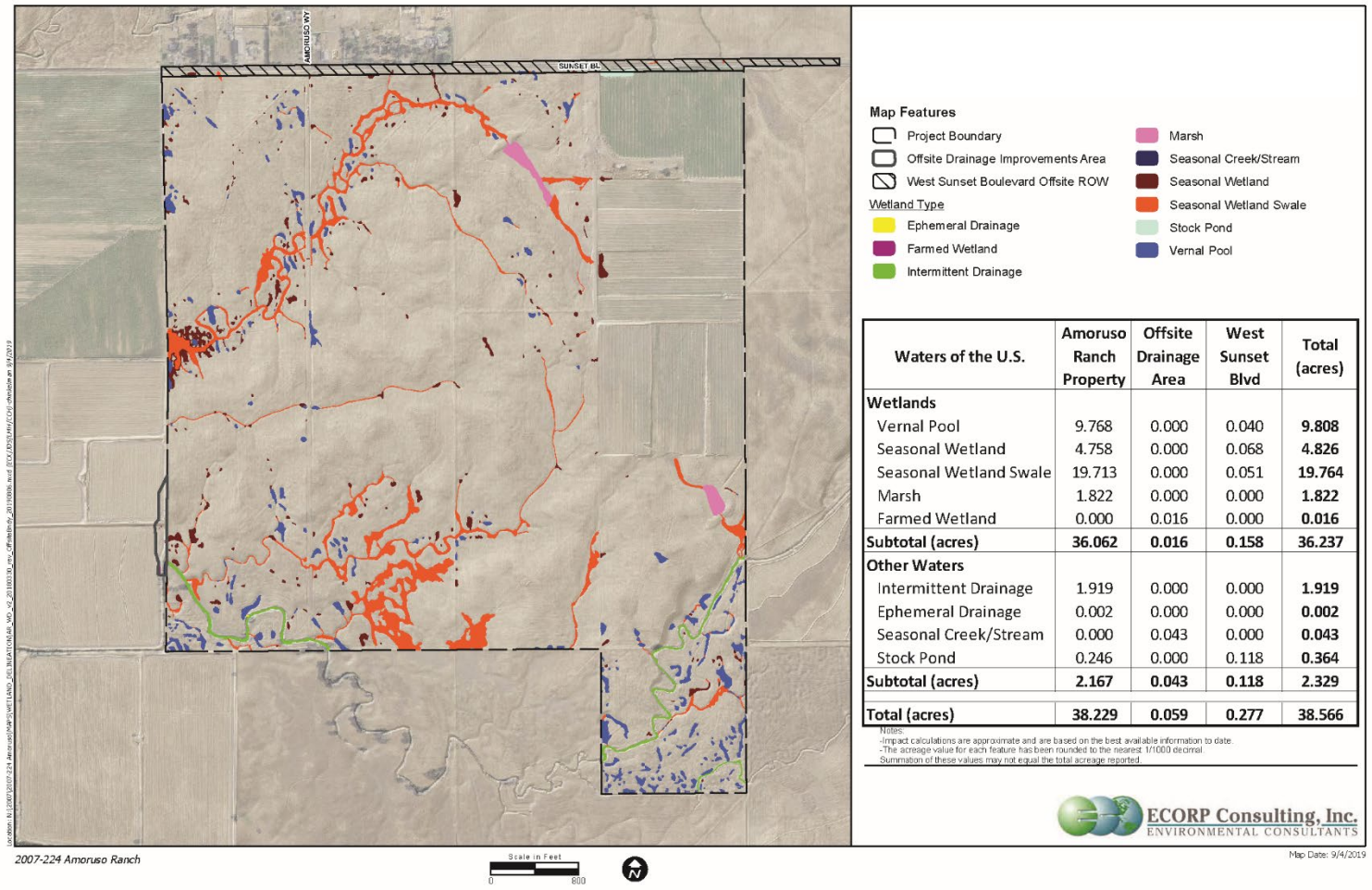


Phased Land Cover Conversion

Land Cover Type	Direct Impact	Preserve	Total (acres)
Phase 1	***287.2***	***108.5***	***395.7***
Vernal Pool Complex	230.0	108.4	338.4
Pasture/Grassland	54.0	<0.1	54.0
Aquatic/Wetland Complex	2.9	0.1	3.0
Rural Residential	0.3	0.0	0.3
Phase 2	***143.7***	***0.0***	***143.7***
Vernal Pool Complex	90.1	0.0	90.1
Pasture/Grassland	42.9	0.0	42.9
Aquatic/Wetland Complex	5.0	0.0	5.0
Road	2.2	0.0	2.2
Rural Residential	3.4	0.0	3.4
Phase 3	***102.4***	***0.0***	***102.4***
Vernal Pool Complex	98.1	0.0	98.1
Pasture/Grassland	0.1	0.0	0.1
Road	3.4	0.0	3.4
Rural Residential	0.9	0.0	0.9
Total (acres)	**533.3**	**108.5**	**641.8**

* Open Space Preserve Areas will be established concurrent with Phase 1 Impacts
** The acreage value for each feature has been rounded to the nearest 1/1000 decimal. Summation of these values may not equal the total potential Waters of the U.S. acreage reported.

Figure 3. Map of the natural communities (labeled as land cover types) within the proposed project. (Taken from Figure 2 of the January 27, 2020, *Amended Biological Assessment: Amoruso Ranch Project* prepared by the consultant).



Waters of the U.S.	Amoruso Ranch Property	Offsite Drainage Area	West Sunset Blvd	Total (acres)
Wetlands				
Vernal Pool	9.768	0.000	0.040	**9.808**
Seasonal Wetland	4.758	0.000	0.068	**4.826**
Seasonal Wetland Swale	19.713	0.000	0.051	**19.764**
Marsh	1.822	0.000	0.000	**1.822**
Farmed Wetland	0.000	0.016	0.000	**0.016**
Subtotal (acres)	**36.062**	**0.016**	**0.158**	**36.237**
Other Waters				
Intermittent Drainage	1.919	0.000	0.000	**1.919**
Ephemeral Drainage	0.002	0.000	0.000	**0.002**
Seasonal Creek/Stream	0.000	0.043	0.000	**0.043**
Stock Pond	0.246	0.000	0.118	**0.364**
Subtotal (acres)	**2.167**	**0.043**	**0.118**	**2.329**
Total (acres)	**38.229**	**0.059**	**0.277**	**38.566**

Notes:
-Impact calculations are approximate and are based on the best available information to date.
-The acreage value for each feature has been rounded to the nearest 1/1000 decimal.
Summation of these values may not equal the total acreage reported.

Figure 4. Map of the waters of the U.S. within the proposed project. (Taken from Figure 10 of the January 27, 2020, *Amended Biological Assessment: Amoruso Ranch Project* prepared by the consultant).

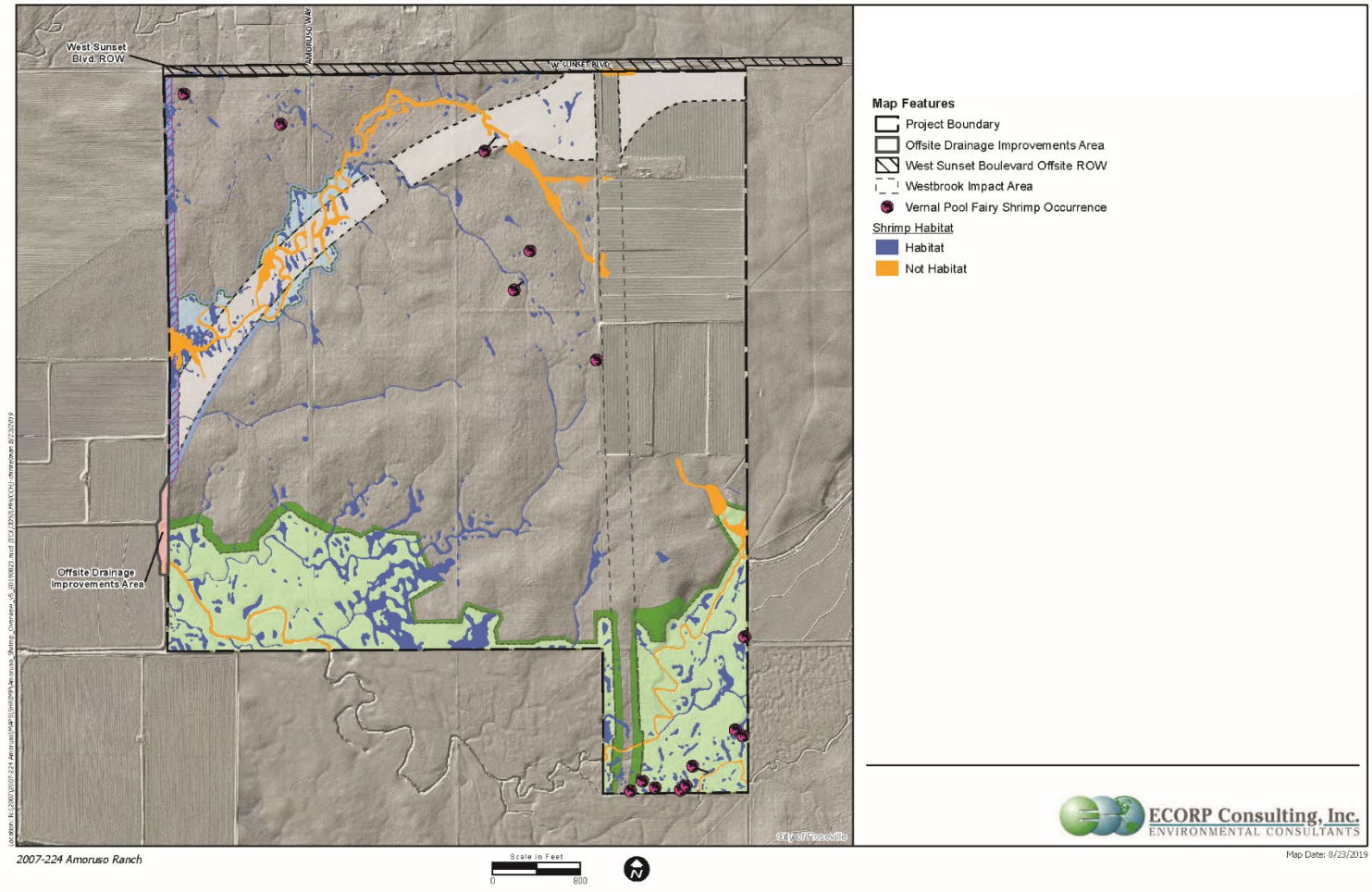
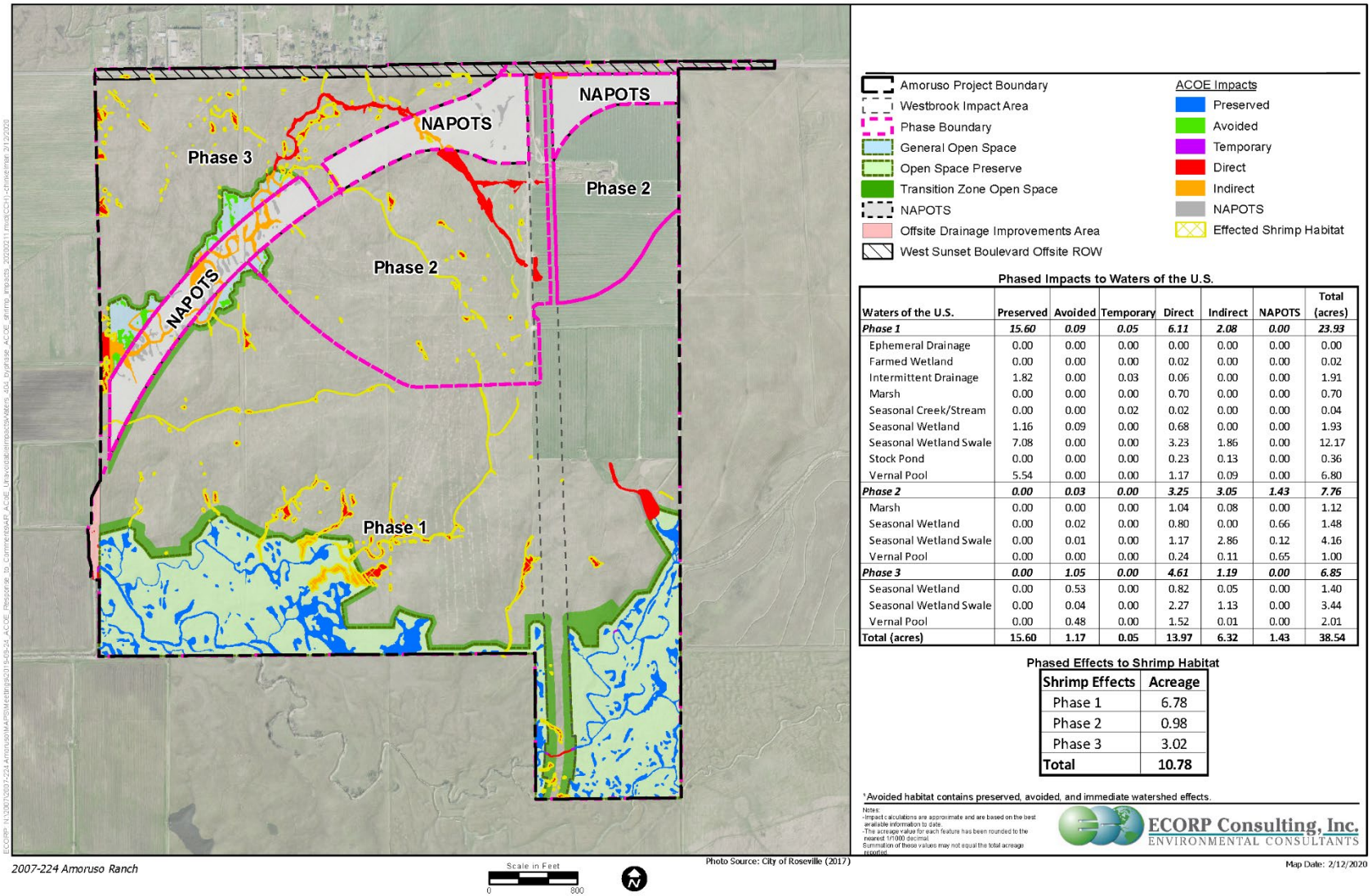


Figure 5. Map of fairy shrimp habitat and known occurrences within the proposed project. (Taken from Figure 11 of the January 27, 2020, *Amended Biological Assessment: Amoruso Ranch Project* prepared by the consultant).



Phased Impacts to Waters of the U.S.

Waters of the U.S.	Preserved	Avoided	Temporary	Direct	Indirect	NAPOTS	Total (acres)
Phase 1	***15.60***	***0.09***	***0.05***	***6.11***	***2.08***	***0.00***	***23.93***
Ephemeral Drainage	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Farmed Wetland	0.00	0.00	0.00	0.02	0.00	0.00	0.02
Intermittent Drainage	1.82	0.00	0.03	0.06	0.00	0.00	1.91
Marsh	0.00	0.00	0.00	0.70	0.00	0.00	0.70
Seasonal Creek/Stream	0.00	0.00	0.02	0.02	0.00	0.00	0.04
Seasonal Wetland	1.16	0.09	0.00	0.68	0.00	0.00	1.93
Seasonal Wetland Swale	7.08	0.00	0.00	3.23	1.86	0.00	12.17
Stock Pond	0.00	0.00	0.00	0.23	0.13	0.00	0.36
Vernal Pool	5.54	0.00	0.00	1.17	0.09	0.00	6.80
Phase 2	***0.00***	***0.03***	***0.00***	***3.25***	***3.05***	***1.43***	***7.76***
Marsh	0.00	0.00	0.00	1.04	0.08	0.00	1.12
Seasonal Wetland	0.00	0.02	0.00	0.80	0.00	0.66	1.48
Seasonal Wetland Swale	0.00	0.01	0.00	1.17	2.86	0.12	4.16
Vernal Pool	0.00	0.00	0.00	0.24	0.11	0.65	1.00
Phase 3	***0.00***	***1.05***	***0.00***	***4.61***	***1.19***	***0.00***	***6.85***
Seasonal Wetland	0.00	0.53	0.00	0.82	0.05	0.00	1.40
Seasonal Wetland Swale	0.00	0.04	0.00	2.27	1.13	0.00	3.44
Vernal Pool	0.00	0.48	0.00	1.52	0.01	0.00	2.01
Total (acres)	**15.60**	**1.17**	**0.05**	**13.97**	**6.32**	**1.43**	**38.54**

Phased Effects to Shrimp Habitat

Shrimp Effects	Acreage
Phase 1	6.78
Phase 2	0.98
Phase 3	3.02
Total	**10.78**

*Avoided habitat contains preserved, avoided, and immediate watershed effects.

Notes:
-Impact calculations are approximate and are based on the best available information to date.
-The acreage value for each feature has been rounded to the nearest 1/1000 decimal.
Summation of these values may not equal the total acreage reported.

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 6. Map of the proposed project's impacts to waters of the U.S. Waters that will be impacts and provide habitat for the fairy shrimp are outlined in yellow. (Taken from Figure 1 of the February 24, 2020, additional information letter prepared by the consultant).

Table 1. Acreages of waters of the U.S. that will be impacted by the proposed project and associated Western Placer In-Lieu Fee (WPILF) credits to be purchased. Credits will be purchased at a 2:1 ratio for direct impacts and a 0.5:1 ratio for indirect impacts.

Aquatic Feature Type	WPILF Credit Type	Direct Impact (acres)	Indirect Impact (acres)	Total ILF Credits (acres)
Ephemeral Drainage	Riverine with Riparian			
Intermittent Drainage	Riverine with Riparian	0.06		0.12
Seasonal Creek/Stream	Riverine with Riparian	0.02		0.04
Farmed Wetland	Seasonal Wetland (Non-Vernal Pool)	0.02		0.03
Marsh	Fresh Emergent Marsh	1.74	0.08	3.52
Seasonal Wetland (Non-Habitat)	Seasonal Wetland (Non-Vernal Pool)	0.28		0.55
Seasonal Wetland Swale (Non-Habitat)	Seasonal Wetland (Non-Vernal Pool)	2.82	4.13	7.71
Stock Pond	Lacustrine	0.23	0.13	0.53
Seasonal Wetland	Vernal Pool	2.02	0.06	4.08
Seasonal Wetland Swale	Vernal Pool Complex	3.85	1.71	8.56
Vernal Pool	Vernal Pool	2.93	0.20	5.96
Total		13.97	6.33	31.10

Table 2. Acreages of waters of the U.S. that will be impacted by Phase 1 of the proposed project and associated Western Placer In-Lieu Fee (WPILF) credits to be purchased. Credits will be purchased at a 2:1 ratio for direct impacts and a 0.5:1 ratio for indirect impacts.

Aquatic Feature Type	WPILF Credit Type	Direct Impact (acres)	Indirect Impact (acres)	Total ILF Credits (acres)
Ephemeral Drainage	Riverine with Riparian			
Intermittent Drainage	Riverine with Riparian	0.06		0.12
Seasonal Creek/Stream	Riverine with Riparian	0.02		0.04
Farmed Wetland	Seasonal Wetland (Non-Vernal Pool)	0.02		0.03
Marsh	Fresh Emergent Marsh	0.70		1.40
Seasonal Wetland (Non-Habitat)	Seasonal Wetland (Non-Vernal Pool)			
Seasonal Wetland Swale (Non-Habitat)	Seasonal Wetland (Non-Vernal Pool)	0.21	0.23	0.54
Stock Pond	Lacustrine	0.23	0.13	0.53
Seasonal Wetland	Vernal Pool	0.68		1.36
Seasonal Wetland Swale	Vernal Pool Complex	3.02	1.63	6.85
Vernal Pool	Vernal Pool	1.17	0.09	2.39
Total		6.11	2.08	13.26

Table 3. Acreages of waters of the U.S. that will be impacted by Phase 2 of the proposed project and associated Western Placer In-Lieu Fee (WPILF) credits to be purchased. Credits will be purchased at a 2:1 ratio for direct impacts and a 0.5:1 ratio for indirect impacts.

Aquatic Feature Type	WPILF Credit Type	Direct Impact (acres)	Indirect Impact (acres)	Total ILF Credits (acres)
Ephemeral Drainage	Riverine with Riparian			
Intermittent Drainage	Riverine with Riparian			
Seasonal Creek/Stream	Riverine with Riparian			
Farmed Wetland	Seasonal Wetland (Non-Vernal Pool)			
Marsh	Fresh Emergent Marsh	1.04	0.08	2.13
Seasonal Wetland (Non-Habitat)	Seasonal Wetland (Non-Vernal Pool)	0.28		0.55
Seasonal Wetland Swale (Non-Habitat)	Seasonal Wetland (Non-Vernal Pool)	0.91	2.81	3.22
Stock Pond	Lacustrine			
Seasonal Wetland	Vernal Pool	0.52		1.05
Seasonal Wetland Swale	Vernal Pool Complex	0.26	0.05	0.55
Vernal Pool	Vernal Pool	0.24	0.11	0.53
Total		3.25	3.05	8.02

Table 4. Acreages of waters of the U.S. that will be impacted by Phase 3 of the proposed project and associated Western Placer In-Lieu Fee (WPILF) credits to be purchased. Credits will be purchased at a 2:1 ratio for direct impacts and a 0.5:1 ratio for indirect impacts.

Aquatic Feature Type	WPILF Credit Type	Direct Impact (acres)	Indirect Impact (acres)	Total ILF Credits (acres)
Ephemeral Drainage	Riverine with Riparian			
Intermittent Drainage	Riverine with Riparian			
Seasonal Creek/Stream	Riverine with Riparian			
Farmed Wetland	Seasonal Wetland (Non-Vernal Pool)			
Marsh	Fresh Emergent Marsh			
Seasonal Wetland (Non-Habitat)	Seasonal Wetland (Non-Vernal Pool)			
Seasonal Wetland Swale (Non-Habitat)	Seasonal Wetland (Non-Vernal Pool)	1.70	1.09	3.95
Stock Pond	Lacustrine			
Seasonal Wetland	Vernal Pool	0.82	0.05	1.67
Seasonal Wetland Swale	Vernal Pool Complex	0.57	0.04	1.16
Vernal Pool	Vernal Pool	1.52	0.01	3.05
Total		4.62	1.19	9.82