



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

CESPK-RD-S

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Decision Document for Permit Application SPK-2006-00425

This document constitutes the Environmental Assessment, 404(b)(1) Guidelines Evaluation, Public Interest Review, and Statement of Findings for the subject permit action. Please note that the Corps' permit decision and determination of environmental impacts is limited to those generated by construction (i.e., discharge of dredged or fill material). Because this is a joint NEPA document, it also addresses operational impacts per United States Bureau of Reclamation (Reclamation) requirements.

1. Proposed action:

a. Project name: Tesoro Viejo Master Planned Community

b. Applicant name and address:

McCaffrey Homes
Attn: Mr. Brent McCaffrey
7020 North Van Ness Boulevard
Fresno, CA 93711

c. Project location and closest waterway: The approximately 1555-acre project site is located on an unnamed tributary to the San Joaquin River, approximately 9 miles north of the City of Fresno, directly bordered by State Route 41 (SR-41) to the west, Little Table Mountain to the north, the Sumner Hill residential subdivision to the east, and a mix of agriculture and grazing land to the south, at approximate Latitude 36.9550°, Longitude -119.7461°, in Madera County, California, and can be seen on the CA-FRIANT USGS Topographic Quadrangle. Excluded from the project site acreage are approximately 44 acres of canals (Madera Canal) and associated roads. The canals that flow through the Project Site are owned by Reclamation. (See Tesoro Viejo Location and Vicinity map in Appendix B.)

d. Project Purpose:

(1) Basic: The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water-dependent. The basic project purpose is

housing.

Water Dependency Determination: The project is not water-dependent. The proposed project does not have to be located in a special aquatic site to fulfill the basic project purpose. Because the project proposes to impact special aquatic sites, the applicant must rebut the presumption that there is a less environmentally damaging alternative.

(2) Overall: The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is a master planned mixed use development in southeastern Madera County.

(3) Need: The applicant's stated need for the proposed project is to meet the following objectives for developed property in the area:

- Accommodate projected regional growth in a location that is consistent with the approved Madera County General Plan (Madera County 2014).
- Provide development and transitional land use patterns that do not conflict with adjoining properties and existing land uses.

e. Project Description: The permit application was determined complete on December 10, 2014, and a public notice was issued on December 24, 2014 (Appendix A). The applicant has proposed to construct a master planned development in southeastern Madera County consisting of 5,170 units of housing, schools and three million square feet of commercial, office and light industrial development (See Tesoro Viejo Villages figure in Appendix B). In addition, significant portions of the property would be preserved as open space and "agricultural vignettes", a project feature intended to reflect the historic agricultural uses of the site, trails and neighborhood parks. Sufficient land area would be set aside for utilities and stormwater facilities (including stormwater detention basins), K-8 and K-12 schools, and right-of-way for the potential realignment of SR-41. Additionally, four free-span bridge crossings over the Madera Canal, and piping of Lateral 6.2 along with four new road crossings and replacement of the existing crossing over it are proposed as part of the project. (Appendix B). The project was modified in 2016 to eliminate an approximately 51-acre non-contiguous area east of the existing Sumner Hill residential subdivision to preserve an approximately 30-acre parcel designated as California Tiger Salamander critical habitat; and to pipe Lateral 6.2 Canal instead of constructing 5 bridges across it. The specific action that requires a DA permit is the fill of 11.036 acres of waters of the United States (WOUS) and indirect impacts to 0.458 acres of wetland channel (see Tesoro Viejo Proposed Preserve/Impact Plan included in Appendix B). Of the 11.036

acres proposed for fill, 4.943 acres consist of Lateral 6.2, a clay-bottom irrigation canal on the project site that will be piped and backfilled.

f. Avoidance and Minimization Information: The proposed project would include approximately 186 acres of on-site open space preserve, which includes 42.28 acres of preserved WOUS. The open space preserve would be placed under a conservation easement and managed in perpetuity according to the approved Wetlands and Open Space Long-Term Management Plan (Management Plan). The proposed project would preserve approximately 78% of the WOUS that have been mapped within the project site. The open space preserve includes the preserved WOUS plus a 50-foot buffer from the edge of the WOUS to development. In addition to the 50-foot buffer, an approximately 77-acre multi-purpose trail system would be included along the outer edge of large portions of the 50-foot buffer and serve as additional buffer between the proposed development and the preserve area. This trail system would be 30 to 50 feet wide and would include a 12-foot wide multi-purpose trail with the remaining area being used for bio-swales and other landscape improvements.

g. Compensatory Mitigation: The applicant is proposing to purchase off-site creation/restoration credits at the Corps-approved Grasslands Mitigation Bank in Merced County, California. See below part 8.b.(2). The mitigation bank is located within the same HUC 8 as the project site and the project is within the bank's service area. The applicant would purchase seasonal wetland credits to mitigate for impacts to vernal pool, wetland, wetland channel, non-wetland channel, and Lateral Canal 6.2 at Corps-approved mitigation ratios. Ratios were determined using the South Pacific Division's compensatory mitigation ratio setting checklist.

h. Existing Conditions: The majority of the project site is currently cultivated with perennial and annual crops; however, there are portions of the northern and eastern areas of the project site that remain undeveloped annual grasslands. Cultivated portions of the project site consist primarily of perennial crops including grape vineyards, berry bush orchards, and tree orchards. Canals owned by the Reclamation cross through the project site and are not a part of the property. A single house exists on the project site, and various other improvements associated with agriculture such as a ranch office, roads, fences, and irrigation systems exist throughout the project site. Immediately north of the project site is open range land; to the east is the unincorporated community of Sumner Hill; to the south is a mixture of cultivated agriculture, open range land, and vernal pool grassland preserve; and to the west is existing residential and commercial development.

A jurisdictional delineation of WOUS was conducted in 2013. A preliminary jurisdictional determination was verified by the Corps in December 2014. A total of 59.081 acres of potential WOUS was mapped within the originally proposed project area (see Tesoro Viejo Proposed Preserve/Impact Plan included in Appendix B). This includes Reclamation-owned canals, agriculture ponds, non-wetland channel, wetland channel,

wetland, and vernal pools. The project was revised in 2016 to exclude Reclamation's Madera Canal as not a part of the proposed project. This reduced the total of potential WOUS within the proposed project area from 59.081 to 53.849 acres.

The Madera Canal is a concrete-lined aqueduct that transects the project site. The canal is owned by Reclamation, and operated by the Madera-Chowchilla Water and Power Authority. It flows from Millerton Lake to the Chowchilla River, and is used to deliver irrigation water to Central Valley farm lands. The canal runs intermittently between March 1 and October 15; it also conveys occasional nuisance flows, storm flows, and emergency releases from Friant Dam. The canal itself is unvegetated and does not provide wildlife habitat. The canal right-of-way includes dirt and gravel roads as well as ungrazed grasslands characterized primarily by weedy annuals. The canal right-of-way within the project site also includes a turnout, which allows water to drain to adjacent lands (Tomlinson, et. al., 2007)¹. This turn-out flows into a drainage on the site, and provides some seasonal wetland habitat values: it supports common wetland plants such as broad-leaved cattail. Drainage which does not channel through structures via creeks or canals pools up along the banks of the canal.

The Lateral 6.2 Canal is a clay-lined earthen canal that transects the project site. The canal is owned by Reclamation and operated by the Madera-Chowchilla Water and Power Authority. It is used to deliver irrigation flows from Millerton Lake (via the Madera Canal), and thus runs intermittently between March 1 and October 15; it also conveys occasional nuisance flows, storm flows, and emergency releases. The canal is maintained through excavation of sediment with heavy equipment and spraying with aquatic herbicides. Its vegetation community is therefore very limited. It supports only limited wildlife usage due to its intense but intermittent summer flow regime. The right-of-way along the canal is chiefly characterized by graded dirt access roads.

The project site is drained by several unnamed wetland channels, the majority of which ultimately drain into the San Joaquin River. However, some of the drainages are impounded by roads or canals and form large marshes (up to about one acre in size), and some of the drainages mapped by the United States Geological Survey (USGS) have been modified to flow in agricultural ditches rather than through fields (USGS, 2015)². The water source for the drainages and wetlands is a combination of rainfall, runoff from higher-elevation areas to the north, irrigation runoff, and water leaking from turn-outs in Reclamation's canals. Rainwater provides a water source for the entire project site during the winter months, while additional input of surface and groundwater

¹ Tomlinson, Krista R., Curt E. Uptain, Amy J. Kokx, Scott E. Phillips, and Patrick A. Kelly PhD. 2007. Baseline Survey of Vernal Pools and Sensitive Species along the Madera Canal Right of Way, 2004-2006, Central Valley Project, California (Draft). Prepared for the U.S. Bureau of Reclamation, Fresno, California. 23 September 2007.

² U.S. Department of the Interior, U.S. Geological Survey, 2015.

from irrigation and leakage from canals keeps the channels, wetlands associated with the channels, and irrigated fields saturated into summer and fall, beyond their natural hydroperiods.

Many of the aquatic resources occurring on-site are highly influenced by the existing agriculture. The flows are not typical of natural features in this region, which are generally seasonal, characterized by dry summers and wet winters. The agriculture ponds are perennial. Even though not typical of the region, they provide important functions of nutrient cycling and water storage. In addition, there are several non-wetland channels (ephemeral drainages) that occur in the annual grassland areas. These features are generally in steep topography, tend to lack vegetation, are highly eroded and very narrow. These features do not provide important functions.

The vernal pools mapped on and adjacent to the project site are depressional areas within or adjacent to the Madera Canal maintenance road. These vernal pools are very short lived and many lack vegetation, however several of them support the federally listed vernal pool fairy shrimp (*Branchinecta lynchi*, VPFS). The functionality of the vernal pools is rated low-medium based on short hydroperiod, limited water storage capacity, limited vegetation and nutrient cycling, and surrounding land uses (i.e. agriculture) which are not conducive to vernal pool health. Nevertheless, they do support fairy shrimp.

The Lateral 6.2 Canal's hydrology is almost entirely driven by anthropogenic water deliveries, with only occasional storm flows. The ongoing maintenance regime of sediment removal and aquatic herbicide spraying effectively prevents establishment of any significant aquatic community; this is an intended function of the canal operations, implemented to more efficiently provide irrigation flows. The canal provides occasional wildlife habitat (bullfrog sheltering, water bird foraging), but generally is either too dry or flowing too rapidly for wildlife use. The aquatic habitat function of the canal is therefore very low. The canal right-of-way includes some areas which receive runoff from stormwater and/or irrigation overflows from neighboring crops, and therefore support some facultative aquatic plants, however these areas are small and subject to intensive disturbance from agriculture and canal operations and maintenance. They provide only very minimal aquatic function, and no vernal pools are present in the right-of-way.

Federally listed species found on-site include one breeding pond for California tiger salamander (*Ambystoma californiense*, CTS) and several shallow vernal pools were found to support VPFS. Blue elderberry shrubs, the host plant for the federally threatened Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, VELB) were found on-site. However, the United States Fish and Wildlife Service (FWS) has determined that VELB does not occur in Madera or Fresno County. A Biological Assessment (BA) was prepared by Reclamation and Vollmar Natural Lands Consulting (VNLC) to assess effects and describe how the proposed project would mitigate for the effects to federally listed species. The BA was submitted by Reclamation to FWS on

August 24, 2016. A Biological Opinion was issued on April 5, 2017.

The permit area has been subjected to several cultural resource inventories and evaluations of eligibility since 2006. Based on these previous studies, there are two Historic Properties located within the permit area: P-20-2308 (Madera Canal, including its five crossings and the segment of Lateral 6.2, which are considered contributing elements to the Madera Canal); and prehistoric archaeological site CA-MAD-2394. For the purposes of compliance with Section 106 of the National Historic Preservation Act (NHPA), the Corps has accepted the lead agency role on behalf of the Corps and Reclamation and consulted with the California State Historic Preservation Officer (SHPO), Advisory Council on Historic Preservation (ACHP), the applicant, and federally-recognized tribes. The Corps concluded that, based on development plans submitted to the Corps and Reclamation, there would be No Adverse Effect to Historic Properties with the implementation of avoidance and minimization measures specified in the Cultural Resources Management Plan (CRMP) for the project. The Corps requested No Adverse Effect to Historic Properties concurrence in a letter to SHPO, dated January 17, 2017. SHPO concurred with the Corps determination in a letter, dated February 7, 2017.

2. Authority:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403).
- Section 404 of the Clean Water Act (33 U.S.C. §1344).
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

3. Scopes of Analysis:

a. **National Environmental Policy Act (NEPA):**

(1) Factors: Reclamation and the Corps agreed to jointly share responsibility for NEPA as both agencies have separate but integral permitting responsibilities. The Corps acted as lead for Section 106 of the NHPA and Reclamation acted as lead for Section 7 of the Endangered Species Act (ESA).

(i) Whether or not the regulated activity comprises "merely a link" in a corridor type project: The proposed project is not a corridor type project, it is a large-scale, mixed-used development.

(ii) Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity, which affect the location and configuration of the regulated activity: The 1,555-acre project site contains approximately 59.081 acres of potential WOUS, which are located throughout a majority of the project site. Development in the uplands affects the location and configuration of the regulated

activity.

(iii) The extent to which the entire project is within the jurisdiction of the Corps and Reclamation: The WOUS consist primarily of wetland and non-wetland channels, wetlands and Reclamation-owned canals spread throughout much of the project area. Reclamation is providing the water for the entirety of the proposed project.

(iv) The extent of cumulative Federal control and responsibility: The cumulative Federal control and responsibility extends to the entire approximately 1,555-acre project area. In addition to the Corps' jurisdiction over WOUS, FWS has exerted jurisdiction over Federally-listed VPFS and CTS habitat, and Reclamation has control and responsibility over the entire project site as a result of water delivery.

(2) Determined scope:

The footprint of the regulated activity in waters of the United States.
 Other: The scope of analysis under NEPA consists of the entire 1,555-acre proposed project area. MID would be the primary provider of water to the project site for all residential, commercial and industrial uses, utilizing Reclamation's Madera Canal and Lateral 6.2 to convey the water. Since these canals are federal facilities, MID has requested Reclamation's approval for use of these facilities for this purpose. The water delivered by MID to the site via these Reclamation canals will be used throughout the project site, and without Reclamation's approval for MID to use the canals, the project could not be built.

b. National Historic Preservation Act (NHPA):

Determined scope: As co-lead agencies the Corps and Reclamation agreed to take the entire project area into the scope of analysis because Reclamation, as the primary source of water for the project has the responsibility to analyze effects over the entire site. The Area of Potential Effect (APE) is the entire approximately 1,555-acre project area with a variable vertical APE across the project area of up to 30 feet for the proposed construction-related grading and utility installation.

c. Endangered Species Act (ESA):

(1) Action area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

(2) Determined scope: Reclamation, designated lead federal agency for ESA determined the scope included the entire 1,555-acre project site and consulted with FWS for Federally-listed species within the project area.

4. Public Involvement:

a. A public notice was issued on December 24, 2014. One comment letter was received on the public notice.

b. Comments received on public notice:

EPA, Region IX, commented on the public notice with a letter dated February 6, 2015. Issues raised included: buffers, trails and roads, proposed open space, indirect and cumulative impacts, and need for an alternatives analysis and appropriate mitigation.

(i) The applicant must provide an alternatives analysis of both off-site and on-site alternatives.

(ii) The proposed open space preserve lacks adequate buffers to maintain the function of the on-site waters. The alternatives analysis should include an alternative with a minimum 100-foot buffers.

(iii) The applicant should analyze alternatives for eliminating and modifying trails and roads so waters are avoided or spanned.

(iv) The proposed open space should be expanded to include the area long the San Joaquin River to reduce impacts to the river. EPA suggested placing a portion of the preserve under the management of the San Joaquin River Conservancy.

(v) The alternatives analysis should analyze indirect and cumulative impacts and offer mitigation scenarios.

(vi) The applicant has proposed to create on-site mitigation within the preserves. The applicant should formulate a detailed mitigation plan according to the 2008 Final Compensatory Mitigation Rule. The rule gives preference to federally-approved mitigation banks; the Corps will determine appropriate ratios utilizing the Corps' South Pacific Division's (SPD) Standard Operating Procedure for determining mitigation ratios; any mitigation strategy must result in high-quality aquatic resources; constructed or restored wetlands cannot be used to process stormwater and serve as mitigation.

c. All public notice comments were forwarded to the applicant on February 12, 2015.

(i) The applicant provided a document analyzing off-site and on-site alternatives.

(ii) The applicant included an on-site alternative with an additional 50-foot

buffer (for a total of 100 feet) in their alternatives analysis document.

(iii) The applicant revised the proposed project to avoid and minimize impacts to waters at multiple bridge crossings.

(iv) The project was modified in 2016, to eliminate the approximately 51-acre non-contiguous area east of the existing Sumner Hill residential subdivision near the San Joaquin River and preserve an additional approximately 30-acre parcel designated as California Tiger Salamander critical habitat. The applicant selected the Sierra Foothill Conservancy as their preserve manager.

(v) The applicant's alternatives analysis analyzes indirect and cumulative impacts and proposes to mitigate for impacts to WOUS at Corps-approved Grasslands Mitigation Bank (Grasslands).

(vi) The applicant revised the proposed mitigation from on-site creation and restoration to purchasing compensatory mitigation credit from Grasslands.

d. Corps response to public notice comments:

(i) The Corps accepted the applicant's revised alternatives analysis document for preparation of the alternative analysis in part 5 below.

(ii) The Corps reviewed the an on-site alternative developed by the applicant which included an additional 50-foot buffer.

(iii) The applicant's revised preferred alternative incorporated additional free span bridges further minimizing impacts to WOUS.

(iv) The Corps determined the applicant's proposal to remove the 51-acre eastern non-contiguous parcel from the proposed project does have independent utility.

(v) The Corps confirmed the applicant's alternatives information does include analysis of indirect and cumulative effects.

(vi) The Corps determined the appropriate mitigation ratios using the SPD Mitigation Ratio Setting Checklist.

e. A public meeting was not held, because the Corps did not receive a request for one.

f. Major issues identified by the Corps. No major issues were identified by the Corps.

5. Alternatives Analysis:**a. Evaluation Criteria:**

Issue	Measurement and/or constraint
Availability	Is the alternative site available? Yes/No
Overall Purpose	Does the alternative meet the overall project purpose? Yes/No
Costs	Is the alternative practicable in terms of cost? Yes/No Qualitative determination. Costs may be higher for alternatives, but not so much higher as to be unreasonable. Qualitatively compared to norms for similar types of projects. More rigorous cost analysis not warranted due to small size of impacts and due to other factors affecting practicability determination.
Logistics	Is the alternative practicable in terms of logistics? Yes/No
Existing Technology	Is the alternative practicable in terms of existing technology? Yes/No
Direct impacts to waters of the U.S.	Does the alternative involve impacts to waters of the U.S. that are substantially greater than the applicant's proposed project? Yes/No
Direct impacts to special aquatic sites	Does the alternative involve impacts to special aquatic sites? Yes/No

b. Off-site alternatives:

(1) Road 400 Property is approximately 1,860 acres and is located east of Road 400 in south central Madera County. This alternative site is of adequate size to support a master-planned community; however, it is not connected to any existing major arterial roads. Development of this site it would require improvements to approximately 6 ½ miles of Road 145, at an estimated cost of \$5.9 million, and construction of an approximately 3-mile secondary point of access, estimated cost of \$4.0 million. In addition to the costs associated with improvements to and construction of major arterial

roads, the site contains approximately 90 acres of potential WOUS scattered throughout the site. Development of this site would result in greater environmental impacts compared to the proposed project. Based on these determinations, this site was dismissed as both impracticable and not the Least Environmentally Damaging Alternative (LEDPA); no further analysis was conducted.

(2) Highway 145 Property is approximately 1,850 acres and is located north of Highway 145 in south central Madera County. This alternative is large enough to support a master-planned community; however, approximately 214 acres of potential WOUS occur throughout the site. Based on the locations of the potential WOUS, development of this site would result in greater environmental impacts compared to the proposed project. This site was dismissed as not the LEDPA based on those findings and is not discussed further.

(3) Highway 145 & 41 Property is approximately 2,169 acres and is located northeast of the intersection of Highway 41 and Highway 145 in southeast Madera County. This alternative is large enough to support a master-planned community; however, approximately 145 acres of potential WOUS occur throughout the site. Based on the locations of the potential WOUS, development of this site would result in higher environmental impacts compared to the proposed project. This site was dismissed from further discussion based on the finding of greater impacts to aquatic resources (i.e., it is not the LEDPA).

(4) The Freels property is 1,611 acres and of adequate size to support a master-planned community. The site is located near the Madera/Fresno county line and along the San Joaquin River, just north of the proposed project site. The site is within the Rio Mesa Area Regional Community Plan (RMAP) and was previously proposed and approved for development, but that approval was set aside by a court as a result of litigation alleging that the project lacked sufficient water supply. While this alternative may meet the overall project purpose in terms of size and current zoning, the cost and logistical impediments to making necessary road access improvements and securing a firm and dependable supply of water render this alternative impracticable. Additionally, this alternative would likely not have fewer aquatic resource impacts and it is likely to result in greater impacts to federally listed species relative to the proposed project. Thus, this alternative is not a practicable alternative nor an alternative with fewer environmental impacts.

(5) Highway 41 Property is a 1,176.14-acre property located within the proposed Southeast Madera County Planning Area of the Southeast Madera County Existing Characteristics Analysis and is currently zoned for agriculture (Madera County 2014). The site is large enough to support a master-planned community and its eastern boundary borders Highway 41, a major arterial road. According to the Public Review Draft of the Southeast Madera County Existing Characteristics Analysis (2010), portions of this site were proposed for development as part of the proposed Tatham Project,

although that project has apparently stalled in its approvals process. Development of the Highway 41 property is critically compromised by the lack of a firm water supply source. Additionally, the site is bisected by a major PG&E transmission line, which creates physical and aesthetic barriers to development on a large scale. The Highway 41 Property is not a practicable alternative because the site is not physically suitable and does not have an adequate water supply.

(6) The Road 36 Property is 1,732 acres and is located west of Road 36 and south of Highway 145. It is an adequate size to support a master-planned community. Highway 145 is a major arterial road that connects to Highway 41 on the east and Highway 99 on the west. The site is located adjacent to the Bonadelle Ranchos community, which is part of the O'Neals Area Plan. The property is not part of a regional plan area and is currently designated Agricultural Exclusive (AE) in the Madera County General Plan (Madera County 2014). The AE land use designation has a minimal parcel size of 36 acres and allows for one to two single-family homes per parcel and secondary residential units, caretaker/employee housing, and farmworker housing (Madera County 2014).

While the Road 36 Property is an adequate size to support a master-planned community and is located adjacent to an existing development, the property is not part of a regional plan area and is currently designated AE in the General Plan, which is not a compatible land use for the proposed project. Obtaining County approvals to revise the regional plan General Plan for this site is a highly speculative endeavor and, even if successful, would likely take several years. Also, there is no adequate water supply available for this site, other than highly problematic reliance on new wells in a region where groundwater pumping has already created a serious and unsustainable overdraft condition. Obtaining surface water supplies would be extremely costly because the site is too far removed from the Madera Canal or Lateral 6.2 to make a pipeline or canal connection financially feasible. Therefore, the Road 36 Property is not a practicable alternative because development of the site would not be orderly urban development and does not have an affordable water supply.

(7) Off-site alternative 7 is the Gateway Property which at 879 acres is minimally adequate in size to support the large-scale, mixed use development with associated infrastructure contemplated by the overall project purpose. The site is located west of Highway 41 and north of Avenue 12 in southeastern Madera County. The central portion of the site has recently been approved for development as part of the Riverstone project (aka Gateway Village) that is currently under construction, although construction on this particular portion of the Riverstone project has not yet commenced. The approval occurred subsequent to the applicant's permit application submittal. The eastern and western portions of the site on either side of the Riverstone section are zoned for agriculture (Madera County 2014).

Only the central portion of the site has a land use designation that is compatible with a

master-planned community. Therefore, developing the whole site would require an amendment to the County's zoning map.

While this alternative may meet the overall project purpose in terms of size, the central third of the property is currently part of a larger approved development that is under construction and would not be available for purchase by the applicant. The two separate properties on either side of the central portion are too small and would be logistically impracticable to develop as a master-planned community. Moreover, due to its small size, nearly all of the available site would need to be utilized to develop the proposed project, meaning that most or all of the +15 acres of waters of the U.S. on the site would have to be filled. Thus, off-site Alternative 7 – Gateway Property is not a practicable alternative and does not have fewer environmental impacts than the proposed project.

(8) The Gunner East property is 964 acres and of adequate size to support a master-planned community. The site is located between Highway 41 and the San Joaquin River, south of the project site and northeast of the existing Rolling Hills subdivision. The site is zoned for very low density agricultural/residential use (20 acre and 40 acre lots), and it has no rezoning or development application pending with the County according to the applicant's recent communication with the county planning office. The property is approximately 12 miles (20-30 minute drive) from employment centers in the cities of Fresno and Clovis and is located within the Rio Mesa area.

While this alternative meets the project purpose, its problematic reliance on groundwater supplies renders it impracticable from a cost and logistics perspective. Additionally, it is likely that development of this site would result in greater impacts to WOUS and federally listed species relative to the proposed project, and it may have greater impacts to cultural resources by virtue of its direct adjacency to the San Joaquin River. The Gunner East Property is not a practicable alternative nor an alternative with fewer environmental impacts.

c. On-site alternatives:

(1) On-site Alternative 1 (proposed project) is similar to the original project proposal submitted to the Corps on December 8, 2014; however, it was revised to include piping of Lateral 6.2 and eliminate the River Bend Site on the eastern side of the original proposal. Approximately 11.036 acres of WOUS would be filled under this alternative; approximately 4.943 acres of that total is associated with piping of Reclamation's Lateral 6.2 irrigation canal. The alternative consists of 186.35 acres of open space preserve, 35.13 acres of passive open space, 57.15 acres of agricultural vignettes, and 39.4 acres of parks. Approximately 42.28 acres of WOUS would be preserved in the open space preserve. The remaining approximately 1237 acres would be developed with residential, consisting of a maximum of 5,170 lots, schools, commercial and light industrial.

While the originally proposed project fulfilled the project purpose, technical, logistical, and cost practicability screening criteria, it was found that with project redesign, further minimization of environmental impacts was practicable and thus incorporated into the preferred project.

(2) On-site Alternative 2 consists of an additional 50-foot buffer to all WOUS that are to be avoided and preserved under the proposed project. While this alternative would fulfill the project purpose, minimization of environmental impacts, technical and logistical criteria, it is impracticable based on cost. Spreading out the relatively fixed infrastructure cost burden over a smaller number of lots (4,375 lots instead of the 5,170 unit count in the proposed project) results in a negative revenue/unit, thereby rendering this alternative impracticable.

d. No Action Alternatives:

- (1) The No Permit Alternative (Reclamation) (See Tesoro Viejo No Permit Alternative (Reclamation) figure in Appendix B) does not provide authorization for any new bridge crossings over the Madera Canal, or for piping of Lateral 6.2, or for crossing of the main north/south drainage in the eastern part of the project area where the Reclamation holds a floodway easement for overflow from the Madera Canal. This alternative also would not authorize approval of the Madera Irrigation District's additional points of delivery proposal under its existing Warren Act contract to allow use of federal CVP facilities to deliver non-Project water (any source of water conveyed in Reclamation facilities for which Reclamation does not have a water right) to the project site. This alternative would effectively limit the buildable area of the project site to the lands south of the Madera Canal, and west and southwest of the Lateral 6.2 segment between the Madera Canal and Road 204. Most development would be precluded by lack of a surface water supply with the possible exception of a few single family homes if the County were to allow single home well development. This alternative would permanently impact 0.6 acres of WOUS. The No Permit Alternative (Reclamation) does not fulfill the project purpose and is impracticable on logistical and cost grounds.
- (2) The No Permit Alternative (Corps) (See No Permit Alternative (USACE) figure in Appendix B) avoids all fill of WOUS. However, because of County requirements in its approval of the Tesoro Viejo Specific Plan (2012), a 50 foot buffer would surround the main on site drainage. A total of 42 free span bridges are required for this alternative, most notably, a free span bridge that must cross Lateral 6.2 and the adjoining 2-acre pond where Lateral 6.2 diverges from the Madera Canal. Free spanning the main north/south ravine is also a major undertaking.

This alternative would result in 5,170 residential units and would allow for more flexibility in the location of the units relative to the proposed project because the applicant would be able to build to the edge of all WOUS except for the main

drainage. The amount of industrial, commercial and school development could also occur. This alternative would allow for development consistent with the project purpose. However, the cost of 42 free span bridges, most notably the five bridges over Lateral 6.2, increase the infrastructure cost burden substantially. While this alternative would fulfill the project purpose and would not impact any WOUS it is impracticable due to cost constraints.

e. Alternatives not practicable or reasonable: All of the off-site and on-site alternatives are considered impracticable based on the information described above with the exception of the proposed project.

f. Practicable alternatives carried forward: Although both No Action alternatives are not practicable, they will both be carried forward along with the proposed project, as required by the National Environmental Policy Act.

6. Evaluation:

a. Physical/Chemical Characteristics:

(1) Substrate:

Proposed Project

The project site consists primarily of cultivated fields and annual grassland interspersed with perennial and seasonal wetlands, shallow vernal pools along the Madera canal, riparian habitat, and agricultural ponds. Impacts would occur as a result of fill in existing wetlands associated with grading of the site to construct residential and commercial development and piping of Lateral 6.2. The majority (estimated at approximately 65%) of project site's substrate would be permanently impacted by project construction. This impact would include impervious structures (e.g., structure foundations, roads); however, the project has been designed to limit the amount of untreated runoff and erosion on-site. Moreover, the majority of the substrate beneath WOUS would not be impacted as the proposed project would preserve approximately 78% of the WOUS on the project site.

No Action Alternative (Reclamation)

This alternative limits project impacts, including fill of existing aquatic resources and grading of the site to land south of the Madera Canal and west and southwest of the Lateral 6.2 canal segment between the Madera Canal and County Road 204. While impacts are substantially less than the proposed project, the site's substrate would still be permanently impacted by installing structure foundations and roads in the developed areas. Installing these impervious layers will increase the amount of runoff and erosion on-site, which may adversely affect the WOUS.

No Action Alternative (Corps)

This alternative would avoid all direct impacts to existing WOUS. The site's substrate would be permanently impacted by installing structure foundations and roads in the developed areas which would increase runoff and erosion that may adversely affect WOUS.

(2) Current patterns and water circulation:

Proposed Project

The current hydrology on the project site is highly influenced by existing agricultural practices. The main drainage system that generally flows from north to south through the project site was historically an ephemeral drainage according to a 1962 aerial photograph of the site. After the land conversion to vineyard and the construction of farm roads and Road 204, this drainage system became intermittent or perennial in areas. Implementation of the project would result in further modification of drainage patterns to accommodate development in areas of the project site. However, based on County requirements, the project is designed to maintain off-site water flows to meet current conditions. This would be accomplished by attenuating peak flows through a storm drainage system (included in the Storm Drainage Master Plan for the project) that would serve the development. Stormwater in upland areas would be collected in one of five detention basins or natural drainage basins before continuing downstream into existing (and preserved) drainages. The detention basins and natural drainage basins would be designed to reduce discharge rates to current conditions, prevent the project from altering natural or the current hydrology on-site, and prevent stormwater pollutants from entering the drainages. Water could stagnate within detention basins/natural drainage basins, but only shortly after peak runoff. Natural drainages would receive more subsurface water from adjacent detention basins; however velocities and volume of water from overland flow would not differ significantly from current conditions.

No Action Alternative (Reclamation)

The majority of the site would remain undeveloped under this alternative. Implementation of this alternative would require minor modification of drainage patterns to accommodate development in the western portion of the site. However, based on County requirements, the project would maintain off-site water flows to meet current conditions. This would be accomplished by attenuating peak flows through a storm drainage system. If detention basins are required, water could stagnate within basins, but only following large rain events. Natural drainages could receive more subsurface water from adjacent detention basins; however velocities would remain consistent with current conditions.

No Action Alternative (Corps)

This alternative would avoid impacts (fill) to all WOUS. Implementation of this alternative would require minor modification of drainage patterns to accommodate development. However, based on County requirements, the project would maintain off-site water flows to meet current conditions. This would be accomplished by attenuating peak flows

through a storm drainage system. If detention basins are required, water could stagnate within basins, but only following large storm events. Natural drainages would receive more subsurface water from adjacent detention basins; however velocities would stay consistent with current conditions.

(3) Suspended particulates/turbidity:

Proposed Project

All construction activities associated with the project would be subject to all regulatory requirements including obtaining a grading permit from Madera County. The grading permit requires compliance with federal, state, and local grading and erosion control requirements, including the State Water Resources Control Board's General Construction Storm Water Permit. The project proponent/contractor would prepare a Storm Water Pollution Prevention Plan (SWPPP) with site-specific Best Management Practices (BMPs). BMPs may include, but are not limited to:

- Scheduling or limiting activities to certain times of the year;
- Prohibiting certain construction practices (e.g., cement cleanout adjacent to WOUS);
- Implementing equipment maintenance schedules and procedures;
- Implementing a monitoring program;
- Implementing management practices to prevent/reduce an increase in sediment/turbidity, such as temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils;
- Storing materials and equipment to ensure spills and leaks do not enter the storm drain system or surface waters;
- Developing and implementing a spill prevention and cleanup plan;
- Installing traps, filters, or other devices at drop inlets (storm drain grates) to prevent contaminants from entering storm drains;
- Using barriers (straw bales) to minimize the amount of uncontrolled runoff that could enter drains or surface water.

Additionally, because the project would be developed in phases, the storm drain system within each phase would be constructed to the planned final build out configurations with all inlets, pipe sizes, etc. If the project phase has not yet incorporated the area detention basin, construction of temporary storm water detention facilities would be constructed. These facilities would be designed to store the 100-year, 10-day storm event with enough capacity to serve that phase of the development. These post-construction stormwater detention facilities would, therefore, be active during construction and could serve as siltation basins, infiltration features, and runoff control BMPs during construction activities.

No Action Alternative (Reclamation)

See discussion under the Proposed Project. This alternative would impact a significantly smaller area; however, BMPs and other storm water improvements would be implemented as described above.

No Action Alternative (Corps)

BMPs and other storm water improvements would be implemented as described under the Proposed Project.

(4) Normal water level fluctuations:

Proposed Project

Several drainage features on-site are tributary to the San Joaquin River. The Reclamation-owned Madera Canal transects the project site; however, it is not part of the project. Currently, water levels are influenced by a combination of rainfall, runoff from higher-elevation areas to the north, irrigation runoff, and water leaking from a turnout in the Madera canal. The project would preserve a majority of the WOUS on-site. Additionally, a portion of the existing agriculture would remain on-site adjacent to preserved aquatic resources, thus preserving some of the influence of irrigation run-off. Drainage patterns would be modified to accommodate land use and infrastructure. The project includes development of a storm drainage system (included in the Storm Drainage Master Plan for the project) that would serve the needs of the development. Stormwater in upland areas would be collected in one of five detention basins before continuing downstream into the existing and preserved drainages. The detention basins would be designed to reduce discharge rates, prevent the project from altering natural hydrology on-site, by reducing runoff velocities and erosion.

No Action Alternative (Reclamation)

This alternative would preserve the majority of the WOUS on-site. A majority of the existing agriculture would remain on-site, thus preserving the influence of irrigation run-off on existing aquatic resources. Drainage patterns would be modified to accommodate development in the western portion of the project site. This alternative would include construction of a storm drainage system that would serve the needs of the development.

No Action Alternative (Corps)

This alternative would preserve all WOUS on-site. Similar to the proposed project, a portion of the existing agriculture would remain on-site adjacent to preserved wetland features, thus preserving the influence of irrigation run-off on existing aquatic resources. Drainage patterns would be modified to accommodate the development in the impacted areas of the project site. This alternative would include construction of a storm drainage system that would serve the needs of the development.

(5) Flood hazards & floodplain values:

Proposed Project

The project includes County requirements for on-site stormwater drainage systems, such as conveyance capacities and hydrology modeling. Residential storm drains would be designed to convey stormwater runoff for up to the 2-year storm event and commercial and light industrial area storm drains would be designed for the 5-year storm event. Streets would be designed to convey the 10-year storm event. The required storm drain design criteria decrease the potential for substantial on-site flooding to occur. Additionally, the project must comply with applicable federal, state, and local laws and regulations associated with drainage requirements.

No Action Alternative (Reclamation)

See discussion under the Proposed Project. Effects would be similar, albeit on a smaller scale.

No Action Alternative (Corps)

See discussion under the Proposed Project. Effects would be similar.

(6) Storm, wave, and erosion buffers: NA. The proposed project area is not located near the coast, bays or other large waterways and would not be affected by this review factor.

(7) Erosion and accretion patterns:

Proposed Project

The project includes a storm drainage system (included in the Storm Drainage Master Plan for the project) that would serve the needs of the development. Stormwater in upland areas would be collected in one of five detention basins before continuing downstream into the existing and preserved drainages. The operation of the detention basins would be designed to reduce discharge rates to natural drainages and minimize alteration of natural hydrology. Erosion and accretion patterns are not expected to substantially change due to the project.

No Action Alternative (Reclamation)

As in the proposed project, erosion and accretion patterns are not expected to substantially change due to the alternative.

No Action Alternative (Corps)

No WOUS would be filled, but drainage patterns would be modified to accommodate the land use and infrastructure in the impacted areas of the site. This alternative would include preparation of a storm drainage system that would serve the needs of the development. The storm water drainage system would be designed to reduce discharge rates to natural drainage conditions, prevent the alternative from altering natural hydrology. Erosion and accretion patterns are not expected to be substantially affected.

(8) Water quality, including salinity gradients:

Proposed Project

The project would change the land use and the potential for increased site runoff. Pollutants associated with construction of the project could include nutrients, oil and grease, metals, and pesticides, but not salinity. The project includes five large stormwater detention basins serving five drainage areas. The detention basins are designed to reduce discharge rates and prevent pollutants from entering the drainages. Additionally, the stormwater management plan and SWPPP would include construction BMPs to reduce potential pollutant loads from the project.

No Action Alternative (Reclamation)

See discussion under Proposed Project.

No Action Alternative (Corps)

See discussion under Proposed Project.

(9) Aquifer Recharge:

Proposed Project

Construction of the project would increase the amount of impervious surfaces such as streets, roofs and sidewalks in an area that is almost entirely pervious under existing conditions. The project would modify the site to include approximately 40 percent impervious surfaces. According to the Madera County *Groundwater Management Plan* (GMP), the project site is not identified as an important recharge area. The major drainage features that would be preserved in open space along with the proposed stormwater detention basins would function in a recharge capacity. The project would not result in a substantial impact on aquifer recharge.

No Action Alternative (Reclamation)

See discussion under Proposed Project. This alternative would result in less impervious surfaces than the proposed project, thus a greater potential for groundwater recharge.

No Action Alternative (Corps)

See discussion under Proposed Project. This alternative would result in more impervious surfaces than the proposed project, but still with no substantial impact on aquifer recharge because drainage basins would be constructed and existing features preserved. All WOUS are expected to facilitate recharge.

(10) Baseflow:

Proposed Project

The water source for the drainages and wetlands on-site is a combination of rainfall,

runoff from higher-elevation areas to the north, irrigation runoff, and water leaking from the gates in Reclamation's canals. Rainwater provides a water source for the entire site during the winter months, while artificial water input keeps the channels, wetlands associated with the channels, and irrigated fields inundated beyond the natural hydroperiods into summer and fall. Groundwater influence plays a minor role in water input to the drainages and wetlands on-site. The project is expected to result in only minor effects on baseflow.

No Action Alternative (Reclamation)

See discussion under proposed project. As this alternative would only develop the western portion of the project area, it would have a lesser effect on baseflow.

No Action Alternative (Corps)

See discussion under proposed project.

(11) Mixing zone, in light of the depth of water at the disposal site; current velocity, direction and variability at the disposal site; degree of turbulence; water column stratification discharge vessel speed and direction; rate of discharges per unit of time; and any other relevant factors affecting rates and patterns of mixing: NA. The proposed project does not involve the discharge of dredged material.

b. Biological Characteristics:

(1) Special aquatic sites (wetlands, mud flats, vegetated shallows, riffle and pool complexes, coral reefs, sanctuaries, and refuges):

Proposed Project

A total of 0.110 acre of vernal pools, 10.246 acres of wetlands, and 32.967 acres of wetland channel are present within the project site; of these features, 0.110 acres of vernal pools, 1.611 acres of wetlands, and 1.374 acres of wetland channel that would be directly impacted. Additionally, 0.458 acre of wetland channel would be indirectly impacted by the project. Approximately 78% of the WOUS, including approximately 92% of the special aquatic sites, on-site would be avoided and permanently protected within the on-site preserve area.

No Action Alternative (Reclamation)

This alternative would avoid all but 0.268 acre of special aquatic sites since only the western part of the site would be developed.

No Action Alternative (Corps)

This alternative would avoid all special aquatic sites.

(2) Fish, crustaceans, mollusks, and other aquatic organisms in the food web:

Proposed Project

The project area includes a number of small vernal pools and riparian and non-riparian seasonal wetlands, streams, ephemeral drainages, seasonal and perennial ponds. Each provide habitat for various species.

The vernal pools and non-riparian seasonal wetlands (totaling approximately 0.5 acre) provide habitat for wildlife species adapted to regimes of ponding in winter and drying during summer. Surveys of these habitats on-site detected a typical cross-section of macroscopic invertebrates. Some of the detected species complete their entire lifecycles in these habitats. Other species spend only part of their lifecycle in these habitats, due to their ability to disperse by flying, or their need for additional host species which occur outside aquatic habitats.

The relatively short-ponding vernal pools and seasonal wetlands on the site have low potential as habitat for amphibian species. Amphibians have not been observed in the majority of these waters, though they could potentially support the larval stages of rapidly-developing species. The exception is a single long-ponding seasonal wetland, created where the Madera Canal and access road dam an ephemeral drainage. This wetland supports CTS.

The project area contains approximately 49 acres of stream channels and riparian seasonal wetlands. These features are largely seasonal. Only a few in-stream ponds (discussed below) hold water year round. The hydrology of the streams and riparian wetlands is modified by the presence of irrigated agriculture, causing these features to carry water during the winter, spring, and summer, but typically not the fall. These features likely support a typical suite of wildlife tolerant of agricultural runoff, such as midge larvae, aquatic snails, dragon- and damselfly larvae, and leeches.

The project area includes roughly 6 acres of ephemeral drainages and non-wetland channels. These features provide very limited wildlife habitat, as they do not generally hold water long enough to develop diverse fauna, with the exception being those which receive irrigation run-off. These features likely support a typical mix of species adapted to short-ponding environments and agricultural run-off, such as mosquito (*Gambusia sp.*) and midge larvae. These features do not provide amphibian breeding habitat.

The study area includes approximately 1.7 acres of long-ponding marsh or pond features. This is divided between three features. A created agricultural pond in the southwest of the site may pond year round, but may be drained as part of agricultural practice. This irregular hydrology makes it unsuitable for fishes. It may occasionally provide breeding habitat for Sierran chorus frog (*Pseudacris sierra*) or other amphibians, but the agriculture which surrounds it and contributes runoff makes it low-quality habitat. When ponded, this feature likely supports a low diversity of invertebrates, such as backswimmers.

A 0.845-acre perennial pond exists just south of the Madera canal. This perennial pond contains game fish (centrarchids), red-eared sliders (*Trachemys scripta*), and American bullfrogs (*Lithobates catesbianus*). It provides potential habitat for other amphibian species, however the high concentration of invasive predators makes occupation of this pond by native amphibians unlikely.

No Action Alternative (Reclamation)

This alternative would avoid all canal waters and all vernal pools on the project site, as well as the majority of the non-riparian and riparian seasonal wetlands, streams, and ephemeral drainages that are located throughout most of the proposed project site that is not developable under this alternative. This alternative would minimize impacts to fish, crustaceans, mollusks, and other aquatic organisms.

No Action Alternative (Corps)

This alternative would avoid all waters on the site including vernal pools, wetlands, and streams that may support fish, crustaceans, mollusks, and other aquatic organisms. There would be no direct impacts to these species, but likely a substantial amount of indirect impact.

(3) Wildlife values:

Proposed Project

Grasslands and annual croplands, larger wetlands and waters, riparian woodlands and scrub habitats within the study area provide foraging, sheltering and breeding habitat for several common species of birds, mammals and reptiles. Converting the annual cropland and annual grassland to development would have an adverse effect on wildlife values. However, the open space preserve would continue to provide some of the higher functioning habitat within the project site.

No Action Alternative (Reclamation)

See discussion under Proposed Project. This alternative would have fewer impacts on foraging habitat and riparian and scrub habitat as development would be confined to the western portion of the project site. Most of this would be lost by construction of the project.

No Action Alternative (Corps)

See discussion under Proposed Project. This alternative would avoid the main drainage with a 50-foot buffer. Impacts to foraging habitat would be greater than the proposed project since this alternative would develop a somewhat larger amount of upland area that is otherwise preserved under the proposed project.

(4) Threatened and endangered species:

Proposed Project

A BA was prepared for the proposed project and submitted to FWS for consultation. Reclamation requested initiation of formal consultation on August 24, 2016, for the proposed project's effects on federally threatened California Tiger Salamander (CTS) (*Ambystoma californiense*), vernal pool fairy shrimp (*Branchinecta lynchi*), succulent owl's clover (*Castilleja campestris* spp. *succulenta*), and San Joaquin kit fox (*Vulpes macrotis mutica*) and designated critical habitat for succulent owl's-clover and CTS. The project area includes documented or presumed occurrences for CTS and VPFS. FWS issued its biological opinion, Number 08EEMF00-2015-F-0982, dated April 5, 2017.

CTS is known to breed in an artificially-enhanced seasonal wetland in the project area, and may use mammal burrows in grasslands along the northern and southern edges of the project area for sheltering and foraging. The project would reduce portions of this grassland habitat. The project would preserve the documented breeding pond and surrounding grasslands connecting the pond to off-site designated critical habitat. Impacts to habitat in the project area would be mitigated by the establishment of an off-site "turn-key" mitigation site for CTS at the Upper Jamison Ranch.

Fairy shrimp cysts (presumed to be VPFS) have been documented in several small vernal pools and seasonal wetlands along the northern edge of the Madera canal. They are presumed to be present in other similar wetland areas. VPFS have also been documented in a pool roughly 150 feet south of the project area. Six pools (including five within the project area or adjacent Reclamation canal lands, and the one pool south of the project area) totaling 0.128 acre might be indirectly affected by modifications to their watersheds. Three other pools (totaling 0.120 acre) might be indirectly affected by increased visitation by humans and pets. These impacts would be mitigated through the purchase of 1.1 acre of VPFS habitat preservation credit at an approved bank.

Vernal pools within critical habitat for succulent owl's clover would be filled or indirectly affected by the project, however these pools lack the acidic soils associated with this species, and the species has not been documented on-site; no mitigation is proposed for impacts to succulent owl's-clover (though impacts to the vernal pool habitat will be mitigated as described above).

No Action Alternative (Reclamation)

This alternative would avoid impacts to the CTS breeding pond. Additionally, it would avoid all vernal pools that are presumed to be occupied by VPFS and that provide habitat for succulent owl's clover, and all upland grassland habitat for the CTS would be avoided.

No Action Alternative (Corps)

This alternative would avoid impacts to the CTS breeding pond; however, more CTS upland grassland habitat would be impacted by this alternative. This alternative would avoid impacts to vernal pools, which provide habitat for VPFS and succulent owl's clover.

(5) Biological availability of possible contaminants in dredged or fill material, considering hydrography in relation to known or anticipated sources of contaminants; results of previous testing of material from the vicinity of the project; known significant sources of persistent pesticides from land runoff or percolation; spill records for petroleum products or designated (Section 311 of the CWA) hazardous substances; other public records of significant introduction of contaminants from industries, municipalities, or other sources:

Proposed Project

The County's EIR determined there are thirteen hazardous material sites within 2.25 miles of the proposed project, however, there are none located within the proposed project site itself. All thirteen hazardous sites were located downgradient from the proposed project. The EIR concluded that no groundwater contamination is anticipated to exist below the project site and construction is not anticipated to expose workers or the public to contaminated groundwater.

There is the possibility for contaminated soil to be encountered during construction as a result of past ranching or agricultural activities. The EIR reports that contamination could include, but is not necessarily limited to, pesticides, fungicides, herbicides, or hydrocarbons. The County requires soil sampling prior to construction at various depths and in any area thought to have been used for mixing of pesticides. Remediation is required for any area that tested in excess of regulatory thresholds, and/or are judged to pose a threat to the public health and the environment. In the event that previously unknown or unidentified soil or groundwater contamination that could present a threat to human health or the environment is encountered during construction on the Project Site, the County requires construction activities in the immediate vicinity of the contamination to cease immediately. A risk management plan must then be prepared, approved by the relevant agencies, and implemented prior to the resumption of work in the contaminated area.

No Action Alternative (Reclamation)
See discussion under Proposed Project.

No Action Alternative (Corps)
See discussion under Proposed Project.

c. Human Use Characteristics:

(1) Water supply and conservation:

Proposed Project

The primary source of water for the project would be supplied pursuant to a water

supply agreement between Tesoro Viejo, Inc., the Tesoro Viejo Master Mutual Water Company (collectively, "Tesoro Viejo") and the MID for the delivery of up to 3,000 acre feet per year of MID's pre-1914 water rights water for municipal and industrial uses. Contingent on Reclamation's approval of an additional point of delivery for MID's existing Warren Act Contract (contract that allows the storage and conveyance of MID's pre-1914 water in Reclamation facilities), MID would supply this surface water to Tesoro Viejo pursuant to MID's pre-1914 appropriative rights to North Fork Willow Creek (aka the "Soquel Rights") and MID's requirements under its Warren Act Contract with Reclamation. This water would serve all dwelling units and commercial and industrial uses throughout the project site. Agricultural irrigation water for crop cultivation that is currently supplied to the project site pursuant to Reclamation Holding Contract No. 7 would continue to be used for irrigation of the agricultural vignettes that are dispersed throughout the project site consistent with that contract. The project's development plans include construction of a wastewater treatment system to recycle waste water, which would then be distributed in a purple pipe distribution system for purposes of irrigating open space, parks, and trails.

The applicant has existing rights to withdraw groundwater from the property and to withdraw water from the San Joaquin River pursuant to Reclamation Holding Contract No. 7.

The Department of Water Resources (DWR) Integrated Regional Water Management Program (IRWMP) water demand calculations are based on a valley floor unit demand of 270 gallons per capita daily (GPCD) average for all municipal and industrial uses. The proposed project is designed to achieve a potential reduced demand of 2,900 acre feet/year serving a population of 15,650 residents. This equates to a demand reduction of 165 GPCD, which represents a per capita reduction of approximately 40%. It is a result of incorporating the water conservation guidelines included in the IRWMP's *20 x 2020 Water Conservation Plan* into the proposed project as well as the planned 100% direct beneficial reuse of all wastewater generated by the project.

The primary source of water for the proposed project is surface water. However if groundwater is used, for any groundwater that is extracted on the project site, the project would provide for a 1:1 recharge for each acre foot extracted. In addition, the project would detain on-site storm water runoff and use it for groundwater recharge to the extent feasible, which is expected to improve groundwater conditions in the area. To minimize any impact to the downstream users, no new supply wells would be placed upgradient within a half mile of the down slope Bonadelle Ranchos subdivision.

No Action Alternative (Reclamation)

Under this alternative, no water would be delivered to the project site via the use of Reclamation's facilities (Madera and Lateral 6.2 canals). Instead, water would need to be piped from MID's point of diversion on North Fork Willow Creek, or from groundwater wells currently being used to irrigate existing almond orchards approximately eight miles

to the west of the project site, and/or pumped from newly drilled groundwater wells on the project site. None of these alternative water supply sources are practicable. There would be substantial environmental impacts associated with building miles of new canal and/or pipeline connections to either MID's point of diversion on North Fork Willow Creek or the almond orchards eight miles to the west. Similarly, on-site groundwater pumping at a volume necessary to meet the needs of the reduced development footprint under this alternative would result in unacceptable impacts to the existing critical condition of groundwater over-draft in the region, and as such is not expected to be approved by the County.

No Action Alternative (Corps)

See discussion under Proposed Project. The demand for water would be approximately the same.

(2) Aesthetics:

Proposed Project

The project site is characterized by agricultural uses throughout most of the site and a gently rolling terrain, bounded to the west by relatively level terrain surrounding SR-41, to the north by a prominent hill and a mesa, to the south by two hills and to the east by the Sumner Hill residential subdivision. The higher topographic features afford vistas into the site from three sides. Wide expanses of the site are also visible to the west from SR-41.

Vegetation on the project site is comprised largely of agriculture, including vineyards, row crops, and dry-farmed fields. Clumps of willows and oak trees also dot the landscape adjacent the stream channels. Two long lines of mature eucalyptus grow along a road that parallels the northeastern edge of the site. Nonnative grassland occupies the remainder of the site with rock outcropping along the faces of bluffs. Together, these scenic features compose a rural and agricultural landscape.

The overall project area would change from a rural and agricultural landscape to a mixed use development. Portions of agriculture would be maintained as agricultural vignettes to preserve the historic land use in the community. Additionally, large areas of open space preserve would maintain some level of the natural landscape.

No Action Alternative (Reclamation)

See discussion under Proposed Project. Most of the site would remain in its existing state as development would be limited to the western portion of the site which is most visible to motorists using SR 41.. Agricultural activities would most likely continue in the undeveloped areas.

No Action Alternative (Corps)

See discussion under Proposed Project. Similar development would occur under this

alternative. Aesthetics would be similarly impacted with the exception of the waters remaining in smaller or non-existent preserved areas.

(3) Traffic/transportation patterns:

Proposed Project

Based on 2014 traffic data from Caltrans, the average daily traffic (ADT) volume on SR-41 south of this location at Avenue 12 is 18,500, and to the north at Junction Route 145, the ADT is 15,000. The project is located approximately halfway between these points. Averaging the two counts is approximately 16,750 vehicles per day.

The peak periods of traffic are weekday morning (7:00 to 9:00 A.M.) and evening (4:00 to 6:00 P.M.). The Level of Service (LOS) Standard for all of the peak period intersection turning movements within the project site vicinity operated at an acceptable LOS D or better during both the AM and PM peak hours in a 2011 traffic study except the SR-41/Avenue 15 intersection which rated an LOS of F during the AM peak hour. Existing highway segments were analyzed based on peak hour volumes and all highway segments analyzed operated at an acceptable LOS D or better. Based on the peak periods discussed above and the existing LOS, there are no dramatically increased commute times expected with implementation of the proposed project.

Level of service impacts to the existing SR-41 intersections with Avenue 15 and Road 204 would be experienced gradually as the proposed project is built-out over the next fifteen years. Based on its agreement with Caltrans, the County would require the applicant to make intersection improvements by adding turning and merge lanes at these two intersections, and signaling the SR-41/Avenue 15 intersection.

The proposed project at full build-out in 2030, may still result in unmitigated cumulative impacts to traffic, even after implementation of project-specific mitigation measures for the Avenue 15 and Road 204 intersections at SR-41 unless the County and Caltrans construct regional transportation improvement projects that have been approved in concept, but for which funding and project-specific details have not yet been made available. Widening or the possible realignment of SR-41 are currently under review by Caltrans. New freeway interchanges at the intersection of Avenues 12 and 15 with SR-41 are conceptually projected for construction sometime in the next 15 to 40 years, should the highway be converted to a freeway. The County also has conceptual plans for the construction of a new Rio Mesa Boulevard that would parallel SR-41 on its east side.

The need for these regional transportation improvements are tied to additional planned development occurring. Financing the transportation improvements requires funds from several sources, including the development projects themselves. Currently, there is only one other development under construction. Developments are required to provide funds to the County to help implement the area-wide transportation improvement

scheme

No Action Alternative (Reclamation)

See discussion under Proposed Project. This alternative would not develop the majority of the site, and therefore would not require as much transportation improvements as the proposed project.

No Action Alternative (Corps)

See discussion under Proposed Project. Impacts would be similar to the proposed project.

(4) Noise:

Proposed Project

Primary noise sources at the project site include existing traffic noise primarily from SR-41, noise attributable to agricultural equipment, employee vehicle traffic, and resident vehicle traffic traveling to and from the Sumner Hill Subdivision.

The closest existing noise-sensitive location is the Sumner Hill subdivision, located approximately 280 feet east of the project site. Although construction is planned to be phased over a 15-year period, development of the proposed project could generate construction noise levels that would exceed the County's 50 dBA L_{eq} noise limit at the Sumner Hill subdivision. To reduce the noise levels resulting from construction of the proposed project to the extent feasible, the project will employ standard mitigation measures, including BMPs that require pre-construction notice to affected landowners, daytime-only construction, and use of noise attenuation measures where possible (e.g., muffled equipment according to industry standards, use of noise barriers and noise blankets, etc.).

Sources of noise generated by implementation of the proposed project would include new stationary sources, such as rooftop heating, ventilation, and air conditioning (HVAC) systems for the office and commercial uses. County requirements specify that all air conditioners, heating, cooling and ventilating equipment and all other mechanical, lighting or electrical devices would be screened, shielded and/or sound buffered from surrounding properties and streets.

The proposed project would also introduce new activity and noise to the area as people are attracted to the new commercial uses that would develop as part of the proposed project. For example, operation of the proposed project would involve the delivery of goods and food stuffs to the commercial and retail operations associated with the proposed project. The loading docks associated with the proposed project would be screened from sensitive receptors both on and off site by intervening structures and design of the loading spaces. In addition, these noise sources would be limited to the

commercial and mixed use districts, and therefore, loading areas would not be located adjacent to residential uses. The commercial uses located along SR-41 would serve as noise barriers reducing the traffic noise levels at the noise sensitive (residential) areas.

No Action Alternative (Reclamation)

See discussion under Proposed Project. Noise impacts should be much reduced due to the smaller developable project footprint.

No Action Alternative (Corps)

See discussion under Proposed Project.

(5) Safety:

Proposed Project

Fire protection services to unincorporated Madera County are provided by the Madera County Fire Department (MCFD). Law enforcement is provided by the Madera County Sheriff's Department (MCSD). During construction contractors would be required to practice standard OSHA safety standards. As a general practice, contractors would conduct tailgate safety meetings prior to start of work on a daily basis.

To meet the public safety needs created by the proposed project, a new Fire Station would be constructed on the project site, as would a new nearby Sheriff's Substation, improving response time to Tesoro Viejo and neighboring communities.

Hospitals in the vicinity of the project site include Madera Community Hospital and Children's Hospital Central California. The Madera County Hospital is located in the city of Madera, approximately 20 miles west of the Project Site, and the Children's Hospital Central California is located near Avenue 9 and SR-41, about 2 miles southwest of the project site. The proposed project has a memorandum of understanding with Community Medical Center to provide a medical pavilion within the Town Center of Tesoro Viejo which would facilitate closer access to emergency and medical facilities for the proposed project.

No Action Alternative (Reclamation)

See discussion under Proposed Project.

No Action Alternative (Corps)

See discussion under Proposed Project.

(6) Recreation:

Proposed Project

None of the alternatives would affect recreation during construction. The proposed project would include an approximately 186-acre open space preserve, as well as an

additional 154 acres of recreational areas associated with trails, neighborhood parks and play fields that would be incorporated in the developed areas. Therefore, the proposed project would provide approximately 340 acres of open space, some of which would consist of parks, playing fields, horse riding trails/facilities, court areas, recreational swimming areas, and recreational buildings. While not all of the open space would be devoted to active recreational uses, residents would also be able to enjoy passive recreational activities at sites reserved for habitat preservation.

No Action Alternative (Reclamation)

See discussion under Proposed Project. Acreages of potential recreational areas would be non-existent due to the limited area developable under this alternative.

No Action Alternative (Corps)

See discussion under Proposed Project. Acreages of potential recreational areas would be similar to the proposed project.

(7) Recreational and commercial fisheries: NA. The proposed project is not located in an area with recreational or commercial fisheries.

(8) Navigation: NA. The proposed project is not located in an area subject to navigation.

(9) Energy needs:

Proposed Project

The baseline energy consumption of the site currently consists of electricity needed to run irrigation systems and serve power to an existing residence and an existing office onsite. In addition, fossil fuels are consumed to perform agricultural operations including harvesting and maintenance of crops. There is no current energy being produced on the project site.

Energy resources that would be consumed during the construction of the proposed project include electricity and fossil fuels required to power construction equipment. New buildings in California are required to conform to energy conservation standards specified in Title 24 of the California Code of Regulations (CCR). Energy-efficient measures would be implemented to the maximum extent feasible in all development under the proposed project.

Project features would be designed to maximize solar gain and minimize heat reflective surfaces, as well as providing landscaping to reduce heat reflection on adjacent structures pursuant to the requirements of Title 24. The development would be sited and designed to maximize access to sunlight and air. A tree nursery has also been established on the project site to provide mature trees for the proposed project. Mature trees have a higher survival rate, minimize energy consumptions through shading and

cooling, and require less intensive watering. Solar energy may be included with residential and commercial development for onsite use only. The produced energy would not have any growth-inducing impacts; all produced energy would be used by the project.

Cumulative impacts with respect to energy consumption are not a concern in the region due to the relatively low intense uses in this mostly agrarian and recreationally-oriented region. Other than the possibility of some distributed renewable energy solar projects being included in the project's residential and commercial development areas, there would be no commercial energy production associated with the proposed project. Tesoro Viejo was planned to have solar panels installed on the commercial/retail buildings and expects that many homes built throughout the course of the project would have solar power features. Installation of renewable and energy efficient components has been described as a key part of the planning strategy for this project. This is expected to result in less energy consumption than older communities of a similar size.

No Action Alternative (Reclamation)

See Proposed Project above for baseline description. Impacts to energy consumption would be less than the proposed project due to the smaller developable footprint.

No Action Alternative (Corps)

See Proposed Project above for baseline description. Impacts to energy consumption would be similar to the proposed project due to the similarly sized project footprint.

(10) Mineral needs:

Proposed Project

The principal mineral need for the proposed project is for construction of roads, building pads and related foundational elements. It is roughly estimated that the proposed project will require 600,000 tons of asphalt, 900,000 tons of aggregate base and 686,000 cubic yards of concrete.

No Action Alternative (Reclamation)

Fewer mineral resources are anticipated under this alternative since overall site construction would be less.

No Action Alternative (Corps)

See discussion under Proposed Project.

(11) Economics:

Proposed Project

The proposed project is expected to enhance property values in the area for existing

and future residents. The proposed project is anticipated to add approximately 6,500 permanent jobs and 1,000 temporary jobs to the area. In addition, the new housing stock provided by the proposed project would aid the County in meeting its anticipated housing needs resulting from the projected regional growth.

The County would also benefit from the receipt of additional tax revenue generated by the enhanced property values and additional sales tax revenue generated by commercial development. The creation of new commercial activities and recreational amenities would contribute to the economic vitality of the County.

No Action Alternative (Reclamation).

Overall costs would be much less because most of the project site would not be developed under this alternative. Fewer permanent and temporary jobs would be created the commercial/industrial component would be greatly reduced, providing fewer jobs.

No Action Alternative (Corps)

The same number of housing units would be constructed. A similar number of permanent and temporary jobs would be created. Similar tax revenue would be generated compared to the proposed alternative.

(12) Food and fiber production:

Proposed Project

The project site currently has approximately 75 acres of blueberries and 282 acres of wheat in production. For the blueberries, this represents about 0.02% of the State's total production. The site's wheat production is negligible in the context of the approximately 495,000 acres of cultivated wheat grown in the State of California in 2014. Although not grown for food, there are also nearly 700 acres of vineyards as well.

No Action Alternative (Reclamation)

Impacts to farmland used to produce food and fiber would be substantially less under this alternative because most of the project site would not be developed, including a large amount acreage that is under current cultivation, but as described above, the project site does not contribute substantially to agricultural production.

No Action Alternative (Corps)

See discussion under Propose Project. Impacts would be similar.

(13) Prime and unique farmland:

Proposed Project

Prime and unique farmland on the project site represent less than 0.9 percent of the total farmland in Madera County. All would be lost to the development of the site.

No Action Alternative (Reclamation)

See discussion under Proposed Project. Although less of the project site would be developed, as addressed above, the site does not contribute substantially to agricultural production.

No Action Alternative (Corps)

See discussion under Proposed Project.

(14) Considerations of property ownership:

Proposed Project

The project site is owned by Rio Mesa Holdings, LLC, a California Limited Liability Company. The current property owner would profit from the sale and transfer of ownership of the residential, commercial and industrial lots. The Madera Canal and Lateral 6.2, are and would continue to be owned by the Reclamation.

No Action Alternative (Reclamation)

See discussion under Proposed Project.

No Action Alternative (Corps)

See discussion under Proposed Project.

(15) Land use:

Proposed Project

The general plan designation for the project site varies, ranging from medium density residential to agriculture and open space. Land use, however, is governed by the County-approved Tesoro Viejo Specific Plan, which addresses the proposed project and the various land uses described therein. Land use would change from primarily agriculture to residential, commercial and industrial uses.

The current use of the project site is principally for agriculture.

The properties to the north and south of the project site are mainly used for grazing or are undeveloped; the area immediately to the west is a small residential/commercial subdivision and the area to east partially developed as a large-lot residential subdivision.

The project is consistent with the County of Madera's plans for the development of this area and is compatible with the proposed and existing uses in the vicinity of the project site.

The proposed project would extend infrastructure, such as utility lines and roadways, to

the project site that is not currently served by infrastructure. While utilities infrastructure related to stormwater and wastewater would be sized to meet the needs of the proposed project, the design of this infrastructure would not preclude “upsizing” to accommodate later approved developments. Importantly, however, each such additional development would be required to secure its own water supply and delivery mechanism.

No Action Alternative (Reclamation)

See discussion under proposed project. Land uses would remain unchanged for the majority of the project site.

No Action Alternative (Corps)

See discussion under proposed project.

(16) Historic properties:

Proposed Project

Each of the cultural resources located within the APE were evaluated in several phases for their eligibility to the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR). Applied Earthworks (Baloian et al. 2006) used a combination of subsurface testing using shovels, auger probes, test surface transects, and test excavations at four of the archaeological sites to better define site boundaries, identify site contents, and determine eligibility relative to the CRHR, in support of the County's EIR. Subsequently, as part of the preparation of the revised EIR for the project, Delacorte and Basgall et al. (2012) re-evaluated the prehistoric sites (CA-MAD-2392, and CA-MAD-2394) through additional analysis and site visits. The three historic resources (CA-MAD-2393H, P-20-2308, and P-20-2525) were not revisited or re-evaluated. Lastly, in 2015, ECORP evaluated the existing pedestrian and vehicle crossings of the Madera Canal and Lateral 6.2, a component of the Madera Canal, relative to the NRHP and CRHR eligibility criteria.

As a result of those evaluations, the following Historic Properties are present within the APE for this Project:

- Prehistoric site CA-MAD-2394 (only Locus B contributes to the significance; Locus A does not)
- Historic site P-20-2308 (Madera Canal, Lateral 6.2 and 5 crossings are all contributing elements)

The remaining cultural resources are not considered Historic Properties:

- Prehistoric site CA-MAD-2392
- Historic site CA-MAD-2393H
- Historic site P-20-2525

The Corps and Reclamation concluded that Historic Properties, as defined in 36 CFR 800.16(l)(1), are located within the APE. The Corps further concluded that, based on development plans submitted to the Corps and Reclamation, there would be No Adverse Effect to Historic Properties by these Undertakings (i.e., the Corp's permit decision and Reclamation's land use authorization to access their rights of way) with the implementation of avoidance and minimization measures specified in the Cultural Resources Management Plan (CRMP). The Corps initiated consultation with SHPO, also on Reclamation's behalf in August 2016. SHPO issued its concurrence on February 7, 2017.

There remains moderate to low potential for buried artifacts or sites to be uncovered during ground disturbing activities. The CRMP provides procedures for addressing post-review discoveries, should they occur.

No Action Alternative (Reclamation)

Under this alternative, there would be no impacts to site P-20-2308, however, prehistoric site CA-MAD-2394 would still be avoided.

No Action Alternative (Corps)

See discussion under Proposed Project, with the exceptions that one crossing on the Madera Canal would not be built, and there would be no direct impacts to Lateral 6.2.

(17) Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar areas: NA. There are none of these potential resources in or near the proposed project.

(18) Air Quality:

Proposed Project

The proposed permit has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit would not exceed de minimis levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 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 permit action.

No Action Alternative (Reclamation)

Under this alternative, there would be fewer construction related air emissions because the majority of the project site would not be developed.

No Action Alternative (Corps)

See discussion under Proposed Project.

d. Secondary and cumulative effects:

The geographic area for this assessment is the Cottonwood Creek – San Joaquin River watershed.

(1) Baseline: Based on information from the National Wetland Inventory³ and National Hydrography Dataset⁴, there are approximately 1,864 acres of wetlands within the watershed; approximately 2% of the watershed area is wetland. There are also approximately 193 stream miles contained within the watershed comprised of 15 % perennial, 46% intermittent, and 39% ephemeral tributaries.

Information from the ORM2 database indicates that DA permit activities within the watershed from April 1972 to present have authorized the permanent loss of 102 acres of WOUS; however, compensatory mitigation for these permanent losses required the establishment or creation of 371 acres of aquatic resources. Corps permits for the last 5-year period have authorized the fill of approximately 8.9 acres of waters of the U.S. and required approximately 13 acres of compensatory mitigation.

(2) Context: The proposed project is typical of other planned large-scale mixed use developments in the watershed. Development similar to the proposal have not occurred in the watershed in the past five to ten years, although one development (Gateway) has broken ground very recently in an area without jurisdictional waters. Resulting natural resource changes and stresses include overdrawn groundwater supplies, impacts to water quality, loss of buffer habitat and increased impacts to federally listed species. The projection is that authorizations may increase above the current rate because growth and development of the area have begun to increase as the economy improves after the last recession. Although the projection is for continued growth in the area to continue to increase, some development may occur without the need for DA permits. Based on ORM data for the area, there may be additional non-jurisdictional waters in the vicinity, resulting in some activities not requiring DA permits such as the Gateway project, which the Corps determined contained no jurisdictional WOUS. Natural resource issues of particular concern within the watershed, from Corps & non-Corps activities, are the loss of wetlands and other WOUS, impacts to listed species and loss of habitat, due to residential, commercial, industrial, institutional, and agricultural development. Water quality and over drafting of both surface water and groundwater resources are also of concern within the watershed.

Reasonably foreseeable future developments within the watershed with the potential to impact aquatic resources include some of the off-site alternatives determined to be

³ U.S. Department of the Interior, U.S. Fish and Wildlife Service, National Wetlands Inventory, <https://www.fws.gov/wetlands/>

⁴ U.S. Department of the Interior, U.S. Geological Service, National Hydrography Dataset, <https://nhd.usgs.gov/>

impracticable due to water supply constraints and/or relying solely on groundwater for proposed future development, such as the Freels Property, Highway 41 Property, and Road 36 Property, as well as some other potential developments not within the off-site alternatives review such as the 162-acre Tra Vigne proposed development. Currently, none of these potential future developments have received county approvals. However, were any or all able to obtain reliable water sources in the near future, they may be expected to restart their approvals process. When considering the overall impacts that would result from this project, in relation to the overall impacts from similar past, present, and reasonably foreseeable future projects, the cumulative impacts are not considered to be significantly adverse. Compensatory mitigation would be required to help offset the impacts to WOUS. It is likely similar activities would be proposed in the future, and these would be subject to the appropriate review process at that time.

(3) Mitigation and Monitoring: The effects of the proposed action would result in 11.036 acres of direct and 0.458 acre of indirect impacts to aquatic resources, and would add to the effects of past actions within the watershed. If a permit were to be issued, compensatory mitigation would be required to offset unavoidable impacts to aquatic resources. Proposed avoidance of 42.28 acres of WOUS, along with compensatory mitigation, namely the purchase of 9.32 credits of seasonal wetland establishment at Grasslands Mitigation Bank, would ensure no net loss of aquatic resource functions and services.

e. Restrictions on discharges (40 CFR 230.10):

(1) It has been demonstrated that there are no practicable nor less damaging alternatives which could satisfy the proposal's overall project purpose. The activity would impact special aquatic sites (wetlands). The activity does not need to be located in a special aquatic site to fulfill its basic purpose.

(2) The proposed activity would not violate applicable State water quality standards or Section 307 prohibitions or effluent standards.

(3) The proposed activity would not jeopardize the continued existence of federally listed threatened or endangered species, nor would it affect the critical habitat of succulent owl's clover.

(4) The proposed activity would not violate the requirements of a federally designate marine sanctuary.

(5) The activity would not cause or contribute to significant degradation of waters of the United States, including adverse effects on human health; aquatic ecosystem diversity, productivity and stability; and recreation, aesthetic, and economic values.

(6) Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (see Paragraph 8 for description of mitigative actions).

f. Public interest general evaluation:

(1) The relative extent of the public and private need for the proposed structure or 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.

(2) There are unresolved conflicts as to resource use, however there are no practicable alternative locations or methods to accomplish the overall project purpose, nor practicable alternatives that would have fewer impacts than the proposed project. As part of this evaluation, a reasonable range of on-site and off-site alternatives were considered. We have determined that there are no practicable alternate locations that would accomplish the purpose of the proposed work. 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 proposed project.

(3) The extent and permanence of the beneficial and/or detrimental effects, which the proposed work is likely to have on the public, and private uses to which the area is suited has been reviewed. The proposed project would result in the placement of fill material into, and the permanent loss of 11.04 acres (6.09 acre of streams and wetlands and 4.94 acres of irrigation canal.) of WOUS. The loss of 11.04 acres of WOUS would cause a permanent detrimental effect. The loss of WOUS on-site would be offset by the required mitigation. The proposed off-site purchase of 9.32 acres of establishment credit from Grasslands Mitigation Bank and the on-site preservation of avoided waters is expected to provide a permanent beneficial effect. In addition, the proposed parks and recreational trails are also expected to provide a permanent beneficial effect to the public. The residential, commercial and recreational areas built in the development would provide a permanent benefit to the community.

7. Related laws and policies:

a. Section 7 of Endangered Species Act: The proposed activity may affect but is not likely to jeopardize the continued existence of CTS, SJKF, VPFS and succulent owl's-clover. The U.S. Fish and Wildlife Service issued a Biological Opinion Number 08EEMF00-2015-F-0982, dated April 5, 2017.

b. Magnuson-Stevens Act - Essential Fish Habitat: N/A

c. Section 106 of the National Historic Preservation Act: The proposed action

would have no adverse effect to any sites listed, or eligible for listing, in the National Register of Historic Places, or otherwise of national, state, or local significance based on February 7, 2017, letter from SHPO. See Section 6(c)(16).

d. Section 401 of the Clean Water Act: Water quality certification under Section was issued by the Central Valley Regional Water Quality Control Board, on June 5, 2017.

e. Coastal Zone Management (CZM): N/A

f. Presidential Executive Orders:

(1) EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: This action has no substantial direct effect on one or more Indian tribes. There are a number of pre-historic sites located on the proposed project site. The proposed action would avoid all known pre-historic resources within open-space areas that would be preserved under a conservation easement. On February 25, 2013, we initiated Native American coordination through letters sent to the following individuals: Honorable Chairperson Jerry Brown (Chowchilla Tribe of Yakuts), Honorable Chairperson Robert Ledger Sr. (Dumna Wo-Wah Tribal Government), Mr. Eric Smith (Dumna Wo-Wah Tribal Government), Mr. John Ledger (Dumna Wo-Wah Tribal Government), Honorable Chairperson Kenneth Woodrow (Wuksache Indian Tribe), Honorable Chairperson Katherine Erolinda Perez (North Valley Yokuts Tribe), Honorable Chairperson Reggie Lewis (Picayune Rancheria of the Chukchansi Indians), Honorable Chairperson Lois Martin (Southern Sierra Miwuk Nation), Mr. Les James (Southern Sierra Miwuk Nation) and Interim Chairperson Lawrence Bill (Sierra Nevada Native American Coalition). No comments were received in response to these letters.

(2) EO 11988, Floodplain Management: The project site is not in a floodplain.

(3) EO 12898, Environmental Justice: In accordance with Title III of the Civil Rights Act of 1964 and Executive Order 12898, it has been determined that the proposal would not directly or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin nor would it have a disproportionate effect on minority or low-income communities.

(4) EO 13112, Invasive Species: There are no invasive species issues associated with the proposed project.

(5) EO 13212 and 13302, Energy Supply and Availability: The action is not one that would increase the production, transmission, or conservation of energy, or strengthen pipeline safety.

g. Significant Issues of Overriding National Importance: None.

8. Compensation Mitigation:

a. Compensatory Mitigation:

(1) Is compensatory mitigation required? yes no

Rationale:

(2) Is the impact in the service area of an approved mitigation bank? yes no

(i) Does the mitigation bank have appropriate number and resource type of credits available? yes no

(3) Is the impact in the service area of an approved in-lieu fee program? yes no

(i) Does the in-lieu fee program have appropriate number and resource type of credits available? yes no

(4) Check the selected compensatory mitigation option(s):

- mitigation bank credits
- in-lieu fee program credits
- permittee-responsible mitigation under a watershed approach
- permittee-responsible mitigation, on-site and in-kind
- permittee-responsible mitigation, off-site and out-of-kind

(5) If a selected compensatory mitigation option deviates from the order of the options presented in §332.3(b)(2)-(6), explain why the selected compensatory mitigation option is environmentally preferable. Address the criteria provided in §332.3(a)(1) (i.e., the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and their significance within the watershed, and the costs of the compensatory mitigation project): NA

(6) Other Mitigative Actions: The proposed project would include approximately 186 acres of on-site open space preserve, which includes 42.28 acres of preserved WOUS. The open space preserve would be placed under a conservation easement and managed in perpetuity according to the approved May 2017, Wetlands and Open Space Long-Term Management Plan (Management Plan).

b. Final Mitigation Plan:

(1) Was a final mitigation plan prepared and approved? yes no

(i) Name and date of approved mitigation plan: Final Mitigation Plan for

the Tesoro Viejo Master Planned Community, April 26, 2017.

(ii) If a mitigation plan is not required, explain: The applicant has proposed to purchase compensatory mitigation credit from the Corps-approved Grasslands Mitigation Bank.

(2) Does the Approved Mitigation Plan meets all of the following requirements: The Plan complies with the requirements in 33 CFR part 332.4(c)(5)-(6) for the purchase of credits at a mitigation bank or in-lieu fee program? yes no.

9. Determinations:

a. Public Hearing Request: N/A.

b. Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit would not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 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 permit action.

c. Finding of No Significant Impact (FONSI): Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an Environmental Impact Statement will not be required.

d. Compliance with 404(b)(1) guidelines: I have determined that the proposed discharge complies with the 404(b)(1) guidelines. The proposed action is the Least Environmentally Damaging Practicable Alternative.

e. Public Interest Determination: I find that issuance of a Department of the Army permit with special conditions is not contrary to the public interest.

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

1. To mitigate for the loss of 11.036 acres of waters of the United States, you shall purchase 9.32 credits of seasonal wetlands habitat at Grasslands Mitigation Bank.

Evidence of this purchase shall be provided to the Corps prior to initiation of construction activities within waters of the U.S.

Rationale: This special condition is necessary to ensure successful compensatory mitigation for the unavoidable losses 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).

2. This Corps permit does not authorize you to take an endangered species, in particular California Tiger Salamander (CTS) (*Ambystoma californiense*), vernal pool fairy shrimp (*Branchinecta lynchi*), succulent owl's clover (*Castilleja campestris* spp. *succulenta*), and San Joaquin kit fox (*Vulpes macrotis mutica*) or designated critical habitat for succulent owl's clover or CTS. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (e.g., an Endangered Species Act Section 10 permit, or a Biological Opinion under Endangered Species Act Section 7, with "incidental take" provisions with which you must comply). The enclosed Fish and Wildlife Service Biological Opinion (Number 08EEMF00-2015-F-0982, dated April 5, 2017), contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the Biological Opinion. 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 Biological Opinion, 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 Biological Opinion, 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 U. S. Fish and Wildlife Service is the appropriate authority to determine compliance with the terms and conditions of its Biological Opinion, and with the Endangered Species Act. You must comply with all conditions of this Biological Opinion, including those ascribed to Reclamation and the Corps.

Rationale: This condition is necessary to ensure compliance with Section 7 of the Endangered Species Act for impacts to threatened and endangered species(16 USC 1531 et seq.; 16 USC 1801, et seq.;50 CFR 402; 50 CFR 600; 33 CFR 320.4(j)(4); 33 CFR 325.2(b)(5); 33 CFR 325.4(a)(1)).

3. You shall comply with all terms and conditions of the attached June 5, 2017, Section 401 Water Quality Certification.

Rationale: This condition is necessary to ensure compliance with Section 401 of the Clean Water Act (33 USC 1341; 33 CFR 320.3; 33 CFR 320.4(d); 33 CFR 325.2(b)(1); 33 CFR 325.4(a)(1)).

4. Prior to initiation of construction activities within waters of the U.S., you shall establish and maintain in perpetuity an approximately 186-acre preserve containing approximately 42.28 acres of preserved waters of the U.S., as depicted on the exhibit

entitled Tesoro Viejo Master Planned Community (Tesoro Viejo Proposed Preserve/Impact Plan figure in Appendix B), dated April 25, 2017. The purpose of this preserve is to ensure that functions of the aquatic environment are protected. Within four years of issuance of this permit, you shall cause this preserve to be expanded by 1.35 acres, including 0.3 acre of preserved waters of the U.S., as depicted on the exhibit entitled Tesoro Viejo Master Planned Community (Tesoro Viejo Proposed Preserve/Impact Plan), dated April 25, 2017.

Rationale: This special condition is necessary to ensure successful compensatory mitigation for the unavoidable losses of waters of the U.S. due to the construction of the proposed project, and to ensure that the functions of the aquatic environment are protected. (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332, 40 CFR 230).

5. To ensure avoidance and minimization compliance, the approved document entitled *Wetlands and Open Space Long-Term Management Plan*, dated May 2017, is incorporated by reference as a condition of this authorization except as modified by the following special conditions:

a. Permanent legal protection shall be established for all preserve parcels, following Corps approval of the legal instrument.

b. Except as otherwise approved in the *Wetlands and Open Space Long-Term Management Plan*, dated May 2017, you shall not construct any roads, utility lines, outfalls, trails, benches, firebreaks or other structure, and shall not conduct any grading, mowing, grazing, planting, discing, pesticide use, burning, or other activities within the on-site preservation and avoidance areas, nor shall you construct any outfalls that flow toward the preserve. All outfalls approved in the *Wetlands and Open Space Long-Term Management Plan* shall be designed such that they do not contribute to erosion of upland areas or stream channels within the preserve. All maintenance and management prescriptions contained in the *Wetlands and Open Space Long-Term Management Plan*, dated May 2017, shall be adhered to, except as the Plan may be amended from time to time with prior approval from the Corps.

Rationale: This special condition is necessary to ensure minimization of impacts to waters of the U.S. and to ensure that the functions of the aquatic environment are protected. (33 CFR 320.4(r)(1), 33 CFR 325.4(a)(3), 33 CFR 332(k)(iv), 40 CFR 230).

6. Within eight months of issuance of this permit, you shall implement the following financial assurance measures to ensure long-term viability of preservation areas:

a. Establish a fully-funded endowment to provide for maintenance, management and monitoring of on-site preservation areas. Information on the proposed endowment

holder and the proposed endowment agreement shall be provided to the Corps for approval prior to establishment.

b. Designate an appropriate conservation-oriented third-party entity to function as preserve manager and to hold the required conservation easements. Information on the proposed conservation easement holder shall be provided to the Corps for approval prior to designation.

c. Record permanent conservation easements maintaining all preservation areas as preserve and wildlife habitat in perpetuity. Copies of the proposed conservation easement language shall be provided to the Corps of Engineers for approval prior to recordation.

d. Provide copies of the recorded documents to the Corps of Engineers no later than 15 days after recordation of the conservation easements.

7. To assure protection of on-site preservation areas, you shall post a bond in the amount of \$1,365,955 with a Federally-approved surety for the approximate cost of the fully funded endowment for the management, maintenance and monitoring of the on-site open space preserve areas in perpetuity, until the designated Easement Holder, Endowment Holder and Preserve Manager has been contracted.

Rationale: This special condition is necessary to ensure a high level of confidence that the compensatory mitigation projects will be successfully completed (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332).

8. Prior to construction within any phase of the project, high visibility temporary construction or permanent fencing must install along the boundary of the Wetlands and Open Space Preserve within or adjacent to the phase under construction and any access routes (see Preserve Fencing figure in Appendix B). Fencing must be installed at the limits of construction at the Preserve boundary when improvements such as grading, bike trails, detention basins, etc., are installed. In all cases, this fencing must be maintained daily until permanent fencing is installed. This temporary fencing must be replaced by the developer with permanent fencing prior to the completion of construction of each portion of the project.

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

9. To prevent unauthorized fills and unforeseen impacts to avoided waters, you shall install permanent fencing and appropriate signage around the entire outer boundary of buffers of the avoided waters of the United States (i.e. the Open Space Preserve) within the project area, prior to completion of any phase of the project. You shall ensure that

all fencing surrounding the Open Space Preserve allows unrestricted visibility of these areas to discourage vandalism, destruction or disturbance, as well as enable wildlife passage. Examples of appropriate fencing include post-and-cable, wrought iron or similar type. You shall place the signage at all access points into the avoided areas and ensure signage contains the Corps identification number (SPK-2006-00425), contact information for the preserve manager and a statement that the site is a wetland preserve.

Rationale: This special condition is necessary to ensure avoidance of impacts to waters of the U.S. (33 CFR 320.4(r)(1), 33 CFR 325.4(a)(3), 33 CFR 332, 40 CFR 230).

10. You shall employ a wetland scientist to continuously monitor construction activities in the vicinity of waters of the U.S. to ensure against unauthorized activity during construction. The monitor shall be on-site during all construction activities within 50-feet of avoided waters of the U.S.

Rationale: This special condition is necessary to ensure that construction activities do not impact avoided and preserved waters of the U.S. (33 CFR 320.4(r)(1), 33 CFR 325.4(a)(3), 33 CFR 332, 40 CFR 230).

11. Within 60 days following completion of each phase of the authorized work, you shall submit as-built drawings and a description of the work conducted on the project site to the Corps for review. The drawings shall be signed and sealed by a registered professional engineer and 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 at the same scale as the permit drawings. The drawing should show all "earth disturbance," wetland and waters impacts, structures, and the boundaries of the Open Space Preserve areas. The drawings shall contain 1-foot topographic contours of the entire site.
- c. Ground and aerial photographs of the completed work. The camera positions and view-angles of the ground photographs shall be identified on a map, aerial photograph, or project drawing.
- d. A description and list of all 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

CESPK-RD

SUBJECT: Decision Document for Permit Application SPK-2006-00425

USC 1344(a), 33 USC 401 et. seq., 33 CFR 320.4(r)(1), 33 CFR 325.4(a)(3); 33 CFR 326).

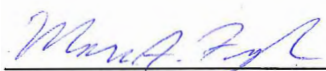
12. You are responsible for all work authorized herein and ensuring that all contractors and workers are made aware of and adhere to the terms and conditions of this permit authorization. You shall ensure that a copy of the permit authorization and associated drawings are available for quick reference at the project site until all construction activities 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).

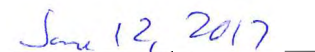
13. You shall implement the June 2017, Cultural Resources Management Plan (CRMP), entitled *Tesoro Viejo Master Planned Community Madera County, California*, in its entirety. The Corps has been designated the lead federal agency responsible for implementing and enforcing the CRMP as signed. If you fail to comply with the implementation and associated enforcement of the CRMP the Corps may determine that you are out of compliance with the conditions of the Department of the Army permit and suspend the permit. Suspension may result in modification or revocation of the authorized work.

Rationale: This condition is necessary to ensure compliance with Section 106 of the National Historic Preservation Act (16 USC 470, 33 CFR 320.3(g); 33 CFR 325.2(b)(3); 33 CFR 325, Appendix C; 36 CFR 800).

PREPARED BY:

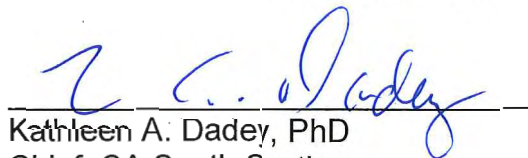


Marc A. Fugler
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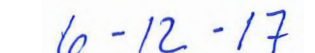


Date

REVIEWED and APPROVED BY:



Kathleen A. Dadey, PhD
Chief, CA South Section
Regulatory Division



Date