

2.16 Wetlands and Other Waters

2.16.1 Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the CWA (33 USC 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the USACE with oversight by the U.S. EPA.

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 CFR 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE and allow the discharge of dredged or fill material into the aquatic system (waters of the United States) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on waters of the United States and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as FHWA and/or the Department, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the state level, wetlands and waters are regulated primarily by the SWRCB, the RWQCBs, and the CDFW. In certain circumstances, the California Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by WDRs and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the United States. This is most frequently required in tandem with a Section 404 permit request. Please see Section 2.9, Water Quality and Stormwater Runoff, for more details.

2.16.2 Affected Environment

Information presented in this section was obtained from the Natural Environment Study (mi) (January 2019), and the Jurisdictional Verification Memo (September 2018; Natural Environment Study [minimal impacts] Appendix D) which included information from the OCTA Programmatic Permit program, as described in the paragraph below.

2.16.2.1 Orange County Transportation Authority Programmatic Permit Program

Similar to the OCTA NCCP/HCP, OCTA has worked with the USACE to define a Programmatic Individual Permit for the 13 M2 freeway projects which establishes Letter of Permission (LOP) procedures. This Permit will streamline the individual project level Section 404 permitting for the M2 freeway projects. This programmatic process allows the USACE to evaluate aquatic resource impacts more holistically, including the adequacy and appropriateness of compensatory mitigation options that could offset unavoidable impacts to the aquatic ecosystem resulting from the individual projects. OCTA seeks to implement mitigation prior to when project impacts would occur; this would minimize temporal losses of aquatic functions and services that often occur between the time aquatic resources are lost at project impact sites and the time when such resources are gained at approved compensatory mitigation sites. LOP authorizations differ from a standard Individual Permit process in that an LOP may be issued without publishing a public notice for each project, and without completing a detailed environmental assessment. The USACE's review, including inter-agency coordination, of each LOP application will ensure adverse impacts are avoided and minimized to the maximum extent practicable, adequate and appropriate compensatory mitigation occurs for unavoidable impacts to the aquatic ecosystem, and each project's proposed activities comply with established LOP permitting procedures. If the USACE determines that a project is ineligible, the applicant would have to seek authorization under a different USACE permitting mechanism or modify the project sufficiently to comply with the established LOP procedures (USACE 2015).

On a parallel process, it is anticipated that the SWRCB will follow the same process being established for the Section 404 permitting. In order for the USACE to issue the 404 Programmatic Permit, the SWRCB must first issue a General 401 Certification. Advanced mitigation is being provided for the General 401 Certification and will be similar to, if not consistent with, the compensatory mitigation credits required for the USACE Permit.

Once the project design is approved and concurrence is received regarding the mitigation statement, LOPs and the project-level 401 Certification would then authorize the discharge of dredged or fill material associated with the specific project designs, include any special conditions, and indicate the amount of mitigation acreage to be deducted from the appropriate site. This step is anticipated to be completed during the design phase of this project. Project-level applications will be processed through the SWRCB. The SWRCB will coordinate with the specific RWQCB as necessary. Applicable OCTA/Caltrans LOP Procedure measures are identified in Appendix D of the Natural Environment Study (minimal impacts) to avoid and minimize impacts to waters.

2.16.2.2 Jurisdictional Delineation

As part of the OCTA Programmatic Permit program, a preliminary jurisdictional delineation was conducted for freeway projects; the proposed project is referred to as “Project F2 or F North” (ICF 2012). Potential waters of the United States and wetlands were delineated using methods established in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008), *A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008), and *Guidance on Identifying Waters Protected by the Clean Water Act* (USACE and U.S. EPA 2011). Non-wetland waters were delineated based on the presence of OHWM indicators, and OHWM data sheets were recorded where appropriate (i.e., for named blue-line features [lakes, streams, irrigation ditches, and other hydrographic features as depicted on USGS topographic maps]). At each evaluation area, several parameters were considered to determine if the sample point was within a wetland. Three criteria normally must be fulfilled to classify an area as a jurisdictional USACE wetland: (1) a predominance of hydrophytic vegetation, (2) the presence of hydric soils, and (3) the presence of wetland hydrology.

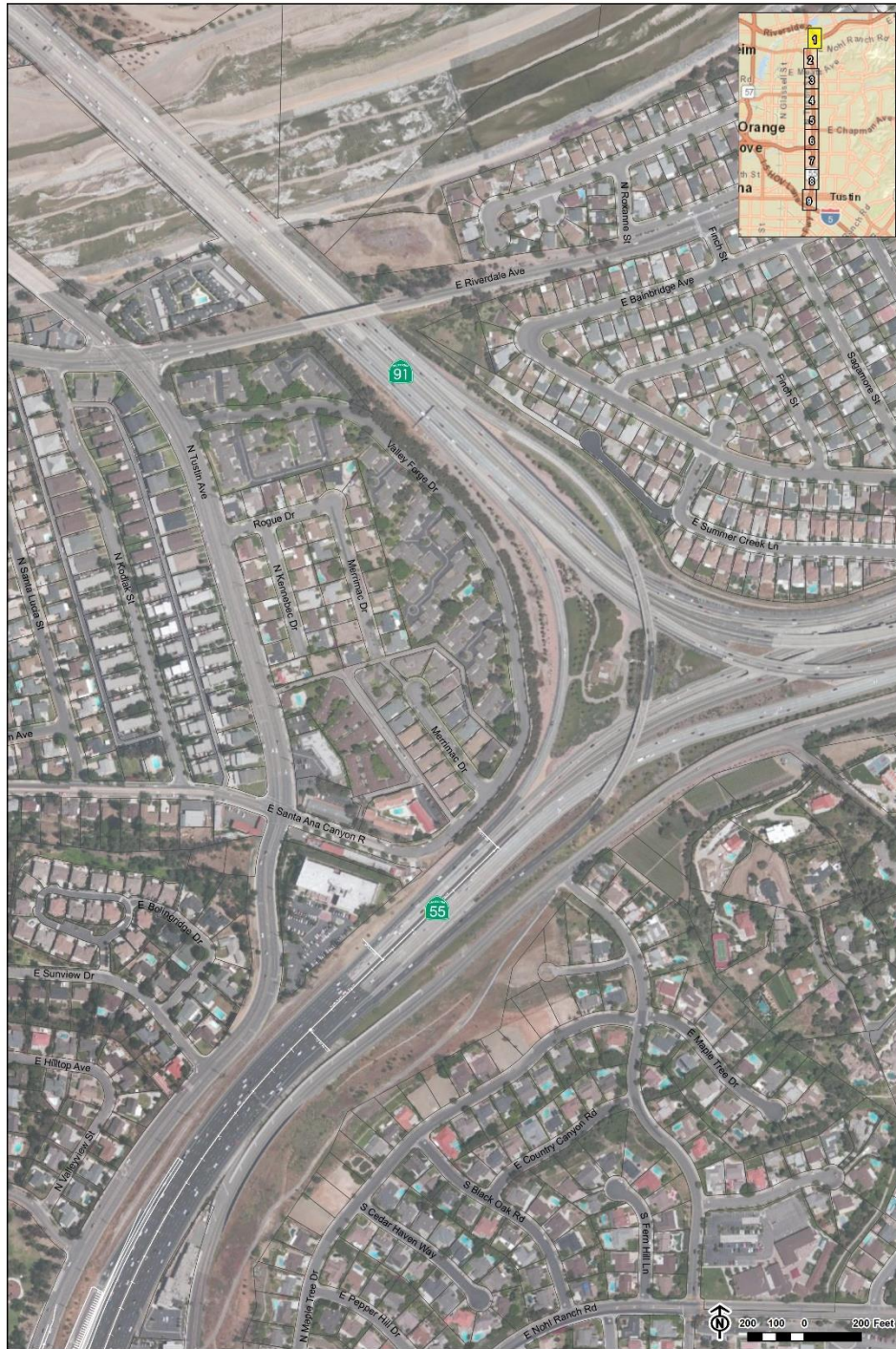
During project construction, minimization measures (such as standard BMPs) would be implemented for impacts to the six drainages shown above to be consistent with the Special Area Management Plan (SAMP), per the NCCP/HCP. These measures may be considered project features because they are comparable to the Caltrans Standard Specifications and were not developed in response to any specific environmental impact from the proposed project. Dewatering guidelines are described in PF-BIO-1 and stormwater BMPs are covered in PF-BIO-2, as shown in Appendix C: Avoidance, Minimization, and Mitigation Summary. These project features can also be found in Appendix E of the NCCP/HCP, which is included in the *Natural Environment Study* (See Appendix E: List of Technical Studies).

The Study Area included a 0.5-mile buffer from the centerline of the proposed project and was used to examine jurisdictional features mapped by ICF (2012), in order to ensure that site conditions had not changed substantially. A Jurisdictional Verification Memo was prepared to document features that will be impacted to ensure consistency with the preliminary jurisdictional

delineation prepared for the NCCP/HCP. The *Jurisdictional Delineation Verification Memo* is included in Appendix E: List of Technical Studies.

The proposed project is a covered activity under the OCTA/Caltrans Programmatic Permit. Based on data from the Programmatic Permit 2012 jurisdictional delineation, 33 aquatic features were identified and are shown in Figure 2.16-1 (maps 1 through 9). Of the 33 features, only Santiago Creek (F-25/F-25W) contains a natural bottom. Santiago Creek contains wetlands as well as non-wetlands. Santiago Creek is fed by ephemeral drainages that convey water during rain events. No work would be located within or adjacent to Santiago Creek. Nearest project improvements to Santiago Creek are approximately 1.0 mile south near the eastbound SR 22 to northbound SR 55 connector and approximately 3.0 miles north at the Katella Avenue/SR 55 southbound on-ramp. All other features are concrete-lined.

Figure 2.16-1. Aquatic Features (1 of 9)



SR-55 Improvement Project: I-5 to SR-91
Figure 4: Aquatic Features
Map 1 of 9

Orange County Parcels

EA 0K7200
Federal Project Number:
1213000149
Project Limits:
12 ORA 55 PM 10.4 - R17.9

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Figure 2.16-1. Aquatic Features (2 of 9)

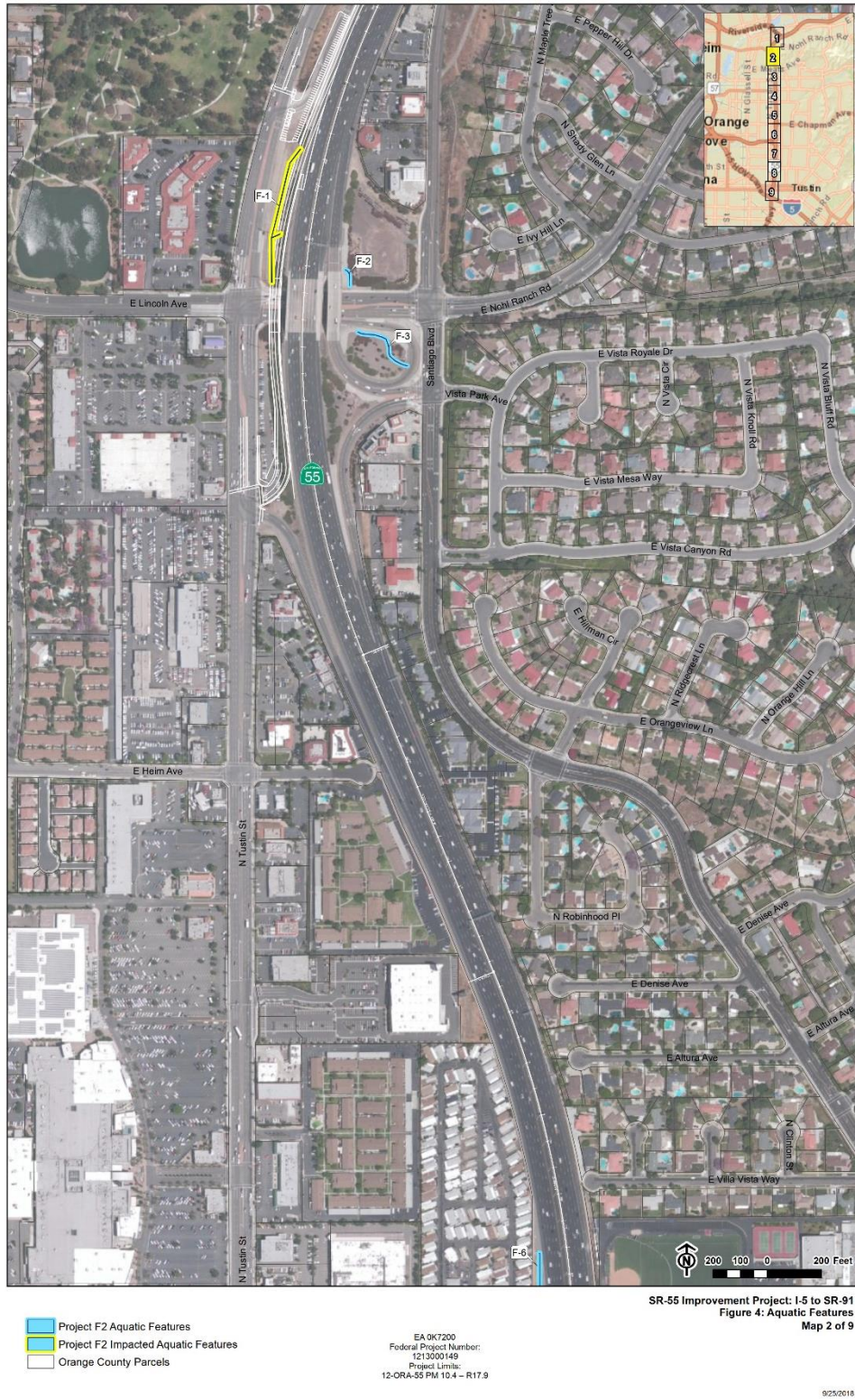


Figure 2.16-1. Aquatic Features (3 of 9)



SR-55 Improvement Project: I-5 to SR-91
Figure 4: Aquatic Features
Map 3 of 9

- Project F2 Aquatic Features
- Orange County Parcels

EA 0K7200
Federal Project Number:
121300149
Project Limits:
12-ORA 55 PM 10.4 – R17.9

9/25/2018

Figure 2.16-1. Aquatic Features (4 of 9)

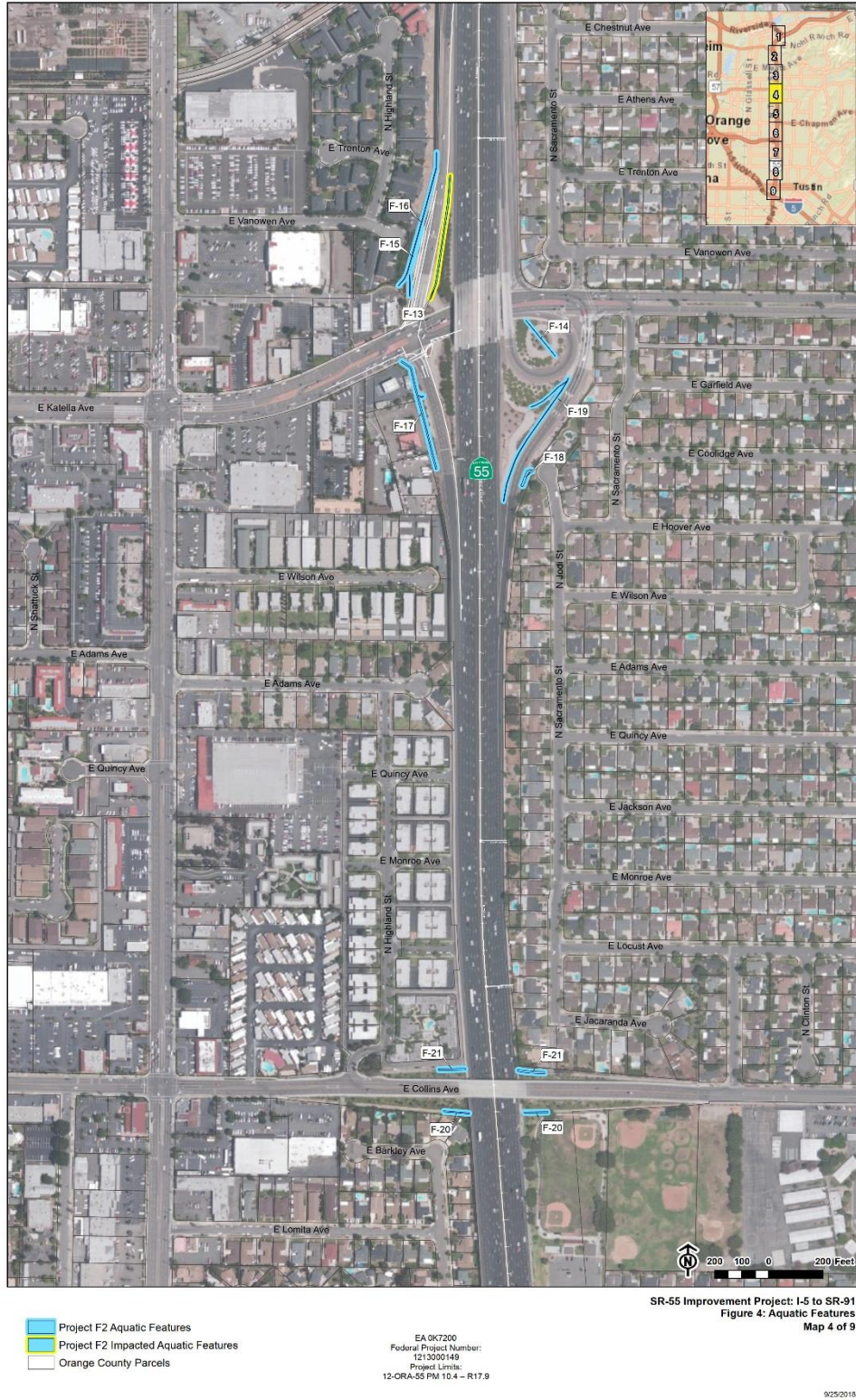
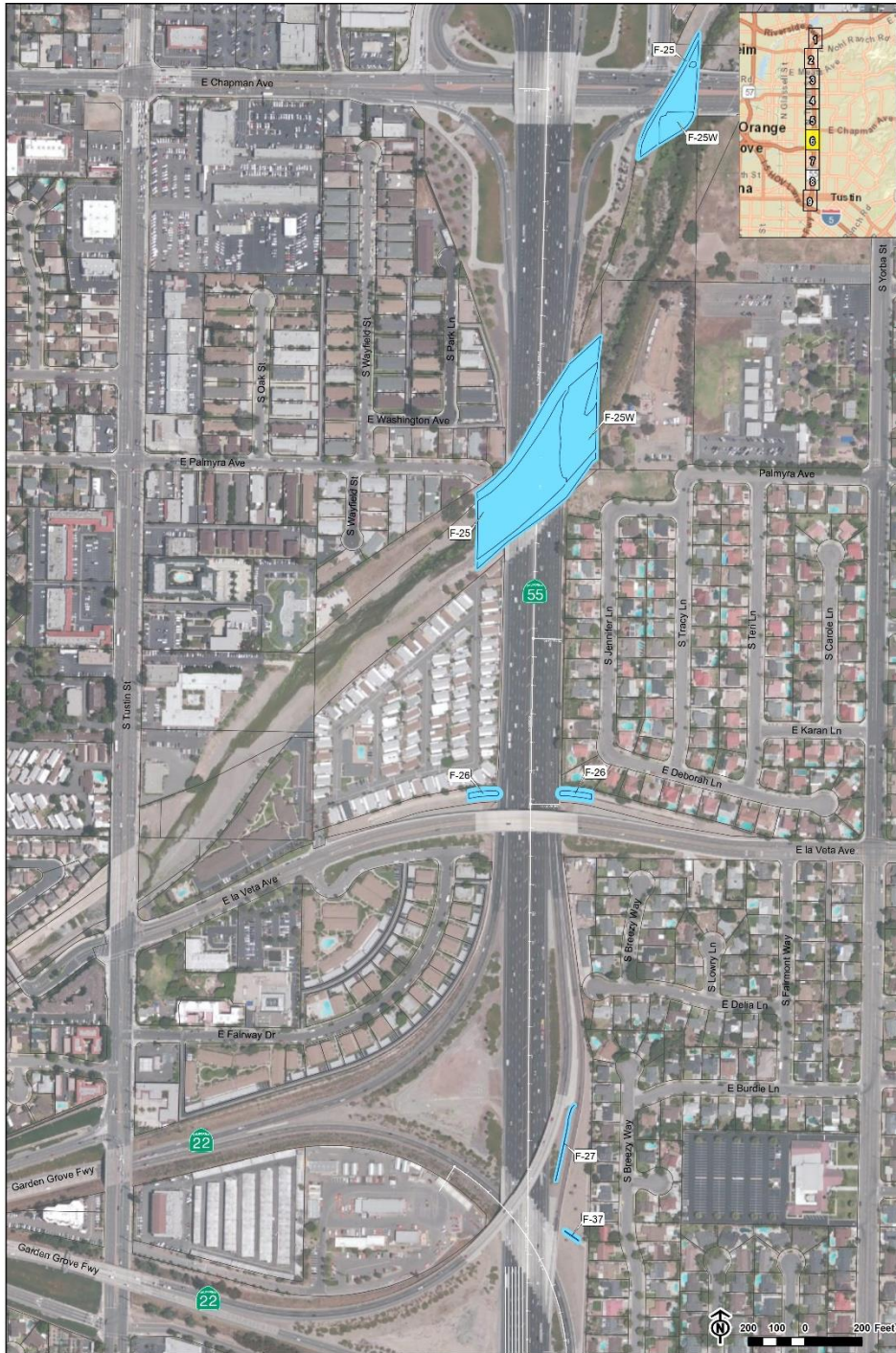


Figure 2.16-1. Aquatic Features (6 of 9)



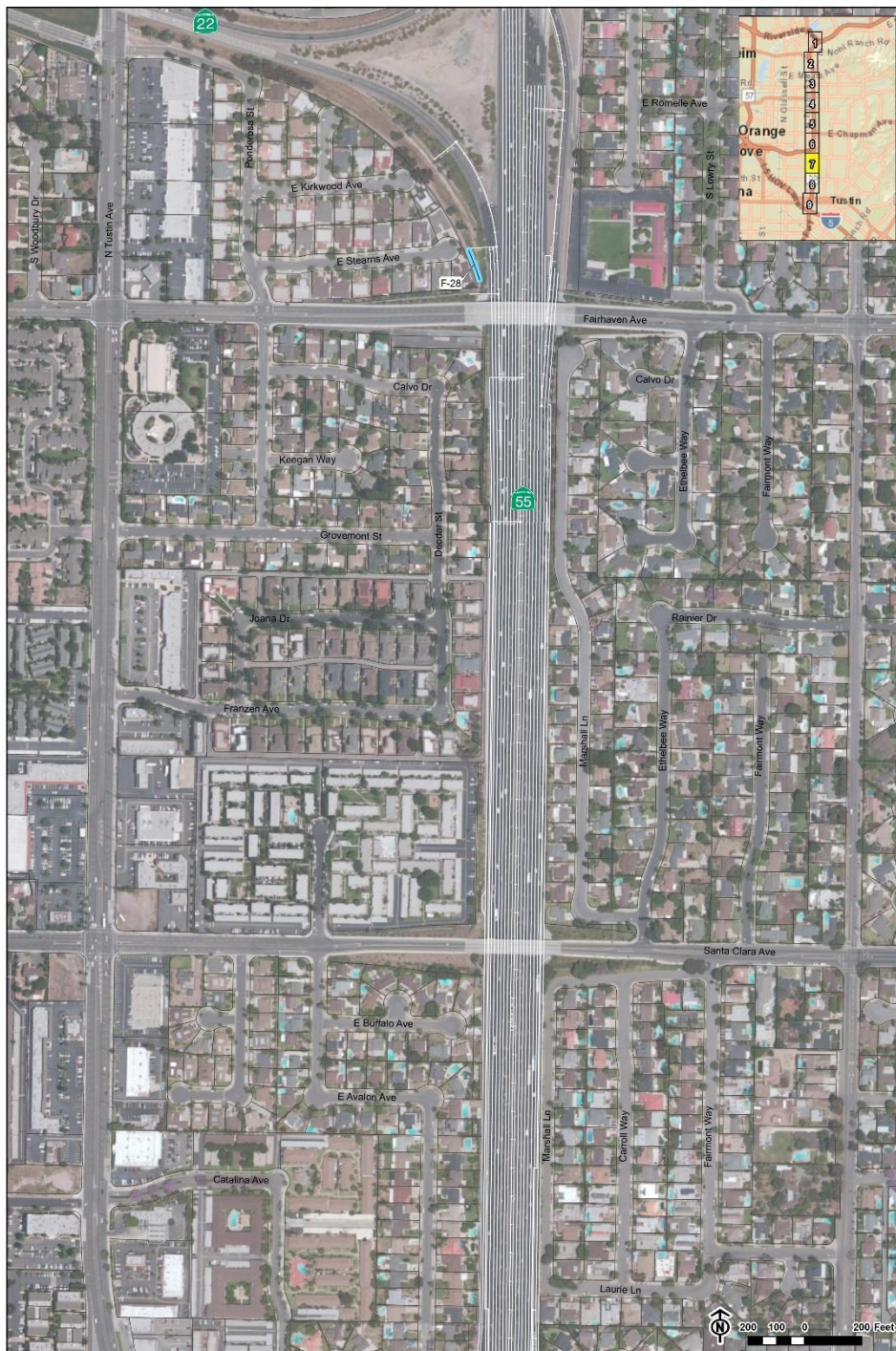
SR-55 Improvement Project: I-5 to SR-91
Figure 4: Aquatic Features
Map 6 of 9

- Project F2 Aquatic Features
- Orange County Parcels

EA 0K7206
Federal Project Number:
1213000149
Project Limits:
12 ORA 55 PM 10.4 - R17.9

9/25/2018

Figure 2.16-1. Aquatic Features (7 of 9)



■ Project F2 Aquatic Features
 Orange County Parcels

EA 0K7205
 Federal Project Number:
 1213000149
 Project Limits:
 12 ORA 55 PM 10.4 - R17.9

SR-55 Improvement Project: I-5 to SR-91
 Figure 4: Aquatic Features
 Map 7 of 9

9/25/2018

Figure 2.16-1. Aquatic Features (8 of 9)

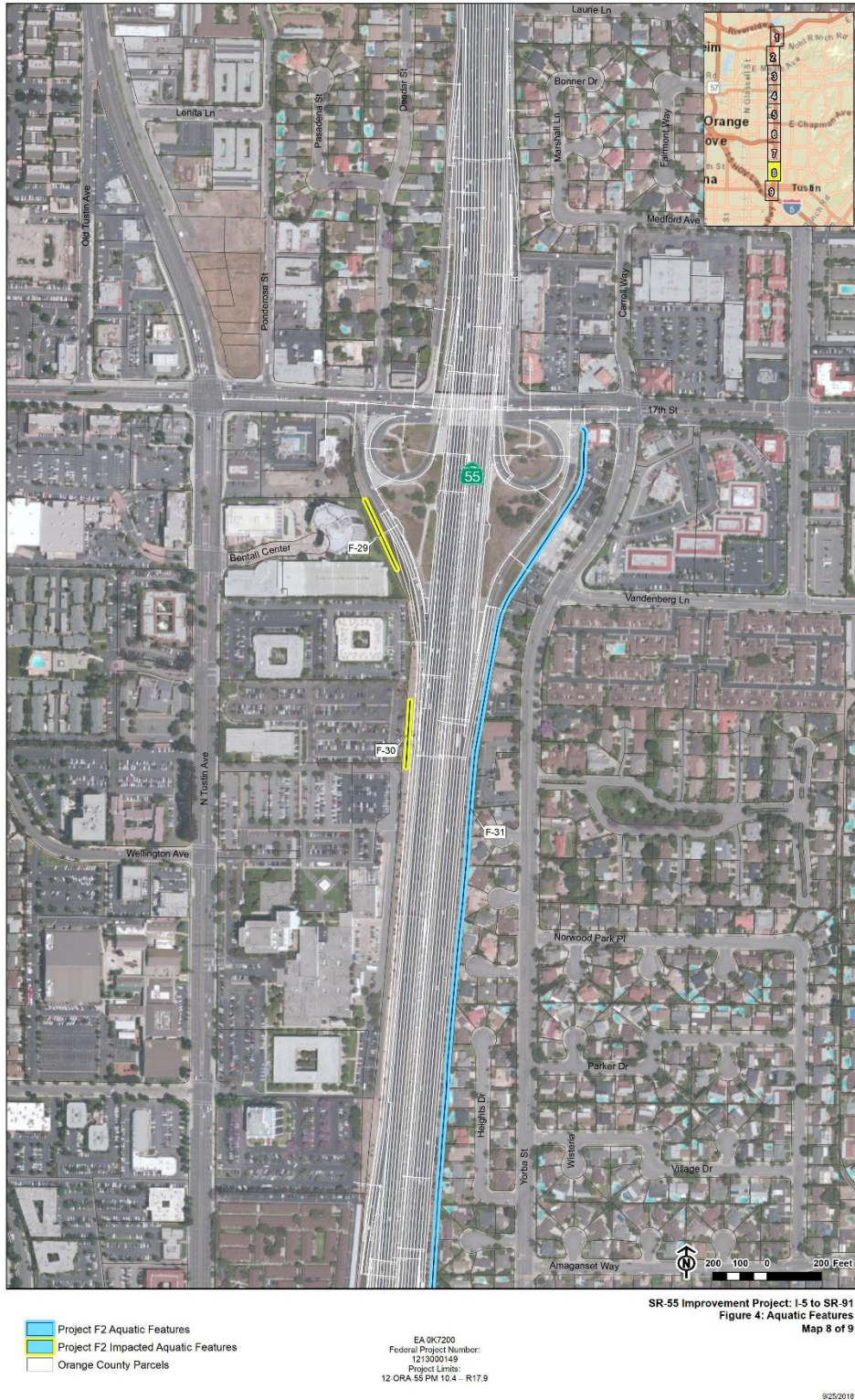


Figure 2.16-1. Aquatic Features (9 of 9)



2.16.3 Environmental Consequences

2.16.3.1 Temporary Impacts

Build Alternative

Six concrete-lined drainages/channels (F-1, F-13, F-29, F-30, F-31, and F-32) would be temporarily impacted by the proposed project by relocating/re-establishing the channels (Figure 2.16-1 [maps 1 through 9]) to continue to serve the same purpose they currently serve, which is to convey stormwater.

Direct impacts to jurisdictional areas will require permits/authorizations from the USACE pursuant to Section 404 of the CWA, CDFW pursuant to Section 1602 of the California Fish and Game Code, and the RWQCB pursuant to Section 401 of the CWA. Permits would be obtained in accordance with the NCCP/HCP permitting and mitigation strategies for the OCTA M2 Freeway Program Projects. Temporary impacts are provided in Table 2.16-1.

Table 2.16-1: Temporary Drainage Impacts

Drainage Feature	Drainage Type	CDFW Impact (acres/linear feet)	USACE Impact (acres/linear feet)
F-1	concrete-lined	0.03/549	0.03/549
F-13	concrete-lined	0.01/462	0.01/462
F-29	concrete-lined	0.03/286	0.01/282
F-30	concrete-lined	0.03/250	0.01/246
F-31	concrete-lined	0.04/266	0.01/262
F-32	concrete-lined	0.05/414	0.02/410
Total	N/A	0.19/2,227	0.09/2,211

No Build Alternative

The No Build Alternative would not result in the construction or improvements within the project area and, therefore, would not result in direct or indirect temporary impacts on natural communities.

2.16.3.2 Permanent Impacts

Build Alternative

All six features that would be impacted by the proposed Build Alternative are concrete-lined drainages that would be relocated, realigned, or boxed. These drainages would continue to convey existing flows and would not result in any direct permanent impacts to waters of the United States or waters of the State. Indirect or secondary impacts are not anticipated to occur.

No Build Alternative

The No Build Alternative would not result in the construction or improvements within the project area and, therefore, would not result in direct permanent impacts on natural communities. No indirect or secondary impacts on these resources would result from implementation of the No Build Alternative.

2.16.4 Avoidance, Minimization, and/or Mitigation Measures

OCTA began coordinating with the USACE in October 2010 to discuss the approach and process to obtain authorization to construct 13 freeway projects, which includes the proposed project, as well as receive approval for advanced permittee-responsible mitigation for the rehabilitation, enhancement, and preservation activities proposed at Aliso Creek, Agua Chinon, and Ferber Ranch. As a result of this early coordination, USACE and OCTA decided that a Programmatic Individual Permit would be sought for the overall program which establishes LOP procedures. The LOP procedures would streamline the approval of each individual project and provide approval of the compensatory mitigation types and locations provided at Aliso Creek, Agua Chinon, and Ferber Ranch to offset unavoidable impacts to waters of the United States. If the proposed project is found to be consistent with the SAMP by the USACE, an LOP will be issued to authorize the discharge of dredged and/or fill materials into waters of the United States. If the proposed project is found to be inconsistent with the SAMP, an Individual Permit will be required.

No compensatory mitigation is proposed for temporary impacts to the six drainages shown above. The concrete-lined drainages will be relocated/re-established to serve the same purpose as existing conditions, which is to convey stormwater. Because the proposed project is covered under the NCCP/HCP, it will follow the guidelines stated in Appendix E of the NCCP/HCP.

In addition, concrete-lined features, which are previously impacted and mitigated or are man-made features constructed to convey downstream flows consisting mostly of urban and storm runoff, will not require compensatory mitigation contingent upon continued conveyance of baseline flows downstream.

The newly designed highway will continue to convey flows downstream through the relocation/re-establishment of the six concrete-lined channels; and, therefore, no compensatory mitigation is proposed.

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