

2.16 Wetlands and Other Waters

This section of the document discusses wetlands and other waters and summarizes the *Jurisdictional Delineation Report*, NES (September 2010) [and Supplemental NES \(December 28, 2011\)](#).

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 Clean Water Act \(CWA\)](#) (33 U.S.C. 1344) is the primary law regulating wetlands and [surface](#) waters. The CWA regulates the discharge of dredged or fill material into waters of the United States ([U.S.](#)), including wetlands. Waters of the [U.S.](#) include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. 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 subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

[USACE issues two types of 404 permits: Standard and General permits. Nationwide permits, a type of General permit, are issued to authorize a variety of minor project activities with no more than minimal effects. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404\(b\)\(1\) Guidelines \(U.S. EPA 40 CFR Part 230\), and whether permit approval is in the public interest. The 404 \(b\)\(1\) Guidelines were developed by the U.S. EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system \(waters of the U.S.\) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a LEDPA to the proposed discharge that would have less effects on waters of the U.S., and not have any other significant adverse environmental consequences.](#)

Section 404 of the CWA establishes a regulatory program that provides that no discharge of dredged or fill material can 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 Army Corps

of Engineers ([USACE](#)) with oversight by the [U.S.](#) Environmental Protection Agency ([U.S.](#) EPA).

The Executive Order for the Protection of Wetlands (E.O. 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as [FHWA, or Caltrans 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.

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game (CDFG), the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or 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 CDFG before beginning construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFG 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 [USACE](#) may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications [for impacts to wetlands and waters](#) in compliance with Section 401 of the CWA. Please see the Water Quality section for additional details.

2.16.2 Affected Environment

A wetland delineation field survey was conducted on November 30 and December 1, 2, 3, and 18, 2009. Areas of potential jurisdiction were evaluated according to [USACE](#), CDFG, and RWQCB criteria.

The *Jurisdictional Delineation Report* evaluates the potential project impact to 27 drainages within the project limits. As described in the *Jurisdictional Delineation Report*, there are several drainages on site that connect directly or indirectly to the Pacific Ocean. The Prima Deshecha Cañada and Segunda Deshecha Cañada have

relatively permanent (at least 3-month) flows during the year and both eventually flow into the Pacific Ocean, a traditional navigable water (TNW). There is also an unnamed tributary to the Prima Deshecha Cañada that is believed to have a continuous flow at least seasonally. Therefore, these three drainages are also considered relatively permanent waters, and all relatively permanent waters are considered jurisdictional.

Cascadita Creek was inaccessible during the surveys. As a result, it is unknown whether or not it has a continuous flow. If it does, then [USACE](#) would most likely assert jurisdiction over this drainage.

The surveys and analysis conducted for the *Jurisdictional Delineation Report* (August 2010) determined that other drainages that appear natural or appear to function in a capacity of more than just a local storm drain were found to be potentially jurisdictional. However, [USACE](#) will ultimately determine if they will assert jurisdiction over these drainages.

Drainages that do not carry a relatively permanent flow, are excavated wholly in uplands, and capture only upland sheetflow are typically not regulated by [USACE](#). However, [USACE](#) does reserve the right to regulate these waters on a case-by-case basis. The locations of these drainages are also shown in Appendix A of the *Jurisdictional Delineation Report*.

Within the BSA, there is approximately 0.5 ac of wetland and 0.5 ac of nonwetland waters potentially subject to jurisdiction by [USACE](#) under Section 404 of the CWA. There is an additional 0.6 ac of nonwetland waters believed not to be subject to [USACE](#) jurisdiction because [USACE](#) typically does not assert jurisdiction over nontidal drainage ditches that are excavated on dry land, drain adjacent upland areas, and do not convey a relatively permanent flow.

All of the areas satisfying [USACE](#) jurisdictional criteria for waters of the United States and adjacent wetlands, as described above, are also subject to CDFG jurisdiction pursuant to Section 1602 of the California Fish and Game Code. In addition, streambed banks and adjacent riparian areas extending beyond the limits of [USACE](#) jurisdiction are considered subject to CDFG jurisdiction. Refer to Appendix A of the *Jurisdictional Delineation Report* for the extent of CDFG jurisdiction.

In addition, there is approximately 1.4 ac in the BSA potentially subject to CDFG jurisdiction under Section 1600 of the California Fish and Game Code. There are additional riparian/riverine areas believed not to be subject to CDFG jurisdiction because they are not part of a river, stream, or lake as defined by the CDFG.

The project is within the jurisdiction of the San Diego (Region 9) RWQCB, which is responsible for the administration of Section 401 of the CWA. Typically, the areas subject to RWQCB jurisdiction coincide with those of USACE (i.e., waters of the United States, including wetlands). The RWQCB also asserts authority over waters of the State under Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne). The total area of potential RWQCB jurisdiction is one ac.

2.16.3 Environmental Consequences

2.16.3.1 Temporary Impacts

Build Alternative 4 with Design Option A

Build Alternative 4 with Design Option A is not expected to result in any direct or indirect temporary impacts to areas subject to USACE, CDFG, or RWQCB jurisdiction. Should that change, temporary impacts will be limited to incidental encroachment; otherwise, impacts will be considered permanent.

2.16.3.2 Permanent Impacts

Build Alternative 4 with Design Option A

The I-5 HOV Lane Extension Project is expected to result in direct permanent impacts to riparian/riverine habitats believed not to be subject to jurisdiction under Sections 404 and 401 of the CWA.

Build Alternative 4 with Design Option A is not expected to impact any jurisdictional wetland waters. However, based on the site plans, Build Alternative 4 with Design Option A is expected to result in a total of 0.14 ac of direct permanent impacts of nonjurisdictional nonwetland waters. Table 2.16-1 shows the area potentially subject to (or not subject to) USACE jurisdiction that will result in direct permanent impacts by Build Alternative 4. Should USACE assert jurisdiction over these areas, additional Avoidance, Minimization, and Compensatory Mitigation will be addressed through the permitting/authorization processes. No indirect permanent impacts are expected to occur for Build Alternative 4 with Design Option A.

Build Alternative 4 with Design Option A is not expected to result in any direct or indirect permanent impacts to potential CDFG jurisdictional areas.

Because there is no public guidance on determining RWQCB jurisdictional areas, jurisdiction was determined based on the federal definition of wetlands (three-parameter) and other waters of the United States based on the ordinary high water mark (OHWM), as recommended by the SWRCB's *Work Plan: Filling the Gaps in Wetland Protection* (2004 Workplan; SWRCB, September 2004). Therefore, the total impacts to potential RWQCB jurisdictional areas are the same as those as described above for [USACE](#).

The findings and conclusions regarding the locations and extent of wetlands and other waters subject to regulatory jurisdiction are considered preliminary until verified by [USACE](#) and CDFG.

Based on information provided by Department biologists, Build Alternative [4 with Design Option A](#) is not expected to directly impact the Stonehill Drive Restoration Area. However, should this change during final project design, approval is required by the resource agencies prior to any impacts to the Stonehill Drive Restoration Area.

Table 2.16-1 Permanent Project Impacts to Potential [USACE](#) Jurisdictional and Nonjurisdictional Nonwetland Waters (acres)

Drainage System	Alternative 4 with Design Option A
Potential Jurisdictional Areas	
Drainage 1	0.00
Drainage 12	0.00
Drainage 13	0.00
Drainage 14	0.00
Drainage 17	0.00
Drainage 20	0.00
Drainage 21	0.00
Drainage 25	0.00
Total Potential Jurisdictional Areas	0.00
Potential Nonjurisdictional Areas	
Drainage 2	0.00
Drainage 3	0.00
Drainage 4	0.01
Drainage 5	0.00
Drainage 6	0.00
Drainage 7	0.04
Drainage 8	0.00
Drainage 9	0.00
Drainage 10	0.02
Drainage 11	0.00
Drainage 15	0.02

Drainage 16	0.01
Drainage 18	0.01
Drainage 19	0.01
Drainage 22	0.01
Drainage 23	0.00
Drainage 24	0.00
Drainage 26	0.00
Drainage 27	0.01
Total Potential Nonjurisdictional Areas	0.14
Total Impacts	0.14

This requirement is set forth in Requirement 15 of Section III, Special Provisions under USACE Nationwide Permit No. SPL-2006-1961-SJH. This requirement is separate from any requirements under any future permit and/or authorization.

Because Build Alternative 4 with Design Option A does not have any impacts, no mitigation is expected to be required under CEQA. If the agencies assert jurisdiction over an area believed not to be subject to their jurisdiction and the project impacts this area, compensatory mitigation may be required.

2.16.3.3 Functions and Values

As part of the jurisdictional delineation, an analysis of the functions and values of the drainages in the project area was conducted. As shown in Table 2.16-2, there are 27 drainages identified within the proposed project limits. However, only Drainage 1, 13b, 20, and 21 (Cascadita Creek) are listed as having low, moderate, and high functions and values in the categories of hydrologic regime, flood storage and flood flow modification, sediment retention, nutrient retention and transformation, toxicant trapping, social significance, wildlife habitat, and aquatic habitat. The functions and values are discussed in further detail below.

Hydrologic Regime

This function is the ability of a wetland or stream to absorb and store water belowground. The degree of this saturation is dependent on the soil composition and is affected by prior flooding events. For example, clay soils possess more pore space than sandy soils. However, the smaller pore size slows the rate at which water is absorbed and released; therefore, clay soil has a lower capacity to store water than sandy soils. The storage of water belowground allows for the fluctuation between anaerobic and aerobic conditions that benefit environmental conditions necessary for microbial cycling.

The proposed project includes 27 different drainages within the BSA. The majority of the drainages have a low potential to change the existing hydrologic regime if affected by the project. Of the identified drainages, only Drainage 1, 13b, 20 and 21 (Cascadita Creek) are listed as having a high hydrologic regime. Since it is anticipated that the proposed project would not result in modifications to these drainages, the hydrologic regime changes associated with the proposed project are anticipated to be minimal.

Table 2.16-2 Functions and Values of Drainages within the Study Area

Drainage Number	Hydrologic Regime	Flood Storage and Flood Flow Modification	Sediment Retention	Nutrient Retention and Transformation	Toxicant Trapping	Social Significance	Wildlife Habitat	Aquatic Habitat
1	High	High	High	High	High	Low	Moderate	Low
2	Low	Low	Low	Low	Low	Low	Low	Low
3	Low	Low	Low	Low	Low	Low	Low	Low
4	Low	Low	Low	Low	Low	Low	Low	Low
5	Low	Low	Low	Low	Low	Low	Low	Low
6	Low	Low	Low	Low	Low	Low	Low	Low
7	Low	Low	Low	Low	Low	Low	Low	Low
8	Low	Low	Low	Low	Low	Low	Low	Low
9	Low	Low	Low	Low	Low	Low	Low	Low
10	Low	Low	Low	Low	Low	Low	Low	Low
11	Low	Low	Low	Low	Low	Low	Low	Low
12	Low	Low	Low	Low	Low	Low	Low	Low
13a	Low	Low	Low	Low	Low	Low	Low	Low
13b	High	High	High	High	High	Moderate	High	Low
14 (Prima Deshecha Cañada)	Low	Low	Low	Low	Low	Low	Low	Low
15	Low	Low	Low	Low	Low	Low	Low	Low
16	Low	Low	Low	Low	Low	Low	Low	Low
17	Low	Low	Low	Low	Low	Low	Low	Low
18	Low	Low	Low	Low	Low	Low	Low	Low
19	Low	Low	Low	Low	Low	Low	Low	Low
20	High	High	High	Low	Moderate	Low	Moderate	Low
21 (Cascadita Creek)	High	High	High	High	High	Moderate	High	High
22	Low	Low	Low	Low	Low	Low	Low	Low
23	Low	Low	Low	Low	Low	Low	Low	Low
24	Low	Low	Low	Low	Low	Low	Low	Low
25 (Segunda Deshecha Cañada)	Low	Low	Low	Low	Low	Low	Low	Low
26	Low	Low	Low	Low	Low	Low	Low	Low
27	Low	Low	Low	Low	Low	Low	Low	Low

Flood Storage and Flood Flow Modification

This function is determined based on the ability of a wetland or stream at which the peak flow in a watershed can be attenuated during major storm events and during peak domestic flows to take in surface water that may otherwise cause flooding. This is dependent on the size of the wetland or stream, the amount of water it can hold, and the location in the watershed. For instance, larger wetlands or streams that have a greater capacity to receive waters have a greater ability to reduce flooding. In addition, areas high in the watershed may have more ability to reduce flooding in downstream areas, but areas lower in the watershed may have greater benefits to a specific area. Vegetation, shape, and the configuration of the wetland or stream may also affect flood storage by dissipating the energy of flows during flood events.

The majority of the drainages have a low potential to change the existing flood storage and flood flow modification if affected by the project. Of the identified drainages, only Drainage 1, 13b, 20 and 21 (Cascadita Creek) are listed as having a high effect on flood storage and flood flow modification. Since it is anticipated that the proposed project would not result in modifications to these drainages, the flood storage and flood flow modification changes associated with the proposed project are anticipated to be minimal.

Sediment Retention

Removal of sediment is the process that keeps sediments from migrating downstream. This is accomplished through the natural process of sediment retention and entrapment. This function is dependent on the sediment load being delivered by runoff into the watershed. Similar to above, the vegetation, shape, and configuration of a wetland will also affect sediment retention if water is detained for long durations, as would be the case with dense vegetation, a bowl-shaped watershed, or slow-moving water. This function would be demonstrated (i.e., high) if the turbidity of the incoming water is greater than that of the outgoing water.

The majority of the drainages have a low potential to change the existing sediment retention if affected by the project. Of the identified drainages, only Drainage 1, 13b, 20 and 21 (Cascadita Creek) are listed as having a high effect on sediment retention. Since it is anticipated that the proposed project would not result in modifications to these drainages, the sediment retention changes associated with the proposed project are anticipated to be minimal.

Nutrient Retention and Transformation

Nutrient cycling consists of two variables: uptake of nutrients by plants and detritus turnover, in which nutrients are released for uptake by plants downstream. Wetland systems in general are much more productive with regard to nutrients than upland habitats. The regular availability of water associated with the wetland or stream may cause the growth of plants (nutrient uptake) and associated detritivores and generate nutrients that may be utilized by a variety of aquatic and terrestrial wildlife downstream.

The proposed project will result in removal of riparian and wetland vegetation, and thus will decrease the ability of this area to retain and transform nutrients. **Build** Alternative 4 **with Design** Option A **is** anticipated to potentially result in direct permanent effects for up to 0.07 ac, but will not result in any direct temporary effects. Although wetlands are better at nutrient cycling than nonwetland riparian habitat, the amount of habitat to be affected by the proposed project is very small compared to the total project area. In addition, implementation of the proposed project will not affect the nutrient capacity and transformation function of adjacent riparian and wetland habitat.

Toxicant Trapping

The major processes by which wetlands remove nutrients and toxicants are by trapping sediments rich in nutrients and toxicants, by absorption to soils high in clay content or organic matter, and through nitrification and denitrification in alternating oxic and anoxic conditions. Removal of nutrients and toxicants is closely tied to the processes that provide for sediment removal. Because all the design variations in **Build** Alternative 4 will result in permanent impacts to Riparian/Riverine habitat, this function will be lost. However, areas downstream of the project will be left intact and will be able to function in the same capacity.

Social Significance

This is a measure of the probability that a wetland or stream will be utilized by the public because of its natural features, economic value, official status, and/or location. This includes its being utilized by the public for recreational uses, such as boating, fishing, birding, walking, and other passive recreational activities. In addition, a wetland or stream that is utilized as an outdoor classroom, is a location for scientific study, or is near a nature center would have a higher social significance standing. Currently, the site does not provide any opportunity for recreation or for an outdoor

classroom or scientific study due to the fact that it is illegal for the public to trespass on freeway ROW, which is where the site is located.

Wildlife Habitat

General habitat suitability is the ability of a wetland to provide habitat for a wide range of wildlife. Vegetation is a large component of wildlife habitat. As plant community diversity increases along with connectivity with other habitats, so does potential wildlife diversity. In addition, a variety of open water, intermittent ponding, and perennial ponding is also an important habitat element for wildlife. Although the study area provides habitat for wildlife species and provides a variety of intermittent ponding, flowing water, and nonwetland Riparian habitat, there is low diversity of plant and wildlife species observed in the impact area, with the exception of Drainage 1, 13b, 20, and 21 (Cascadita Creek).

Aquatic Habitat

The ability of a wetland or stream to support aquatic species requires that there be ample food supply, pool and riffle complexes, and sufficient soil substrate. Food supply is typically in the form of aquatic invertebrates and detrital matter from nearby vegetation. Pool and riffle complexes provide a variety of habitats for species diversity as well as habitat for breeding and rearing activities. Species diversity is directly related to the complexity of the habitat structure.

The majority of the drainages have a low potential to change the existing aquatic habitat if affected by the project. Of the identified drainages, only Drainage 21 (Cascadita Creek) is listed as having a high effect on aquatic habitat. Since it is anticipated that the proposed project would not result in modifications to Drainage 21, the changes to aquatic habitat associated with the proposed project are anticipated to be minimal.

2.16.4 Avoidance, Minimization, and/or Mitigation Measures

Minimization Measures WQ-1, WQ-2, and WQ-3 in Section 2.9, Water Quality, require the following: adherence to the applicable NPDES Permits and to the BMPs specified in the Department's SWMP; preparation of a SWPPP; filing a Notice of Construction with the RWQCB; conformance with the Construction Site BMP (Category II) requirements specified in the latest edition of the Department SWMP; prohibitions on work conducted during the rainy season; and obtaining a Waste Discharge Requirement if dewatering is necessary.

The proposed project is required by law to comply with all environmental permit conditions, such as those that will likely be issued by the CDFG, RWQCB, and [USACE](#). The permit conditions will likely require measures that would offset project impacts. However, because the environmental permit conditions are not known at this time, for purposes of providing suitable compensation in compliance with the CEQA, specific compensation measures are proposed below. These measures are intended to be complementary to the anticipated environmental permit conditions and to provide minimum requirements to ensure adequate compensation in accordance with the requirements of CEQA.

In addition to the measures identified above, Measures BIO-1, BIO-2, [and](#) BIO-3 (in Section 2.15, Natural Communities) and the following mitigation measure (BIO-[4](#)) and minimization measure (BIO-[5](#)) will compensate for potential project impacts.

BIO-[4](#) The I-5 HOV Lane Extension Project is expected to result in direct permanent impacts to areas believed not to be subject to jurisdiction under Sections 404 and 401 of the CWA or under Section 1600 of the California Fish and Game Code. Should the agencies assert jurisdiction over an area believed not to be subject to their jurisdiction and the project impacts this area, compensatory mitigation may be required by the resource agencies. If required, compensatory mitigation will be mitigated at a mitigation-to-effect ratio consistent with [USACE](#) and CDFG policies for no net loss of riparian/riverine habitat (e.g., wetlands) standards. This mitigation could be accomplished through participation in the NCCP/HCP/MSAA being established by Measure M2.

BIO-[5](#) Prior to clearing or construction (including any ground-disturbing activities), the CDFG and [USACE](#) will be consulted and, if required, a Lake or Streambed Alteration Agreement with the CDFG, a Section 404 permit from [USACE](#), and a Section 401 certification from the RWQCB will be obtained.