

#### **9.3.3.3.10 Impact TERR-10: Potential Interference with Movement of Native Resident or Migratory Wildlife Species**

Construction, operation, and maintenance effects of Alternative 2 on the movement of native resident or migratory wildlife species would be the same as those described for Alternative 1.

The analysis of the potential significance of construction, operations, and maintenance effects of Alternative 2 on the movement of native resident or migratory wildlife species is the same as that for Alternative 1.

##### *CEQA Conclusion*

Impacts on wildlife movement resulting from construction of Alternative 2 would be **less than significant** because although construction could interfere with movement of native resident or migratory wildlife species, construction activities are not anticipated to substantially interfere with the movement of these species as they could move to nearby, unaffected habitat. During operations and maintenance, there would be **no impact**.

#### **9.3.3.3.11 Impact TERR-11: Conflict with Provisions of an Adopted HCP/NCCP or Other Approved Local, Regional, or State Habitat Conservation Plan**

The analysis of the potential conflict of Alternative 2 with provisions of adopted or other approved habitat conservation plans is the same as that for Alternative 1.

##### *CEQA Conclusion*

Alternative 2 is consistent with the provisions of the Draft Yolo HCP/NCCP. Therefore, there would be **no impact** resulting from conflicts with this HCP/NCCP.

#### **9.3.3.4 Alternative 3: West Side Gated Notch**

Alternative 3, West Side Gated Notch, would provide a similar new gated notch through Fremont Weir as described for Alternative 1. The primary difference between Alternatives 1 and 3 is the location of the notch; Alternative 3 would site the notch on the western side of Fremont Weir. This gate would be a similar size but would have an invert elevation that is higher (16.1 feet) because the river is higher at this upstream location. Alternative 3 would allow up to 6,000 cfs through the gated notch to provide open channel flow for adult fish passage. See Section 2.6 for more details on the alternative features.

Implementation of Alternative 3 would result in direct and indirect construction effects on habitat for State- or Federally listed wildlife species, including valley elderberry longhorn beetle, giant garter snake, western pond turtle, Swainson's Hawk, Least Bell's Vireo, Western Yellow-Billed Cuckoo, Bank Swallow, special-status plant species (including woolly rose-mallow, northern California black walnut, bristly sedge, Peruvian dodder, Delta tule pea, Sanford's arrowhead, Suisun Marsh aster, heartscale, San Joaquin spearscale, Heckard's pepper grass, California alkali grass, and saline clover), special-status bird species (including birds protected under the MBTA), and other special-status wildlife species (including bats and American

badger). It would also result in direct and indirect construction effects on sensitive vegetation communities, including areas potentially subject to USACE and CDFW jurisdiction.

The change in the average number of wet days within the Yolo Bypass under Alternative 3 would be very similar to that described for Alternative 1.

Vegetation community impacts for Alternative 3 are shown in Table 9-6 and on Figures 9-6a and 9-6b.

#### **9.3.3.4.1 Impact TERR-1: Potential Mortality or Loss of Habitat for Special-Status Plant Species**

The construction footprint of Alternative 3 contains suitable habitat for the same special-status plant species as the footprint of Alternative 2, including seven species with the potential to occur in marsh and riparian habitat (woolly rose-mallow, northern California black walnut, bristly sedge, Peruvian dodder, Delta tulle pea, Sanford's arrowhead, and Suisun Marsh aster) and six species with the potential to occur in alkaline grasslands present along portions of the western transport channel (heartscale, San Joaquin spearscale, Heckard's pepper grass, California alkali grass, and saline clover). Alternative 3 would have a slightly higher construction-related temporary impact to suitable and occupied habitat for special-status plant species than Alternatives 1 and 2 and a greater permanent impact than either alternative.

The analysis of the potential significance of construction direct and indirect effects of Alternative 3 on special-status plant species and their habitat is the same as for Alternative 2.

The operations and maintenance effects of Alternative 3 on special-status plant species and their habitat would be the same as those described for Alternative 2.

#### *CEQA Conclusion*

If heartscale, San Joaquin spearscale, Heckard's pepper grass, California alkali grass, and saline clover are present in the alkaline grasslands of the Project area, impacts would be **significant** because construction of Alternative 3 could result in substantial loss of, affect the long-term survival of, or permanently reduce the acreage and quality of suitable habitat for special-status plant species through direct effects resulting from construction or indirect effects from construction or maintenance resulting from the introduction or spread of invasive plant species. During operations, impacts would be **less than significant** because the Project is not anticipated to result in substantial mortality or loss of habitat for special-status plant species, which are tolerant of moist soils and have evolved in an area that is subject to regular inundation.

Implementation of Mitigation Measures MM-TERR-1 and MM-TERR-19 would reduce construction and maintenance impacts on special-status species and their habitat to **less than significant**.



Figure 9-6a. Alternative 3 Construction Impacts to Vegetation Communities

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Figure 9-6b. Alternative 3 Construction Impacts to Vegetation Communities

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#### 9.3.3.4.2 Impact TERR-2: Potential Disturbance or Mortality of Valley Elderberry Longhorn Beetle and Loss of Its Habitat (Elderberry Shrubs)

Based on 2014 surveys, the construction disturbance area for Alternative 3, including construction, staging, and spoils areas, contains two elderberry shrubs, which are the host plant for valley elderberry longhorn beetle. One of these shrubs is located within California native annual and perennial grassland (non-riparian). The other is in Fremont cottonwood forest (riparian). An additional elderberry shrub is in California native annual and perennial grassland outside the footprint but within the study area for this alternative. Exit hole surveys of the elderberry shrubs were not conducted. However, because elderberry shrubs provide suitable habitat, this habitat is presumed to be occupied by valley elderberry longhorn beetle. In addition, the 2014 survey area did not cover the entirety of the Alternative 3 study area along the transport channel, and this unsurveyed area could include elderberry shrubs.

Construction of Alternative 3 would result in permanent effects on one elderberry shrub in riparian habitat and temporary effects on one elderberry shrub in non-riparian habitat. In addition, construction of Alternative 3 would result in permanent effects on 1.8 acres of suitable valley elderberry longhorn beetle habitat (all areas within 165 feet of an elderberry shrub) and temporary effects on 1.3 acres of suitable valley elderberry longhorn beetle habitat (Table 9-7). Therefore, construction of Alternative 3 could result in direct effects on the valley elderberry longhorn beetle through removal of its host plant and surrounding habitat. In addition, construction of Alternative 3 could result in indirect effects on this species if construction activities indirectly affect elderberry shrubs such as from construction-generated dust, root damage, or soil compaction. Due to the status of valley elderberry longhorn beetle (Federally threatened) and continued threats to this species throughout its range (including climate change, predation, pesticides, and invasive species), these direct and indirect impacts would be considered significant.

The analysis of the potential significance of construction direct and indirect effects of Alternative 3 on valley elderberry longhorn beetle and its suitable habitat is the same as for Alternative 2.

The operations and maintenance effects of Alternative 3 on valley elderberry longhorn beetle and its suitable habitat would be the same as those described for Alternative 2.

#### *CEQA Conclusion*

Construction impacts to valley elderberry longhorn beetle and its habitat would be **significant** because construction of Alternative 3 would result in permanent effects on one elderberry shrub, temporary effects on one elderberry shrub, and additional permanent effects on 1.8 acres and temporary effects on 1.3 acres of suitable valley elderberry longhorn beetle habitat. Maintenance impacts would be **significant** if elderberry shrubs that become established in the channels are not removed before they provide habitat for valley elderberry longhorn beetle. Operations impacts would be **less than significant** because the limited increase in the average number of wet days under Alternative 3 is not likely to lead to a type conversion of habitat that would prevent reproduction and growth of elderberry shrubs.

Implementation of Mitigation Measures MM-TERR-2 through MM-TERR-11 would reduce construction and maintenance impacts to valley elderberry longhorn beetle and its habitat to **less than significant**.

#### **9.3.3.4.3 Impact TERR-3: Potential Disturbance or Mortality of and Loss of Suitable Habitat for Giant Garter Snake**

Construction of Alternative 3 would result in temporary impacts to 3.2 acres and permanent impacts to 14.1 acres of suitable giant garter snake aquatic habitat (Table 9-8.). In addition, construction of Alternative 3 would result in temporary disturbance to 15.9 acres and permanent impacts to 15.7 acres of suitable giant garter snake upland habitat. Alternative 3 would impact 1.6 more acre of suitable giant garter snake aquatic habitat than Alternative 1 (17.3 acres for Alternative 3 versus 15.7 acres for Alternative 1) and would impact 10.3 fewer acres of suitable upland habitat (31.6 acres for Alternative 3 versus 41.9 acres for Alternative 1).

The analysis of the potential significance of construction-related direct and indirect effects of Alternative 3 on giant garter snake and its suitable aquatic and upland habitat is the same as that for Alternative 1.

The operations and maintenance effects of Alternative 3 on giant garter snake and its suitable aquatic and upland habitat would be the same as those described for Alternative 1.

#### *CEQA Conclusion*

Direct or indirect impacts to giant garter snake resulting from construction and maintenance of Alternative 3 would be **significant** because these activities could result in the mortality or injury of individuals and a reduction in the quantity and quality of suitable giant garter snake habitat. During operations, impacts would be **less than significant**.

Implementation of Mitigation Measures MM-TERR-2 through MM-TERR-6, MM-TERR-11 through MM-TERR-14, MM-WQ-1, and MM-WQ-2 would reduce the impacts of project construction, operations, and maintenance on giant garter snake and its suitable aquatic and upland habitat to **less than significant**.

#### **9.3.3.4.4 Impact TERR-4: Potential Disturbance or Mortality of and Loss of Suitable Habitat for Western Pond Turtle**

Construction of Alternative 3 would result in temporary impacts to 2.2 acres and permanent impacts to 10.0 acres of suitable western pond turtle aquatic habitat. In addition, construction of Alternative 3 would result in temporary disturbance to 28.4 acres and permanent impacts to 62.9 acres of suitable western pond turtle upland habitat. Alternative 3 would impact 0.5 acre more suitable aquatic western pond turtle habitat than Alternative 1 (12.2 acres for Alternative 3 versus 11.7 acres for Alternative 1) and 31.0 more acres of suitable upland western pond turtle habitat than Alternative 1 (91.3 acres for Alternative 3 versus 60.3 acres for Alternative 1).

The analysis of the potential significance of construction-related direct and indirect effects of Alternative 3 on western pond turtle and its suitable habitat is the same as that for Alternative 1.



The operations and maintenance effects of Alternative 3 on western pond turtle and its suitable habitat would be the same as those described for Alternative 1.

*CEQA Conclusion*

Direct and indirect impacts to western pond turtle resulting from construction and maintenance of Alternative 3 would be **significant** because these activities could result in the mortality or injury of individuals and a reduction in the quantity and quality of suitable western pond turtle aquatic habitat and upland habitat. During operations, there would be **no impact**.

Implementation of Mitigation Measures MM-TERR-2 through MM-TERR-6, MM-TERR-11, MM-TERR-15, MM-WQ-1, and MM-WQ-2 would reduce construction, operations, and maintenance impacts to western pond turtle and its suitable habitat to **less than significant**.

**9.3.3.4.5 Impact TERR-5: Potential Disturbance or Mortality of Nesting Bird Species and Removal of Suitable Nesting and Foraging Habitat**

Construction effects of Alternative 3 on State- and/or Federally listed bird species, including Swainson's Hawk, Least Bell's Vireo, Western Yellow-Billed Cuckoo, and Bank Swallow, and on other special-status bird species that are known or have the potential to occur in the construction study area, including bird species protected by the MBTA, would include temporary impacts to 33.3 acres of suitable nesting and foraging habitat and permanent impacts to 81.7 acres of suitable nesting and foraging habitat for these species (Table 9-6.). Alternative 3 would temporarily impact 4.1 more acres than Alternative 1 (33.3 acres for Alternative 3 versus 29.2 acres for Alternative 1) and would permanently impact 34.2 more acres than Alternative 1 (81.7 acres for Alternative 3 versus 47.5 acres for Alternative 1) of suitable nesting and foraging habitat. Impacts to riparian habitat (black willow thicket, box elder forest, Fremont cottonwood forest, and valley oak woodland) would be considered long-term temporary impacts because it would take more than one year to establish dominant tree vegetation, which would represent a temporal loss of habitat for special-status nesting birds.

The analysis of the potential significance of construction-related direct and indirect effects of Alternative 3 on nesting bird species and their suitable nesting and foraging habitat is the same as that for Alternative 1.

The operations and maintenance effects of Alternative 3 on nesting bird species and their suitable nesting and foraging habitat would be the same as those described for Alternative 1.

*CEQA Conclusion*

Direct and indirect impacts on nesting bird species resulting from construction and maintenance of Alternative 3 would be **significant** because these activities could result in the mortality, injury, or disturbance of individuals or eggs and a reduction in the quantity and quality of suitable nesting and foraging habitat. Under operations, impacts would be **less than significant**.

Implementation of Mitigation Measures MM-TERR-2 through MM-TERR-6, MM-TERR-11, and MM-TERR-16 would reduce construction and maintenance impacts nesting bird species and their suitable nesting and foraging habitat to **less than significant**.

#### **9.3.3.4.6 Impact TERR-6: Potential Disturbance, Injury, or Mortality of Special-Status Tree-Roosting Bats and Removal of Roosting Habitat**

Construction effects of Alternative 3 on special-status bat species, potentially including pallid bats and western red bats, would include temporary impacts to 8.8 acres of suitable riparian habitat and 20.4 acres of suitable grassland and open-water roosting and foraging habitat. In addition, construction effects would include the loss of 20.1 acres of suitable riparian habitat and conversion of 43.6 acres of suitable grassland and open-water foraging habitat to primarily open-water habitat still suitable for foraging (Table 9-6). Alternative 3 would temporarily impact 3.9 more acres of suitable roosting and foraging habitat than Alternative 1 (29.2 acres for Alternative 3 versus 25.3 acres for Alternative 1) and permanently impact 28 more acres of suitable roosting and foraging habitat than Alternative 1 (63.7 acres for Alternative 3 versus 35.7 acres for Alternative 1). Impacts to riparian habitat (black willow thicket, box elder forest, Fremont cottonwood forest, and valley oak woodland) would be considered long-term temporary impacts because it would take more than one year to establish dominant tree vegetation, which would represent a temporal loss of habitat for special-status tree-roosting bats.

The analysis of the potential significance of construction-related direct and indirect effects of Alternative 3 on special-status bat species and their suitable roosting habitat is the same as that for Alternative 1.

The operations and maintenance effects of Alternative 3 on special-status bat species and their suitable roosting habitat would be the same as those described for Alternative 1.

#### *CEQA Conclusion*

Direct and indirect impacts to special-status tree-roosting bats, including pallid bats and western red bats, resulting from construction and maintenance of Alternative 3 would be **significant** because these activities could result in the mortality, injury, or disturbance of individuals and a reduction in the quantity and quality of suitable or occupied habitat. During operations, there would be **no impact**.

Implementation of Mitigation Measures MM-TERR-2 through MM-TERR-6, MM-TERR-11, and MM-TERR-17 would reduce construction and maintenance impacts to special-status bat species and their suitable roosting habitat to **less than significant**.

#### **9.3.3.4.7 Impact TERR-7: Potential Disturbance or Mortality of American Badger and Loss of Its Habitat**

Construction effects of Alternative 3 on suitable American badger foraging and denning habitat would include temporary impacts to 19.6 acres and permanent impacts to 42.8 acres of potentially suitable grassland habitat (Table 9-6.). Alternative 3 would temporarily impact 1.7 more acres than Alternative 1 (19.6 acres for Alternative 3 versus 17.9 acres for Alternative 1) and permanently impact 23.5 more acres than Alternative 1 (42.8 acres for Alternative 3 versus 19.3 acres for Alternative 1) of suitable foraging and denning habitat for American badger.

The analysis of the potential significance of construction-related direct and indirect effects of Alternative 3 on American badger and its suitable foraging and denning habitat is the same as that for Alternative 1.

The operations and maintenance effects of Alternative 3 on American badger and its suitable foraging and denning habitat would be the same as those described for Alternative 1.

*CEQA Conclusion*

Direct and indirect impacts to American badger resulting from construction of Alternative 3 would be **significant** because construction activities could result in injury or mortality. During operations and maintenance, there would be **no impact**.

Implementation of Mitigation Measures MM-TERR-2 through MM-TERR-6 and MM-TERR-18 would reduce construction impacts to American badger and its suitable foraging and denning habitat to **less than significant**.

**9.3.3.4.8 Impact TERR-8: Potential Loss of Sensitive Natural Communities**

Construction effects of Alternative 3 on sensitive natural communities would include temporary impacts to 10.4 acres and permanent impacts to 29.3 acres of California hardstem and bulrush marsh, black willow thickets, box elder forest, Fremont cottonwood forest, and valley oak woodland (Table 9-6). Alternative 3 would temporarily impact 0.3 more acre than Alternative 1 (10.4 acres for Alternative 3 versus 10.1 acres for Alternative 1) and permanently impact 4.6 more acres than Alternative 1 (29.3 acres for Alternative 3 versus 24.7 acres for Alternative 1) of sensitive natural communities.

The analysis of the potential significance of construction-related direct and indirect effects of Alternative 3 on sensitive natural communities is the same as that for Alternative 1.

The operations and maintenance effects of Alternative 3 would be the same as those described for Alternative 1.

*CEQA Conclusion*

Direct and indirect impacts to sensitive natural communities, including freshwater marsh, riparian forest, and riparian woodland, resulting from construction of Alternative 3 would be **significant** because these activities could conflict with the implementation of general and/or conservation plan policies related to the protection of terrestrial biological resources. During operations and maintenance, there would be **no impact**.

Implementation of Mitigation Measures MM-TERR-2, MM-TERR-3, MM-TERR-5, MM-TERR-6, MM-TERR-11, MM-WQ-1, and MM-WQ-2 would reduce construction impacts to sensitive natural communities to **less than significant**.

#### 9.3.3.4.9 Impact TERR-9: Potential Effects on USACE, CDFW, and RWQCB Jurisdictional Areas

Impacts to potential USACE and CDFW jurisdiction resulting from construction of Alternative 3 are shown on Figures 9-7a and 9-7b. Construction effects of Alternative 3 would include temporary impacts to 3.2 acres of potential USACE wetlands and 0.8 acre of potential non-wetland waters of the United States and permanent impacts to 14.1 acres of potential USACE wetland and 0.8 acre of potential non-wetland waters of the United States. In addition, construction of Alternative 3 would result in temporary impacts to 12.0 acres of potential CDFW riparian habitat and 0.8 acre of potential CDFW unvegetated streambed and permanent impacts to 34.2 acres of potential CDFW riparian habitat and 0.8 acre of potential CDFW unvegetated streambed (Table 9-9. and Table 9-10.). Compared to Alternative 1, Alternative 3 would temporarily impact 0.1 acre less of USACE jurisdiction (4.0 acres for Alternative 3 versus 4.1 acres for Alternative 1) and 1.5 more acres of CDFW jurisdiction (12.8 acres for Alternative 3 versus 11.3 acres for Alternative 1). In addition, Alternative 3 would permanently impact 2.8 more acres of USACE jurisdiction (14.9 acres for Alternative 3 versus 12.1 acres for Alternative 1) and 6.8 more acres of CDFW jurisdiction (35.0 acres for Alternative 3 versus 28.2 acres for Alternative 1).

The analysis of the potential significance of construction and operations effects of Alternative 3 on potential USACE, CDFW, and RWQCB jurisdictional areas is the same as that for Alternative 1.

The operations and maintenance effects of Alternative 3 on potential USACE, CDFW, and RWQCB jurisdictional areas would be the same as those described for Alternative 1.

#### *CEQA Conclusion*

Direct and indirect impacts to non-wetland waters of the United States (open water), wetland waters of the United States (freshwater emergent wetland and freshwater emergent marsh), CDFW riparian areas (freshwater marsh, freshwater emergent wetland, and riparian forest/woodland), and areas subject to RWQCB jurisdiction resulting from construction of Alternative 3 would be **significant** because these activities would result in direct removal, filling, or hydrological interruption, which would result in the permanent reduction in acreage or function of these areas. During operations and maintenance, there would be **no impact**.

Implementation of Mitigation Measures MM-TERR-2, MM-TERR-3, MM-TERR-5, MM-TERR-6, MM-TERR-11, MM-WQ-1, and MM-WQ-2 would reduce construction impacts to USACE, RWQCB, and CDFW jurisdictional areas to **less than significant**.

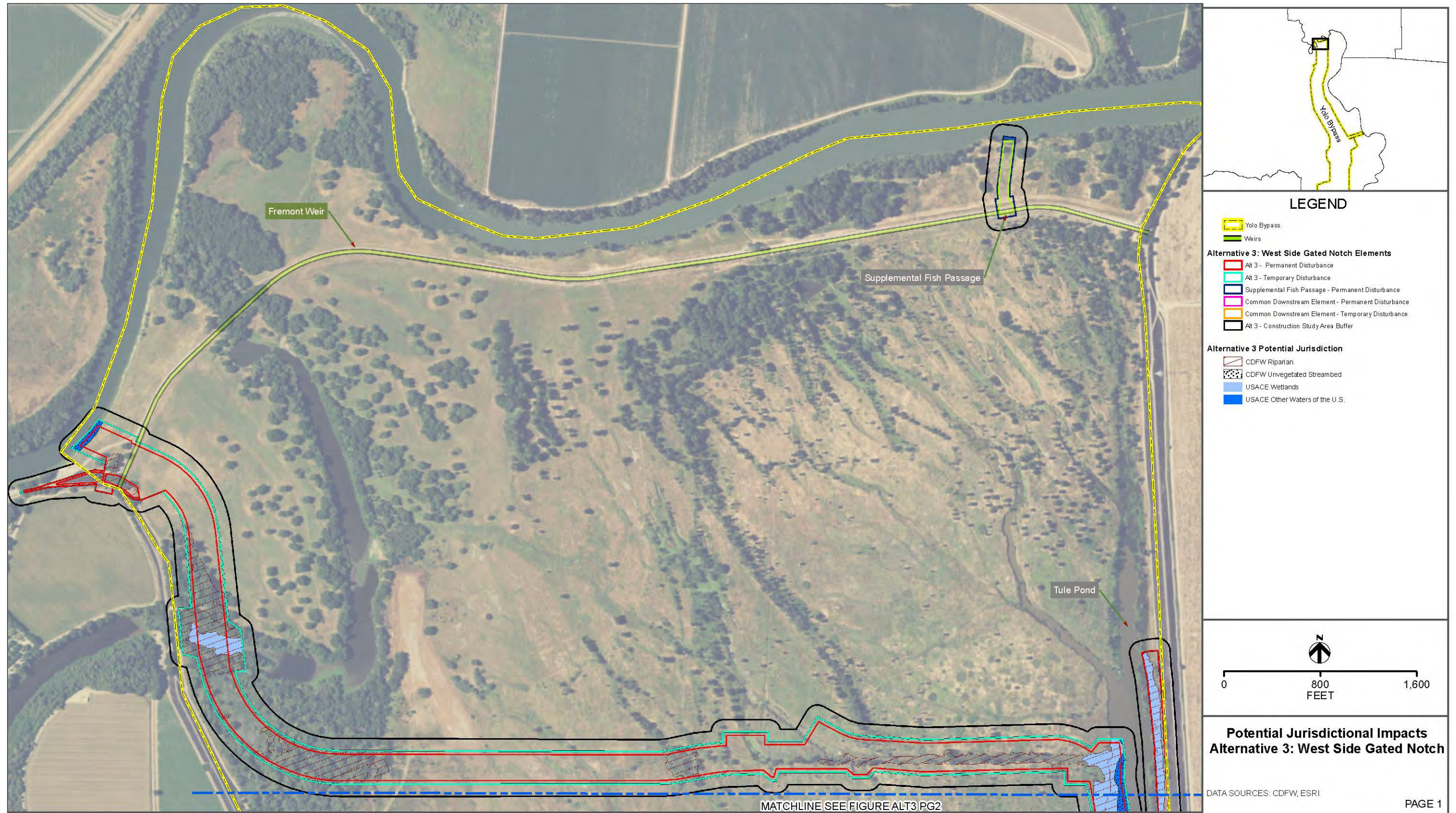


Figure 9-7a. Alternative 3 Construction Impacts to Potential USACE and CDFW Jurisdictional Areas

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Figure 9-7b. Alternative 3 Construction Impacts to Potential USACE and CDFW Jurisdictional Areas

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#### **9.3.3.4.10 Impact TERR-10: Potential Interference with Movement of Native Resident or Migratory Wildlife Species**

Construction, operation, and maintenance effects of Alternative 3 on the movement of native resident or migratory wildlife species would be the same as those described for Alternative 1.

The analysis of the potential significance of construction, operations, and maintenance effects of Alternative 3 on the movement of native resident or migratory wildlife species is the same as that for Alternative 1.

##### *CEQA Conclusion*

Impacts on wildlife movement resulting from construction of Alternative 3 would be **less than significant** because although construction could interfere with movement of native resident or migratory wildlife species, construction activities are not anticipated to substantially interfere with the movement of these species as they could move to nearby, unaffected habitat. During operations and maintenance, there would be **no impact**.

#### **9.3.3.4.11 Impact TERR-11: Conflict with Provisions of an Adopted HCP/NCCP or Other Approved Local, Regional, or State Habitat Conservation Plan**

The analysis of the potential conflict of Alternative 3 with provisions of adopted or other approved habitat conservation plans is the same as that for Alternative 1.

##### *CEQA Conclusion*

Alternative 3 is consistent with the provisions of the Draft Yolo HCP/NCCP. Therefore, there would be **no impact** resulting from conflicts with this HCP/NCCP.

#### **9.3.3.5 Alternative 4: West Side Gated Notch – Managed Flow**

Alternative 4, West Side Gated Notch – Managed Flow, would have a smaller amount of flow entering the Yolo Bypass through the gated notch in Fremont Weir than some other alternatives, but it would incorporate water control structures to maintain inundation for longer periods of time within the northern portion of the Yolo Bypass. Alternative 4 would include the same gated notch and associated facilities as described for Alternative 3; however, it would be operated to limit the maximum inflow to 3,000 cfs. See Section 2.7 for more details on the alternative features. Alternative 4 has the same general alignment as Alternative 3; therefore, impact comparisons are made to Alternative 3.

Implementation of Alternative 4 would result in direct and indirect construction effects on habitat for State- and Federally listed wildlife species, including valley elderberry longhorn beetle, giant garter snake, western pond turtle, Swainson's Hawk, Least Bell's Vireo, Western Yellow-Billed Cuckoo, Bank Swallow, special-status plant species (woolly rose-mallow, northern California black walnut, bristly sedge, Peruvian dodder, Delta tule pea, Sanford's arrowhead, Suisun Marsh aster, heartscale, San Joaquin spearscale, Heckard's pepper grass, California alkali grass, and saline clover), special-status bird species (including birds protected under the MBTA), and other special-status wildlife species (including bats and American

badger). It would also result in direct and indirect construction effects on sensitive vegetation communities, including areas potentially subject to USACE and CDFW jurisdiction.

Alternative 4 would generally result in an overall increased number of wet days of three to four weeks north of I-80 and one week south of I-80 within the Yolo Bypass (with localized areas in the western part of the bypass experiencing no change). Areas in the western and northwestern portions of the FWWA would experience a reduction in the number of wet days compared to existing conditions (with localized areas experiencing an increased average number of wet days of up to four weeks) (see Figures 13-14 and 13-15 in Chapter 13, *Recreation*, and Figure 11-8 in Chapter 11, *Land Use and Agriculture*). Alternative 4 differs from Alternative 3 in that the extent of increased inundation would be greater for Alternative 4. However, within Tule Ranch, under Alternative 4 extent of increased inundation (one to two weeks of increased wet days) would be less than that for Alternative 3 (See Figure 13-18 in Chapter 13, *Recreation*).

Vegetation community impacts for Alternative 4 are shown in Table 9-6 and on Figures 9-8a through 9-8h.

#### **9.3.3.5.1 Impact TERR-1: Potential Mortality or Loss of Habitat for Special-Status Plant Species**

The construction footprint of Alternative 4 contains suitable habitat for the same special-status plant species as does the footprint of Alternative 3, seven species with the potential to occur in marsh and riparian habitat (woolly rose-mallow, northern California black walnut, bristly sedge, Peruvian dodder, Delta tule pea, Sanford's arrowhead, and Suisun marsh aster) and six species with the potential to occur in alkaline grasslands present along portions of the western transport channel (heartscale, San Joaquin spearscale, Heckard's pepper grass, California alkali grass, and saline clover). Alternative 4 would have the highest construction-related temporary and permanent impacts to suitable or occupied habitat for special-status plant species of all of the Project alternatives.

The analysis of the potential significance of construction-related direct and indirect effects of Alternative 4 on special-status species and their habitat is the same as that for Alternative 3.

The modeled change in average number of wet days under Alternative 4 is not expected to result in substantial operations impacts to special-status plant species, which are tolerant of moist soils and have evolved in an area that is subject to regular inundation. Therefore, the Lead Agencies expect the operations and maintenance effects of Alternative 4 would be the same as those described for Alternative 3.



Figure 9-8a. Alternative 4 Construction Impacts to Vegetation Communities

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Figure 9-8b. Alternative 4 Construction Impacts to Vegetation Communities

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Figure 9-8c. Alternative 4 Construction Impacts to Vegetation Communities

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Figure 9-8d. Alternative 4 Construction Impacts to Vegetation Communities

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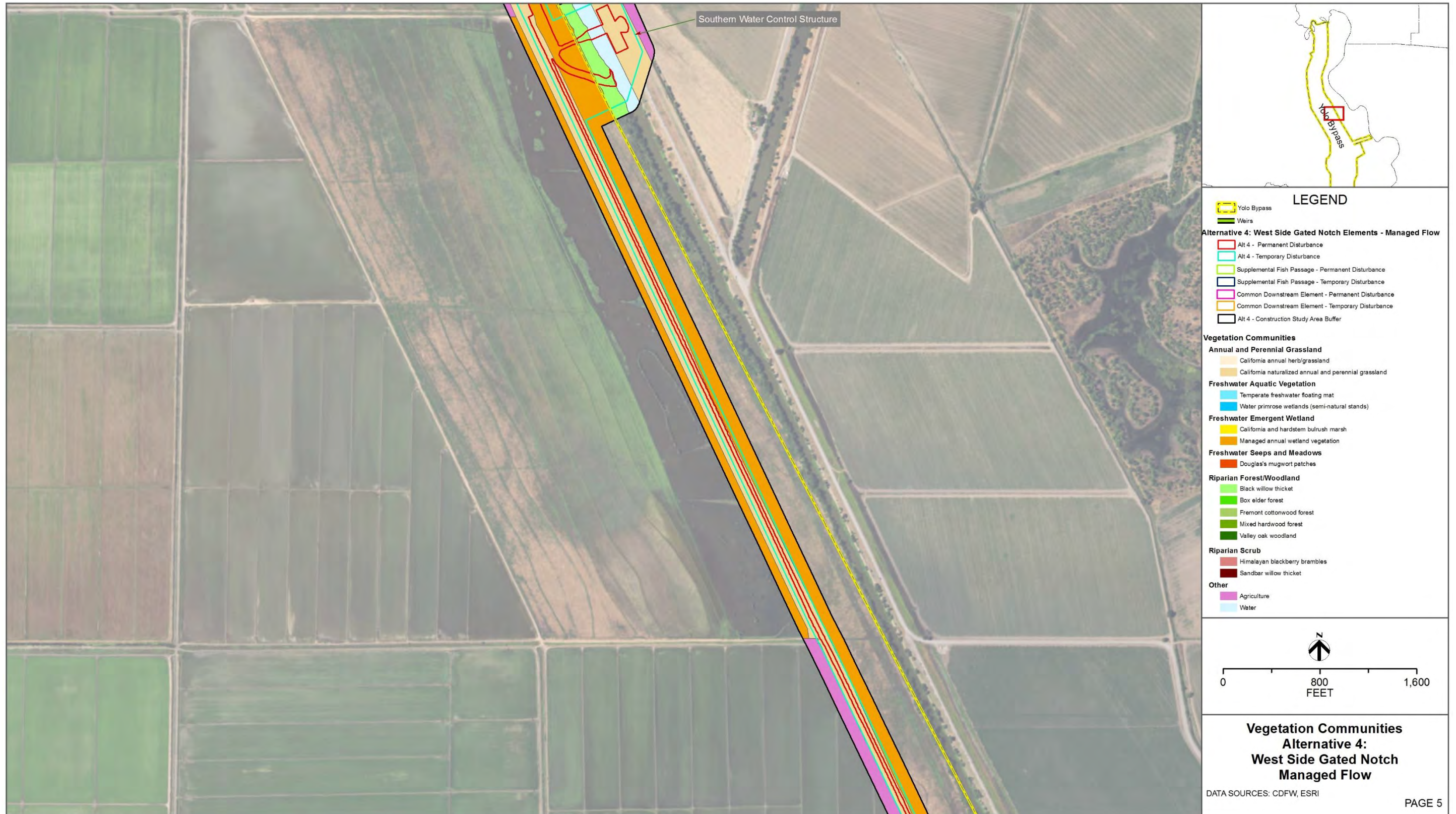


Figure 9-8e. Alternative 4 Construction Impacts to Vegetation Communities

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Figure 9-8f. Alternative 4 Construction Impacts to Vegetation Communities

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Figure 9-8g. Alternative 4 Construction Impacts to Vegetation Communities

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Figure 9-8h. Alternative 4 Construction Impacts to Vegetation Communities

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