

LEGEND

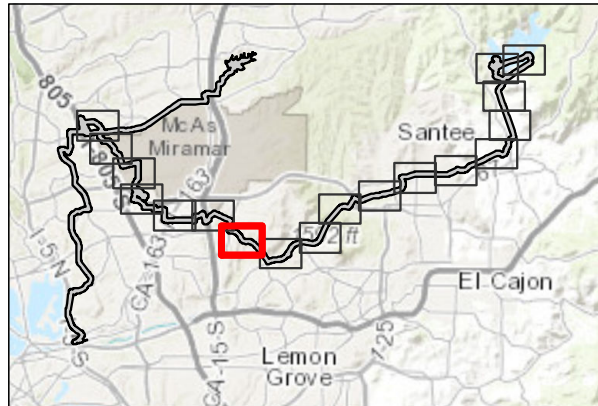
- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Trenchless Segments of Alignment
- Special Status Species**
- least Bell's vireo
- yellow warbler
- Sensitive Plants**
- Ferocactus viridescens*
- Viguiera laciniata*
- Lepidium virginicum* var. *robinsonii*
- Viguiera laciniata*
- Jurisdictional Aquatic Resources**
- Non-wetland Waters (ACOE/RWQCB/CDFW)
- Wetland or Riparian Area (CDFW Only)
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- EUC, Eucalyptus Woodland
- FWM, Coastal and Valley Freshwater Marsh
- NG, Native Grassland
- NVC, Non-vegetated Channel or Floodway
- SWRF, Southern Arroyo Willow Riparian Forest
- SWS, Southern Willow Scrub
- dCSS, disturbed Diegan Coastal Sage Scrub
- Multi-Habitat Planning Area

0 75 150 Feet



SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- Cooper's hawk
- yellow warbler
- Sensitive Plants**
- Viguiera laciniata*
- Vegetation Communities/Land Covers**
- CLOW, Coast Live Oak Woodland
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- EUC, Eucalyptus Woodland
- NNV, Non-native Vegetation
- SWS, Southern Willow Scrub
- dCSS, disturbed Diegan Coastal Sage Scrub
- Multi-Habitat Planning Area

0 500 1,000 Feet

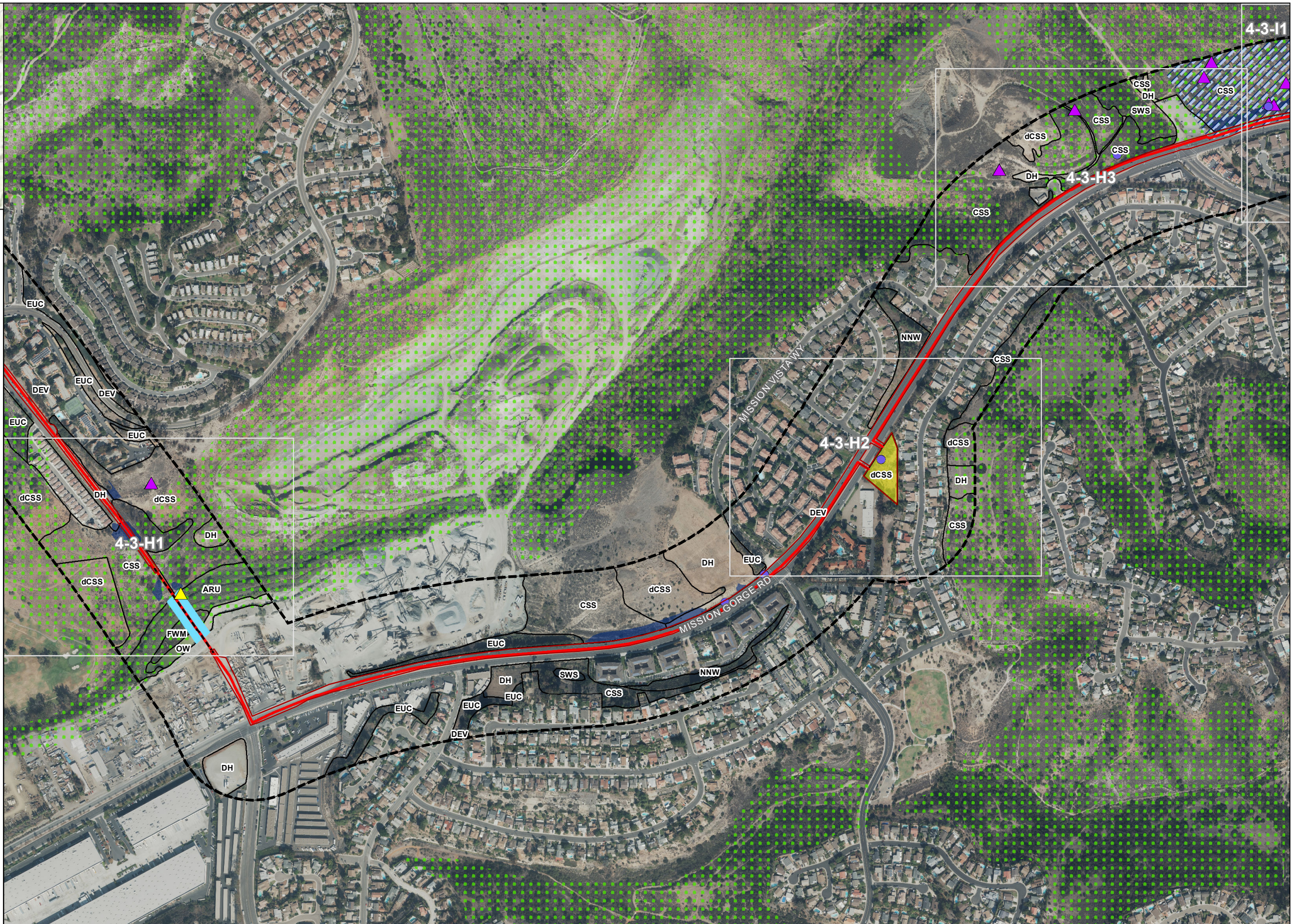
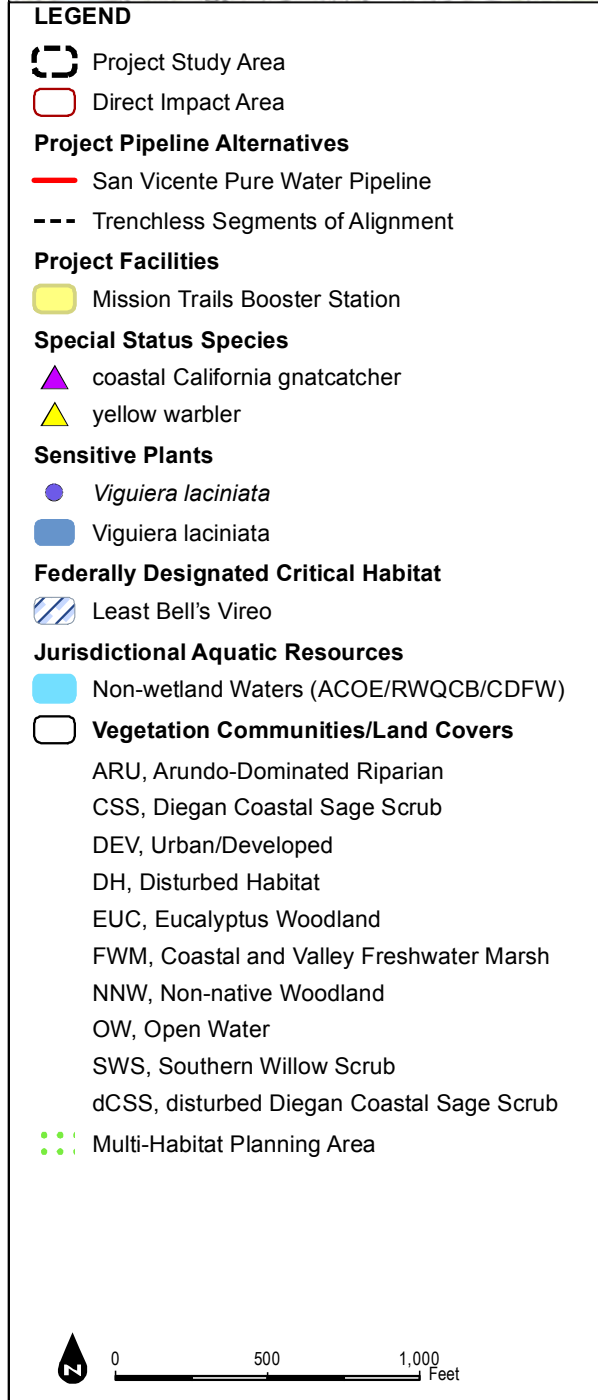
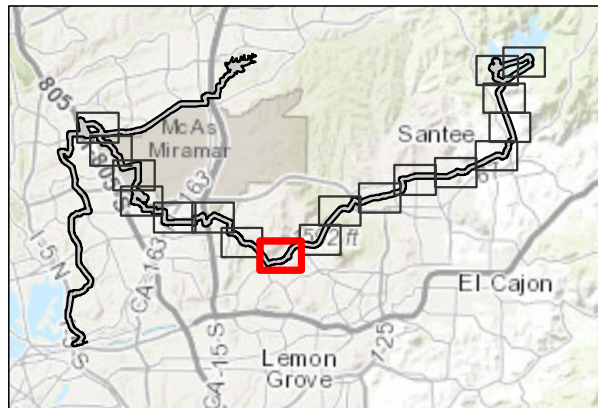


4-3-H1

FIGURE 4-3G

Biological Resources Impacts - San Vicente Reservoir Alternative

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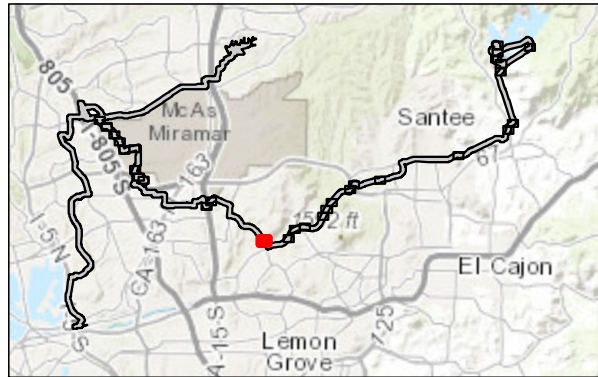
4-3-11

FIGURE 4-3H

Biological Resources Impacts - San Vicente Reservoir Alternative

SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Trenchless Segments of Alignment
- Special Status Species**
- ▲ coastal California gnatcatcher
- ▲ yellow warbler
- Sensitive Plants**
- Viguiera laciniata*
- Jurisdictional Aquatic Resources**
- Non-wetland Waters (ACOE/RWQCB/CDFW)
- Vegetation Communities/Land Covers**
- ARU, Arundo-Dominated Riparian
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- EUC, Eucalyptus Woodland
- FWM, Coastal and Valley Freshwater Marsh
- OW, Open Water
- SWS, Southern Willow Scrub
- dCSS, disturbed Diegan Coastal Sage Scrub
- Multi-Habitat Planning Area

Scale: 0 75 150 Feet

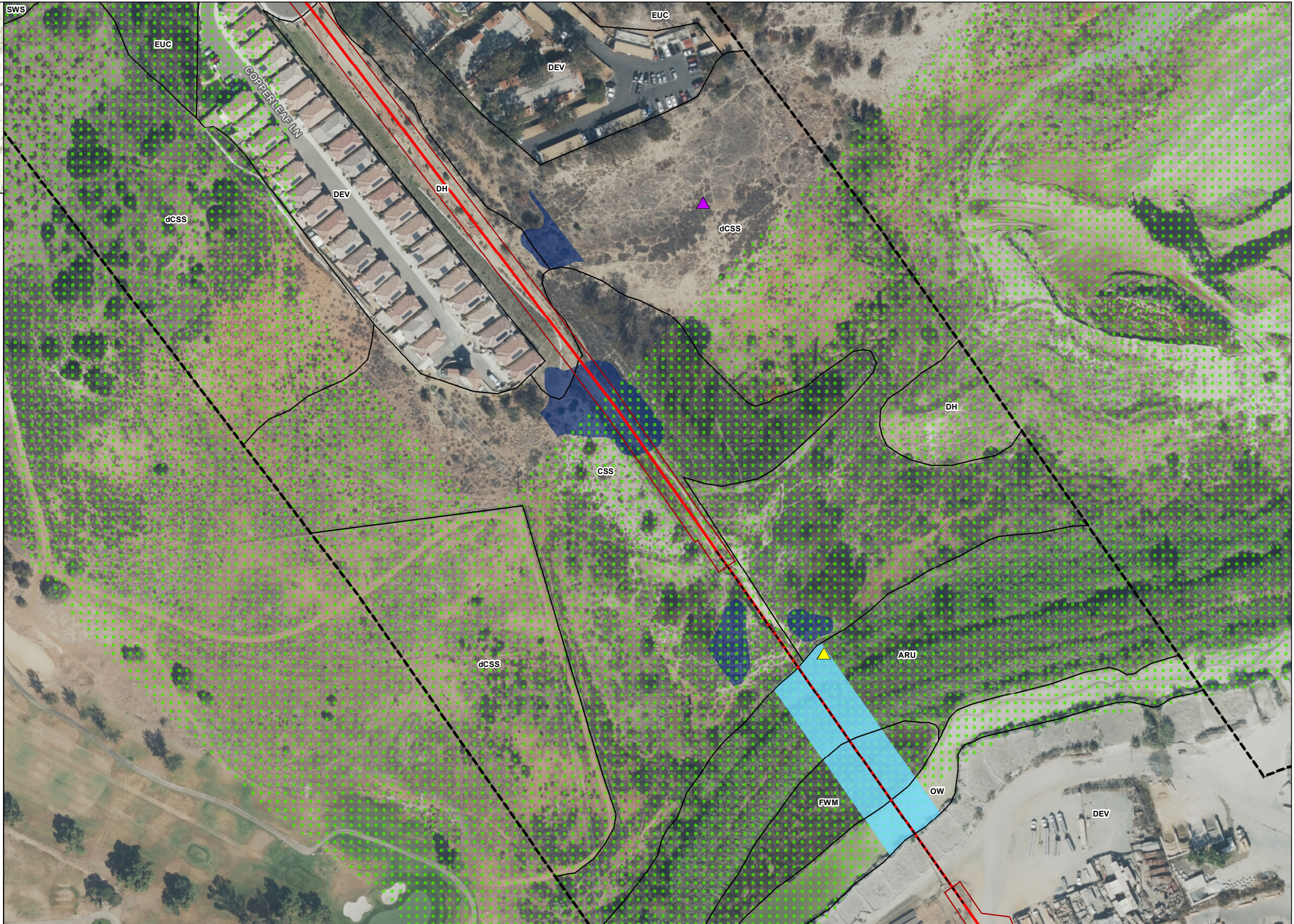
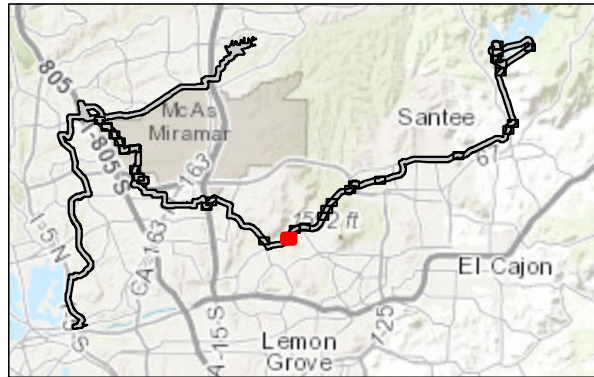


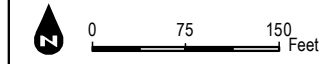
FIGURE 4-3-H1

Biological Resources Impacts - San Vicente Reservoir Alternative

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- LEGEND**
- Project Study Area
 - Direct Impact Area
 - Project Pipeline Alternatives**
 - San Vicente Pure Water Pipeline
 - Project Facilities**
 - Mission Trails Booster Station
 - Sensitive Plants**
 - Viguiera laciniata*
 - Viguiera laciniata*
 - Vegetation Communities/Land Covers**
 - CSS, Diegan Coastal Sage Scrub
 - DEV, Urban/Developed
 - DH, Disturbed Habitat
 - EUC, Eucalyptus Woodland
 - NNW, Non-native Woodland
 - dCSS, disturbed Diegan Coastal Sage Scrub
 - Multi-Habitat Planning Area



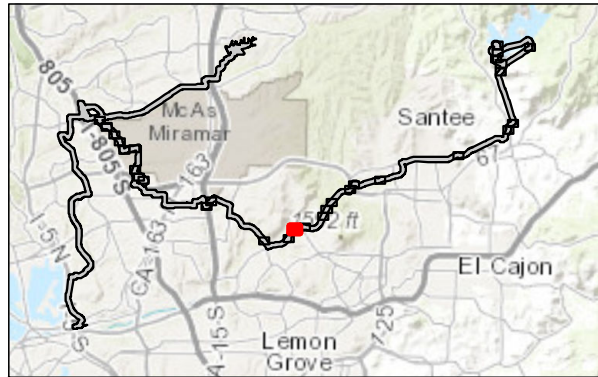
SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



Biological Resources Report for the North City Project

FIGURE 4-3-H2
Biological Resources Impacts - San Vicente Reservoir Alternative

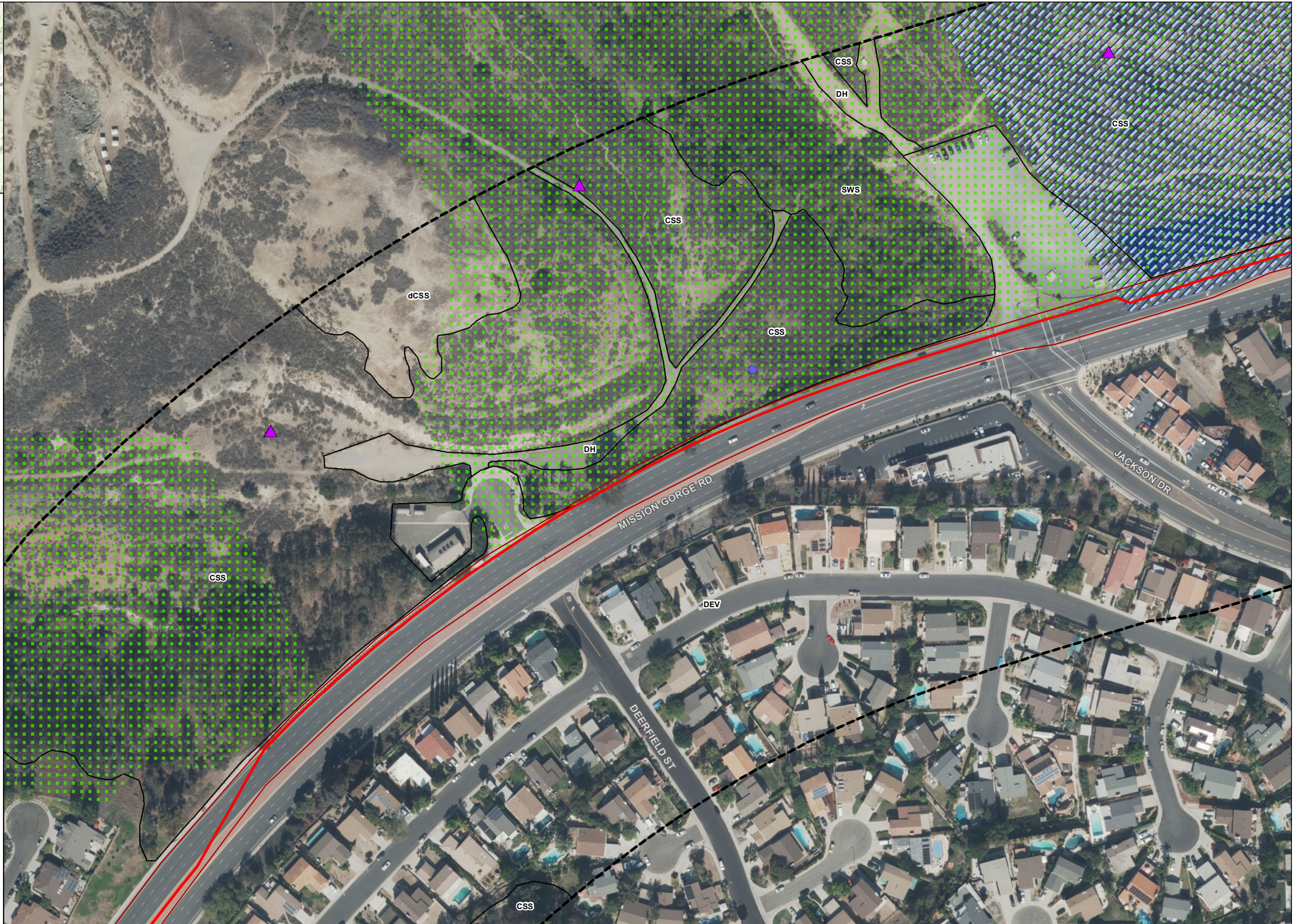
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LEGEND

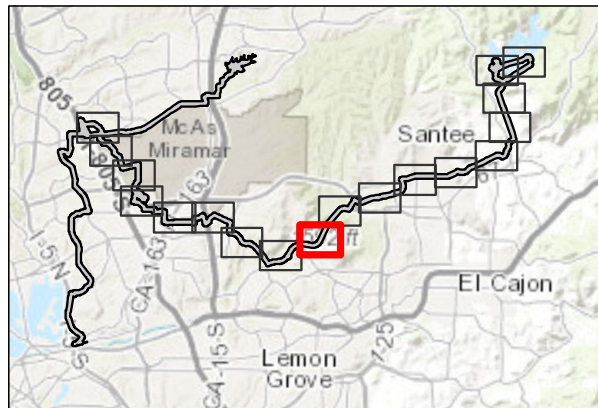
- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- coastal California gnatcatcher
- Sensitive Plants**
- Viguiera laciniata*
- Viguiera laciniata*
- Federally Designated Critical Habitat**
- Least Bell's Vireo
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- SWS, Southern Willow Scrub
- dCSS, disturbed Diegan Coastal Sage Scrub
- Multi-Habitat Planning Area

0 75 150 Feet



SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- coastal California gnatcatcher
- mule deer
- orangethroat whiptail
- rosy boa
- southern California rufous-crowned sparrow
- two-striped gartersnake
- Sensitive Plants**
- Lepidium virginicum* var. *robinsonii*
- Viguiera laciniata*
- Selaginella cinerascens*
- Viguiera laciniata*
- Federally Designated Critical Habitat**
- Least Bell's Vireo
- Vegetation Communities/Land Covers**
- CLOW, Coast Live Oak Woodland
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- NNG, Non-native Grassland
- NNV, Non-native Vegetation
- SCLO, Southern Coast Live Oak Riparian Forest
- SMX, Southern Mixed Chaparral
- SWS, Southern Willow Scrub
- dCSS, disturbed Diegan Coastal Sage Scrub
- Multi-Habitat Planning Area

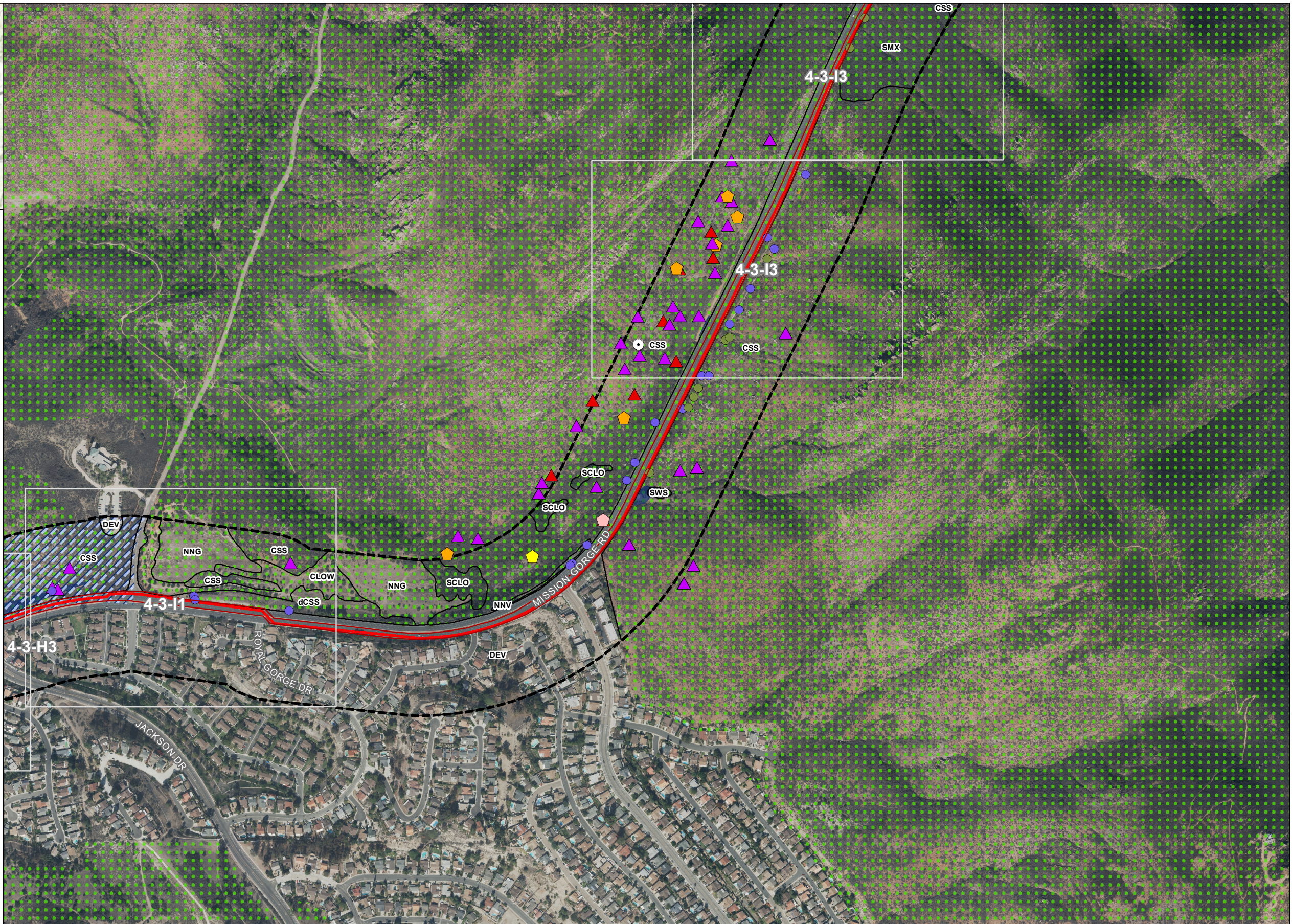
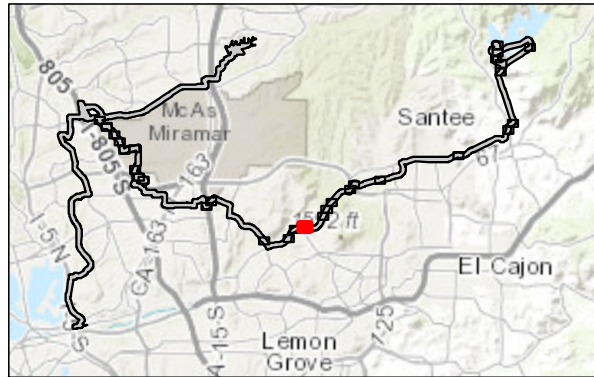


FIGURE 4-31

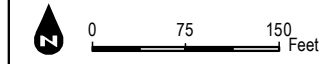
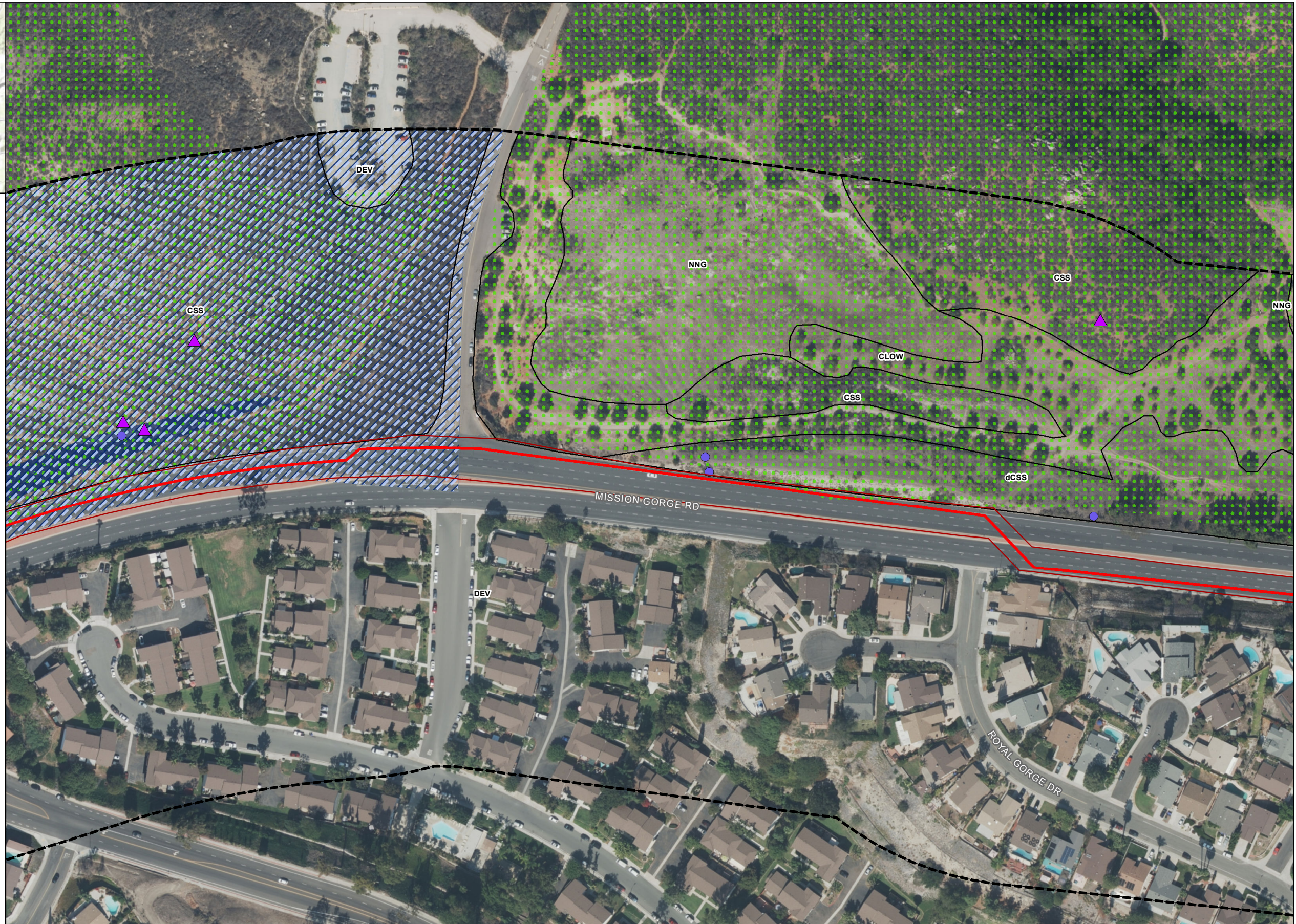
Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- coastal California gnatcatcher
- Sensitive Plants**
- Viguiera laciniata*
- Viguiera laciniata*
- Federally Designated Critical Habitat**
- Least Bell's Vireo
- Vegetation Communities/Land Covers**
- CLOW, Coast Live Oak Woodland
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- NNG, Non-native Grassland
- dCSS, disturbed Diegan Coastal Sage Scrub
- Multi-Habitat Planning Area

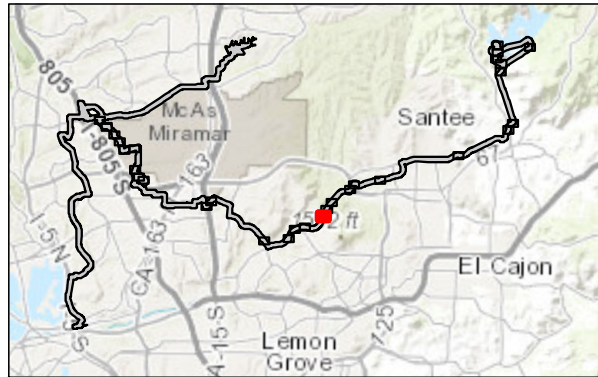


SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



FIGURE 4-3-11
Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- coastal California gnatcatcher
- mule deer
- orangethroat whiptail
- southern California rufous-crowned sparrow
- Sensitive Plants**
- Lepidium virginicum* var. *robinsonii*
- Viguiera laciniata*
- Selaginella cinerascens*
- Viguiera laciniata*
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- Multi-Habitat Planning Area

0 75 150 Feet

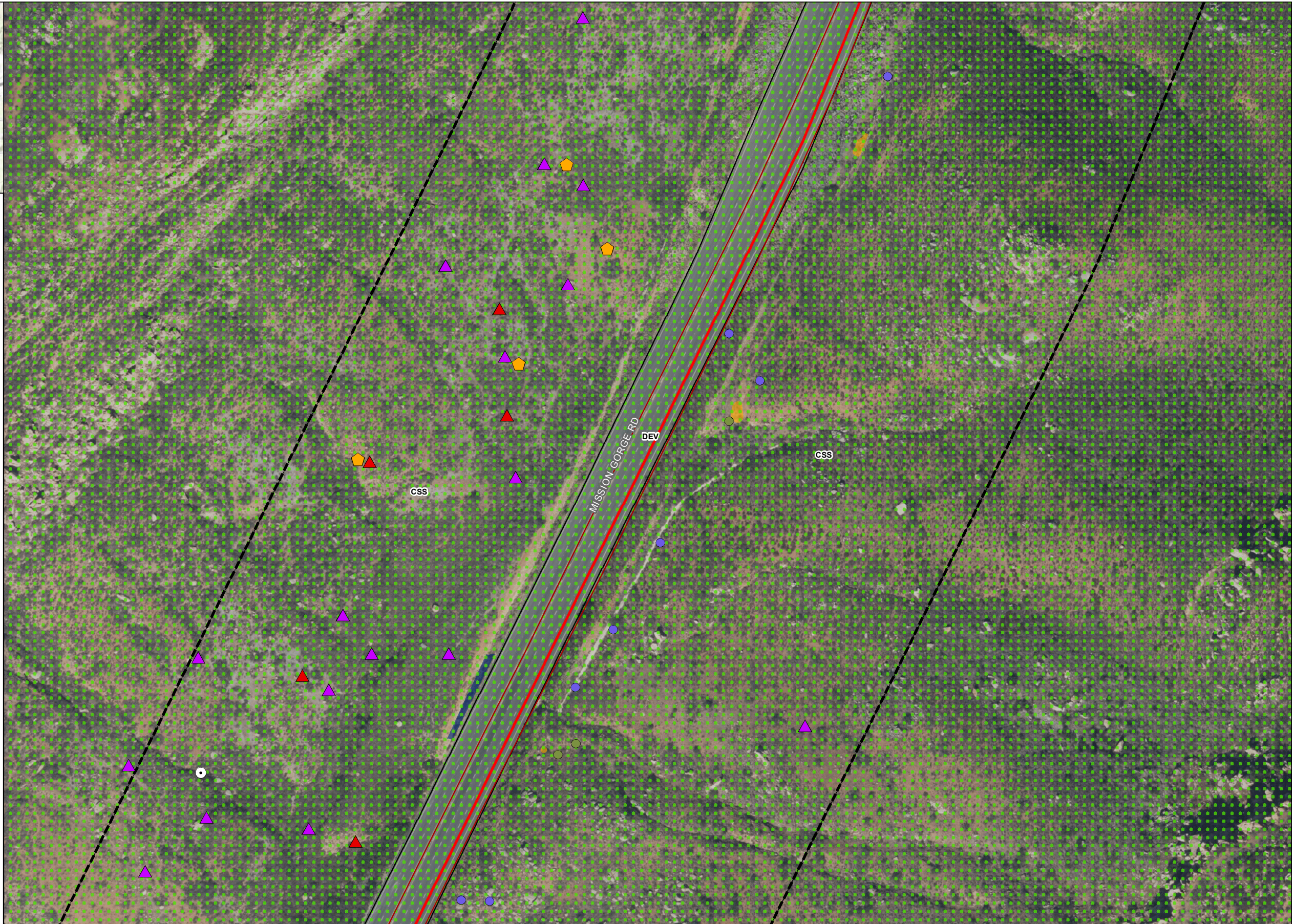
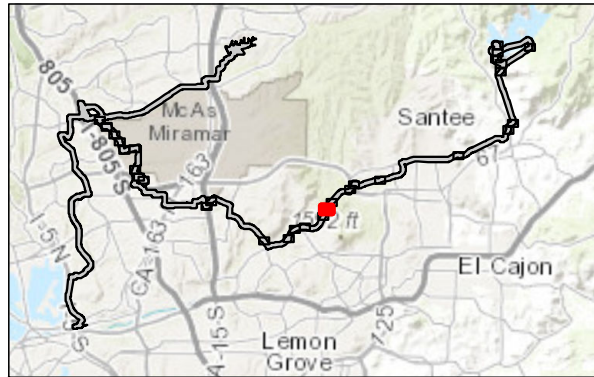


FIGURE 4-3-12

Biological Resources Impacts - San Vicente Reservoir Alternative

SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- coastal California gnatcatcher
- Sensitive Plants**
- Lepidium virginicum* var. *robinsonii*
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- SMX, Southern Mixed Chaparral
- Multi-Habitat Planning Area

0 75 150 Feet

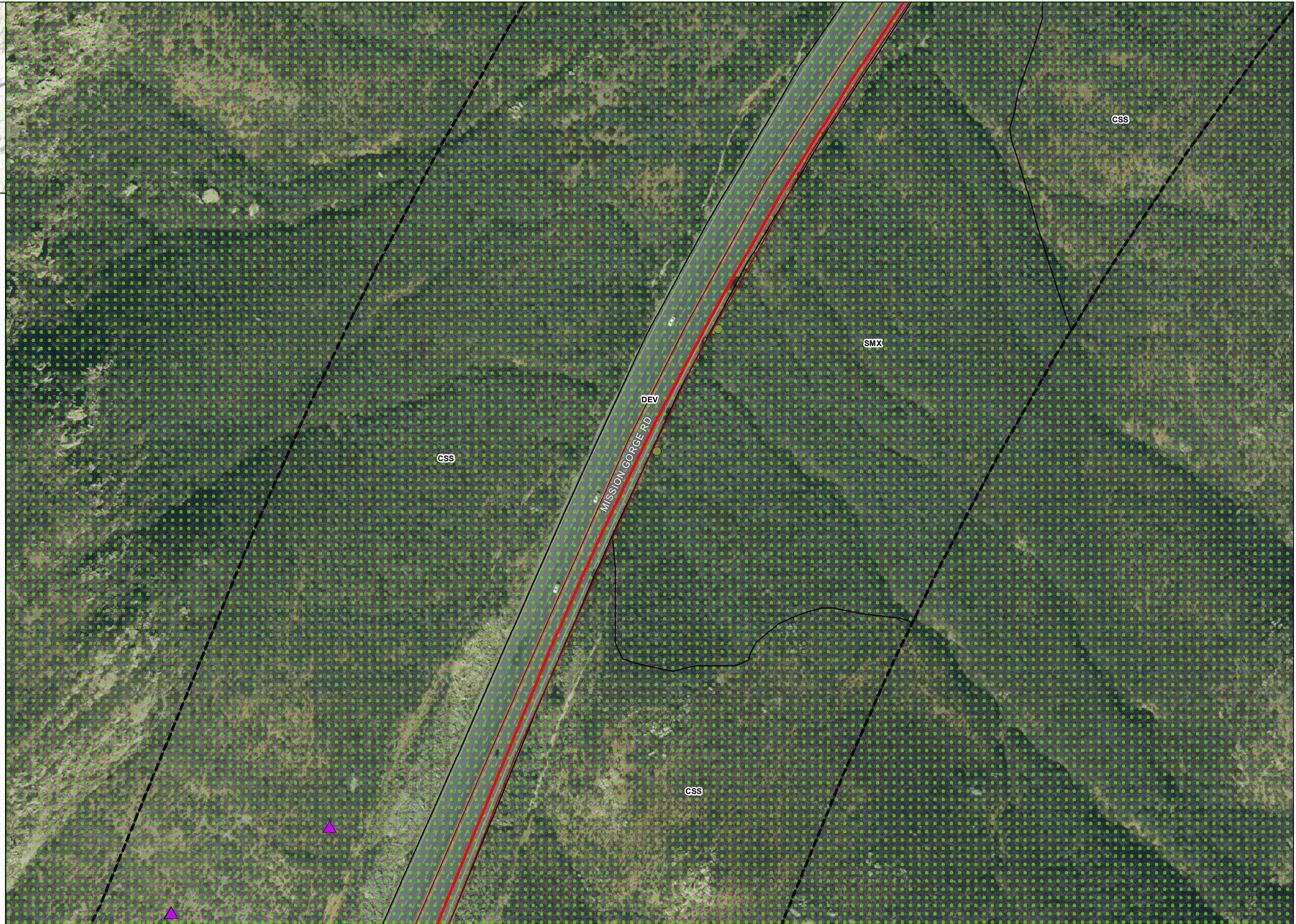
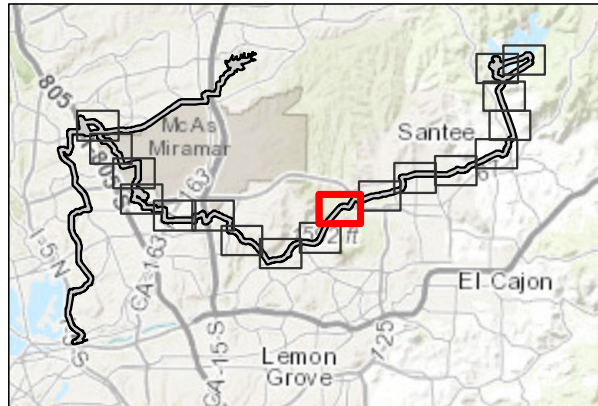


FIGURE 4-3-13

Biological Resources Impacts - San Vicente Reservoir Alternative

SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Trenchless Segments of Alignment
- Special Status Species**
- ▲ Cooper's hawk
- ▲ least Bell's vireo
- mule deer
- ▲ orangethroat whiptail
- ▲ southern California rufous-crowned sparrow
- ▲ yellow warbler
- ▲ yellow-breasted chat
- Sensitive Plants**
- *Juglans californica*
- *Lepidium virginicum* var. *robinsonii*
- *Viguiera laciniata*
- *Viguiera laciniata*
- Federally Designated Critical Habitat**
- Least Bell's Vireo
- San Diego Ambrosia
- Jurisdictional Aquatic Resources**
- Non-wetland Waters (ACOE/RWQCB/CDFW)
- Wetland or Riparian Area (ACOE/RWQCB/CDFW)
- Wetland or Riparian Area (CDFW Only)
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- EUC, Eucalyptus Woodland
- NNG, Non-native Grassland
- NNV, Non-native Vegetation
- NNW, Non-native Woodland
- NVC, Non-vegetated Channel or Floodway
- SMX, Southern Mixed Chaparral
- SWRF, Southern Arroyo Willow Riparian Forest
- Multi-Habitat Planning Area

0 500 1,000 Feet

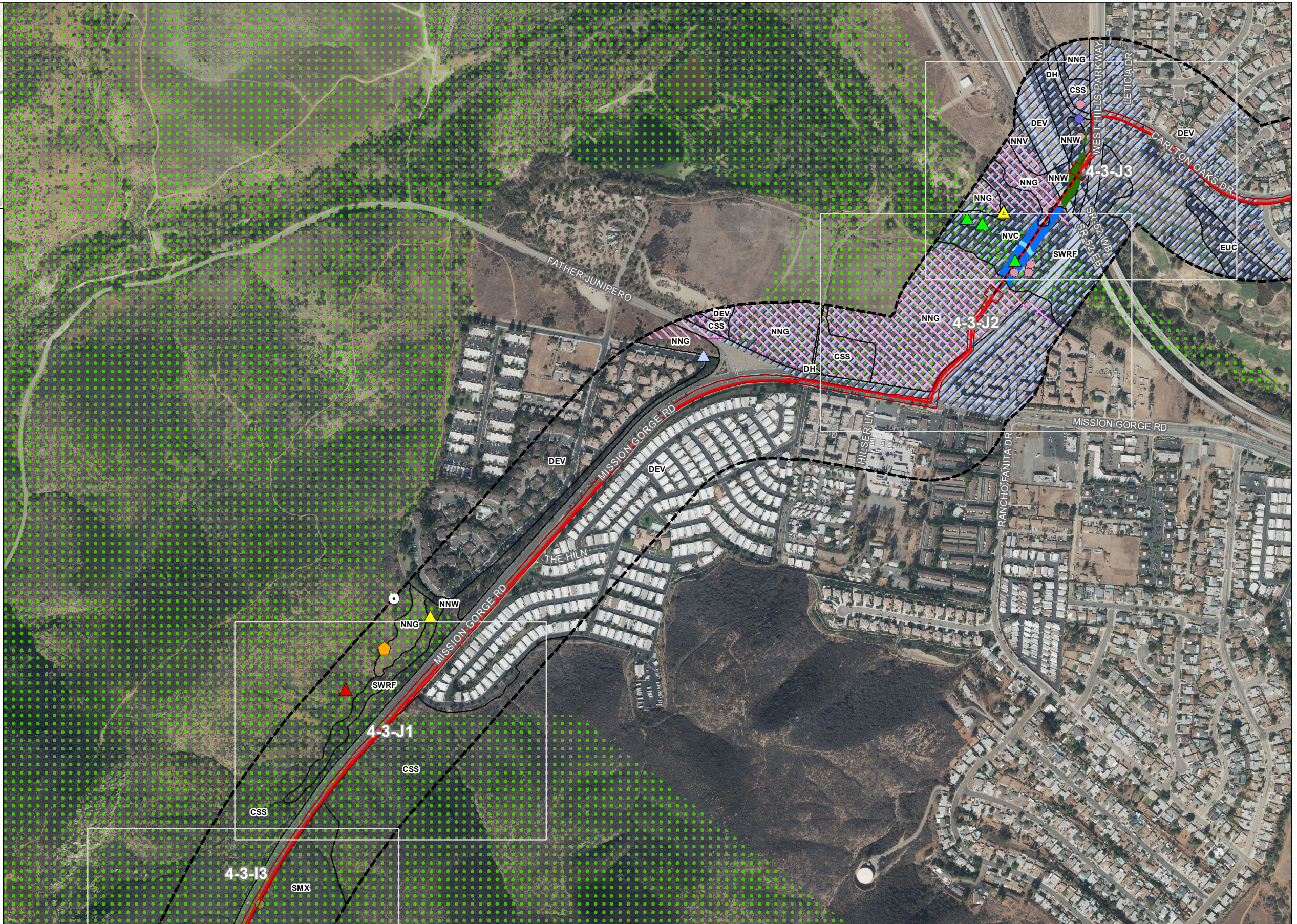
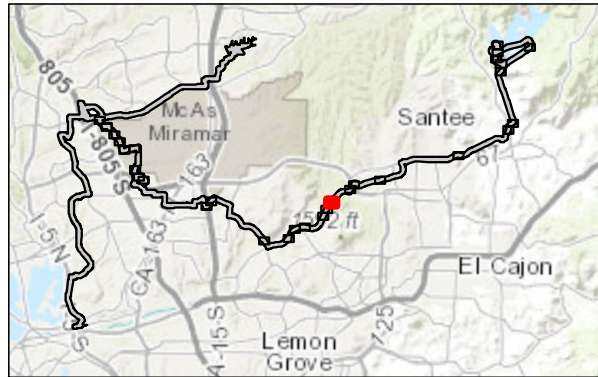


FIGURE 4-3J

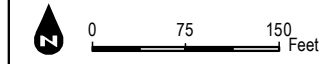
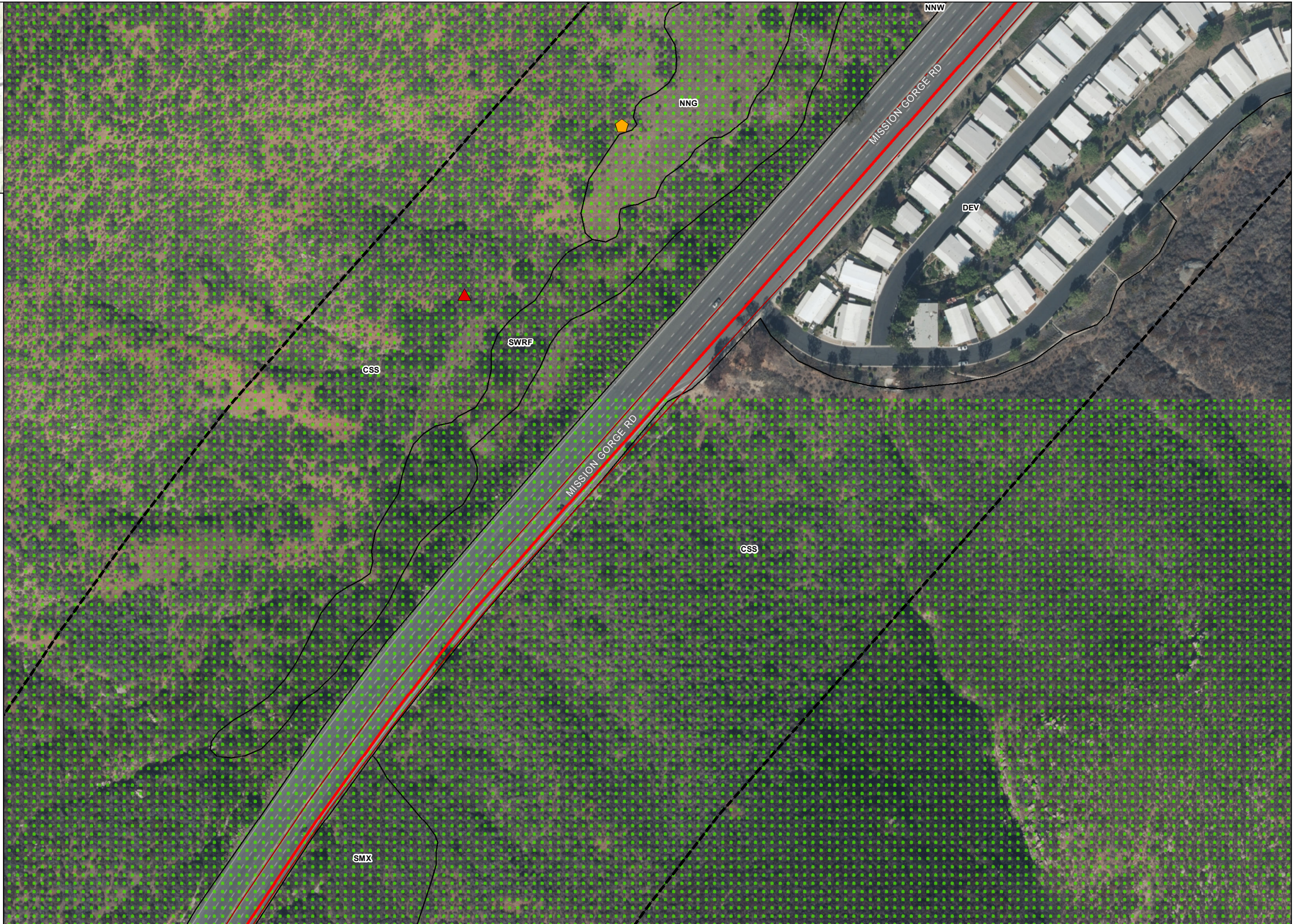
Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- ◆ orangethroat whiptail
- ▲ southern California rufous-crowned sparrow
- ▲ yellow warbler
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- NNG, Non-native Grassland
- NNW, Non-native Woodland
- SMX, Southern Mixed Chaparral
- SWRF, Southern Arroyo Willow Riparian Forest
- Multi-Habitat Planning Area



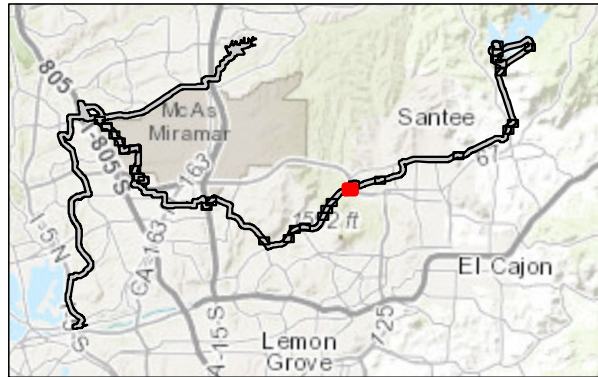
SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



Biological Resources Report for the North City Project

FIGURE 4-3-J1
Biological Resources Impacts - San Vicente Reservoir Alternative

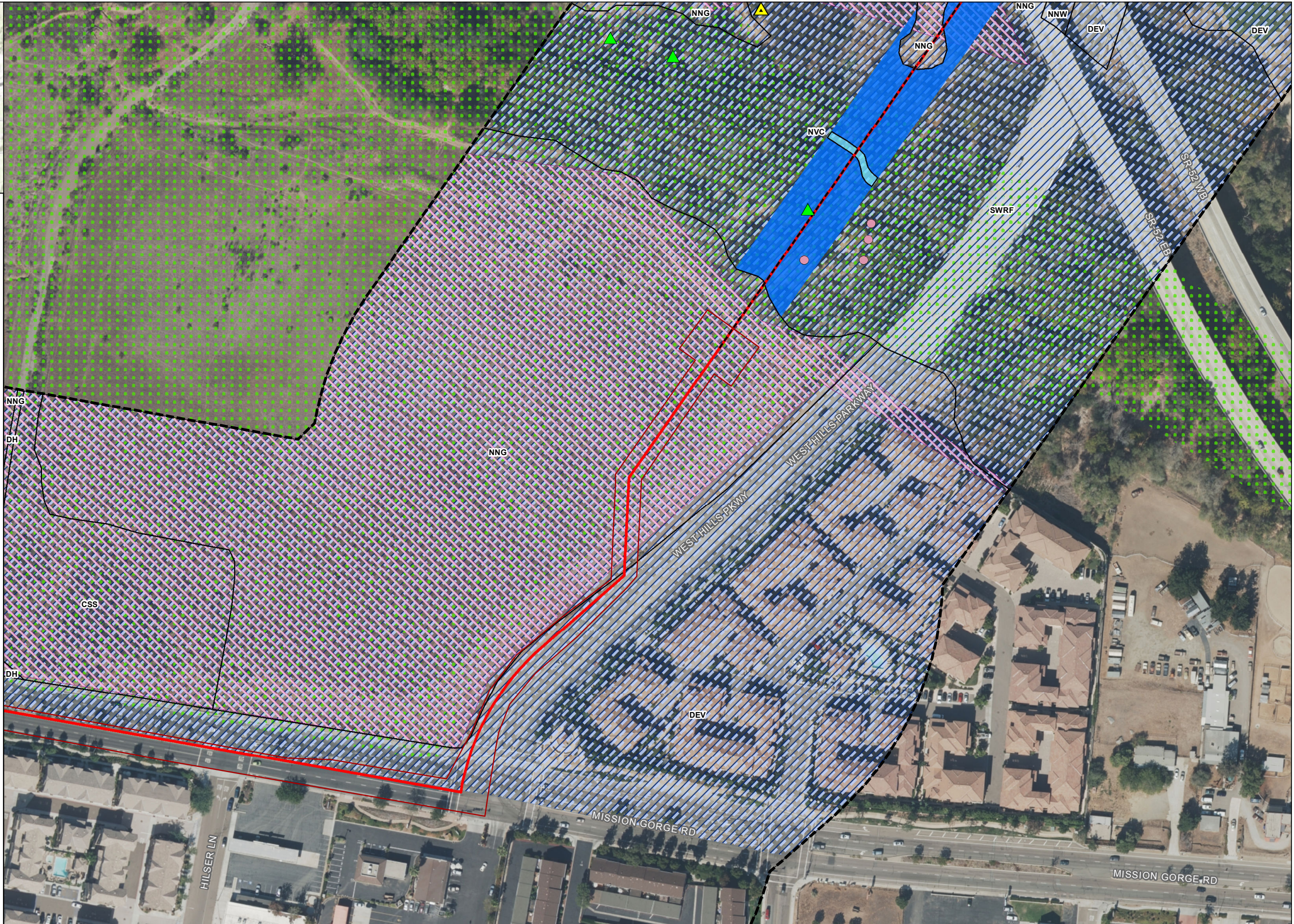
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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Trenchless Segments of Alignment
- Special Status Species**
- least Bell's vireo
- yellow-breasted chat
- Sensitive Plants**
- Juglans californica*
- Federally Designated Critical Habitat**
- Least Bell's Vireo
- San Diego Ambrosia
- Jurisdictional Aquatic Resources**
- Non-wetland Waters (ACOE/RWQCB/CDFW)
- Wetland or Riparian Area (ACOE/RWQCB/CDFW)
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- NNG, Non-native Grassland
- NNW, Non-native Woodland
- NVC, Non-vegetated Channel or Floodway
- SWRF, Southern Arroyo Willow Riparian Forest
- Multi-Habitat Planning Area

0 75 150 Feet

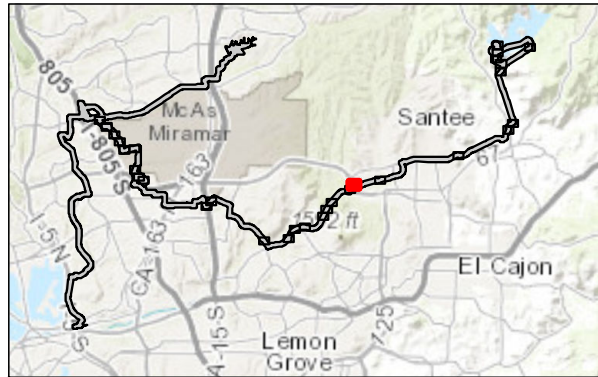


SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



FIGURE 4-3-J2
Biological Resources Impacts - San Vicente Reservoir Alternative

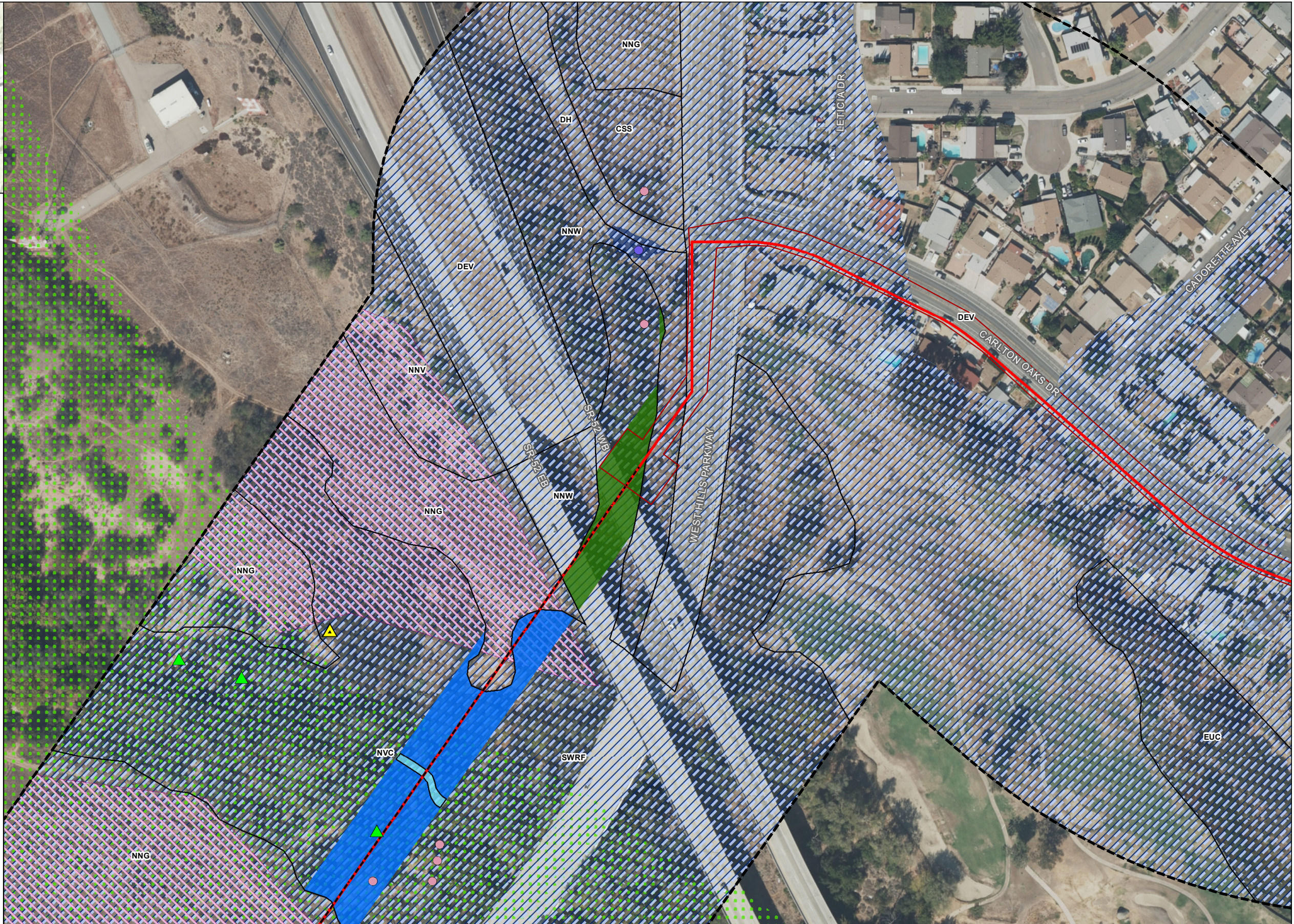
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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Trenchless Segments of Alignment
- Special Status Species**
- least Bell's vireo
- yellow-breasted chat
- Sensitive Plants**
- Juglans californica*
- Viguiera laciniata*
- Viguiera laciniata*
- Federally Designated Critical Habitat**
- Least Bell's Vireo
- San Diego Ambrosia
- Jurisdictional Aquatic Resources**
- Non-wetland Waters (ACOE/RWQCB/CDFW)
- Wetland or Riparian Area (ACOE/RWQCB/CDFW)
- Wetland or Riparian Area (CDFW Only)
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- EUC, Eucalyptus Woodland
- NNG, Non-native Grassland
- NNV, Non-native Vegetation
- NNW, Non-native Woodland
- NVC, Non-vegetated Channel or Floodway
- SWRF, Southern Arroyo Willow Riparian Forest
- Multi-Habitat Planning Area

0 75 150 Feet

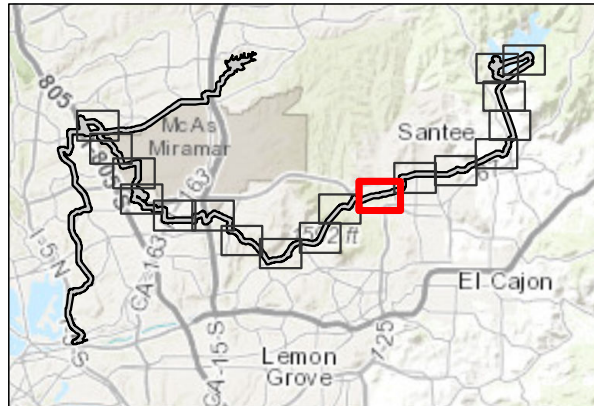


SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

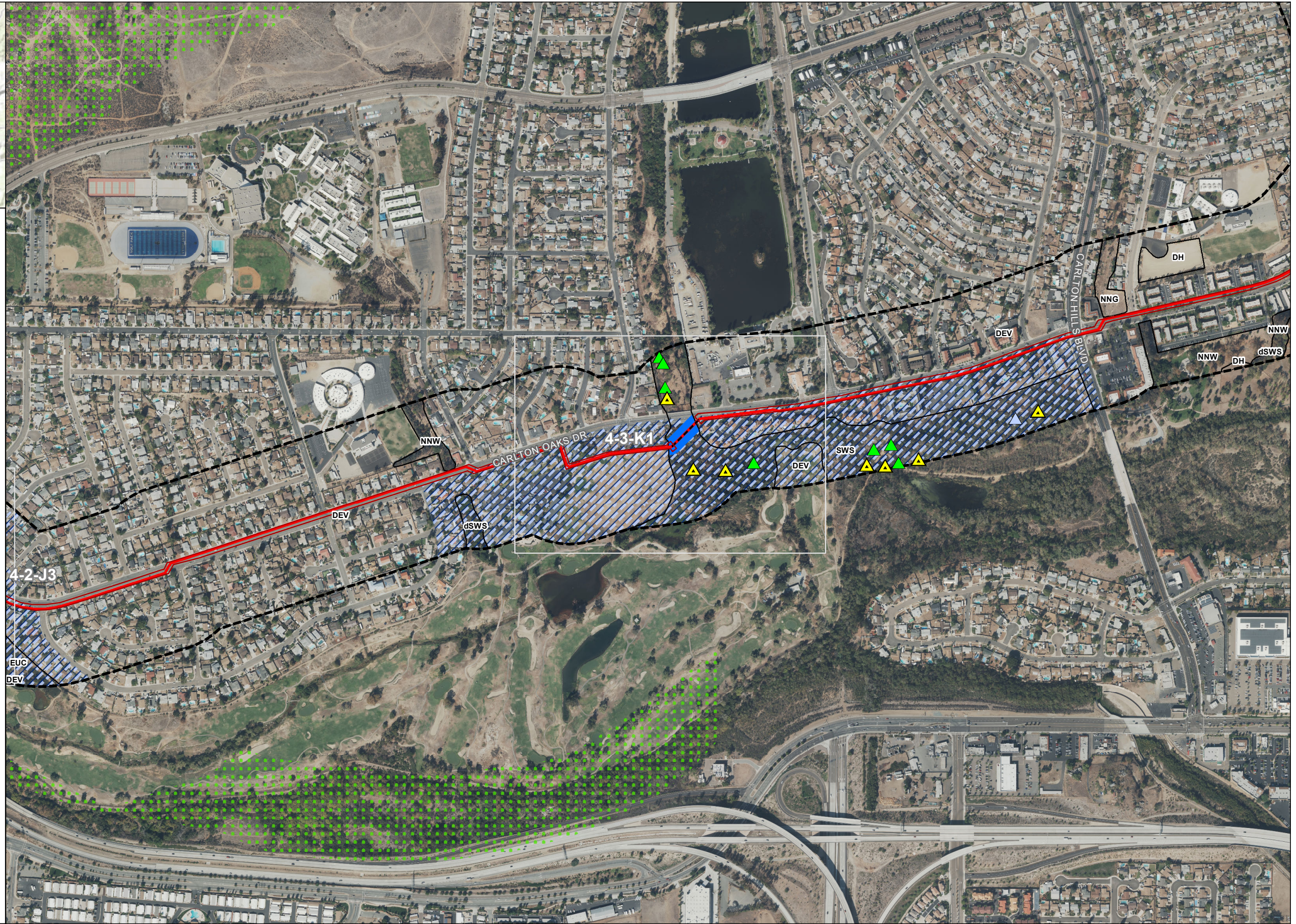


FIGURE 4-3-J3
Biological Resources Impacts - San Vicente Reservoir Alternative

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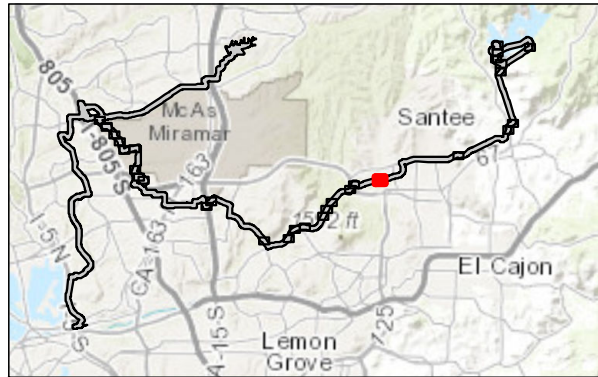


- LEGEND**
- Project Study Area
 - Direct Impact Area
 - Project Pipeline Alternatives**
 - San Vicente Pure Water Pipeline
 - Trenchless Segments of Alignment
 - Special Status Species**
 - Cooper's hawk
 - least Bell's vireo
 - yellow-breasted chat
 - Federally Designated Critical Habitat**
 - Least Bell's Vireo
 - Jurisdictional Aquatic Resources**
 - Wetland or Riparian Area (ACOE/RWQCB/CDFW)
 - Vegetation Communities/Land Covers**
 - DEV, Urban/Developed
 - DH, Disturbed Habitat
 - EUC, Eucalyptus Woodland
 - NNG, Non-native Grassland
 - NNW, Non-native Woodland
 - SWS, Southern Willow Scrub
 - dSWS, disturbed Southern Willow Scrub
 - Multi-Habitat Planning Area



SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

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- LEGEND**
- Project Study Area
 - Direct Impact Area
 - Project Pipeline Alternatives**
 - San Vicente Pure Water Pipeline
 - Trenchless Segments of Alignment
 - Special Status Species**
 - least Bell's vireo
 - yellow-breasted chat
 - Federally Designated Critical Habitat**
 - Least Bell's Vireo
 - Jurisdictional Aquatic Resources**
 - Wetland or Riparian Area (ACOE/RWQCB/CDFW)
 - Vegetation Communities/Land Covers**
 - DEV, Urban/Developed
 - SWS, Southern Willow Scrub

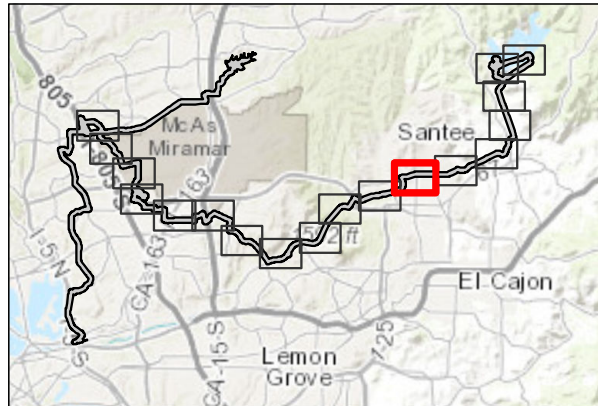


SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



FIGURE 4-3-K1
Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

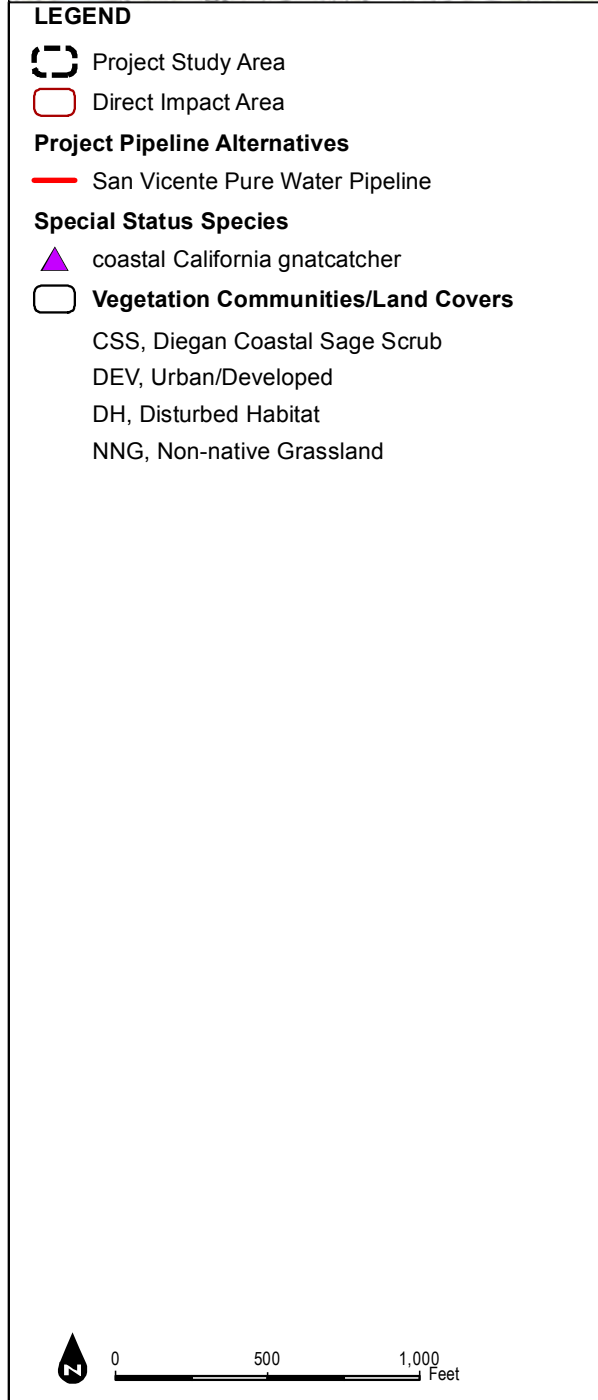
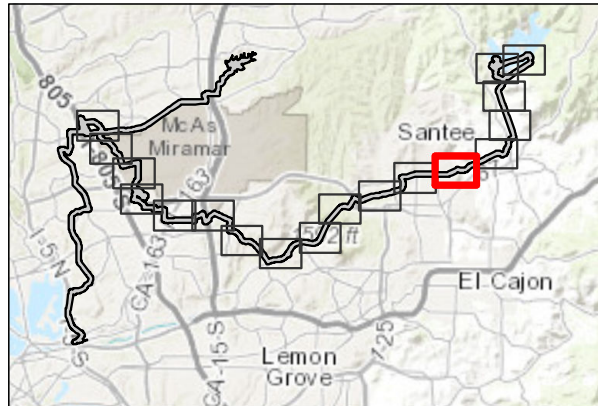
- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- least Bell's vireo
- yellow warbler
- Federally Designated Critical Habitat**
- Coastal California Gnatcatcher
- Jurisdictional Aquatic Resources**
- Non-wetland Waters (ACOE/RWQCB/CDFW)
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- EUC, Eucalyptus Woodland
- NNG, Non-native Grassland
- NNW, Non-native Woodland
- NVC, Non-vegetated Channel or Floodway
- SWS, Southern Willow Scrub
- dSWS, disturbed Southern Willow Scrub

0 500 1,000 Feet



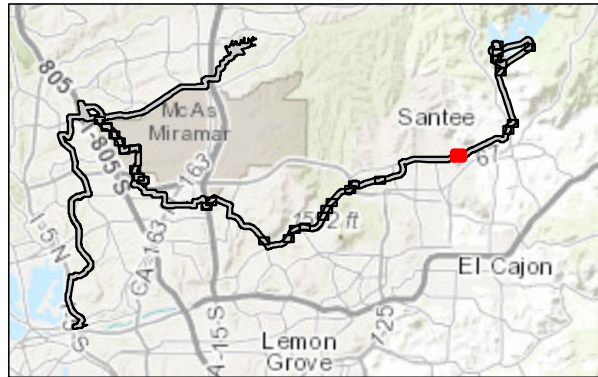
SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

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SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

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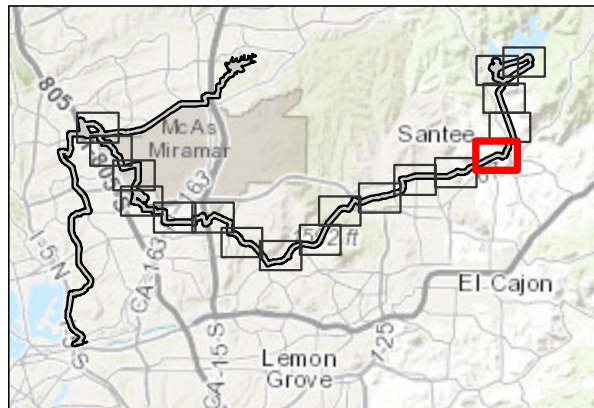
LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- coastal California gnatcatcher
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- NNG, Non-native Grassland

0 75 150 Feet



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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- Cooper's hawk
- Western bluebird
- brown-headed cowbird
- coastal California gnatcatcher
- least Bell's vireo
- yellow warbler
- yellow-breasted chat
- Sensitive Plants**
- Viguiera laciniata*
- Viguiera laciniata*
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- NNG, Non-native Grassland
- NVC, Non-vegetated Channel or Floodway
- OW, Open Water
- SCWRF, Southern Cottonwood-Willow Riparian Forest
- SWRF, Southern Arroyo Willow Riparian Forest
- SWS, Southern Willow Scrub



4-3-01

4-3-N1

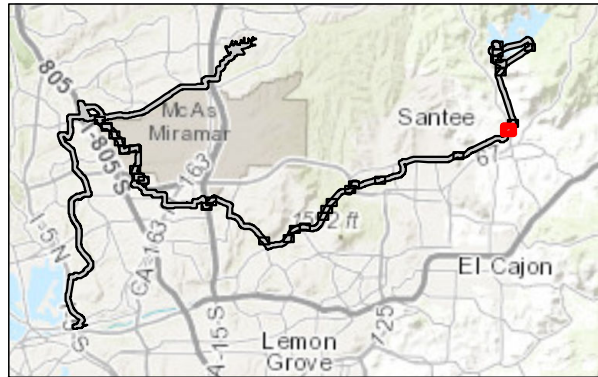
FIGURE 4-3N

Biological Resources Impacts - San Vicente Reservoir Alternative

SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- Special Status Species**
- Western bluebird
- brown-headed cowbird
- least Bell's vireo
- yellow warbler
- Sensitive Plants**
- Viguiera laciniata*
- Viguiera laciniata*
- Vegetation Communities/Land Covers**
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- NNG, Non-native Grassland
- OW, Open Water
- SCWRF, Southern Cottonwood-Willow Riparian Forest
- SWRF, Southern Arroyo Willow Riparian Forest
- SWS, Southern Willow Scrub

0 75 150 Feet



SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



Biological Resources Report for the North City Project

FIGURE 4-3-N1
Biological Resources Impacts - San Vicente Reservoir Alternative

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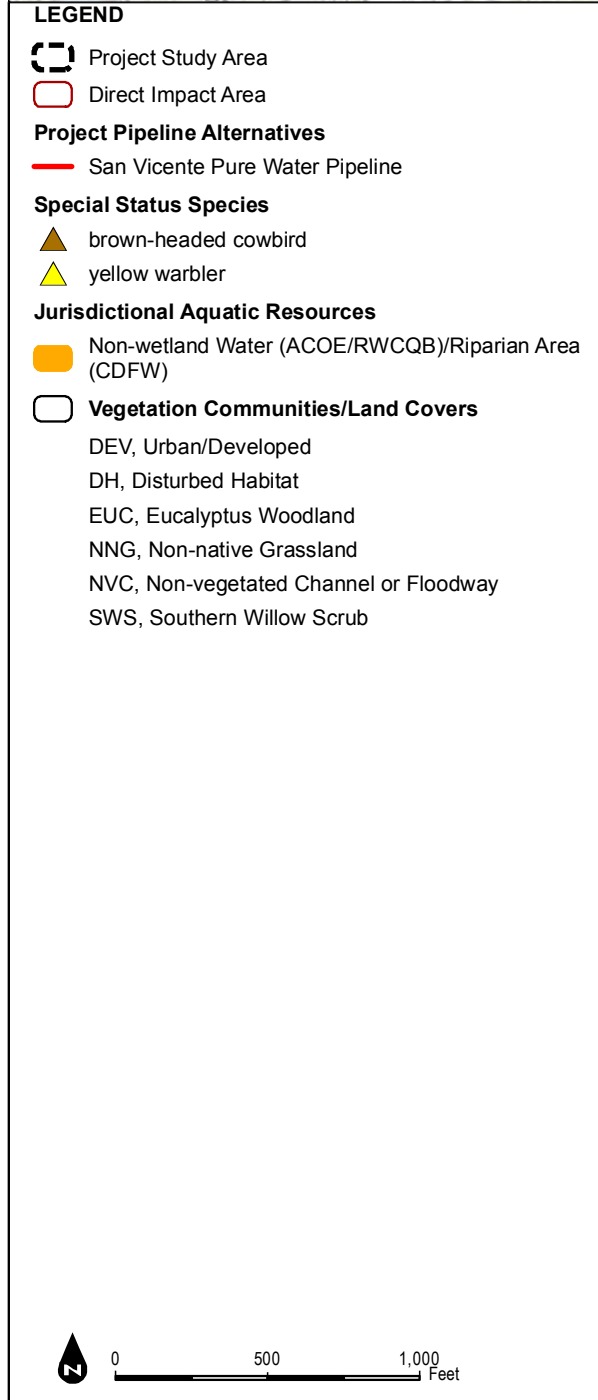
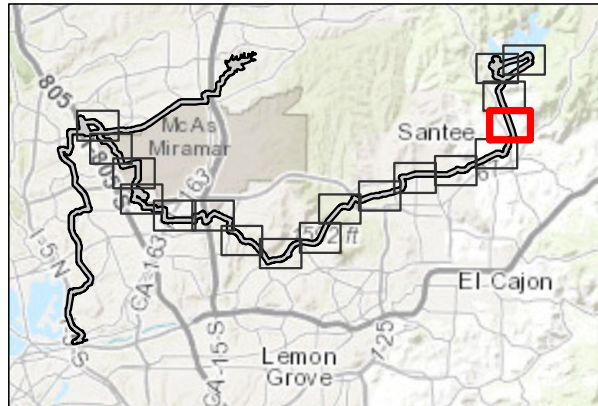
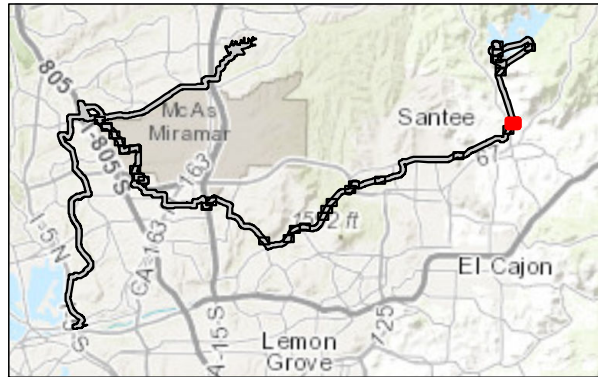


FIGURE 4-30

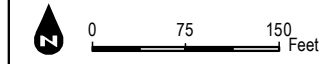
Biological Resources Impacts - San Vicente Reservoir Alternative

SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

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- LEGEND**
- Project Study Area
 - Direct Impact Area
 - Project Pipeline Alternatives**
 - San Vicente Pure Water Pipeline
 - Special Status Species**
 - ▲ brown-headed cowbird
 - ▲ yellow warbler
 - Jurisdictional Aquatic Resources**
 - Non-wetland Water (ACOE/RWCQB)/Riparian Area (CDFW)
 - Vegetation Communities/Land Covers**
 - DEV, Urban/Developed
 - DH, Disturbed Habitat
 - EUC, Eucalyptus Woodland
 - NVC, Non-vegetated Channel or Floodway
 - SWS, Southern Willow Scrub



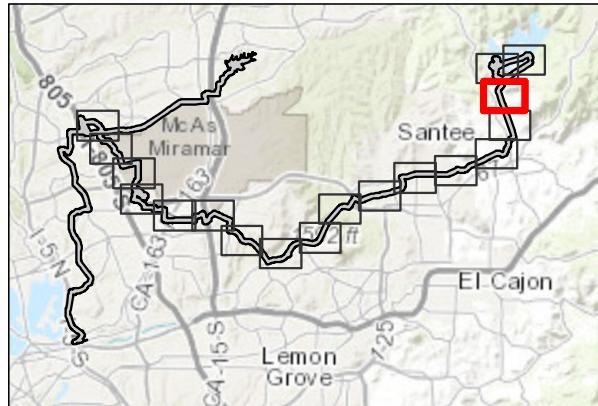
SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



Biological Resources Report for the North City Project

FIGURE 4-3-01
Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- San Vicente Pure Water Pipeline - In-Reservoir Alternative Terminus
- San Vicente Pure Water Pipeline - Marina Alternative Terminus
- Special Status Species**
- southern California rufous-crowned sparrow
- yellow warbler
- Sensitive Plants**
- Viguiera laciniata*
- Pseudognaphalium leucocephalum*
- Jurisdictional Aquatic Resources**
- Non-wetland Water (ACOE/RWCQB)/Riparian Area (CDFW)
- Vegetation Communities/Land Covers**
- AGR, General Agriculture
- ARU, Arundo-Dominated Riparian
- CLOW, Coast Live Oak Woodland
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- MFS, Mulefat Scrub
- NNG, Non-native Grassland
- dMFS, disturbed Mulefat Scrub
- Multi-Habitat Planning Area

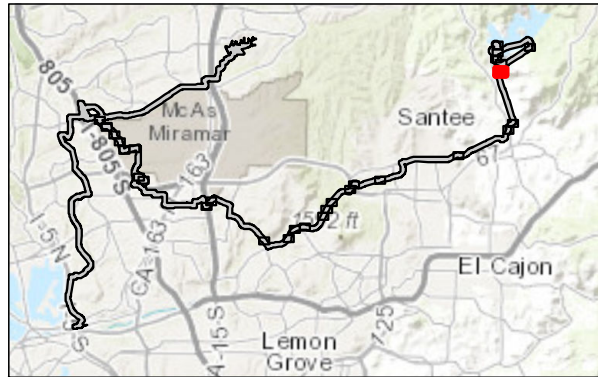
0 500 1,000 Feet



FIGURE 4-3P

Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline
- San Vicente Pure Water Pipeline - In-Reservoir Alternative Terminus
- San Vicente Pure Water Pipeline - Marina Alternative Terminus
- Special Status Species**
- southern California rufous-crowned sparrow
- Sensitive Plants**
- Viguiera laciniata*
- Vegetation Communities/Land Covers**
- CLOW, Coast Live Oak Woodland
- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- DH, Disturbed Habitat
- Multi-Habitat Planning Area

0 75 150 Feet

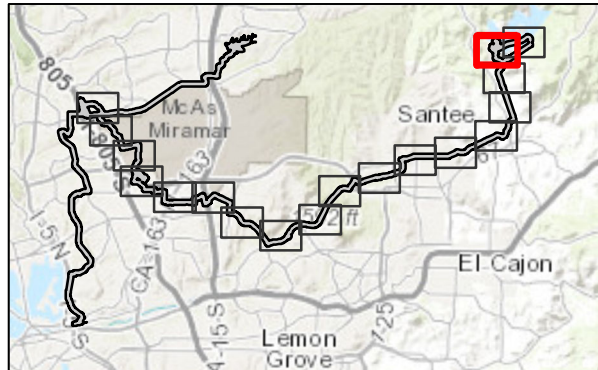


SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



FIGURE 4-3-P1
Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
 - San Vicente Pure Water Pipeline
 - San Vicente Pure Water Pipeline - In-Reservoir Alternative Terminus
 - San Vicente Pure Water Pipeline - Tunnel Alternative Terminus
 - San Vicente Pure Water Pipeline - Marina Alternative Terminus
- Trenchless Segments of Alignment
- Special Status Species**
 - coastal California gnatcatcher
 - southern California rufous-crowned sparrow
- Sensitive Plants**
 - Clarkia delicata*
 - Lepidium virginicum* var. *robinsonii*
 - Pseudognaphalium leucocephalum*
 - Viguiera laciniata*
 - Lepidium virginicum* var. *robinsonii*
 - Pseudognaphalium leucocephalum*
 - Selaginella cinerascens*
 - Viguiera laciniata*
- Jurisdictional Aquatic Resources**
 - Non-wetland Waters (ACOE/RWQCB/CDFW)
- Vegetation Communities/Land Covers**
 - CLOW, Coast Live Oak Woodland
 - CSS, Diegan Coastal Sage Scrub
 - CSS-r, Diegan Coastal Sage Scrub-Restored
 - DEV, Urban/Developed
 - DH, Disturbed Habitat
 - NNG, Non-native Grassland
 - NVC, Non-vegetated Channel or Floodway
 - OW, Open Water
 - SMX, Southern Mixed Chaparral
- Multi-Habitat Planning Area

* The City of San Diego MSCP Subarea Plan (1997) excluded areas (including the existing Reservoir, dam, and within 300 feet horizontally from the ultimate high water level) around Vicente Reservoir from the MHPA in order to provide for current and future requirements of the City of San Diego Water Department.

0 500 1,000 Feet

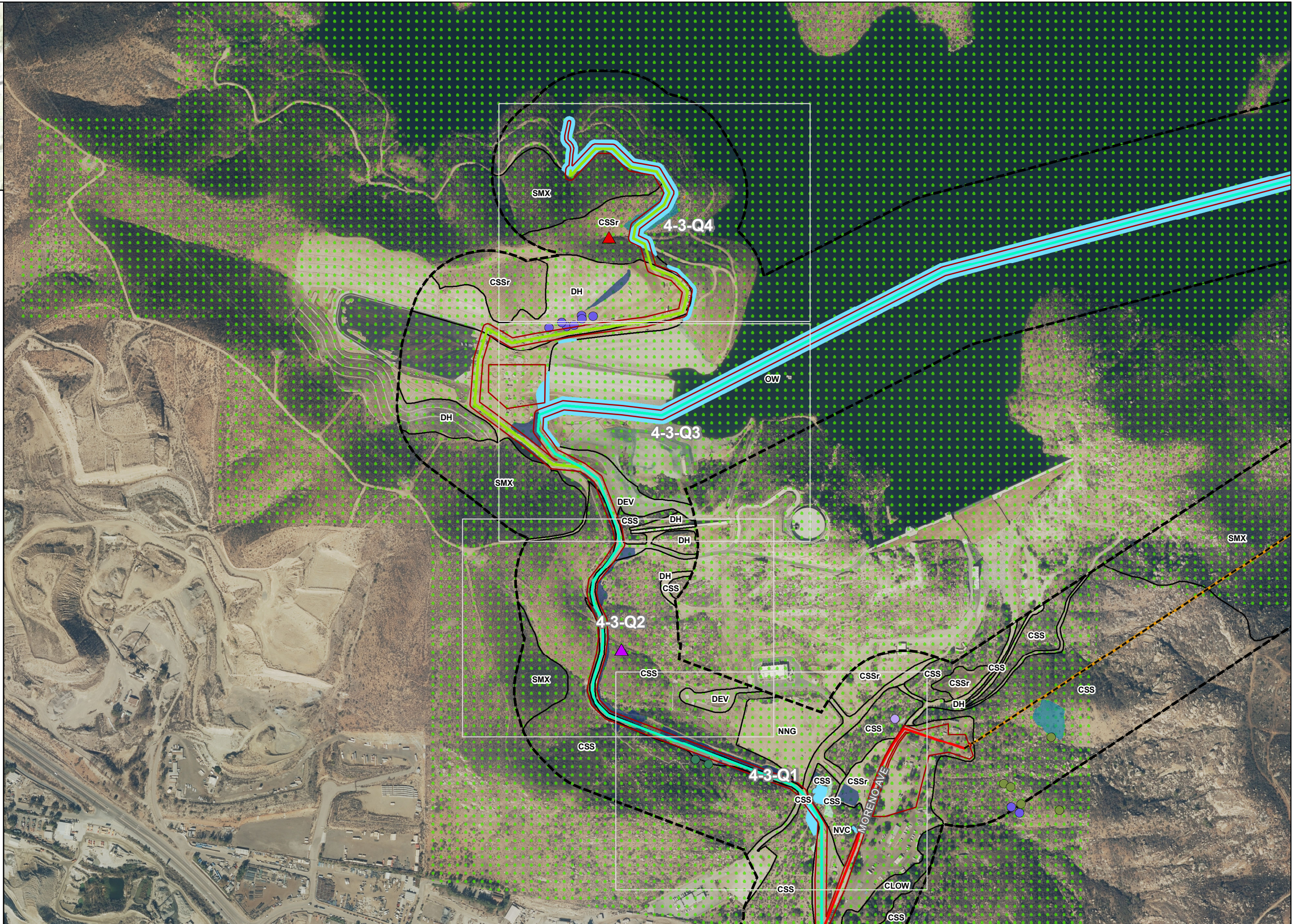
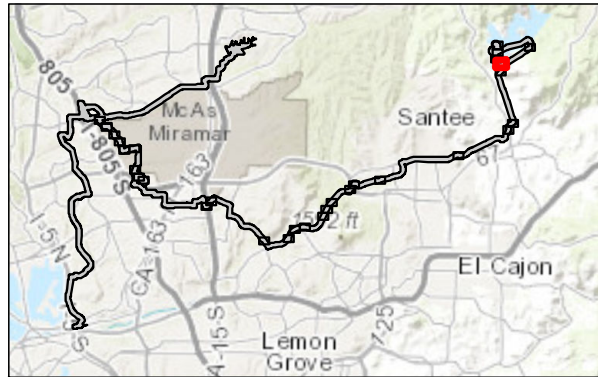


FIGURE 4-3Q

Biological Resources Impacts - San Vicente Reservoir Alternative

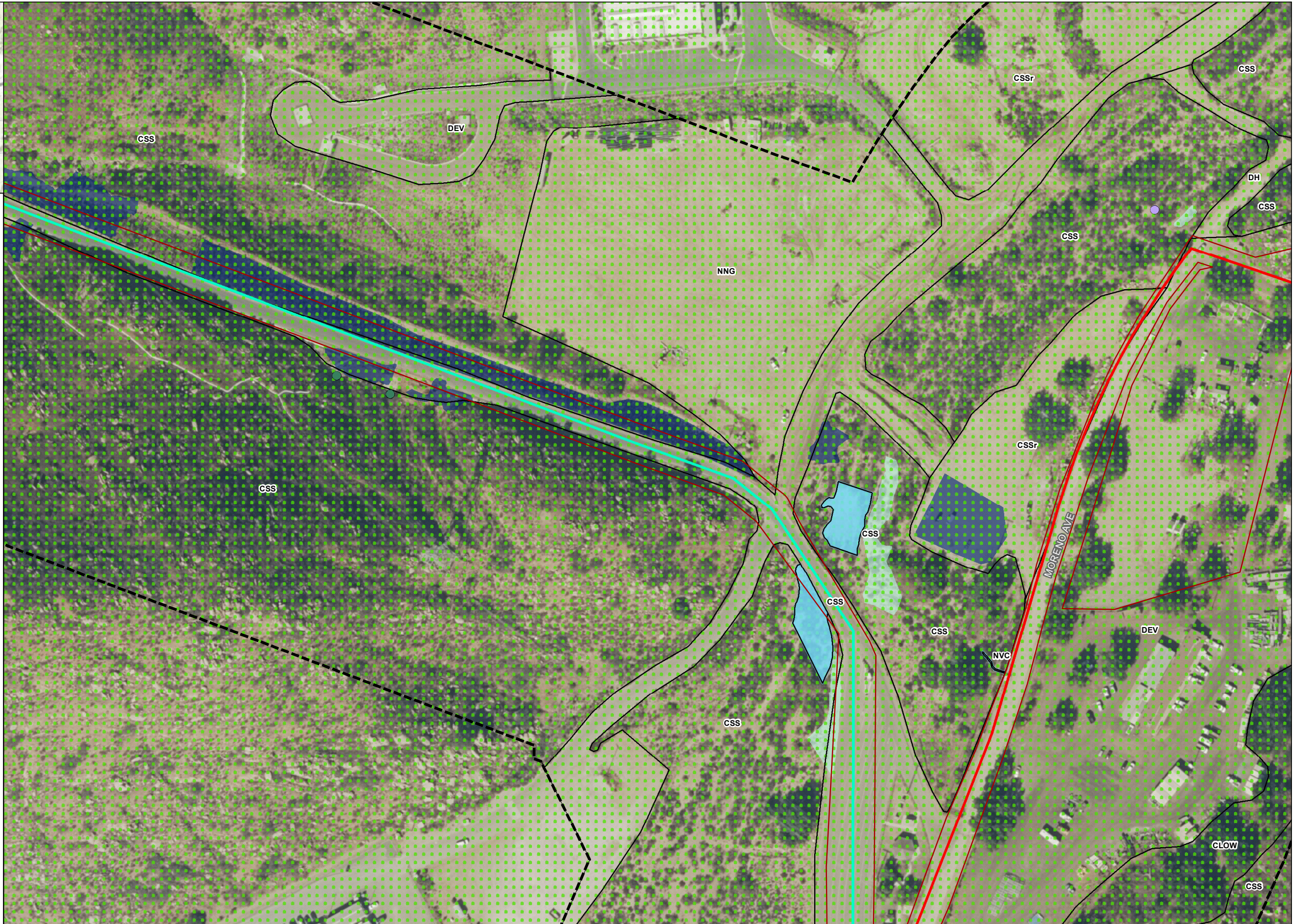
SOURCE: City of San Diego 2016, 2017; SANDAG, 2016

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
 - San Vicente Pure Water Pipeline
 - San Vicente Pure Water Pipeline - In-Reservoir Alternative Terminus
 - San Vicente Pure Water Pipeline - Marina Alternative Terminus
- Sensitive Plants**
 - Clarkia delicata*
 - Pseudognaphalium leucocephalum*
 - Pseudognaphalium leucocephalum*
 - Viguiera laciniata*
- Jurisdictional Aquatic Resources**
 - Non-wetland Waters (ACOE/RWQCB/CDFW)
- Vegetation Communities/Land Covers**
 - CLOW, Coast Live Oak Woodland
 - CSS, Diegan Coastal Sage Scrub
 - CSS-r, Diegan Coastal Sage Scrub-Restored
 - DEV, Urban/Developed
 - DH, Disturbed Habitat
 - NNG, Non-native Grassland
 - NVC, Non-vegetated Channel or Floodway
 - Multi-Habitat Planning Area

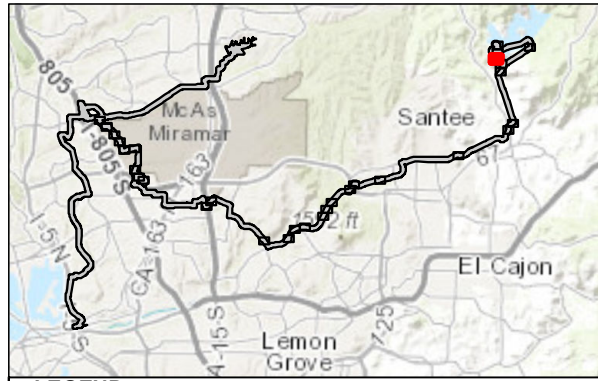


SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



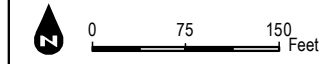
FIGURE 4-3-Q1
Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
 - San Vicente Pure Water Pipeline - In-Reservoir Alternative Terminus
 - San Vicente Pure Water Pipeline - Marina Alternative Terminus
- Special Status Species**
 - coastal California gnatcatcher
 - Viguiera laciniata*
- Vegetation Communities/Land Covers**
 - CSS, Diegan Coastal Sage Scrub
 - DEV, Urban/Developed
 - DH, Disturbed Habitat
 - NNG, Non-native Grassland
 - SMX, Southern Mixed Chaparral
- Multi-Habitat Planning Area



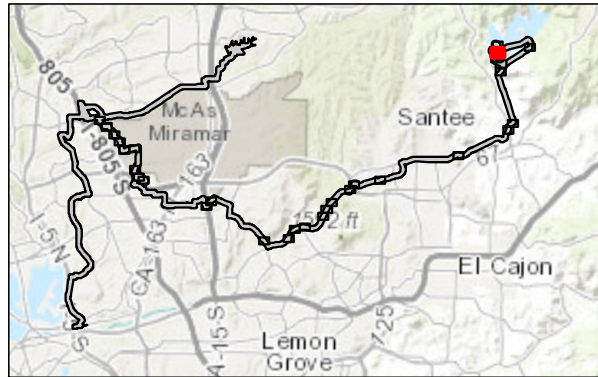
SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



Biological Resources Report for the North City Project

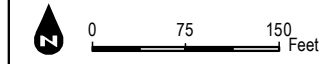
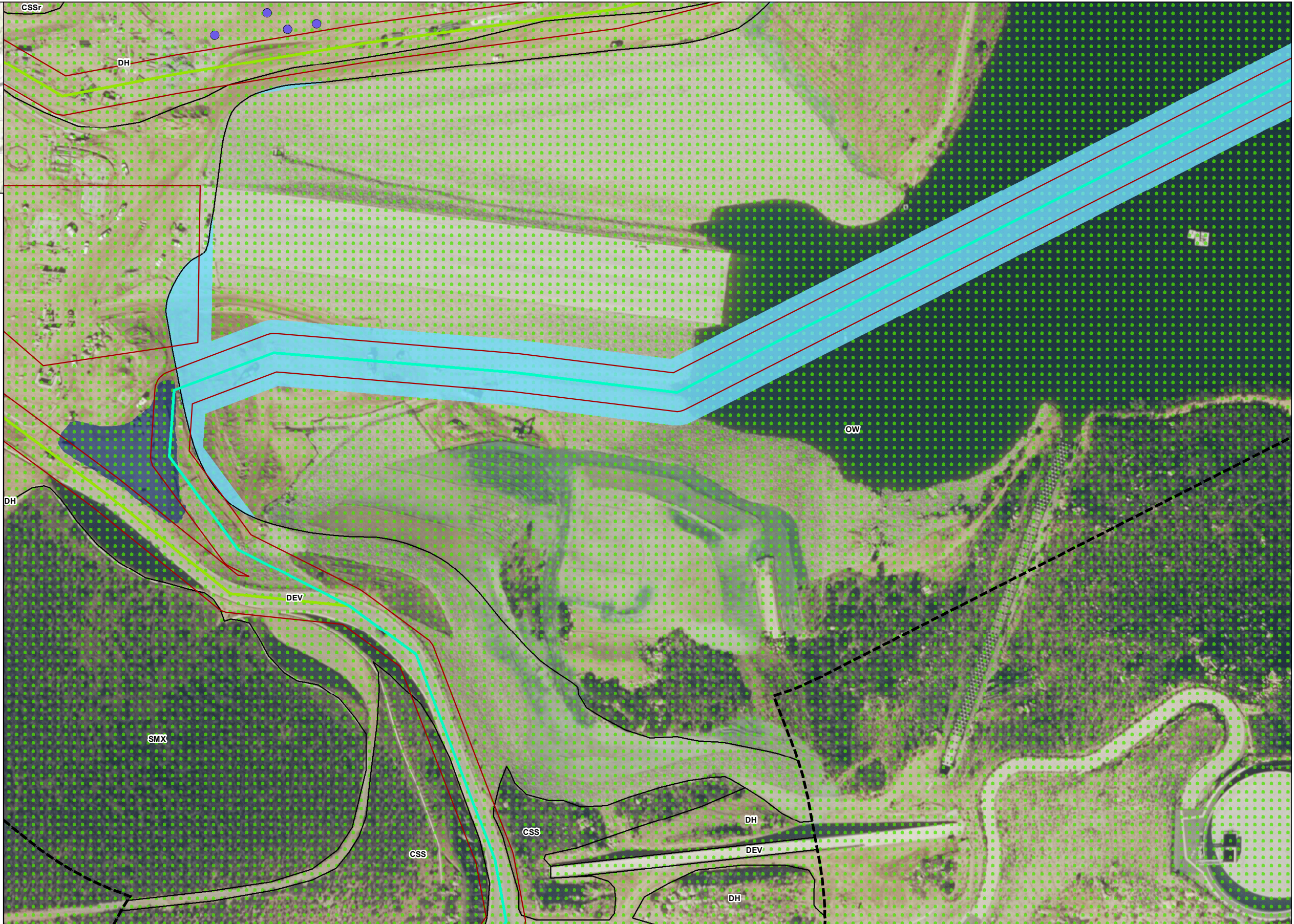
FIGURE 4-3-Q2
Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
 - San Vicente Pure Water Pipeline - In-Reservoir Alternative Terminus
 - San Vicente Pure Water Pipeline - Marina Alternative Terminus
- Sensitive Plants**
 - Viguiera laciniata*
 - Viguiera laciniata*
- Jurisdictional Aquatic Resources**
 - Non-wetland Waters (ACOE/RWQCB/CDFW)
- Vegetation Communities/Land Covers**
 - CSS, Diegan Coastal Sage Scrub
 - CSS-r, Diegan Coastal Sage Scrub-Restored
 - DEV, Urban/Developed
 - DH, Disturbed Habitat
 - OW, Open Water
 - SMX, Southern Mixed Chaparral
 - Multi-Habitat Planning Area



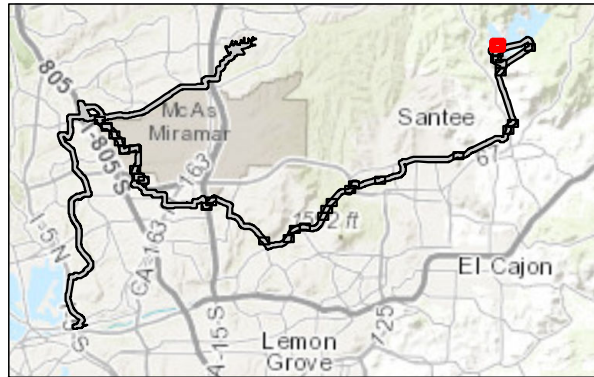
SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



Biological Resources Report for the North City Project

FIGURE 4-3-Q3
Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline - Marina Alternative Terminus
- Special Status Species**
- southern California rufous-crowned sparrow
- Sensitive Plants**
- Viguiera laciniata*
- Lepidium virginicum* var. *robinsonii*
- Selaginella cinerascens*
- Viguiera laciniata*
- Jurisdictional Aquatic Resources**
- Non-wetland Waters (ACOE/RWQCB/CDFW)
- Vegetation Communities/Land Covers**
- CSS-r, Diegan Coastal Sage Scrub-Restored
- DEV, Urban/Developed
- DH, Disturbed Habitat
- OW, Open Water
- SMX, Southern Mixed Chaparral
- Multi-Habitat Planning Area

0 75 150 Feet

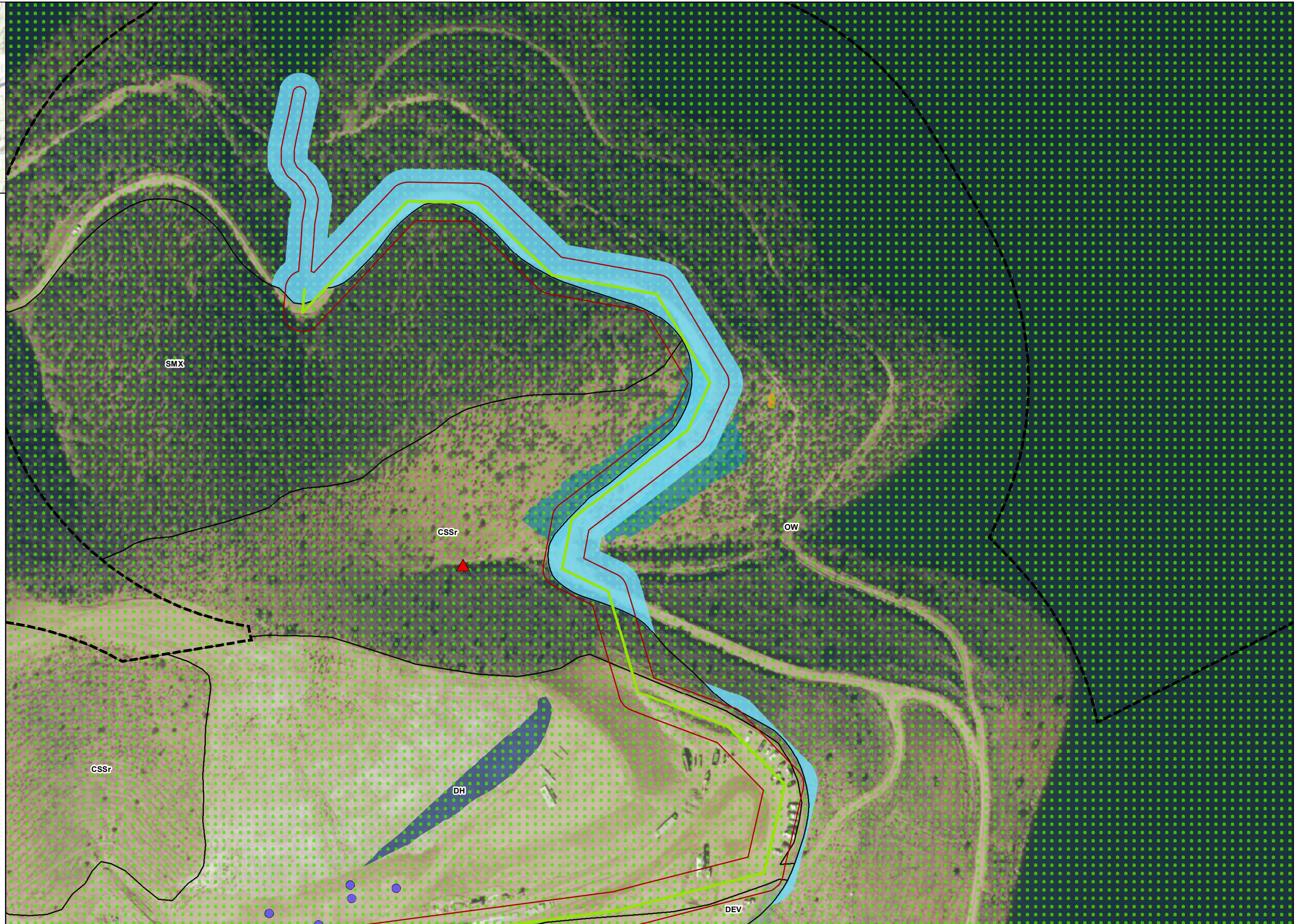
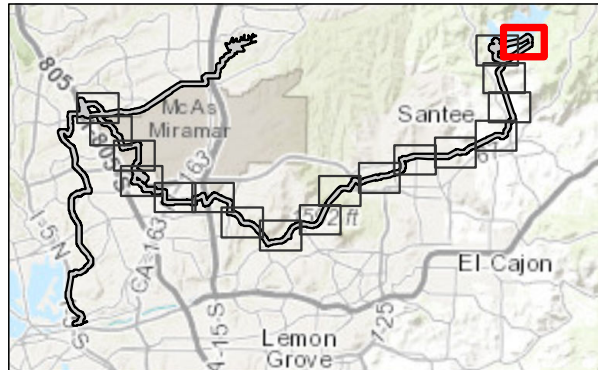


FIGURE 4-3-Q4

Biological Resources Impacts - San Vicente Reservoir Alternative

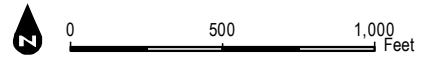
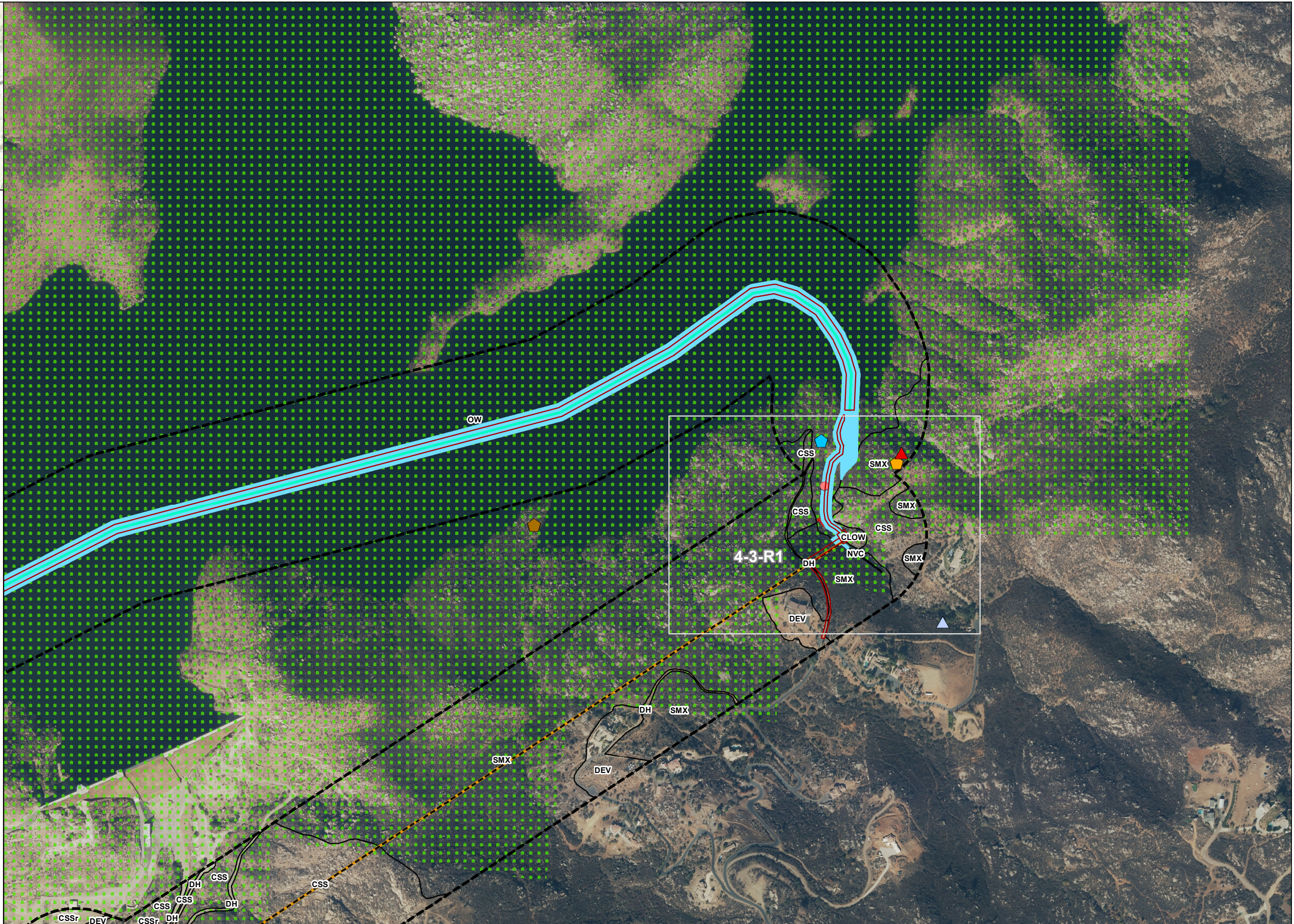
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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
- San Vicente Pure Water Pipeline - In-Reservoir Alternative Terminus
- San Vicente Pure Water Pipeline - Tunnel Alternative Terminus
- Trenchless Segments of Alignment
- Special Status Species**
- Blainville's horned lizard
- Cooper's hawk
- San Diegan tiger whiptail
- orangethroat whiptail
- southern California rufous-crowned sparrow
- Sensitive Plants**
- Artemisia palmeri*
- Artemisia palmeri*
- Selaginella cinerascens*
- Jurisdictional Aquatic Resources**
- Non-wetland Waters (ACOE/RWQCB/CDFW)
- Vegetation Communities/Land Covers**
- CLOW, Coast Live Oak Woodland
- CSS, Diegan Coastal Sage Scrub
- CSS-r, Diegan Coastal Sage Scrub-Restored
- DEV, Urban/Developed
- DH, Disturbed Habitat
- NVC, Non-vegetated Channel or Floodway
- OW, Open Water
- SMX, Southern Mixed Chaparral
- Multi-Habitat Planning Area

* The City of San Diego MSCP Subarea Plan (1997) excluded areas (including the existing Reservoir, dam, and within 300 feet horizontally from the ultimate high water level) around Vicente Reservoir from the MHPA in order to provide for current and future requirements of the City of San Diego Water Department.

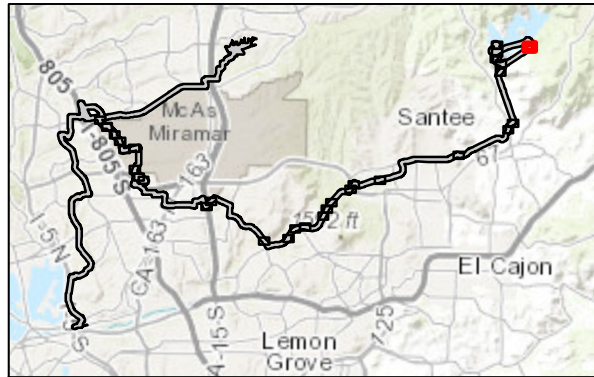


SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



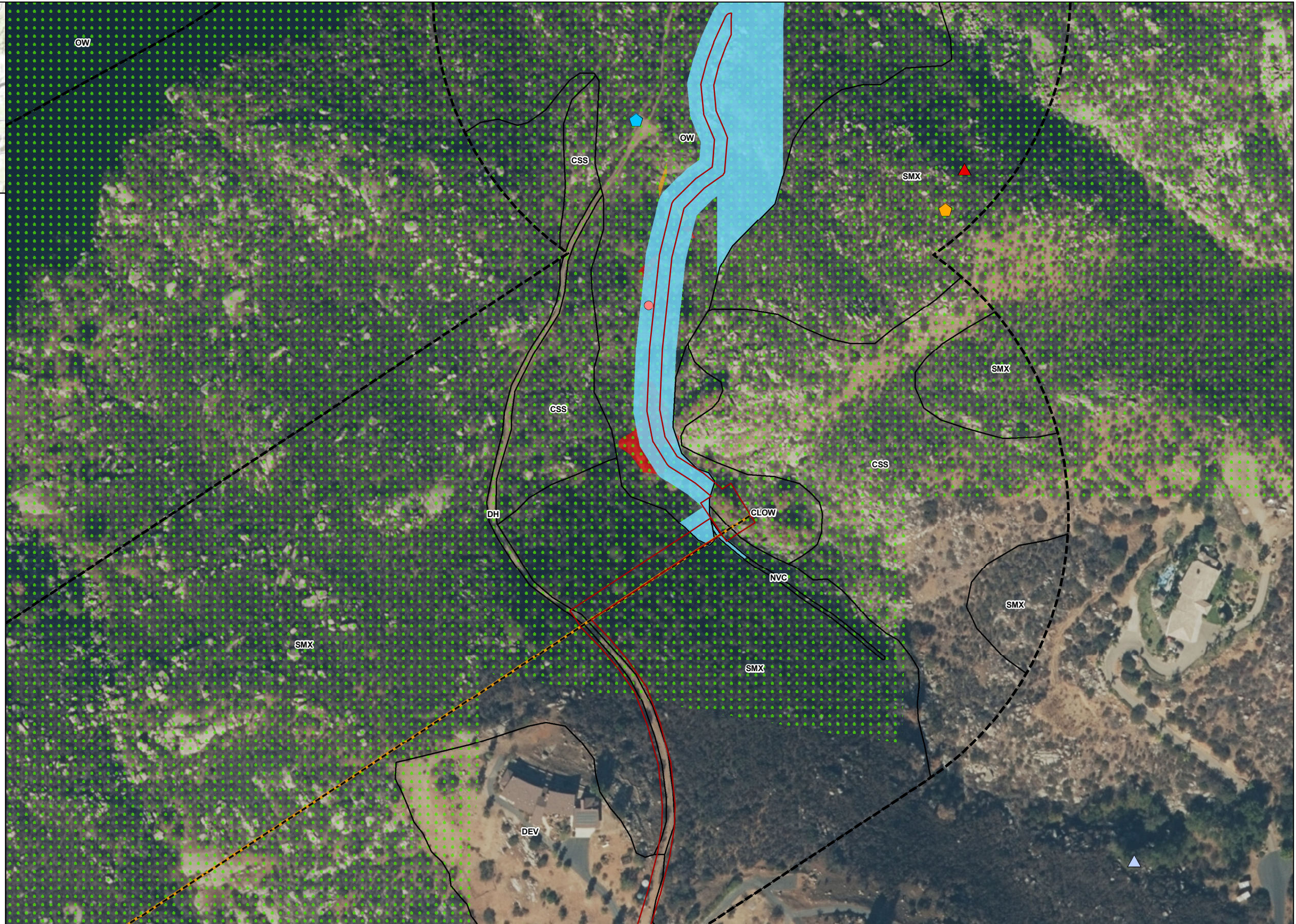
FIGURE 4-3R
Biological Resources Impacts - San Vicente Reservoir Alternative

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LEGEND

- Project Study Area
- Direct Impact Area
- Project Pipeline Alternatives**
 - San Vicente Pure Water Pipeline - Tunnel Alternative Terminus
 - Trenchless Segments of Alignment
- Special Status Species**
 - Cooper's hawk
 - San Diegan tiger whiptail
 - orangethroat whiptail
 - southern California rufous-crowned sparrow
- Sensitive Plants**
 - Artemisia palmeri*
 - Artemisia palmeri*
 - Selaginella cinerascens*
- Jurisdictional Aquatic Resources**
 - Non-wetland Waters (ACOE/RWQCB/CDFW)
- Vegetation Communities/Land Covers**
 - CLOW, Coast Live Oak Woodland
 - CSS, Diegan Coastal Sage Scrub
 - DEV, Urban/Developed
 - DH, Disturbed Habitat
 - NVC, Non-vegetated Channel or Floodway
 - OW, Open Water
 - SMX, Southern Mixed Chaparral
 - Multi-Habitat Planning Area



SOURCE: City of San Diego 2016, 2017; SANDAG, 2016



FIGURE 4-3-R1
Biological Resources Impacts - San Vicente Reservoir Alternative

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APPENDIX A

*Biological Technical Report for North City Project
Components on MCAS Miramar*

APPENDIX B

Existing Conditions Letter Report

APPENDIX C

Dry Season Fairy Shrimp Survey and Hatching Report

APPENDIX D

2016 Focused Quino Checkerspot Butterfly Survey Report

APPENDIX E

2016 Focused Coastal California Gnatcatcher Survey Report

APPENDIX F

*2016 Focused Least Bell's Vireo
and Southwestern Willow Flycatcher*

APPENDIX G
2016/2017 Wet Season
Fairy Shrimp Survey Report

APPENDIX H

2017 Dry Season Fairy Shrimp Sampling Results

APPENDIX I
Jurisdictional Delineation Report

APPENDIX J
Plant Compendium

APPENDIX K
Wildlife Compendium

APPENDIX L

*Plant Species Potentially Occurring
within Miramar Reservoir*

APPENDIX M

*Plant Species Potentially Occurring
within San Vicente Reservoir*

APPENDIX N

*Wildlife Species Potentially Occurring
within Miramar Reservoir*

APPENDIX O

*Wildlife Species Potentially Occurring
within San Vicente Reservoir*

APPENDIX P
Conceptual Revegetation Plan

APPENDIX Q
MHPA Boundary Line
Adjustment Equivalency Analysis

APPENDIX R

SANDER Vernal Pool and Upland Mitigation Plan

APPENDIX S

Native Grassland Creation Mitigation Plan – Pueblo South

APPENDIX T

Mitigation and Avoidance Measure Summary Table

~~APPENDIX U~~

~~Pond Turtle Relocation Plan~~

APPENDIX UV

*Non-Listed Plant and Wildlife Species Occurring
within Miramar Reservoir*