



**ADVANCE MITIGATION PROGRAM
Gualala-Salmon, San Pablo Bay, and
Tomales-Drake Bays Sub-basins
Regional Advance Mitigation
Needs Assessment**

Appendices

Version 1.0

**Establishing Caltrans' Need for Advance Mitigation
for Caltrans District 4 and Surroundings
forecast fiscal years 2019/2020 to 2028/2029**

California Department of Transportation – District 4

June 2022

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APPENDICES

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APPENDIX A: GIS SOURCES

This RAMNA relies on maps to convey information. At the bottom of each map figure is a citation that lists the GIS source identification numbers. These source identification numbers refer to Table A-1, where the metadata documentation is provided. When available, the source date and/or website address to access the data layer online are also provided.

Table A-1. District 4 RAMNA GIS Sources

ID	GIS Layer	Source Agency	Source Date	Download Date	Website
1	State Highway Network	Caltrans	8/1/2018	10/11/2018	http://www.dot.ca.gov/hq/tsip/gis/datalibrary/Metadata/NHS.html
2	SHOPP	Caltrans	2019/2020 Q2	3/17/2021	Caltrans System Planning
3	STIP	Caltrans	2019/2020 Q2	3/17/2021	Caltrans System Planning
4	Ecoregion Section	USDA Forest Service	1/26/2021	1/26/2021	https://data.fs.usda.gov/geodata/edw/data_sets.php?xmlKeyword=Ecomap
5	Watershed Boundary Section (GAI)	USGS	9/26/2014	10/19/2018	https://www.usgs.gov/core-science-systems/ngp/national-hydrography
6	California Conservation Easements	California Protected Areas Database	12/1/2020	2/2/2021	http://www.calands.org/cced
7	California Protected Areas Holdings	California Protected Areas Database	2/10/2021	2/10/2021	http://www.calands.org/data
8	Tribal Land Boundaries	U.S. Bureau of Indian Affairs	5/16/2017	10/11/2018	https://hub.arcgis.com/items/2e915ef3df48422283e5b2c7d89dfcba
9	U.S. Military Installations	U.S. Census Bureau	12/1/2017	10/11/2018	https://www2.census.gov/geo/tiger/TIGER2020/MIL/
10	County Boundaries	U.S. Census Bureau	7/8/2016	10/11/2018	https://data.ca.gov/dataset/ca-geographic-boundaries
11	Farmland Mapping & Monitoring Program	California Department of Conservation	6/7/2016	4/27/2021	https://gis.conservation.ca.gov/portal/home/item.html?id=16689151f4d240d2a16232ea650a6c62
12	Coastal Zone and LCP	CCC	3/1/2018	3/1/2018	https://www.coastal.ca.gov/maps/czb/ ; https://www.coastal.ca.gov/maps/lcp/
13	ACE Climate Resilience – ACE [ds2738]	CDFW	2/22/2018	10/17/2018	https://map.dfg.ca.gov/metadata/ds2738.html?5.66.18

ID	GIS Layer	Source Agency	Source Date	Download Date	Website
14	Vegetation D02/D03/D04/D10 in Caltrans District 4 Geospatial Data for the Advance Mitigation Needs Assessment for the Second Quarter of FY 2019/2020	SAMNA	1/1/2017	3/24/2021	http://www.dot.ca.gov/env/advancemitigation/
15	Waters and Wetlands D02/D03/D04/D10 in Caltrans District 4 Geospatial Data for the Advance Mitigation Needs Assessment for the Second Quarter of FY 2019/2020	SAMNA	1/1/2017	3/24/2021	http://www.dot.ca.gov/env/advancemitigation/
16	USFWS Critical Habitat	FWS	10/1/2018	3/24/2021	https://ecos.fws.gov/ecp/report/table/critical-habitat.html
17	CEHC	CDFW	10/1/2017	10/17/2018	Layer is a merge of Essential Connectivity Areas and Landscape Blocks.
18	Natural Landscape Blocks – CEHC	CDFW	10/1/2017	10/17/2018	https://map.dfg.ca.gov/metadata/ds0621.html?5.66.18
19	Potential Riparian Connections – CEHC	CDFW	3/1/2010	10/17/2018	https://map.dfg.ca.gov/metadata/ds0622.html?5.66.18
20	Salmonid Essential Fish Habitats	NOAA Fisheries	1/1/2014	10/12/2021	https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-groundfish-and-salmon
21	National Flood Hazard Layer	Federal Emergency Management Agency	6/29/2018	9/25/2019	https://www.fema.gov/national-flood-hazard-layer-nfhl
22	CalWater Hydrologic Areas	California Department of Forestry and Fire Protection	11/1/2016	10/19/2018	https://frap.fire.ca.gov/mapping/gis-data/

ID	GIS Layer	Source Agency	Source Date	Download Date	Website
23	Areas of Special Biological Significance	SWRCB	1/1/2005	10/15/2020	https://www.waterboards.ca.gov/water_issues/programs/ocean/asbs_map.shtml
24	Terrestrial Connectivity – ACE [ds2734]	CDFW	8/28/2019	9/25/2019	https://map.dfg.ca.gov/metadata/ds2734.html?5.80.28
25	SWAP Terrestrial Targets – 2015	CDFW	2/1/2018	10/29/2018	https://map.dfg.ca.gov/metadata/ds1966.html?5.66.18
26	Aquatic Biodiversity Summary – ACE [ds2768]	CDFW	2/22/2018	7/3/2019	https://map.dfg.ca.gov/metadata/ds2768.html?5.80.28
27	Calfish Passage Assessment Database (“PAD”)	Calfish	10/3/2019	12/15/2019	https://map.dfg.ca.gov/metadata/ds0069.html?5.84.18vo
28	Terrestrial Biodiversity Summary – ACE [ds2739]	CDFW	2/24/2020	7/3/2019	https://map.dfg.ca.gov/metadata/ds2739.html?5.80.28
29	RCIS Draft Boundaries	CDFW	9/10/2019	9/25/2019	Requested on 9/25/2019; source date is 9/10/2019.
30	Corps Regulatory In-lieu Fee & Bank Information Tracking System	Mitigation Service Banks	Not available	1/28/2019	https://ribits.usace.army.mil/ribits_apex/f?p=107:2
31	CDFW Approved Mitigation Service Areas	Mitigation Service Banks	7/23/2018	1/28/2019	https://map.dfg.ca.gov/metadata/ds2782.html?5.76.22
32	National Hydrology Dataset Plus	EPA	3/13/2019	4/29/2021	https://www.epa.gov/waterdata/get-nhdplus-national-hydrography-dataset-plus-data
33	Tidal Gauges	Permanent Service for Mean Sea Level (PSMSL)	1/1/2021	10/19/2021	https://www.psmsl.org/data/obtaining/
34	303(d) List of Impaired Waterbodies	SWRCB	6/9/2021	5/13/2022	https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html

ID	GIS Layer	Source Agency	Source Date	Download Date	Website
35	Zip Codes	U.S. Postal Service	2/11/2020	3/11/2020	https://www.arcgis.com/home/item.html?id=8d2012a2016e484dafaac0451f9aea24
36	Linkage Design for the California Bay Area Linkage Network [ds852]	CDFW	4/23/2014	1/25/2022	https://map.dfg.ca.gov/metadata/ds0853.html?5.83.12
37	Key Riparian Corridors for the California Bay Area Linkage Network	South Coast Wildlands	4/23/2014	2/18/2019	https://www.bayarealands.org/maps-data/
38	Essential Fish Habitat - Habitat Areas of Particular Concern	NOAA Fisheries	3/10/2021	5/25/2022	https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper
39	Fire Hazard Severity Zones in State Responsibility Area	California Department of Forestry and Fire Protection	11/1/2007	6/1/2022	https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/

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APPENDIX B: LAND COVER TYPES

Land cover types in the GAI were excerpted from the SAMNA Reporting Tool's vegetation layer, which was developed by merging CDFW's CWHR Vegetation Classification and Mapping Program GIS database, the USFS Classification and Assessment with LandSat of Visible Ecological Groupings, and the California Department of Forestry and Fire Protection vegetation layer (Caltrans 2021a, 2021b). Land cover types that occur in the GAI based on the SAMNA Reporting Tool are listed below (CDFW 2019), and complete descriptions can be found in Mayer and Laudenslayer (1988). Table B-1 indicates which ecoregion sections these habitat types occur in.

A key map is provided after Table B-1 that references mapbook pages, including zoomed-in views of locations in the GAI and mapped land cover types (page B-5). These 13 maps correspond with the aquatic resources maps in Appendix F.

Tree-dominated Habitats: Tree-dominated habitats have at least 10 percent total tree canopy crown closure. In the GAI, tree-dominated habitats include blue oak woodland, blue oak-foothill pine, closed-cone pine-cypress, coastal oak woodland, Douglas fir, eucalyptus, montane hardwood, montane hardwood-conifer, montane riparian, ponderosa pine, redwood, Sierran mixed conifer, valley foothill riparian, and valley oak woodland, which are found in all three ecoregion sections.

Shrub-dominated Habitats: Shrub-dominated habitats have at least 10 percent total cover by shrub species and less than 10 percent cover by tree species. In the GAI, shrub-dominated habitats include chamise-redshank chaparral, coastal scrub, desert scrub, and mixed chaparral, which are found in all three ecoregion sections.

Herbaceous-dominated Habitats: Herbaceous-dominated habitats have at least 2 percent total cover by herbaceous species and less than 10 percent total cover by tree or shrub species. In the GAI, herbaceous-dominated habitats include annual grassland, fresh emergent wetland, freshwater emergent marsh, pasture, perennial grassland, saline emergent wetland, and wet meadow, which are found in all three ecoregion sections.

Aquatic Habitats: Aquatic habitats have at least 98 percent total cover by open water, and no more than 2 percent total cover by vegetation in the continually exposed shore zone. In the GAI, aquatic habitats include estuarine, lacustrine, marine, riverine, and water, which are found in all three ecoregion sections.

Developed Habitats: Developed habitats have at least 2 percent total cover by non-wildland vegetation grown for food, fiber, or landscaping, and do not meet criteria for any wildland habitat. In the GAI, developed habitats include cropland, deciduous orchard, orchard-vineyard, urban, and vineyard, which are found in all three ecoregion sections.

Non-vegetated Habitats: Non-vegetated habitats include barren areas, characterized by less than 2 percent cover by herbaceous species. Barren areas are found in all three ecoregion sections.

References

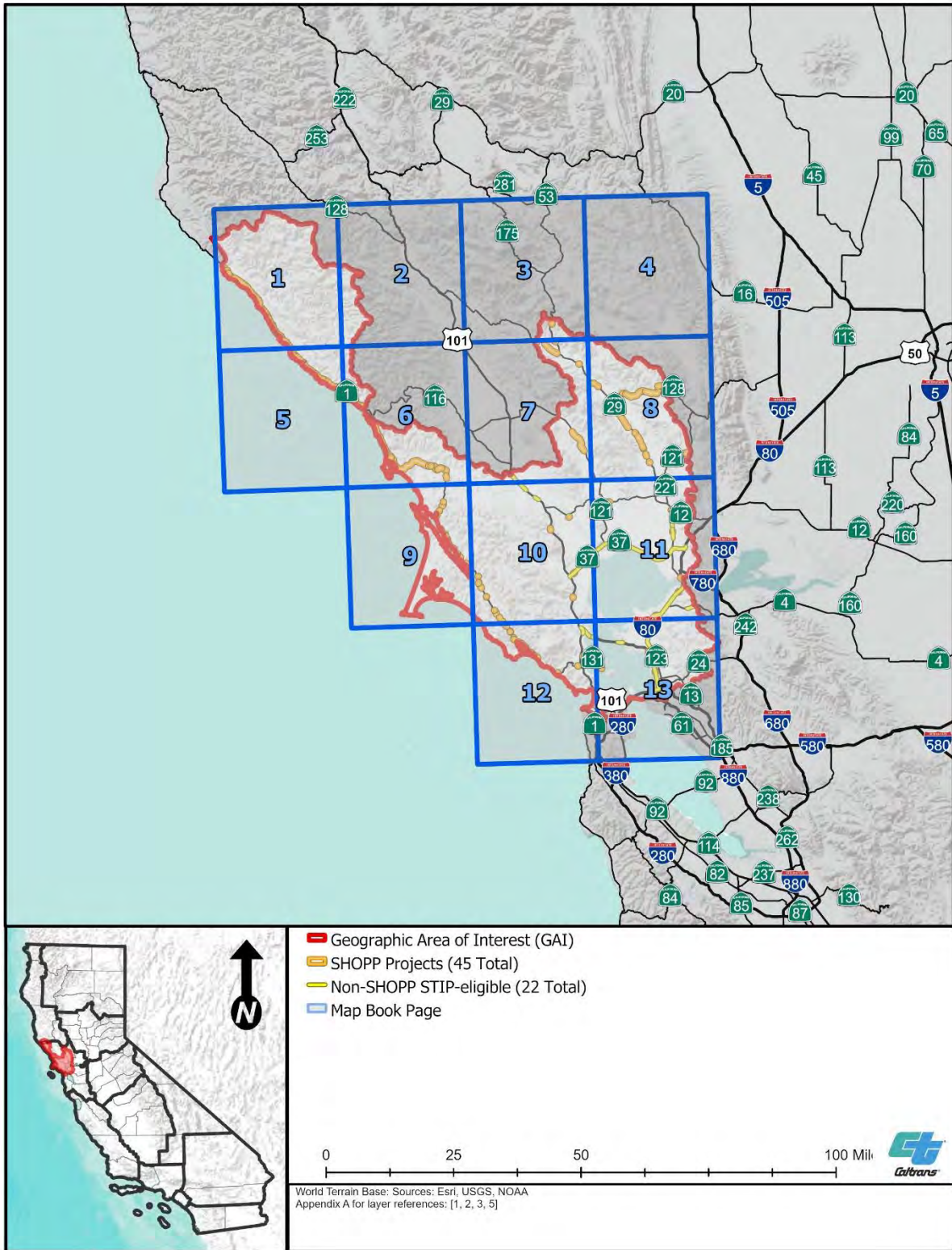
- Caltrans (California Department of Transportation). 2021a. "Vegetation_ D2/D3/D4/D10 in Caltrans District 4 Geospatial Data for the Advance Mitigation Needs Assessment for the Second Quarter of FY 2019/2020" (data file). Accessed March 24, 2021. <http://www.dot.ca.gov/env/advancemitigation/>.
- . 2021b. *Statewide Advance Mitigation Needs Assessment Report*. State Highway Operation and Protection Program Ten-Year Project Book Second Quarter 2019/2020 Fiscal Year. May. Sacramento, California.
- CDFW (California Department of Fish and Wildlife). 2019. *California Wildlife Habitat Relationships (CWHR) System*. Supported by the California Interagency Wildlife Task Group and maintained by the CDFW. Database Version 9.0.
- Mayer, Kenneth E., and William F. Laudenslayer, Jr., eds. 1988. "A Guide to Wildlife Habitats of California." State of California, Resources Agency, Department of Fish and Game. Sacramento, California. Including Revisions and Updates. Accessed August 16, 2021. <https://www.wildlife.ca.gov/Data/CWHR/Wildlife-Habitats>.

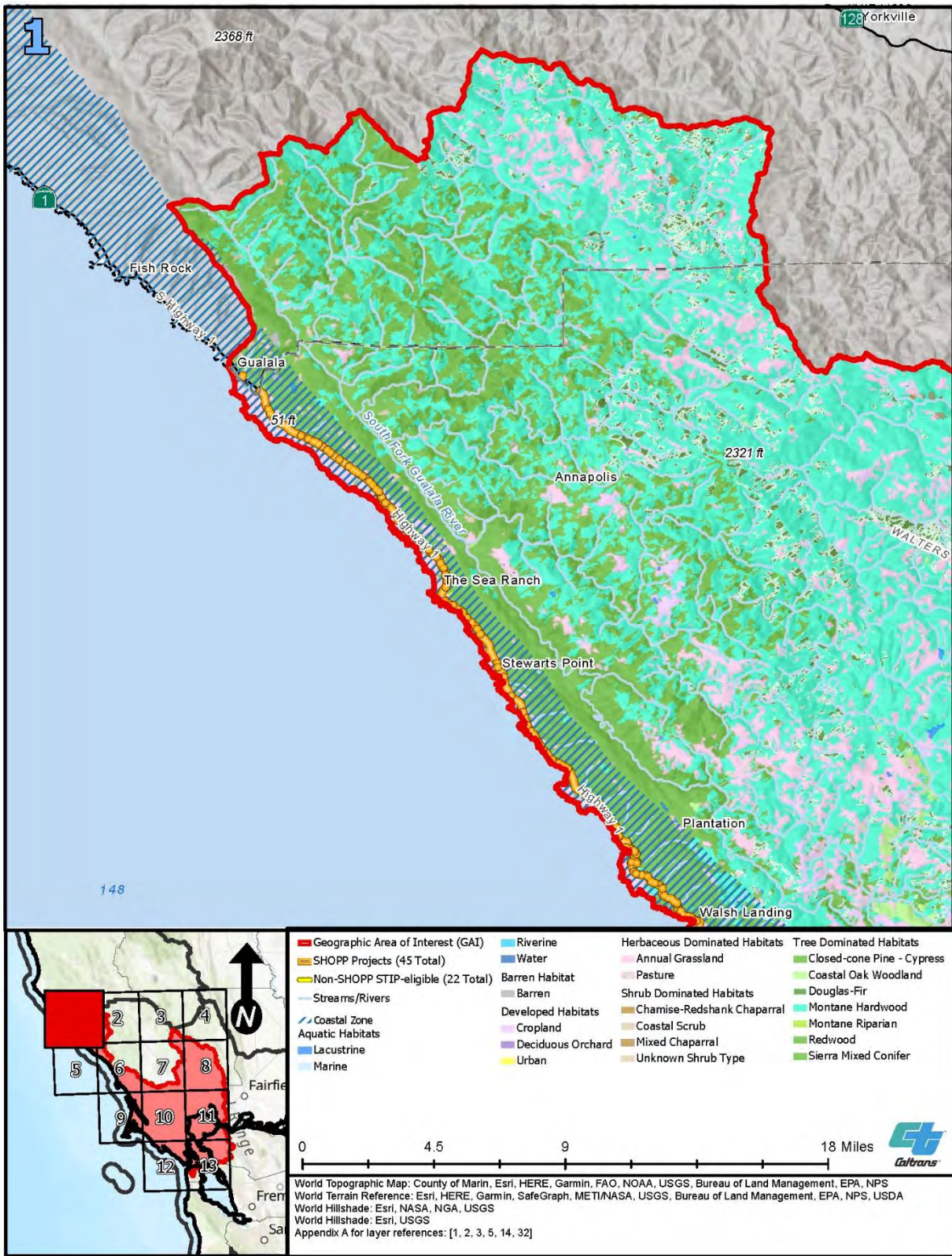
Table B-1. Land Cover Types in the Gualala-Salmon, San Pablo Bay, and Tomales-Drake Bays Sub-basins (HUC-8)

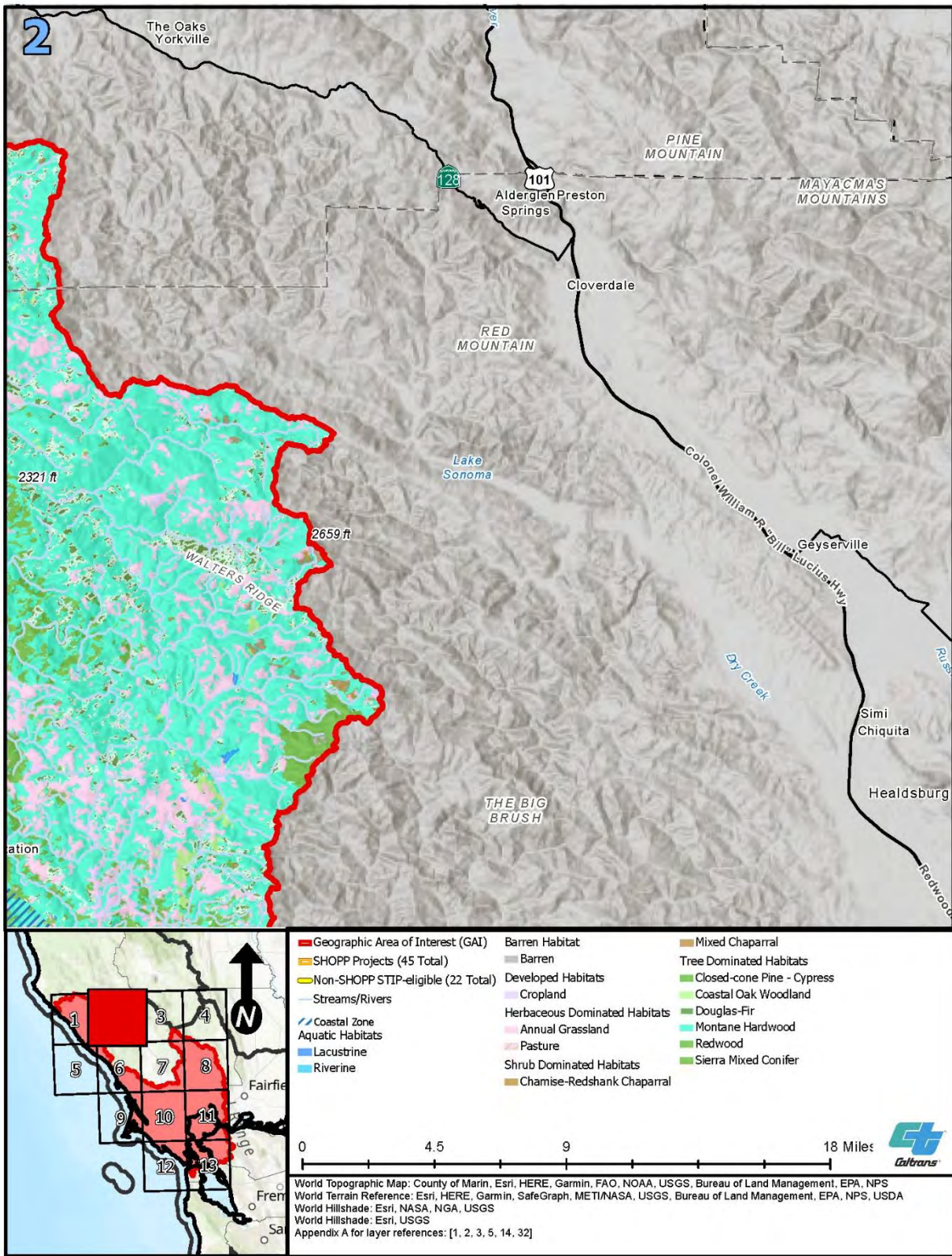
Land Cover Type	Central California Coast Ecoregion Section	Northern California Coast Ecoregion Section	Northern California Coast Ranges Ecoregion Section
Tree-dominated Habitats	See below	See below	See below
Blue Oak Woodland	Present	Present	Present
Blue Oak-Foothill Pine	Not mapped	Present	Present
Closed-Cone Pine-Cypress	Present	Present	Present
Coastal Oak Woodland	Present	Present	Present
Douglas Fir	Not mapped	Present	Present
Eucalyptus	Present	Present	Not mapped
Montane Hardwood	Present	Present	Present
Montane Hardwood-Conifer	Present	Present	Not mapped
Montane Riparian	Present	Present	Present
Ponderosa Pine	Not mapped	Present	Not mapped
Redwood	Not mapped	Present	Not mapped
Sierran Mixed Conifer	Not mapped	Present	Not mapped
Valley Foothill Riparian	Present	Not mapped	Not mapped
Valley Oak Woodland	Present	Present	Present
Shrub-dominated Habitats	See below	See below	See below
Chamise - Redshank Chaparral	Present	Present	Present
Coastal Scrub	Present	Present	Not mapped
Desert Scrub	Not mapped	Present	Not mapped
Mixed Chaparral	Present	Present	Present
Herbaceous-dominated Habitats	See below	See below	See below
Annual Grassland	Present	Present	Present
Fresh Emergent Wetland	Present	Present	Not mapped
Freshwater Emergent Marsh	Present	Present	Present
Pasture	Not mapped	Present	Not mapped
Perennial Grassland	Not mapped	Present	Present
Saline Emergent Wetland	Present	Present	Not mapped
Wet Meadow	Present	Present	Present

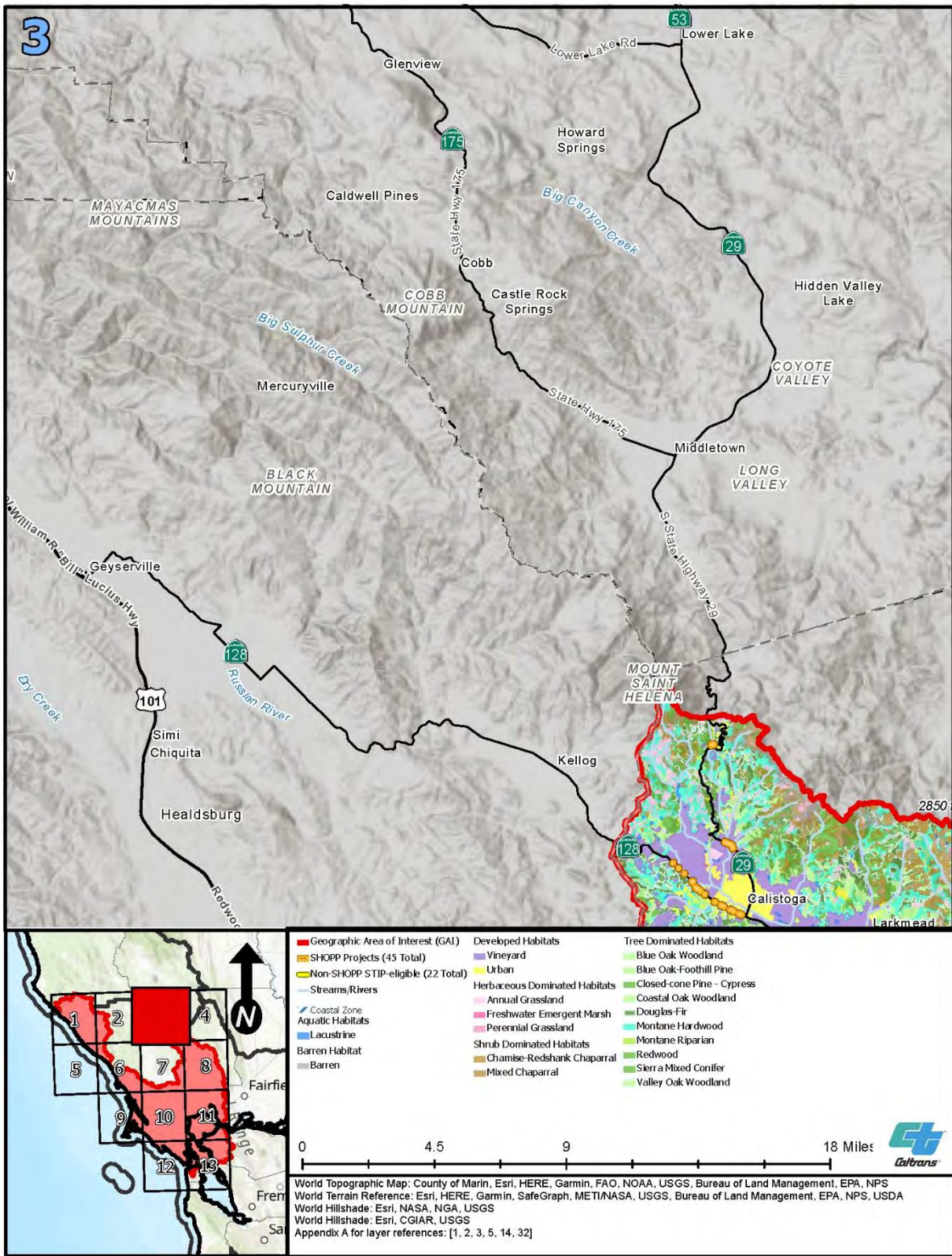
Land Cover Type	Central California Coast Ecoregion Section	Northern California Coast Ecoregion Section	Northern California Coast Ranges Ecoregion Section
Aquatic Habitats	See below	See below	See below
Estuarine	Not mapped	Present	Not mapped
Lacustrine	Present	Present	Present
Marine	Not mapped	Present	Not mapped
Riverine	Not mapped	Present	Not mapped
Water	Present	Not mapped	Not mapped
Developed Habitats	See below	See below	See below
Cropland	Present	Present	Present
Deciduous Orchard	Not mapped	Present	Not mapped
Orchard-Vineyard	Present	Present	Present
Urban	Present	Present	Present
Vineyard	Not mapped	Present	Present
Non-vegetated Habitats	See below	See below	See below
Barren	Present	Present	Present

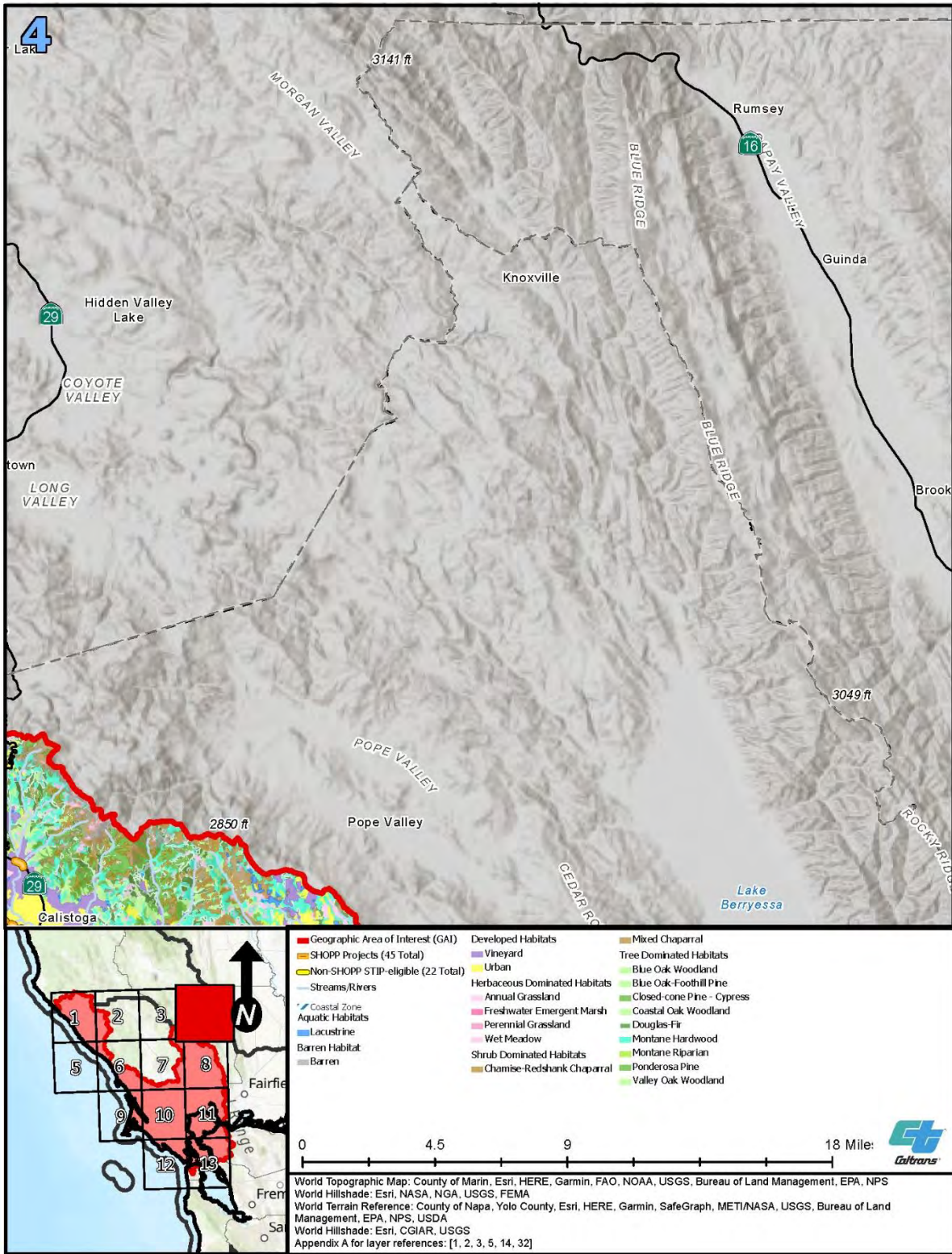
Sources: Caltrans 2021a, 2021b

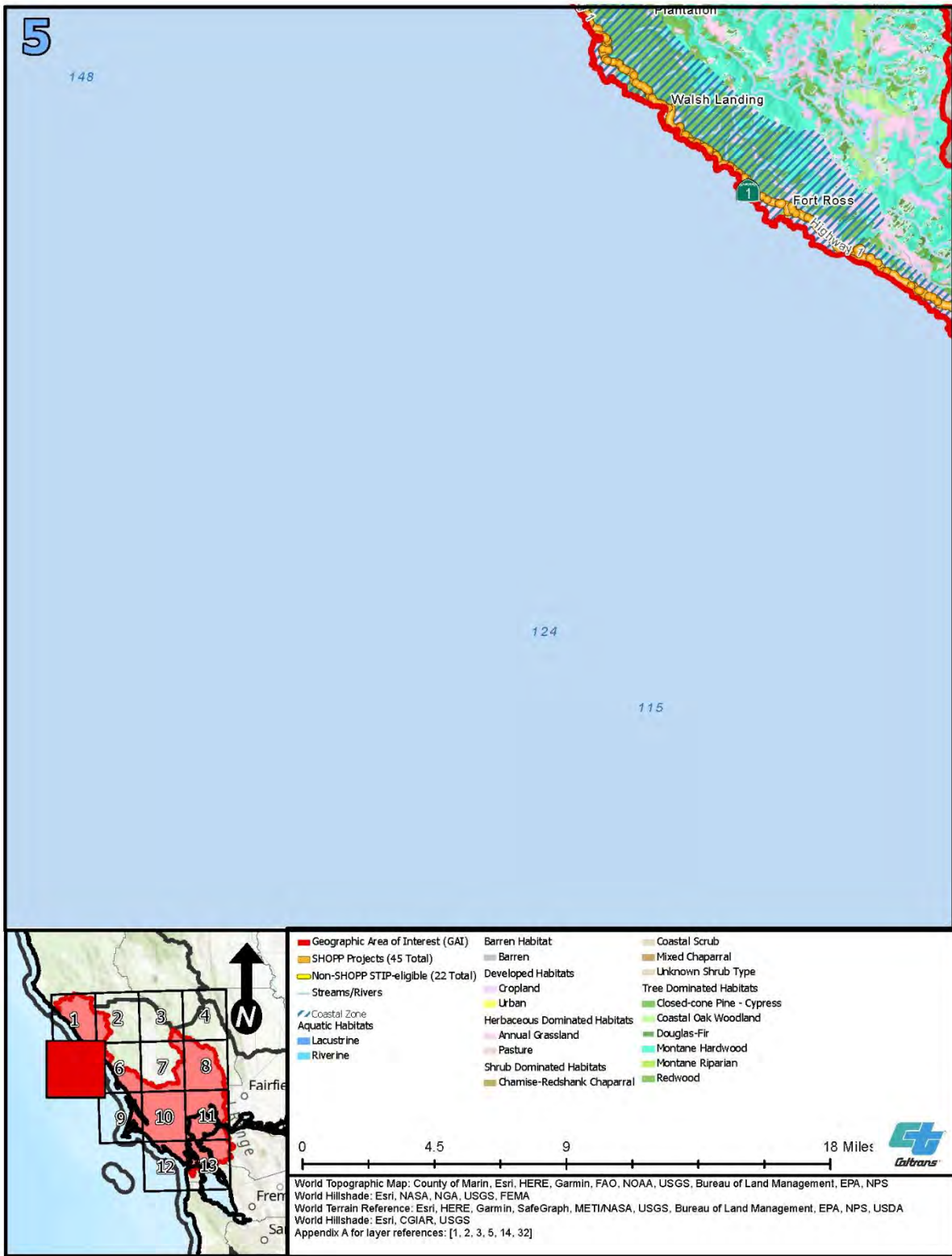


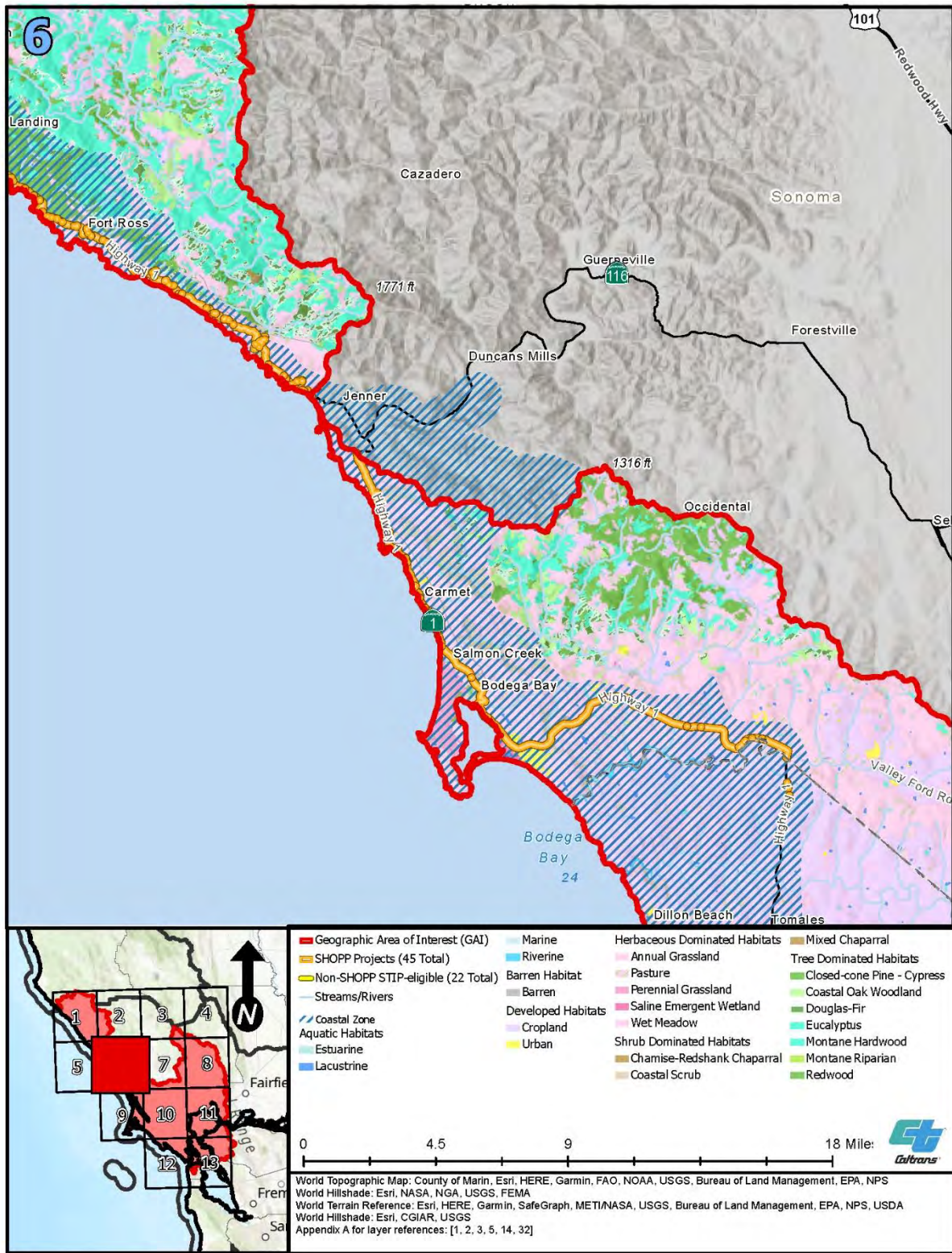


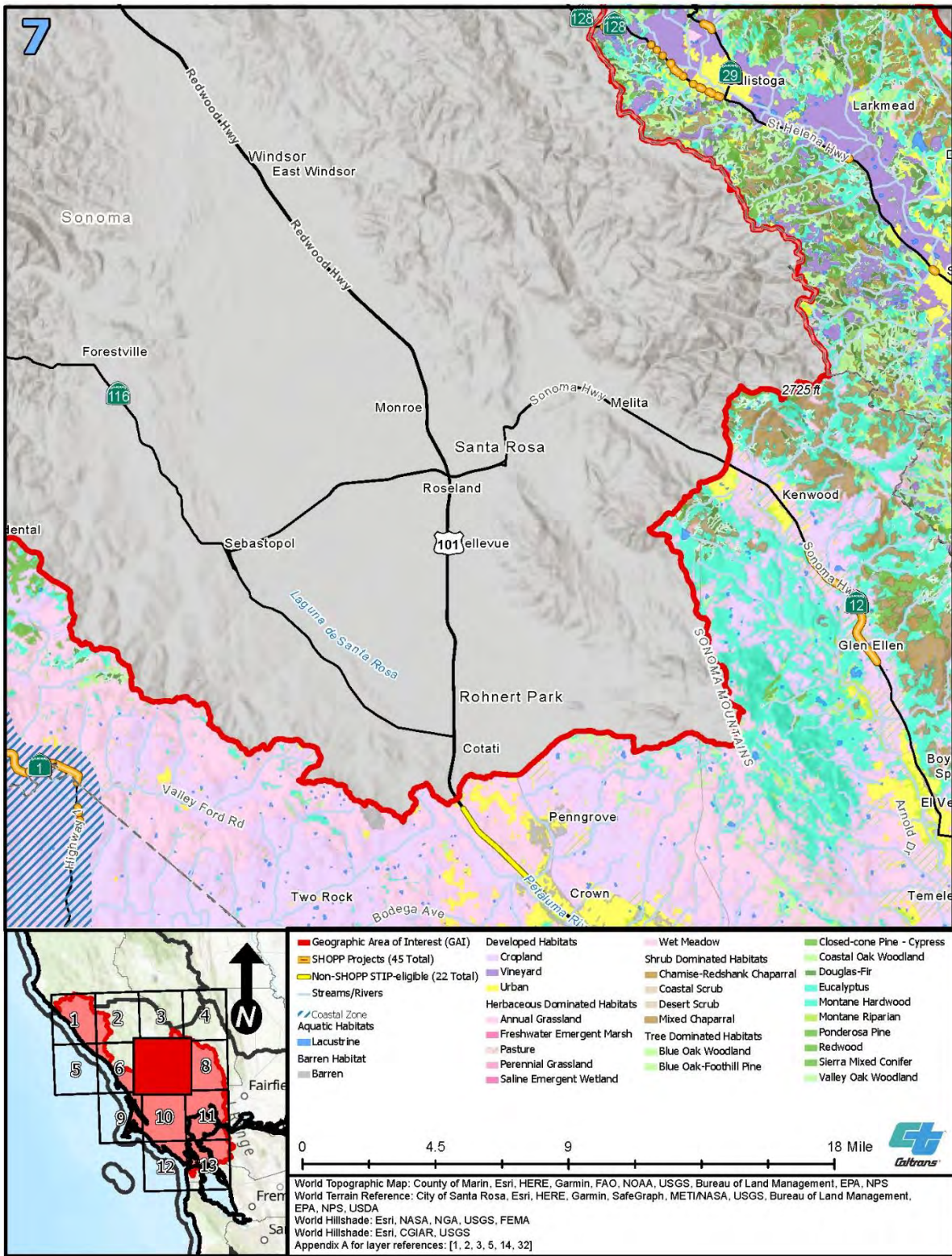


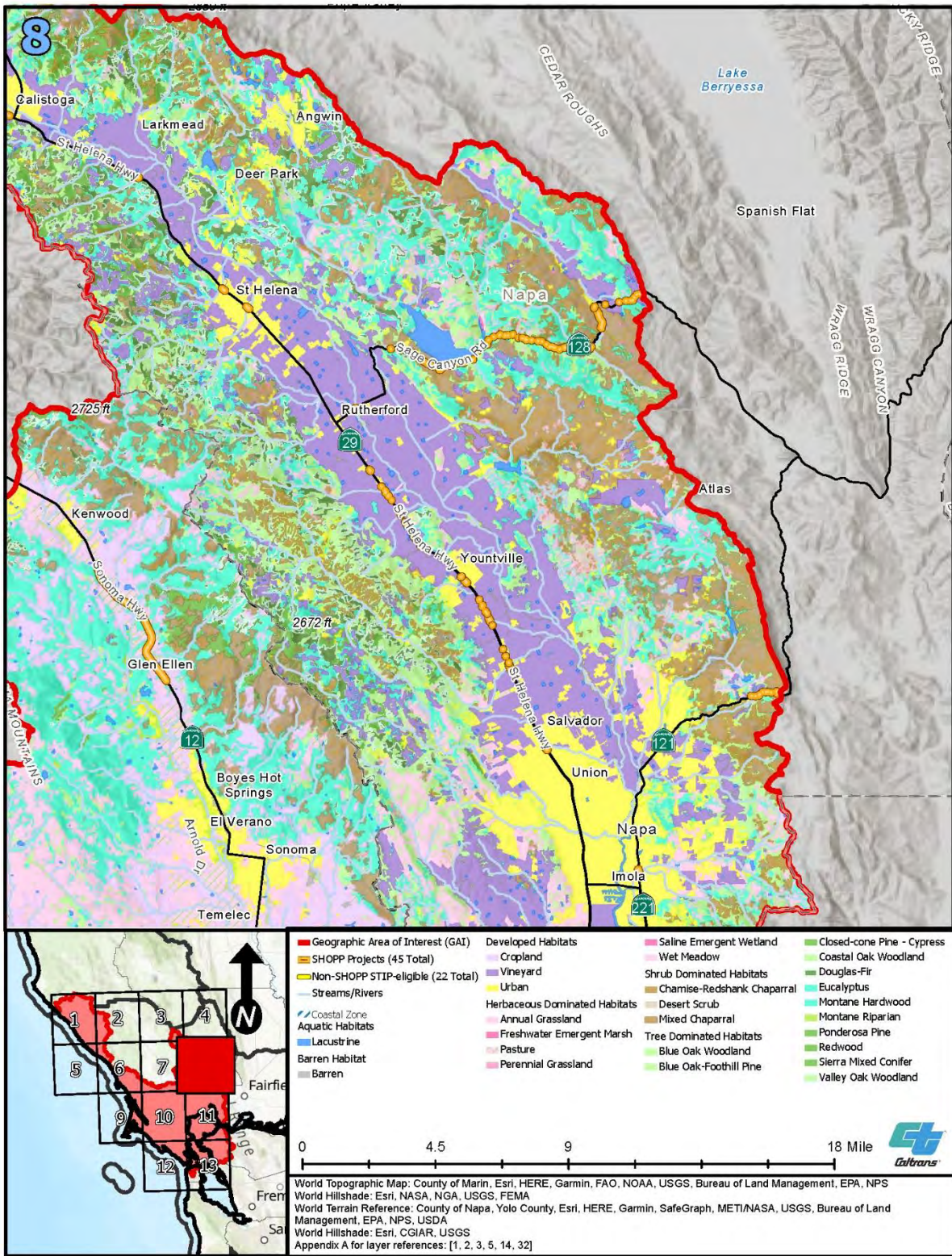


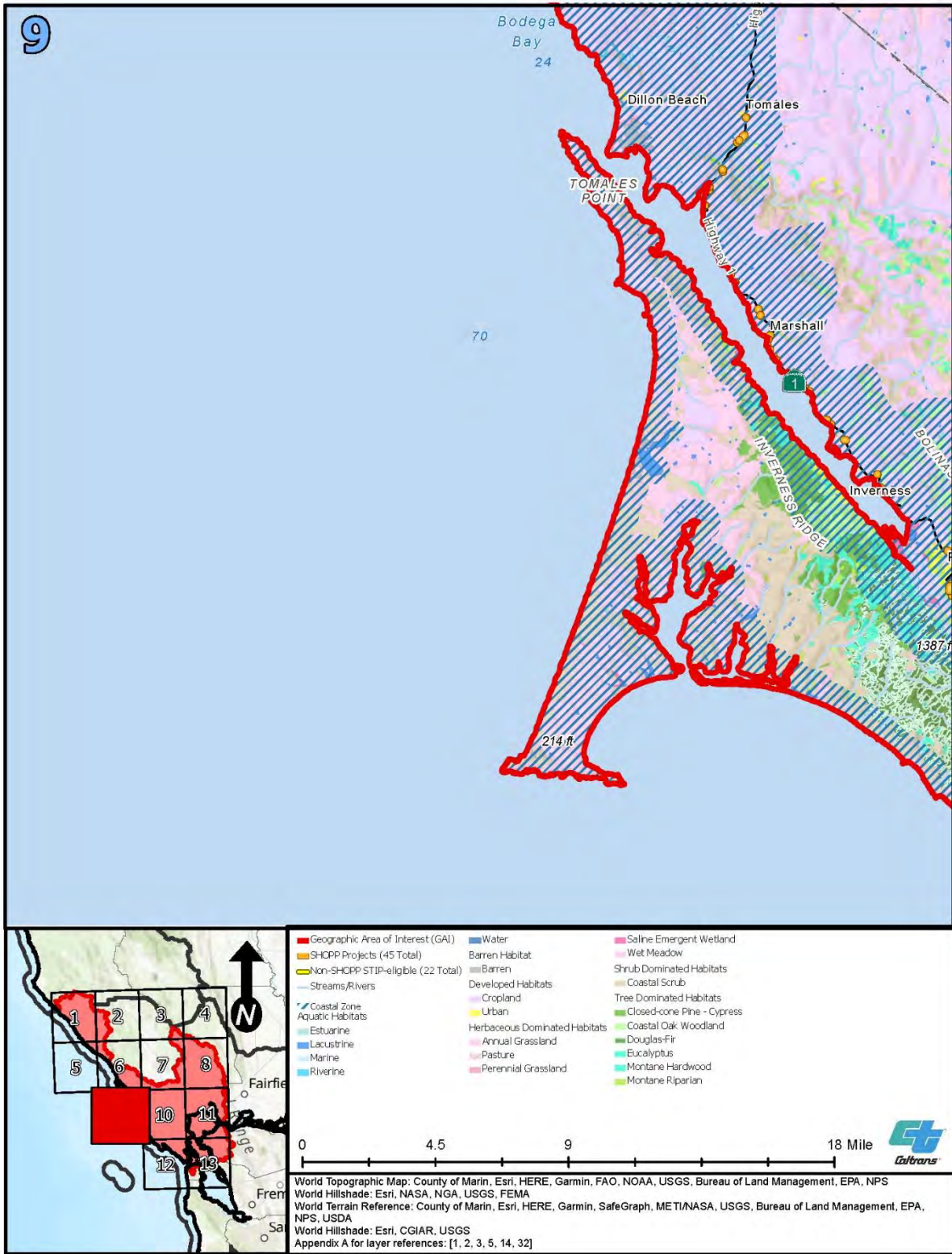


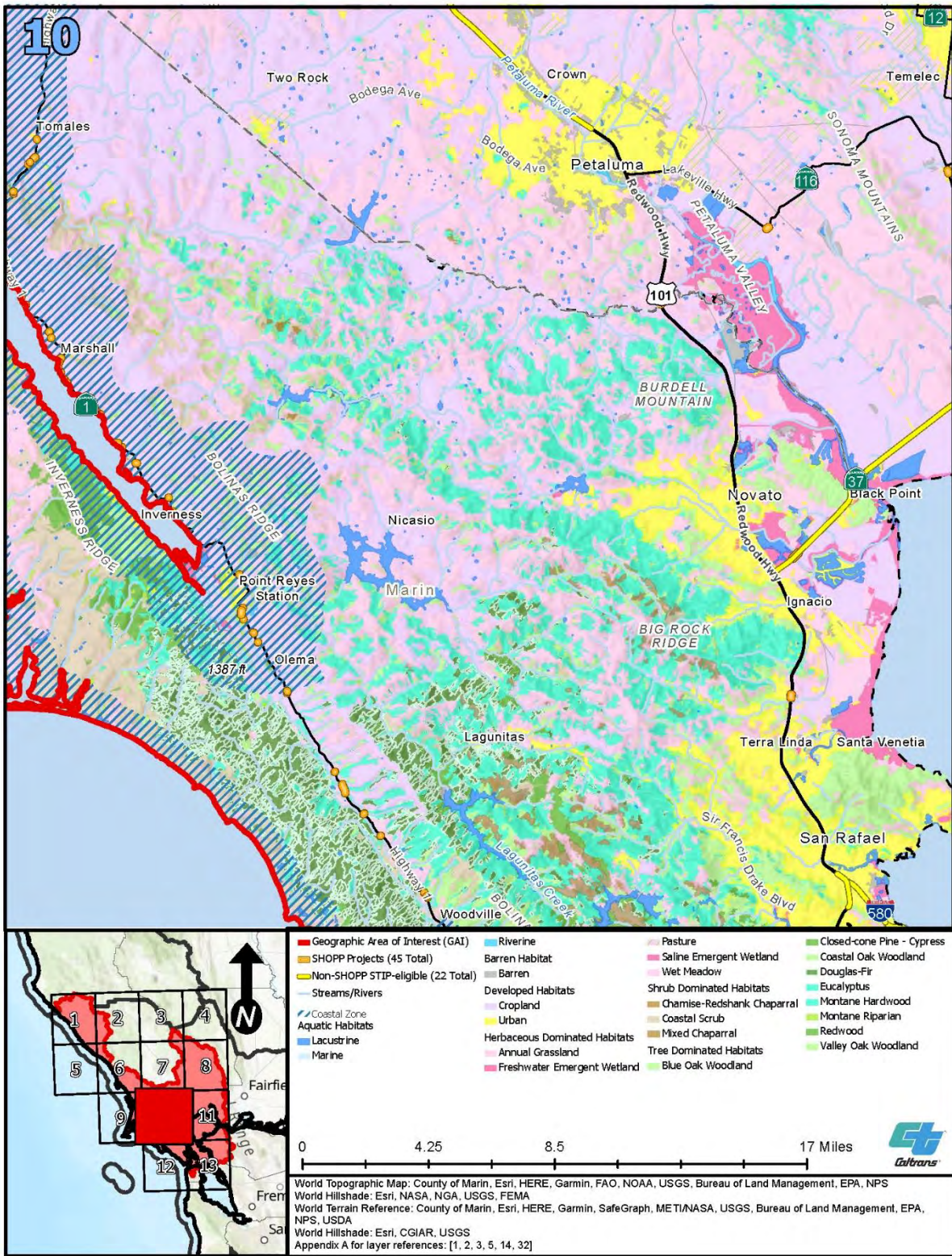


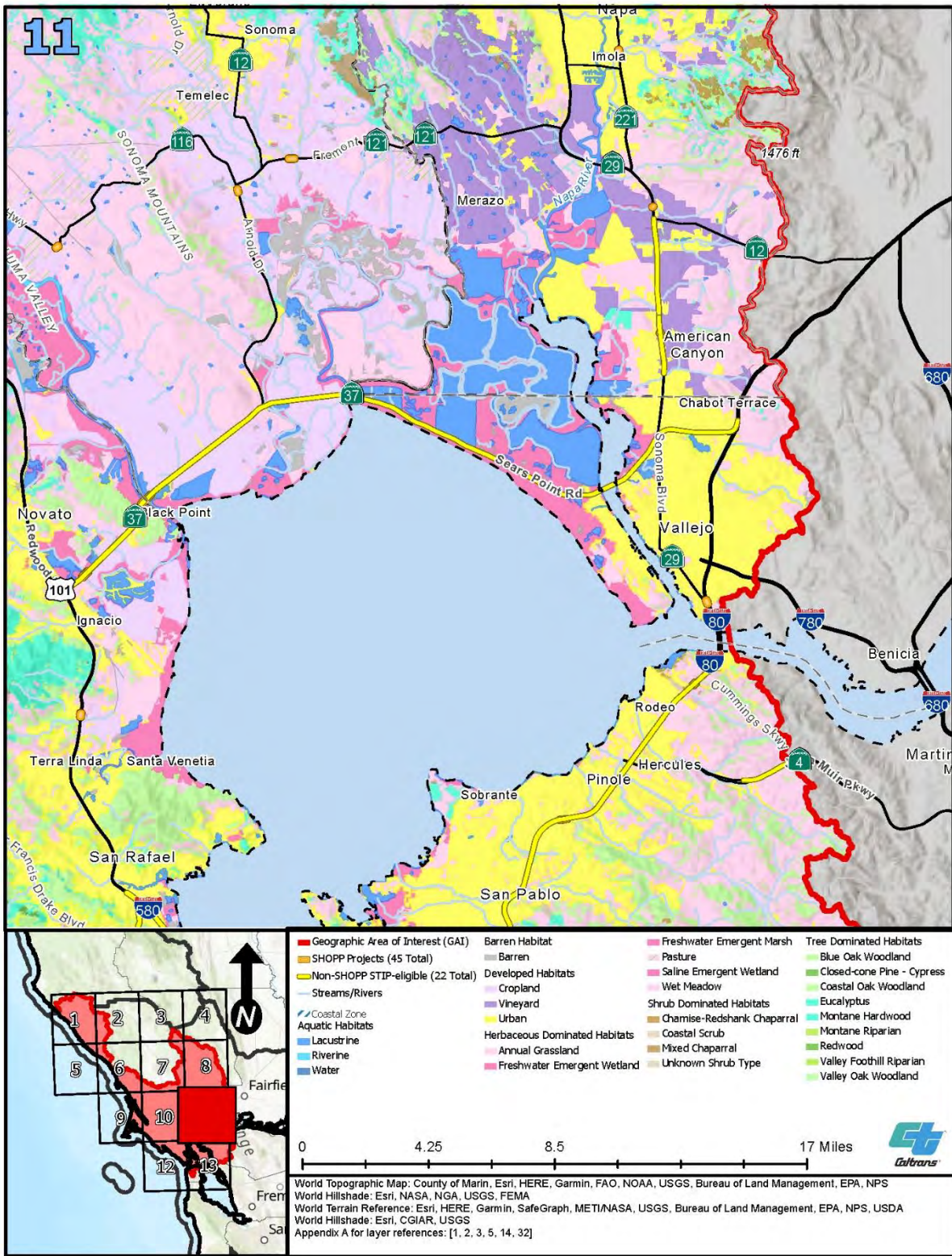


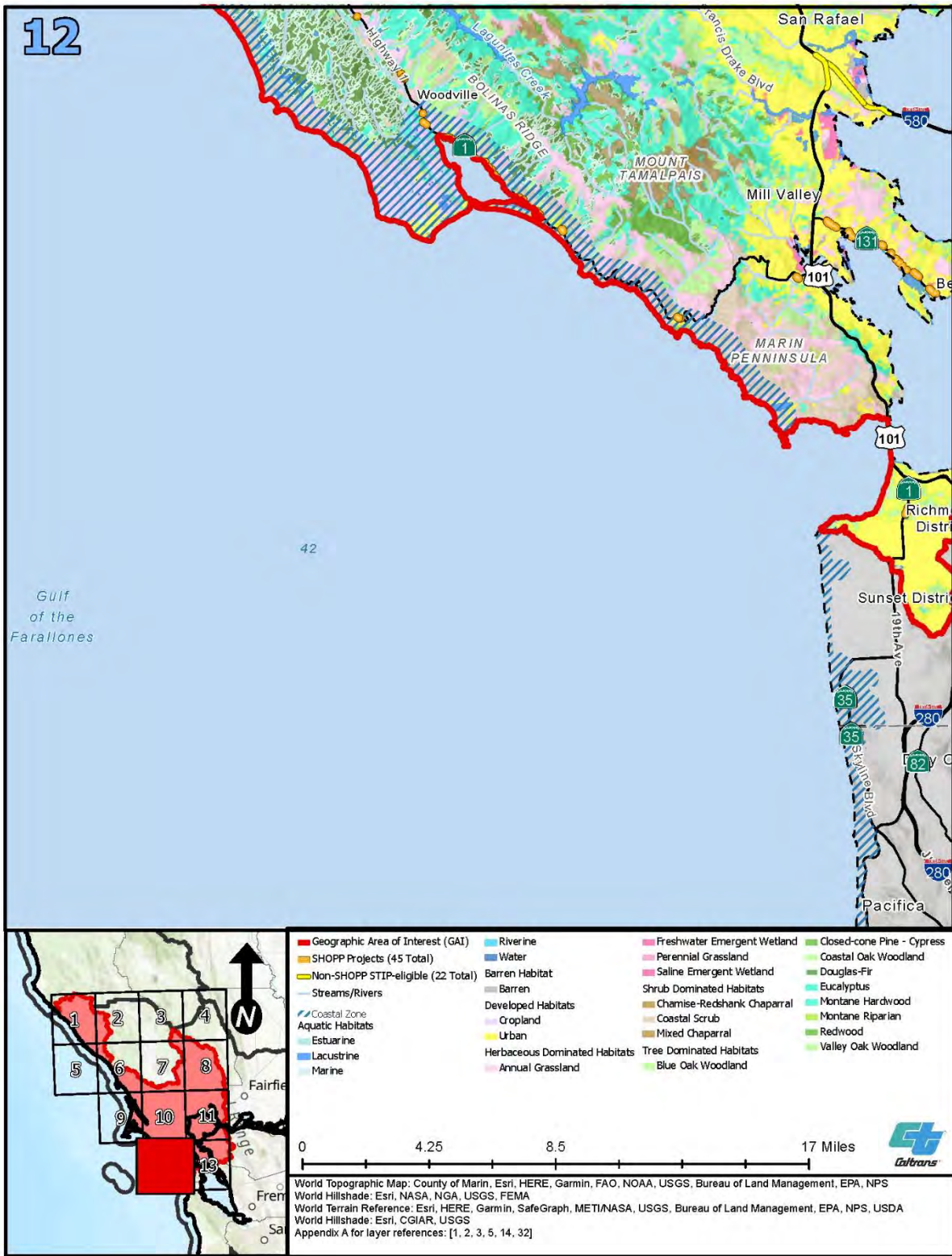


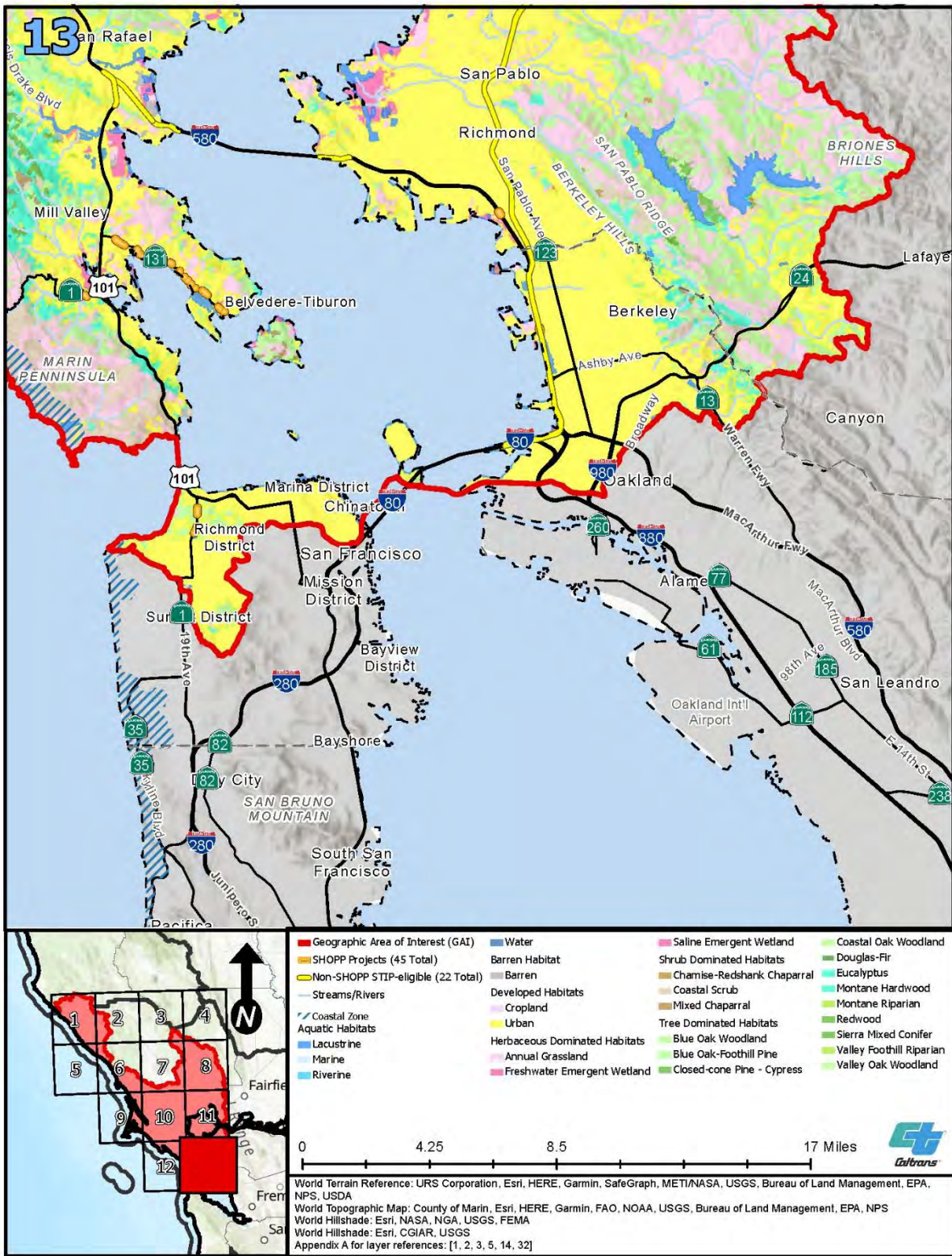












APPENDIX C: LOCAL COASTAL PROGRAMS

The Coastal Act allows any local government to develop a Local Coastal Program (“LCP”), which is a planning and regulatory tool used to guide and permit development¹ in a local government’s coastal zone. LCPs contain policies that determine the use and conservation of coastal resources by specifying the appropriate location, type, and scale of development. An LCP generally consists of one or more land use plans (“LUPs”) and implementation plans. LCP jurisdictions and associated LCP plans in the GAI are listed by HUC-8 in Table C-1. Certified LCPs were excerpted from the CCC’s LCP areas maps by county (CCC 2020). A key map is provided after Table C-1 that references mapbook pages. These zoomed-in mapbook pages include LCP areas, segments, areas of deferred certification (“ADCs”), and other uncertified areas (“UAs”) within the coastal zone in the GAI. LCPs also address some specific aquatic resources in the coastal zone. Locations of aquatic resources, excerpted from the SAMNA Reporting Tool’s water and wetland layers, are shown by HUC-8 sub-basin in Appendix F (Caltrans 2021a, 2021b).

LCPs convey some general restoration/conservation goals, but they do not necessarily reflect current priorities or targeted goals and should not be interpreted as a conclusive guide to CCC’s or a local government’s conservation goals and objectives. However, LCPs include relevant information to consider while scoping and planning an advance mitigation project, including:

- Conservation and restoration policies.
- Any specific areas that have been prioritized for restoration or conservation, which may provide useful targets for advance mitigation projects.
- Definitions or maps of Environmentally Sensitive Habitat Areas (“ESHAs”). Enhancement or expansion of existing ESHAs could offer a significant mitigation opportunity. However, for some advance mitigation proposals (for example, those that involve substantial disruption of existing habitat) it may be important to avoid areas of existing ESHAs to prevent ESHA removal or habitat type conversion. ESHA determinations are made on a case-by-case basis, so not all ESHAs are necessarily captured in the LCP.
- Policies on allowable uses in ESHAs.
- Land use designations (for example, agricultural use, industrial use, residential development) that could conflict with habitat projects, making certain areas infeasible for mitigation projects.

It will be important to consult with CCC and local government staff in interpreting LCP goals and policies when scoping advance mitigation projects.

¹ Development is defined broadly under Public Resources Code Section 30106 and includes many habitat restoration activities.

References

- Caltrans (California Department of Transportation). 2021a. "Waters_D02/D03/D04/D10 in Caltrans District 4 Geospatial Data for the Advance Mitigation Needs Assessment for the Second Quarter of FY 2019/2020" (data file). Accessed March 24, 2021. <http://www.dot.ca.gov/env/advancemitigation/>.
- . 2021b. "Wetlands_D02/D03/D04/D10 in Caltrans District 4 Geospatial Data for the Advance Mitigation Needs Assessment for the Second Quarter of FY 2019/2020" (data file). Accessed March 24, 2021. <http://www.dot.ca.gov/env/advancemitigation/>.
- CCC (California Coastal Commission). 2008. "Local Coastal Planning Program Detailed LCP Status and History as of June 30, 2008." Accessed May 24, 2022. <http://s3-us-west-2.amazonaws.com/uclidc-nuxeo-ref-media/0b5b746b-601b-4843-9941-4f05c1320654>.
- . 2020. "Maps: Local Coast Program Areas." Accessed March 24, 2021. <https://www.coastal.ca.gov/maps/lcp/>.

Table C-1. Local Coastal Programs in the GAI, by HUC-8

Mapbook Grid Number	HUC-8 Name	LCP Jurisdiction	LCP/LUP/ General Plan Name	Description	Status	Segments/Areas Identified on Maps	ADCs ^a	Federal or State Lands not Included in LCP	Website	Total Acres of LCP ^b
1	Gualala-Salmon	Mendocino County	<i>County of Mendocino General Plan – Coastal Element</i> (1992, updated 2009)	LCP for the balance of Mendocino County, which was certified in 1992. Requires a minimum 100-foot buffer adjacent to ESHAs.	Certified	Mendocino County – County Balance Segment	None	None	https://www.mendocinocounty.org/government/planning-building-services/plans/coastal-element	65,011
1-5	Gualala-Salmon, Tomales-Drake Bays	Sonoma County	<i>County of Sonoma Local Coastal Program</i> (2001)	LCP for Sonoma County. Prohibits construction of permanent structures within riparian areas or within 100 feet of the lowest line of riparian vegetation. Prohibits construction of agricultural, commercial, industrial, and residential structures between 100 and 300 feet of wetlands, unless an environmental assessment finds the wetland would not be affected by such construction.	Certified	Sonoma County	None	Bodega Bay Coast Guard Reserve (U.S. Coast Guard); University of California, Davis – Bodega Marine Lab	https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/Local-Coastal-Program/Current/	55,957
4-8	Gualala-Salmon, Tomales-Drake Bays	Marin County	<i>Marin County Local Coastal Program Land Use Plan</i> (2019, amended 2021)	LCP for Marin County. Requires buffers from terrestrial ESHAs of 50 feet, but no less than 25 feet. Requires a minimum 100-foot buffer from wetlands and a minimum 50-foot buffer from the outer edge of riparian vegetation or 100-foot buffer from the top of stream banks.	Certified	Marin County	Calle del Arroyo Lots ADC ^c	Point Reyes National Seashore, Point Reyes Coast Guard Reserve (U.S. Coast Guard); Golden Gate National Recreation Area	https://www.marincounty.org/depts/cd/divisions/planning/local-coastal-program https://documents.coastal.ca.gov/assets/rflg/LCPStatusSummaryChart_October%202020.pdf	53,904
8	San Pablo Bay	City of San Francisco	<i>City of San Francisco LCP (Western Shoreline Area Plan)</i> (1984)	LCP for the City of San Francisco.	Certified	None	None	Fort Miley Military Reservation	https://generalplan.sfplanning.org/Western_Shoreline.htm	Not available

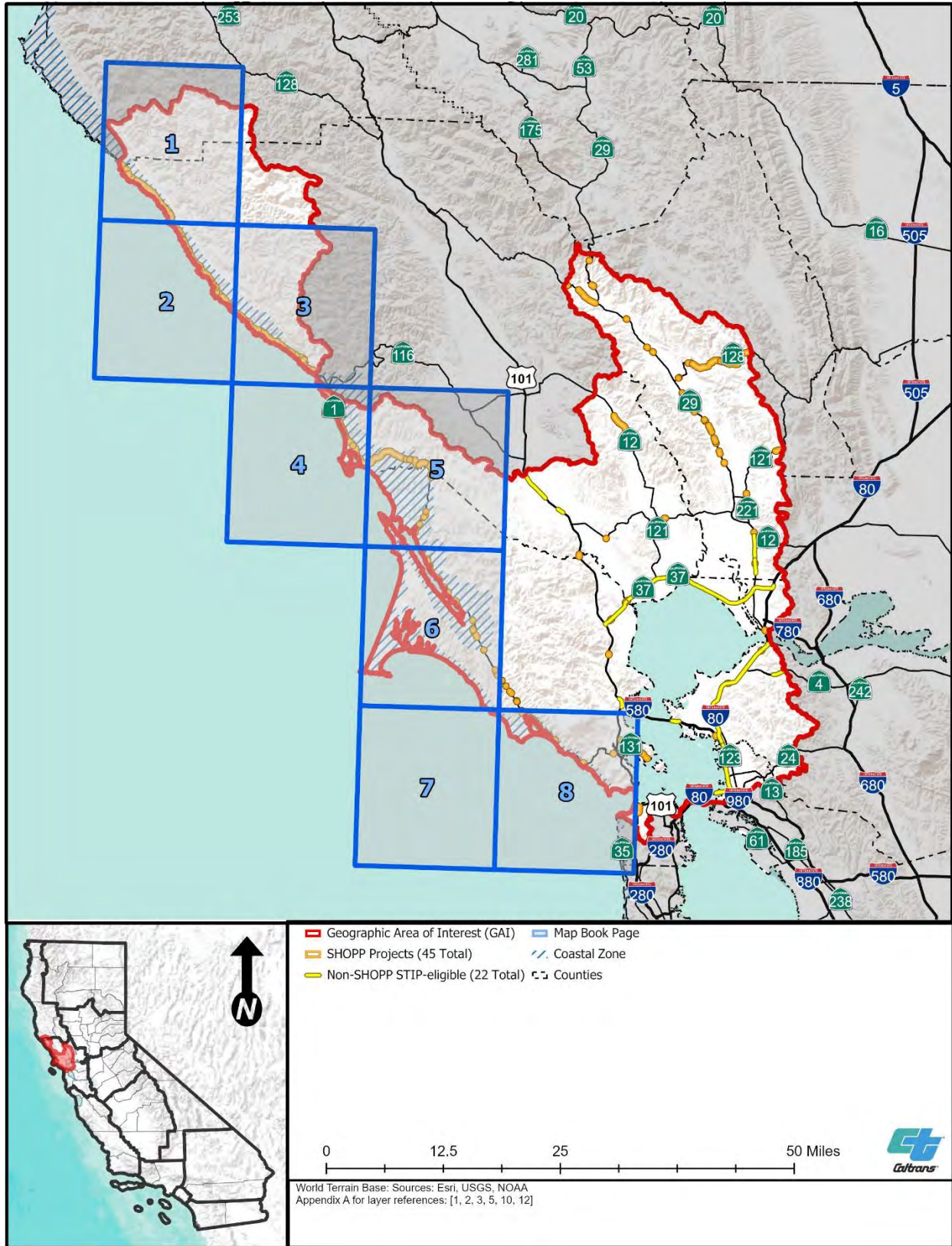
Source: CCC 2020

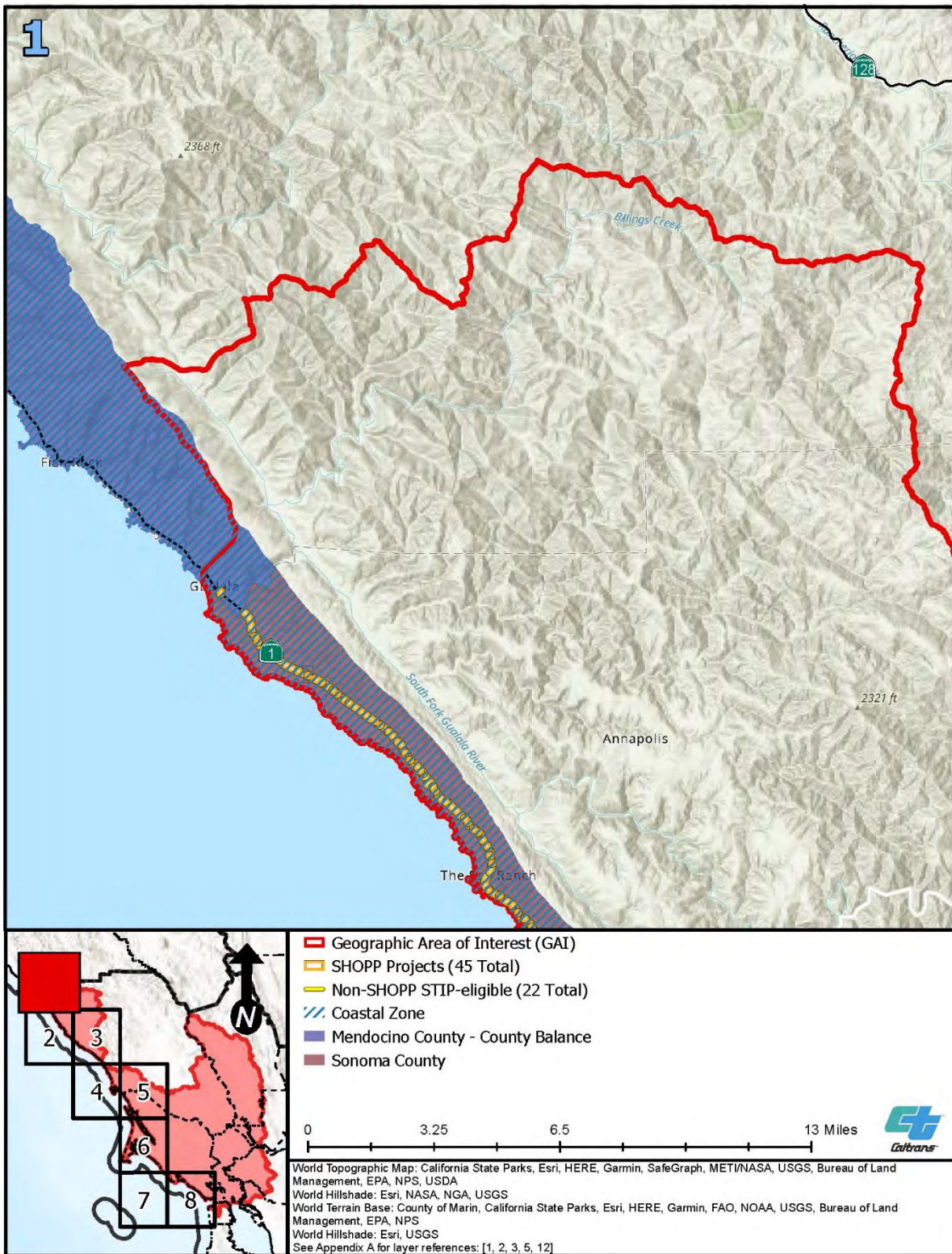
^a ADC: Refers to a geographic area that has not been officially segmented for purposes of LCP preparation and during certification review of the LCP, was not certified. A UA, which includes ADCs, may be an area that was created through annexation or was subsequently identified but may not have been included in any LCP segment. The CCC retains permit authority until an LCP is effectively certified for these areas.

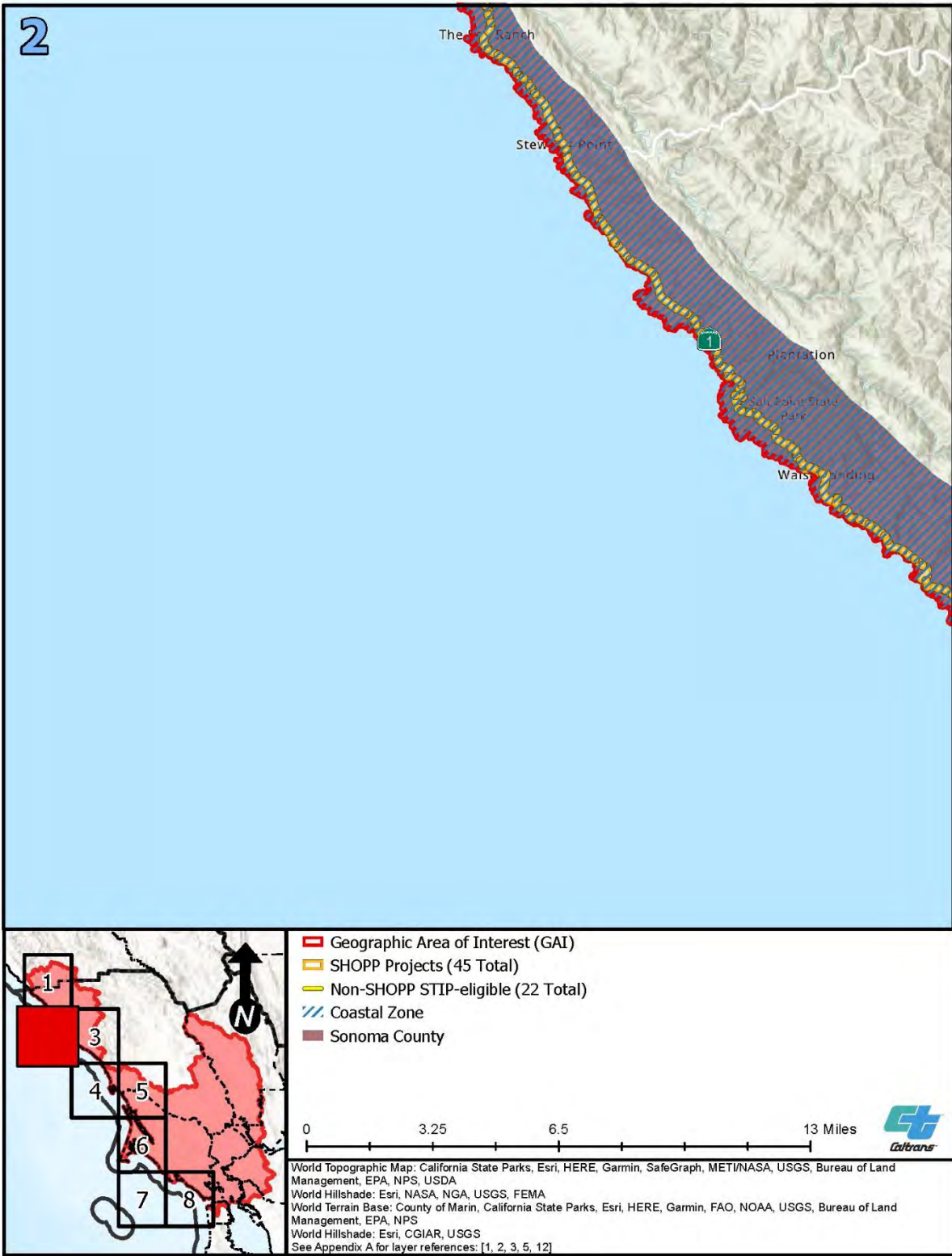
^b Numbers were rounded to the nearest whole number. Excludes ADCs, federal lands, and state lands.

^c More information regarding the history and status of the Calle del Arroyo Lots ADC can be found here: <http://s3-us-west-2.amazonaws.com/ucldc-nuxeo-ref-media/0b5b746b-601b-4843-9941-4f05c1320654> (CCC 2008).

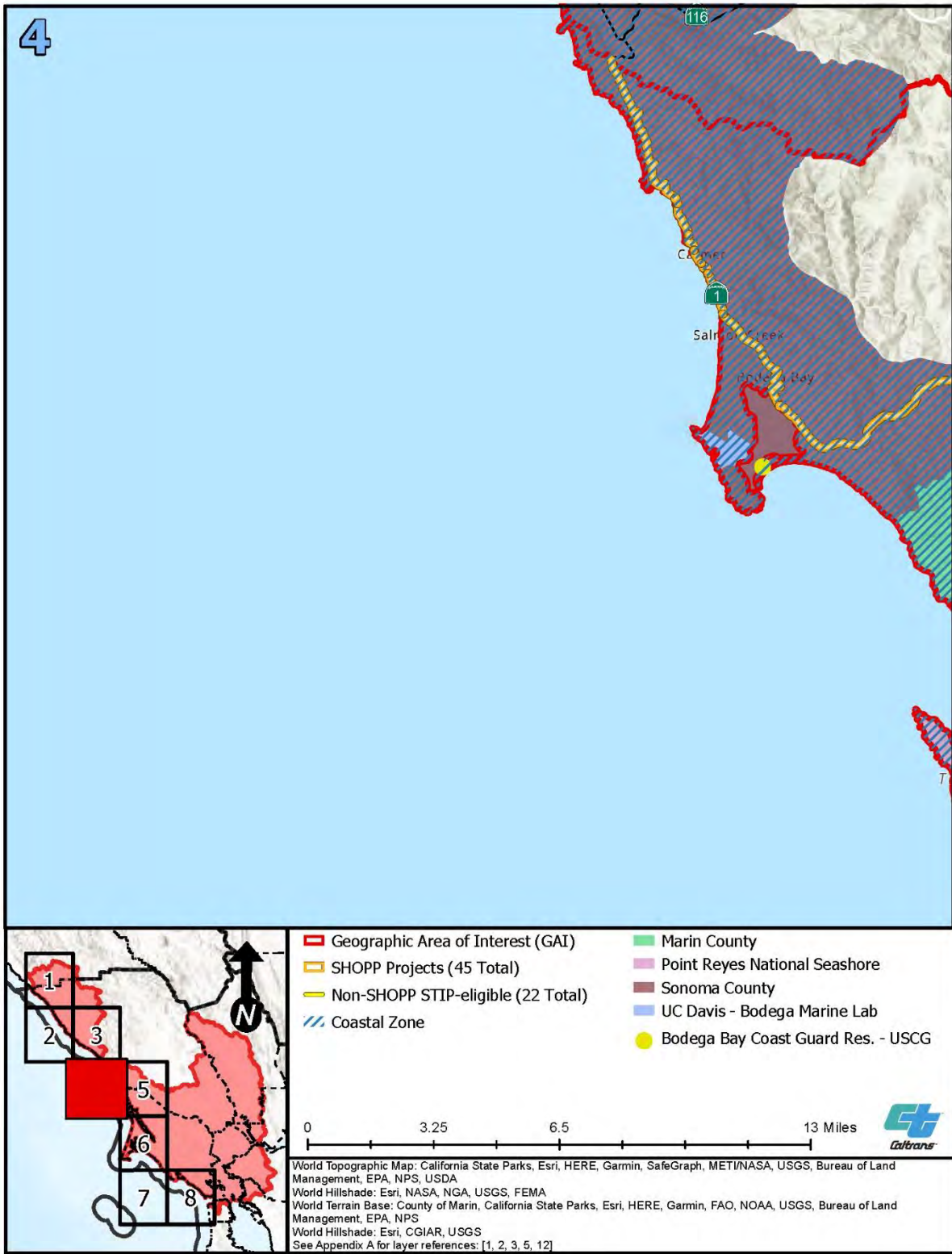
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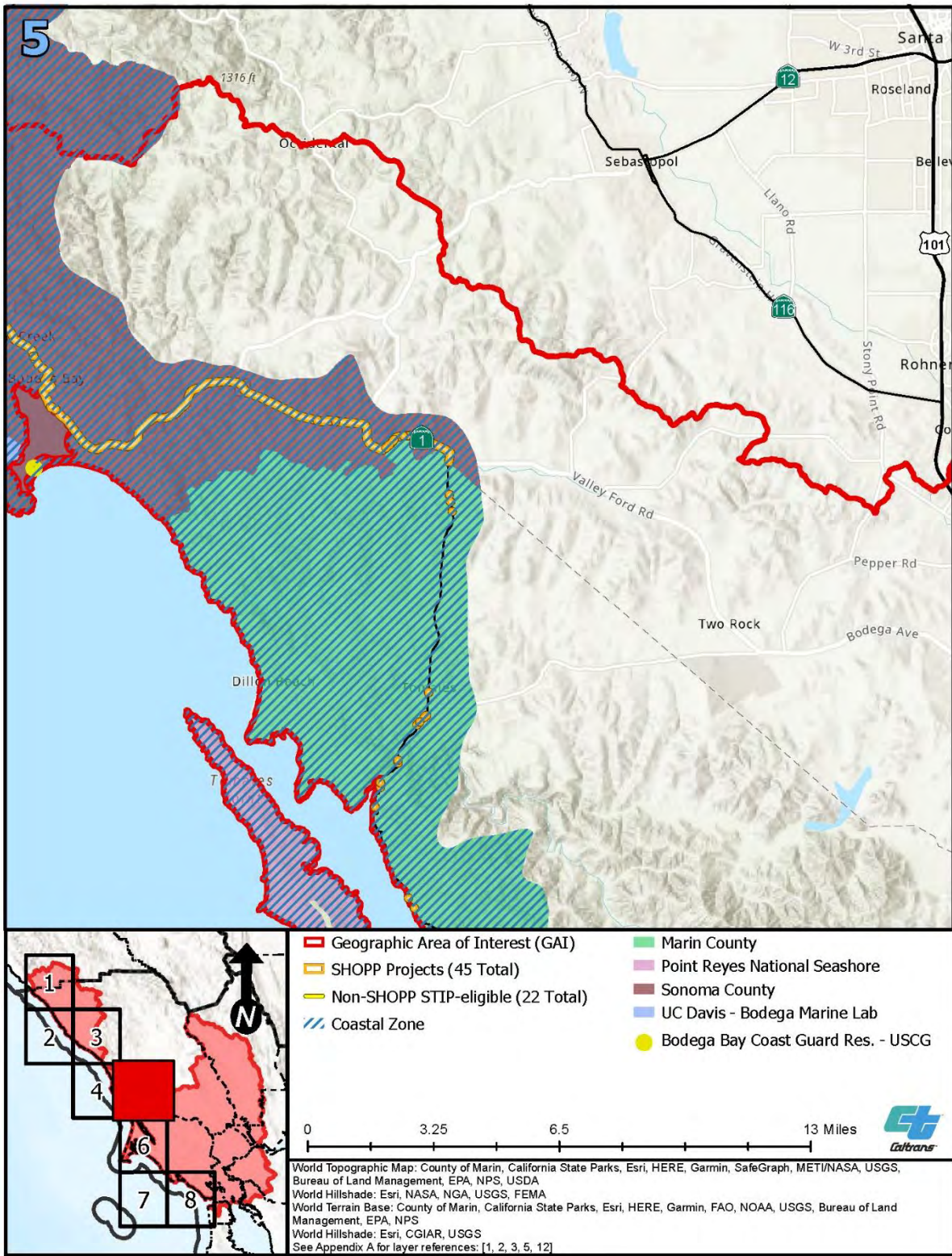


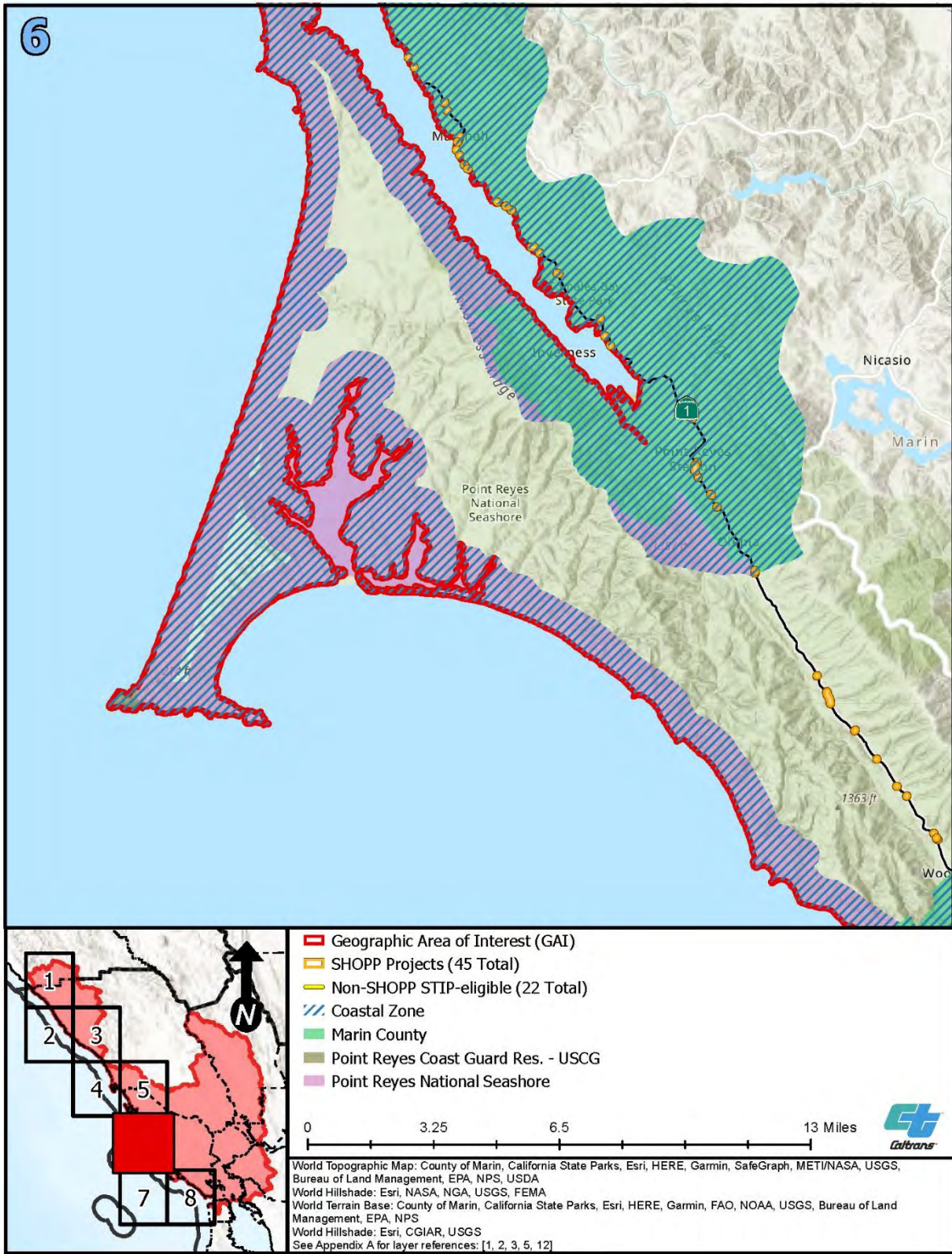


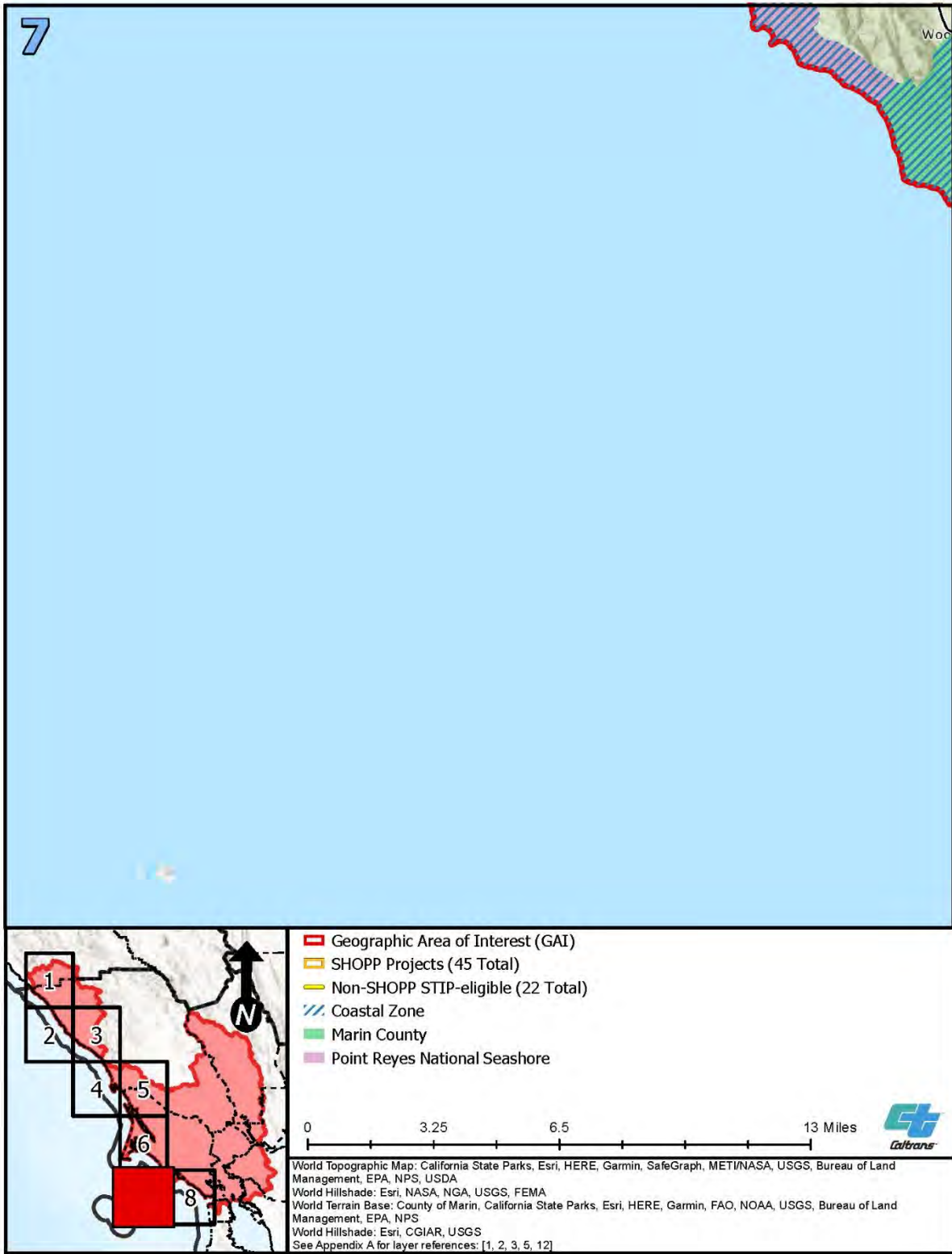


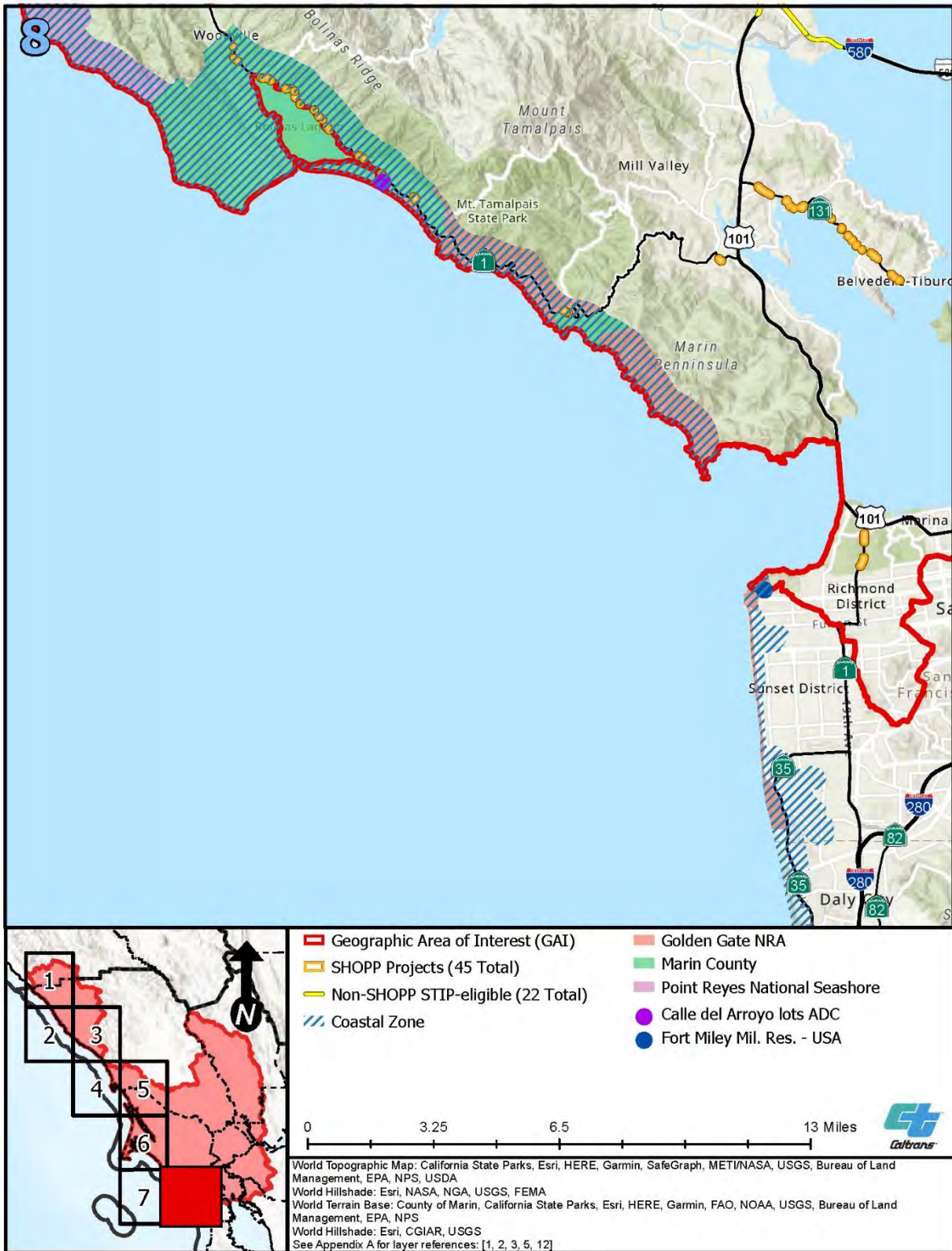












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APPENDIX D: COMPLETE SAMNA SPECIES RESULTS

Complete terrestrial species SAMNA results for the GAI are provided in Tables D-1 through D-3, which include SAMNA results for the portions of the Central California Coast Ecoregion Section (starts on page D-3), Northern California Coast Ecoregion Section (starts on page D-13), and Northern California Coast Ranges Ecoregion Section (starts on page D-25) within the GAI. The tables list the species for which the SAMNA has enough and the right kind of information to forecast potential impacts from transportation projects conceptualized in long-range transportation plans (Caltrans 2021). SAMNA results are only as accurate as their foundational data and have not been ground-truthed. Regarding these results:

- Species without CWHR system-supplied home ranges but identified by the California Natural Diversity Database as potentially present will be incorporated into the analysis of specific advance mitigation projects and future transportation projects.
- Subspecies may or may not have CWHR-supplied or other documented sources showing their home ranges. When a subspecies did not have home range information suitable for input into the SAMNA model, SAMNA results are provided at the species level, which may include both special-status and non-special-status species; therefore, the number of species with the potential to be affected may be overestimated.
- If impacts were estimated, additional information sources were consulted to determine whether special-status subspecies are located in the GAI, and the SAMNA results are usable for this analysis. Footnotes have been added to the tables where data input limitations and modeling assumptions resulted in identification of potential impacts on species or subspecies that are not present in the GAI.
- When no impacts are estimated for a specific habitat, for any species, the habitat was excluded from this appendix.
- When no impacts for a species are estimated for any habitat, the species is included. Based on available information, it is potentially present in the GAI, but not in the habitats forecast to be affected by transportation projects.

Total habitat impacts for each special-status species are indicated in the far right column of each table. Total habitat impacts in the bottom row of each table indicate the total anticipated impacts for each habitat type. These totals are not additive across all special-status species because each habitat type may provide suitable habitat for more than one special-status species or subspecies.

Habitats referenced in Tables D-1 through D-3 are mapped in Appendix B. The aquatic resources species of mitigation need for this GAI include Central California Coast ESU Coho salmon (*Oncorhynchus kisutch*), longfin smelt (*Spirinchus thaleichthys*), Central California Coast and Northern California DPS steelhead (*Oncorhynchus mykiss*), and

southern DPS green sturgeon (*Acipenser medirostris*). The terrestrial species of mitigation need for this GAI include Alameda whipsnake (*Coluber lateralis euryxanthus*), California red-legged frog (*Rana draytonii*), Myrtle's silverspot butterfly (*Speyeria zerene myrtleae*), northern spotted owl (*Strix occidentalis caurina*), salt marsh harvest mouse (*Reithrodontomys raviventris*), and Swainson's hawk (*Buteo swainsoni*). Several other special-status species share habitat with these species of mitigation need and may be affected by Caltrans future transportation projects. Advance mitigation planning will consider the special-status species that co-occur in habitats that may also benefit from advance mitigation project planning and scoping to improve the conservation benefits of compensatory mitigation in the GAI. For example, advance mitigation established for California red-legged frog impacts may also provide mitigation to compensate for impacts on other species. The types of habitats for the species of mitigation need with the potential to be affected in the GAI, and the other special-status species that may share these habitats, were excerpted from Tables D-1 through D-3 and are provided in Tables 5-14 through 5-16 in Chapter 5 of the main text.

References

Caltrans (California Department of Transportation). 2021. *Statewide Advance Mitigation Needs Assessment Report*. State Highway Operation and Protection Program. Ten-Year Project Book. Second Quarter 2019/2020 Fiscal Year. May. Sacramento, California.

Table D-1. Complete SAMNA Results for the Central California Coast Ecoregion Section in District 4, by Land Cover (acres)

Common Name	Scientific Name	Status	Annual Grassland	Blue Oak Woodland	Coastal Oak Woodland	Orchard-Vineyard	Saline Emergent Wetland	Urban	Valley Oak Woodland	Grand Total
Plants	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
San Mateo thorn-mint ^a	<i>Acanthomintha duttonii</i>	FE, SE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Hearsts' manzanita ^a	<i>Arctostaphylos hookeri</i> ssp. <i>hearstiorum</i>	SE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Marsh sandwort ^a	<i>Arenaria paludicola</i>	FE, SE	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05
Dwarf goldenstar ^a	<i>Bloomeria humilis</i>	FS, SR	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Tiburon mariposa lily	<i>Calochortus tiburonensis</i>	FT, ST	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Maritime ceanothus ^a	<i>Ceanothus maritimus</i>	SR	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Salt marsh bird's-beak	<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	FE, FS, SE	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05
Soft bird's-beak	<i>Chloropyron molle</i> ssp. <i>molle</i>	FE, SR	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05
Monterey spineflower ^a	<i>Chorizanthe pungens</i> var. <i>pungens</i>	FT, FS	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
La Graciosa thistle ^a	<i>Cirsium scariosum</i> var. <i>loncholepis</i>	FE, ST	0.25	0.00	0.00	0.00	0.05	0.00	0.00	0.30
Presidio clarkia	<i>Clarkia franciscana</i>	FE, SE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25

Common Name	Scientific Name	Status	Annual Grassland	Blue Oak Woodland	Coastal Oak Woodland	Orchard-Vineyard	Saline Emergent Wetland	Urban	Valley Oak Woodland	Grand Total
Pismo clarkia ^a	<i>Clarkia speciosa</i> <i>ssp. immaculata</i>	FE, SR	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Baker's larkspur	<i>Delphinium bakeri</i>	FE, SE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Roderick's fritillary	<i>Fritillaria roderickii</i>	SE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Marin western flax	<i>Hesperolinon congestum</i>	FT, ST	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Santa Cruz tarplant	<i>Holocarpha macradenia</i>	FT, SE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Contra Costa goldfields	<i>Lasthenia conjugens</i>	FE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Point Reyes meadowfoam	<i>Limnanthes douglasii</i> ssp. <i>sulphurea</i>	SE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Dudley's lousewort ^a	<i>Pedicularis dudleyi</i>	FS, SR	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
White-rayed pentachaeta	<i>Pentachaeta bellidiflora</i>	FE, SE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
San Francisco popcornflower ^a	<i>Plagiobothrys diffusus</i>	SE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Adobe sanicle ^a	<i>Sanicula maritima</i>	FS, SR	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Tiburon jewelflower	<i>Streptanthus glandulosus</i> ssp. <i>niger</i>	FE, SE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
California seablite	<i>Suaeda californica</i>	FE	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05

Common Name	Scientific Name	Status	Annual Grassland	Blue Oak Woodland	Coastal Oak Woodland	Orchard-Vineyard	Saline Emergent Wetland	Urban	Valley Oak Woodland	Grand Total
Two-fork clover	<i>Trifolium amoenum</i>	FE	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Pacific Grove clover ^a	<i>Trifolium polyodon</i>	FS, SR	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Amphibians	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
California tiger salamander	<i>Ambystoma californiense</i>	FE, ST	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Ensatina ^b	<i>Ensatina eschscholtzii</i>	FS	0.00	0.69	0.81	0.00	0.00	0.00	0.46	1.96
Foothill yellow-legged frog	<i>Rana boylei</i>	FS, SSC	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
California red-legged frog	<i>Rana draytonii</i>	FT, SSC	0.25	0.69	0.81	0.00	0.00	0.00	0.46	2.21
California newt ^c	<i>Taricha torosa</i>	FS, SSC	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Reptiles	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Ring-necked snake ^d	<i>Diadophis punctatus</i>	FS	0.25	0.69	0.81	0.00	0.00	3.93	0.46	6.14
Gophersnake	<i>Pituophis catenifer</i>	None	0.25	0.69	0.81	0.05	0.00	3.93	0.46	6.19
Western skink ^e	<i>Plestiodon skiltonianus</i>	FS	0.25	0.69	0.81	0.05	0.00	0.00	0.46	2.26
Common gartersnake ^f	<i>Thamnophis sirtalis</i>	FE, SE, SFP, SSC	0.25	0.69	0.81	0.05	0.00	0.00	0.46	2.26
Birds	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Red-winged blackbird ^g	<i>Agelaius phoeniceus</i>	SSC	0.25	0.00	0.00	0.05	0.05	3.93	0.00	4.28

Common Name	Scientific Name	Status	Annual Grassland	Blue Oak Woodland	Coastal Oak Woodland	Orchard-Vineyard	Saline Emergent Wetland	Urban	Valley Oak Woodland	Grand Total
Tricolored blackbird	<i>Agelaius tricolor</i>	FS, ST, SSC	0.25	0.00	0.00	0.05	0.00	3.93	0.00	4.23
Rufous-crowned sparrow ^h	<i>Aimophila ruficeps</i>	SSC	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Grasshopper sparrow	<i>Ammodramus savannarum</i>	SSC	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Greater white-fronted goose ⁱ	<i>Anser albifrons</i>	SSC	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05
Golden eagle	<i>Aquila chrysaetos</i>	FS, SFP, SFS	0.25	0.69	0.81	0.00	0.00	3.93	0.46	6.14
Great egret	<i>Ardea alba</i>	SFS	0.25	0.69	0.81	0.00	0.05	3.93	0.46	6.19
Great blue heron	<i>Ardea herodias</i>	SFS	0.25	0.69	0.81	0.00	0.05	3.93	0.46	6.19
Short-eared owl	<i>Asio flammeus</i>	SSC	0.25	0.69	0.81	0.00	0.05	3.93	0.46	6.19
Long-eared owl	<i>Asio otus</i>	SSC	0.25	0.69	0.81	0.00	0.00	0.00	0.46	2.21
Burrowing owl	<i>Athene cunicularia</i>	FS, SSC	0.25	0.69	0.81	0.00	0.00	3.93	0.46	6.14
Redhead ^j	<i>Aythya americana</i>	SSC	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05
Swainson's hawk	<i>Buteo swainsoni</i>	FS, ST	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.79
California quail ^k	<i>Callipepla californica</i>	SSC	0.25	0.69	0.81	0.05	0.00	3.93	0.46	6.19
Northern harrier	<i>Circus hudsonius [cyaneus]^l</i>	SSC	0.25	0.69	0.81	0.05	0.05	3.93	0.46	6.24

Common Name	Scientific Name	Status	Annual Grassland	Blue Oak Woodland	Coastal Oak Woodland	Orchard-Vineyard	Saline Emergent Wetland	Urban	Valley Oak Woodland	Grand Total
Marsh wren ^m	<i>Cistothorus palustris</i>	SSC	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05
White-tailed kite	<i>Elanus leucurus</i>	FS, SFP	0.25	0.69	0.81	0.05	0.05	3.93	0.46	6.24
American peregrine falcon	<i>Falco peregrinus anatum</i> ^l	FS, SFP, SFS	0.25	0.69	0.81	0.00	0.05	3.93	0.46	6.19
Common yellowthroat	<i>Geothlypis trichas</i>	SSC	0.25	0.00	0.00	0.00	0.05	0.00	0.00	0.30
Bald eagle	<i>Haliaeetus leucocephalus</i>	FS, SE, SFP, SFS	0.25	0.69	0.81	0.00	0.05	0.00	0.46	2.26
Loggerhead shrike	<i>Lanius ludovicianus</i>	SSC	0.25	0.69	0.81	0.05	0.00	3.93	0.46	6.19
Song sparrow	<i>Melospiza melodia</i>	None	0.25	0.69	0.81	0.05	0.05	3.93	0.46	6.24
Suisun song sparrow ⁿ	<i>Melospiza melodia maxillaris</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.69	0.00	0.69
Alameda song sparrow ^o	<i>Melospiza melodia pusillula</i>	SSC	0.00	0.00	0.00	0.00	0.00	2.42	0.00	2.42
Samuel's song sparrow ^p	<i>Melospiza melodia samuelis</i>	SSC	0.00	0.00	0.00	0.00	0.00	3.91	0.00	3.91
Osprey	<i>Pandion haliaetus</i>	SFS	0.25	0.69	0.81	0.00	0.05	0.00	0.46	2.26
Savannah sparrow ^q	<i>Passerculus sandwichensis</i>	SSC	0.25	0.69	0.81	0.05	0.05	0.00	0.46	2.31
Bryant's savannah sparrow	<i>Passerculus sandwichensis alaudinus</i>	SSC	0.00	0.69	0.81	0.00	0.00	0.00	0.46	1.96

Common Name	Scientific Name	Status	Annual Grassland	Blue Oak Woodland	Coastal Oak Woodland	Orchard-Vineyard	Saline Emergent Wetland	Urban	Valley Oak Woodland	Grand Total
California towhee ^f	<i>Melospiza [Pipilo] crissalis^k</i>	FT, SE	0.00	0.69	0.81	0.05	0.00	3.93	0.46	5.94
Spotted towhee ^s	<i>Pipilo maculatus</i>	SSC	0.00	0.69	0.81	0.05	0.00	3.93	0.46	5.94
Vaux's swift	<i>Chaetura vauxi</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Purple martin	<i>Progne subis</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.11
Bank swallow ^t	<i>Riparia riparia</i>	FS, ST	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Yellow warbler	<i>Setophaga petechia</i>	SSC	0.00	0.69	0.81	0.00	0.00	3.82	0.46	5.78
Bewick's wren ^u	<i>Thryomanes bewickii</i>	SSC	0.00	0.69	0.81	0.05	0.00	3.93	0.46	5.94
Hutton's vireo ^v	<i>Vireo huttoni</i>	SSC	0.00	0.69	0.81	0.05	0.00	3.93	0.46	5.94
Mammals	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Pallid bat	<i>Antrozous pallidus</i>	FS, SSC	0.25	0.69	0.81	0.05	0.00	3.93	0.46	6.19
Ringtail	<i>Bassariscus astutus</i>	SFP	0.25	0.69	0.81	0.00	0.00	0.00	0.46	2.21
California pocket mouse ^w	<i>Chaetodipus californicus</i>	SSC	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	FS, SSC	0.25	0.69	0.81	0.05	0.00	3.93	0.46	6.19
California kangaroo rat ^x	<i>Dipodomys californicus</i>	SSC	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05
Heermann's kangaroo rat ^y	<i>Dipodomys heermanni</i>	FE, SE, SFP	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Western mastiff bat ^z	<i>Eumops perotis</i>	SSC	0.25	0.69	0.81	0.00	0.00	3.82	0.46	6.03

Common Name	Scientific Name	Status	Annual Grassland	Blue Oak Woodland	Coastal Oak Woodland	Orchard-Vineyard	Saline Emergent Wetland	Urban	Valley Oak Woodland	Grand Total
Western red bat	<i>Lasiurus blossevillei</i>	SSC	0.25	0.69	0.81	0.00	0.00	3.93	0.46	6.14
Black-tailed jackrabbit ^{aa}	<i>Lepus californicus</i>	SSC	0.25	0.69	0.81	0.05	0.00	3.93	0.46	6.19
California vole ^{bb}	<i>Microtus californicus</i>	SSC	0.25	0.69	0.81	0.05	0.05	3.93	0.46	6.24
Long-eared myotis	<i>Myotis evotis</i>	FS	0.00	0.69	0.81	0.05	0.00	0.00	0.46	2.01
Fringed myotis	<i>Myotis thysanodes</i>	FS	0.25	0.69	0.81	0.00	0.00	3.93	0.46	6.14
Yuma myotis	<i>Myotis yumanensis</i>	FS	0.25	0.69	0.81	0.05	0.00	3.93	0.46	6.19
Dusky-footed woodrat ^{cc}	<i>Neotoma fuscipes</i>	SSC	0.00	0.69	0.81	0.00	0.00	0.00	0.46	1.96
Big free-tailed bat ^{dd}	<i>Nyctinomops macrotis</i>	SSC	0.00	0.00	0.00	0.00	0.00	3.13	0.00	3.13
Deer mouse ^{ee}	<i>Peromyscus maniculatus</i>	SSC	0.25	0.69	0.81	0.05	0.05	3.93	0.46	6.24
Mmountain lion	<i>Puma concolor</i>	SCT	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Salt-marsh harvest mouse	<i>Reithrodontomys raviventris</i>	FE, SE, SFP	0.25	0.00	0.00	0.00	0.05	0.00	0.00	0.30
Broad-footed mole ^{ff}	<i>Scapanus latimanus</i>	SSC	0.25	0.69	0.81	0.05	0.00	0.00	0.46	2.26
Ornate shrew ^{gg}	<i>Sorex ornatus</i>	SSC	0.25	0.69	0.81	0.00	0.05	0.00	0.46	2.26
Vagrant shrew ^{hh}	<i>Sorex vagrans</i>	SSC	0.00	0.69	0.81	0.00	0.00	0.00	0.46	1.96
Western spotted skunk ⁱⁱ	<i>Spilogale gracilis</i>	SSC	0.25	0.69	0.81	0.05	0.00	3.93	0.46	6.19

Common Name	Scientific Name	Status	Annual Grassland	Blue Oak Woodland	Coastal Oak Woodland	Orchard-Vineyard	Saline Emergent Wetland	Urban	Valley Oak Woodland	Grand Total
Brush rabbit ^{jj}	<i>Sylvilagus bachmani</i>	FE, SE	0.25	0.69	0.81	0.05	0.00	3.93	0.46	6.19
American badger	<i>Taxidea taxus</i>	SSC	0.25	0.69	0.81	0.05	0.00	0.00	0.46	2.26
Red fox ^{kk}	<i>Vulpes vulpes</i>	None	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05
Not applicable	Not applicable	Total	0.25	0.69	0.81	0.05	0.05	3.93	0.46	6.24

Notes: FE = federally endangered; FS = federally sensitive (USFS and/or BLM sensitive); FT = federally threatened; SCT = state candidate threatened; SE = state endangered; SFP = state fully protected; SFS = state fire sensitive; SR = state rare; SSC = species of special concern (CDFW); ST = state threatened
^a This plant species does not occur in the Central California Coast Ecoregion Section or records of occurrences are over 100 years old and the species is unlikely to occur in the Central California Coast Ecoregion Section.

^b *Ensatina*: Only the large-blotched and yellow-blotched subspecies are special status, and they do not occur in the GAI (neither range further north than Kern County).

^c California newt: Only the populations from Monterey County south are special status, which do not include the GAI.

^d Ring-necked snake: Only the San Bernardino, San Diego, and regal subspecies are special status, and they do not occur in the GAI (none range further north than Inyo County).

^e Western skink: Only the Coronado subspecies is special status, and it does not occur in the GAI (does not range north of San Diego County).

^f Common gartersnake: Only the south coast and San Francisco subspecies are special status, and they do not occur in the GAI (south coast ranges from Ventura County south, San Francisco is nearly endemic to San Mateo County).

^g Red-winged blackbird: Only the Kern subspecies is special status, and it does not occur in the GAI (restricted to Kern County).

^h Rufous-crowned sparrow: Only the Santa Cruz Island subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).

ⁱ Greater white-fronted goose: Only the Tule subspecies is special status; it occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.

^j Redhead: Species is only considered special status where it nests, and it does not nest in the GAI (in northern California, only nests in northeastern part of the state from Siskiyou County south to the Tahoe Basin and in the Central Valley).

^k California quail: Only the Catalina subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).

^l Latin name or regulatory status has changed since the SAMNA model was run (Caltrans 2021).

^m Marsh wren: Only the Clark's subspecies is special status, and it does not occur in the GAI (does not range north of Los Angeles County).

ⁿ Suisun song sparrow: This subspecies does not occur in the GAI (does not range west of Benicia State Recreation Area).

^o Alameda song sparrow: This subspecies occurs in the GAI, but only in the Northern California Coast Ranges section, not the Central California Coast or Northern California Coast sections.

^p Samuel's song sparrow: This subspecies occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.

^q Savannah sparrow: The only subspecies that is SSC besides Bryant's (which is listed separately), is the large-billed subspecies, which does not occur in the GAI (large-billed does not range north of San Luis Obispo County).

^r California towhee: Only the Inyo subspecies is special status, and it does not occur in the GAI (restricted to Inyo County).

- ^s Spotted towhee: Only the San Clemente subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).
- ^t Bank swallow: Does not nest in the GAI (would only occur there as a migrant).
- ^u Bewick's wren: Only the San Clemente subspecies is special status, and it does not occur in the GAI (was endemic to San Clemente Island and is now extinct).
- ^v Hutton's vireo: Only the Catalina subspecies is special status, and it does not occur in the GAI (endemic to Santa Catalina Island).
- ^w California pocket mouse: Only the Dulzura subspecies is special status, and it does not occur in the GAI (does not range north of Ventura County).
- ^x California kangaroo rat: Only the Marysville subspecies is special status, and it does not occur in the GAI (endemic to the Sutter Buttes).
- ^y Heermann's kangaroo rat: Only the Morro Bay subspecies is special status, and it does not occur in the GAI (endemic to San Luis Obispo County).
- ^z Western mastiff bat: Occurs in the GAI, but only in the Northern California Coast Ranges section, not the Central California Coast or Northern California Coast sections.
- ^{aa} Black-tailed jackrabbit: Only the San Diego subspecies is special status, and it does not occur in the GAI (does not range north of Santa Barbara County).
- ^{bb} California vole: There are six subspecies which are special status, of which only the San Pablo subspecies occurs in the GAI; it occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.
- ^{cc} Dusky-footed woodrat: Only the San Francisco and riparian subspecies are special status, and only the San Francisco subspecies occurs in the GAI; it occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.
- ^{dd} Big free-tailed bat: Occurs in the GAI, but only in the Northern California Coast Ranges section, not the Central California Coast or Northern California Coast sections.
- ^{ee} Deer mouse: Only the Channel Islands subspecies are special status, and they do not occur in the GAI (restricted to Channel Islands).
- ^{ff} Broad-footed mole: Only the Alameda Island subspecies is special status, and it does not occur in the GAI (endemic to Alameda Island).
- ^{gg} Ornate shrew: There are five subspecies which are special status, of which only the Suisun subspecies occurs in the GAI; it occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.
- ^{hh} Vagrant shrew: Only the salt-marsh wandering subspecies is special status; it occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.
- ⁱⁱ Western spotted skunk: Only the Channel Islands subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).
- ^{jj} Brush rabbit: Only the riparian subspecies is special status, and it does not occur in the GAI (restricted to the San Joaquin Valley).
- ^{kk} Red fox: Only the Sierra Nevada subspecies is special status, and it does not occur in the GAI (restricted to the Cascade and Sierra Nevada Mountain Ranges).

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Table D-2. Complete SAMNA Results for the Northern California Coast Ecoregion Section in District 4, by Land Cover (acres)

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total
Plants	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
San Mateo thorn-mint ^a	<i>Acanthomintha duttonii</i>	FE, SE	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56
Franciscan manzanita	<i>Arctostaphylos franciscana</i>	FE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Hearsts' manzanita ^a	<i>Arctostaphylos hookeri</i> ssp. <i>hearstiorum</i>	SE	1.79	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
San Bruno Mountain manzanita	<i>Arctostaphylos imbricata</i>	SE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Presidio manzanita	<i>Arctostaphylos montana</i> ssp. <i>ravenii</i>	FE, SE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Morro manzanita ^a	<i>Arctostaphylos morroensis</i>	FT	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Pacific manzanita	<i>Arctostaphylos pacifica</i>	SE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Clara Hunt's milk-vetch	<i>Astragalus claranus</i>	FE, ST	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14
Coastal dunes milk-vetch ^a	<i>Astragalus tener</i> var. <i>titi</i>	FE, SE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Sonoma sunshine	<i>Blennosperma bakeri</i>	FE, SE	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.77
Point Reyes blennosperma	<i>Blennosperma nanum</i> var. <i>robustum</i>	SR	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Dwarf goldenstar ^a	<i>Bloomeria humilis</i>	FS, SR	1.79	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Indian Valley brodiaea ^a	<i>Brodiaea rosea</i>	FS, SE	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84
Tiburon mariposa lily	<i>Calochortus tiburonensis</i>	FT, ST	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.79

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total
Tiburon paintbrush	<i>Castilleja affinis</i> ssp. <i>neglecta</i>	FE, ST	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76
Coyote ceanothus ^a	<i>Ceanothus ferrisiae</i>	FE	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62
Hearsts' ceanothus ^a	<i>Ceanothus hearstiorum</i>	FS, SR	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Maritime ceanothus ^a	<i>Ceanothus maritimus</i>	SR	1.79	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Salt marsh bird's-beak	<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	FE, FS, SE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	0.00	2.31
Soft bird's-beak	<i>Chloropyron molle</i> ssp. <i>molle</i>	FE, SR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	0.00	2.10
Howell's spineflower ^a	<i>Chorizanthe howellii</i>	FE, ST	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Monterey spineflower ^a	<i>Chorizanthe pungens</i> var. <i>pungens</i>	FT, FS	2.56	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77
Scotts Valley spineflower	<i>Chorizanthe robusta</i> var. <i>hartwegii</i>	FE	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62
Robust spineflower	<i>Chorizanthe robusta</i> var. <i>robusta</i>	FE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Sonoma spineflower	<i>Chorizanthe valida</i>	FE, SE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Crystal Springs fountain thistle ^a	<i>Cirsium fontinale</i> var. <i>fontinale</i>	FE, SE	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62
Surf thistle ^a	<i>Cirsium rhotophilum</i>	FS, ST	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
La Graciosa thistle ^a	<i>Cirsium scariosum</i> var. <i>loncholepis</i>	FE, ST	1.79	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	0.00	4.10
Presidio clarkia	<i>Clarkia franciscana</i>	FE, SE	2.56	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77
Vine Hill clarkia	<i>Clarkia imbricata</i>	FE, SE	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Pismo clarkia ^a	<i>Clarkia speciosa</i> ssp. <i>immaculata</i>	FE, SR	1.79	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.81

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total	
Seaside bird's-beak ^a	<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i>	FS, SE	0.00	0.00	0.02	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
Baker's larkspur	<i>Delphinium bakeri</i>	FE, SE	2.56	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77
Golden larkspur	<i>Delphinium luteum</i>	FE, SR	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Beach spectaclepod ^a	<i>Dithyrea maritima</i>	ST	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Santa Clara Valley dudleya	<i>Dudleya abramsii</i> ssp. <i>setchellii</i>	FE	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62
Lompoc yerba santa ^a	<i>Eriodictyon capitatum</i>	FE, SR	0.00	0.00	0.02	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
Loch Lomond button-celery ^a	<i>Eryngium constancei</i>	FE, SE	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
Menzies' wallflower ^a	<i>Erysimum menziesii</i>	FE, SE	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Roderick's fritillary	<i>Fritillaria roderickii</i>	SE	6.47	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.72
Monterey gilia ^a	<i>Gilia tenuiflora</i> ssp. <i>arenaria</i>	FE, ST	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Boggs Lake hedge-hyssop ^a	<i>Gratiola heterosepala</i>	FS, SE	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Gowen cypress	<i>Hesperocyparis goveniana</i>	FT	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Marin western flax	<i>Hesperolinon congestum</i>	FT, ST	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56
Lake County western flax ^a	<i>Hesperolinon didymocarpum</i>	SE	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84
Santa Cruz tarplant	<i>Holocarpha macradenia</i>	FT, SE	1.79	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Burke's goldfields ^a	<i>Lasthenia burkei</i>	FE, SE	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Contra Costa goldfields	<i>Lasthenia conjugens</i>	FE	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.56
Beach layia	<i>Layia carnosa</i>	FE, SE	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total
Coast yellow leptosiphon ^a	<i>Leptosiphon croceus</i>	SE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
San Francisco lessingia	<i>Lessingia germanorum</i>	FE, SE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Mason's lilaepsis	<i>Lilaeopsis masonii</i>	SR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50
Western lily ^a	<i>Lilium occidentale</i>	FE, SE	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Pitkin marsh lily ^a	<i>Lilium pardalinum ssp. pitkinense</i>	FE, SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Baker's meadowfoam ^a	<i>Limnanthes bakeri</i>	SR	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Point Reyes meadowfoam	<i>Limnanthes douglasii ssp. sulphurea</i>	SE	1.79	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Sebastopol meadowfoam ^a	<i>Limnanthes vinculans</i>	FE, SE	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Milo Baker's lupine ^a	<i>Lupinus milo-bakeri</i>	ST	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
Nipomo Mesa lupine ^a	<i>Lupinus nipomensis</i>	FE, SE	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Tidestrom's lupine	<i>Lupinus tidestromii</i>	FE, SE	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Few-flowered navarretia	<i>Navarretia leucocephala ssp. pauciflora</i>	FE, FS, ST	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Many-flowered navarretia ^a	<i>Navarretia leucocephala ssp. plieantha</i>	FE, SE	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
Slender Orcutt grass ^a	<i>Orcuttia tenuis</i>	FT, SE	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Geysers panicum ^a	<i>Panicum acuminatum var. thermale</i>	SE	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.46
Dudley's lousewort ^a	<i>Pedicularis dudleyi</i>	FS, SR	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56
White-rayed pentachaeta	<i>Pentachaeta bellidiflora</i>	FE, SE	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total
Yadon's rein orchid ^a	<i>Piperia yadonii</i>	FE	0.00	0.00	0.02	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
San Francisco popcornflower ^a	<i>Plagiobothrys diffusus</i>	SE	2.56	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77
Calistoga popcornflower	<i>Plagiobothrys strictus</i>	FE, ST	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Napa blue grass	<i>Poa napensis</i>	FE, SE	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Scotts Valley polygonum ^a	<i>Polygonum hickmanii</i>	FE, SE	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62
Hickman's cinquefoil ^a	<i>Potentilla hickmanii</i>	FE, SE	0.00	0.00	0.02	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
Adobe sanicle ^a	<i>Sanicula maritima</i>	FS, SR	2.56	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.77
Rock sanicle ^a	<i>Sanicula saxatilis</i>	SR	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62
Lake County stonecrop ^a	<i>Sedella leiocarpa</i>	FE, SE	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
Keck's checkerbloom ^a	<i>Sidalcea keckii</i>	FE	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
Metcalf Canyon jewelflower ^a	<i>Streptanthus albidus</i> ssp. <i>albidus</i>	FE	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62
Tiburon jewelflower	<i>Streptanthus glandulosus</i> ssp. <i>niger</i>	FE, SE	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.79
California seablite	<i>Suaeda californica</i>	FE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	0.00	2.10
Two-fork clover	<i>Trifolium amoenum</i>	FE	2.85	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.06
Pacific Grove clover ^a	<i>Trifolium polyodon</i>	FS, SR	1.79	0.00	0.02	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.02
Monterey clover ^a	<i>Trifolium trichocalyx</i>	FE, SE	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Invertebrates	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Behren's silverspot butterfly	<i>Speyeria zerene behrensii</i>	FE	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31
Myrtle's silverspot butterfly	<i>Speyeria zerene myrleae</i>	FE	0.00	99.75	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	99.84

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total
Amphibians	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Ensatina ^b	<i>Ensatina eschscholtzii</i>	FS	0.00	0.00	2.37	0.43	0.25	1.04	0.06	0.00	0.00	0.51	0.42	0.14	1.86	0.00	0.00	0.25	0.00	0.00	7.33
Foothill yellow-legged frog	<i>Rana boylei</i>	FS, SSC	6.35	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.76	0.00	0.00	0.25	0.00	0.00	13.59
California red-legged frog	<i>Rana draytonii</i>	FT, SSC	6.07	0.00	1.75	0.43	0.25	1.04	0.07	1.30	0.00	0.51	0.42	0.14	1.86	0.00	0.00	0.25	0.00	0.00	14.09
California newt ^c	<i>Taricha torosa</i>	FE, FS, ST	1.67	0.00	0.00	0.43	0.19	0.94	0.07	0.29	0.00	0.51	0.00	0.00	1.86	0.00	0.00	0.00	0.00	0.00	5.96
Reptiles	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Northern rubber boa	<i>Charina bottae</i>	None	0.00	0.00	2.37	0.00	0.00	0.10	0.06	0.00	0.00	0.00	0.09	0.14	0.39	0.00	0.00	0.25	0.00	0.00	3.40
Striped racer ^d	<i>Masticophis [Coluber] lateralis^e</i>	FT, ST	0.00	0.00	0.00	0.37	0.00	0.94	0.01	0.00	0.00	0.51	0.33	0.00	1.47	0.00	0.00	0.00	0.00	0.00	3.63
Ring-necked snake ^f	<i>Diadophis punctatus</i>	FS	6.47	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	0.00	0.23	0.00	0.00	12.30	26.09
California mountain kingsnake	<i>Lampropeltis zonata</i>	None	0.12	0.00	0.00	0.03	0.00	0.94	0.01	0.00	0.00	0.51	0.08	0.00	1.37	0.00	0.00	0.00	0.00	0.00	3.06
Gophersnake	<i>Pituophis catenifer</i>	None	6.47	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	12.30	29.08
Western skink ^g	<i>Plestiodon skiltonianus</i>	FS	6.47	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	0.00	16.78
Common sagebrush lizard ^h	<i>Sceloporus graciosus</i>	FS	0.00	0.00	0.00	0.00	0.00	1.04	0.01	0.00	0.00	0.51	0.17	0.14	0.00	0.00	0.00	0.00	0.00	0.00	1.87
Common gartersnake ⁱ	<i>Thamnophis sirtalis</i>	SSC	6.47	0.00	2.37	0.43	0.25	1.04	0.07	1.30	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	0.00	18.08
Birds	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Great blue heron	<i>Ardea herodias</i>	SFS	6.47	0.00	2.37	0.43	0.25	1.04	0.07	1.30	0.05	0.00	0.42	0.14	1.86	0.00	0.00	0.25	2.10	12.30	29.05
Great egret	<i>Ardea alba</i>	SFS	5.47	0.00	2.37	0.43	0.00	0.94	0.07	0.29	0.00	0.00	0.00	0.06	1.86	0.00	0.00	0.25	0.26	12.20	24.20
Osprey	<i>Pandion haliaetus</i>	SFS	6.47	241.74	2.37	0.43	0.00	1.04	0.07	1.30	0.05	0.51	0.42	0.14	1.86	0.00	0.00	0.25	2.10	0.00	258.75

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total
White-tailed kite	<i>Elanus leucurus</i>	FS, SFP	6.47	241.74	0.00	0.43	0.25	0.00	0.07	0.00	0.00	0.51	0.00	0.00	0.00	2.74	0.00	0.25	2.10	12.30	266.86
Bald eagle	<i>Haliaeetus leucocephalus</i>	FS, SE, SFP	6.47	241.74	0.00	0.43	0.25	1.04	0.07	1.30	0.05	0.51	0.42	0.14	1.86	0.00	0.00	0.25	2.10	0.00	256.63
Northern harrier	<i>Circus hudsonius [cyaneus]^e</i>	SSC	6.19	228.52	2.37	0.06	0.25	0.10	0.06	1.30	0.05	0.04	0.09	0.14	0.39	0.00	0.00	0.25	2.10	4.46	246.37
Golden eagle	<i>Aquila chrysaetos</i>	FS, SFP	6.47	241.74	0.00	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	0.00	0.23	0.25	0.00	12.30	265.71
American peregrine falcon	<i>Falco peregrinus anatum^e</i>	FS, SFP	6.47	241.74	2.37	0.43	0.25	1.04	0.07	1.30	0.05	0.51	0.42	0.14	1.86	0.00	0.00	0.25	2.10	12.30	271.30
California quail ^l	<i>Callipepla californica</i>	None	6.47	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.00	0.25	0.00	12.30	28.85
Snowy plover	<i>Charadrius nivosus</i>	FT, SSC	0.00	228.52	0.00	0.00	0.00	0.00	0.00	1.28	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	229.85
Burrowing owl	<i>Athene cunicularia</i>	FS, SSC	5.73	228.14	0.00	0.06	0.25	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.46	238.70
Long-eared owl	<i>Asio otus</i>	SSC	6.47	0.00	0.00	0.43	0.00	0.00	0.07	0.00	0.00	0.51	0.42	0.14	1.86	0.00	0.23	0.00	0.00	0.00	10.13
Short-eared owl	<i>Asio flammeus</i>	SSC	6.47	0.00	0.00	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.00	0.14	1.86	0.00	0.00	0.25	2.10	12.30	25.42
Vaux's swift	<i>Chaetura vauxi</i>	SSC	0.00	0.00	2.35	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.09	0.14	0.00	0.00	0.00	0.25	0.00	0.93	3.86
Purple martin	<i>Progne subis</i>	SSC	5.53	0.00	2.37	0.38	0.00	1.04	0.06	0.02	0.00	0.00	0.42	0.14	0.73	0.00	0.00	0.25	0.00	7.44	18.38
Loggerhead shrike	<i>Lanius ludovicianus</i>	SSC	5.77	240.70	2.37	0.43	0.21	0.00	0.07	0.00	0.00	0.51	0.33	0.06	1.86	2.74	0.00	0.00	0.00	12.20	267.25
Hutton's vireo ^k	<i>Vireo huttoni</i>	SSC	0.00	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.00	0.25	0.00	12.30	22.38
Yellow warbler	<i>Setophaga petechia</i>	SSC	0.00	0.00	2.37	0.06	0.25	0.12	0.06	0.00	0.00	0.00	0.23	0.14	0.39	0.01	0.00	0.25	0.00	4.46	8.34
Common yellowthroat ^l	<i>Geothlypis trichas</i>	SSC	6.47	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	1.86	0.00	0.00	0.00	2.10	0.00	10.50
Spotted towhee ^m	<i>Pipilo maculatus</i>	SSC	0.00	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.00	0.25	0.00	12.30	22.38
California towhee ⁿ	<i>Melospiza [Pipilo] crissalis^e</i>	FT, SE	0.00	0.00	2.37	0.43	0.25	0.00	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.00	0.00	0.00	12.30	21.09
Savannah sparrow	<i>Passerculus sandwichensis</i>	None	6.47	0.00	0.00	0.43	0.25	0.00	0.07	0.00	0.00	0.51	0.00	0.00	0.00	2.74	0.23	0.00	2.10	0.00	12.80
Bryant's savannah sparrow	<i>Passerculus sandwichensis alaudinus</i>	SSC	5.73	0.00	0.00	0.06	0.25	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	0.00	8.20

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total	
Grasshopper sparrow	<i>Ammodramus savannarum</i>	SSC	6.35	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.42
Song sparrow	<i>Melospiza melodia</i>	None	6.47	0.00	2.37	0.43	0.25	1.04	0.07	1.30	0.05	0.51	0.42	0.14	1.86	2.74	0.00	0.25	2.10	12.30	0.00	32.30
Red-winged blackbird ^o	<i>Agelaius phoeniceus</i>	SSC	6.47	0.00	0.00	0.00	0.25	0.00	0.07	0.00	0.00	0.00	0.00	0.00	1.86	2.74	0.00	0.00	2.10	12.30	0.00	25.79
Common loon ^p	<i>Gavia immer</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
American white pelican ^q	<i>Pelecanus erythrorhynchos</i>	SSC	0.00	236.06	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	236.35
Brant	<i>Branta bernicla</i>	SSC	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.14
Redhead ^r	<i>Aythya americana</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	1.00
Harlequin duck ^s	<i>Histrionicus histrionicus</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Barrow's goldeneye ^t	<i>Bucephala islandica</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35
Sooty grouse ^u	<i>Dendragapus fuliginosus</i>	SSC	0.82	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.09	0.08	0.00	0.00	0.00	0.01	0.00	0.00	0.00	1.10
Black rail ^v	<i>Laterallus jamaicensis</i>	FS, ST, SFP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.07	0.00	0.00	3.35
Clapper rail	<i>Rallus longirostris</i>	None	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.06	0.00	0.00	3.34
California Ridgway's [clapper] rail ^w	<i>Rallus obsoletus [longirostris]^e obsoletus</i>	FE, SE, SFP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.06	0.00	0.00	3.34
Mountain plover ^x	<i>Charadrius montanus</i>	FS, SSC	0.05	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41
Marbled murrelet	<i>Brachyramphus marmoratus</i>	FT, SE, SFS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Cassin's auklet	<i>Ptychoramphus aleuticus</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Tufted puffin	<i>Fratercula cirrhata</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Spotted owl	<i>Strix occidentalis</i>	None	0.00	0.00	0.00	0.04	0.00	0.58	0.00	0.00	0.00	0.00	0.14	0.14	0.50	0.00	0.00	0.25	0.00	0.00	0.00	1.65

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total
Northern spotted owl	<i>Strix occidentalis caurina</i>	FT, ST, SFS	0.00	0.00	0.00	0.04	0.00	0.58	0.00	0.00	0.00	0.00	0.14	0.14	0.50	0.00	0.00	0.25	0.00	0.00	1.65
Olive-sided flycatcher	<i>Contopus cooperi</i>	SSC	0.00	0.00	0.00	0.00	0.00	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	0.00	0.00	0.25	0.00	0.00	4.29
Bewick's wren ^y	<i>Thryomanes bewickii</i>	SSC	0.00	0.00	0.00	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.00	0.25	0.00	12.30	20.01
Marsh wren ^z	<i>Cistothorus palustris</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.86	0.00	0.00	0.00	2.10	0.00	3.96
Yellow-breasted chat	<i>Icteria virens</i>	SSC	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.18
Rufous-crowned sparrow ^{aa}	<i>Aimophila ruficeps</i>	SSC	3.24	0.00	0.00	0.00	0.21	0.00	0.07	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.03
Bell's sparrow	<i>Artemisiospiza belli</i>	None	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
Samuel's song sparrow ^{bb}	<i>Melospiza melodia samuelis</i>	SSC	0.66	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.06	2.90	6.63
Tricolored blackbird	<i>Agelaius tricolor</i>	FS, ST, SSC	3.35	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	2.74	0.00	0.00	0.00	12.30	18.46
Fork-tailed storm-petrel ^{cc}	<i>Hydrobates furcatus [Oceanodroma furcata]^e</i>	FS, SSC	0.00	116.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	116.07
Ashy storm-petrel	<i>Hydrobates [Oceanodroma] homochroa^e</i>	FS, SSC	0.00	116.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	116.07
Black storm-petrel ^{dd}	<i>Hydrobates [Oceanodroma] melania^e</i>	SSC	0.00	116.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	116.07
Mammals	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Vagrant shrew ^{ee}	<i>Sorex vagrans</i>	SSC	5.63	0.00	0.00	0.06	0.25	0.10	0.06	0.00	0.00	0.00	0.09	0.14	0.39	0.00	0.00	0.25	2.10	0.00	5.63
Broad-footed mole ^{ff}	<i>Scapanus latimanus</i>	SSC	6.35	0.00	0.00	0.43	0.25	1.04	0.07	0.00	0.00	0.00	0.42	0.14	1.86	2.74	0.23	0.25	0.00	0.00	6.35
Yuma myotis	<i>Myotis yumanensis</i>	FS	6.47	0.00	2.37	0.43	0.25	1.04	0.07	1.30	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	12.30	6.47
Long-eared myotis	<i>Myotis evotis</i>	FS	0.00	241.74	2.37	0.43	0.25	1.04	0.07	1.30	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	0.00	0.00
Fringed myotis	<i>Myotis thysanodes</i>	FS	6.47	241.74	2.37	0.43	0.25	1.04	0.07	1.30	0.00	0.51	0.42	0.14	1.86	0.00	0.23	0.25	0.00	12.30	6.47

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total
Western red bat	<i>Lasiurus blossevillei</i>	SSC	6.47	0.00	0.00	0.43	0.25	1.04	0.07	1.30	0.00	0.51	0.42	0.14	1.86	0.00	0.23	0.25	0.00	12.30	6.47
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	FS, SSC	6.47	241.74	0.00	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	12.30	6.47
Pallid bat	<i>Antrozous pallidus</i>	FS, SSC	6.47	241.74	0.00	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	12.30	6.47
Brush rabbit ⁹⁹	<i>Sylvilagus bachmani</i>	FE, SE	6.47	0.00	0.00	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	12.30	6.47
Black-tailed jackrabbit ^{hh}	<i>Lepus californicus</i>	SSC	6.47	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	12.30	6.47
Deer mouse ⁱⁱ	<i>Peromyscus maniculatus</i>	SSC	6.47	241.74	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	2.10	12.30	6.47
Dusky-footed woodrat ^{jj}	<i>Neotoma fuscipes</i>	SSC	0.00	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	0.00	0.00	0.25	0.00	0.00	0.00
California vole ^{kk}	<i>Microtus californicus</i>	FE, FS, SE, SSC	6.25	0.00	0.00	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	2.10	12.30	6.25
Ringtail	<i>Bassariscus astutus</i>	SFP	6.47	241.74	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	0.00	0.23	0.25	0.00	0.00	6.47
American badger	<i>Taxidea taxus</i>	SSC	6.47	241.74	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	0.00	6.47
Western spotted skunk ^{ll}	<i>Spilogale gracilis</i>	SSC	6.47	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	12.30	6.47
Mountain lion ^{mm}	<i>Puma concolor</i>	SCT	6.47	0.00	2.37	0.43	0.25	1.04	0.07	0.00	0.00	0.51	0.42	0.14	1.86	2.74	0.23	0.25	0.00	0.00	6.47
Ornate shrew ⁿⁿ	<i>Sorex ornatus</i>	FE, SSC	5.47	0.00	0.00	0.43	0.25	0.00	0.07	0.00	0.00	0.51	0.00	0.12	1.86	0.00	0.00	0.00	2.10	0.00	5.47
Mountain beaver	<i>Aplodontia rufa</i>	None	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
Point Reyes mountain beaver ^{oo}	<i>Aplodontia rufa phaea</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
California kangaroo rat ^{pp}	<i>Dipodomys californicus</i>	SSC	3.35	0.00	0.00	0.43	0.00	0.00	0.07	0.00	0.00	0.51	0.33	0.00	0.00	2.74	0.00	0.00	0.00	0.00	3.35
Salt-marsh harvest mouse ^{qq}	<i>Reithrodontomys raviventris</i>	FE, SE	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.06	0.00	1.47
Sonoma red tree vole	<i>Arborimus pomo</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.25	0.00	0.00	0.00
Pacific jumping mouse ^{rr}	<i>Zapus trinotatus</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.25	0.00	0.00	0.00

Common Name	Scientific Name	Status	Annual Grassland	Barren	Closed-Cone Pine-Cypress	Coastal Oak Woodland	Coastal Scrub	Douglas-Fir	Eucalyptus	Lacustrine	Marine	Mixed Chaparral	Montane Hardwood	Montane Hardwood-Conifer	Montane Riparian	Orchard-Vineyard	Pasture	Redwood	Saline Emergent Wetland	Urban	Grand Total
Fisher	<i>Pekania pennanti</i>	FS, SSC	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.25	0.00	0.00	0.00
Northern fur-seal	<i>Callorhinus ursinus</i>	None	0.00	116.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Guadalupe fur-seal	<i>Arctocephalus townsendi</i>	FT, ST, SFP	0.00	116.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northern (steller) sea-lion	<i>Eumetopias jubatus</i>	SSC	0.00	116.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
California sea-lion	<i>Zalophus californianus</i>	None	0.00	116.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Harbor seal	<i>Phoca vitulina</i>	None	0.00	116.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.97	0.00	0.00
Northern elephant seal	<i>Mirounga angustirostris</i>	SFP	0.00	116.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Not applicable	Not applicable	Total	6.47	241.74	2.37	0.43	0.25	1.04	0.07	1.30	0.05	0.51	0.42	0.14	1.86	2.74	0.23	0.25	2.10	12.30	274.27

Notes: FE = federally endangered; FS = federally sensitive (USFS and/or BLM sensitive); FT = federally threatened; SCT = state candidate threatened; SE = state endangered; SFP = state fully protected; SFS = state fire sensitive; SR = state rare; SSC = species of special concern (CDFW); ST = state threatened

^a This plant species does not occur in the Northern California Coast Ecoregion Section or records of occurrences are over 100 years old and the species is unlikely to occur in the Northern California Coast Ecoregion Section.

^b Ensatina: Only the large-blotched and yellow-blotched subspecies are special status, and they do not occur in the GAI (neither range further north than Kern County).

^c California newt: Only the populations from Monterey County south are special status, which do not include the GAI.

^d Striped racer: Only the Alameda subspecies is special status; it occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.

^e Latin name or regulatory status has changed since the SAMNA model was run (Caltrans 2021).

^f Ring-necked snake: Only the San Bernardino, San Diego, and regal subspecies are special status, and they do not occur in the GAI (none range further north than Inyo County).

^g Western skink: Only the Coronado subspecies is special status, and it does not occur in the GAI (does not range north of San Diego County).

^h Common sagebrush lizard: Only the northern subspecies is special status, and it does not occur in the GAI (restricted to the Great Basin).

ⁱ Common gartersnake: Only the south coast and San Francisco subspecies are special status, and they do not occur in the GAI (south coast ranges from Ventura County south, San Francisco is nearly endemic to San Mateo County).

^j California quail: Only the Catalina subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).

^k Hutton's vireo: Only the Catalina subspecies is special status, and it does not occur in the GAI (endemic to Santa Catalina Island).

^l Common yellowthroat: Only the San Francisco subspecies is special status; it occurs in the GAI, but only in the Northern California Coast Ranges and Central California Coast sections, not the Northern California Coast section.

^m Spotted towhee: Only the San Clemente subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).

ⁿ California towhee: Only the Inyo subspecies is special status, and it does not occur in the GAI (restricted to Inyo County).

^o Red-winged blackbird: Only the Kern subspecies is special status, and it does not occur in the GAI (restricted to Kern County).

^p Common loon: Species is only considered special status where it nests, and it does not nest in the GAI (formerly nested in Shasta and Lassen Counties, but may no longer nest in California).

^q American white pelican: Species is only considered special status where it nests, and it does not nest in the GAI (only nests in northeastern part of the state from Siskiyou County south to the Tahoe Basin).

^r Redhead: Species is only considered special status where it nests, and it does not nest in the GAI (in northern California, only nests in northeastern part of the state from Siskiyou County south to the Tahoe Basin and in the Central Valley).

^s Harlequin duck: Species is only considered special status where it nests, and it does not nest in the GAI (formerly nested in the high Sierra Nevada Mountains but may no longer nest in California).

^t Barrow's goldeneye: Species is only considered special status where it nests, and it does not nest in the GAI (formerly nested in the high Sierra Nevada Mountains but may no longer nest in California).

^u Sooty grouse: Only the Mount Pinos subspecies is special status, and it does not occur in the GAI (does not occur north of Inyo County).

^v Black rail: Occurs in the GAI, but only in the Northern California Coast Ranges and Central California Coast sections, not the Northern California Coast section.

^w California Ridgway's [clapper] rail: Occurs in the GAI, but only in the Northern California Coast Ranges and Central California Coast sections, not the Northern California Coast section.

^x Mountain plover: Occurs in the GAI, but only in the Northern California Coast Ranges and Central California Coast sections, not the Northern California Coast section.

^y Bewick's wren: Only the San Clemente subspecies is special status, and it does not occur in the GAI (was endemic to San Clemente Island and is now extinct).

^z Marsh wren: Only the Clark's subspecies is special status, and it does not occur in the GAI (does not range north of Los Angeles County).

^{aa} Rufous-crowned sparrow: Only the Santa Cruz Island subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).

^{bb} Samuel's song sparrow: This subspecies occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.

^{cc} Fork-tailed storm-petrel: Species is only considered special status where it nests, and it does not nest in the GAI (does not nest south of Humboldt County).

^{dd} Black storm-petrel: Species is only considered special status where it nests, and it does not nest in the GAI (does not nest north of Santa Barbara County).

^{ee} Vagrant shrew: Only the salt-marsh wandering subspecies is special status; it occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.

^{ff} Broad-footed mole: Only the Alameda Island subspecies is special status, and it does not occur in the GAI (endemic to Alameda Island).

^{gg} Brush rabbit: Only the riparian subspecies is special status, and it does not occur in the GAI (restricted to the San Joaquin Valley).

^{hh} Black-tailed jackrabbit: Only the San Diego subspecies is special status, and it does not occur in the GAI (does not range north of Santa Barbara County).

ⁱⁱ Deer mouse: Only the Channel Islands subspecies are special status, and they do not occur in the GAI (restricted to Channel Islands).

^{jj} Dusky-footed woodrat: Only the San Francisco and riparian subspecies are special status, and only the San Francisco subspecies occurs in the GAI; it occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.

^{kk} California vole: There are six subspecies which are special status, of which only the San Pablo subspecies occurs in the GAI; it occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.

^{ll} Western spotted skunk: Only the Channel Islands subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).

^{mm} Mountain lion: The southern California/central California coast ESU, which is a candidate for listing as state threatened, occurs in the Northern California Coast Ranges and Central California Coast sections of the GAI, but not the Northern California Coast section.

ⁿⁿ Ornate shrew: There are five subspecies which are special status, of which only the Suisun subspecies occurs in the GAI; it occurs in the Northern California Coast Ranges section of the GAI, but not the Central California Coast or Northern California Coast sections.

^{oo} Point Reyes mountain beaver: This subspecies occurs in the GAI; it occurs Central California Coast section, but not the Northern California Coast or Northern California Coast Ranges sections (restricted to Point Reyes National Seashore).

^{pp} California kangaroo rat: Only the Marysville subspecies is special status, and it does not occur in the GAI (endemic to the Sutter Buttes).

^{qq} Salt-marsh harvest mouse: Occurs in the Northern California Coast Ranges and Central California Coast sections of the GAI, but not the Northern California Coast section.

^{rr} Pacific jumping mouse: Only the Point Reyes subspecies is special status; it occurs in the Central California Coast section of the GAI, but not the Northern California Coast or Northern California Coast Ranges sections.

Table D-3. Complete SAMNA Results for the Northern California Coast Ranges Ecoregion Section in District 4, by Land Cover (acres)

Common Name	Scientific Name	Status	Annual Grassland	Barren	Blue Oak Woodland	Blue Oak-Foothill Pine	Chamise-Redshank Chaparral	Coastal Oak Woodland	Lacustrine	Mixed Chaparral	Montane Hardwood	Montane Riparian	Orchard-Vineyard	Perennial Grassland	Grand Total
Plants	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Clara Hunt's milk-vetch	<i>Astragalus claranus</i>	FE, ST	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.50	0.00	0.00	0.00	1.46
Indian Valley brodiaea ^a	<i>Brodiaea rosea</i>	FS, SE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.50	0.00	0.00	0.00	1.46
Tiburon paintbrush	<i>Castilleja affinis</i> ssp. <i>neglecta</i>	FE, ST	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Loch Lomond button-celery ^a	<i>Eryngium constancei</i>	FE, SE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Roderick's fritillary	<i>Fritillaria roderickii</i>	SE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Boggs Lake hedge-hyssop ^a	<i>Gratiola heterosepala</i>	FS, SE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Lake County western flax ^a	<i>Hesperolinon didymocarpum</i>	SE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.50	0.00	0.00	0.00	1.46
Burke's goldfields ^a	<i>Lasthenia burkei</i>	FE, SE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Few-flowered navarretia	<i>Navarretia leucocephala</i> ssp. <i>pauciflora</i>	FE, FS, ST	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Many-flowered navarretia ^a	<i>Navarretia leucocephala</i> ssp. <i>plieantha</i>	FE, SE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Slender Orcutt grass ^a	<i>Orcuttia tenuis</i>	FT, SE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Geysers panicum ^a	<i>Panicum acuminatum</i> var. <i>thermale</i>	SE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.8
Calistoga popcornflower	<i>Plagiobothrys strictus</i>	FE, ST	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Lake County stonecrop ^a	<i>Sedella leiocarpa</i>	FE, SE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.84
Keck's checkerbloom ^a	<i>Sidalcea keckii</i>	FE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.84
Two-fork clover	<i>Trifolium amoenum</i>	FE	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Amphibians	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Ensatina ^b	<i>Ensatina eschscholtzii</i>	FS	0.00	0.00	0.17	0.04	0.00	0.47	0.00	0.62	0.50	0.46	0.00	0.00	2.26
Foothill yellow-legged frog	<i>Rana boylei</i>	FS, SE, SSC	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.00	0.00	2.81
California red-legged frog	<i>Rana draytonii</i>	FT, SSC	0.34	0.00	0.17	0.04	0.00	0.47	0.03	0.62	0.50	0.46	0.00	0.11	2.74
California newt ^c	<i>Taricha torosa</i>	SSC	0.34	0.00	0.17	0.04	0.00	0.47	0.03	0.62	0.00	0.46	0.00	0.00	2.13
Reptiles	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Western skink ^d	<i>Plestiodon skiltonianus</i>	FS	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	3.12
Northern rubber boa	<i>Charina bottae</i>	None	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.46	0.00	0.00	0.96
Ring-necked snake ^e	<i>Diadophis punctatus</i>	FS, SSC	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.00	0.11	2.92
Gophersnake	<i>Pituophis catenifer</i>	None	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	3.12

Common Name	Scientific Name	Status	Annual Grassland	Barren	Blue Oak Woodland	Blue Oak-Foothill Pine	Chamise-Redshank Chaparral	Coastal Oak Woodland	Lacustrine	Mixed Chaparral	Montane Hardwood	Montane Riparian	Orchard-Vineyard	Perennial Grassland	Grand Total
Common gartersnake ^f	<i>Thamnophis sirtalis</i>	FE, SE, SFP, SSC	0.34	0.00	0.17	0.04	0.21	0.47	0.03	0.62	0.50	0.46	0.20	0.11	3.15
Common sagebrush lizard ^g	<i>Sceloporus graciosus</i>	FS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.50	0.00	0.00	0.00	1.12
Striped racer	<i>Masticophis [Coluber]^h lateralis</i>	FT, ST	0.00	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.00	0.00	2.47
California mountain kingsnake	<i>Lampropeltis zonata</i>	None	0.34	0.00	0.17	0.04	0.00	0.47	0.00	0.62	0.50	0.46	0.00	0.00	2.60
Birds	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Great blue heron	<i>Ardea herodias</i>	SFS	0.34	0.00	0.17	0.04	0.00	0.47	0.03	0.00	0.50	0.46	0.00	0.11	0.34
Great egret	<i>Ardea alba</i>	SFS	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Osprey	<i>Pandion haliaetus</i>	SFS	0.34	0.20	0.17	0.04	0.00	0.47	0.03	0.62	0.50	0.46	0.00	0.11	0.34
White-tailed kite	<i>Elanus leucurus</i>	FS, SFP	0.34	0.20	0.17	0.04	0.21	0.47	0.00	0.62	0.00	0.00	0.20	0.11	0.34
Bald eagle	<i>Haliaeetus leucocephalus</i>	FS, SE, SFP	0.34	0.20	0.17	0.04	0.21	0.47	0.03	0.62	0.50	0.46	0.00	0.11	0.34
Northern harrier	<i>Circus hudsonius [cyaneus]^h</i>	SSC	0.34	0.20	0.17	0.04	0.21	0.47	0.03	0.62	0.50	0.46	0.20	0.11	0.34
Golden eagle	<i>Aquila chrysaetos</i>	FS, SFP	0.34	0.20	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.00	0.11	0.34
Peregrine falcon	<i>Falco peregrinus</i>	FS, SFP, SFS	0.34	0.20	0.17	0.04	0.21	0.47	0.03	0.62	0.50	0.46	0.00	0.11	0.34
California quail ⁱ	<i>Callipepla californica</i>	SSC	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	0.34
Long-eared owl	<i>Asio otus</i>	SSC	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.00	0.11	0.34
Short-eared owl	<i>Asio flammeus</i>	SSC	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.00	0.46	0.00	0.11	0.34
Purple martin	<i>Progne subis</i>	SSC	0.34	0.00	0.17	0.04	0.00	0.47	0.03	0.00	0.50	0.46	0.00	0.11	0.34
Loggerhead shrike	<i>Lanius ludovicianus</i>	SSC	0.34	0.20	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	0.34
Hutton's vireo ^j	<i>Vireo huttoni</i>	SSC	0.00	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.00	0.00
Common yellowthroat	<i>Geothlypis trichas</i>	SSC	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.11	0.34
Spotted towhee ^k	<i>Pipilo maculatus</i>	SSC	0.00	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.00	0.00
California towhee ^l	<i>Pipilo crissalis</i>	FT, SE	0.00	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.00	0.00
Savannah sparrow	<i>Passerculus sandwichensis</i>	SSC	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.00	0.00	0.20	0.11	0.34
Grasshopper sparrow	<i>Ammodramus savannarum</i>	SSC	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.34
Song sparrow	<i>Melospiza melodia</i>	SSC	0.34	0.00	0.17	0.04	0.21	0.47	0.03	0.62	0.50	0.46	0.20	0.11	0.34
Red-winged blackbird ^m	<i>Agelaius phoeniceus</i>	SSC	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.20	0.11	0.34
Common loon ⁿ	<i>Gavia immer</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00

Common Name	Scientific Name	Status	Annual Grassland	Barren	Blue Oak Woodland	Blue Oak-Foothill Pine	Chamise-Redshank Chaparral	Coastal Oak Woodland	Lacustrine	Mixed Chaparral	Montane Hardwood	Montane Riparian	Orchard-Vineyard	Perennial Grassland	Grand Total
American white pelican ^o	<i>Pelecanus erythrorhynchos</i>	SSC	0.00	0.20	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Redhead ^p	<i>Aythya americana</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Barrow's goldeneye ^q	<i>Bucephala islandica</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Spotted owl	<i>Strix occidentalis</i>	None	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.08	0.17	0.00	0.00	0.00
Northern spotted owl	<i>Strix occidentalis caurina</i>	FT, ST, SFS	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.08	0.17	0.00	0.00	0.00
Olive-sided flycatcher	<i>Contopus cooperi</i>	SSC	0.00	0.00	0.00	0.04	0.21	0.00	0.00	0.62	0.50	0.46	0.00	0.00	0.00
Bewick's wren ^r	<i>Thryomanes bewickii</i>	SSC	0.00	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.00	0.00
Marsh wren ^s	<i>Cistothorus palustris</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00
Yellow-breasted chat	<i>Icteria virens</i>	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00
Rufous-crowned sparrow ^t	<i>Aimophila ruficeps</i>	SSC	0.34	0.00	0.00	0.04	0.21	0.00	0.00	0.62	0.00	0.00	0.00	0.11	0.34
Bell's sparrow	<i>Artemisospiza belli</i>	None	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00
Tricolored blackbird	<i>Agelaius tricolor</i>	FS, ST, SSC	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.11	0.34
Mammals	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below	See below
Broad-footed mole ^u	<i>Scapanus latimanus</i>	SSC	0.34	0.00	0.17	0.04	0.00	0.47	0.00	0.00	0.50	0.46	0.20	0.11	2.29
Yuma myotis	<i>Myotis yumanensis</i>	FS	0.34	0.00	0.17	0.04	0.21	0.47	0.03	0.62	0.50	0.46	0.20	0.11	3.15
Long-eared myotis	<i>Myotis evotis</i>	FS	0.00	0.20	0.17	0.04	0.21	0.47	0.03	0.62	0.50	0.46	0.20	0.11	3.01
Fringed myotis	<i>Myotis thysanodes</i>	FS	0.34	0.20	0.17	0.04	0.21	0.47	0.03	0.62	0.50	0.46	0.00	0.11	3.15
Western red bat	<i>Lasiurus blossevillii</i>	SSC	0.34	0.00	0.17	0.04	0.21	0.47	0.03	0.62	0.50	0.46	0.00	0.11	2.95
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	FS, SSC	0.34	0.20	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	3.32
Pallid bat	<i>Antrozous pallidus</i>	FS, SSC	0.34	0.20	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	3.32
Brush rabbit ^v	<i>Sylvilagus bachmani</i>	None	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	3.12
Black-tailed jackrabbit ^w	<i>Lepus californicus</i>	None	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	3.12
Deer mouse ^x	<i>Peromyscus maniculatus</i>	None	0.34	0.20	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	3.32
Dusky-footed woodrat	<i>Neotoma fuscipes</i>	None	0.00	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.00	0.11	2.58
California vole	<i>Microtus californicus</i>	None	0.34	0.00	0.17	0.04	0.00	0.47	0.00	0.62	0.50	0.46	0.20	0.11	2.91
Ringtail	<i>Bassariscus astutus</i>	None	0.34	0.20	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.00	0.11	3.12
American badger	<i>Taxidea taxus</i>	None	0.34	0.20	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	3.32
Western spotted skunk ^y	<i>Spilogale gracilis</i>	None	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	3.12
Mountain lion	<i>Puma concolor</i>	SCT	0.34	0.00	0.17	0.04	0.21	0.47	0.00	0.62	0.50	0.46	0.20	0.11	3.12

Common Name	Scientific Name	Status	Annual Grassland	Barren	Blue Oak Woodland	Blue Oak-Foothill Pine	Chamise-Redshank Chaparral	Coastal Oak Woodland	Lacustrine	Mixed Chaparral	Montane Hardwood	Montane Riparian	Orchard-Vineyard	Perennial Grassland	Grand Total
Ornate shrew	<i>Sorex ornatus</i>	None	0.34	0.00	0.17	0.04	0.00	0.47	0.00	0.62	0.00	0.46	0.00	0.11	2.21
California kangaroo rat ^z	<i>Dipodomys californicus</i>	None	0.34	0.00	0.17	0.04	0.00	0.47	0.00	0.62	0.50	0.00	0.20	0.00	2.34
Not applicable	Not applicable	Total	0.34	0.20	0.17	0.04	0.21	0.47	0.03	0.62	0.50	0.46	0.20	0.11	3.35

Notes: FE = federally endangered; FS = federally sensitive (USFS and/or BLM sensitive); FT = federally threatened; SCT = state candidate threatened; SE = state endangered; SFP = state fully protected; SFS = state fire sensitive; SSC = species of special concern (CDFW); ST = state threatened

^a This plant species does not occur in the Northern California Coast Ranges Ecoregion Section or records of occurrences are over 100 years old and the species is unlikely to occur in the Northern California Coast Ranges Ecoregion Section.

^b Ensatina: Only the large-blotched and yellow-blotched subspecies are special status, and they do not occur in the GAI (neither range further north than Kern County).

^c California newt: Only the populations from Monterey County south are special status, which do not include the GAI.

^d Western skink: Only the Coronado subspecies is special status, and it does not occur in the GAI (does not range north of San Diego County).

^e Ring-necked snake: Only the San Bernardino, San Diego, and regal subspecies are special status, and they do not occur in the GAI (none range further north than Inyo County).

^f Common gartersnake: Only the south coast and San Francisco subspecies are special status, and they do not occur in the GAI (south coast ranges from Ventura County south, San Francisco is nearly endemic to San Mateo County).

^g Common sagebrush lizard: Only the northern subspecies is special status, and it does not occur in the GAI (restricted to the Great Basin).

^h Latin name or regulatory status has changed since the SAMNA model was run (Caltrans 2021).

ⁱ California quail: Only the Catalina subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).

^j Hutton's vireo: Only the Catalina subspecies is special status, and it does not occur in the GAI (endemic to Santa Catalina Island).

^k Spotted towhee: Only the San Clemente subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).

^l California towhee: Only the Inyo subspecies is special status, and it does not occur in the GAI (restricted to Inyo County).

^m Red-winged blackbird: Only the Kern subspecies is special status, and it does not occur in the GAI (restricted to Kern County).

ⁿ Common loon: Species is only considered special status where it nests, and it does not nest in the GAI (formerly nested in Shasta and Lassen Counties, but may no longer nest in California).

^o American white pelican: Species is only considered special status where it nests, and it does not nest in the GAI (only nests in northeastern part of the state from Siskiyou County south to the Tahoe Basin).

^p Redhead: Species is only considered special status where it nests, and it does not nest in the GAI (in northern California, only nests in northeastern part of the state from Siskiyou County south to the Tahoe Basin and in the Central Valley).

^q Barrow's goldeneye: Species is only considered special status where it nests, and it does not nest in the GAI (formerly nested in the high Sierra Nevada Mountains but may no longer nest in California).

^r Bewick's wren: Only the San Clemente subspecies is special status, and it does not occur in the GAI (was endemic to San Clemente Island and is now extinct).

^s Marsh wren: Only the Clark's subspecies is special status, and it does not occur in the GAI (does not range north of Los Angeles County).

^t Rufous-crowned sparrow: Only the Santa Cruz Island subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).

^u Broad-footed mole: Only the Alameda Island subspecies is special status, and it does not occur in the GAI (endemic to Alameda Island).

^v Brush rabbit: Only the riparian subspecies is special status, and it does not occur in the GAI (restricted to the San Joaquin Valley).

^w Black-tailed jackrabbit: Only the San Diego subspecies is special status, and it does not occur in the GAI (does not range north of Santa Barbara County).

^x Deer mouse: Only the Channel Islands subspecies are special status, and they do not occur in the GAI (restricted to Channel Islands).

^y Western spotted skunk: Only the Channel Islands subspecies is special status, and it does not occur in the GAI (restricted to Channel Islands).

^z California kangaroo rat: Only the Marysville subspecies is special status, and it does not occur in the GAI (endemic to the Sutter Buttes).

APPENDIX E: LIST OF 303(d) IMPAIRED WATERS

Section 303(d) of the CWA requires that every 2 years, each state submit to EPA a list of rivers, lakes, and reservoirs in the state for which pollution control or requirements have failed to meet water quality standards. Waterbodies in the GAI that are included on the Section 303(d) list of impaired waters, their impairments, and whether total maximum daily loads (“TMDLs”) have been established are provided in Table E-1 (SWRCB 2018).

Table E-1. Impaired Waters in the GAI

Sub-basin	Impaired Water	Impairment	TMDL Status	Relevant to RAMNA? ^a
Gualala-Salmon	Mendocino Coast HU, Gualala River hydrologic area (HA), Gualala River	Sedimentation/siltation	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Aquatic Park Beach	Indicator bacteria	Being addressed with EPA-approved TMDL	No
San Pablo Bay	Arroyo Corte Madera Del Presidio	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Baxter Creek (Contra Costa County)	Trash	Being addressed by action other than a TMDL	Yes
San Pablo Bay	Briones Reservoir	Metals (mercury)	Required, not established yet	Yes
San Pablo Bay	Castro Cove, Richmond (San Pablo Basin)	Metals (mercury, sediment)	Being addressed by action other than a TMDL	Yes
San Pablo Bay	Cerrito Creek	Trash	Being addressed by action other than a TMDL	Yes
San Pablo Bay	China Camp Beach	Indicator bacteria	Being addressed with EPA-approved TMDL	No
San Pablo Bay	Codornices Creek	Trash	Being addressed by action other than a TMDL	Yes
San Pablo Bay	Corte Madera Creek	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Coyote Creek (Marin County)	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Crissy Field Beach	Indicator bacteria	Being addressed with EPA-approved TMDL	No

Sub-basin	Impaired Water	Impairment	TMDL Status	Relevant to RAMNA? ^a
San Pablo Bay	Gallinas Creek	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Lake Henne	Metals (mercury)	Required, not established yet	Yes
San Pablo Bay	Lake Chabot (Solano County)	Metals (mercury)	Required, not established yet	Yes
San Pablo Bay	McNears Beach	Indicator bacteria	Being addressed with EPA-approved TMDL	No
San Pablo Bay	Miller Creek	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Napa River, Mare Island Strait	Polychlorinated biphenyls ("PCBs")	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Napa River, non-tidal	Pathogens	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Napa River, tidal	Nutrients	Required, not established yet	Yes
San Pablo Bay	Novato Creek	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Paradise Cove Beach (San Francisco Bay, Central)	Indicator bacteria	Required, not established yet	No
San Pablo Bay	Petaluma River	Sedimentation/siltation	Required, not established yet	Yes
San Pablo Bay	Petaluma River (tidal portion)	Pesticides (diazinon)	Required, not established yet	Yes
San Pablo Bay	Pinole Creek	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Richardson Bay	Toxic organics (furan compounds)	Required, not established yet	Yes
San Pablo Bay	Rindler Creek	Trash	Being addressed by action other than a TMDL	Yes
San Pablo Bay	Rodeo Creek (Contra Costa County)	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	San Antonio Creek (Marin/Sonoma County)	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes

Sub-basin	Impaired Water	Impairment	TMDL Status	Relevant to RAMNA? ^a
San Pablo Bay	San Pablo Bay	Pesticides (dieldrin)	Required, not established yet	Yes
San Pablo Bay	San Pablo Creek	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	San Pablo Reservoir	Metals (mercury)	Required, not established yet	Yes
San Pablo Bay	San Rafael Creek	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
San Pablo Bay	Sonoma Creek, non-tidal	Pathogens	Being addressed with EPA-approved TMDL	No
San Pablo Bay	Sonoma Creek, tidal	Nutrients	Required, not established yet	Yes
San Pablo Bay	Stege Marsh	Metals (zinc)	Being addressed by action other than a TMDL	Yes
San Pablo Bay	Strawberry Creek (Alameda County)	Trash	Being addressed by action other than a TMDL	Yes
San Pablo Bay	Wildcat Creek	Pesticides (diazinon)	Being addressed with EPA-approved TMDL	Yes
Tomales-Drake Bays	Bodega HU, Bodega Harbor HA	Invasive species	Required, not established yet	Yes
Tomales-Drake Bays	Bodega HU, Estero Americano HA, Americano Creek	Nutrients	Required, not established yet	Yes
Tomales-Drake Bays	Bodega HU, Estero Americano HA, estuary	Nutrients	Required, not established yet	Yes
Tomales-Drake Bays	Bodega HU, Estero de San Antonio HA, Stemple Creek/Estero de San Antonio	Nutrients	Required, not established yet	Yes
Tomales-Drake Bays	Bon Tempe Reservoir	Metals (mercury)	Required, not established yet	Yes
Tomales-Drake Bays	Campbell Cove	Indicator bacteria	Required, not established yet	No

Sub-basin	Impaired Water	Impairment	TMDL Status	Relevant to RAMNA? ^a
Tomales-Drake Bays	Chicken Ranch Beach	Indicator bacteria	Being addressed with EPA-approved TMDL	No
Tomales-Drake Bays	Golden Hinde Beach	Indicator bacteria	Required, not established yet	No
Tomales-Drake Bays	Lagunitas Creek	Nutrients	Required, not established yet	Yes
Tomales-Drake Bays	Millerton Point	Indicator bacteria	Being addressed with EPA-approved TMDL	No
Tomales-Drake Bays	Nicasio Reservoir	Metals (mercury)	Required, not established yet	Yes
Tomales-Drake Bays	Olema Creek	Pathogens	Being addressed with EPA-approved TMDL	No
Tomales-Drake Bays	Soulajule Reservoir	Metals (mercury)	Being addressed with EPA-approved TMDL	Yes
Tomales-Drake Bays	Tomales Bay	Sedimentation/siltation	Required, not established yet	Yes
Tomales-Drake Bays	Walker Creek	Metals (mercury)	Being addressed with EPA-approved TMDL	Yes

Source: SWRCB (2021)

^a TMDLs relevant to the RAMNA reflect impaired aquatic resource-related beneficial uses.

References

SWRCB (State Water Resources Control Board). 2021. "2018 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report)." Accessed May 13, 2022.
https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html.

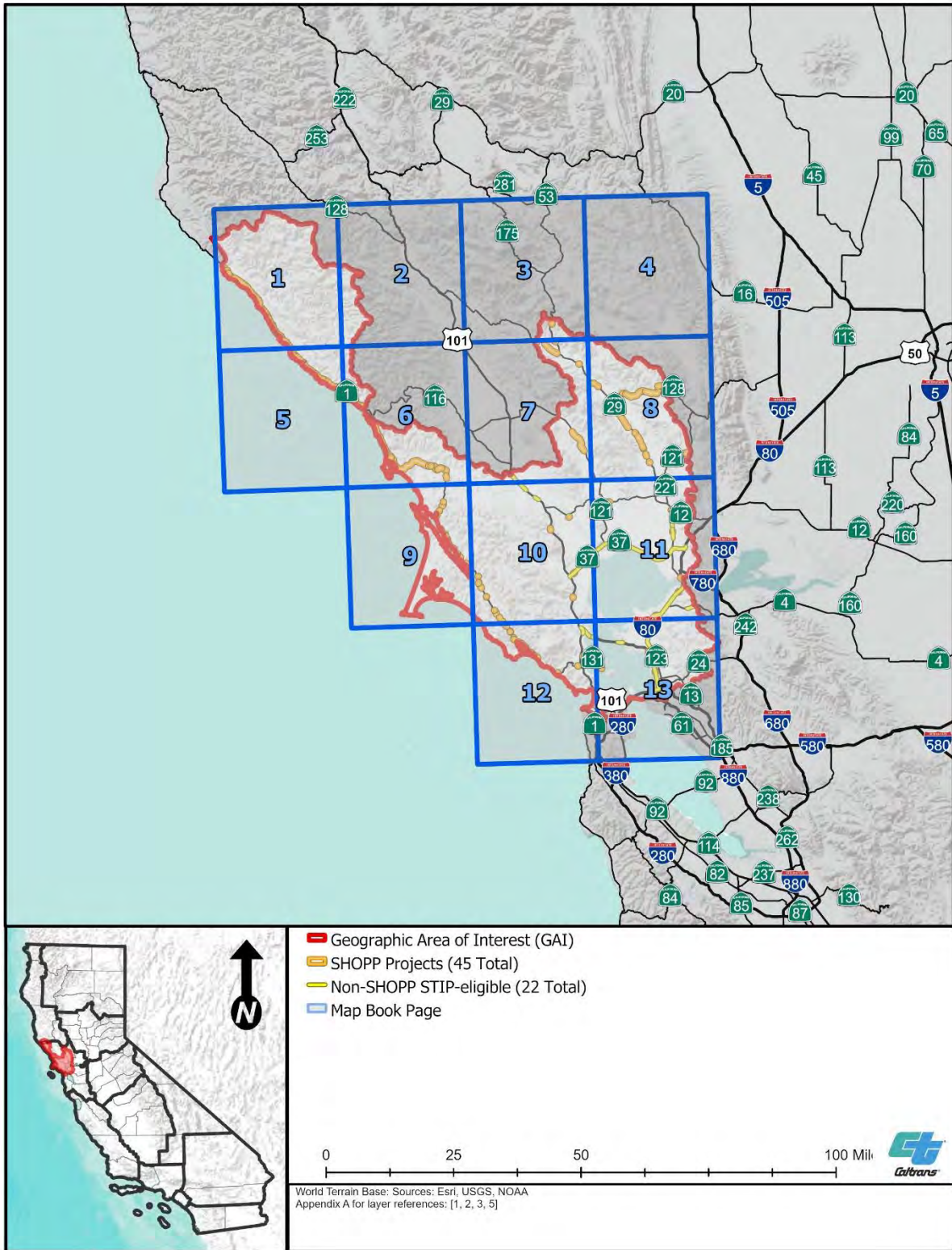
APPENDIX F: AQUATIC RESOURCE LOCATIONS

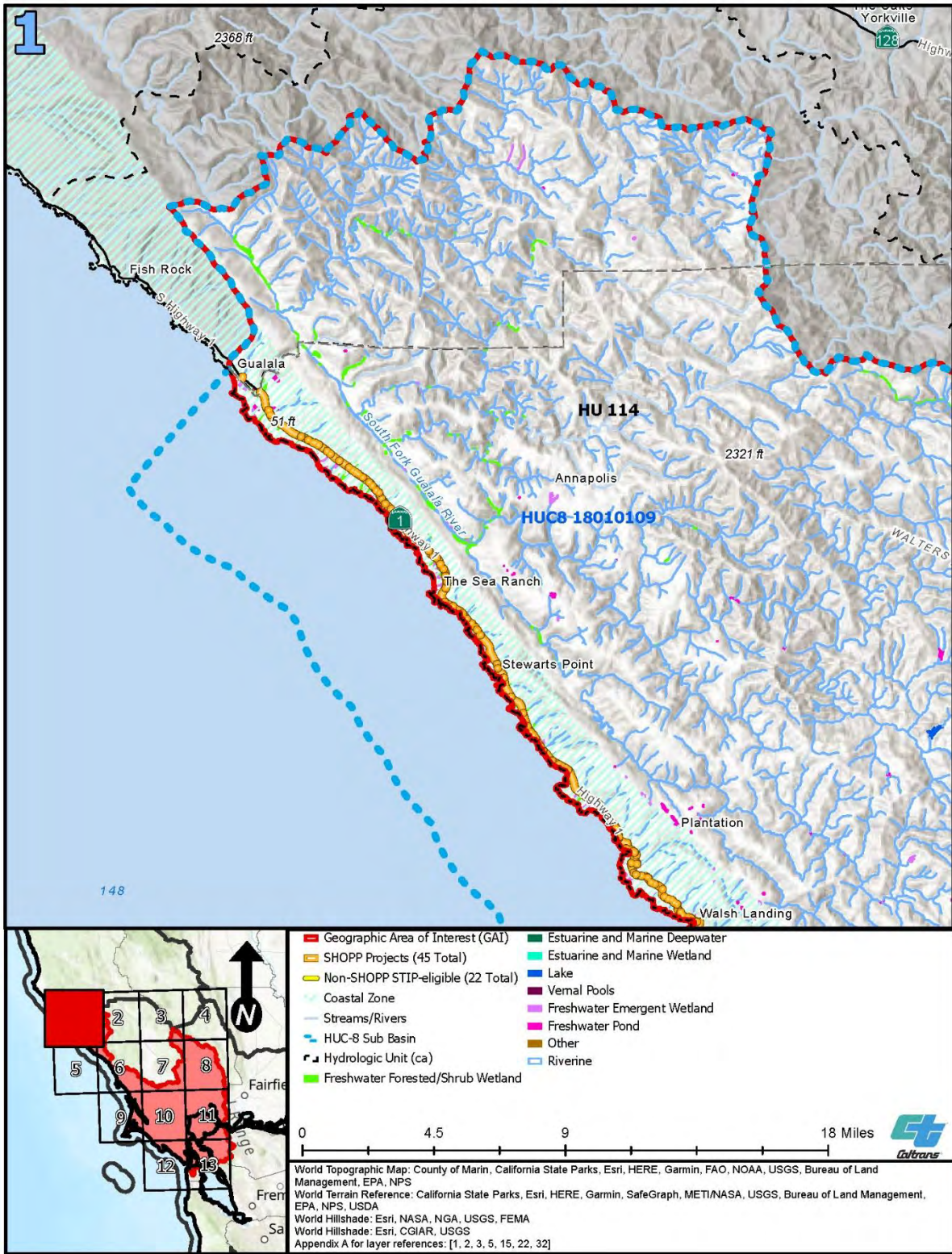
Aquatic resource locations are shown by HUC-8 sub-basin and HU in the following maps, which also include the coastal zone and major landmarks for perspective. These locations were excerpted from the SAMNA Reporting Tool's water and wetland layers (Caltrans 2021a, 2021b). These 13 maps correspond with the land cover maps in Appendix B. Hydrologic units are described in Chapter 2, which includes a crosswalk table of HUC-8 subbasins and HUs (Table 2-7).

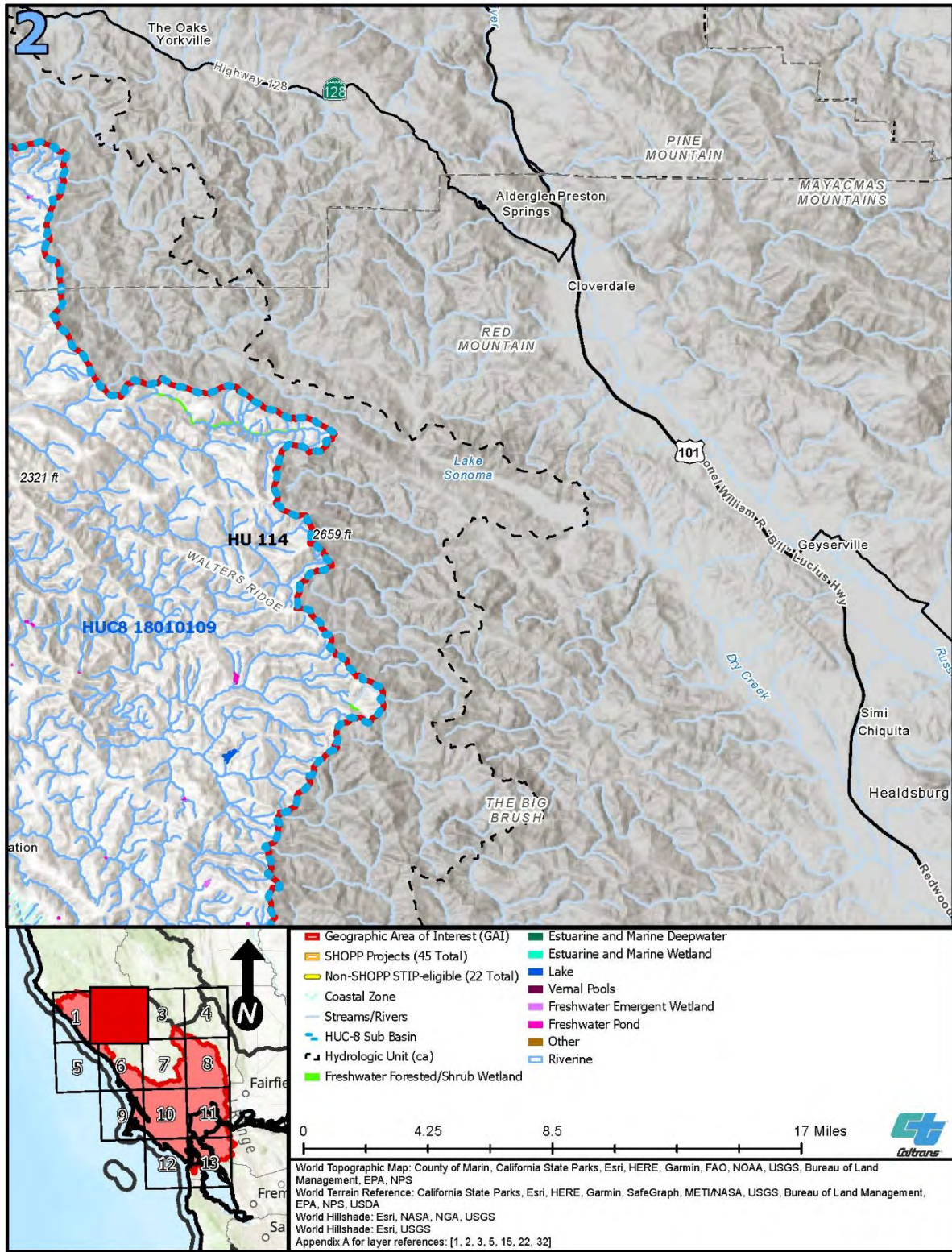
Few sources of information are known to be available that can be used to describe existing and relevant wetland, riparian, and littoral resources. The FWS National Wetlands Inventory (2017) and the San Francisco Estuary Institute California Aquatic Resource Inventory (2018) are the only known datasets that include the distribution, extent, and types of aquatic resources in the GAI, and the SAMNA Reporting Tool relies on them (Caltrans 2021a, 2021b).

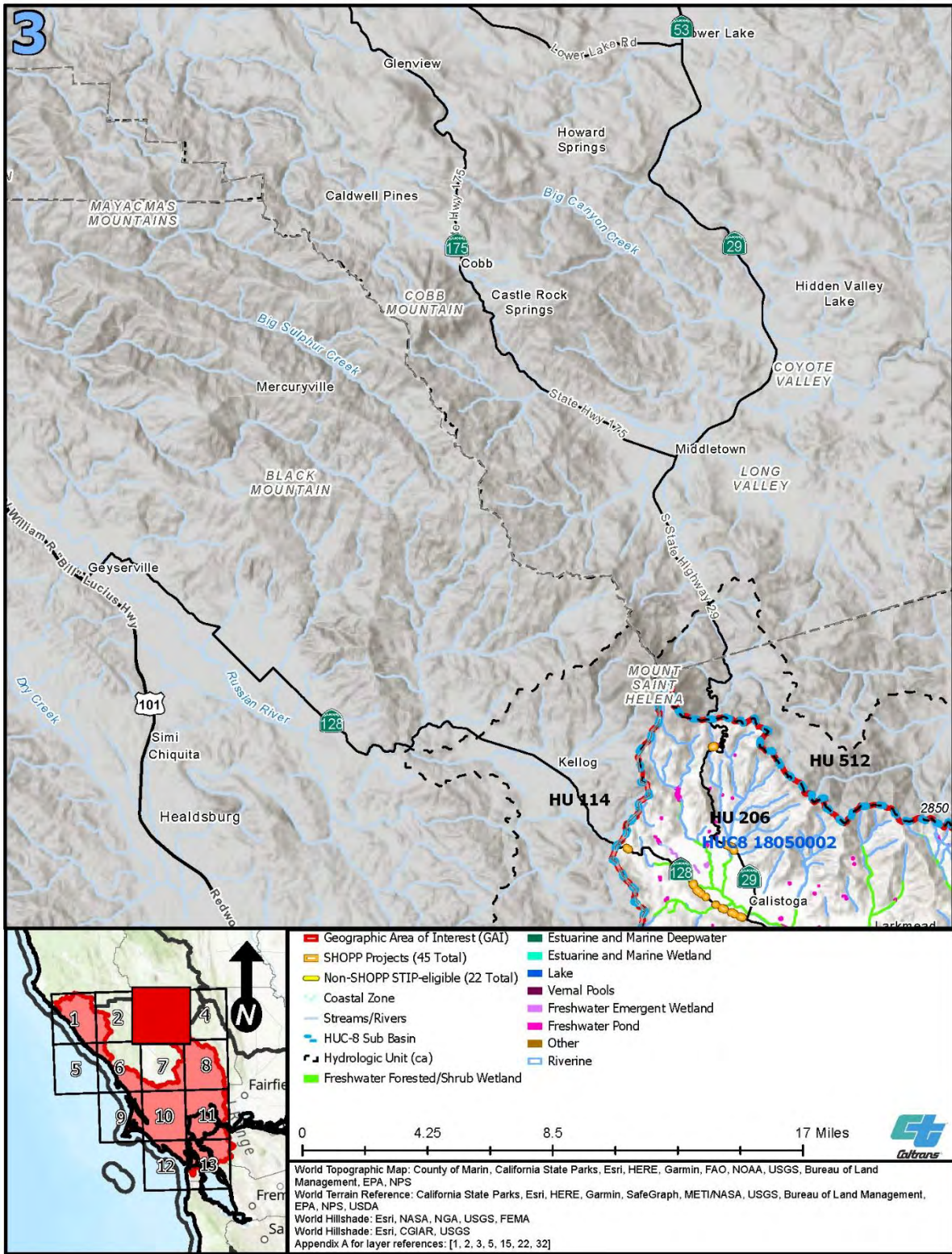
References

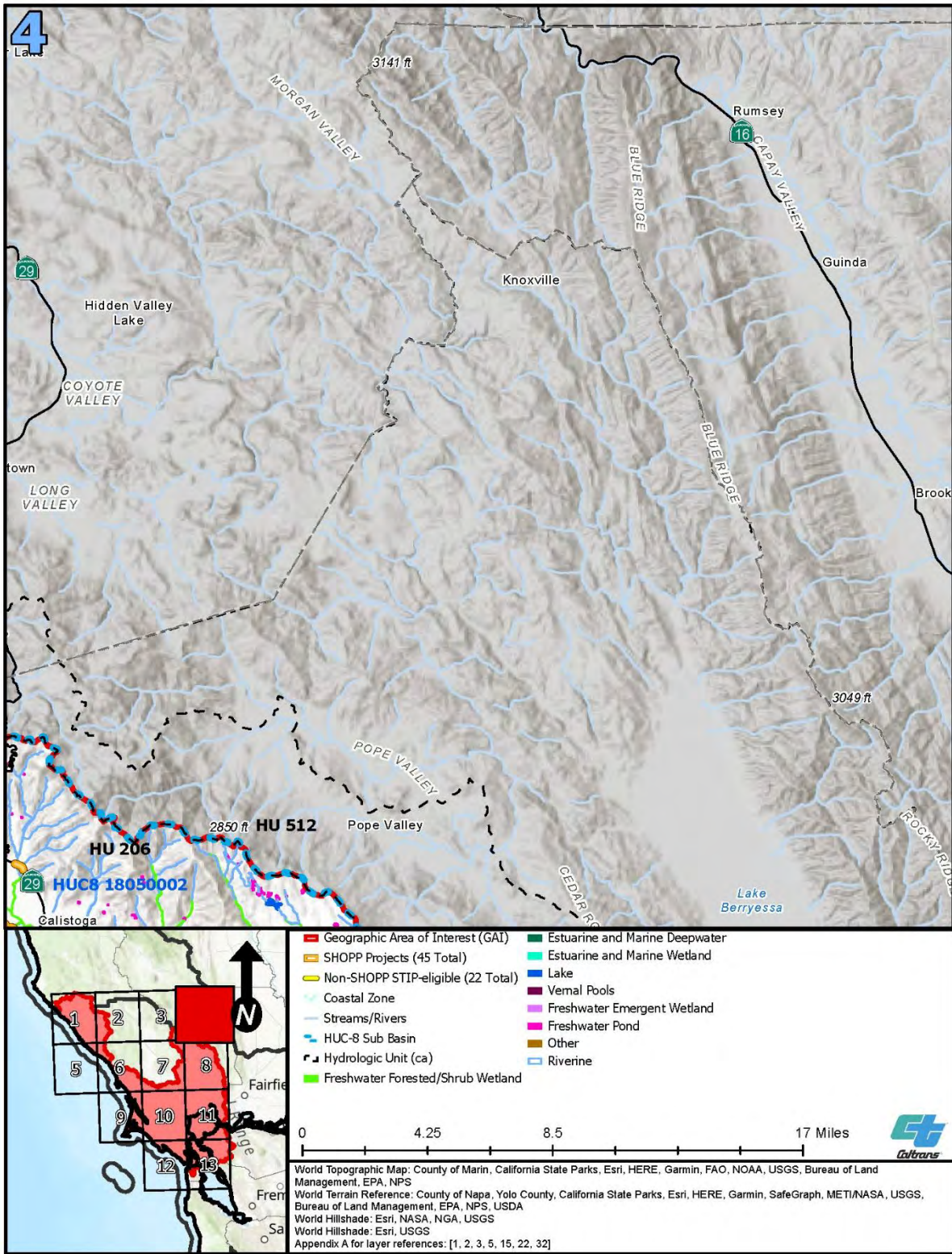
- Caltrans (California Department of Transportation). 2021a. "Waters_D2/D3/D4/D10 in Caltrans District 4 Geospatial Data for the Advance Mitigation Needs Assessment for the Second Quarter of FY 2019/2020" (data file). Accessed March 24, 2021. <http://www.dot.ca.gov/env/advancemitigation/>.
- . 2021b. "Wetlands_D2/D3/D4/D10 in Caltrans District 4 Geospatial Data for the Advance Mitigation Needs Assessment for the Second Quarter of FY 2019/2020" (data file). Accessed March 24, 2021. <http://www.dot.ca.gov/env/advancemitigation/>.
- FWS (U.S. Fish and Wildlife Service). 2017. "National Wetlands Inventory. Wetlands Mapper." Accessed April 1, 2021. <https://www.fws.gov/wetlands/data/mapper.html>.
- San Francisco Estuary Institute. 2018. "California Aquatic Resource Inventory (CARI)." Accessed February 28, 2019. <https://www.sfei.org/cari#sthash.SnPvzyAU.dpbs>.

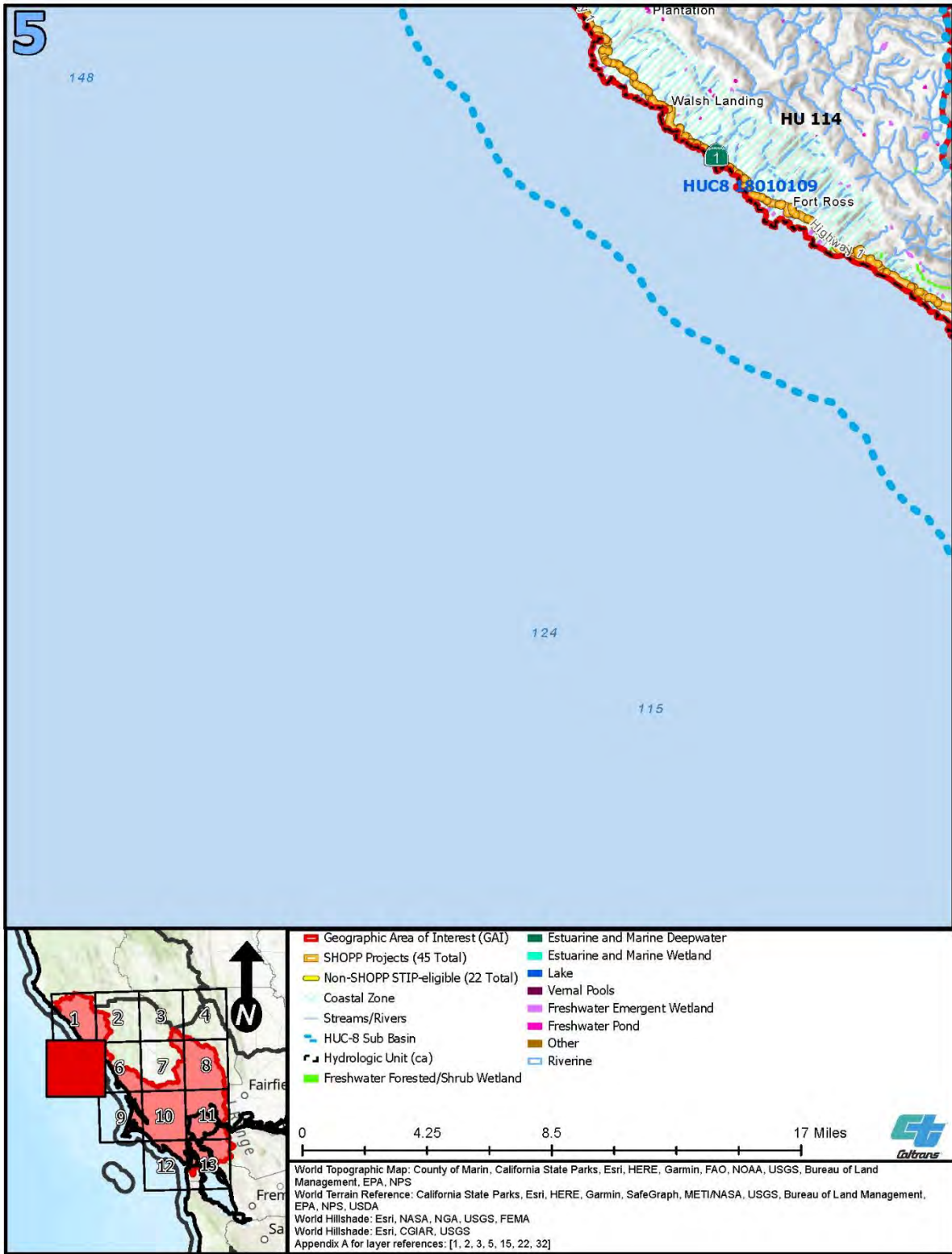


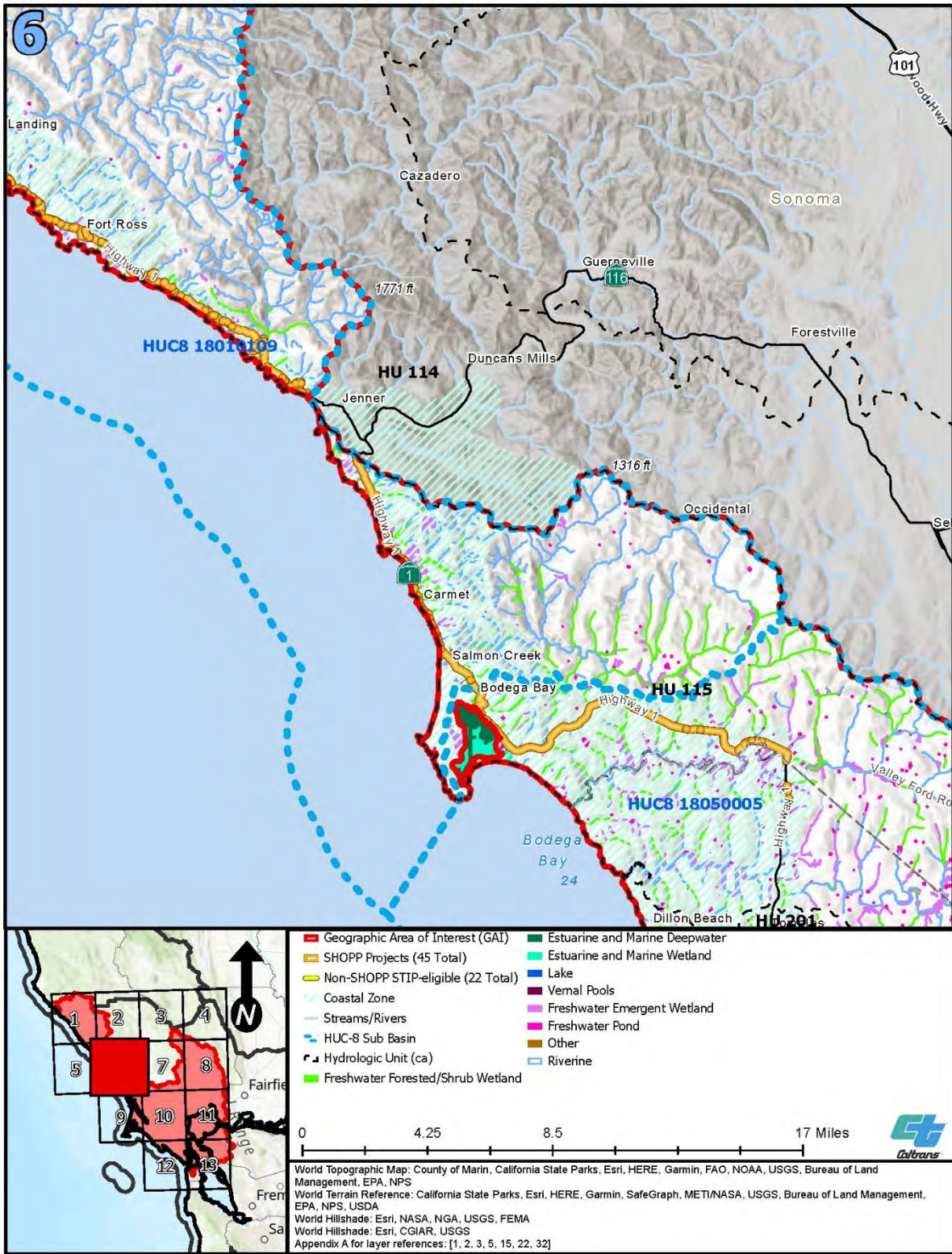


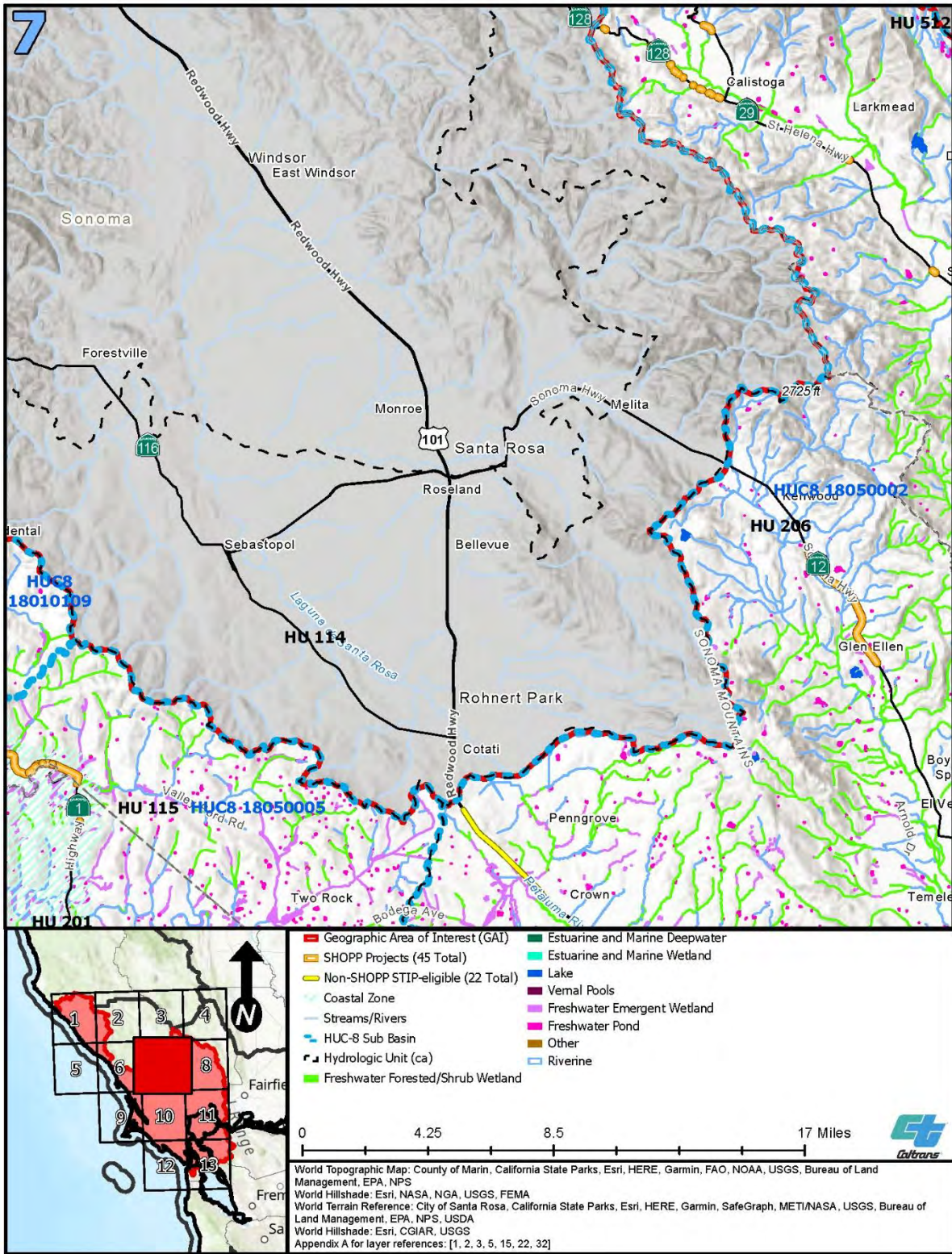


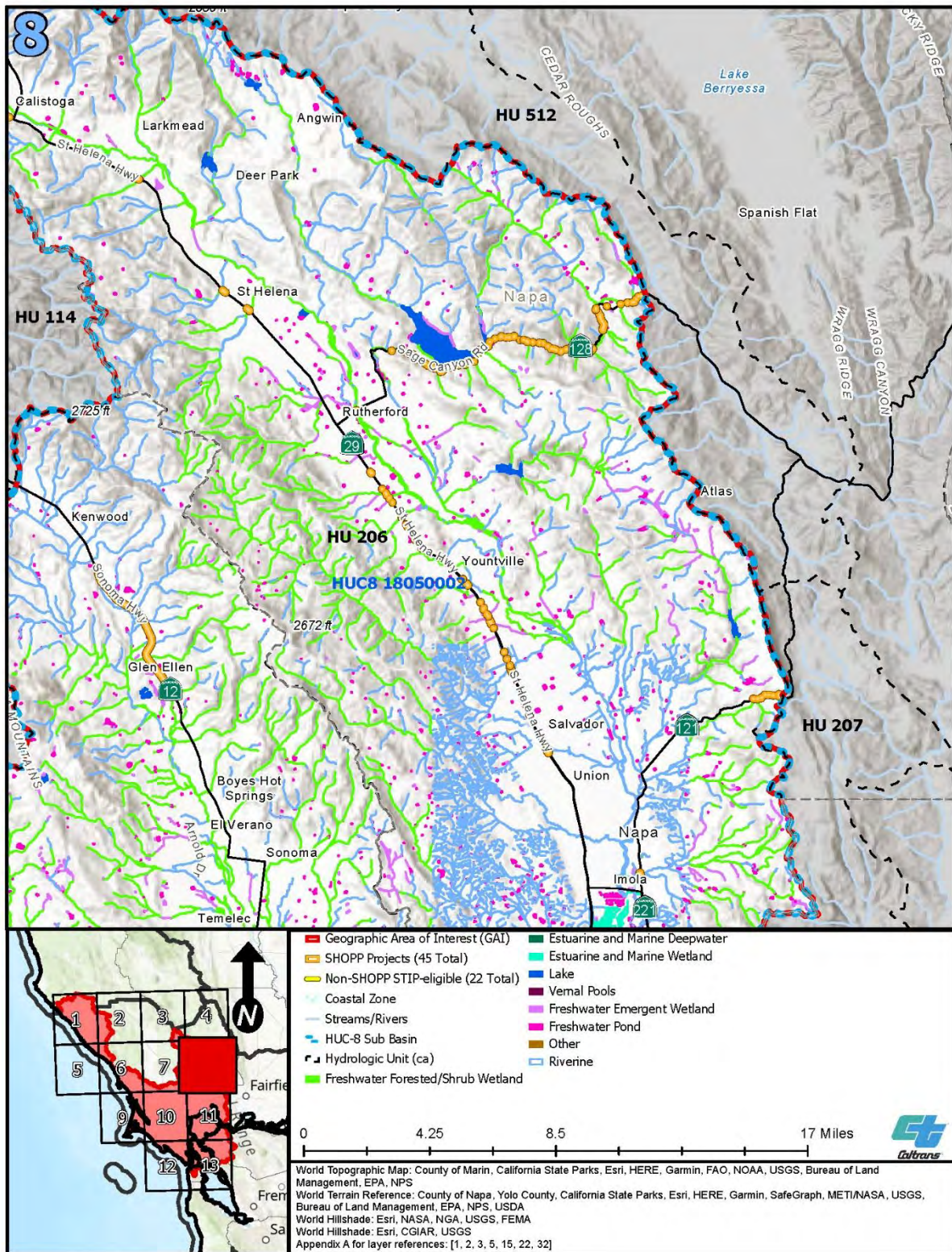


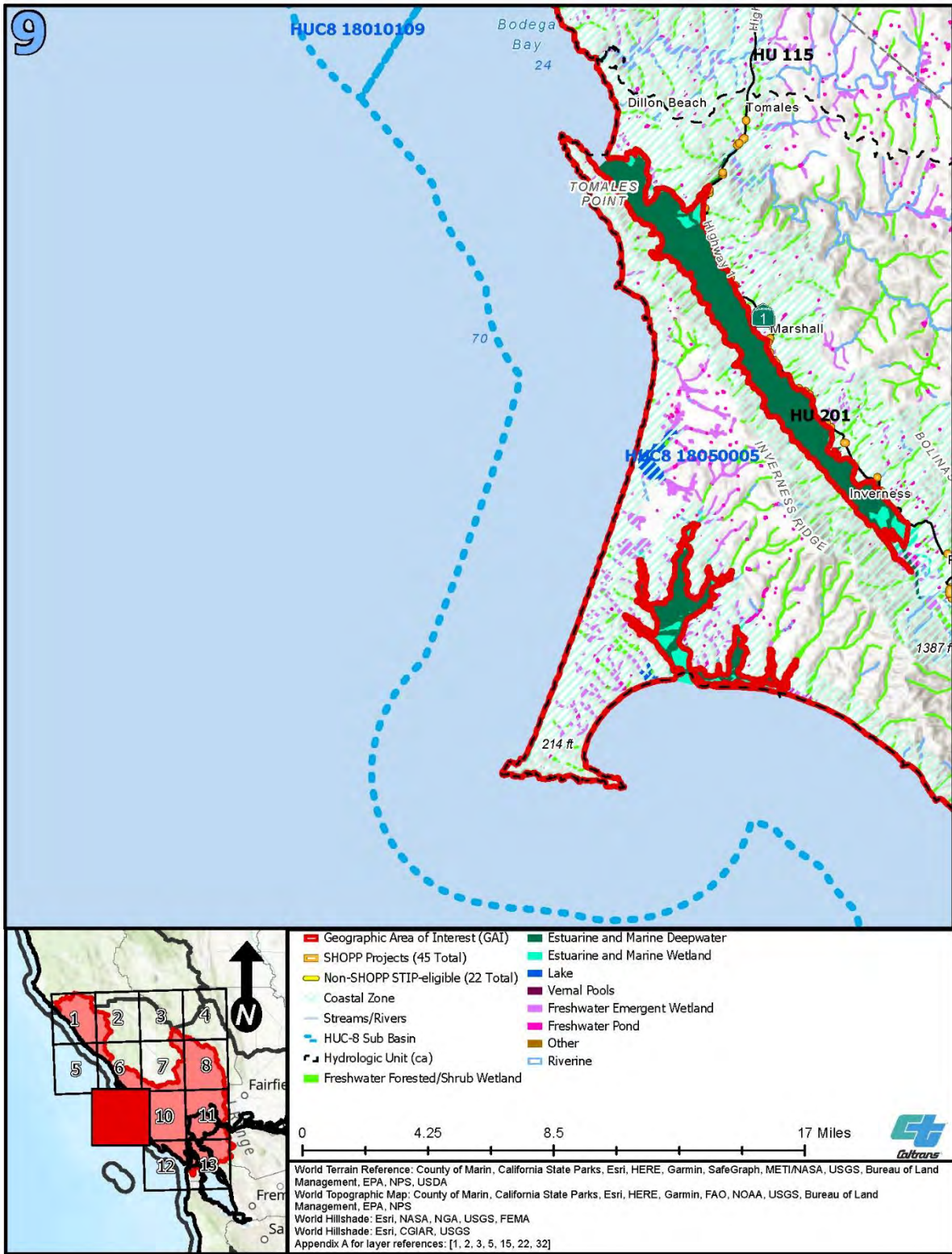


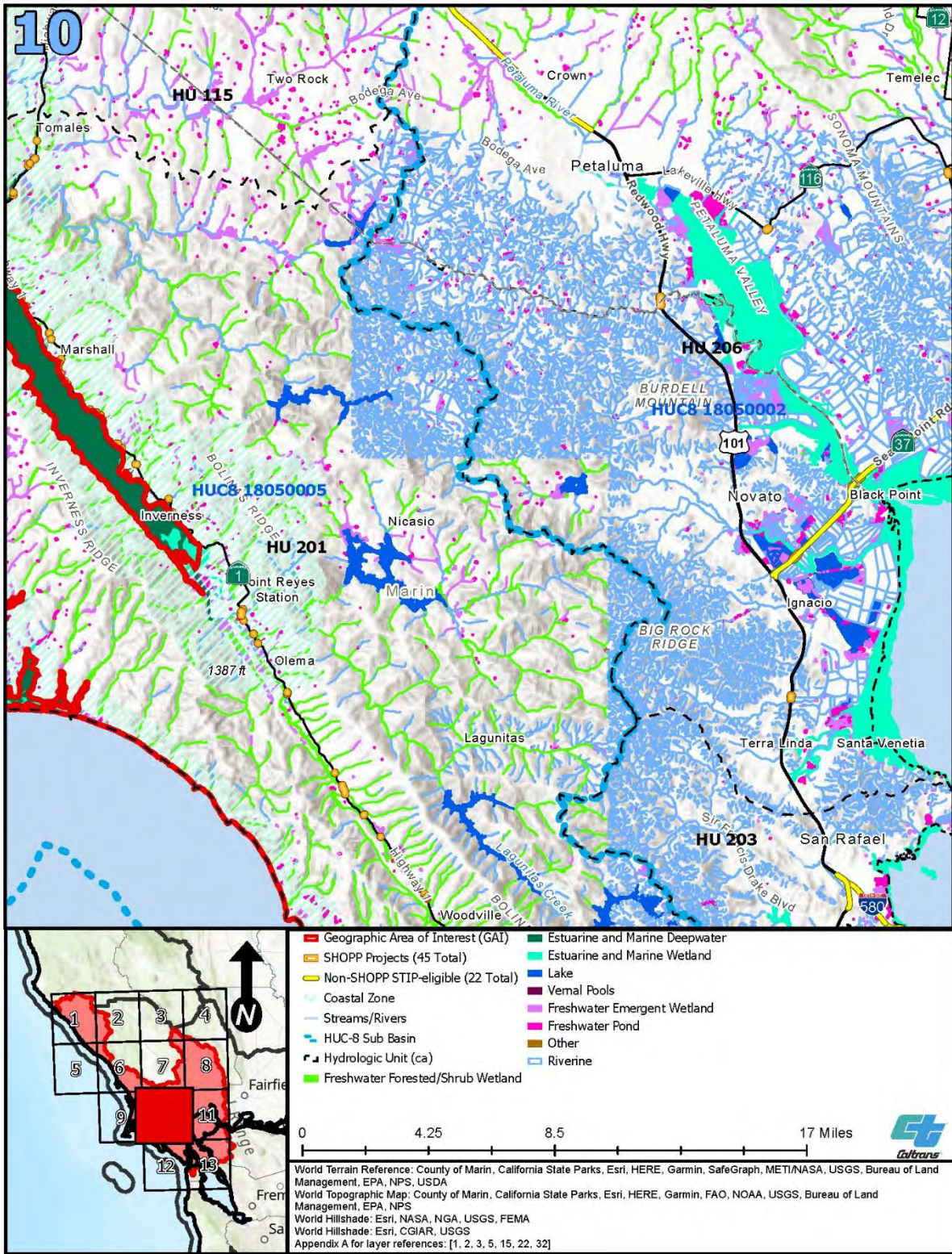


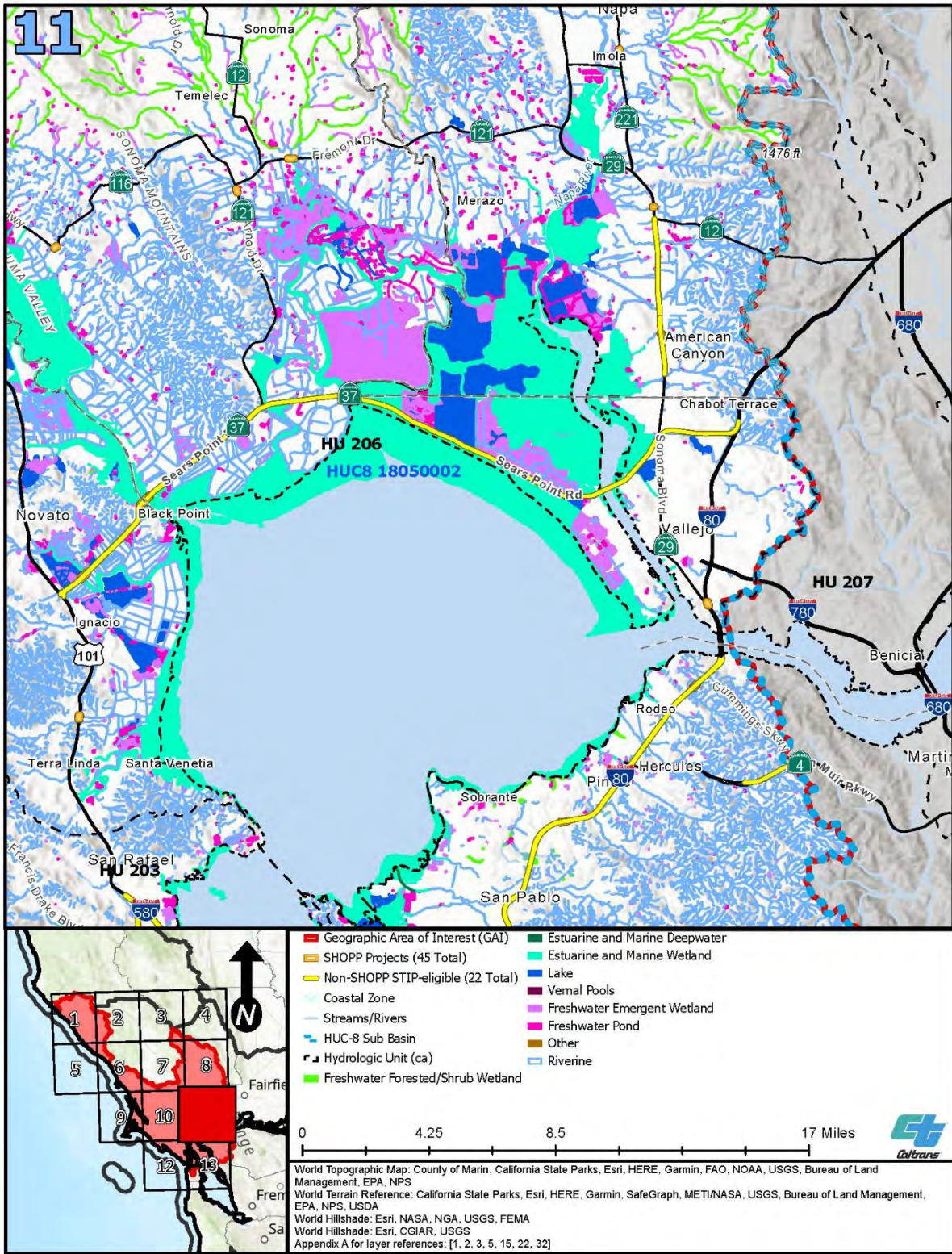




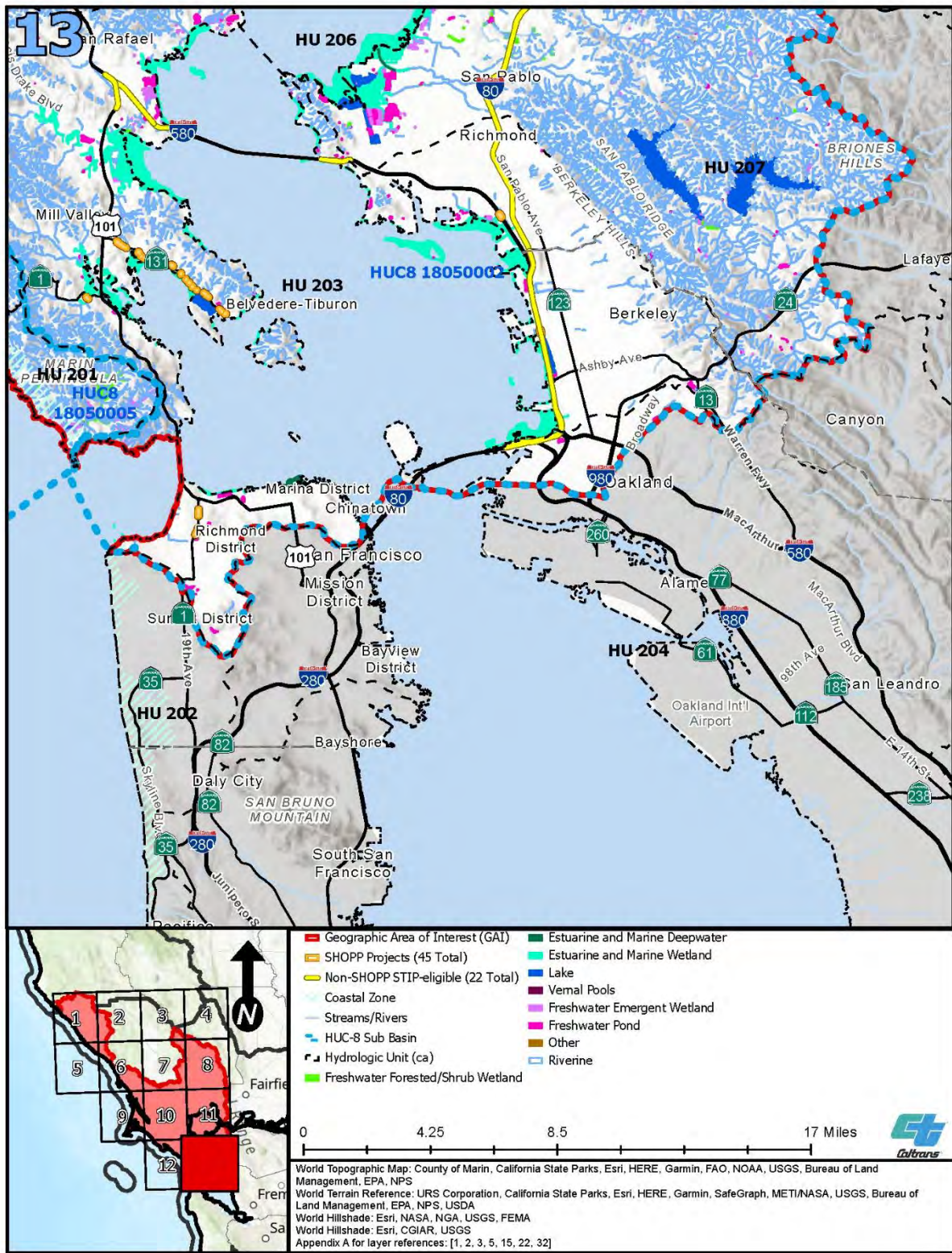












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