ADVANCE MITIGATION PROGRAM

Six Northern Mojave Sub-basins and the Owens Lake Sub-basin within California Regional Advance Mitigation Needs Assessment

Appendices

Version 1.0

Establishing Caltrans' Need for Advance Mitigation for Caltrans District 9 and Surroundings forecast fiscal years 2019/20 to 2028/29

California Department of Transportation – District 9

March 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 9 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	Watershed Boundary Section (GAI)	USGS	9/26/2014	10/19/2018	https://www.usgs.gov/core-science-systems/ngp/national-hydrography
5	Ecological Subsections	USFS	5/1/2017	10/17/2018	https://data.fs.usda.gov/geodata/edw/datasets.php?xmlKeyword=Ecomap
6	Calfish Passage Assessment Database ("PAD")	Calfish	10/3/2019	12/15/2019	https://map.dfg.ca.gov/metadata/ds0069.html?5.84.18vo
7	ACE Climate Resilience – ACE [ds2738]	CDFW	2/22/2018	10/17/2018	https://map.dfg.ca.gov/metadata/ds2738.html?5.66.18
8	CEHC	CDFW	10/1/2017	10/17/2018	Layer is a merge of Essential Connectivity Areas and Landscape Blocks
9	Essential Connectivity Areas – CEHC	CDFW	1/1/2014	10/17/2018	https://map.dfg.ca.gov/metadata/ds0620.html?5.66.18
10	Natural Landscape Blocks – CEHC	CDFW	10/1/2017	10/17/2018	https://map.dfg.ca.gov/metadata/ds0621.html?5.66.18
11	Potential Riparian Connections – CEHC	CDFW	3/1/2010	10/17/2018	https://map.dfg.ca.gov/metadata/ds0622.html?5.66.18
12	SWAP Terrestrial Targets – 2015	CDFW	2/1/2018	10/29/2018	https://map.dfg.ca.gov/metadata/ds1966.html?5.66.18
13	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
14	California Conservation Easements	California Protected Areas Database	12/1/2020	2/2/2021	http://www.calands.org/cced
15	California Protected Areas Holdings	California Protected Areas Database	2/10/2021	2/10/2021	http://www.calands.org/data
16	Tribal Land Boundaries	Bureau of Indian Affairs	5/16/2017	10/11/2018	https://hub.arcgis.com/items/2e915ef3df48422283e5b2c7d89dfcba
17	U.S. Military Installations	U.S. Census Bureau	12/1/2017	10/11/2018	https://www.census.gov/cgi-bin/geo/shapefiles/index.php
18	County Boundaries	U.S. Census Bureau	7/8/2016	10/11/2018	https://data.ca.gov/dataset/ca-geographic-boundaries
19	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
20	USFWS Critical Habitat	FWS	10/1/2018	3/24/2021	https://ecos.fws.gov/ecp/report/table/critical-habitat.html
21	Watershed Boundary Dataset	USGS	9/26/2014	10/19/2018	https://www.usgs.gov/core-science-systems/ngp/national-hydrography
22	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
23	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
24	Northern Sierra Nevada Foothills ("NSNF") wildlife connectivity project	CDFW	6/20/2014	3/24/2021	https://map.dfg.ca.gov/metadata/ds1004.html?5.94.01
25	Conservation Plan Boundaries, HCP and NCCP	CDFW, FWS	12/12/2017	1/28/2019	https://map.dfg.ca.gov/metadata/ds0760.html?5.80.28l
26	Vegetation D06/D07/D08/D09 in Caltrans District 9 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/

ID	GIS Layer	Source Agency	Source Date	Download Date	Website
27	Waters and Wetlands D06/D07/D08/D09 in Caltrans District 9 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/
28	National Flood Hazard Layer	Federal Emergency Management Agency	6/29/2018	9/25/2019	https://www.fema.gov/national-flood-hazard-layer-nfhl
29	RCIS Draft Boundaries	CDFW	9/10/2019	9/25/2019	Requested on 9/25/2019; source date is 9/10/2019
30	Terrestrial Connectivity – ACE [ds2734]	CDFW	8/28/2019	9/25/2019	https://map.dfg.ca.gov/metadata/ds2734.html?5.80.28l
31	Terrestrial Biodiversity Summary – ACE [ds2739]	CDFW	2/24/2020	7/3/2019	https://map.dfg.ca.gov/metadata/ds2739.html?5.80.28l
32	Aquatic Biodiversity Summary – ACE [ds2768]	CDFW	2/22/2018	7/3/2019	https://map.dfg.ca.gov/metadata/ds2768.html?5.80.28l
33	National Hydrology Dataset Plus ("NHDPlus")	EPA	3/13/2019	4/29/2021	https://www.epa.gov/waterdata/get-nhdplus-national-hydrography-dataset-plus-data
34	303(d) List of Impaired Waterbodies	SWRCB	2014–2016	4/7/2020	https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml
35	ZIP Codes	U.S. Postal Service	2/11/2020	3/11/2020	https://www.arcgis.com/home/item.html?id=8d2012a2016e484dafaac0451f9aea24
36	Vernal Pools – ACE [ds2732]	CDFW	2/13/2020	1/29/2021	https://map.dfg.ca.gov/metadata/ds2732.html?5.94.01
37	National Wild and Scenic Rivers	National Wild and Scenic Rivers System	3/2/2016	8/4/2021	https://www.rivers.gov/rivers/

ID	GIS Layer	Source Agency	Source Date	Download Date	Website
38	Landscape Blocks for the California Desert Linkage Network [ds823]	BLM and The Wildlands Conservancy	3/2/2014	3/11/2022	https://map.dfg.ca.gov/metadata/ds0823.html?5.66.18
39	Linkage Design for the California Desert Linkage Network [ds822]	BLM and The Wildlands Conservancy	3/2/2014	3/11/2022	https://map.dfg.ca.gov/metadata/ds0822.html?5.108.39

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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-7). These 92 maps correspond with the aquatic resources maps in Appendix E.

Tree-dominated Habitats: Tree-dominated habitats have at least 10 percent total tree canopy crown closure. In the GAI, tree-dominated habitats include aspen, blue oak woodland, blue oak-foothill pine, coastal oak woodland, desert riparian, Eastside pine, Jeffrey pine, Joshua tree, juniper, Lodgepole pine, montane hardwood, montane hardwood-conifer, montane riparian, pinyon-juniper, ponderosa pine, red fir, Sierran mixed conifer, subalpine conifer, valley foothill riparian, valley oak woodland, and white fir, which are found in all five 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 alkali desert scrub, alpine dwarf-shrub, bitterbrush, chamise-redshank chaparral, coastal scrub, desert scrub, desert succulent scrub, desert wash, low sage, mixed chaparral, montane chaparral, sagebrush, and unknown shrub type, which are found in all five 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, pasture, perennial grassland, saline emergent wetland, and wet meadow, which are found in four 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 lacustrine, riverine, and water, which are found in four 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 agriculture, cropland, deciduous orchard, irrigated hayfield, irrigated row and field crops, urban, and vineyard, which are found in all five ecoregion sections.

Non-vegetated Habitats: Non-vegetated habitats include barren areas, characterized by less than 2 percent cover by herbaceous species. In the GAI, non-vegetated habitats consist of barren areas, which are found in all five ecoregion sections.

References

Caltrans (California Department of Transportation). 2021a. "Vegetation_D06/D07/D08/D09 in Caltrans District 9 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 2, 2021. https://www.wildlife.ca.gov/Data/CWHR/Wildlife-Habitats.

Table B-1. Land Cover Types in the Ecoregion Sections within the GAI

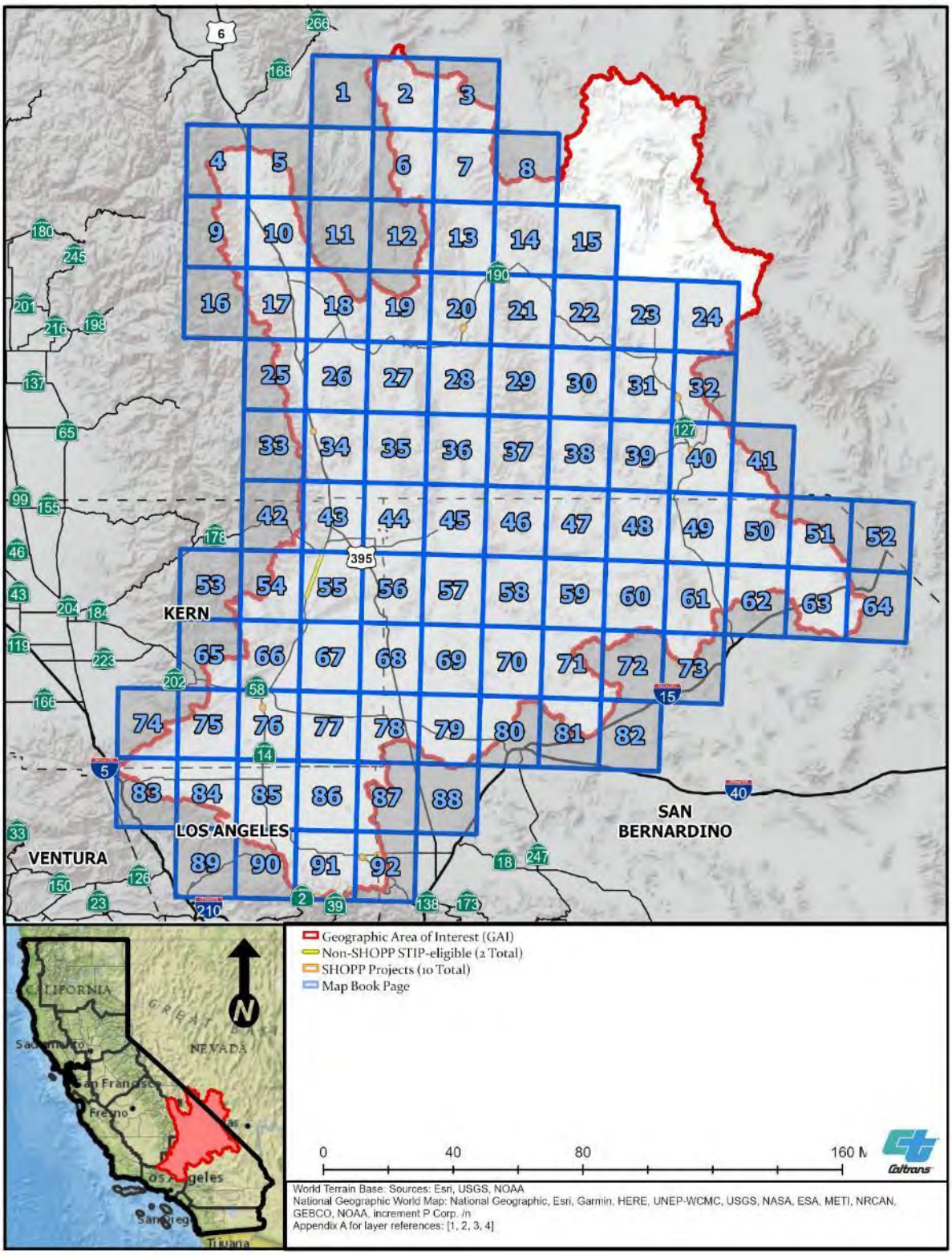
Land Cover Type	Mojave Desert Ecoregion Section	Southeastern Great Basin Ecoregion Section	Sierra Nevada Ecoregion Section	Sierra Nevada Foothills Ecoregion Section	Southern California Mountains and Valleys Ecoregion Section
Tree-dominated Habitats	See below	See below	See below	See below	See below
Aspen	Present	Not mapped	Present	Not mapped	Not mapped
Blue Oak Woodland	Present	Not mapped	Present	Present	Present
Blue Oak-Foothill Pine	Present	Not mapped	Present	Present	Present
Coastal Oak Woodland	Present	Not mapped	Present	Not mapped	Present
Desert Riparian	Present	Present	Present	Not mapped	Present
Eastside Pine	Present	Not mapped	Present	Not mapped	Present
Jeffrey Pine	Not mapped	Not mapped	Present	Not mapped	Present
Joshua Tree	Present	Present	Present	Not mapped	Present
Juniper	Present	Present	Present	Present	Present
Lodgepole Pine	Not mapped	Not mapped	Present	Not mapped	Not mapped
Montane Hardwood	Present	Not mapped	Present	Present	Present
Montane Hardwood-Conifer	Present	Present	Present	Present	Present
Montane Riparian	Present	Present	Present	Not mapped	Present
Pinyon-Juniper	Present	Present	Present	Present	Present
Ponderosa Pine	Not mapped	Not mapped	Not mapped	Not mapped	Not mapped
Red Fir	Not mapped	Not mapped	Present	Not mapped	Not mapped
Sierran Mixed Conifer	Not mapped	Not mapped	Present	Not mapped	Present
Subalpine Conifer	Not mapped	Present	Present	Not mapped	Not mapped
Valley Foothill Riparian	Present	Not mapped	Present	Present	Present
Valley Oak Woodland	Present	Not mapped	Present	Not mapped	Present
White Fir	Not mapped	Not mapped	Present	Present	Present
Shrub-dominated Habitats	See below	See below	See below	See below	See below
Alkali Desert Scrub	Present	Present	Present	Not mapped	Present
Alpine Dwarf-Shrub	Not mapped	Present	Present	Not mapped	Not mapped

Land Cover Type	Mojave Desert Ecoregion Section	Southeastern Great Basin Ecoregion Section	Sierra Nevada Ecoregion Section	Sierra Nevada Foothills Ecoregion Section	Southern California Mountains and Valleys Ecoregion Section
Bitterbrush	Present	Not mapped	Present	Not mapped	Present
Chamise - Redshank Chaparral	Not mapped	Not mapped	Not mapped	Not mapped	Present
Chamise-Redshank Chaparral; Mixed Chaparral	Not mapped	Not mapped	Not mapped	Not mapped	Present
Coastal Scrub	Not mapped	Not mapped	Not mapped	Not mapped	Present
Desert Scrub	Present	Present	Present	Not mapped	Present
Desert Scrub; Desert Wash	Present	Not mapped	Present	Not mapped	Not mapped
Desert Scrub; Perennial Grassland	Present	Not mapped	Not mapped	Not mapped	Not mapped
Desert Succulent Shrub	Present	Not mapped	Not mapped	Not mapped	Not mapped
Desert Succulent Shrub; Desert Wash	Present	Not mapped	Not mapped	Not mapped	Not mapped
Desert Wash	Present	Present	Present	Not mapped	Present
Low Sage	Present	Present	Present	Not mapped	Not mapped
Mixed Chaparral	Present	Not mapped	Present	Present	Present
Montane Chaparral	Present	Not mapped	Present	Present	Present
Sagebrush	Present	Present	Present	Present	Present
Unknown Shrub Type	Present	Not mapped	Present	Not mapped	Not mapped
Alkali Desert Scrub	Present	Present	Present	Not mapped	Present
Alpine Dwarf-Shrub	Not mapped	Present	Present	Not mapped	Not mapped
Bitterbrush	Present	Not mapped	Present	Not mapped	Present
Chamise - Redshank Chaparral	Not mapped	Not mapped	Not mapped	Not mapped	Present
Chamise-Redshank Chaparral; Mixed Chaparral	Not mapped	Not mapped	Not mapped	Not mapped	Present
Coastal Scrub	Not mapped	Not mapped	Not mapped	Not mapped	Present
Desert Scrub	Present	Present	Present	Not mapped	Present
Desert Scrub; Desert Wash	Present	Not mapped	Present	Not mapped	Not mapped

Land Cover Type	Mojave Desert Ecoregion Section	Southeastern Great Basin Ecoregion Section	Sierra Nevada Ecoregion Section	Sierra Nevada Foothills Ecoregion Section	Southern California Mountains and Valleys Ecoregion Section
Desert Scrub; Perennial Grassland	Present	Not mapped	Not mapped	Not mapped	Not mapped
Desert Succulent Shrub	Present	Not mapped	Not mapped	Not mapped	Not mapped
Desert Succulent Shrub; Desert Wash	Present	Not mapped	Not mapped	Not mapped	Not mapped
Desert Wash	Present	Present	Present	Not mapped	Present
Low Sage	Present	Present	Present	Not mapped	Not mapped
Mixed Chaparral	Present	Not mapped	Present	Present	Present
Montane Chaparral	Present	Not mapped	Present	Present	Present
Sagebrush	Present	Present	Present	Present	Present
Unknown Shrub Type	Present	Not mapped	Present	Not mapped	Not mapped
Herbaceous-dominated Habitats	See below	See below	See below	See below	See below
Annual Grassland	Present	Not mapped	Present	Present	Present
Fresh Emergent Wetland	Present	Not mapped	Not mapped	Not mapped	Not mapped
Pasture	Present	Not mapped	Present	Not mapped	Present
Perennial Grassland	Present	Not mapped	Present	Present	Present
Saline Emergent Wetland	Present	Not mapped	Not mapped	Not mapped	Not mapped
Wet Meadow	Present	Not mapped	Present	Not mapped	Present
Aquatic Habitats	See below	See below	See below	See below	See below
Lacustrine	Present	Present	Present	Not mapped	Present
Riverine	Present	Not mapped	Present	Not mapped	Not mapped
Water	Present	Present	Not mapped	Not mapped	Not mapped
Developed Habitats	See below	See below	See below	See below	See below
Agriculture	Present	Not mapped	Not mapped	Not mapped	Not mapped
Cropland	Present	Not mapped	Present	Not mapped	Not mapped
Deciduous Orchard	Not mapped	Not mapped	Present	Not mapped	Present
Deciduous Orchard; Vineyard	Present	Not mapped	Not mapped	Not mapped	Not mapped

Land Cover Type	Mojave Desert Ecoregion Section	Southeastern Great Basin Ecoregion Section	Sierra Nevada Ecoregion Section	Sierra Nevada Foothills Ecoregion Section	Southern California Mountains and Valleys Ecoregion Section
Irrigated Hayfield	Not mapped	Not mapped	Present	Not mapped	Not mapped
Irrigated Row and Field Crops	Present	Not mapped	Present	Not mapped	Not mapped
Urban	Present	Present	Present	Present	Present
Non-vegetated Habitats	See below	See below	See below	See below	See below
Barren	Present	Present	Present	Present	Present

Sources: Caltrans 2021a, 2021b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VENTURA
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Geographic Area of Interest (GAI)
Non-SHOPP STIP-eligible (2 Total)
SHOPP Projects (10 Total)
Map Book Page
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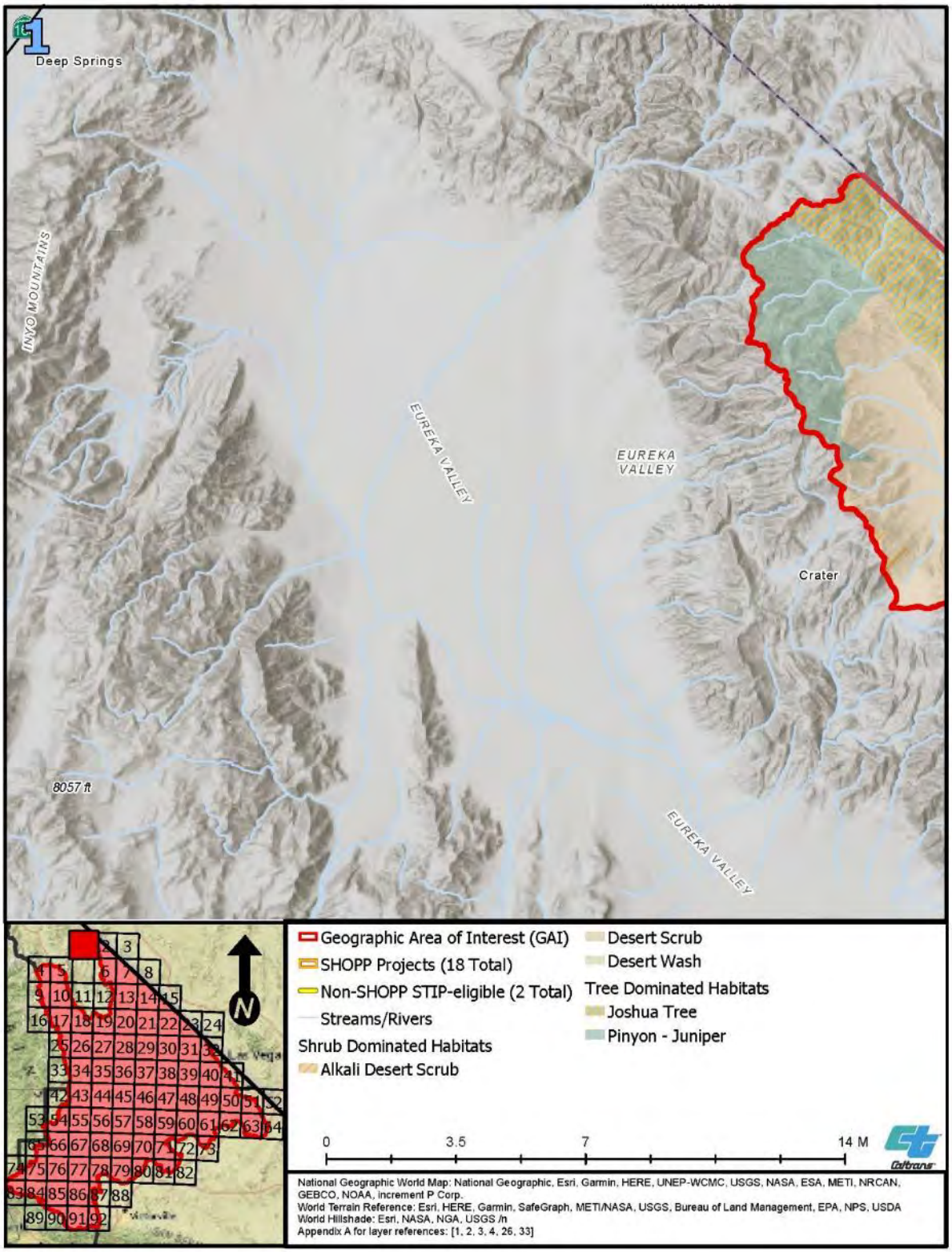
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp. /n
Appendix A for layer references: [1, 2, 3, 4]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EUREKA VALLEY
EUREKA VALLEY
Crater
8057 ft
EUREKA VALLEY
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Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Tree Dominated Habitats
Joshua Tree
Pinyon - Juniper
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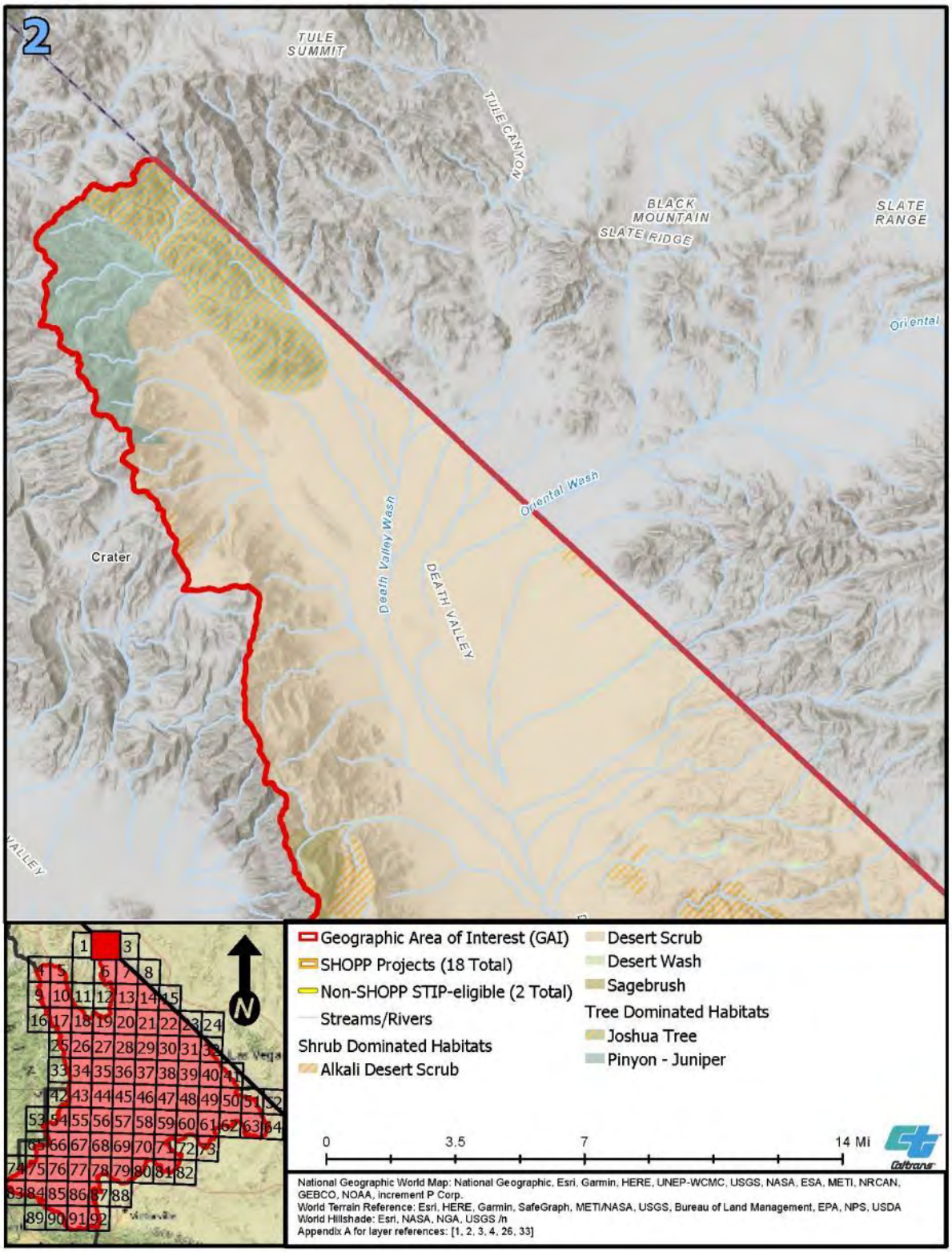
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]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TULE SUMMIT
TULE CANYON
BLACK MOUNTAIN
SLATE RIDGE
SLATE RANGE
Oriental
Oriental Wash
Death Valley Wash
DEATH VALLEY
Crater
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Pinyon - Juniper
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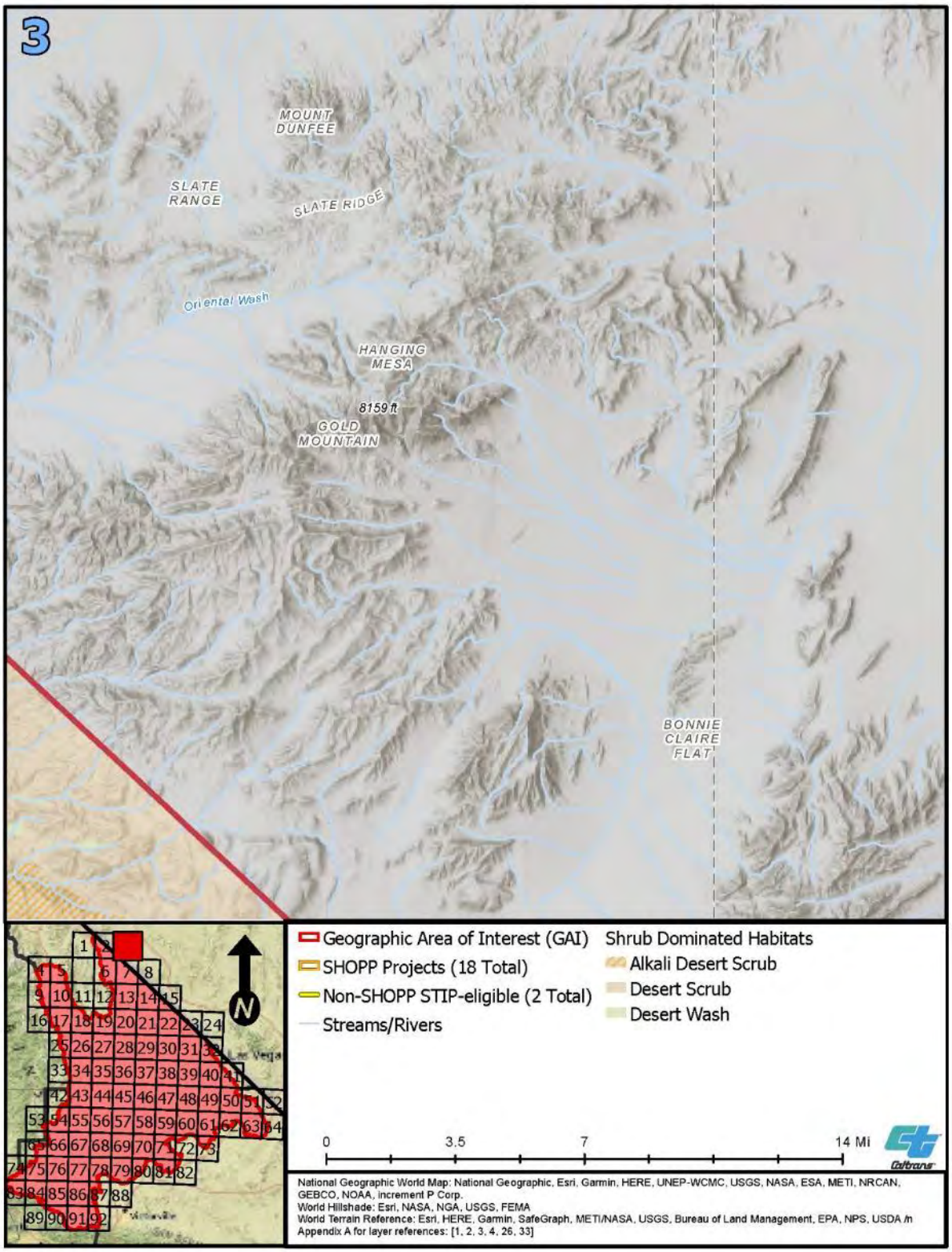
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


3
MOUNT DUNFEE
SLATE RANGE
SLATE RIDGE
Oriental Wash
HANGING MESA
8159 ft
GOLD MOUNTAIN
BONNIE CLAIRE FLAT
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Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
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Shrub Dominated Habitats
Alkali Desert Scrub
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National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
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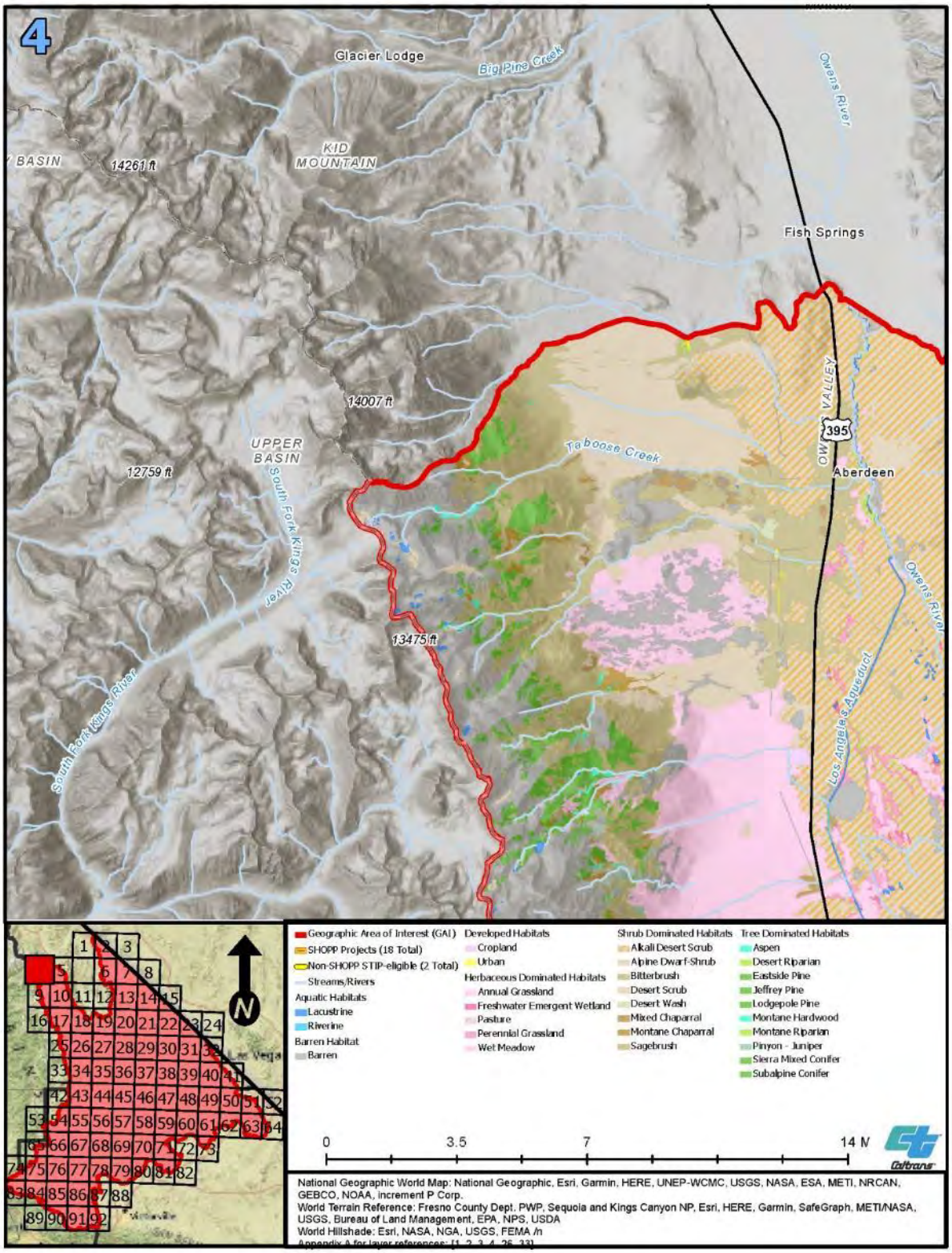
Appendix A for layer references: [1, 2, 3, 4, 26, 33]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Glacier Lodge
Big Pine Creek
Owens River
BASIN
14261 ft
KID MOUNTAIN
Fish Springs
14007 ft
UPPER BASIN
Taboose Creek
OW VALLEY
395
12759 ft
South Fork Kings River
Aberdeen
13475 ft
Owens River
Los Angeles Aqueduct
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Cropland
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Pasture
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Alpine Dwarf-Shrub
Bitterbrush
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Aspen
Desert Riparian
Eastside Pine
Jeffrey Pine
Lodgepole Pine
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Sierra Mixed Conifer
Subalpine Conifer
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Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
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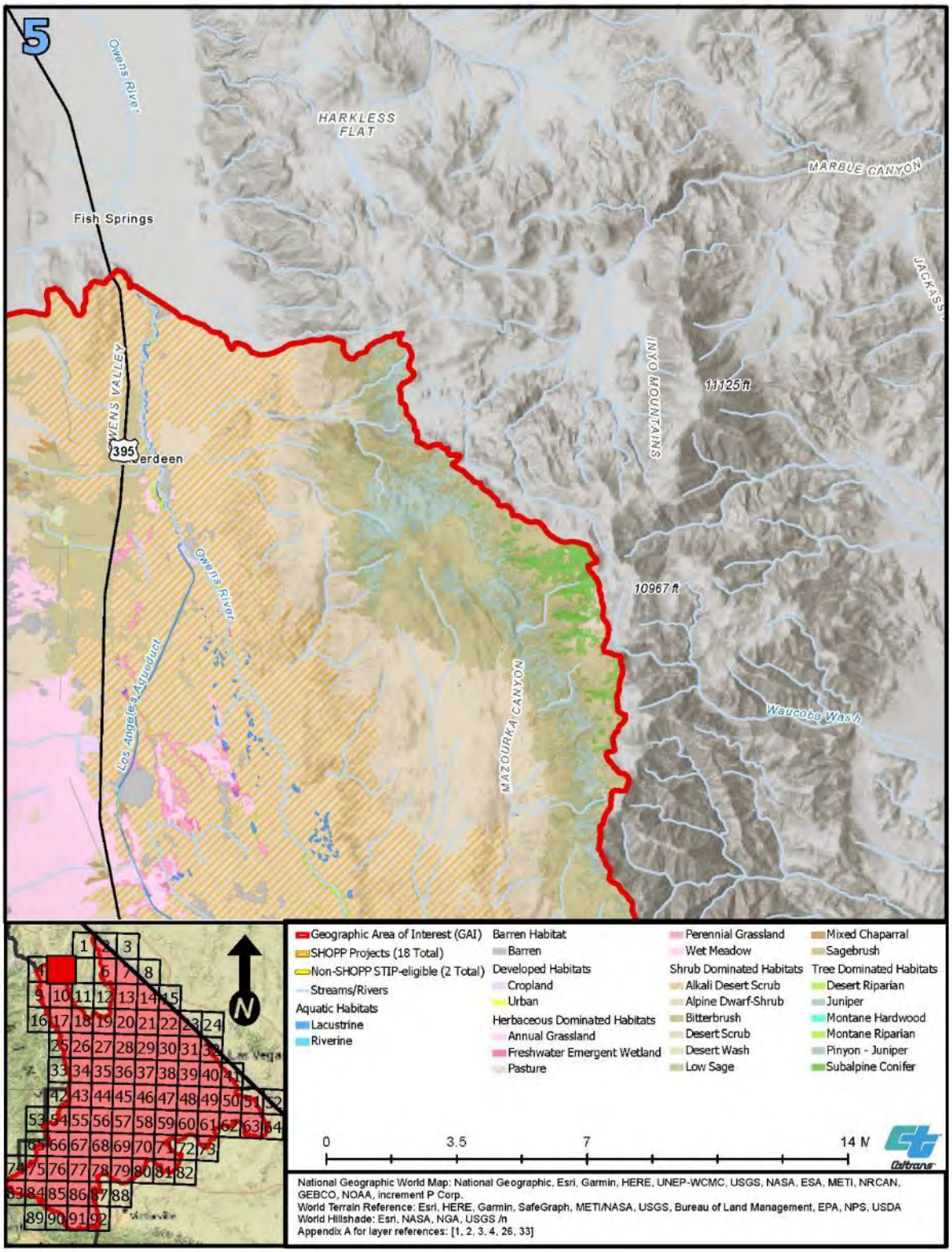
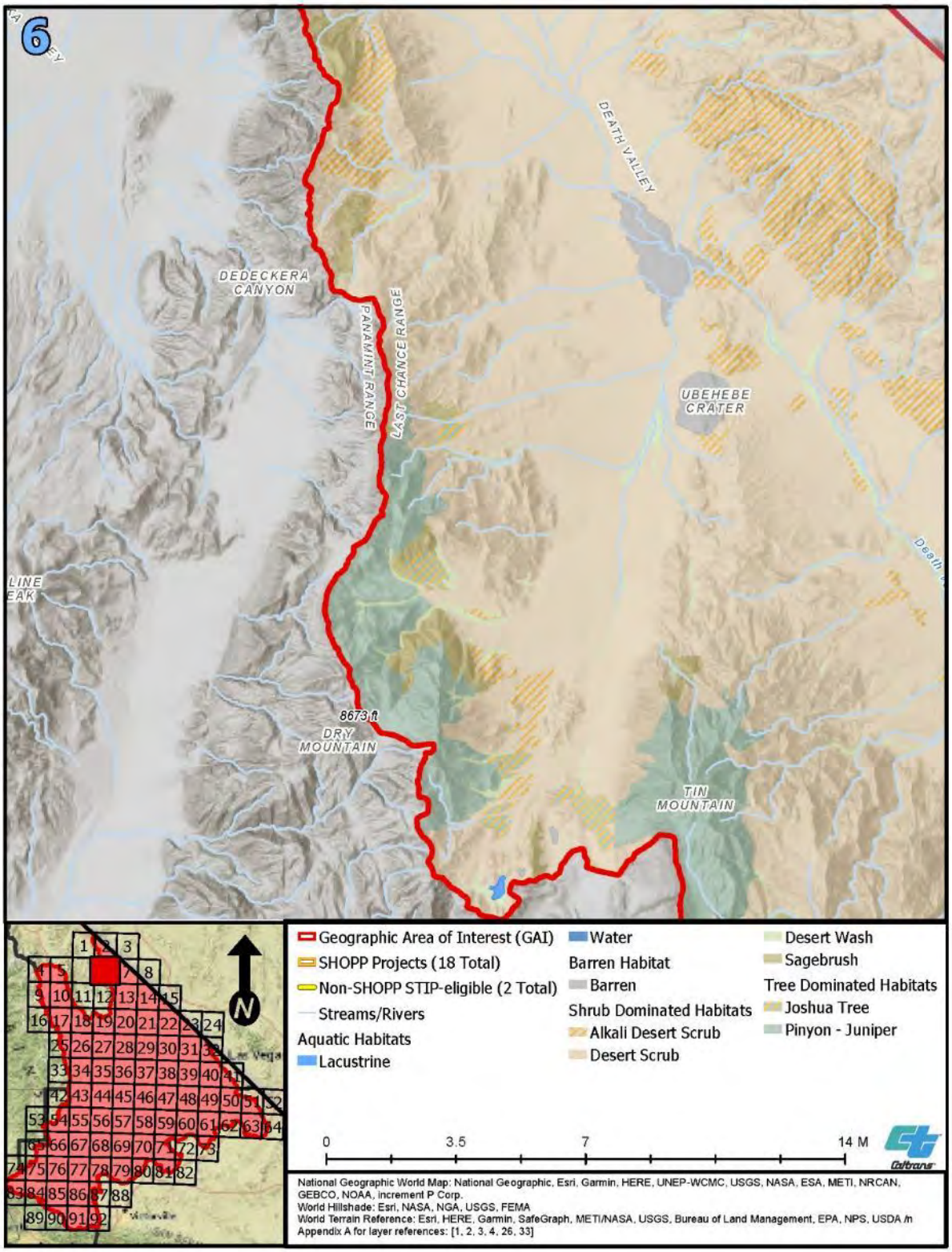
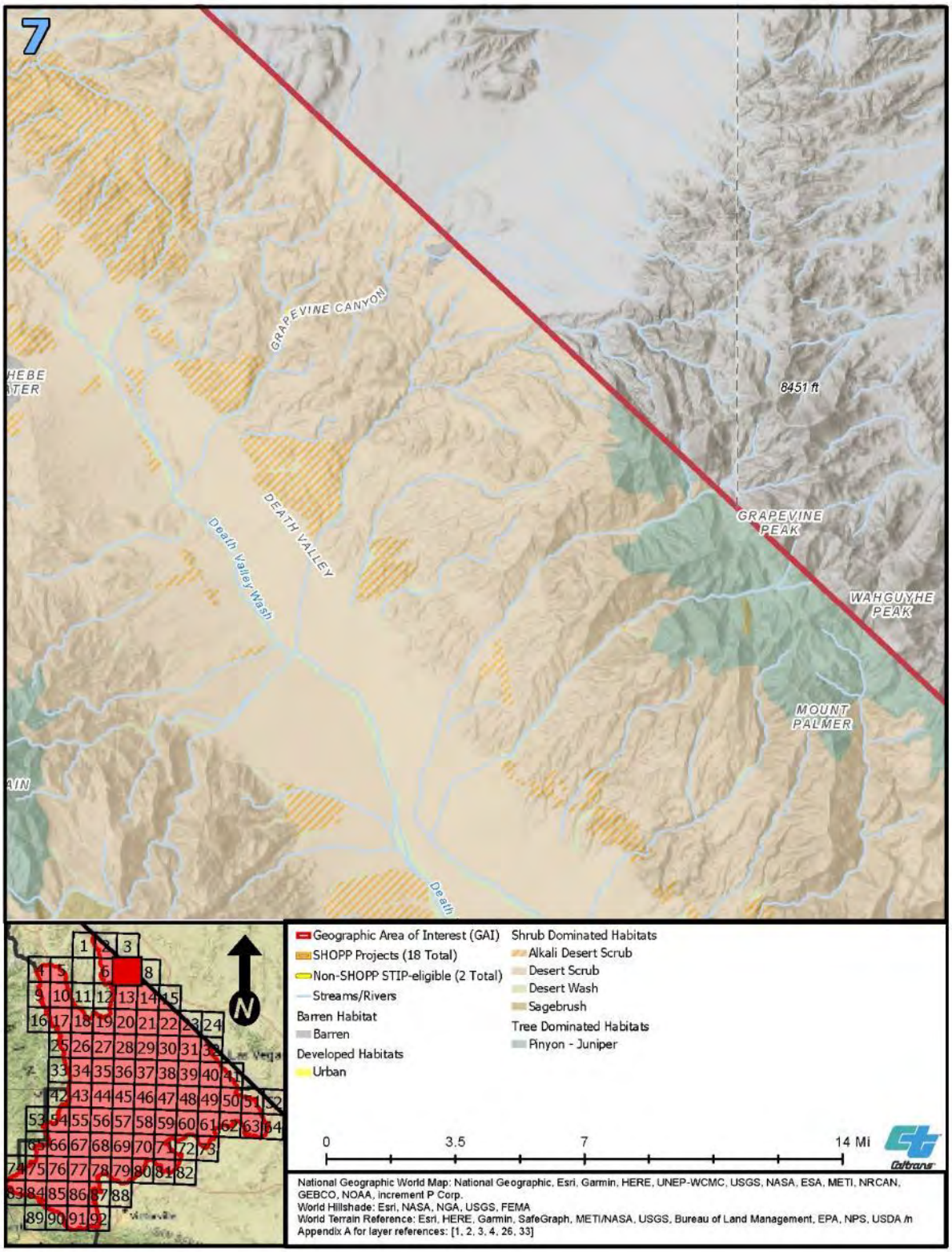
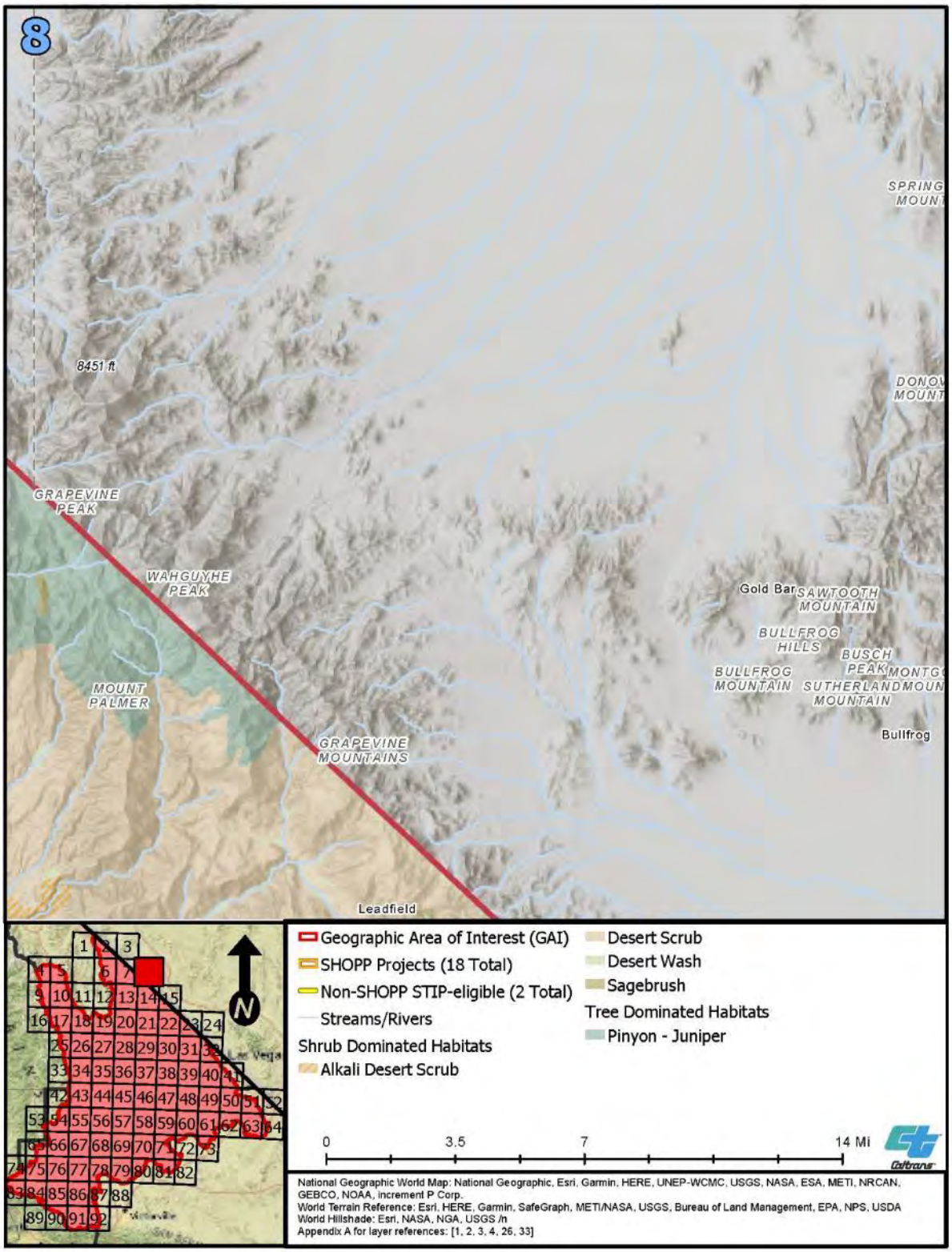
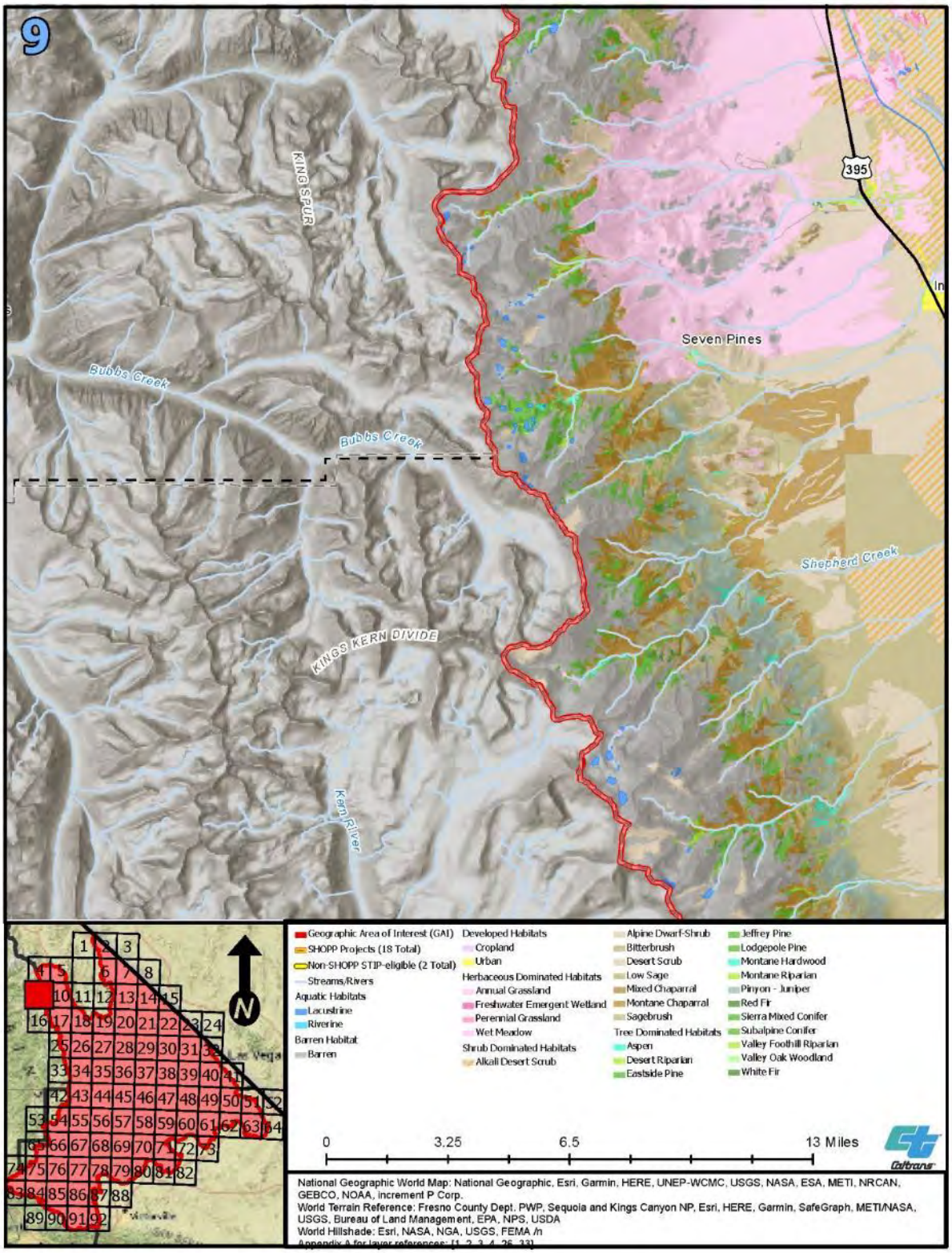
World Hillshade: Esri, NASA, NGA, USGS, FEMA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

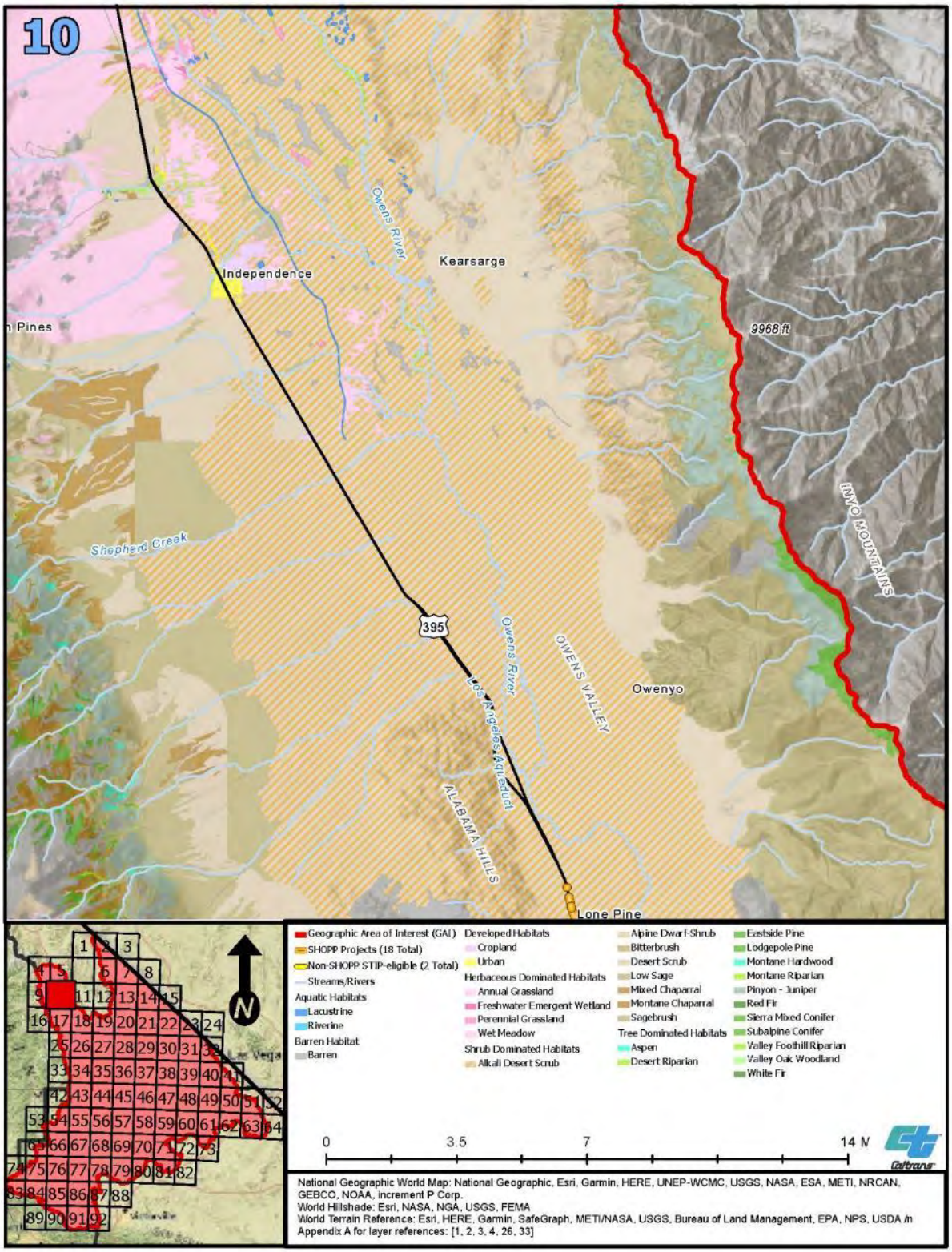

5
Owens River
HARKLESS FLAT
MARBLE CANYON
Fish Springs
JACKASS
INYO MOUNTAINS
11125 ft
OWENS VALLEY
395
Owens River
10967 ft
Los Angeles Aqueduct
MAZOURKA CANYON
Waucoba Wash
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Cropland
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Pasture
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Alpine Dwarf-Shrub
Bitterbrush
Desert Scrub
Desert Wash
Low Sage
Mixed Chaparral
Sagebrush
Tree Dominated Habitats
Desert Riparian
Juniper
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Subalpine Conifer
0
3.5
7
14 Mi
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


6
DEATH VALLEY
DEDECKERA CANYON
PANAMINT RANGE
LAST CHANCE RANGE
UBEHEBE CRATER
LINE PEAK
8673 ft
DRY MOUNTAIN
TIN MOUNTAIN
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Water
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Pinyon - Juniper
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


7
GRAPEVINE CANYON
8451 ft
GRAPEVINE PEAK
WAHGUYHE PEAK
MOUNT PALMER
DEATH VALLEY
Death Valley Wash
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Pinyon - Juniper
0
3.5
7
14 Mi
N
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


8
8451 ft
GRAPEVINE PEAK
WAHGUYHE PEAK
MOUNT PALMER
GRAPEVINE MOUNTAINS
Leadfield
Gold Bar
SAWTOOTH MOUNTAIN
BULLFROG HILLS
BUSCH PEAK
BULLFROG MOUNTAIN
SUTHERLAND MOUNTAIN
Bullfrog
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Pinyon - Juniper
N
0
3.5
7
14 Mi
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


9
KING SPUR
395
Seven Pines
Bubbs Creek
Bubbs Creek
Shepherd Creek
KINGS KERN DIVIDE
Kern River
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Cropland
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Alpine Dwarf-Shrub
Bitterbrush
Desert Scrub
Low Sage
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Aspen
Desert Riparian
Eastside Pine
Jeffrey Pine
Lodgepole Pine
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Red Fir
Sierra Mixed Conifer
Subalpine Conifer
Valley Foothill Riparian
Valley Oak Woodland
White Fir
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: Fresno County Dept. PWP, Sequoia and Kings Canyon NP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS, FEMA /n


10
Independence
Kearsarge
Owens River
9968 ft
INYO MOUNTAINS
Shepherd Creek
395
Owens River
OWENS VALLEY
Owenyo
Los Angeles Aqueduct
ALABAMA HILLS
Lone Pine
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Cropland
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Alpine Dwarf-Shrub
Bitterbrush
Desert Scrub
Low Sage
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Aspen
Desert Riparian
Eastside Pine
Lodgepole Pine
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Red Fir
Sierra Mixed Conifer
Subalpine Conifer
Valley Foothill Riparian
Valley Oak Woodland
White Fir
0
3.5
7
14 Mi
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
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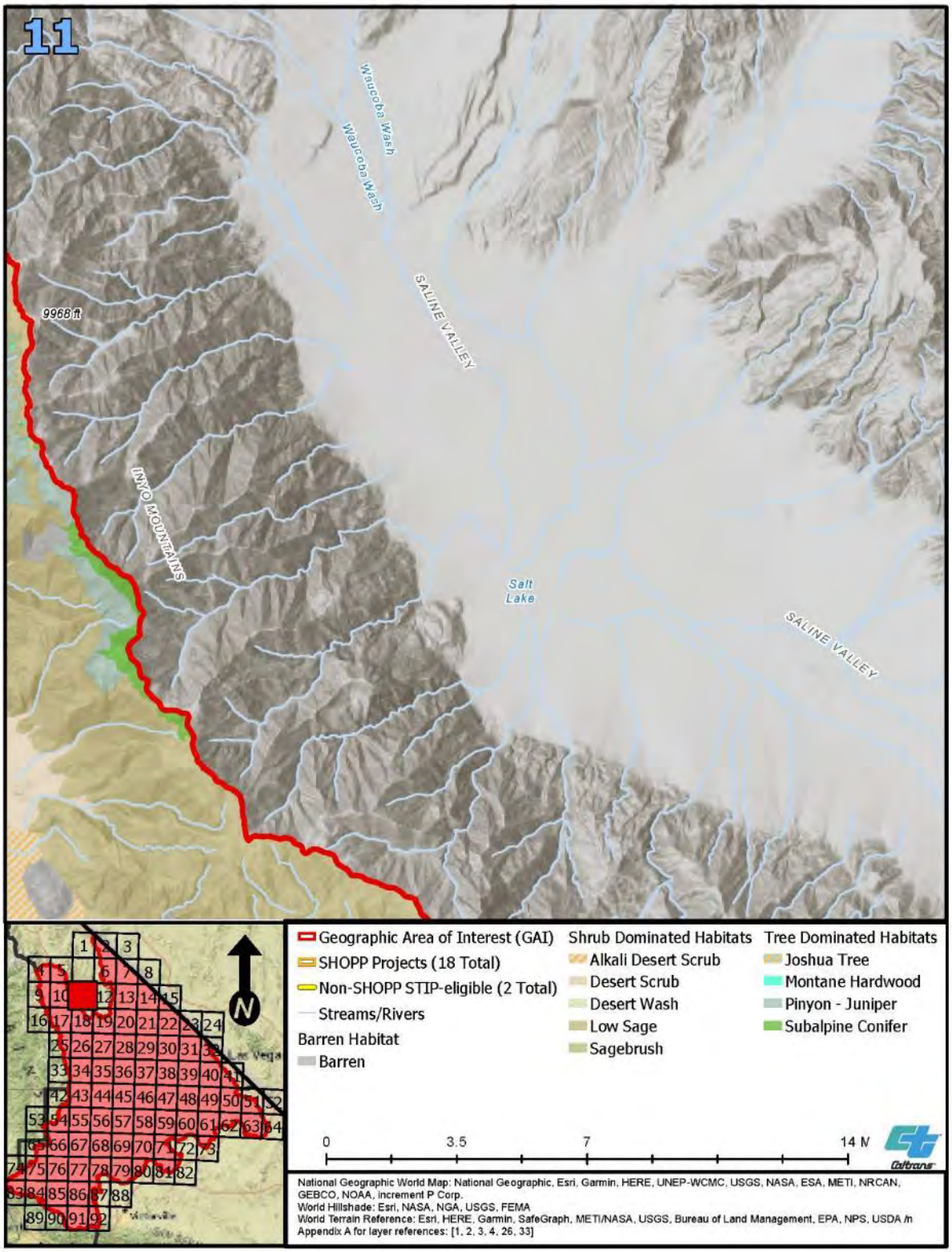
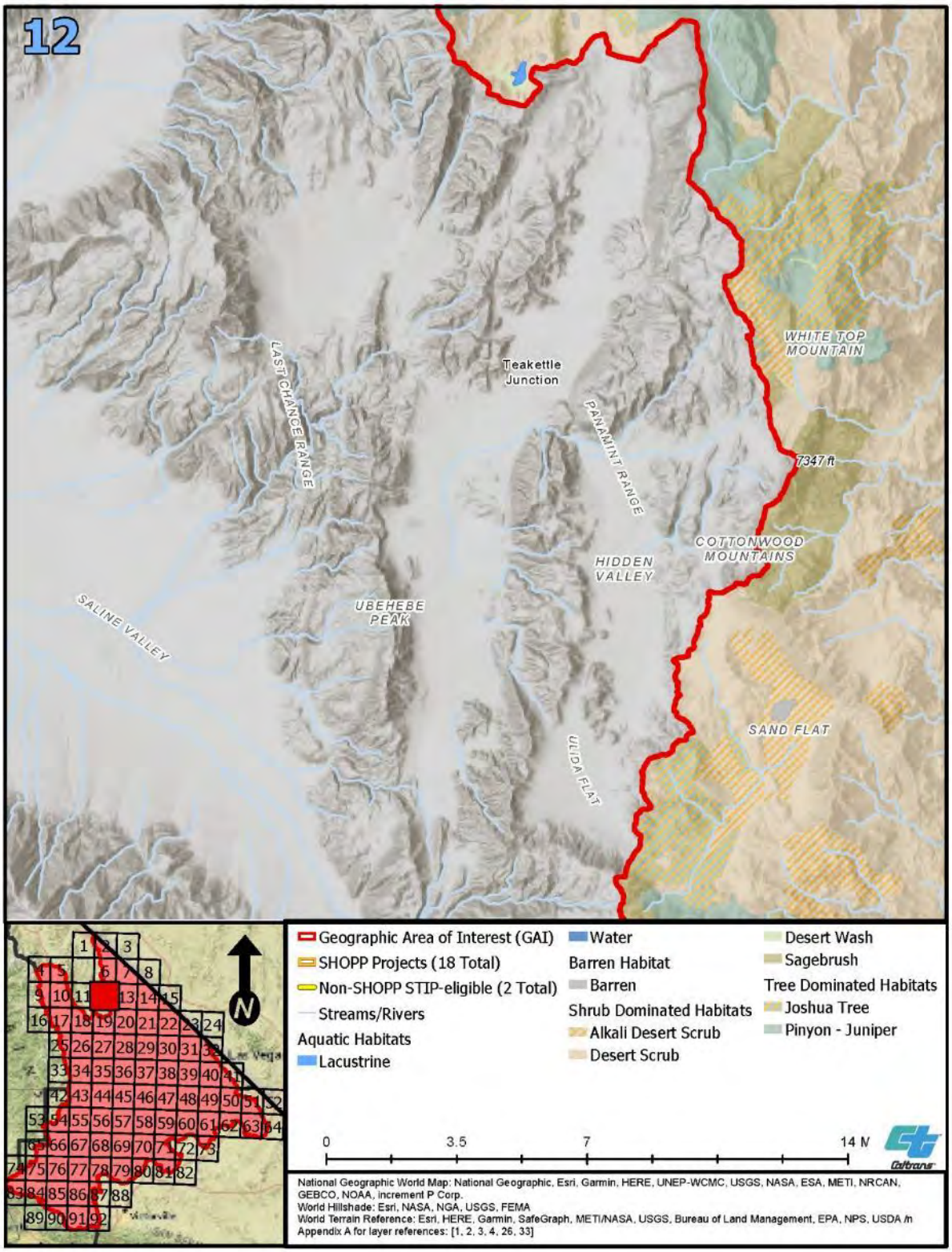
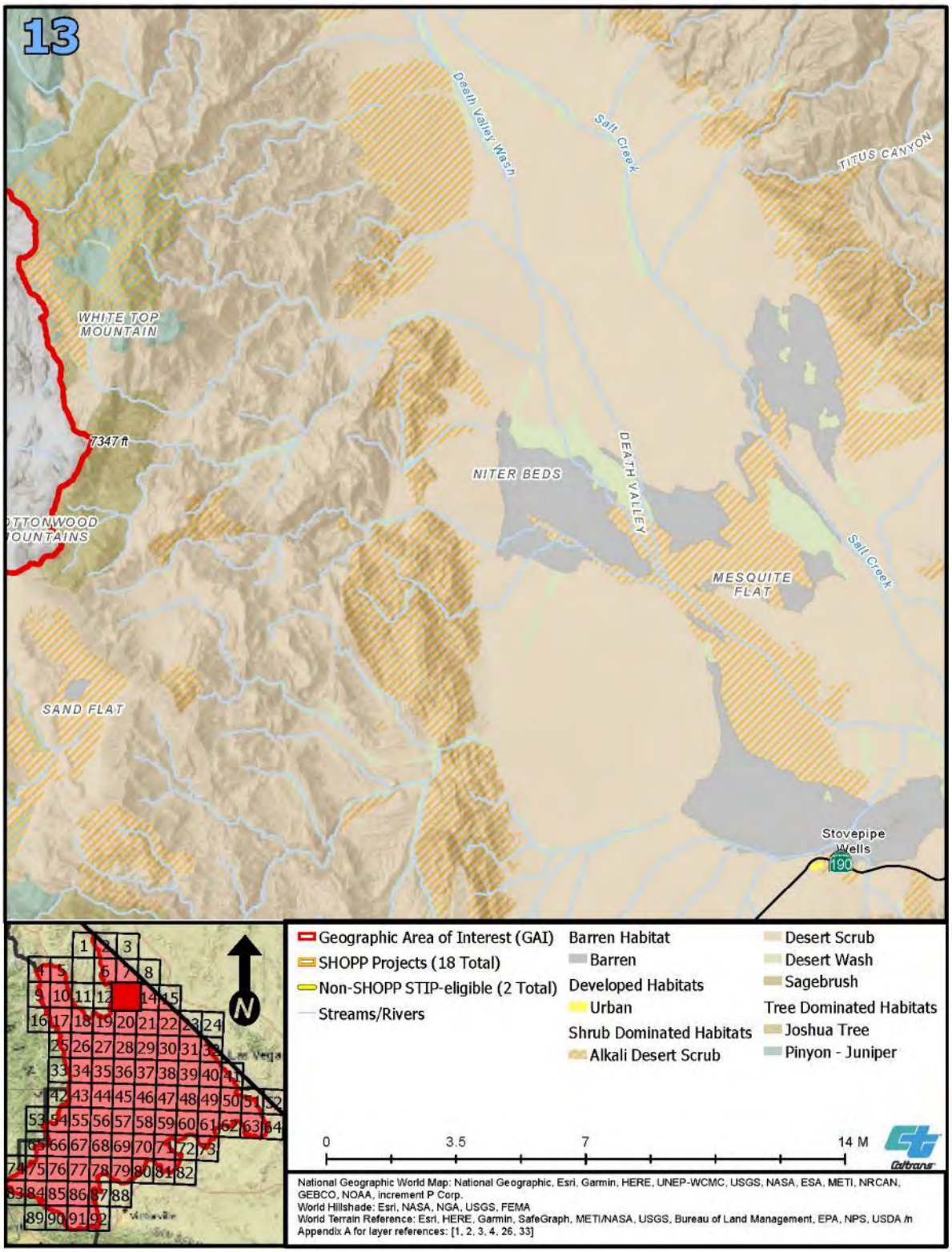
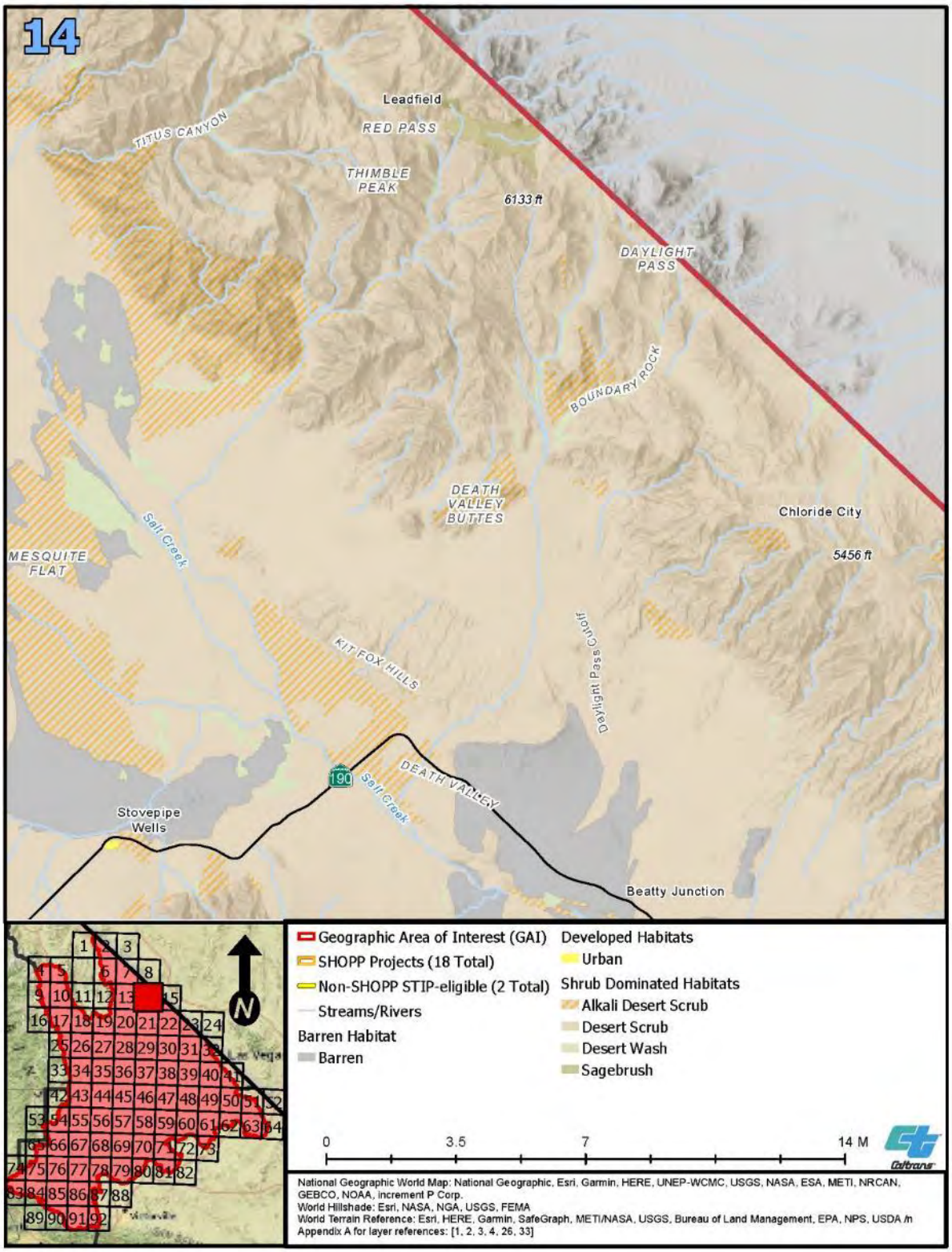
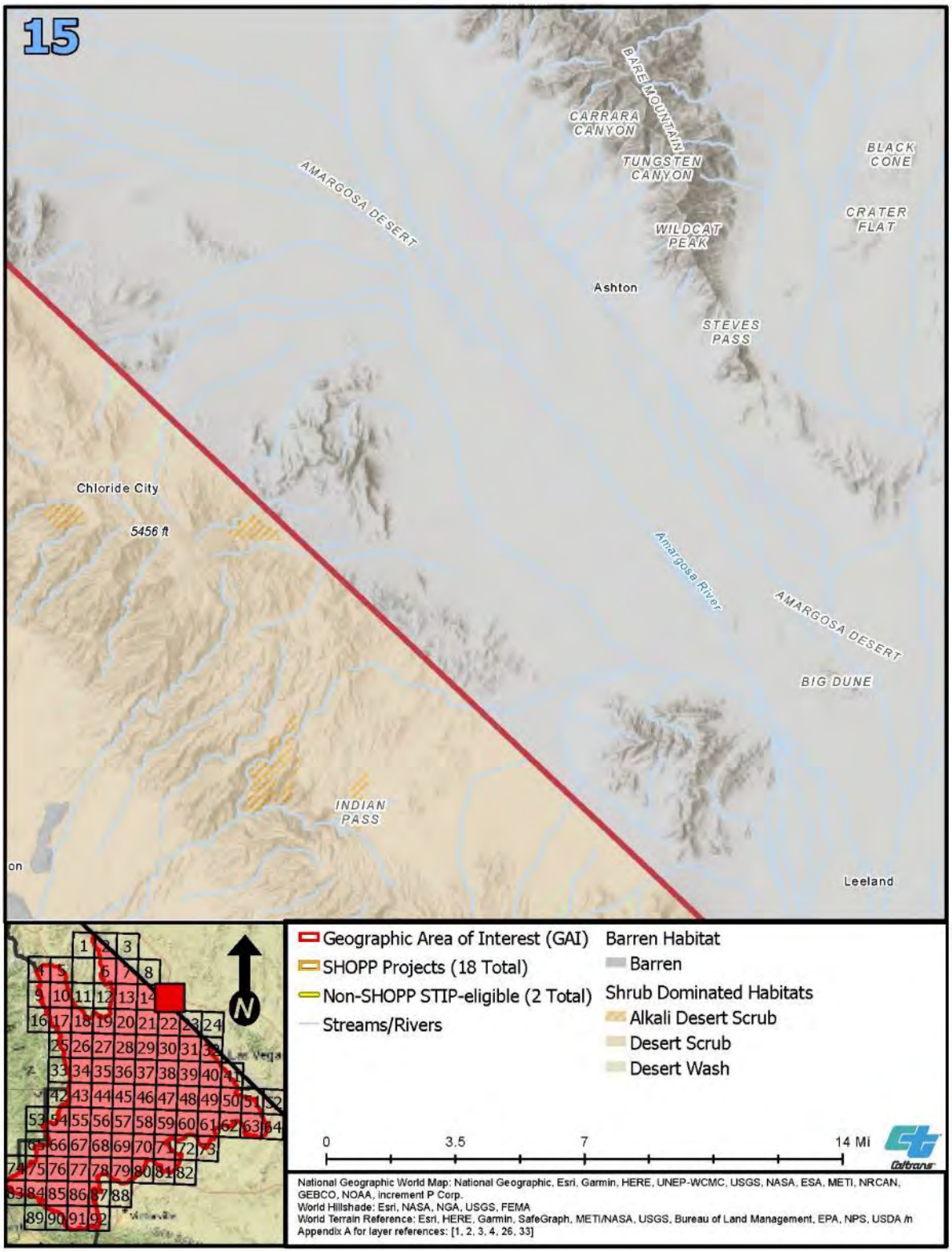
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

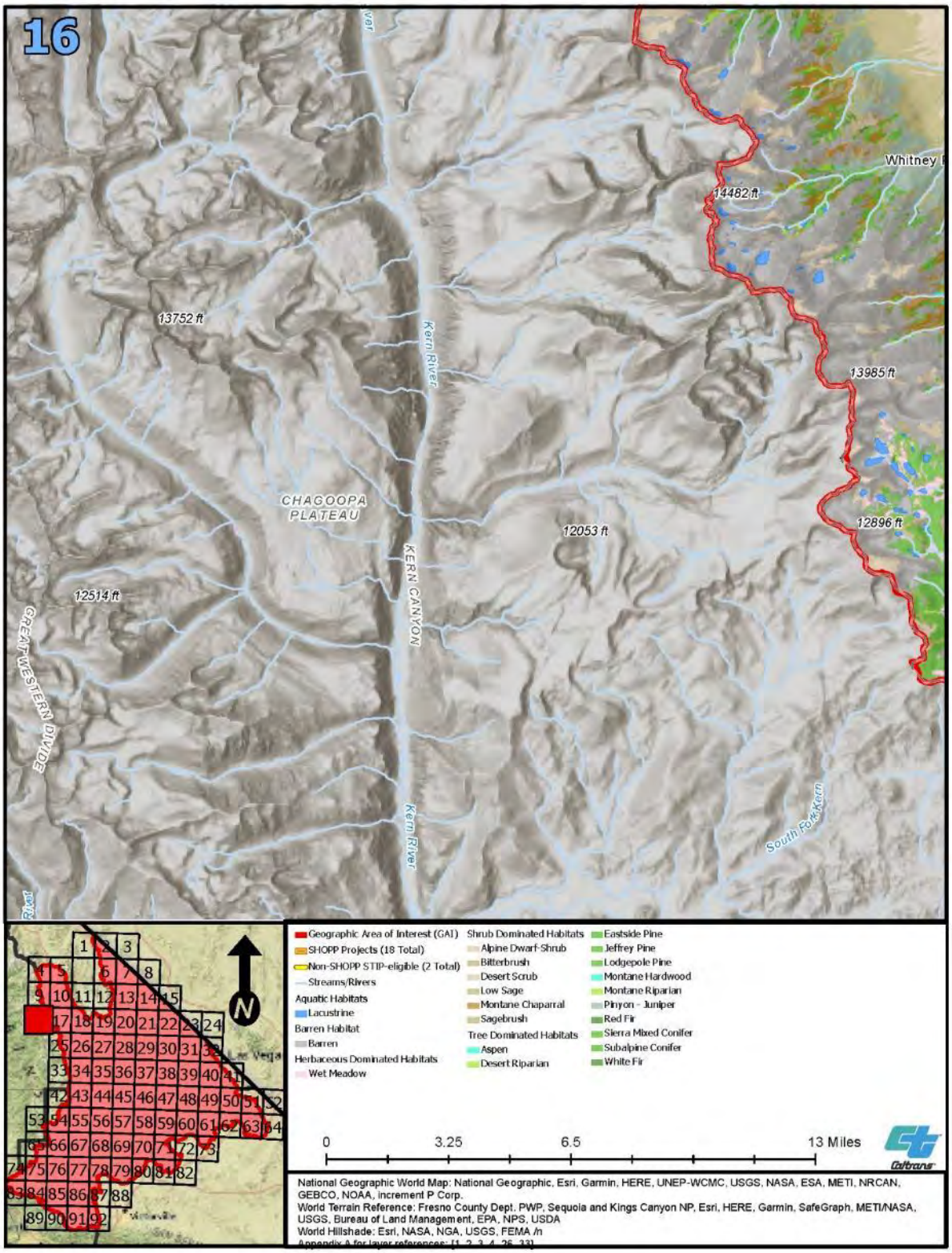

11
Waucoba Wash
Waucoba Wash
SALINE VALLEY
9968 ft
INYO MOUNTAINS
Salt Lake
SALINE VALLEY
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Low Sage
Sagebrush
Tree Dominated Habitats
Joshua Tree
Montane Hardwood
Pinyon - Juniper
Subalpine Conifer
0
3.5
7
14 Mi
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

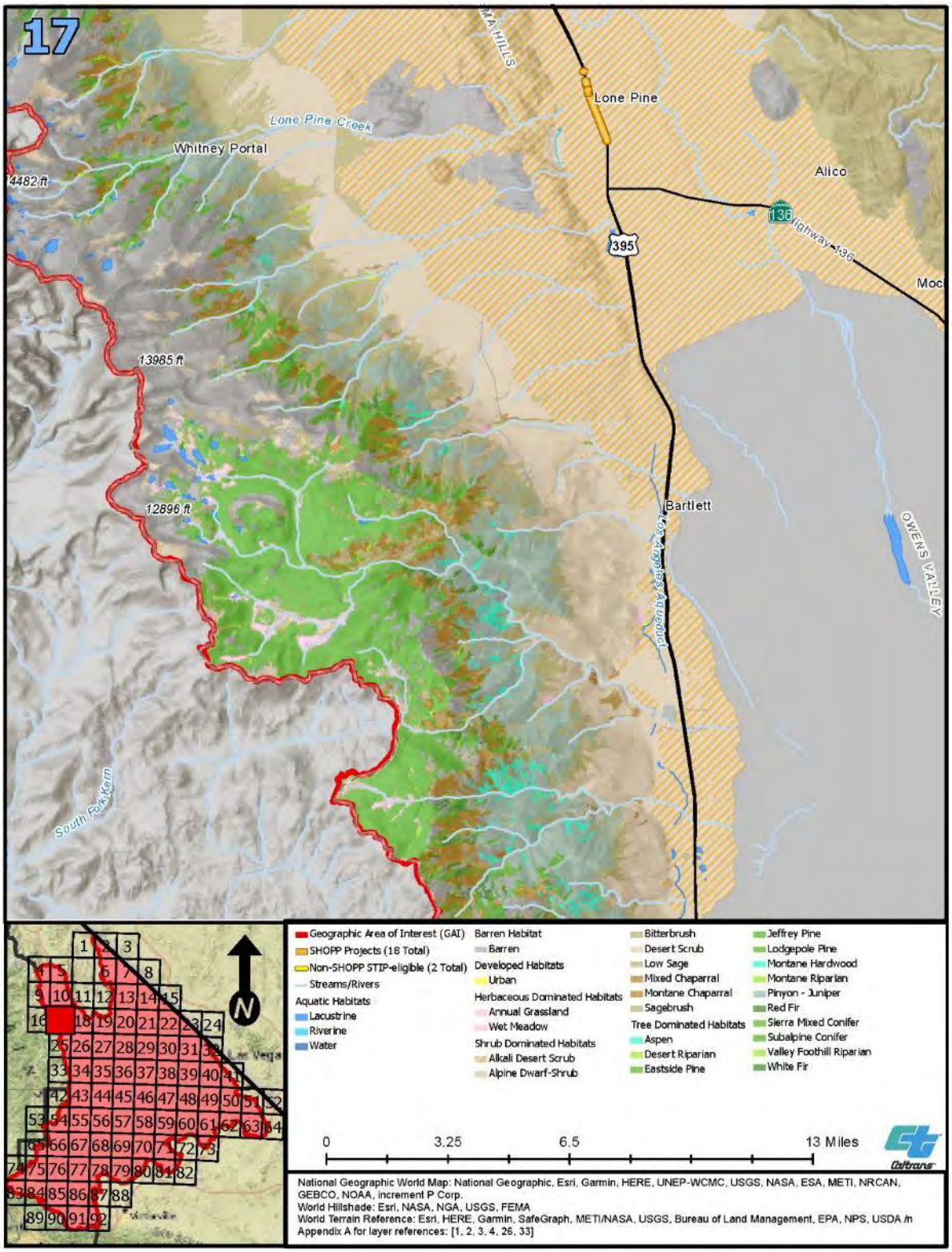

12
LAST CHANCE RANGE
Teakettle Junction
PANAMINT RANGE
WHITE TOP MOUNTAIN
7347 ft
COTTONWOOD MOUNTAINS
HIDDEN VALLEY
UBEHEBE PEAK
SALINE VALLEY
SAND FLAT
ULIDA FLAT
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Water
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Pinyon - Juniper
0
3.5
7
14 Mi
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

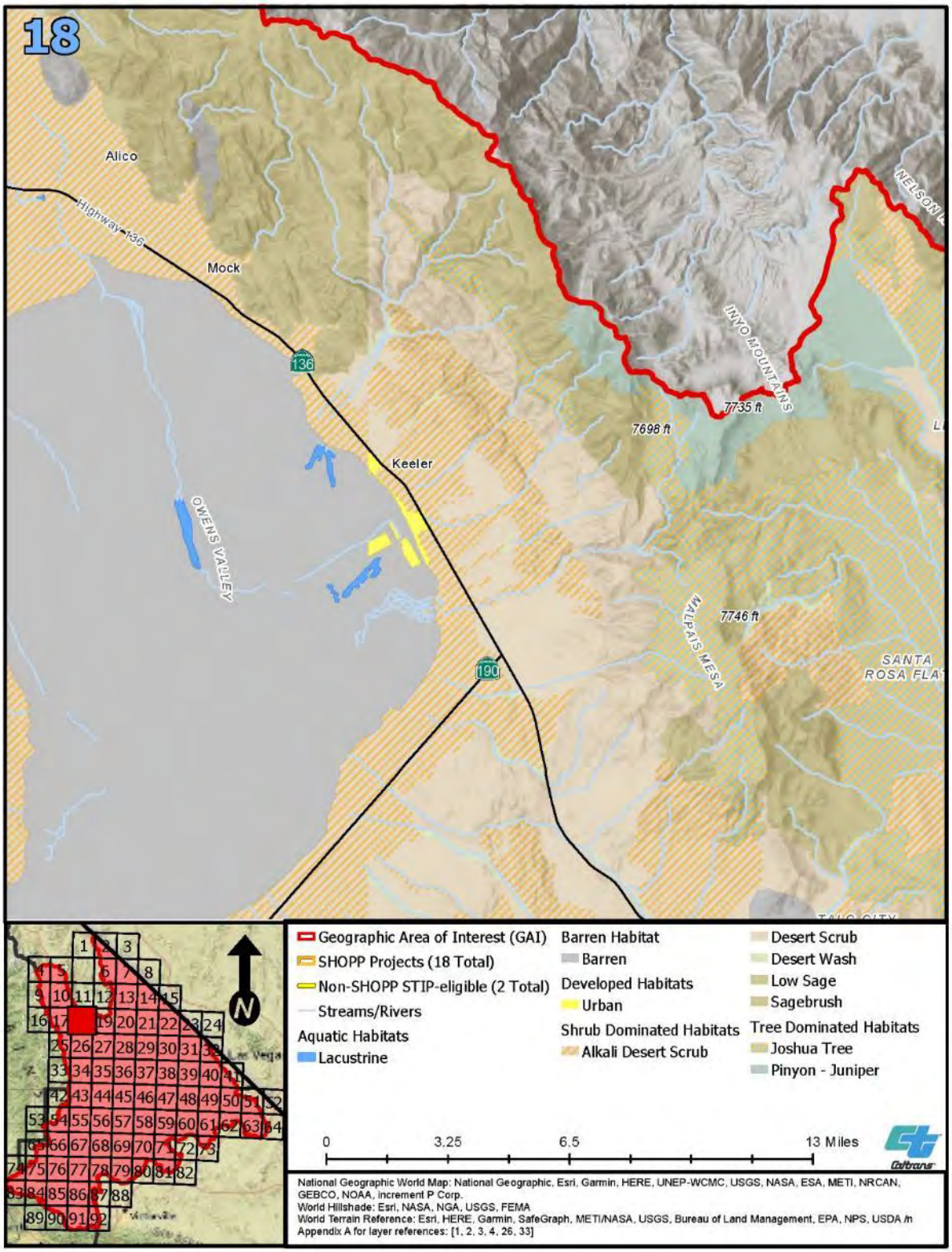

13
Death Valley Wash
Salt Creek
TITUS CANYON
WHITE TOP MOUNTAIN
7347 ft
NITER BEDS
DEATH VALLEY
Salt Creek
MESQUITE FLAT
SAND FLAT
Stovepipe Wells
190
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Pinyon - Juniper
N
0
3.5
7
14 M
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

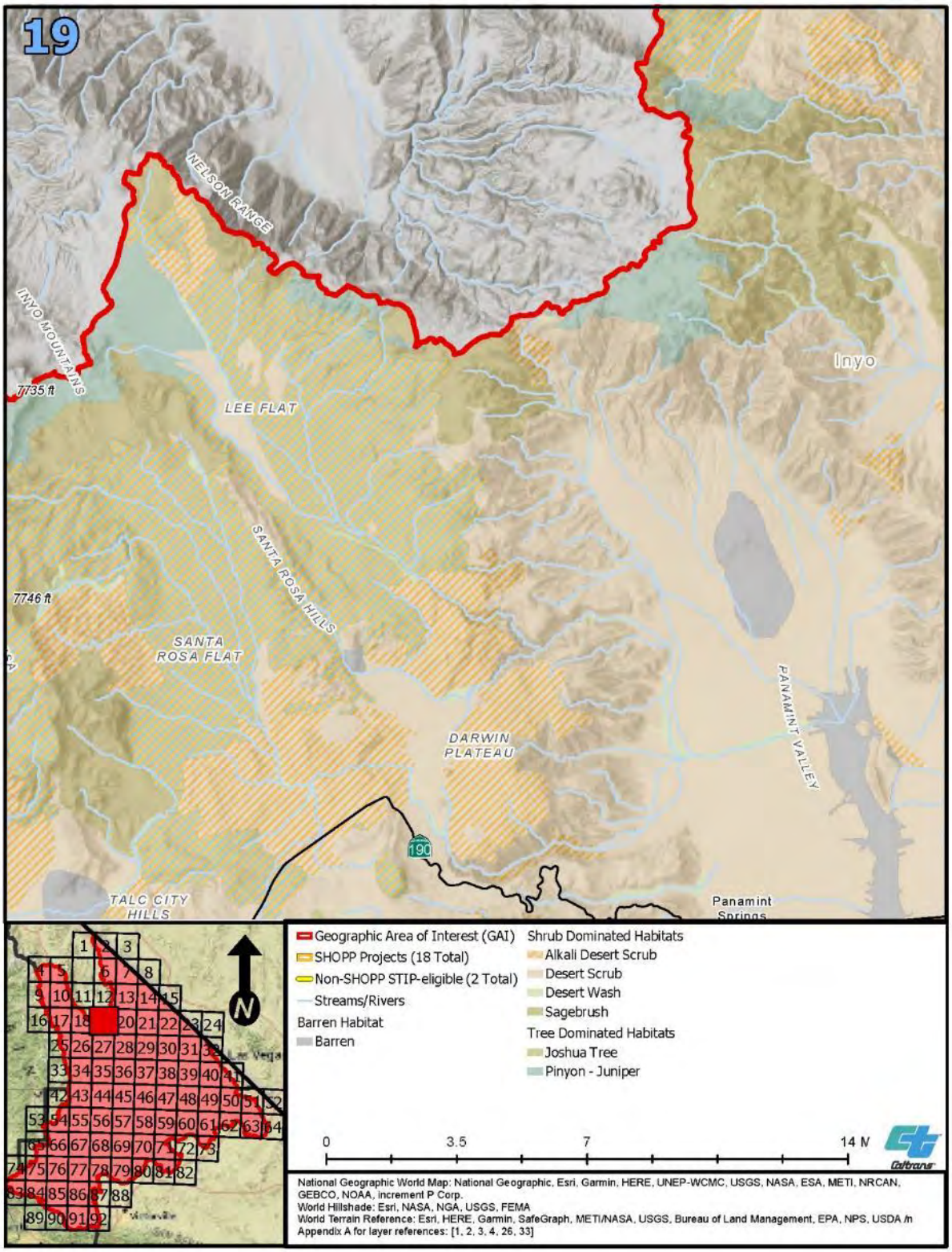

14
Leadfield
TITUS CANYON
RED PASS
THIMBLE PEAK
6133 ft
DAYLIGHT PASS
BOUNDARY ROCK
DEATH VALLEY BUTTES
Chloride City
5456 ft
MESQUITE FLAT
Salt Creek
KIT FOX HILLS
Daylight Pass Cutoff
190
DEATH VALLEY
Salt Creek
Stovepipe Wells
Beatty Junction
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

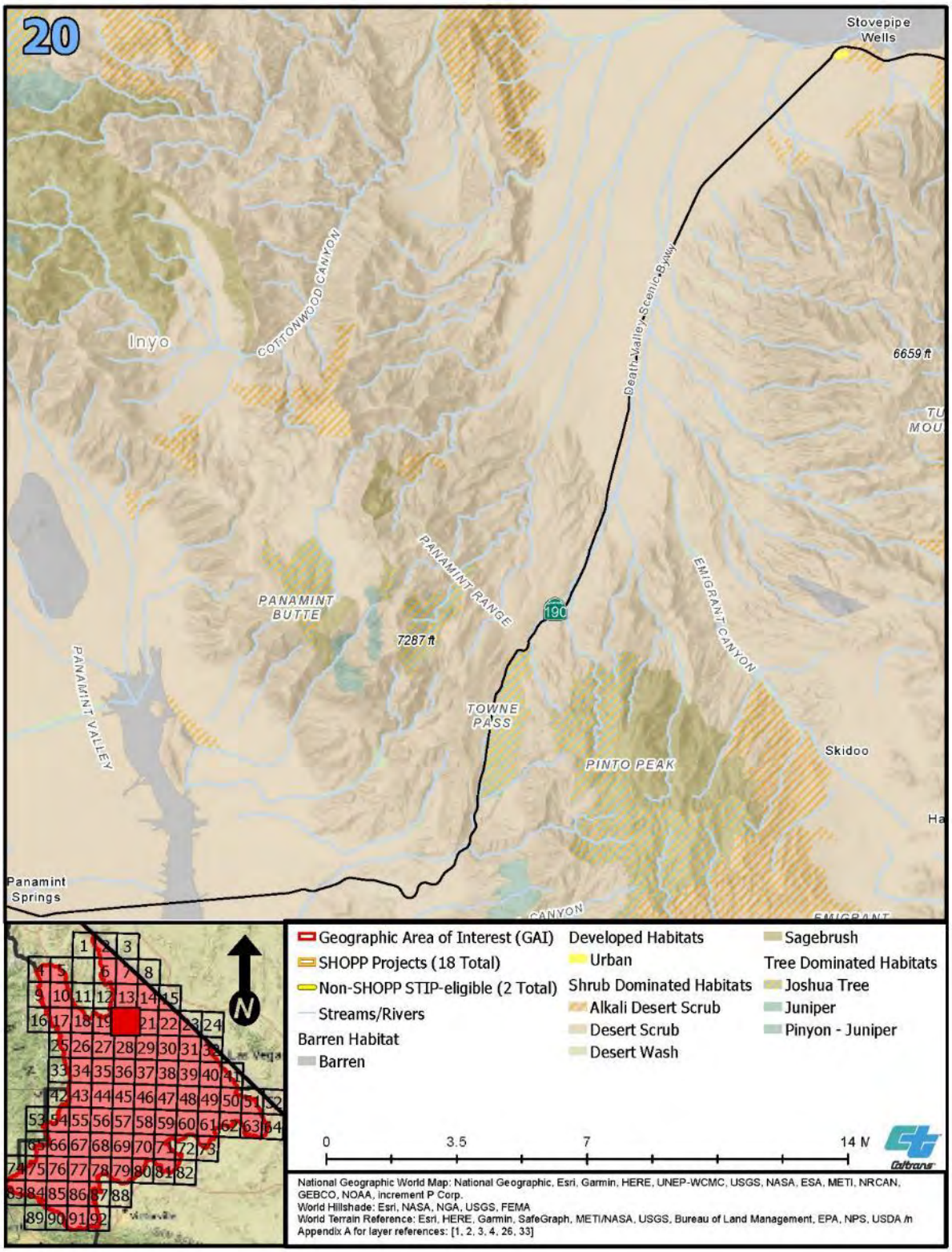

15
BARE MOUNTAIN
CARRARA CANYON
TUNGSTEN CANYON
BLACK CONE
AMARGOSA DESERT
CRATER FLAT
WILDCAT PEAK
Ashton
STEVES PASS
Chloride City
5456 ft
Amargosa River
AMARGOSA DESERT
BIG DUNE
INDIAN PASS
Leeland
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
0
3.5
7
14 Mi
N
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


16
Whitney
14482 ft
13752 ft
Kern River
13985 ft
CHAGOOPA PLATEAU
12053 ft
12896 ft
12514 ft
KERN CANYON
GREAT WESTERN DIVIDE
Kern River
South Fork Kern
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Herbaceous Dominated Habitats
Wet Meadow
Shrub Dominated Habitats
Alpine Dwarf-Shrub
Bitterbrush
Desert Scrub
Low Sage
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Aspen
Desert Riparian
Eastside Pine
Jeffrey Pine
Lodgepole Pine
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Red Fir
Sierra Mixed Conifer
Subalpine Conifer
White Fir
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: Fresno County Dept. PWP, Sequoia and Kings Canyon NP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS, FEMA /n


17
Lone Pine
Lone Pine Creek
Whitney Portal
4482 ft
Alico
136
Highway 136
395
Moc
13985 ft
12896 ft
Bartlett
Los Angeles Aqueduct
OWENS VALLEY
South Fork Kern
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Water
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Alpine Dwarf-Shrub
Bitterbrush
Desert Scrub
Low Sage
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Aspen
Desert Riparian
Eastside Pine
Jeffrey Pine
Lodgepole Pine
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Red Fir
Sierra Mixed Conifer
Subalpine Conifer
Valley Foothill Riparian
White Fir
N
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


18
Alico
Highway 136
Mock
136
Keeler
OWENS VALLEY
INYO MOUNTAINS
7735 ft
7698 ft
7746 ft
WALPAIS MESA
SANTA ROSA FLA
190
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Low Sage
Sagebrush
Tree Dominated Habitats
Joshua Tree
Pinyon - Juniper
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


19
NELSON RANGE
INYO MOUNTAINS
7735 ft
LEE FLAT
Inyo
SANTA ROSA HILLS
7746 ft
SANTA ROSA FLAT
PANAMINT VALLEY
DARWIN PLATEAU
190
TALC CITY HILLS
Panamint Springs
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Pinyon - Juniper
0
3.5
7
14 Mi
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


20
Stovepipe Wells
Inyo
COTTONWOOD CANYON
Death Valley Scenic Byway
6659 ft
PANAMINT BUTTE
PANAMINT RANGE
7287 ft
190
EMIGRANT CANYON
PANAMINT VALLEY
TOWNE PASS
PINTO PEAK
Skidoo
Panamint Springs
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Juniper
Pinyon - Juniper
0
3.5
7
14 Mi
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
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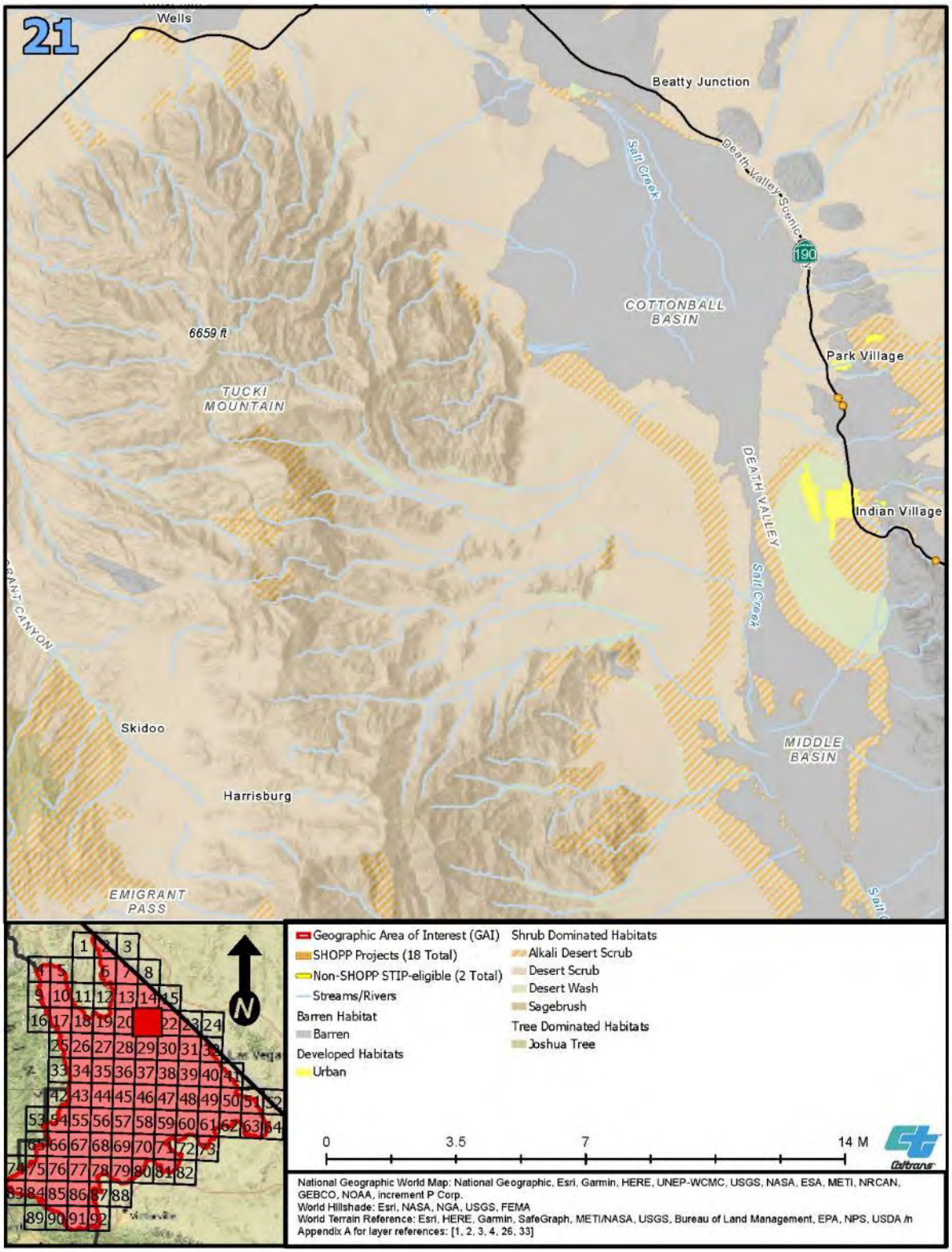
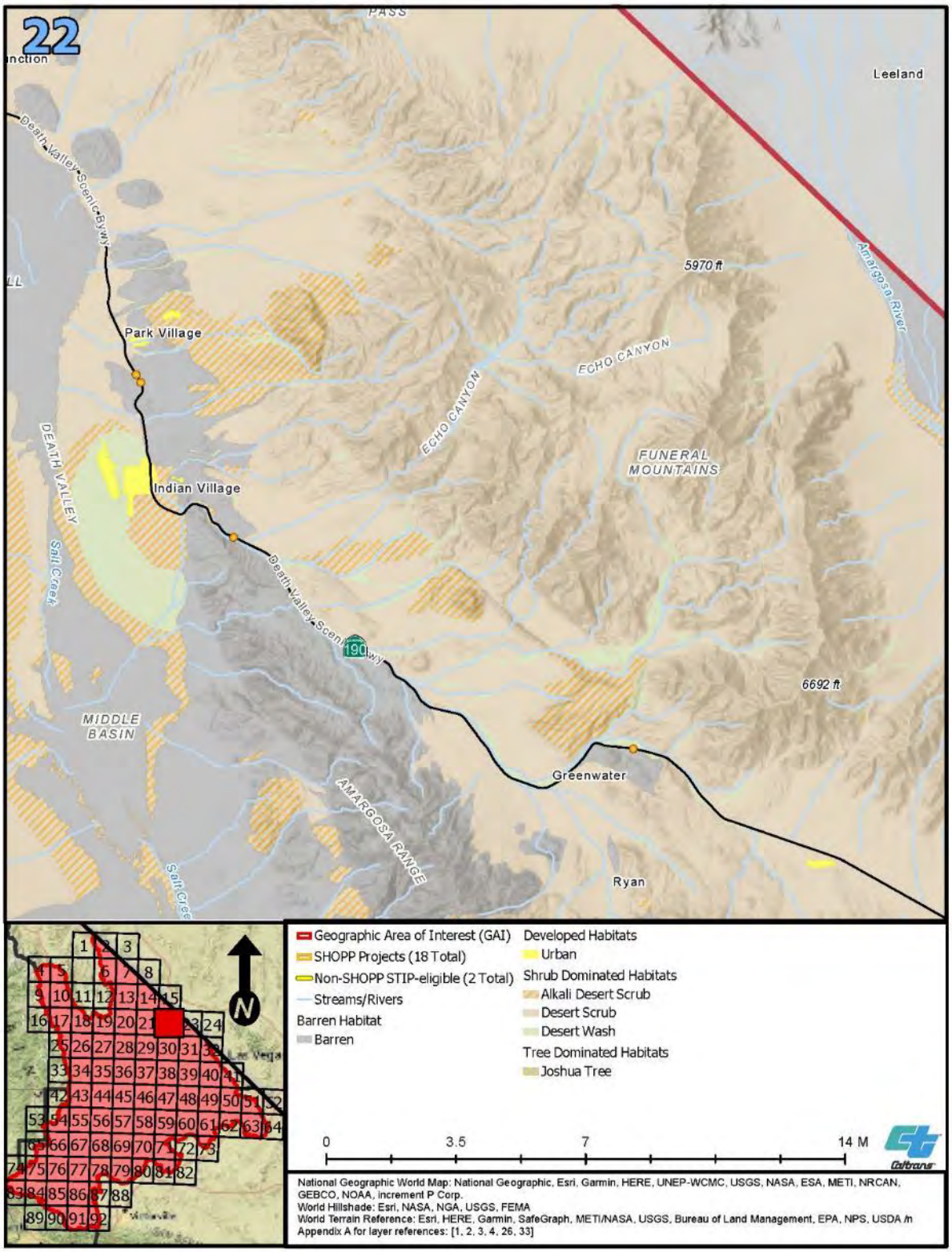
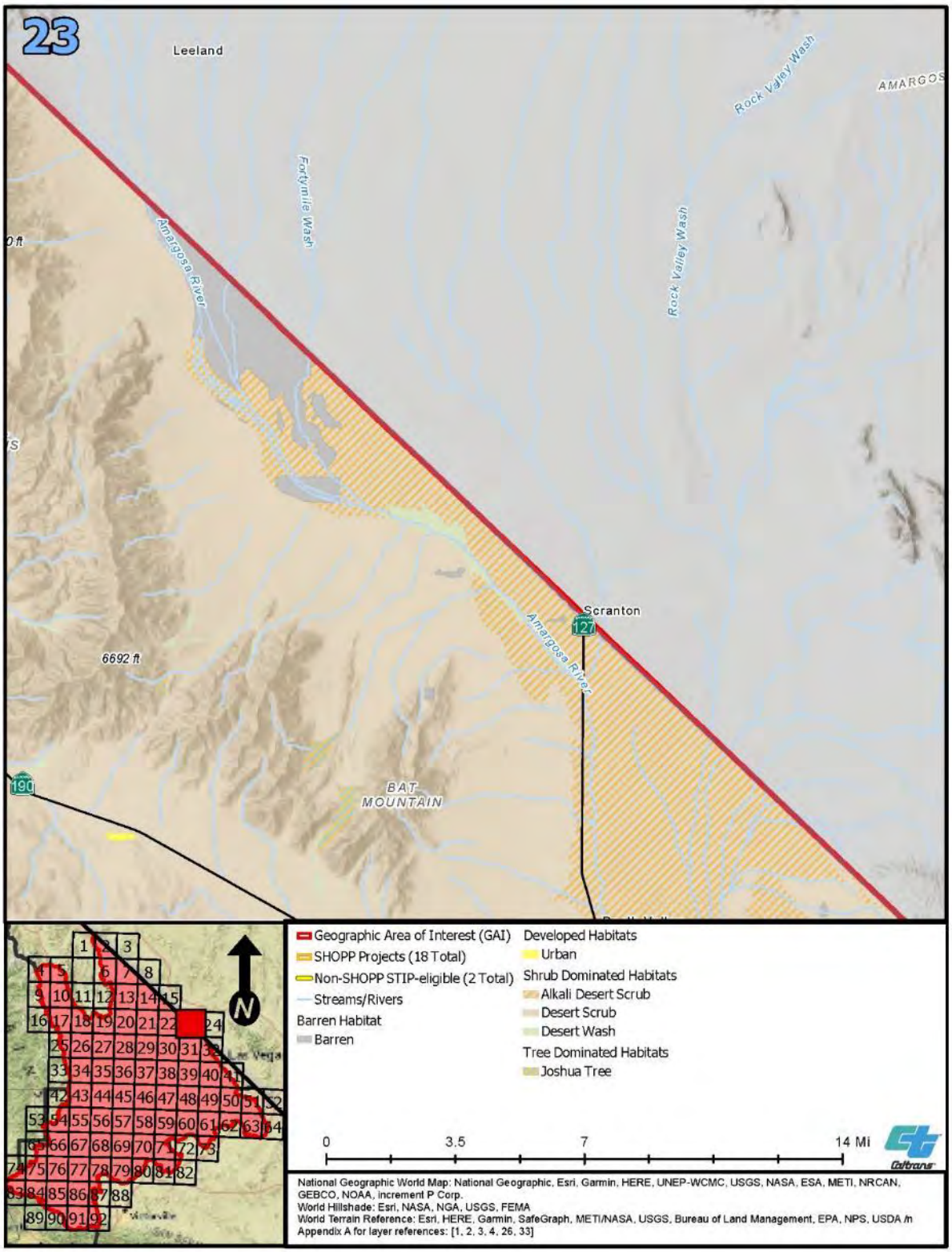
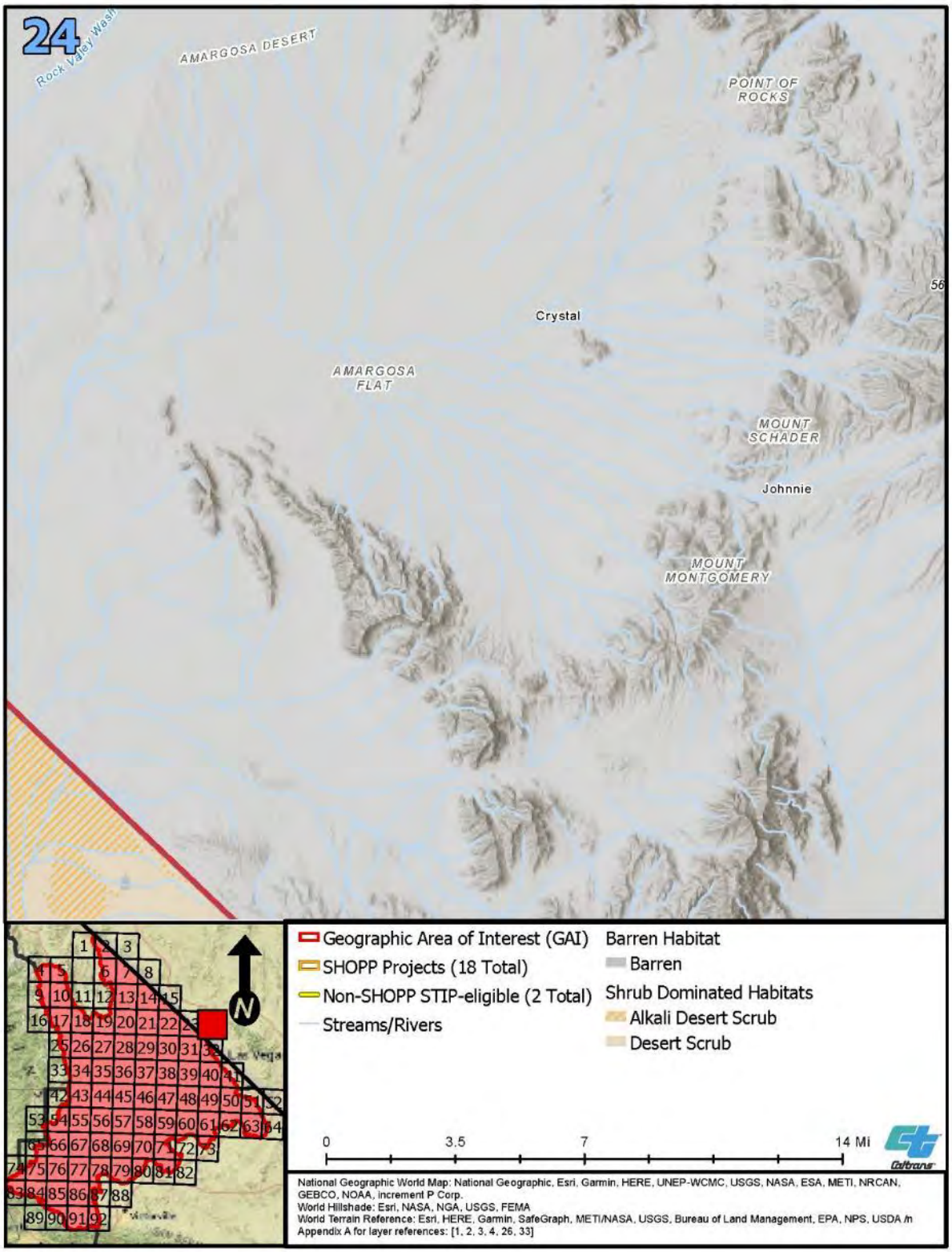

21
Wells
Beatty Junction
Death Valley Scenic
Salt Creek
190
COTTONBALL BASIN
6659 ft
TUCKI MOUNTAIN
Park Village
DEATH VALLEY
Indian Village
Salt Creek
GRANT CANYON
Skidoo
MIDDLE BASIN
Harrisburg
EMIGRANT PASS
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


22
Leeland
Death Valley Scenic Byway
5970 ft
Amargosa River
Park Village
ECHO CANYON
ECHO CANYON
FUNERAL MOUNTAINS
DEATH VALLEY
Salt Creek
Indian Village
Death Valley Scenic Byway
190
6692 ft
MIDDLE BASIN
Greenwater
AMARGOSA RANGE
Salt Creek
Ryan
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Tree Dominated Habitats
Joshua Tree
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


23
Leeland
Rock Valley Wash
AMARGOS
Fortymile Wash
Amargosa River
Rock Valley Wash
Scranton
127
Amargosa River
6692 ft
190
BAT
MOUNTAIN
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Tree Dominated Habitats
Joshua Tree
N
0
3.5
7
14 Mi
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


24
Rock Valley Wash
AMARGOSA DESERT
POINT OF ROCKS
Crystal
AMARGOSA FLAT
MOUNT SCHADER
Johnnie
MOUNT MONTGOMERY
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
0
3.5
7
14 Mi
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
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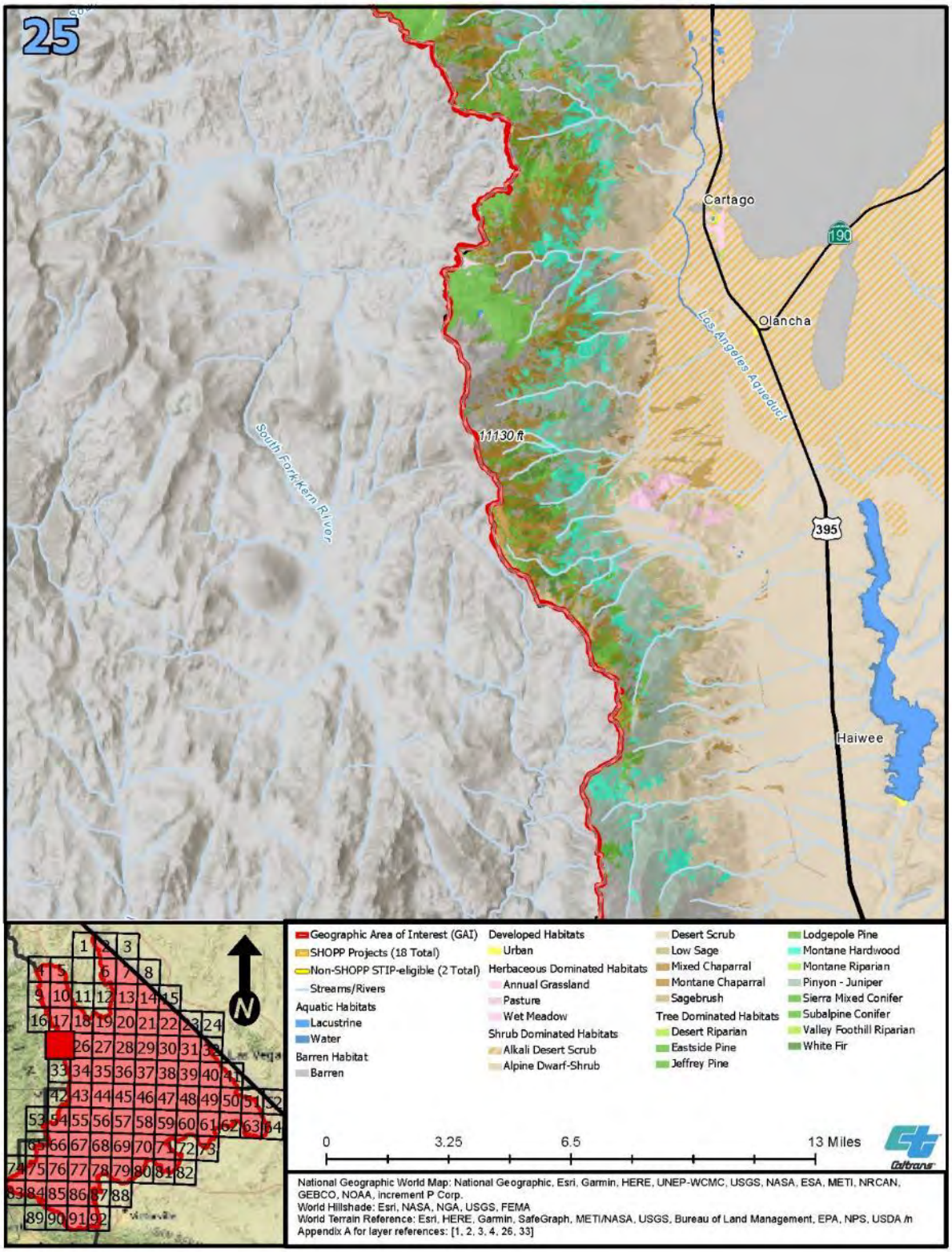
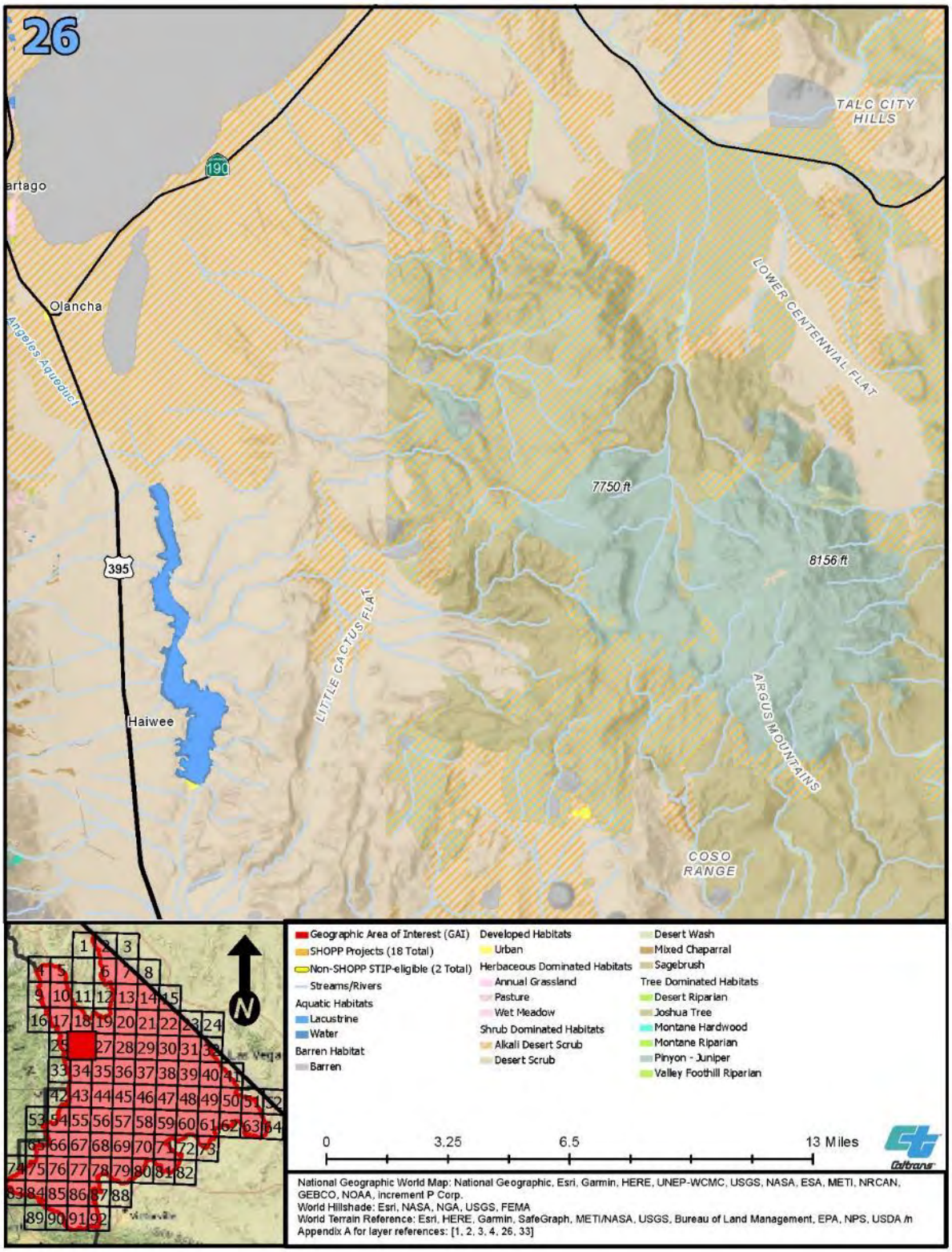
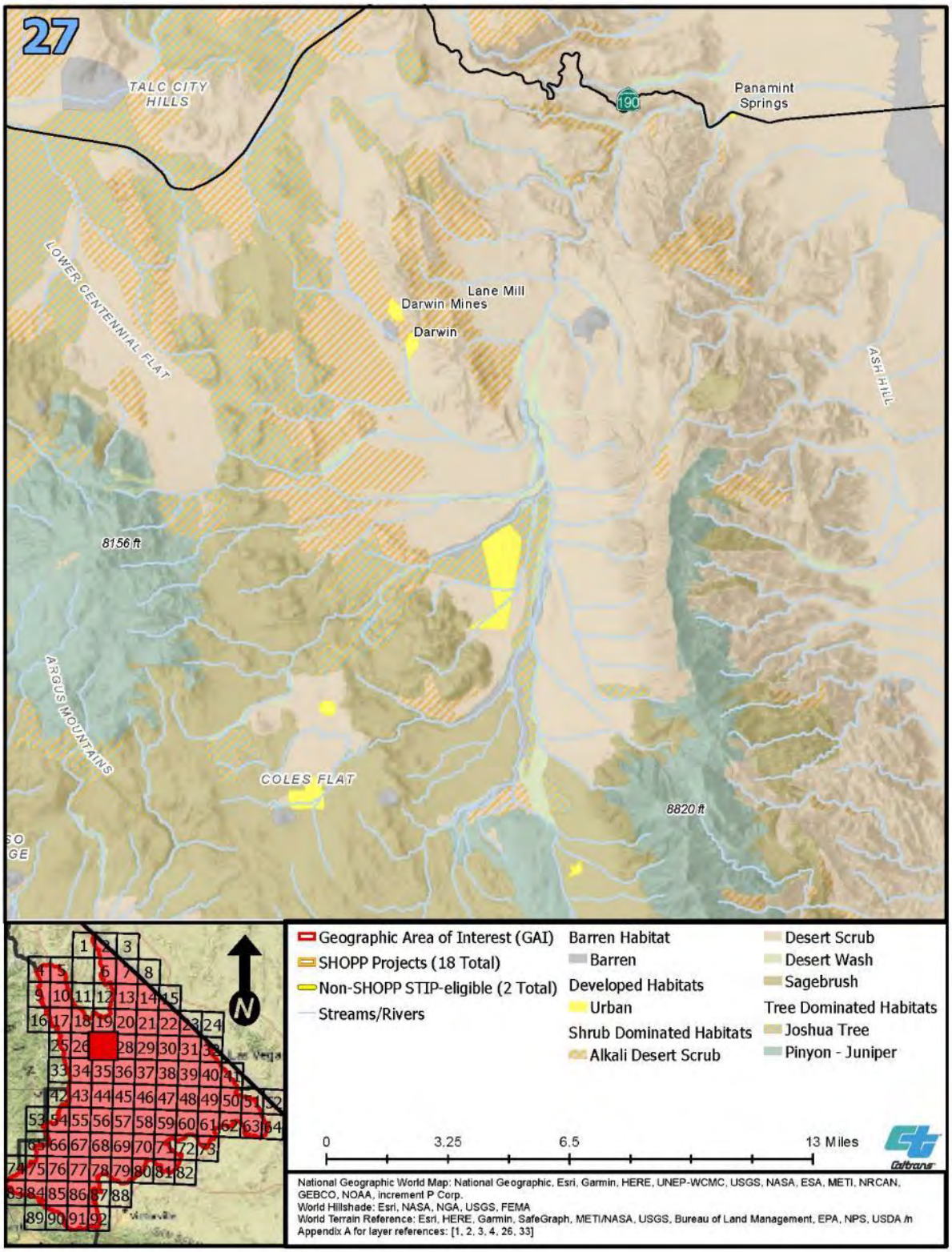
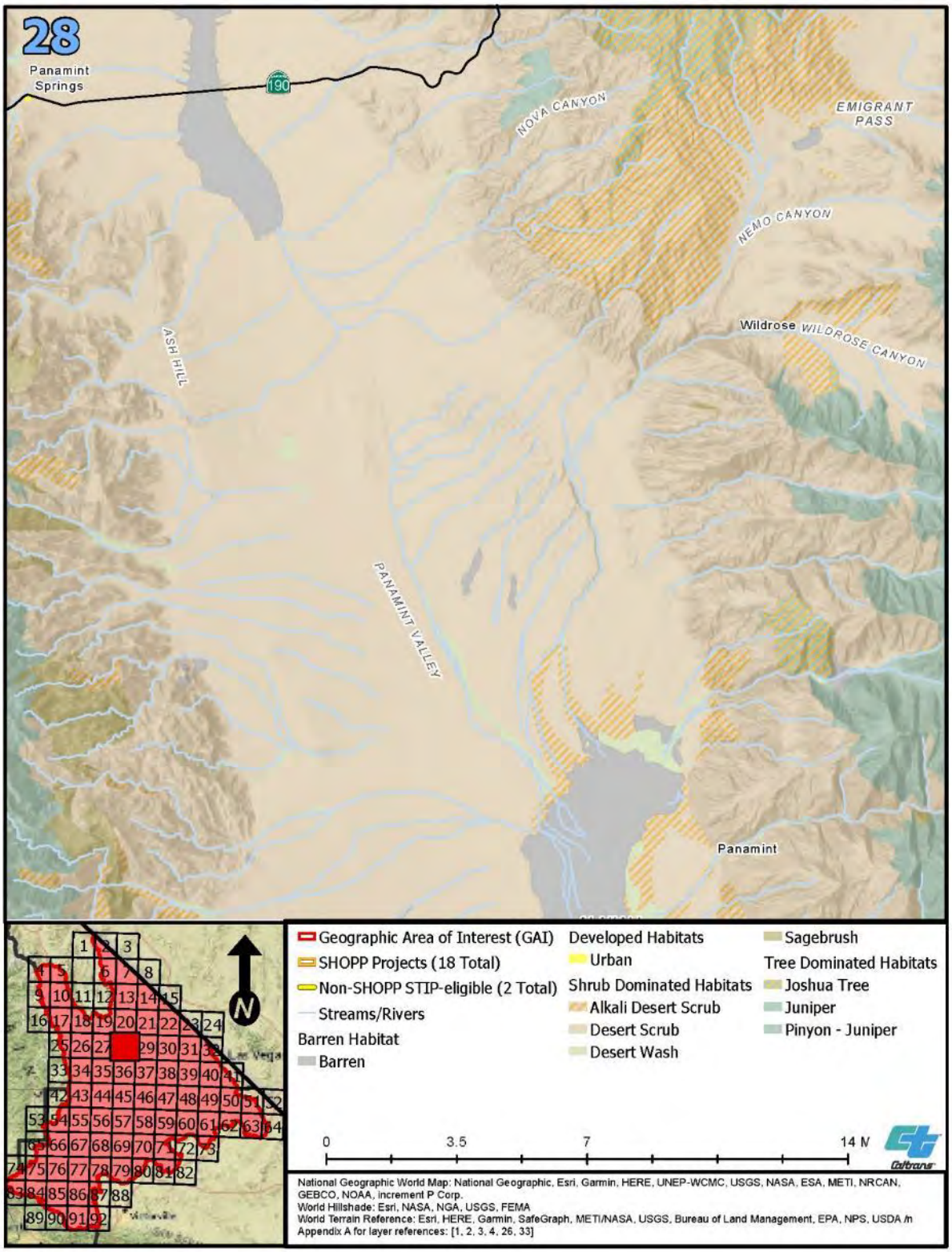
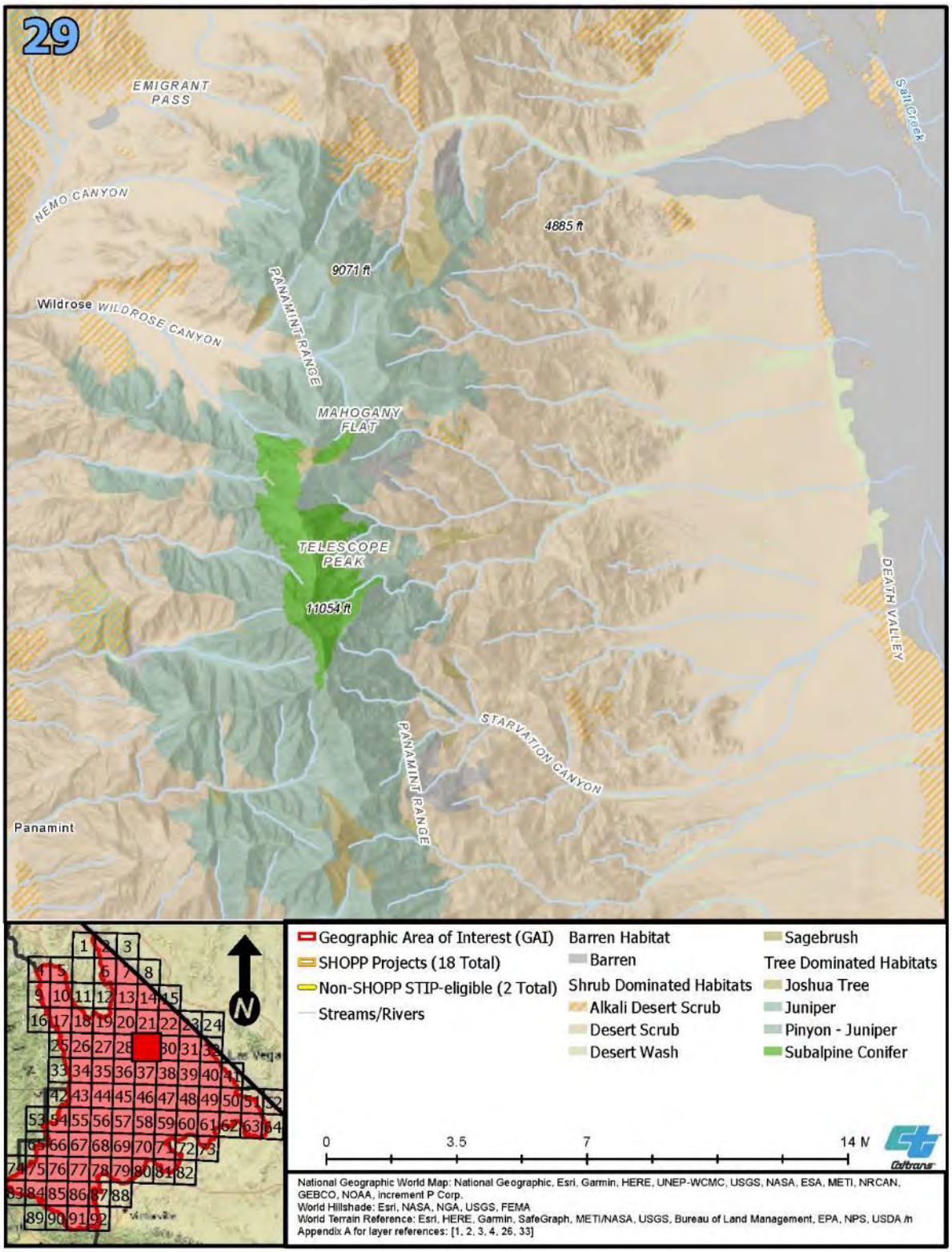
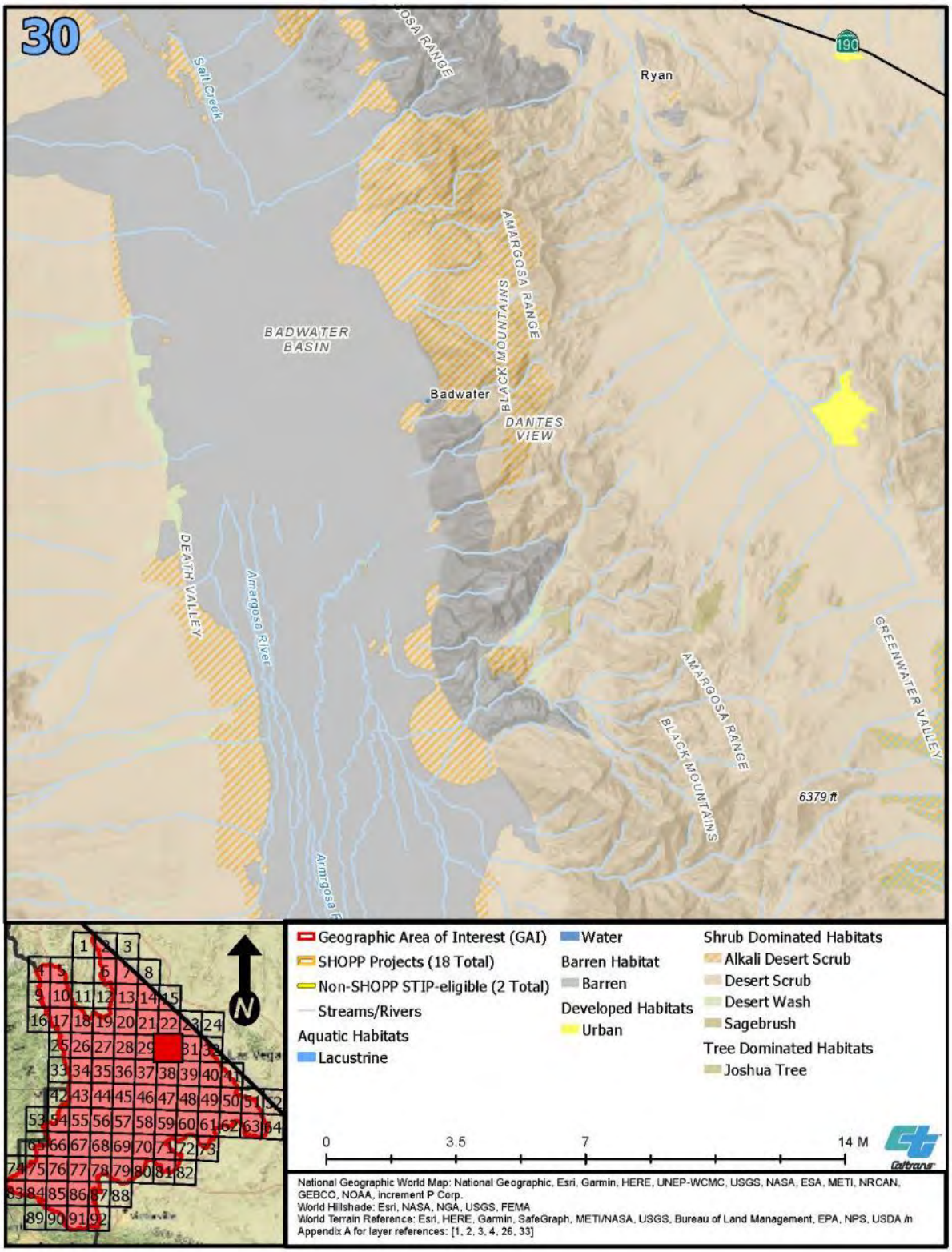

25
Cartago
190
Olancha
Los Angeles Aqueduct
11130 ft
South Fork Kern River
395
Haiwee
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Water
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Pasture
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Alpine Dwarf-Shrub
Desert Scrub
Low Sage
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Desert Riparian
Eastside Pine
Jeffrey Pine
Lodgepole Pine
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Sierra Mixed Conifer
Subalpine Conifer
Valley Foothill Riparian
White Fir
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


26
TALC CITY HILLS
190
artago
Olancha
Angeles Aqueduct
LOWER CENTENNIAL FLAT
7750 ft
8156 ft
395
LITTLE CACTUS FLAT
Haiwee
ARGUS MOUNTAINS
COSO RANGE
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Water
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Pasture
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Mixed Chaparral
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Valley Foothill Riparian
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


27
TALC CITY HILLS
Panamint Springs
190
LOWER CENTENNIAL FLAT
Lane Mill
Darwin Mines
Darwin
ASH HILL
8156 ft
ARGUS MOUNTAINS
COLES FLAT
8820 ft
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Pinyon - Juniper
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


28
Panamint Springs
190
NOVA CANYON
EMIGRANT PASS
NEMO CANYON
Wildrose
WILDROSE CANYON
ASH HILL
PANAMINT VALLEY
Panamint
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Juniper
Pinyon - Juniper
0
3.5
7
14 Mi
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


29
EMIGRANT PASS
NEMO CANYON
Wildrose
WILDROSE CANYON
PANAMINT RANGE
9071 ft
4885 ft
Salt Creek
MAHOGANY FLAT
TELESCOPE PEAK
11054 ft
DEATH VALLEY
STARVATION CANYON
PANAMINT RANGE
Panamint
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Juniper
Pinyon - Juniper
Subalpine Conifer
N
0
3.5
7
14 Mi
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


30
Salt Creek
Ryan
190
BADWATER BASIN
Badwater
AMARGOSA RANGE
BLACK MOUNTAINS
DANTES VIEW
DEATH VALLEY
Amargosa River
GREENWATER VALLEY
6379 ft
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Water
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
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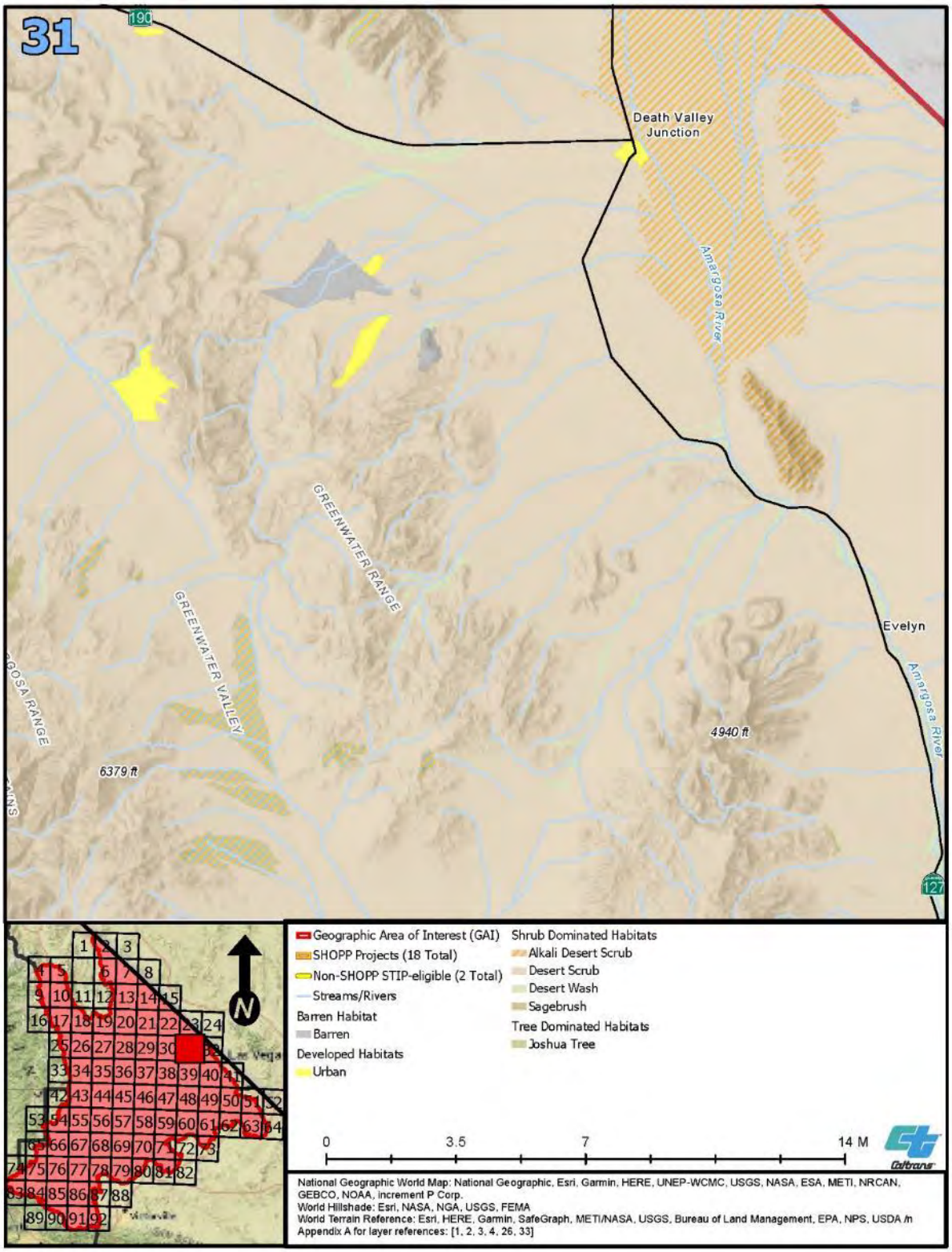
31
190
Death Valley Junction
Amargosa River
GREENWATER RANGE
GREENWATER VALLEY
Evelyn
Amargosa River
4940 ft
6379 ft
127
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
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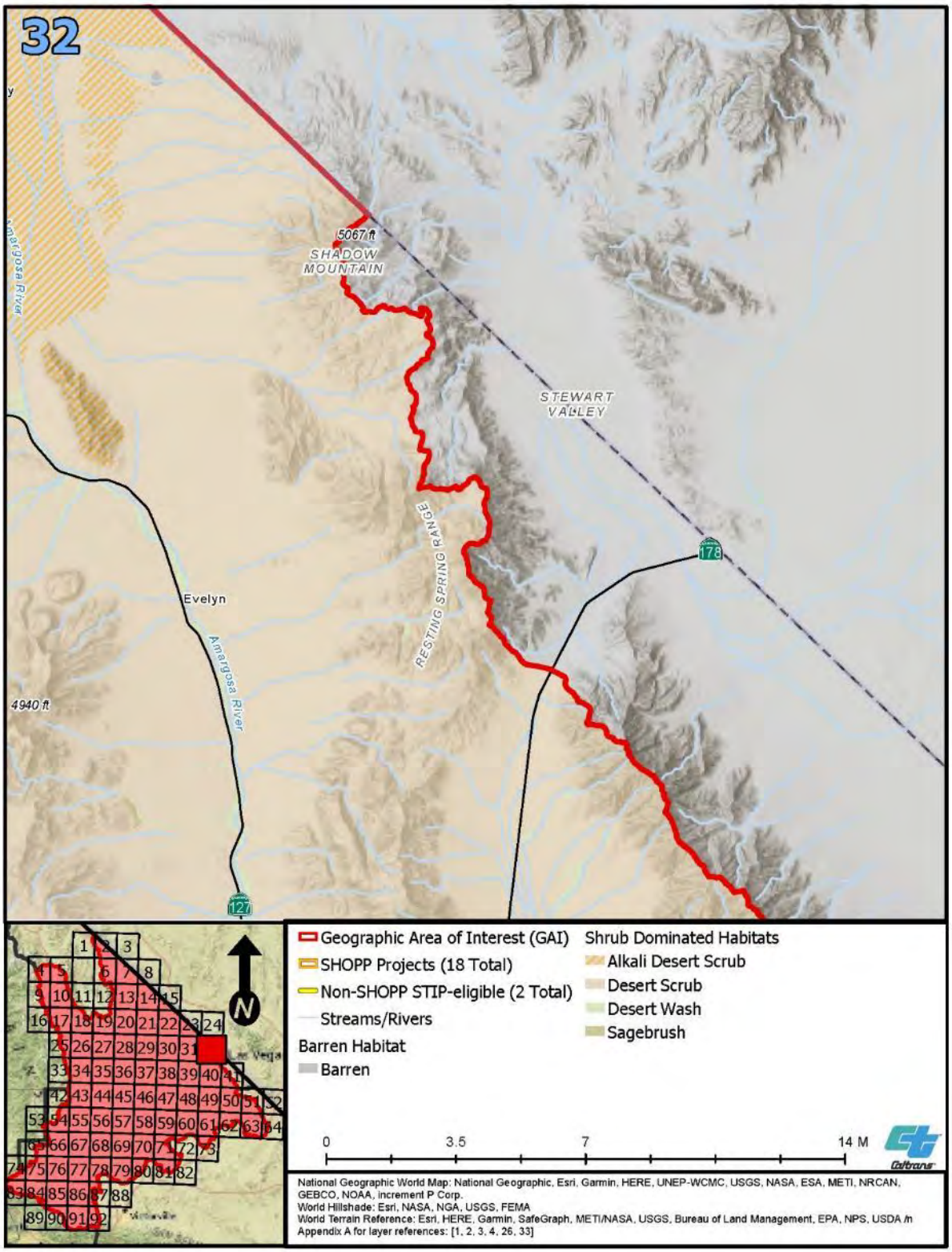
32
5067 ft
SHADOW MOUNTAIN
STEWART VALLEY
RESTING SPRING RANGE
Evelyn
Amargosa River
4940 ft
178
127
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
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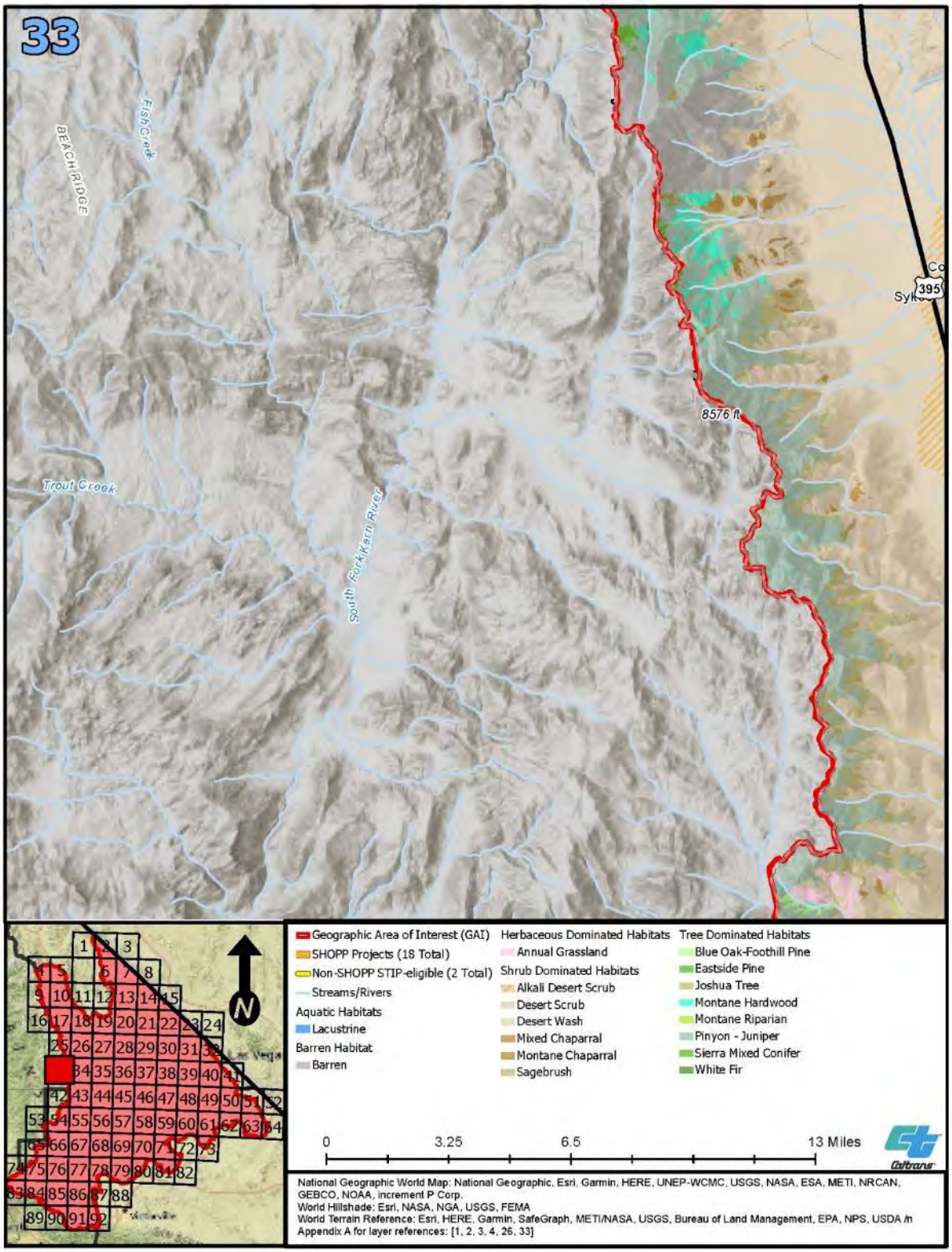
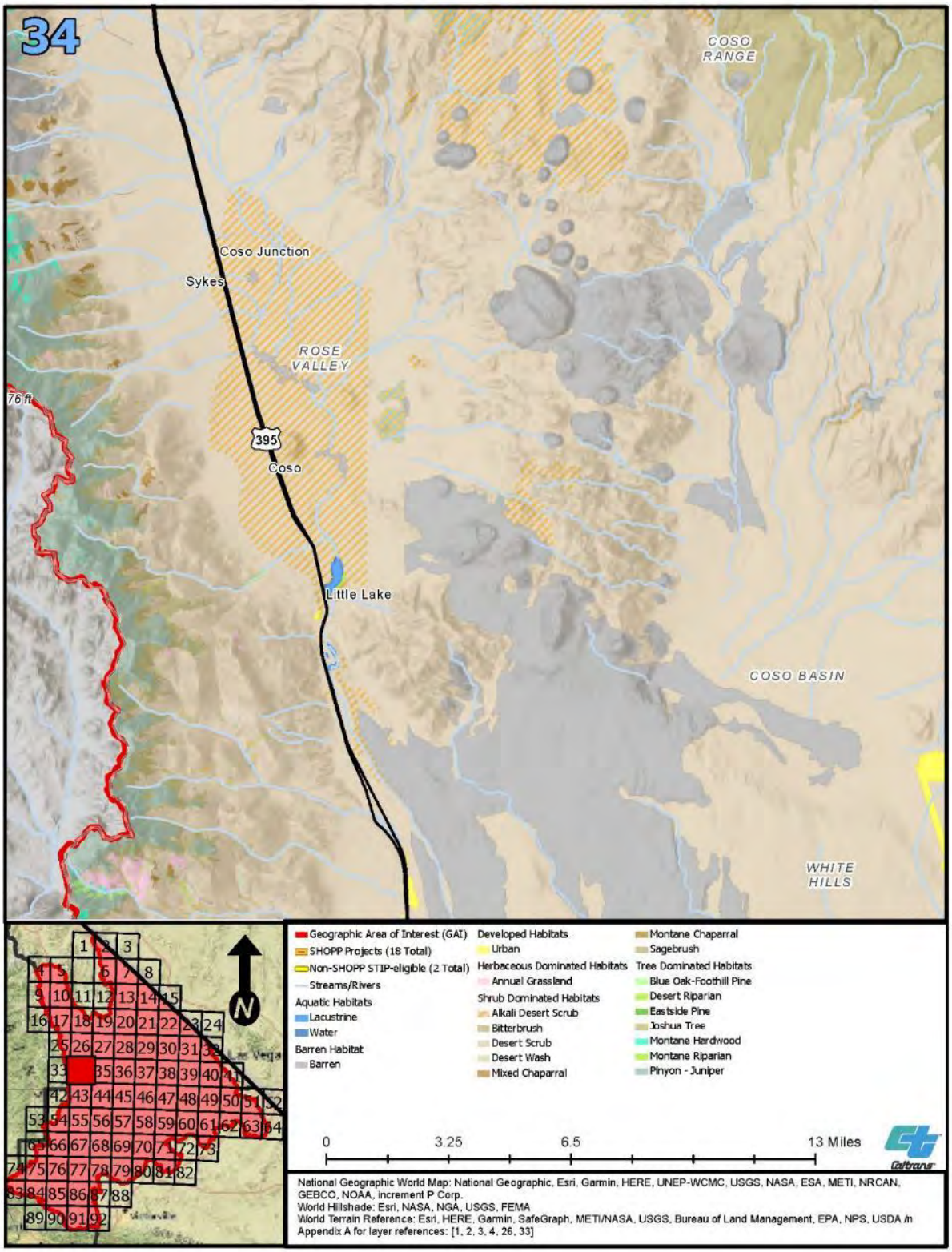
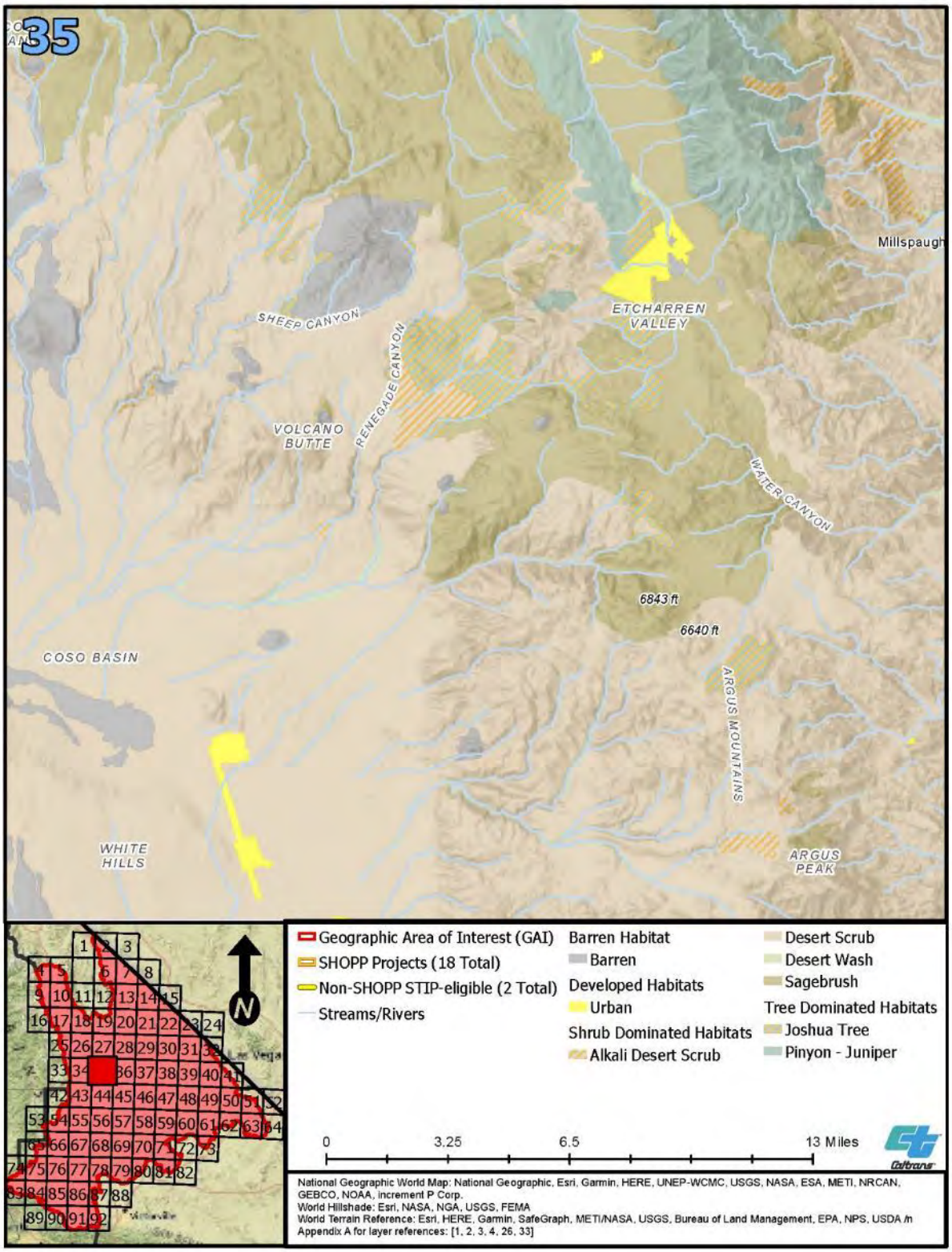
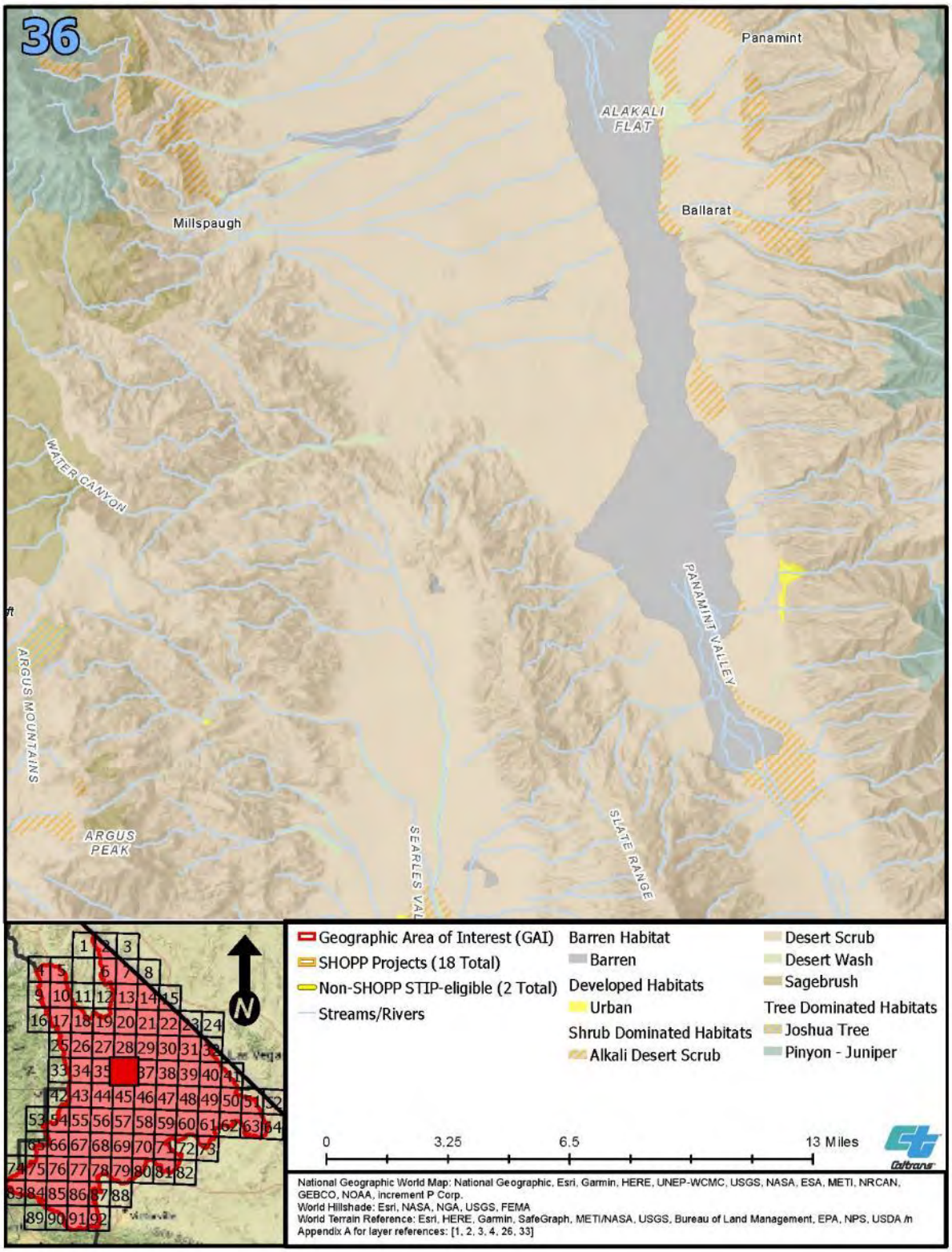
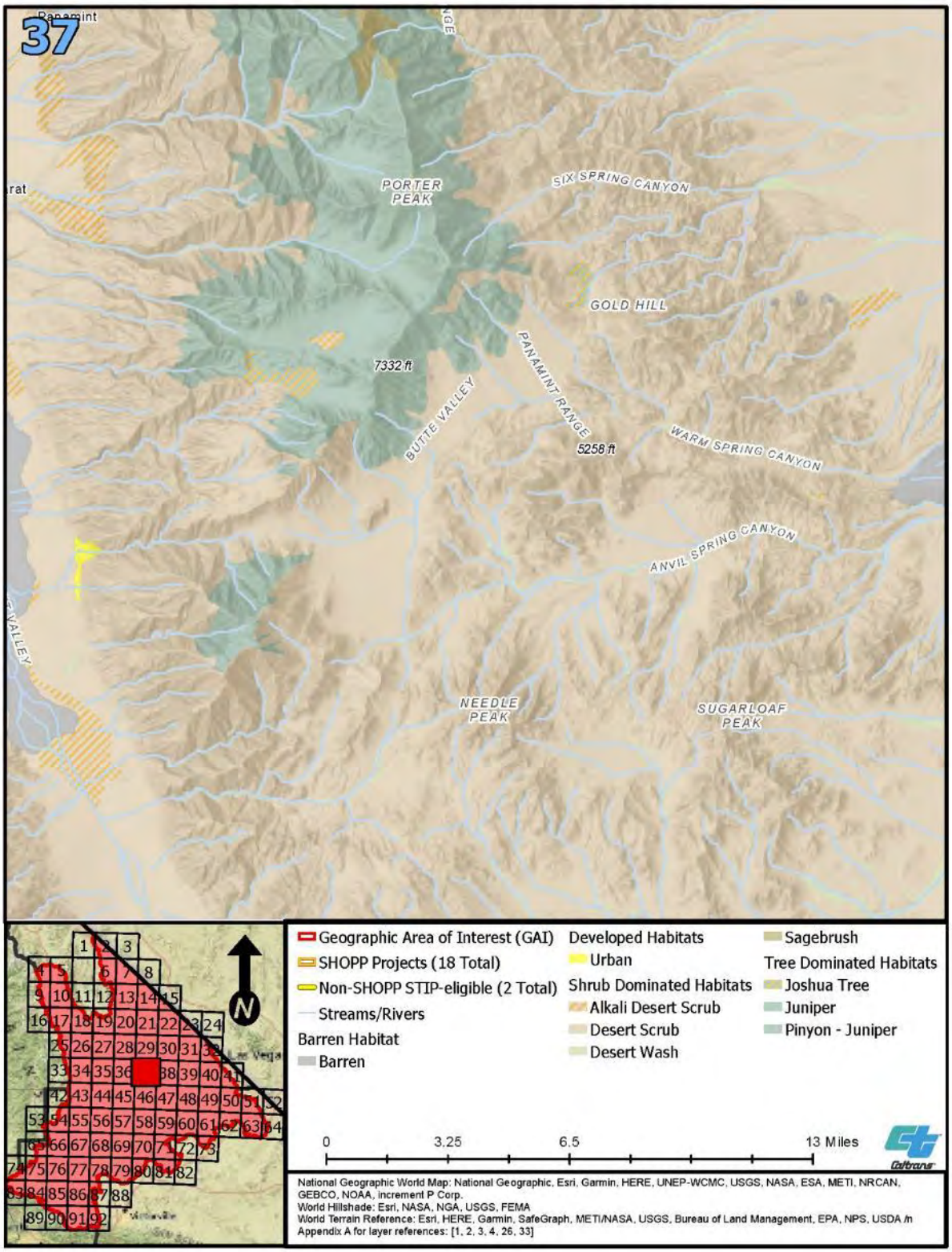
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

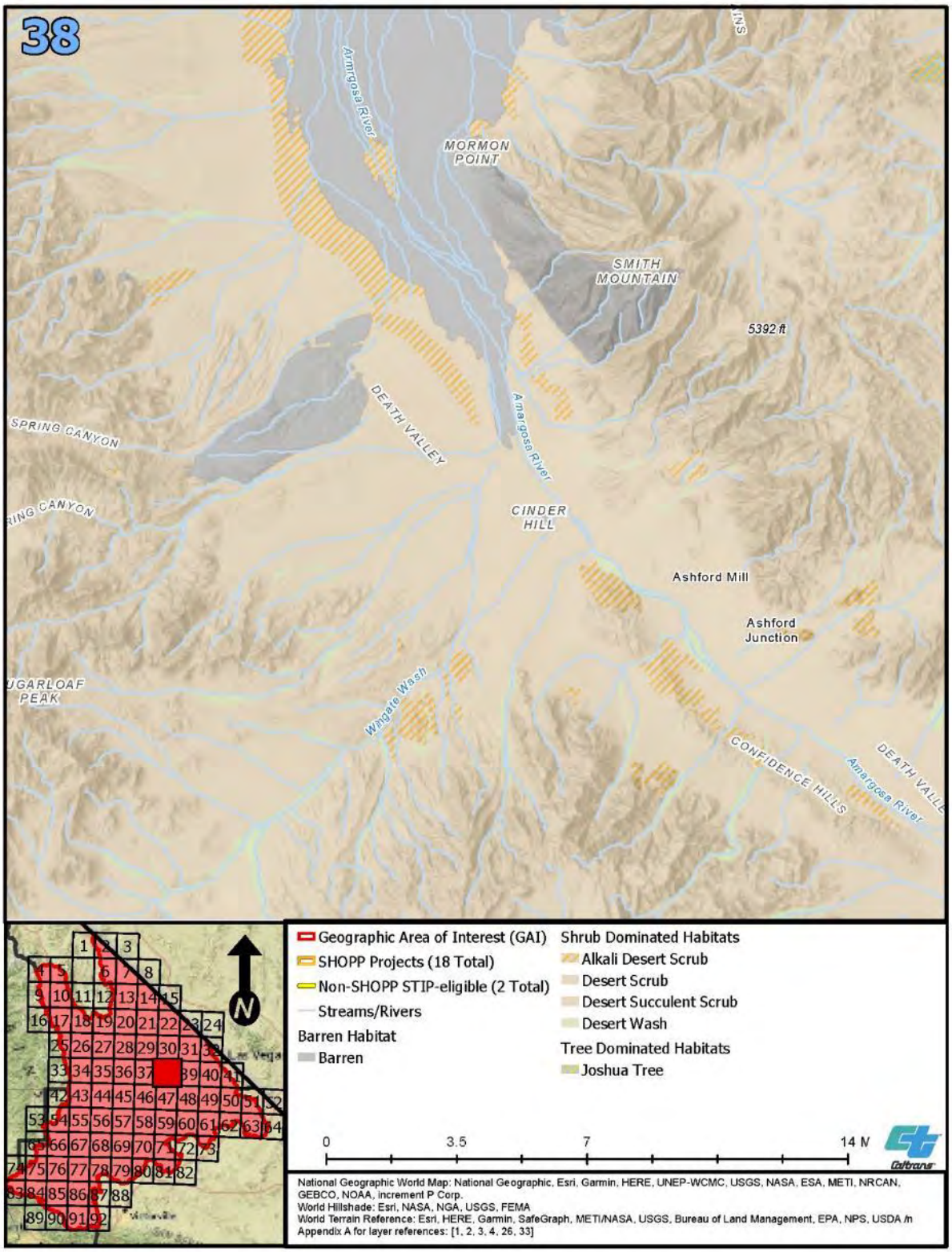

33
BEACH RIDGE
Fish Creek
Trout Creek
South Fork Kern River
8576 ft
395
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak-Foothill Pine
Eastside Pine
Joshua Tree
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Sierra Mixed Conifer
White Fir
N
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

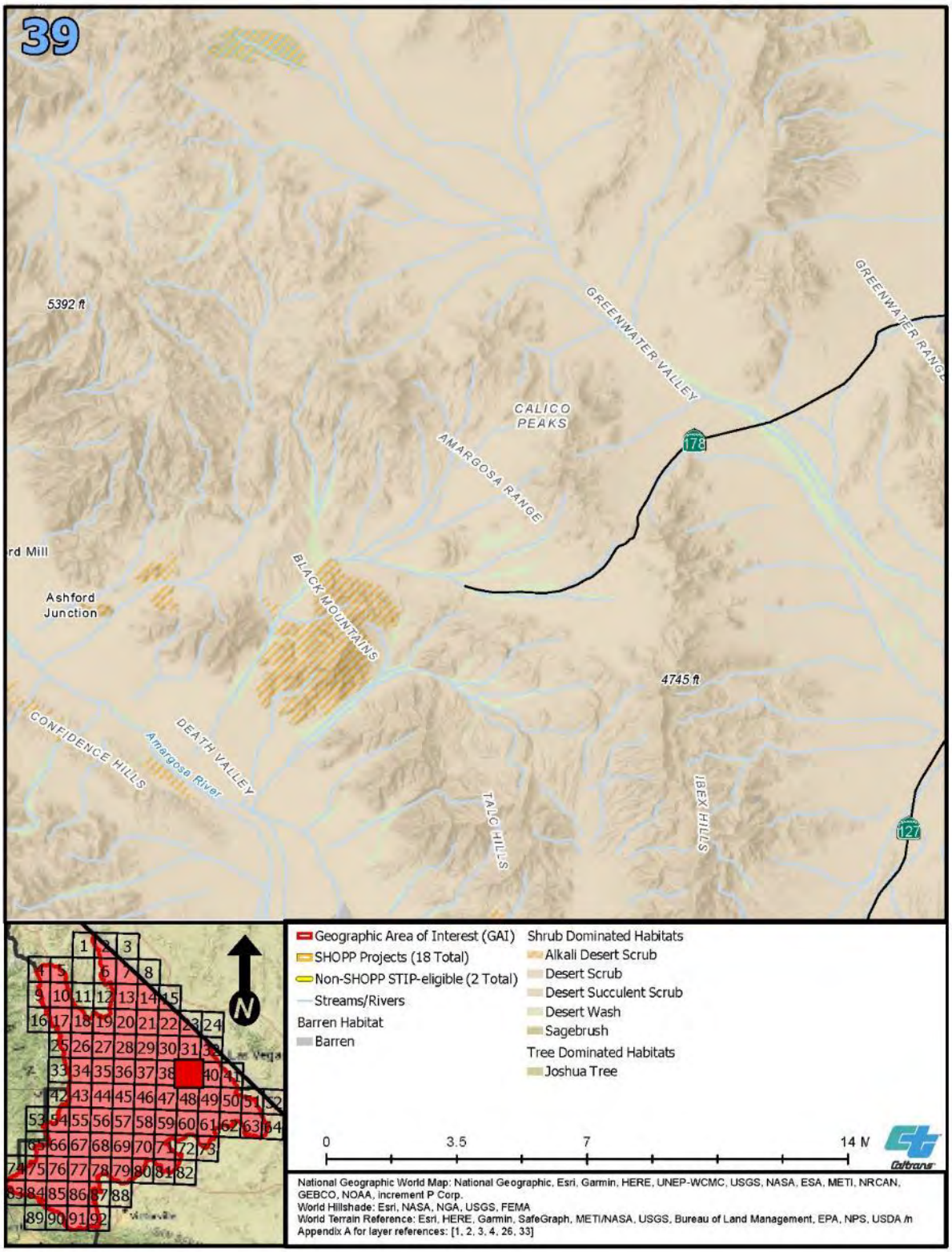

34
COSO RANGE
Coso Junction
Sykes
ROSE VALLEY
76 ft
395
Coso
Little Lake
COSO BASIN
WHITE HILLS
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Water
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Bitterbrush
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak-Foothill Pine
Desert Riparian
Eastside Pine
Joshua Tree
Montane Hardwood
Montane Riparian
Pinyon - Juniper
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

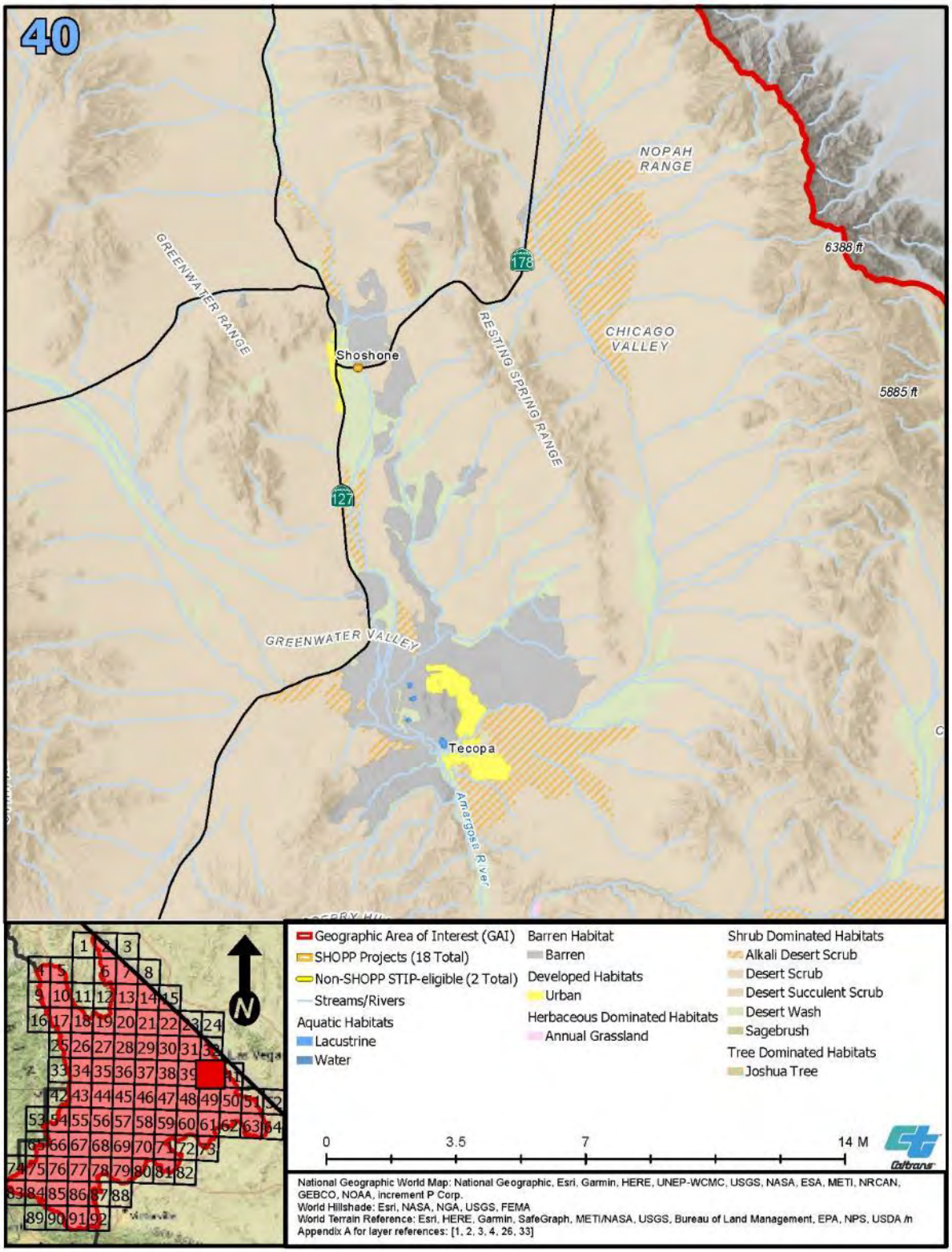

35
Millspaugh
SHEEP CANYON
ETCHARREN VALLEY
RENEGADE CANYON
VOLCANO BUTTE
WATER CANYON
6843 ft
6640 ft
COSO BASIN
ARGUS MOUNTAINS
WHITE HILLS
ARGUS PEAK
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Pinyon - Juniper
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

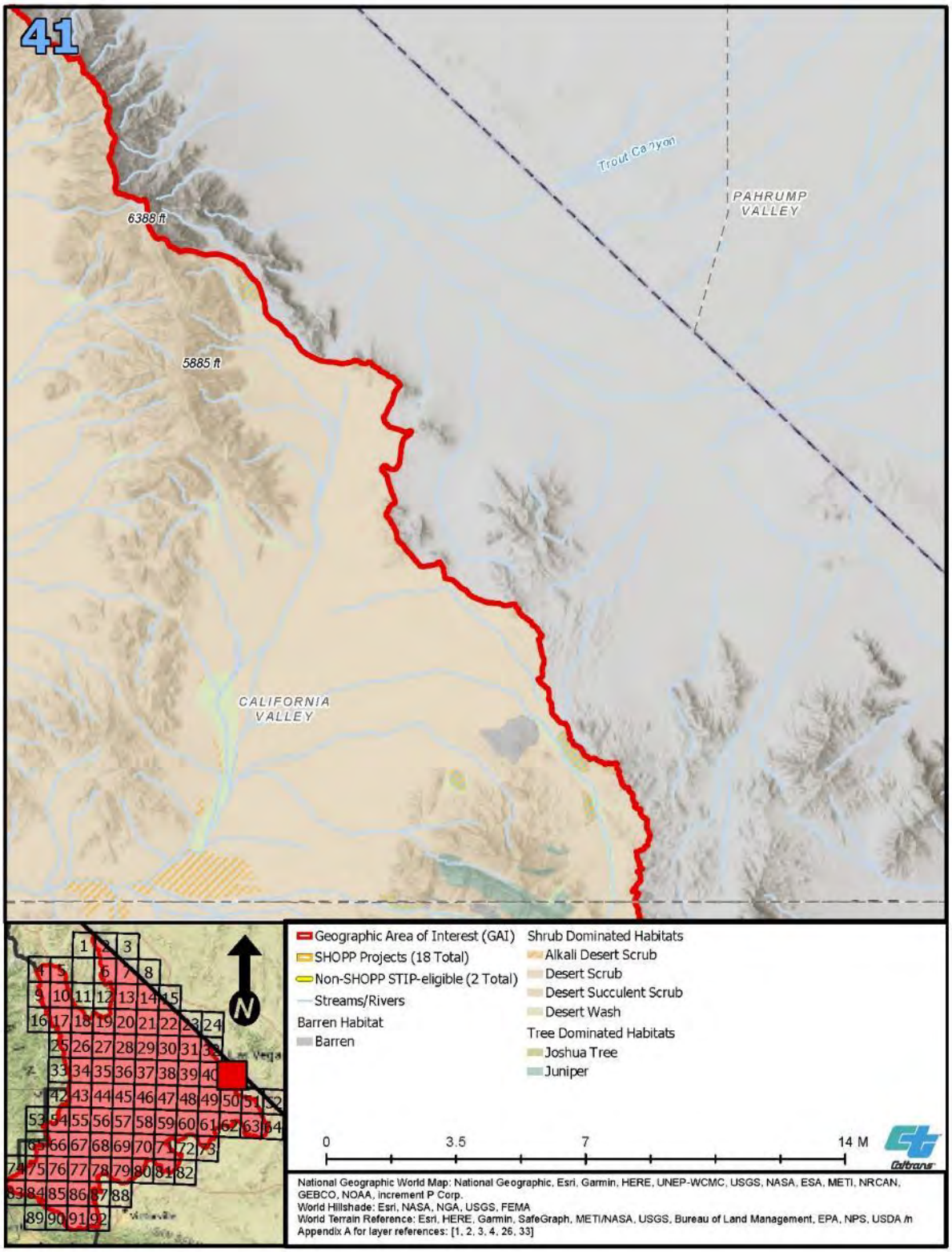

36
Panamint
ALAKALI FLAT
Ballarat
Millspaugh
WATER CANYON
PANAMINT VALLEY
ARGUS MOUNTAINS
ARGUS PEAK
SEARLES VAL
SLATE RANGE
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Pinyon - Juniper
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

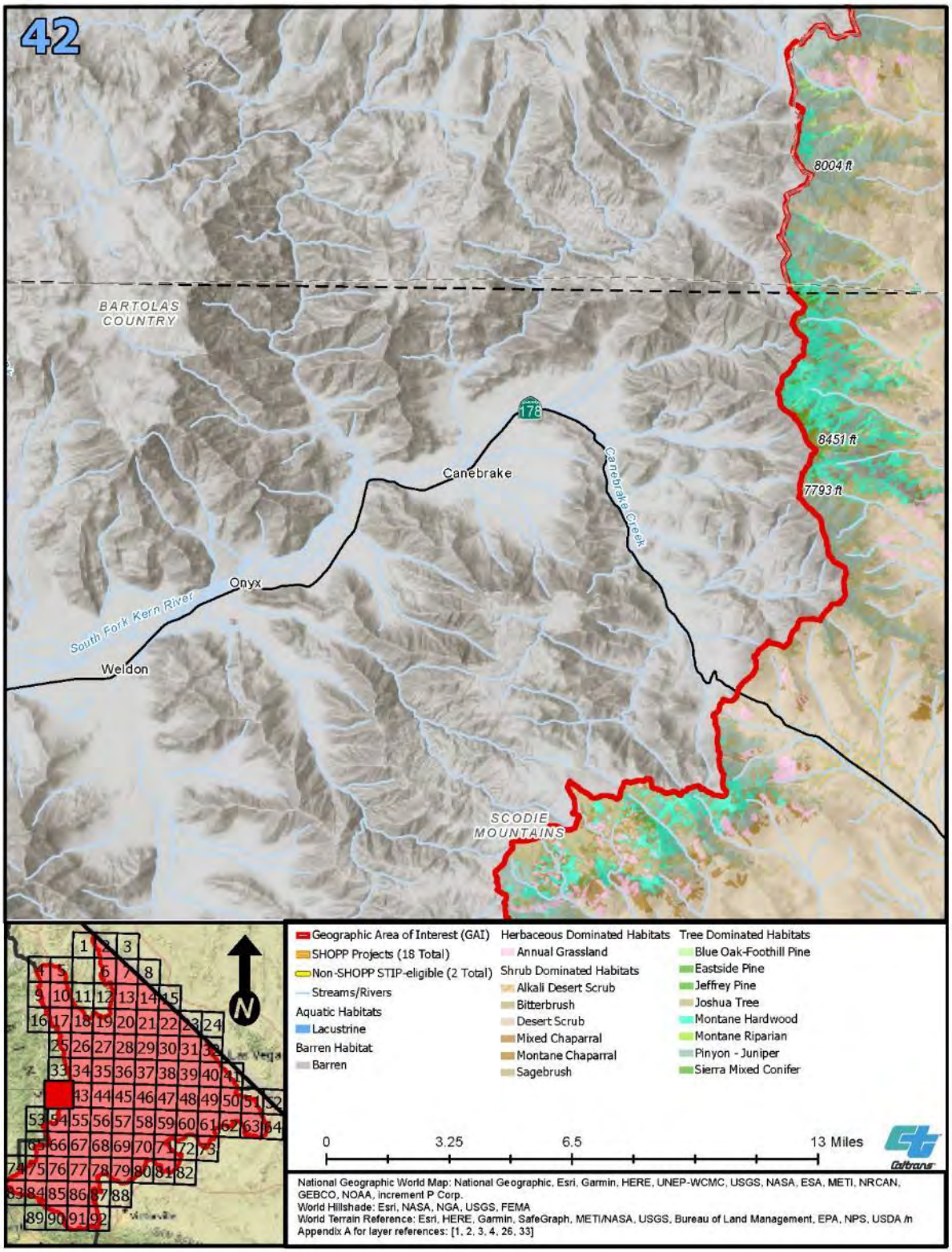

37
PORTER PEAK
SIX SPRING CANYON
GOLD HILL
7332 ft
PANAMINT RANGE
BUTTE VALLEY
5258 ft
WARM SPRING CANYON
ANVIL SPRING CANYON
NEEDLE PEAK
SUGARLOAF PEAK
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Juniper
Pinyon - Juniper
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

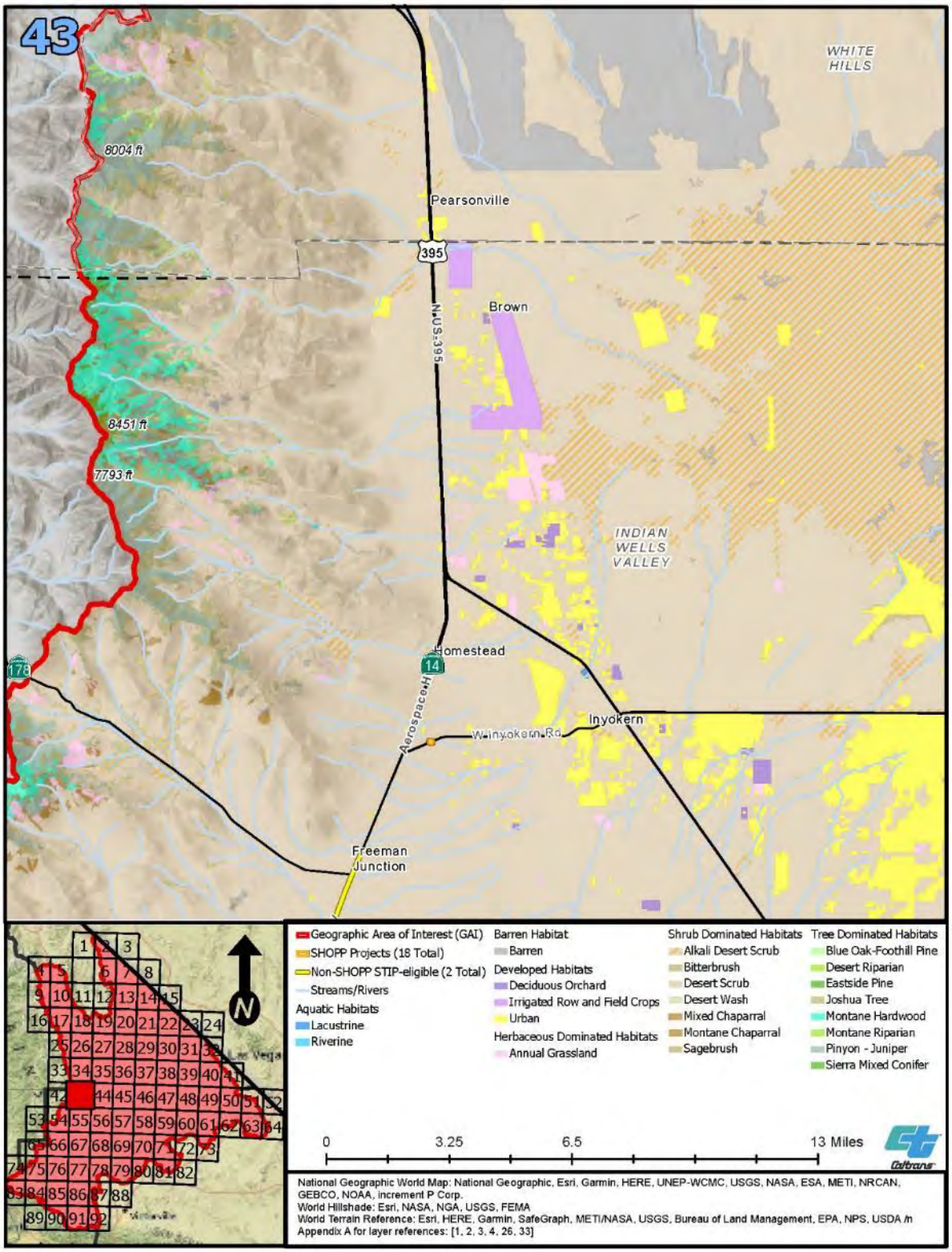

38
Amargosa River
MORMON POINT
SMITH MOUNTAIN
5392 ft
DEATH VALLEY
Amargosa River
SPRING CANYON
CINDER HILL
Ashford Mill
Ashford Junction
Wingate Wash
CONFIDENCE HILLS
Amargosa River
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Tree Dominated Habitats
Joshua Tree
0
3.5
7
14 Mi
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

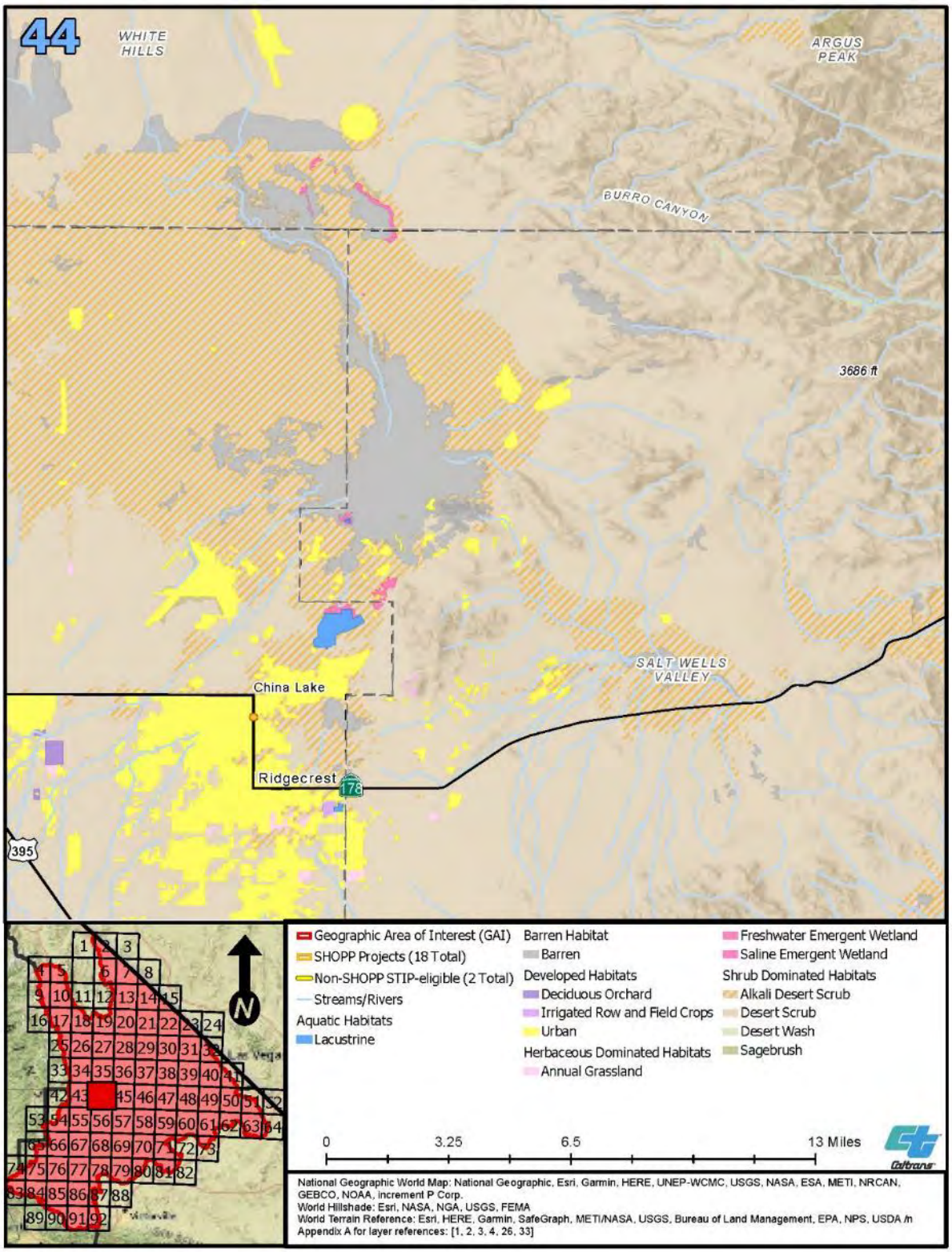

39
5392 ft
GREENWATER VALLEY
GREENWATER RANGE
CALICO PEAKS
AMARGOSA RANGE
178
rd Mill
Ashford Junction
BLACK MOUNTAINS
4745 ft
CONFIDENCE HILLS
DEATH VALLEY
Amargosa River
TALC HILLS
IBEX HILLS
127
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
0
3.5
7
14 Mi
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

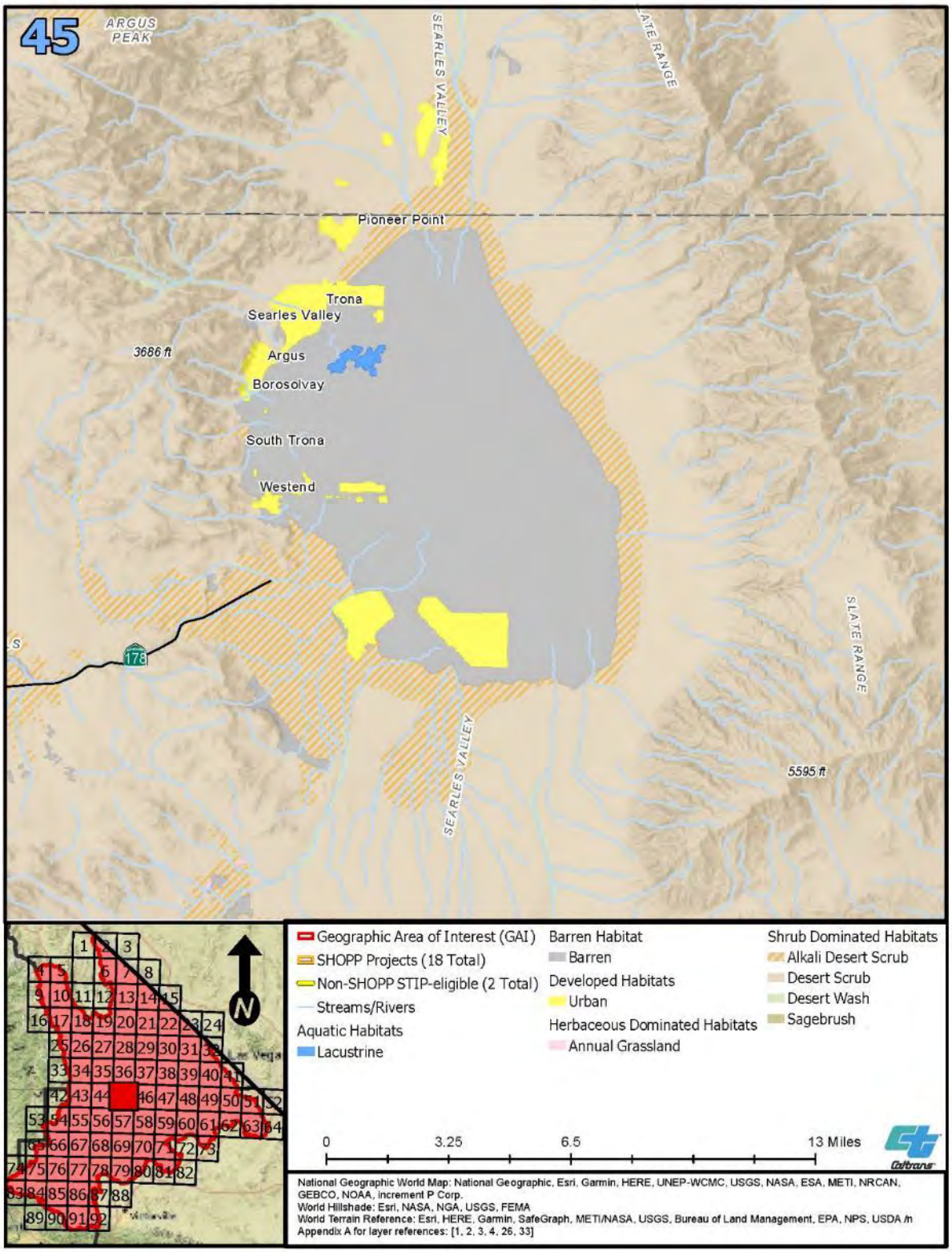

40
NOPAH RANGE
6388 ft
GREENWATER RANGE
178
Shoshone
RESTING SPRING RANGE
CHICAGO VALLEY
5885 ft
127
GREENWATER VALLEY
Tecopa
Amargosa River
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Water
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

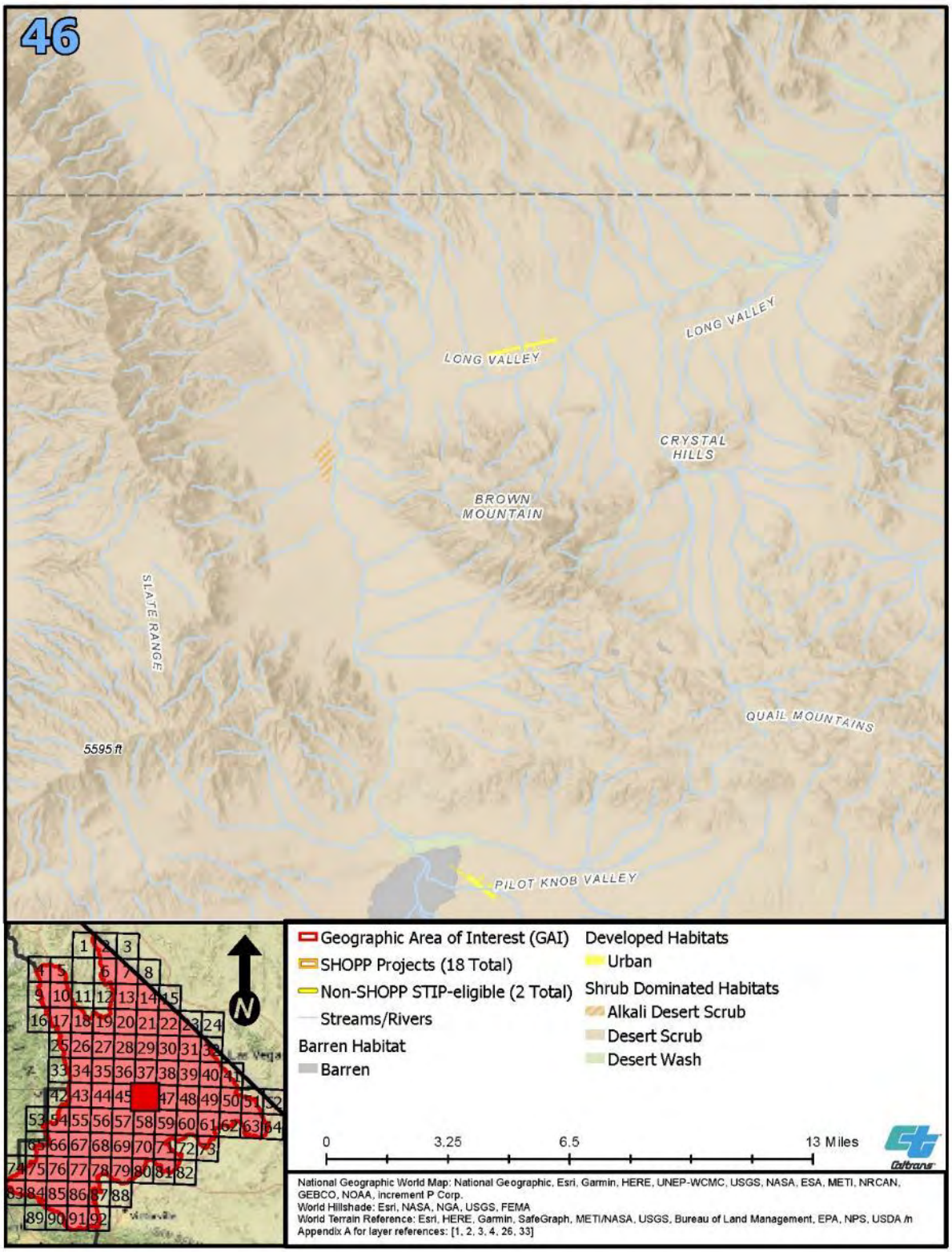

41
Trout Canyon
PAHRUMP VALLEY
6388 ft
5885 ft
CALIFORNIA VALLEY
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Tree Dominated Habitats
Joshua Tree
Juniper
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

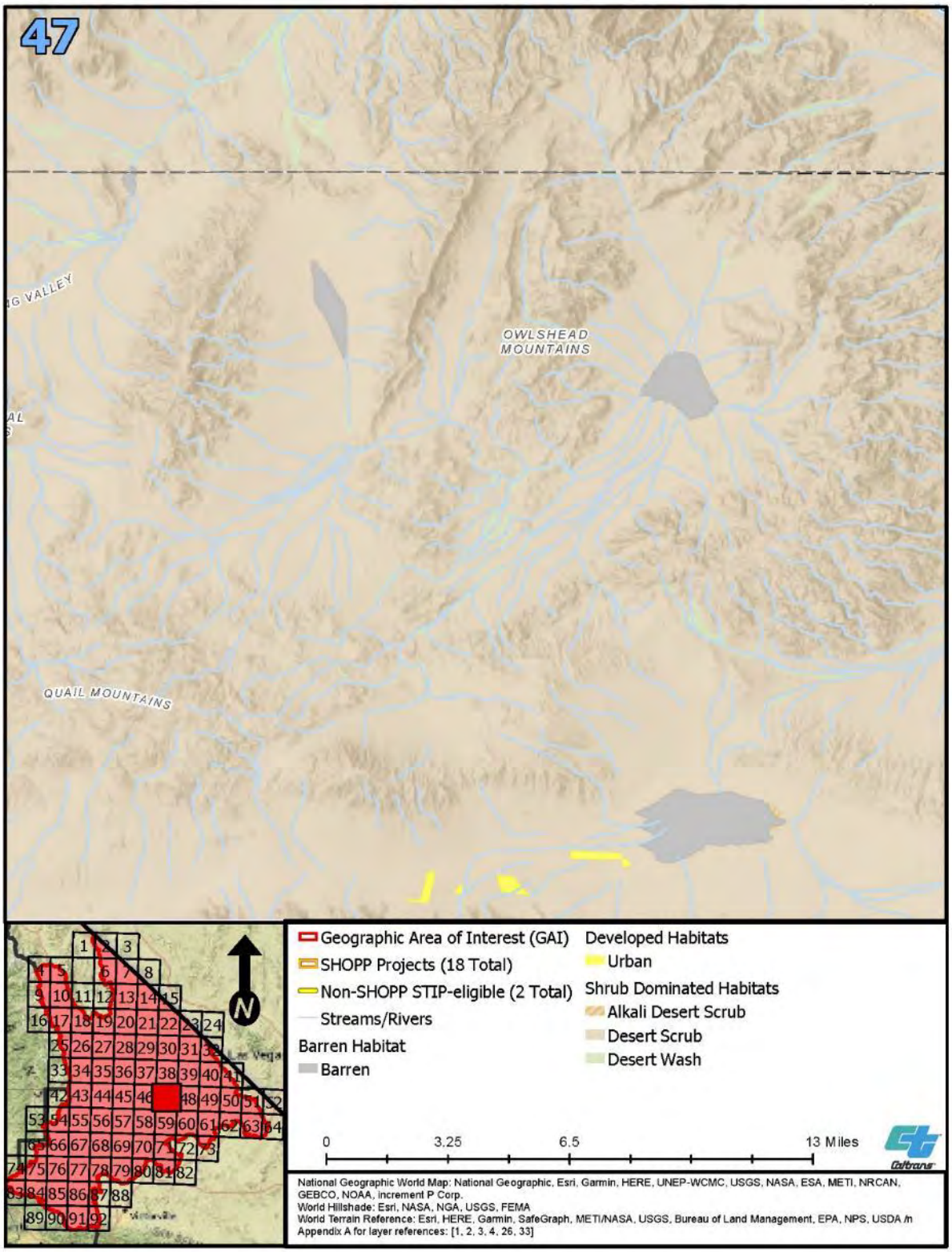

42
8004 ft
BARTOLAS COUNTRY
178
8451 ft
Canebrake
Canebrake Creek
7793 ft
Onyx
South Fork Kern River
Weldon
SCODIE MOUNTAINS
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Bitterbrush
Desert Scrub
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak-Foothill Pine
Eastside Pine
Jeffrey Pine
Joshua Tree
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Sierra Mixed Conifer
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

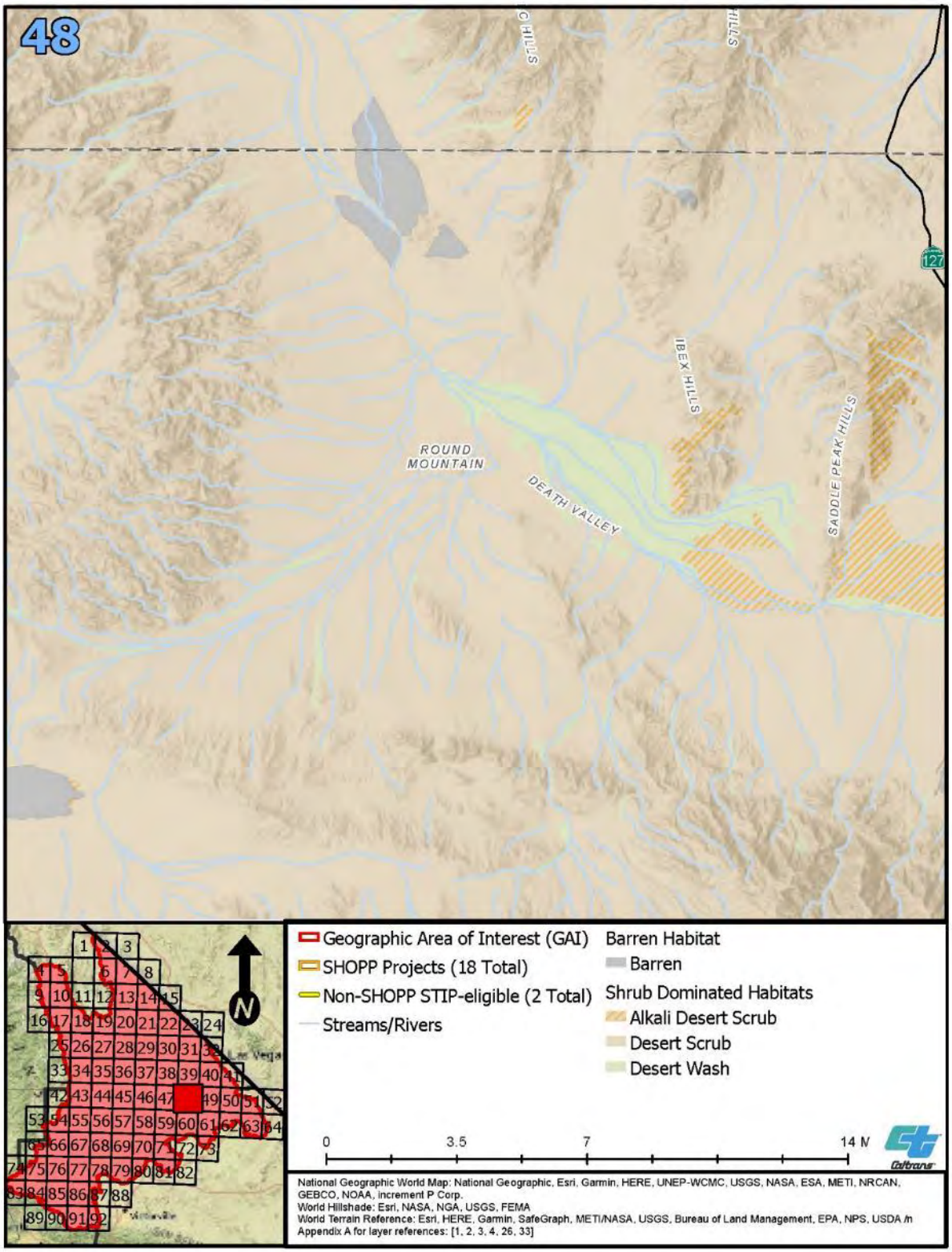

43
WHITE HILLS
8004 ft
Pearsonville
395
Brown
N US-395
8451 ft
7793 ft
INDIAN WELLS VALLEY
Homestead
14
178
Aerospace H
Inyokern
W Inyokern Rd
Freeman Junction
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Bitterbrush
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak-Foothill Pine
Desert Riparian
Eastside Pine
Joshua Tree
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Sierra Mixed Conifer
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

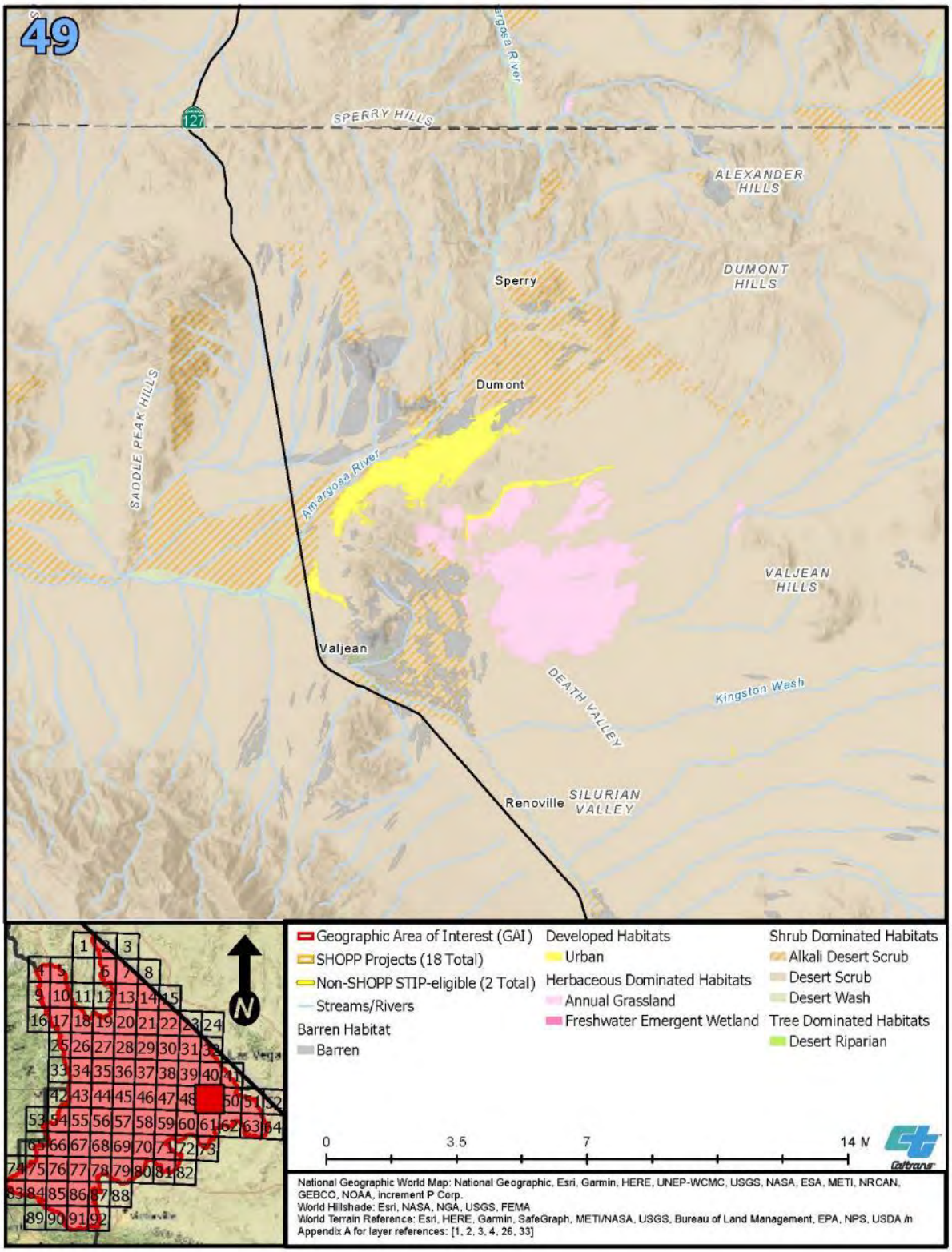

44
WHITE HILLS
ARGUS PEAK
BURRO CANYON
3686 ft
SALT WELLS VALLEY
China Lake
Ridgecrest
178
395
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Saline Emergent Wetland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


45
ARGUS PEAK
SEARLES VALLEY
SLATE RANGE
Pioneer Point
Trona
Searles Valley
3686 ft
Argus
Borosolvay
South Trona
Westend
178
SLATE RANGE
SEARLES VALLEY
5595 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


46
LONG VALLEY
LONG VALLEY
CRYSTAL HILLS
BROWN MOUNTAIN
SLATE RANGE
QUAIL MOUNTAINS
5595 ft
PILOT KNOB VALLEY
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


47
OWLSHEAD MOUNTAINS
QUAIL MOUNTAINS
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


48
ROUND MOUNTAIN
DEATH VALLEY
IBEX HILLS
SADDLE PEAK HILLS
127
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
0
3.5
7
14 Mi
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


49
127
SPERRY HILLS
Amargosa River
ALEXANDER HILLS
DUMONT HILLS
Sperry
Dumont
SADDLE PEAK HILLS
Amargosa River
VALJEAN HILLS
Valjean
DEATH VALLEY
Kingston Wash
Renoville
SILURIAN VALLEY
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Tree Dominated Habitats
Desert Riparian
0
3.5
7
14 Mi
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
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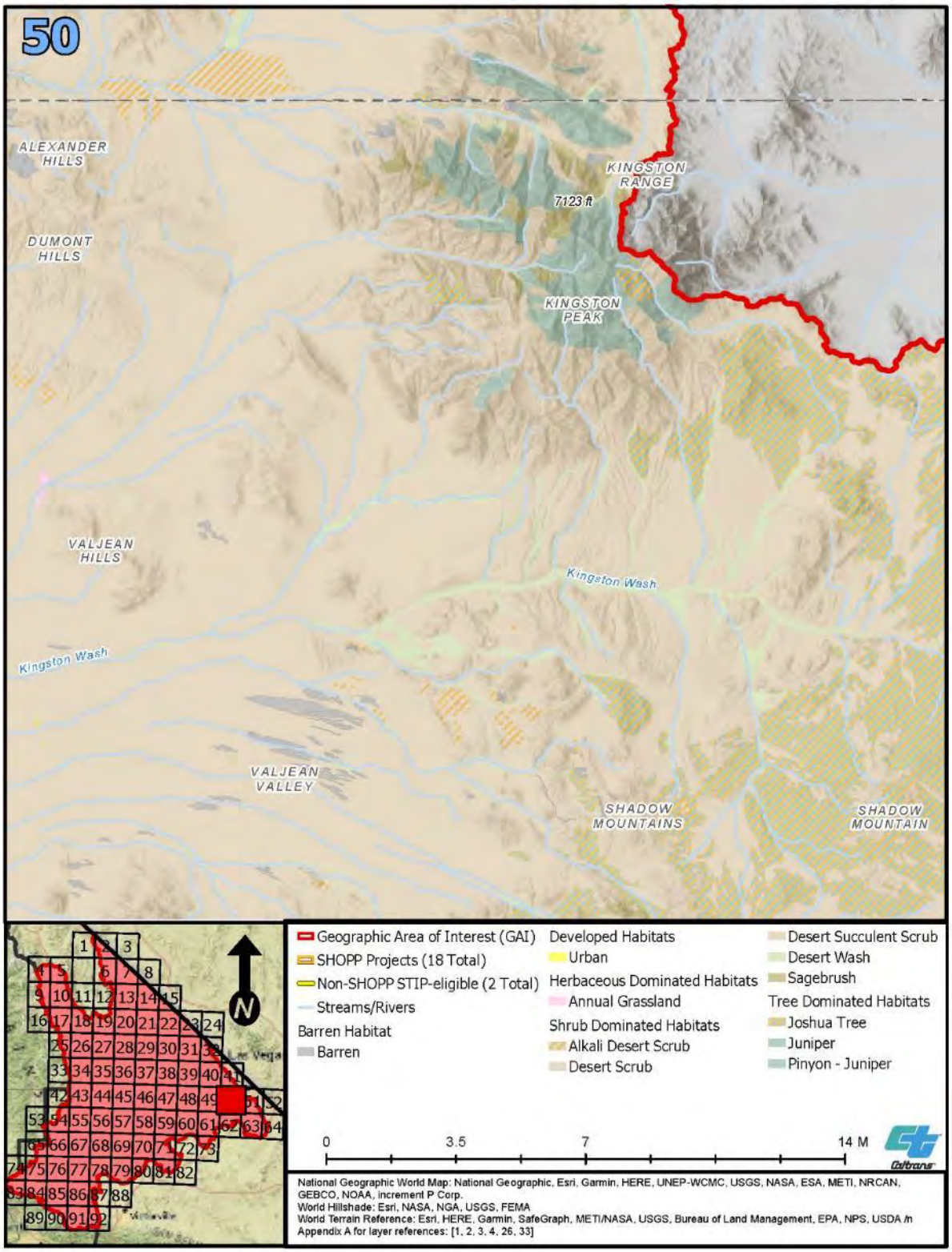
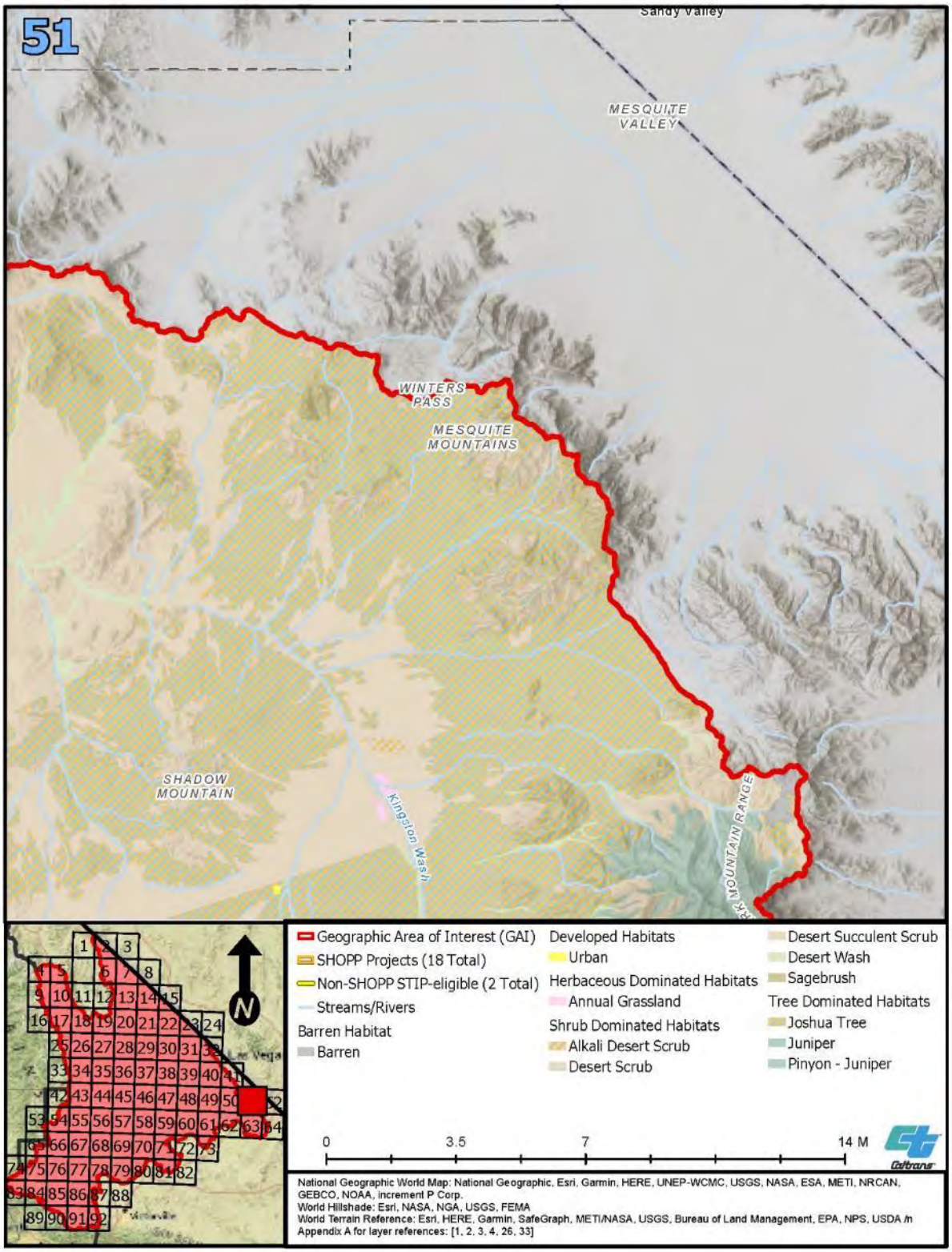
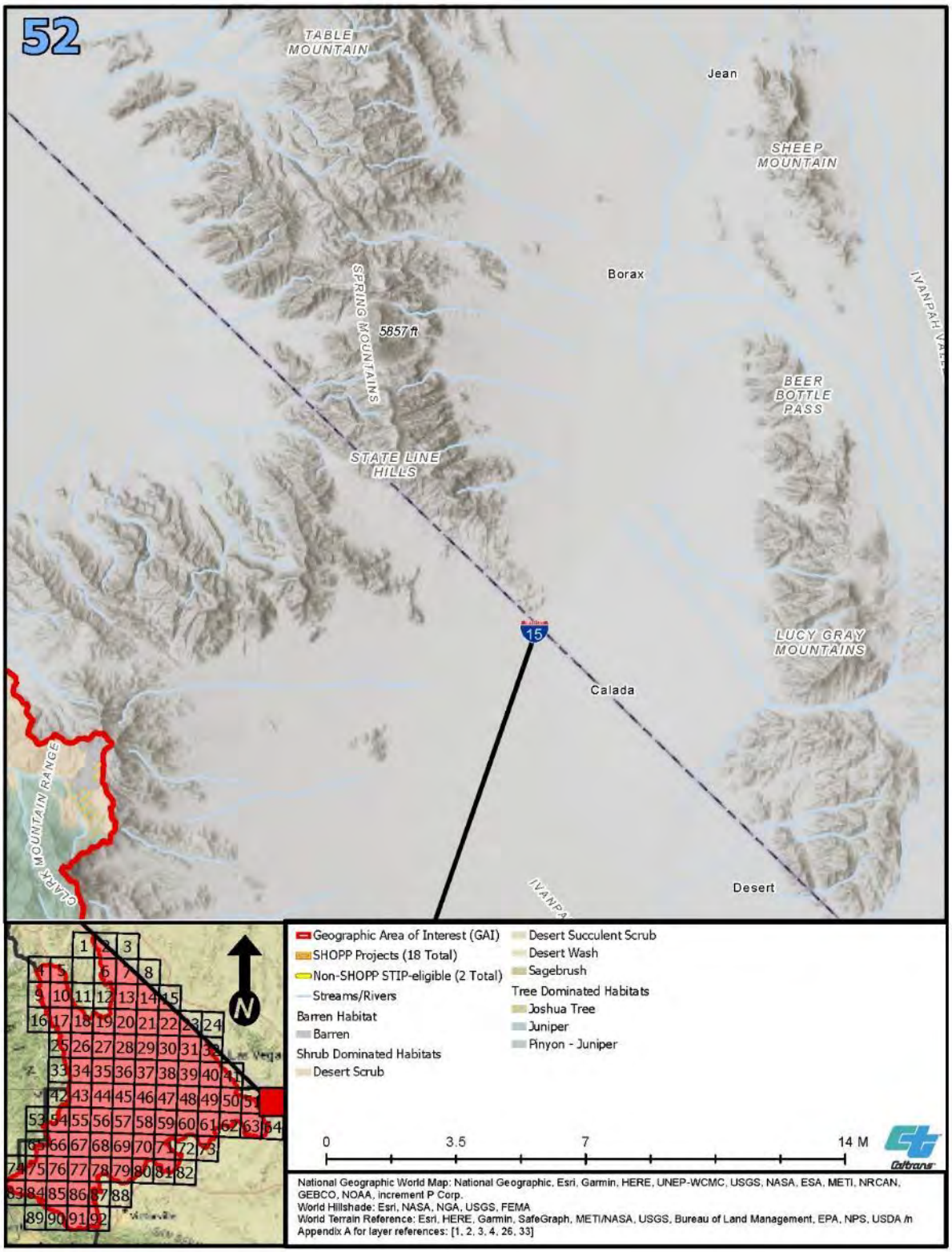
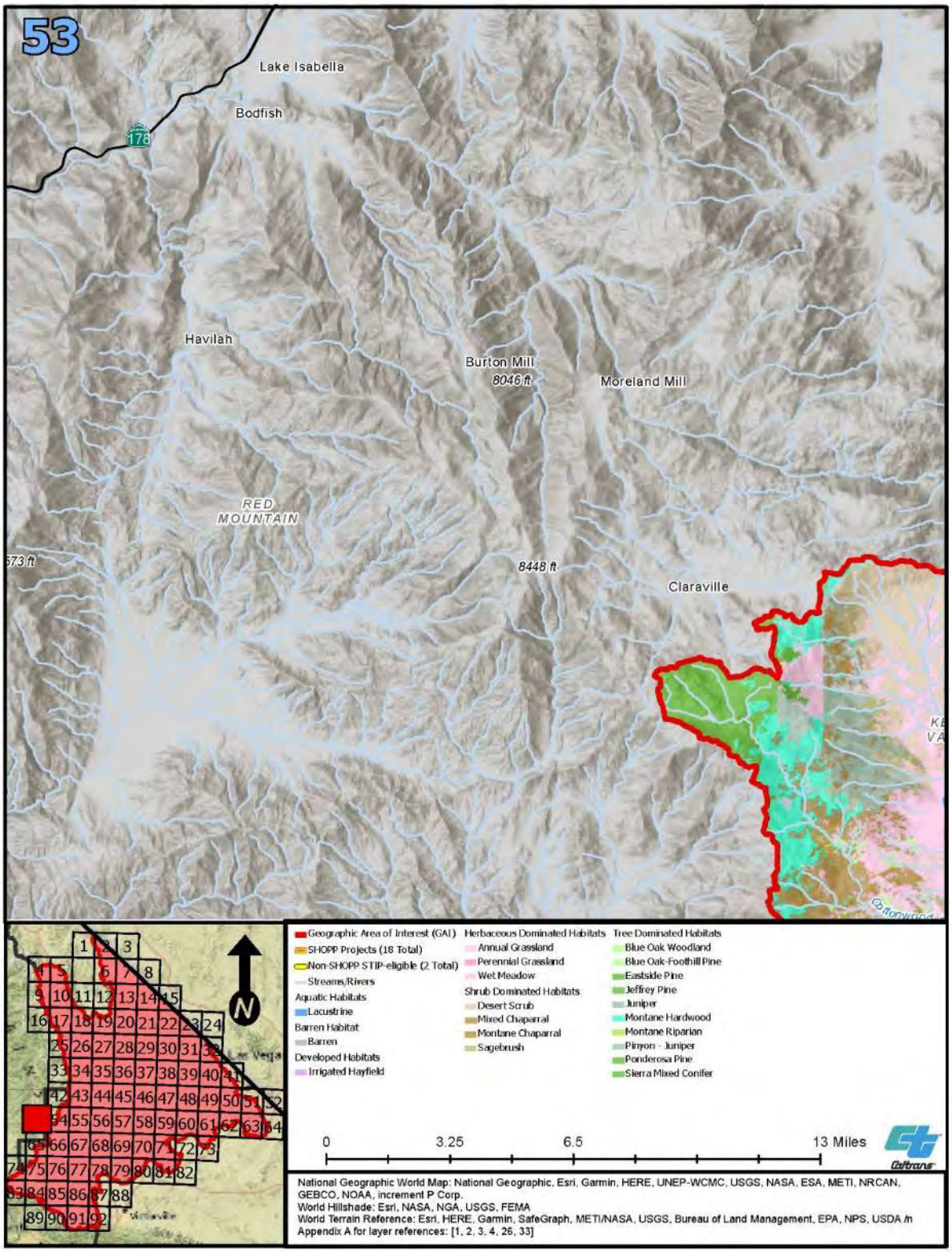
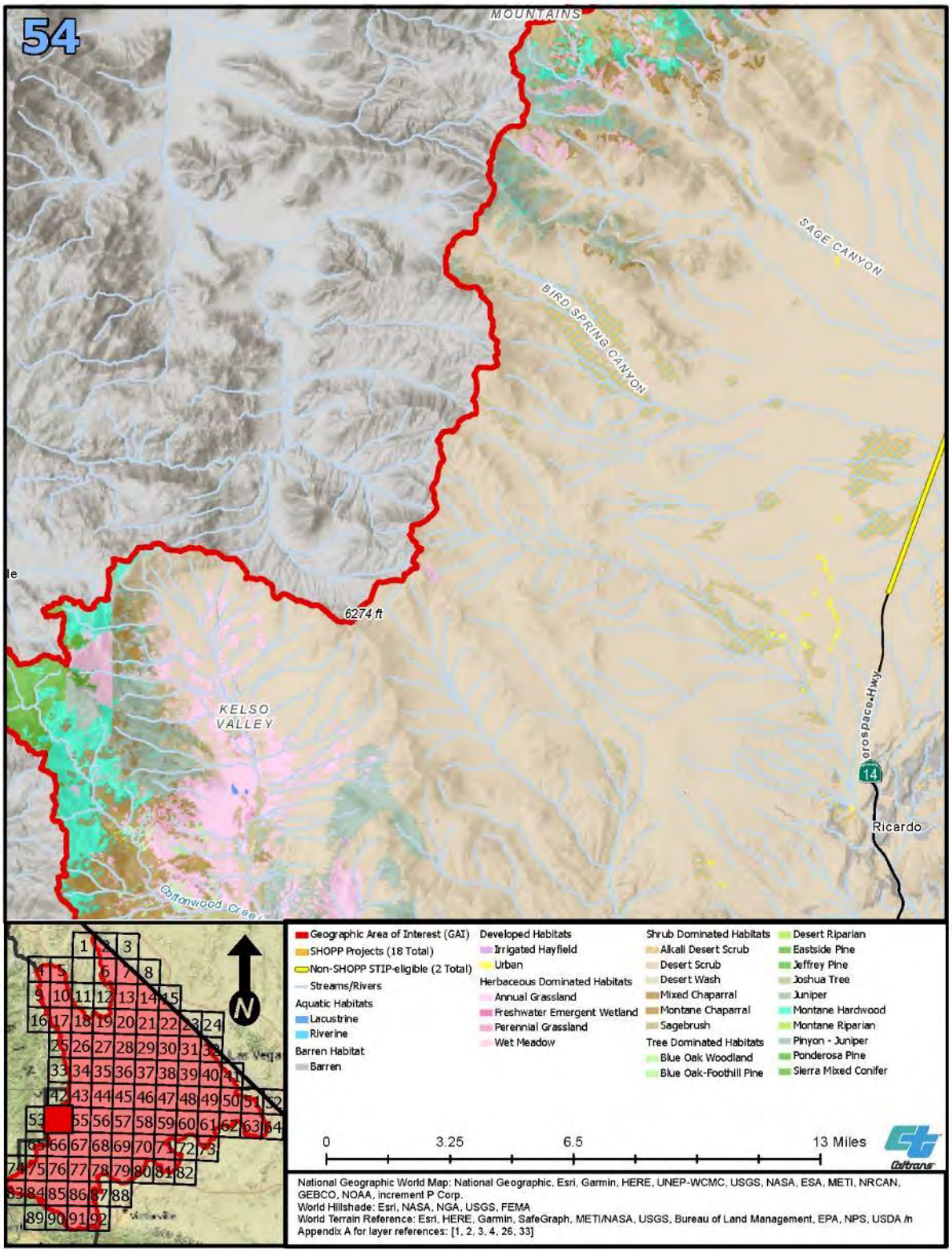
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

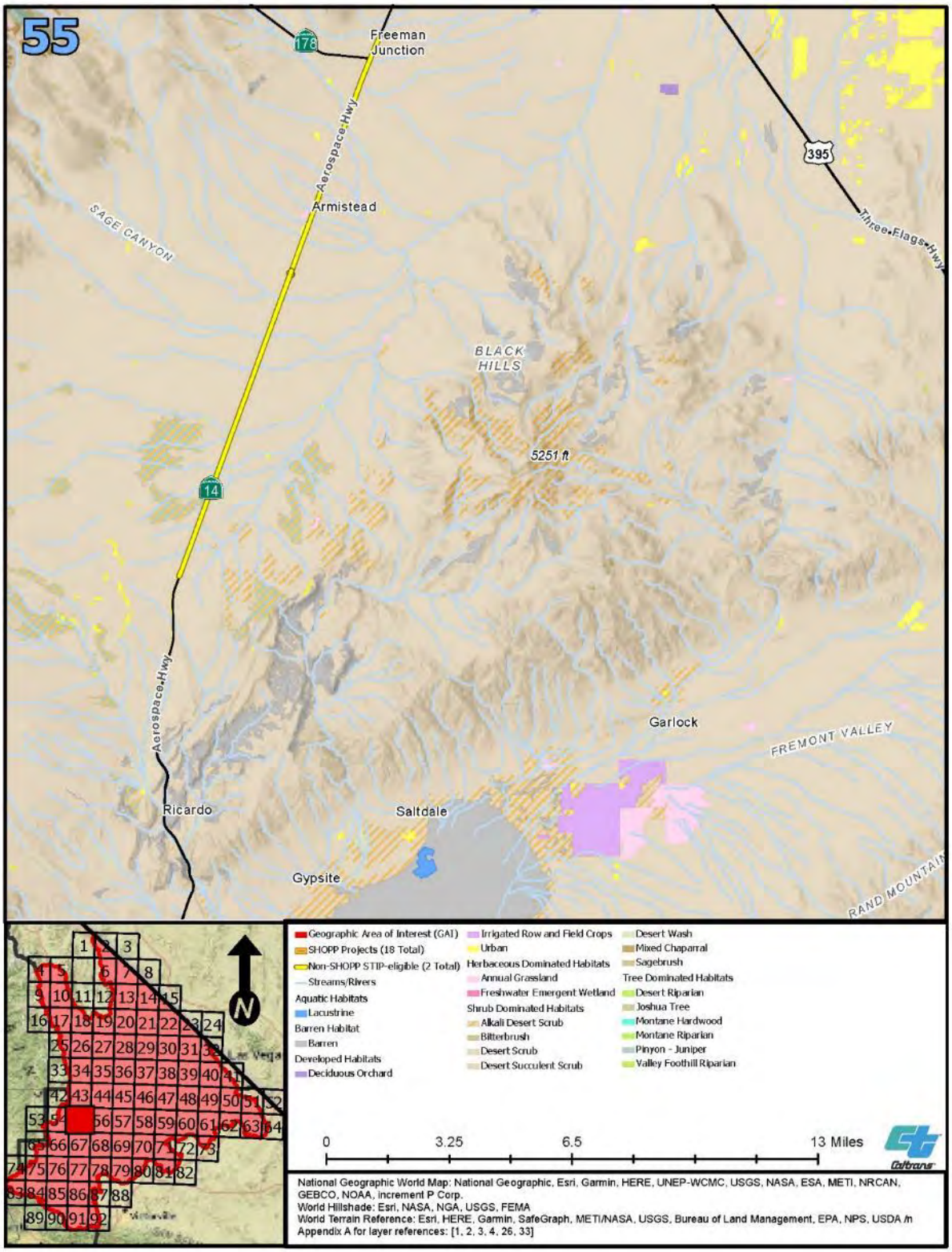

50
ALEXANDER HILLS
DUMONT HILLS
KINGSTON RANGE
7123 ft
KINGSTON PEAK
VALJEAN HILLS
Kingston Wash
Kingston Wash
VALJEAN VALLEY
SHADOW MOUNTAINS
SHADOW MOUNTAIN
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Juniper
Pinyon - Juniper
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

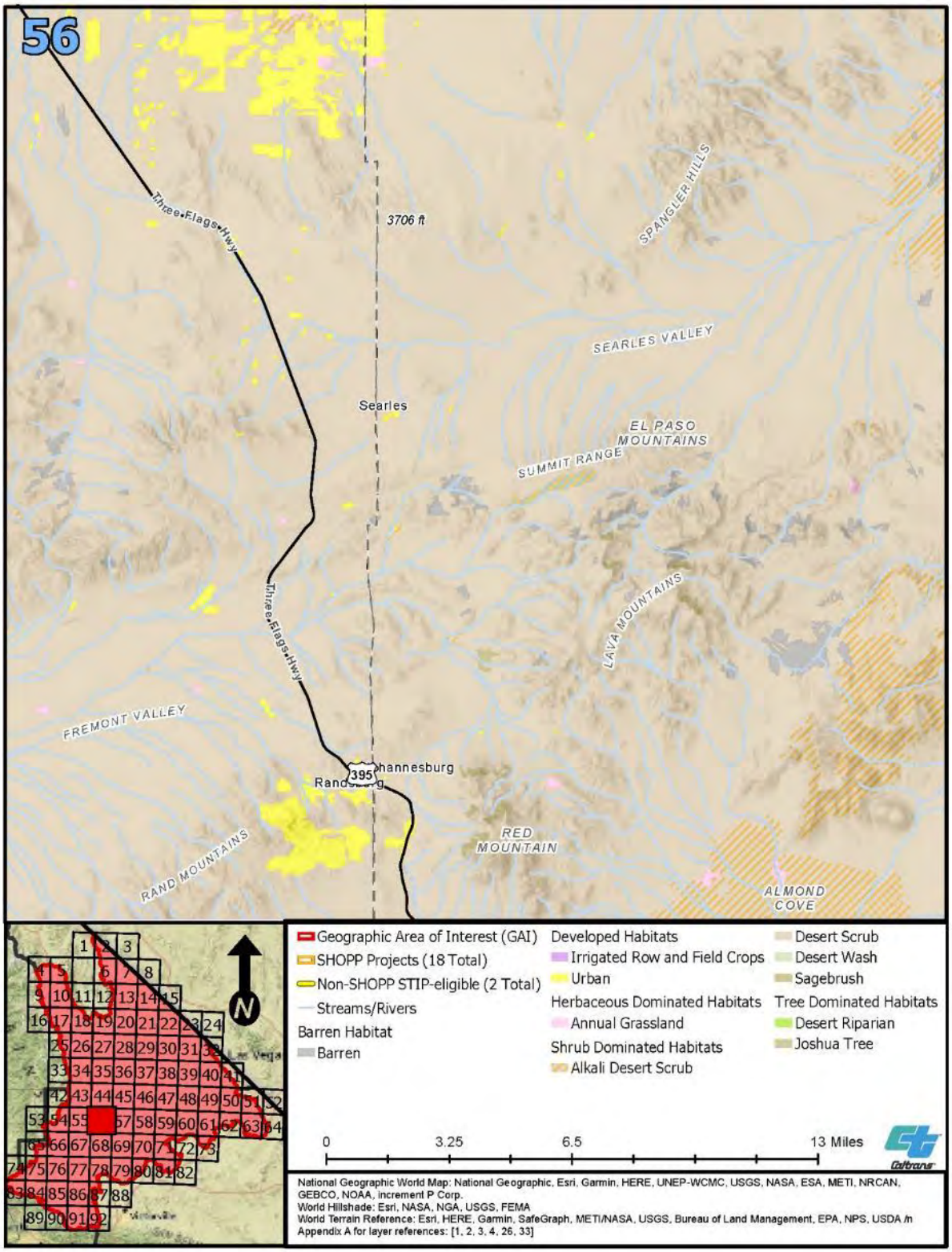

51
Sandy Valley
MESQUITE VALLEY
WINTERS PASS
MESQUITE MOUNTAINS
SHADOW MOUNTAIN
Kingston Wash
MOUNTAIN RANGE
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Juniper
Pinyon - Juniper
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

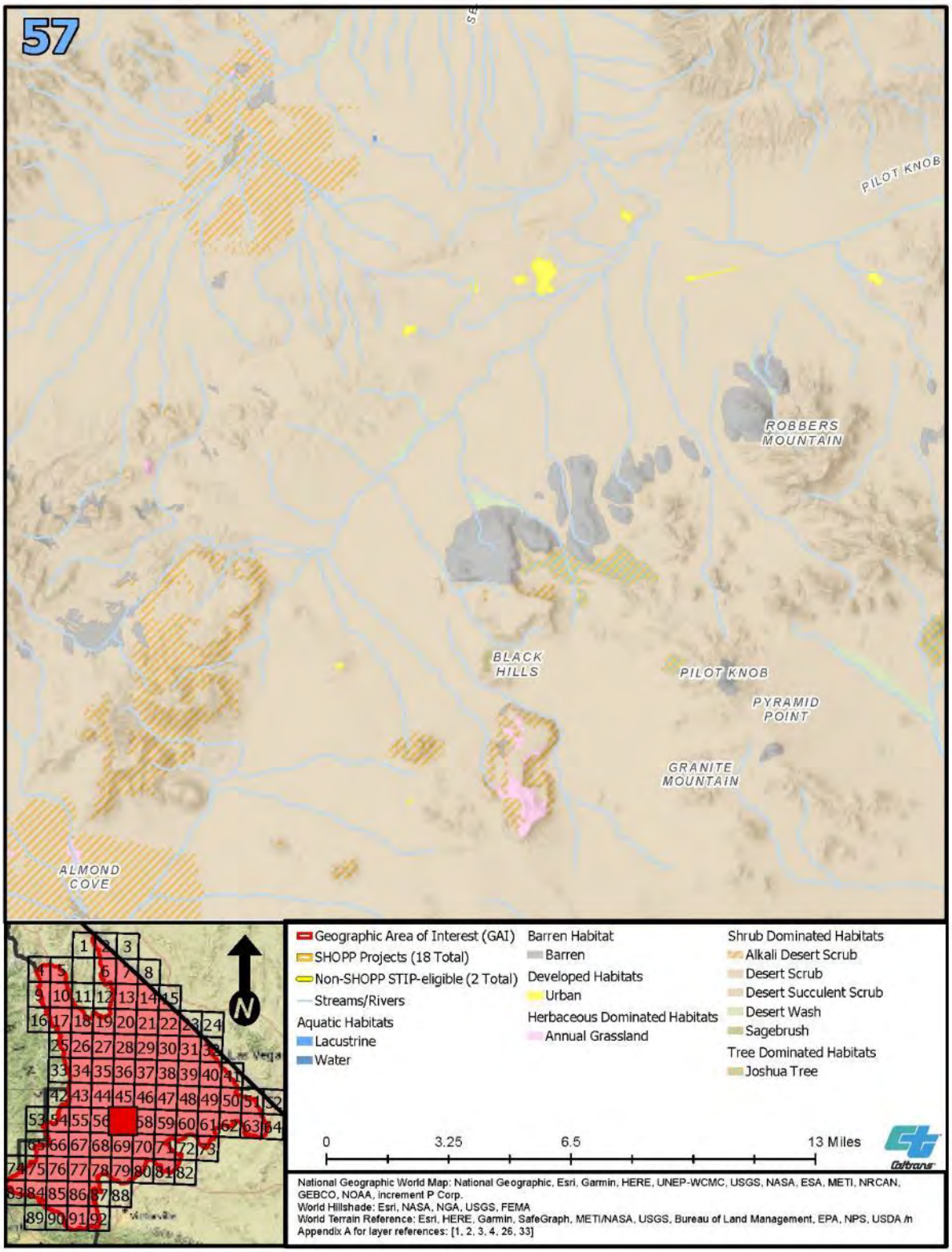

52
TABLE MOUNTAIN
Jean
SHEEP MOUNTAIN
Borax
SPRING MOUNTAINS
5857 ft
BEER BOTTLE PASS
STATE LINE HILLS
15
LUCY GRAY MOUNTAINS
Calada
CLARK MOUNTAIN RANGE
Desert
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Shrub Dominated Habitats
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Juniper
Pinyon - Juniper
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

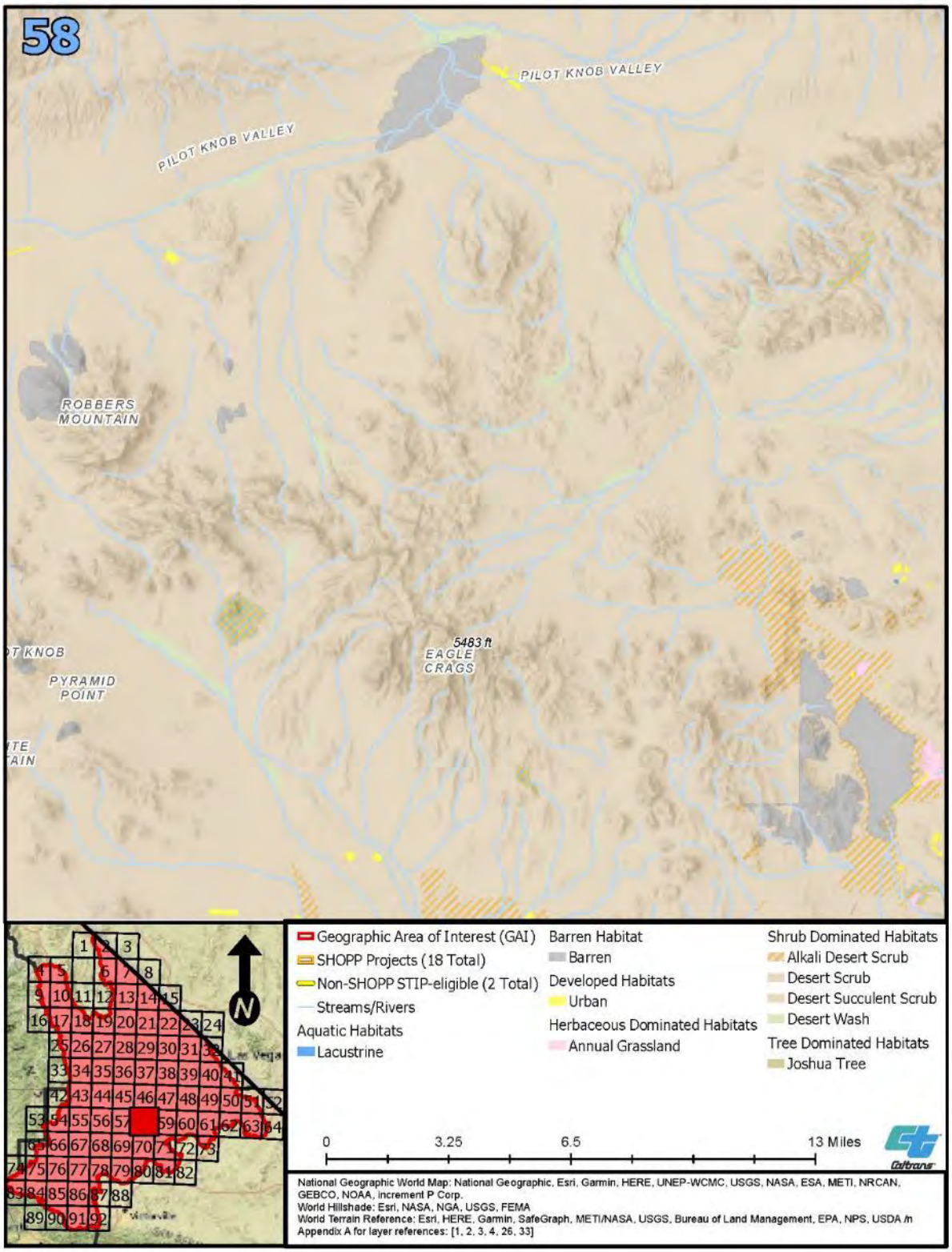

53
Lake Isabella
Bodfish
178
Havilah
Burton Mill
8046 ft
Moreland Mill
RED
MOUNTAIN
8448 ft
Claraville
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Irrigated Hayfield
Herbaceous Dominated Habitats
Annual Grassland
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Desert Scrub
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak Woodland
Blue Oak-Foothill Pine
Eastside Pine
Jeffrey Pine
Juniper
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Ponderosa Pine
Sierra Mixed Conifer
N
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

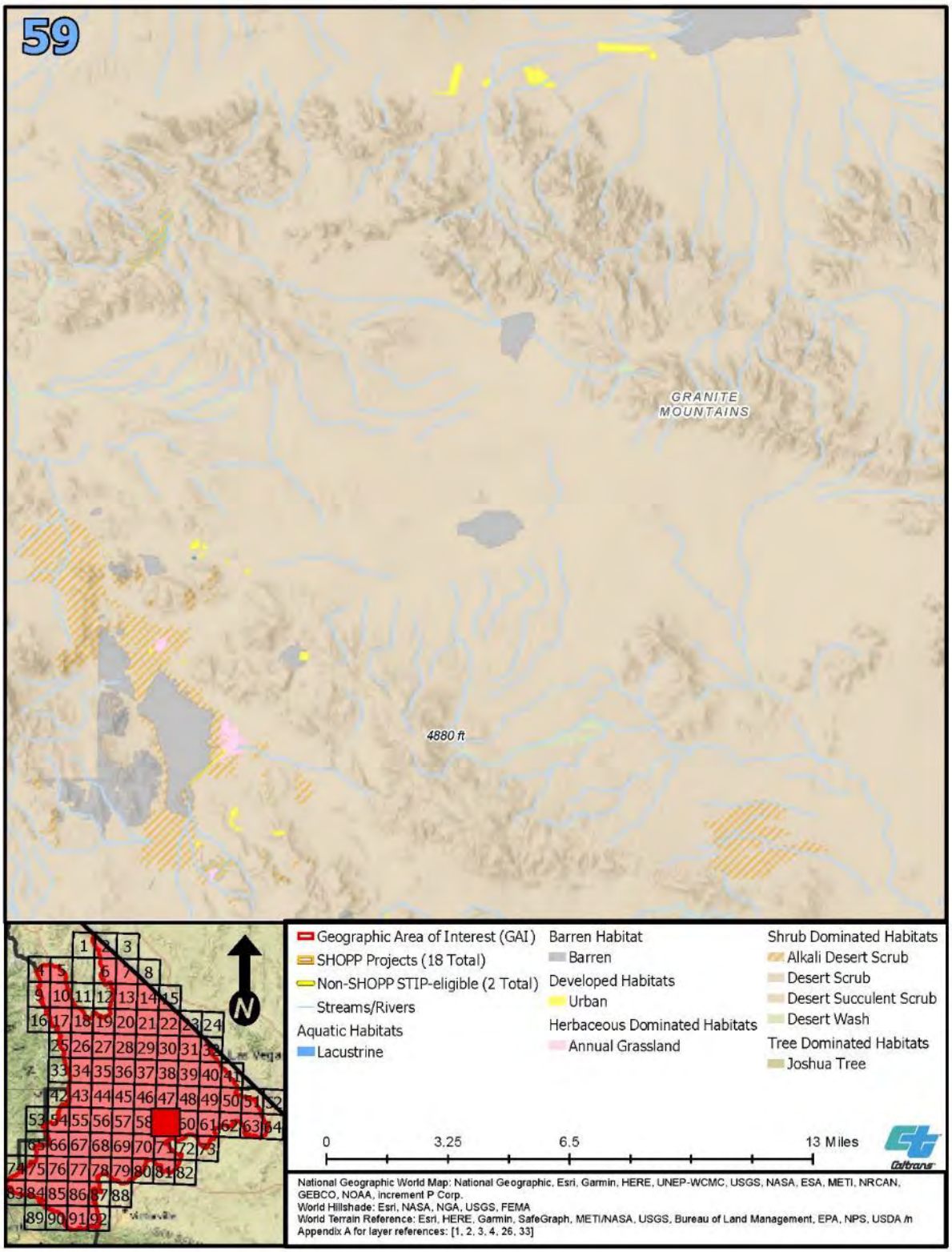

54
MOUNTAINS
SAGE CANYON
BIRD SPRING CANYON
6274 ft
KELSO VALLEY
Ricardo
14
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Irrigated Hayfield
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak Woodland
Blue Oak-Foothill Pine
Desert Riparian
Eastside Pine
Jeffrey Pine
Joshua Tree
Juniper
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Ponderosa Pine
Sierra Mixed Conifer
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

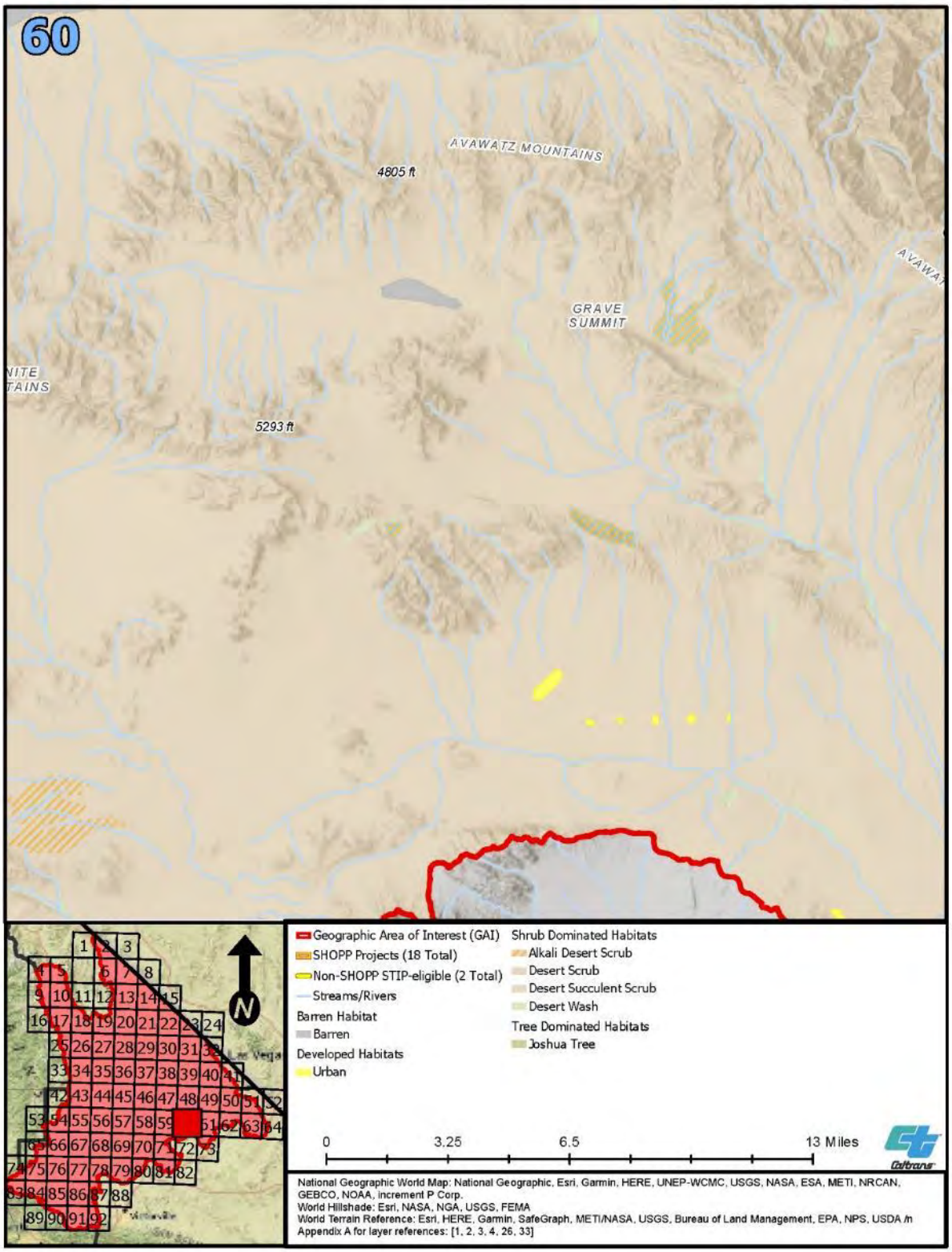

55
Freeman Junction
178
Aerospace Hwy
Armistead
SAGE CANYON
395
Three Flags Hwy
BLACK HILLS
5251 ft
14
Aerospace Hwy
Garlock
FREMONT VALLEY
Ricardo
Saltdale
Gypsite
RAND MOUNTAIN
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Shrub Dominated Habitats
Alkali Desert Scrub
Bitterbrush
Desert Scrub
Desert Succulent Scrub
Desert Wash
Mixed Chaparral
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Valley Foothill Riparian
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

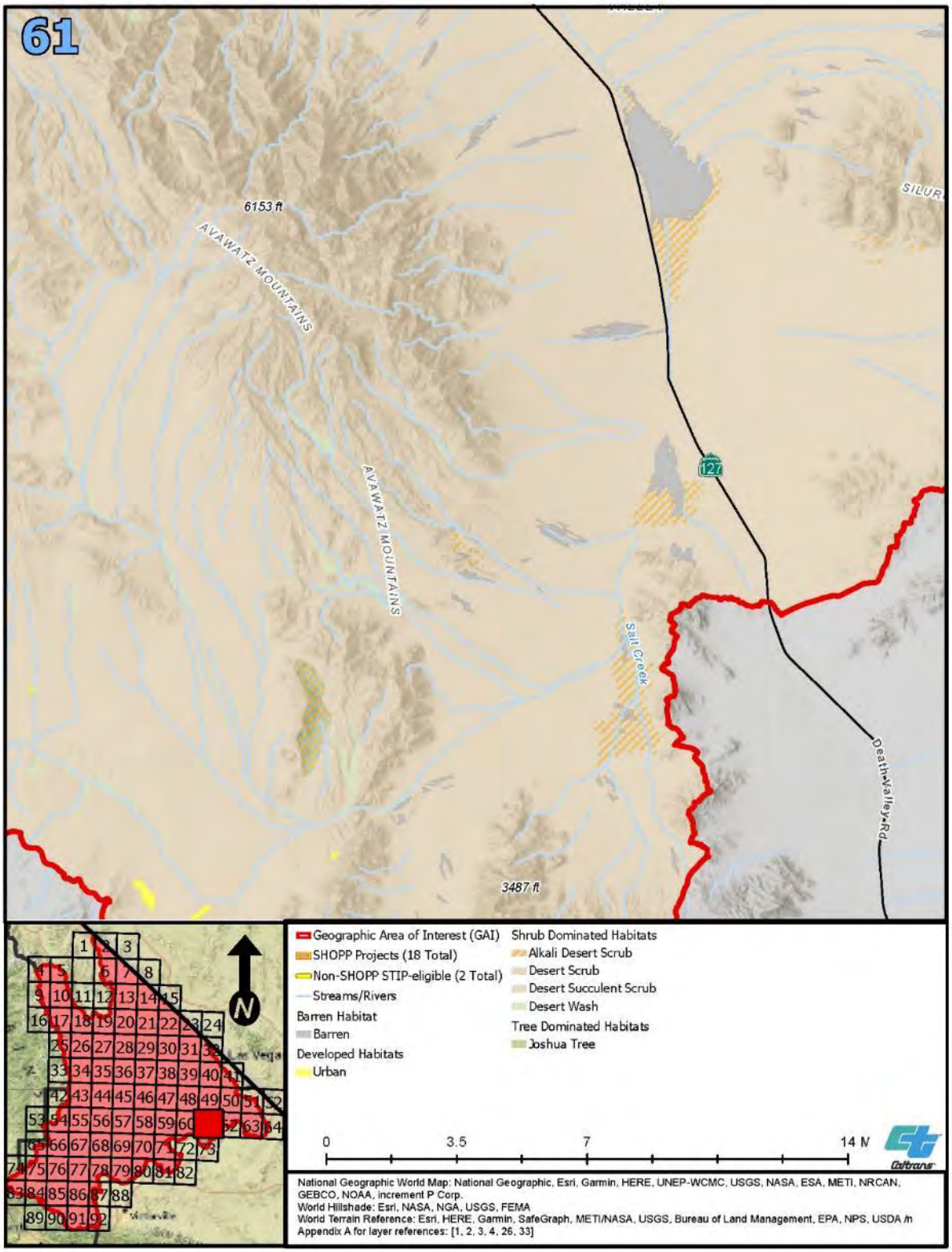

56
Three Flags Hwy
3706 ft
SPANGLER HILLS
SEARLES VALLEY
Searles
EL PASO MOUNTAINS
SUMMIT RANGE
LAVA MOUNTAINS
FREMONT VALLEY
395
RED MOUNTAIN
RAND MOUNTAINS
ALMOND COVE
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
N
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

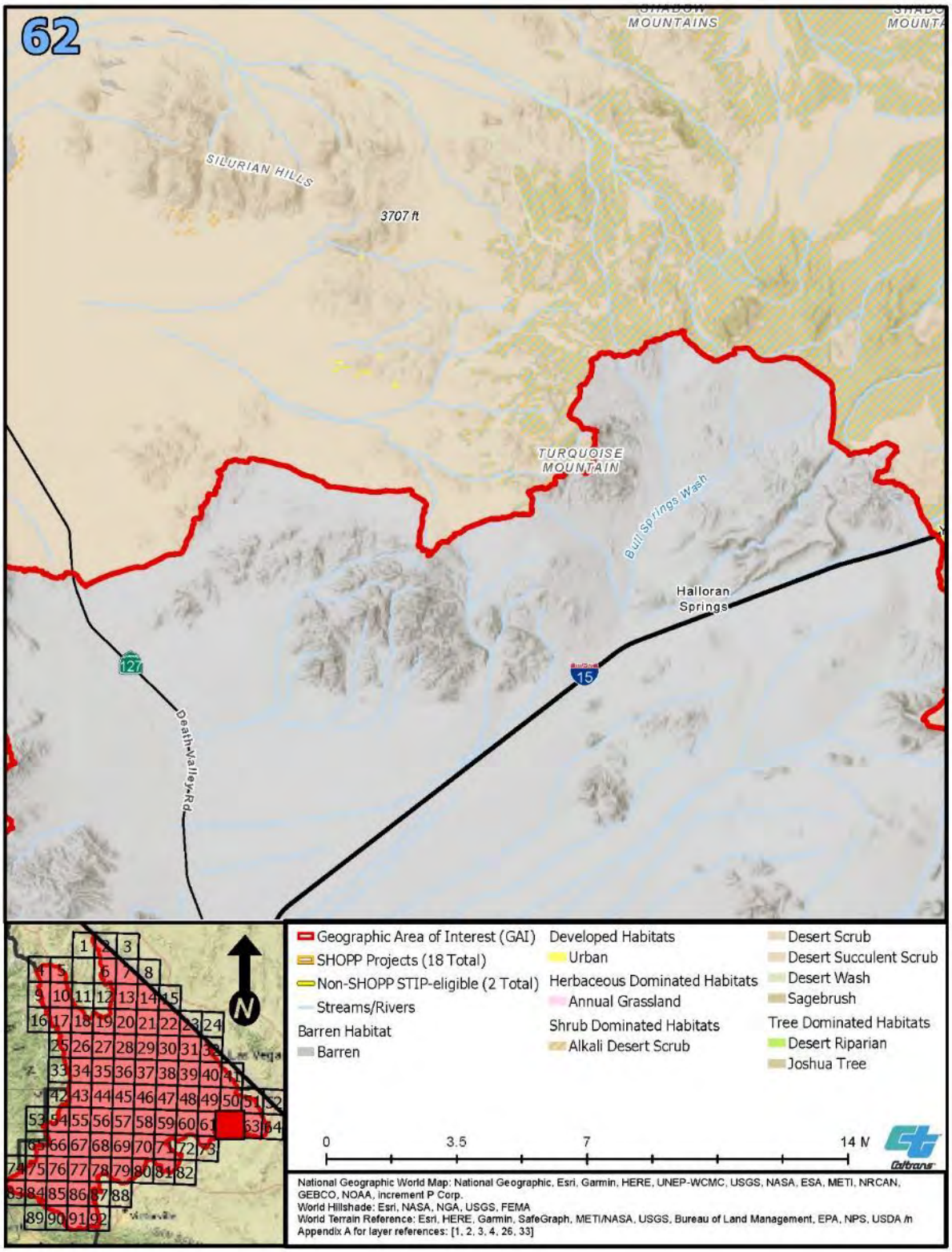

57
PILOT KNOB
ROBBERS MOUNTAIN
BLACK HILLS
PILOT KNOB
PYRAMID POINT
GRANITE MOUNTAIN
ALMOND COVE
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Water
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

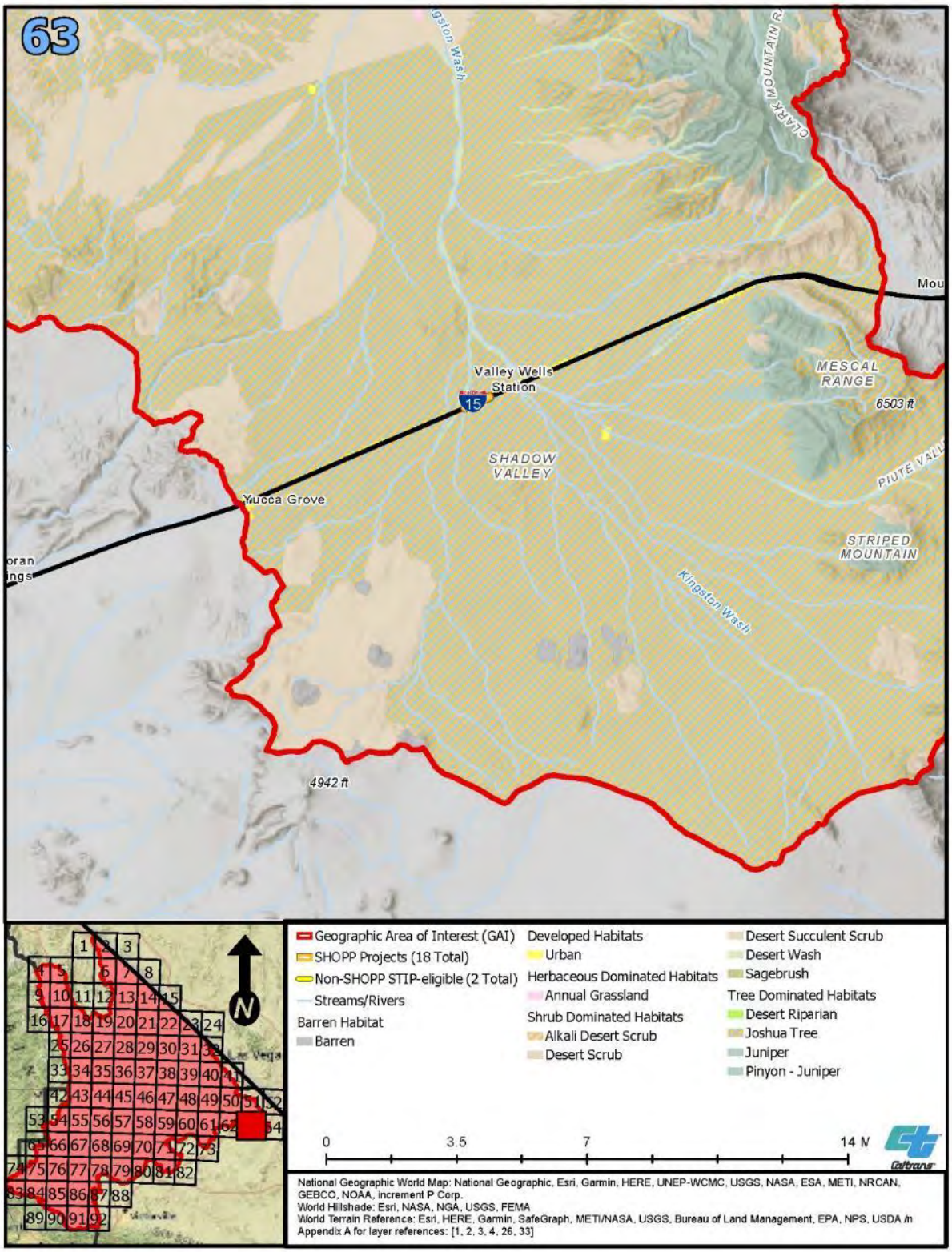

58
PILOT KNOB VALLEY
PILOT KNOB VALLEY
ROBBERS MOUNTAIN
5483 ft
EAGLE CRAGS
PYRAMID POINT
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Tree Dominated Habitats
Joshua Tree
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

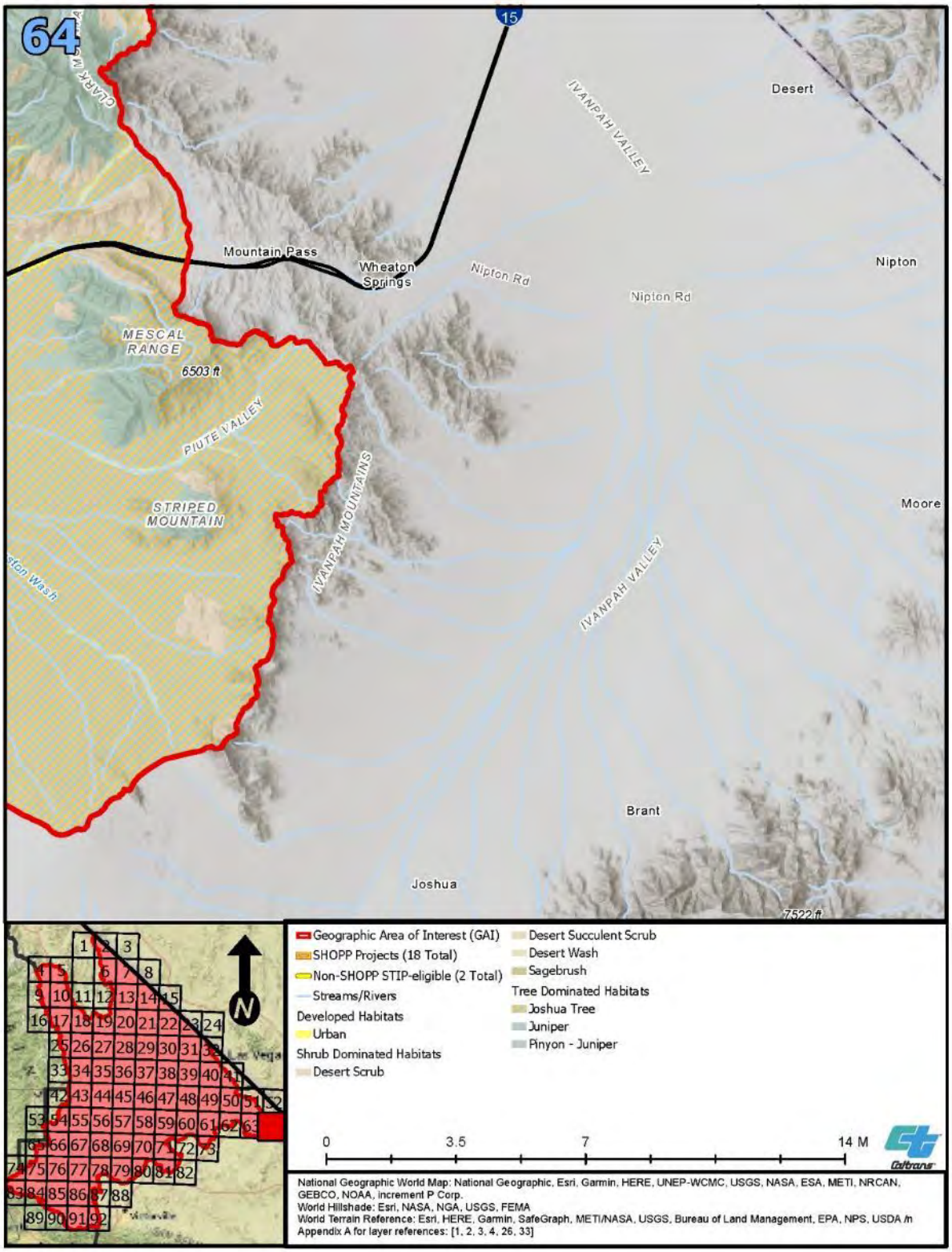

59
GRANITE MOUNTAINS
4880 ft
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Tree Dominated Habitats
Joshua Tree
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

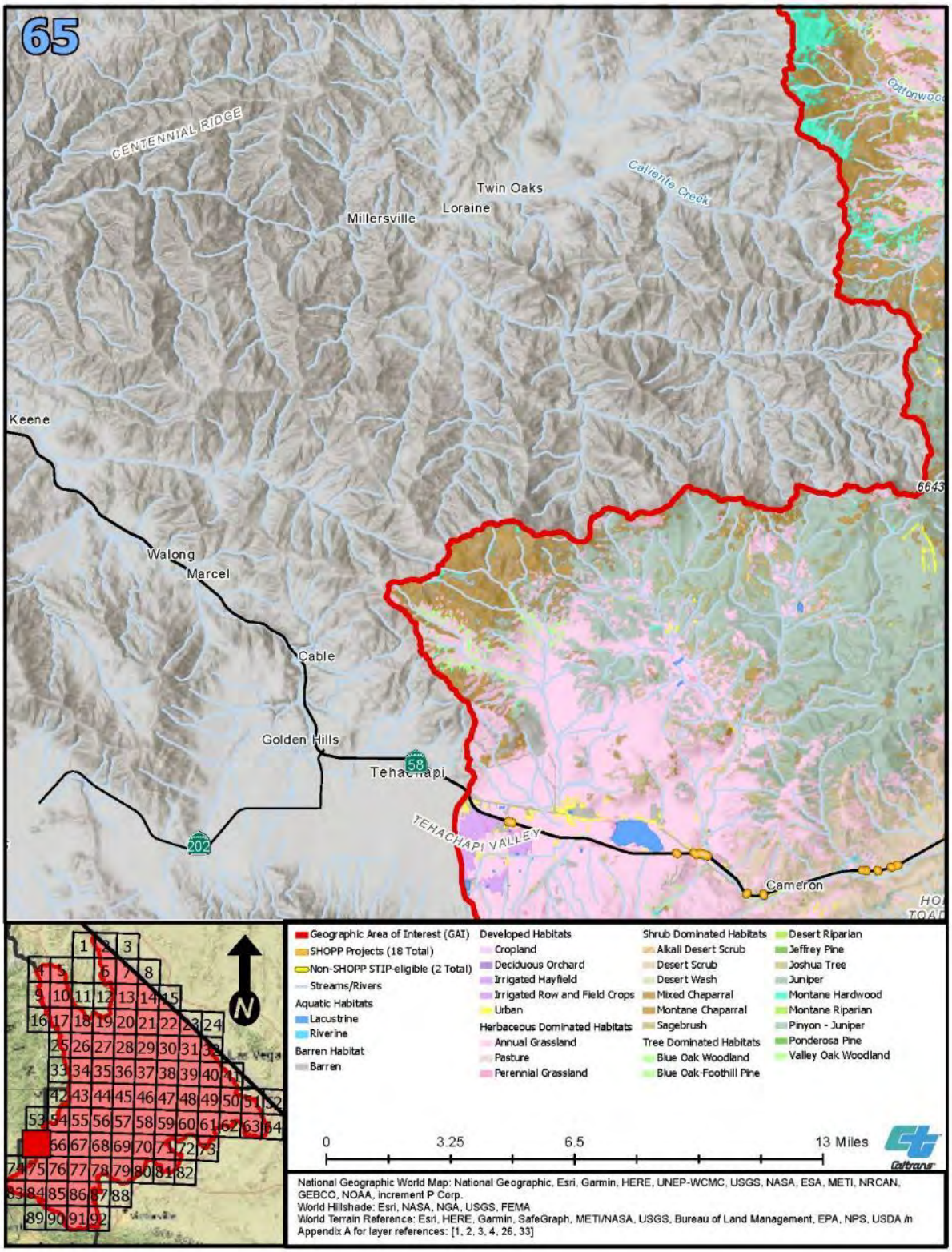

60
AVAWATZ MOUNTAINS
4805 ft
GRAVE SUMMIT
5293 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Tree Dominated Habitats
Joshua Tree
0
3.25
6.5
13 Miles
N
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

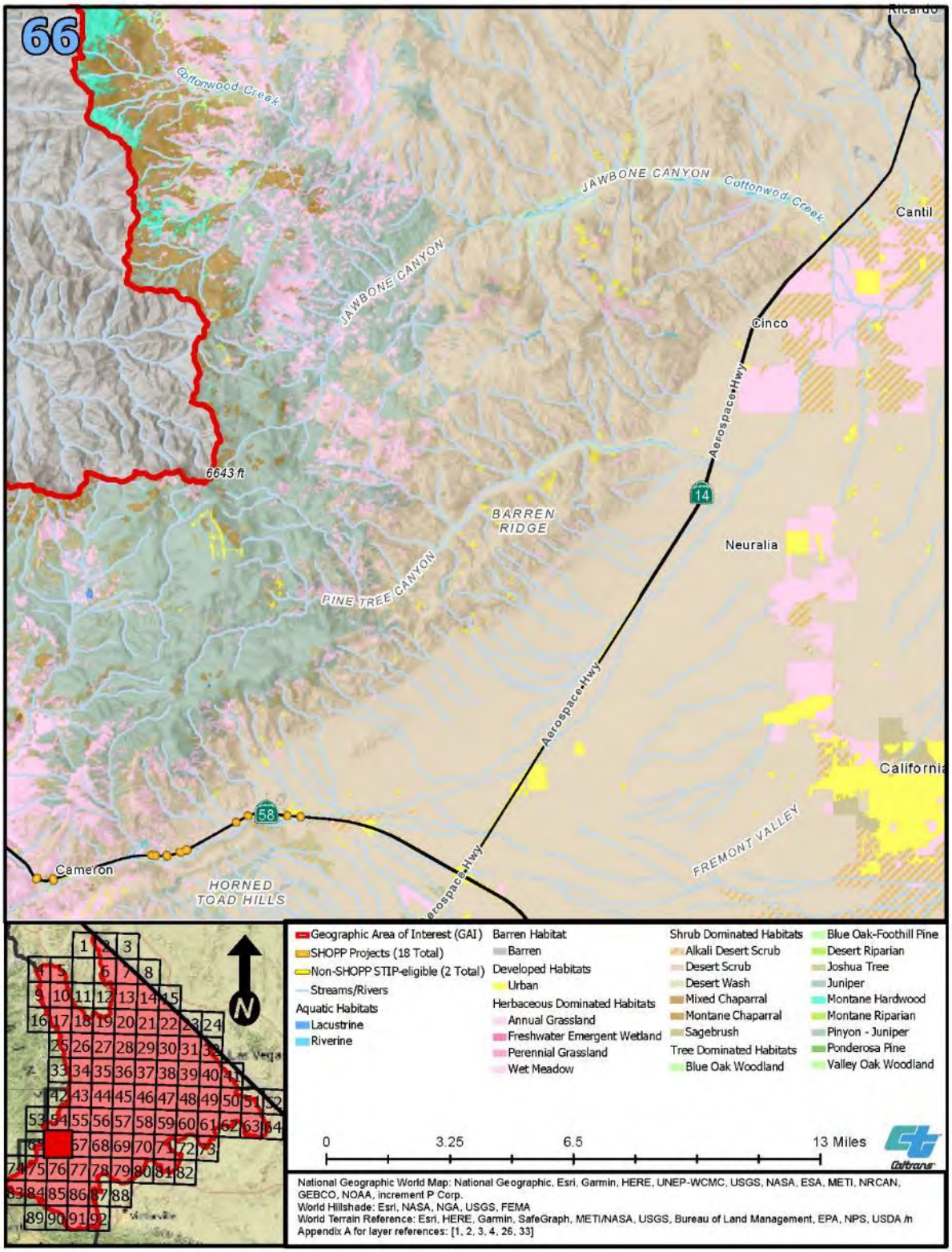

61
6153 ft
AVAWATZ MOUNTAINS
AVAWATZ MOUNTAINS
127
Salt Creek
DeathValley Rd
3487 ft
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Tree Dominated Habitats
Joshua Tree
0
3.5
7
14 Mi
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

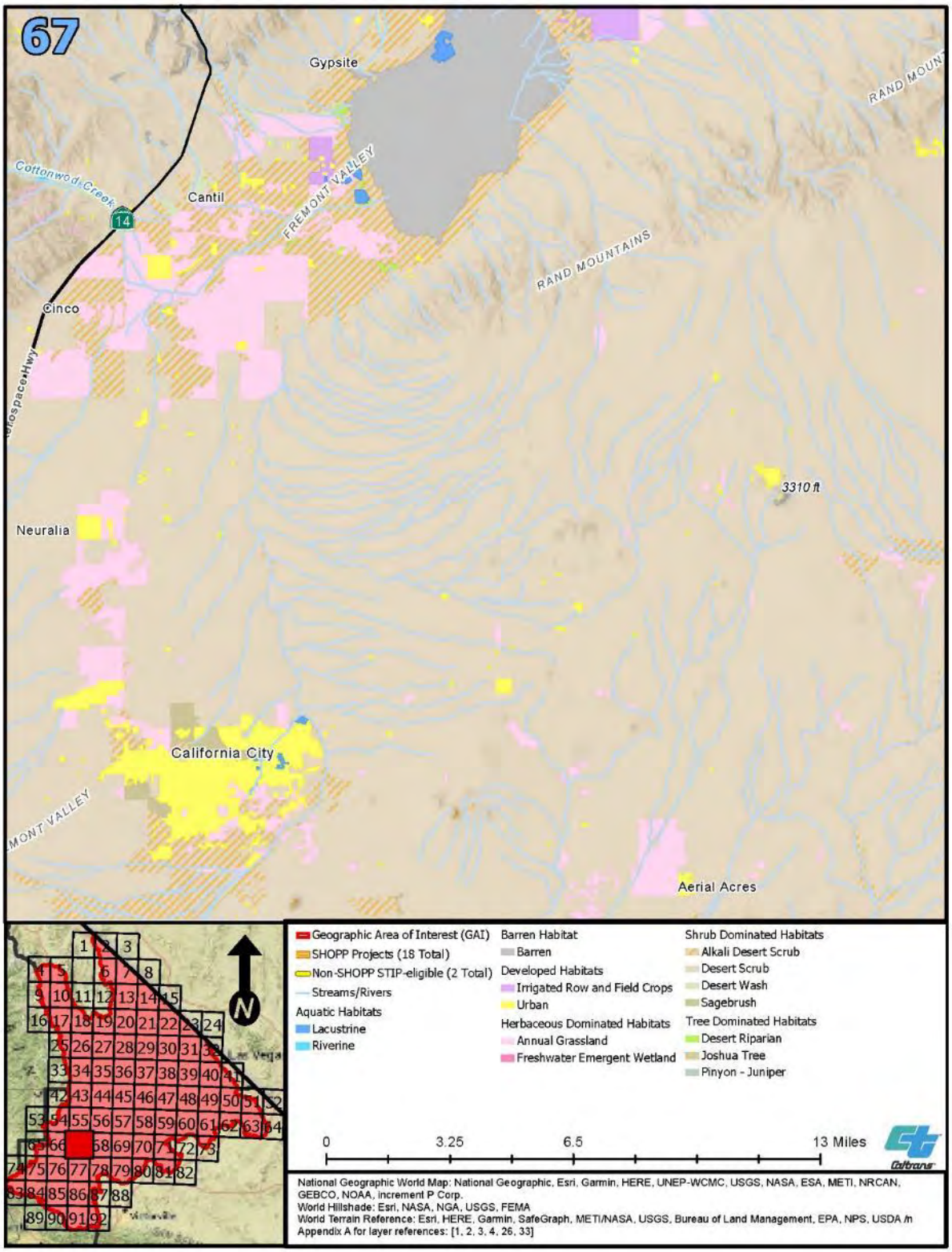

62
SHADOW MOUNTAINS
SILURIAN HILLS
3707 ft
TURQUOISE MOUNTAIN
Bull Springs Wash
Halloran Springs
127
15
Death Valley Rd
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
0
3.5
7
14 Mi
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

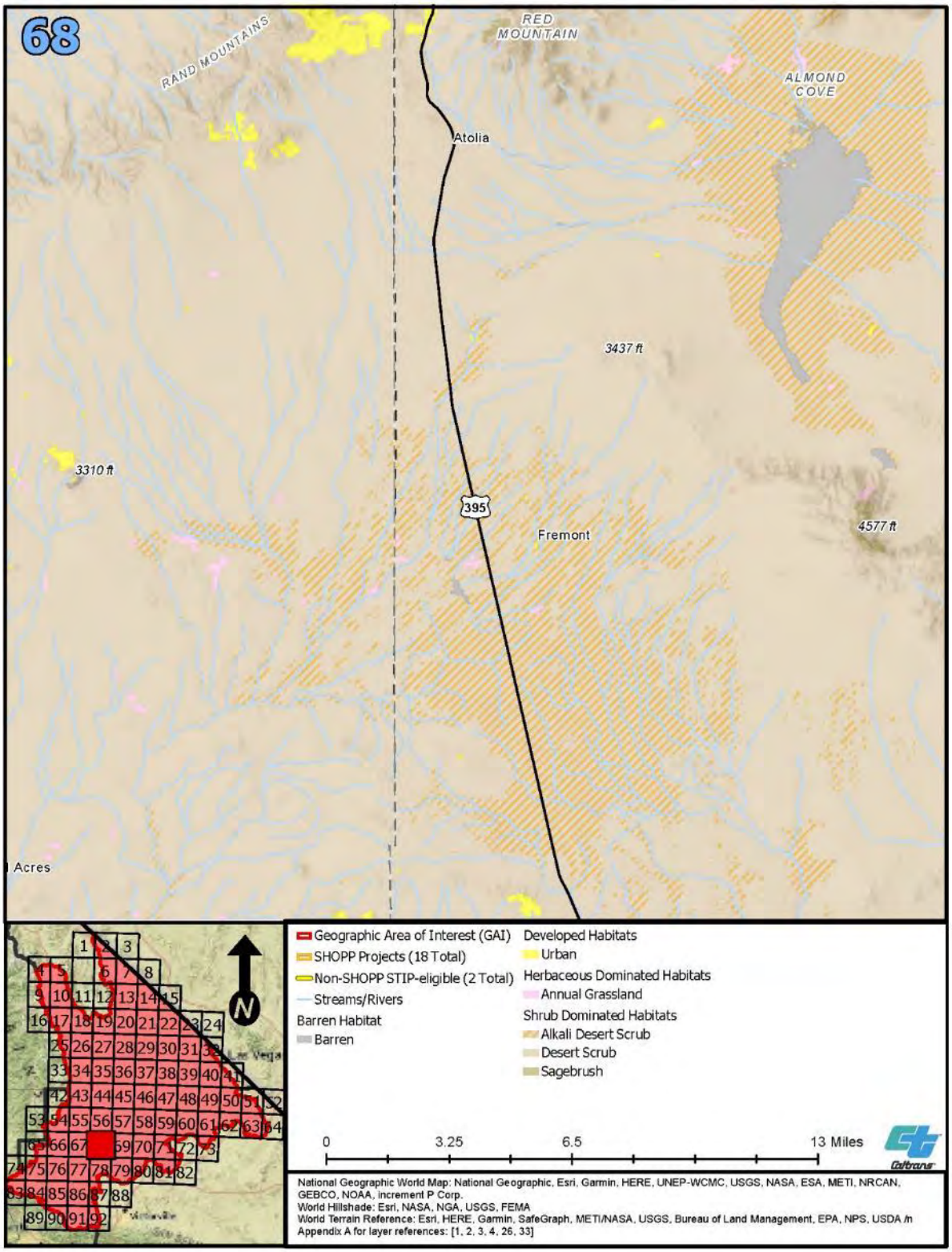

63
Kingston Wash
CLARK MOUNTAIN R
Mou
Valley Wells
Station
15
MESCAL
RANGE
6503 ft
SHADOW
VALLEY
PIUTE VALL
Yucca Grove
STRIPED
MOUNTAIN
Kingston Wash
4942 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
Juniper
Pinyon - Juniper
0
3.5
7
14 M
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

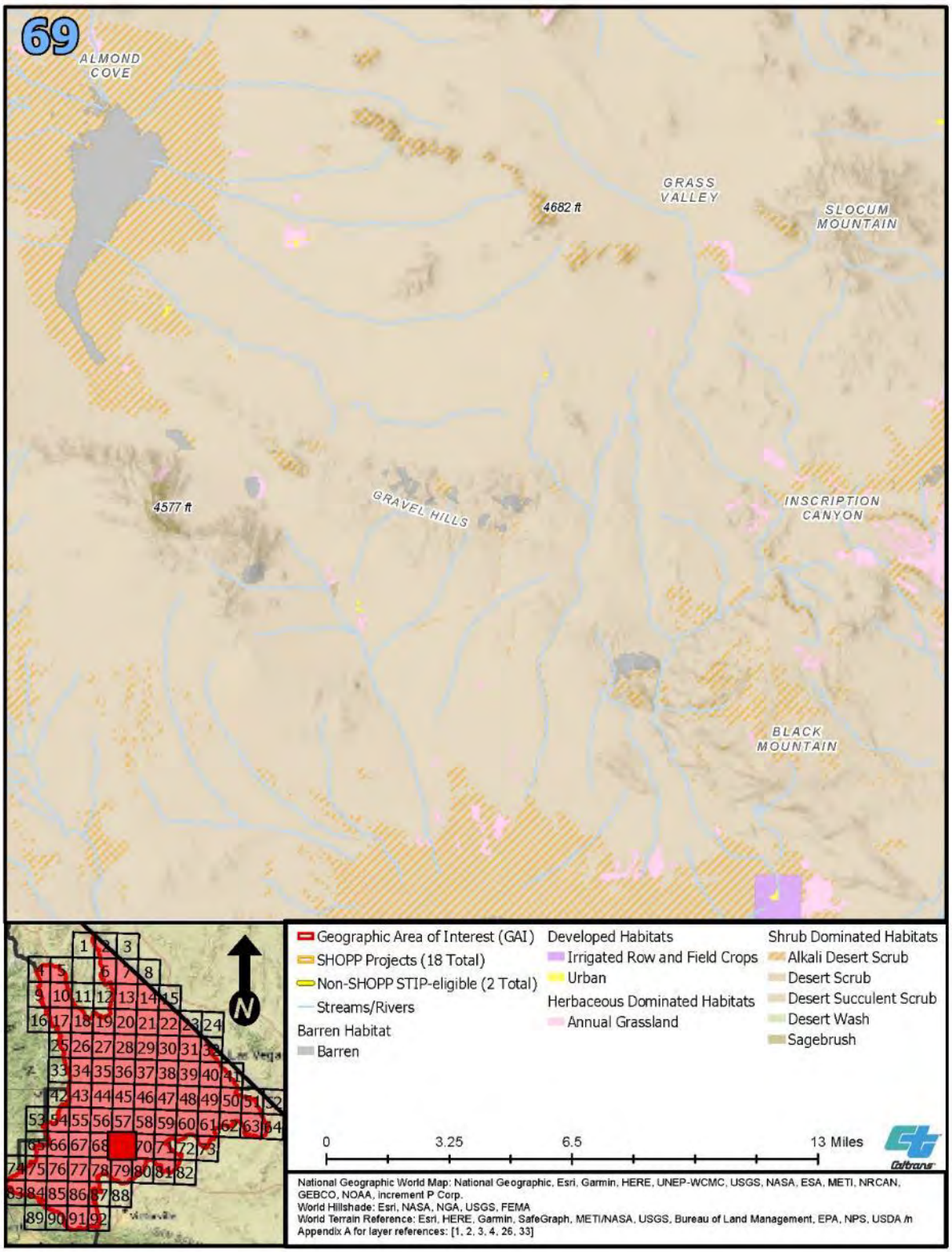

64
15
Desert
IVANPAH VALLEY
Mountain Pass
Wheaton Springs
Nipton Rd
Nipton
MESCAL RANGE
6503 ft
PIUTE VALLEY
STRIPED MOUNTAIN
IVANPAH MOUNTAINS
Moore
Brant
Joshua
7522 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Developed Habitats
Urban
Shrub Dominated Habitats
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
Juniper
Pinyon - Juniper
0
3.5
7
14 M
N
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

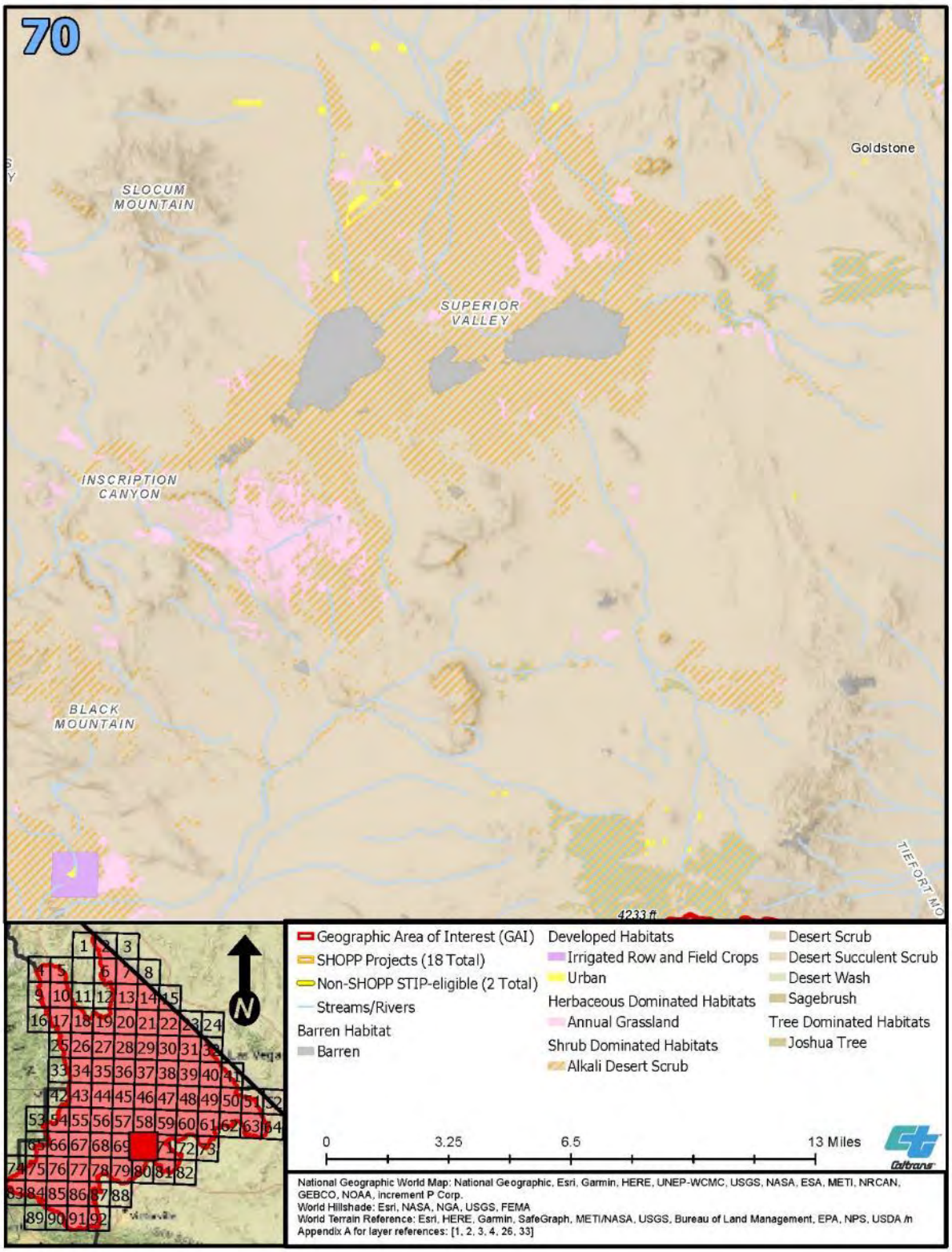

65
CENTENNIAL RIDGE
Twin Oaks
Loraine
Millersville
Caliente Creek
Keene
Walong
Marcel
Cable
Golden Hills
Tehachapi
58
202
TEHACHAPI VALLEY
Cameron
6643
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Cropland
Deciduous Orchard
Irrigated Hayfield
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Pasture
Perennial Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak Woodland
Blue Oak-Foothill Pine
Desert Riparian
Jeffrey Pine
Joshua Tree
Juniper
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Ponderosa Pine
Valley Oak Woodland
N
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


66
Cottonwood Creek
JAWBONE CANYON
Cottonwood Creek
Cantil
JAWBONE CANYON
Cinco
Aerospace Hwy
6643 ft
14
BARREN RIDGE
Neuralia
PINE TREE CANYON
Aerospace Hwy
California
58
Cameron
HORNED TOAD HILLS
Aerospace Hwy
FREMONT VALLEY
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak Woodland
Blue Oak-Foothill Pine
Desert Riparian
Joshua Tree
Juniper
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Ponderosa Pine
Valley Oak Woodland
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


67
Gypsite
Cantil
Cottonwood Creek
14
FREMONT VALLEY
RAND MOUNTAINS
Cinco
Neuralia
3310 ft
California City
Aerial Acres
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
Pinyon - Juniper
0
3.25
6.5
13 Miles
N
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


68
RAND MOUNTAINS
RED MOUNTAIN
ALMOND COVE
Atolia
3437 ft
3310 ft
395
Fremont
4577 ft
Acres
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Sagebrush
0
3.25
6.5
13 Miles
N
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


69
ALMOND COVE
GRASS VALLEY
4682 ft
SLOCUM MOUNTAIN
4577 ft
GRAVEL HILLS
INSCRIPTION CANYON
BLACK MOUNTAIN
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


70
Goldstone
SLOCUM MOUNTAIN
SUPERIOR VALLEY
INSCRIPTION CANYON
BLACK MOUNTAIN
TIEFORT MO
4233 ft
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Joshua Tree
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
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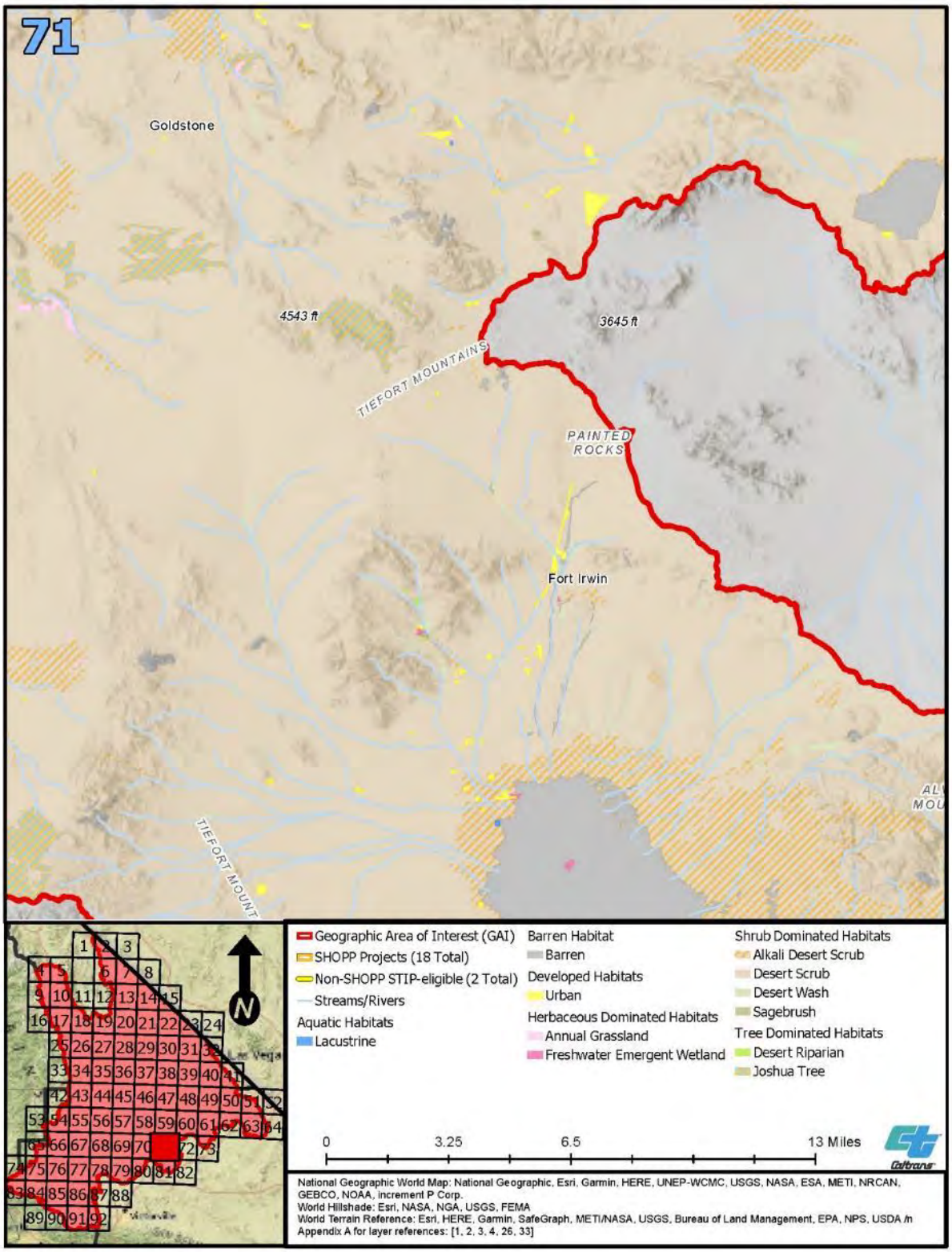
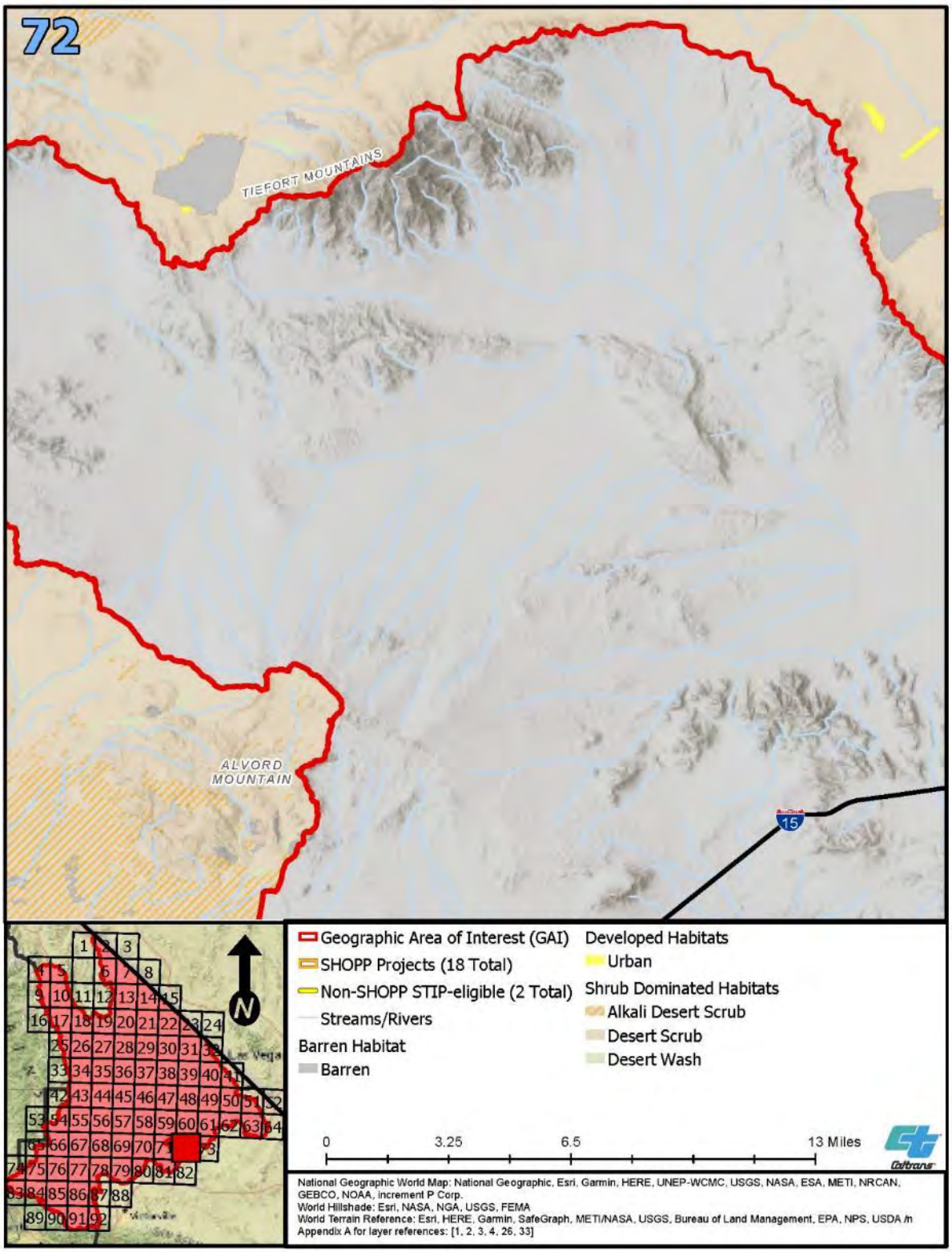
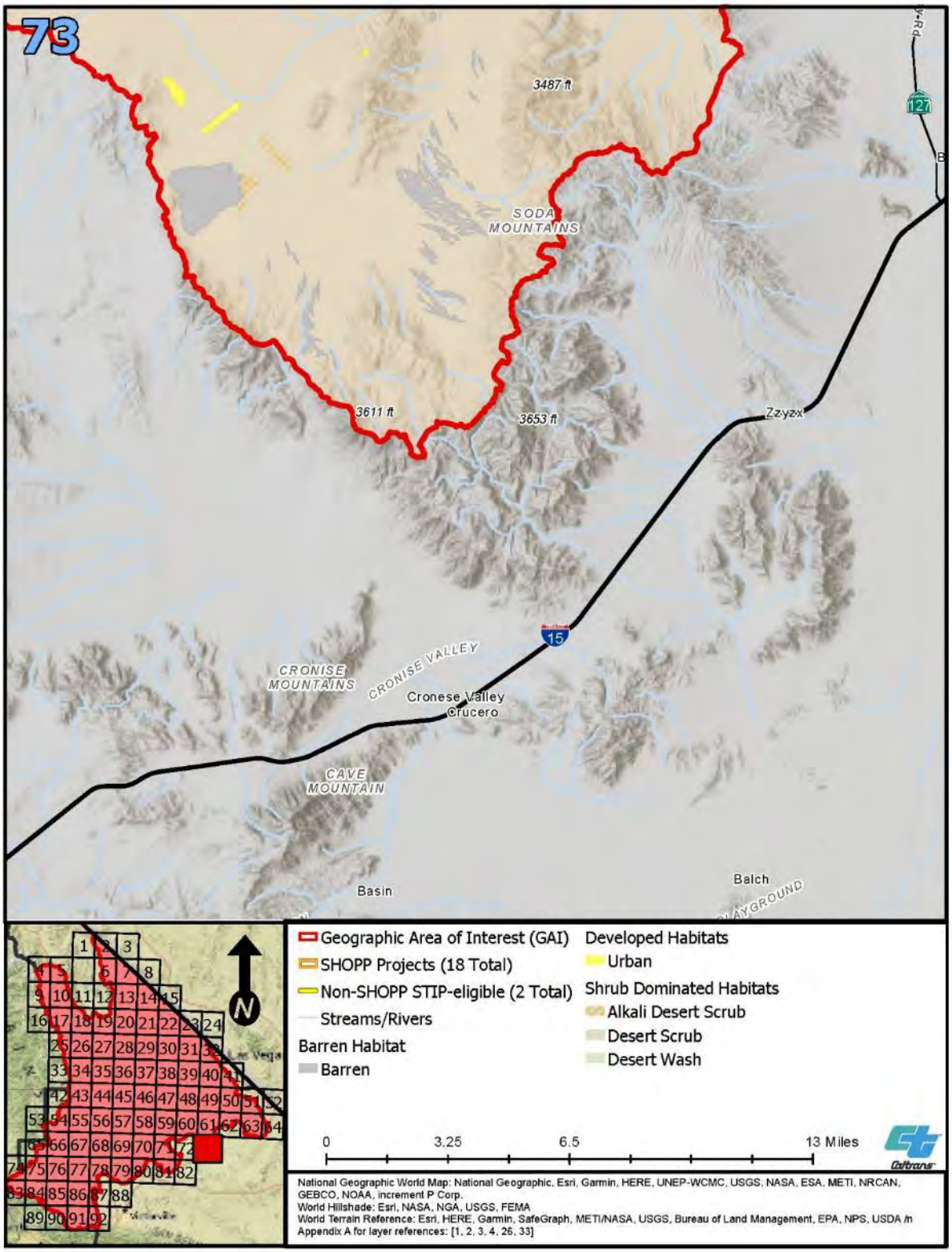
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


71
Goldstone
4543 ft
3645 ft
TIEFORT MOUNTAINS
PAINTED ROCKS
Fort Irwin
TIEFORT MOUNT
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


72
TIEFORT MOUNTAINS
ALVORD MOUNTAIN
15
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


73
3487 ft
SODA MOUNTAINS
3611 ft
3653 ft
127
15
CRONISE MOUNTAINS
CRONISE VALLEY
Cronese Valley
Crucero
CAVE MOUNTAIN
Basin
Balch
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
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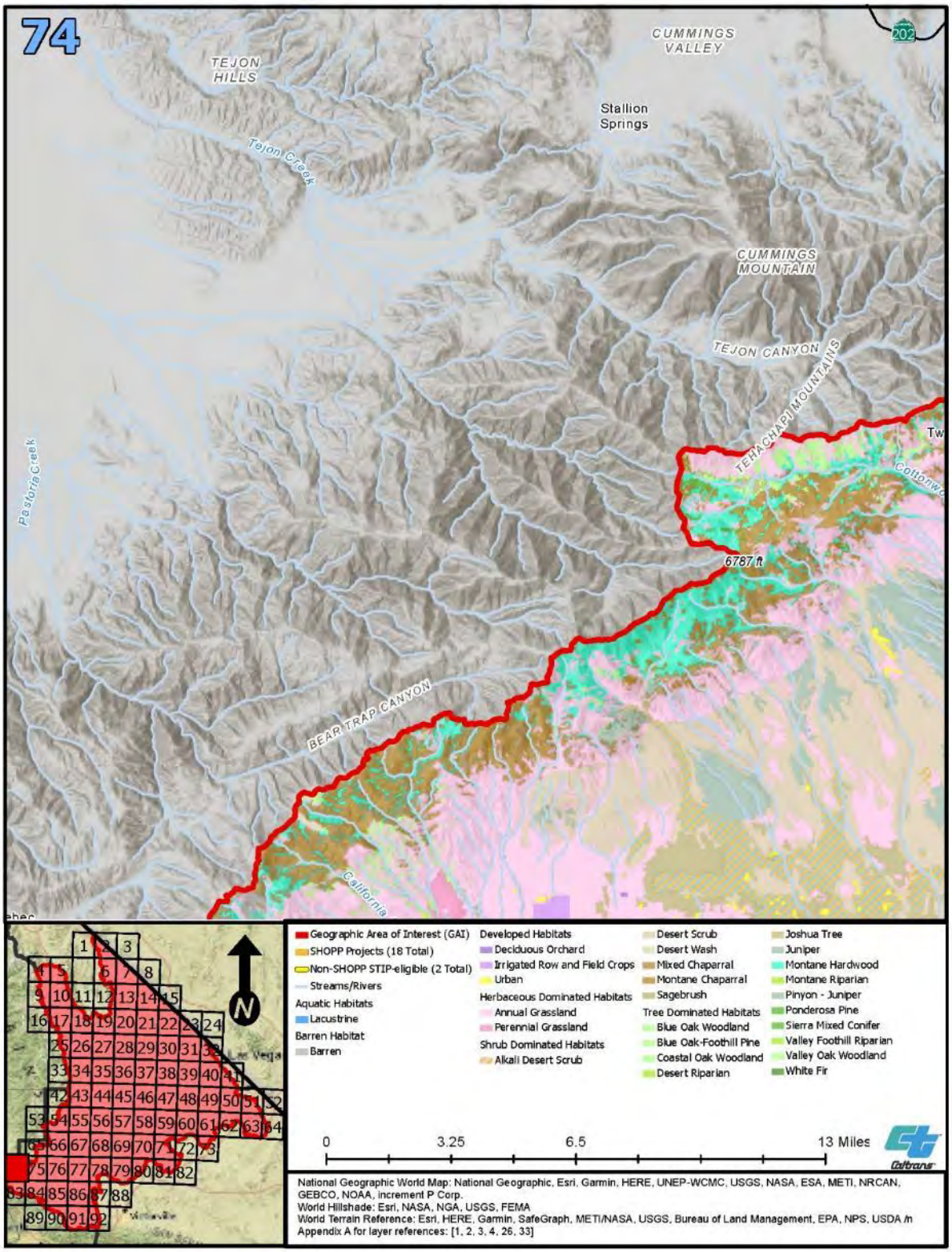
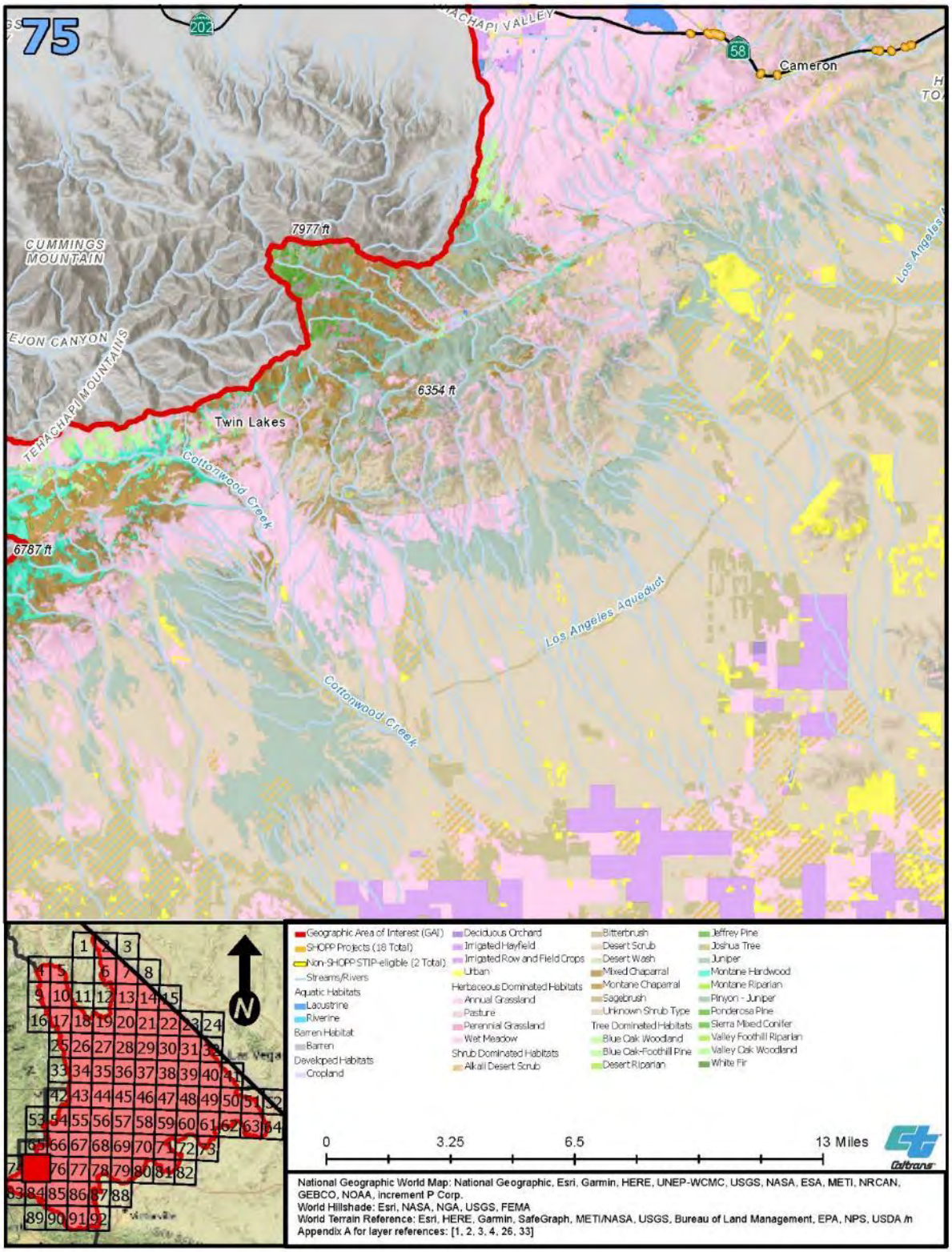
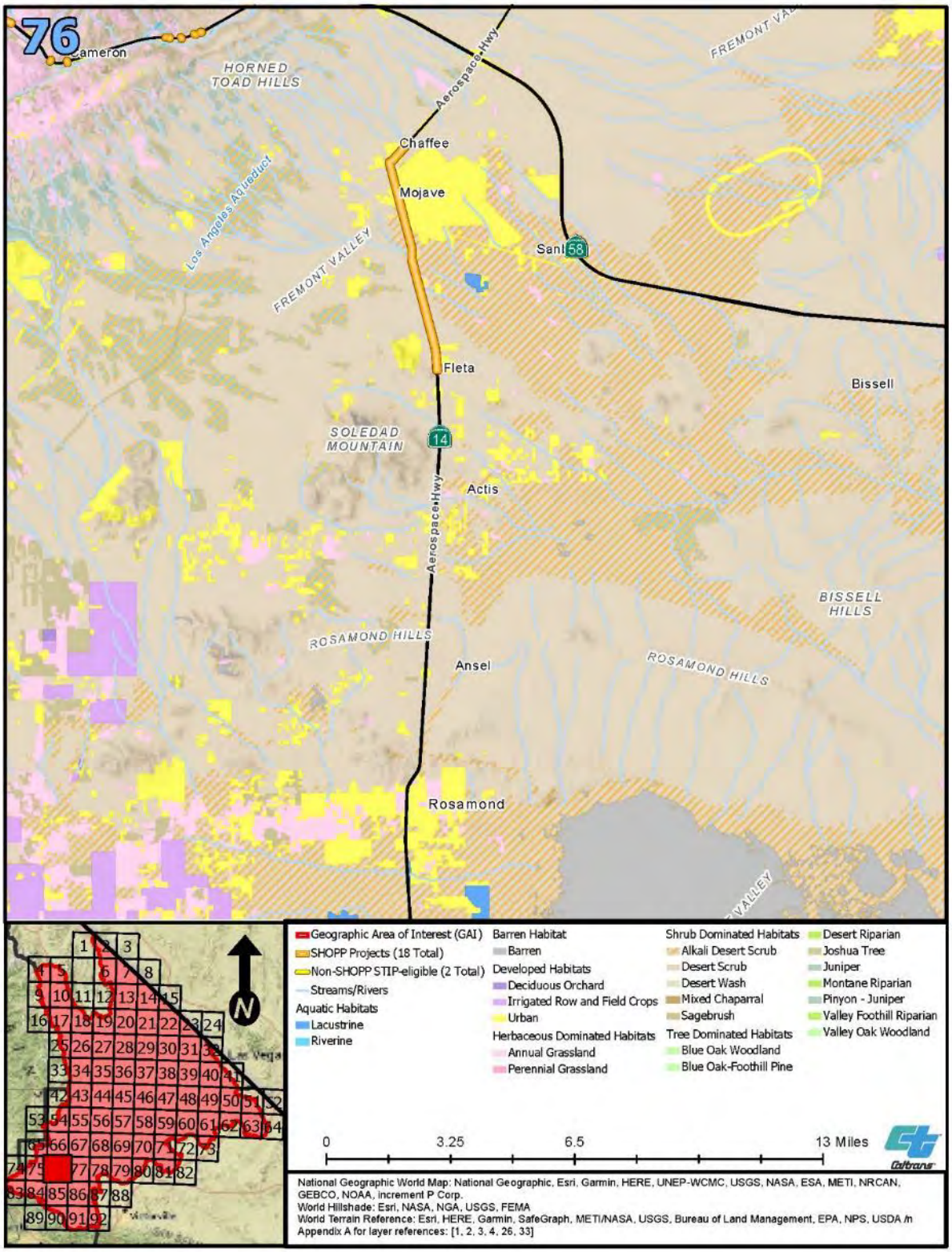
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


74
TEJON HILLS
CUMMINGS VALLEY
Stallion Springs
Tejon Creek
CUMMINGS MOUNTAIN
TEJON CANYON
TEHACHAPI MOUNTAINS
Pastoria Creek
6787 ft
BEAR TRAP CANYON
California
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Perennial Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak Woodland
Blue Oak-Foothill Pine
Coastal Oak Woodland
Desert Riparian
Joshua Tree
Juniper
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Ponderosa Pine
Sierra Mixed Conifer
Valley Foothill Riparian
Valley Oak Woodland
White Fir
N
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


75
202
58
Cameron
CUMMINGS MOUNTAIN
7977 ft
6354 ft
Twin Lakes
TEHACHAPI MOUNTAINS
Cottonwood Creek
6787 ft
Los Angeles Aqueduct
Cottonwood Creek
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Cropland
Deciduous Orchard
Irrigated Hayfield
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Pasture
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Bitterbrush
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Unknown Shrub Type
Tree Dominated Habitats
Blue Oak Woodland
Blue Oak-Foothill Pine
Desert Riparian
Jeffrey Pine
Joshua Tree
Juniper
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Ponderosa Pine
Sierra Mixed Conifer
Valley Foothill Riparian
Valley Oak Woodland
White Fir
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


76
Cameron
HORNED TOAD HILLS
Aerospace Hwy
FREMONT VAL
Chaffee
Mojave
Los Angeles Aqueduct
FREMONT VALLEY
Sant
58
Fleta
Bissell
SOLEDAD MOUNTAIN
14
Actis
Aerospace Hwy
BISSELL HILLS
ROSAMOND HILLS
Ansel
ROSAMOND HILLS
Rosamond
VALLEY
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Riverine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Perennial Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Mixed Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak Woodland
Blue Oak-Foothill Pine
Desert Riparian
Joshua Tree
Juniper
Montane Riparian
Pinyon - Juniper
Valley Foothill Riparian
Valley Oak Woodland
N
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
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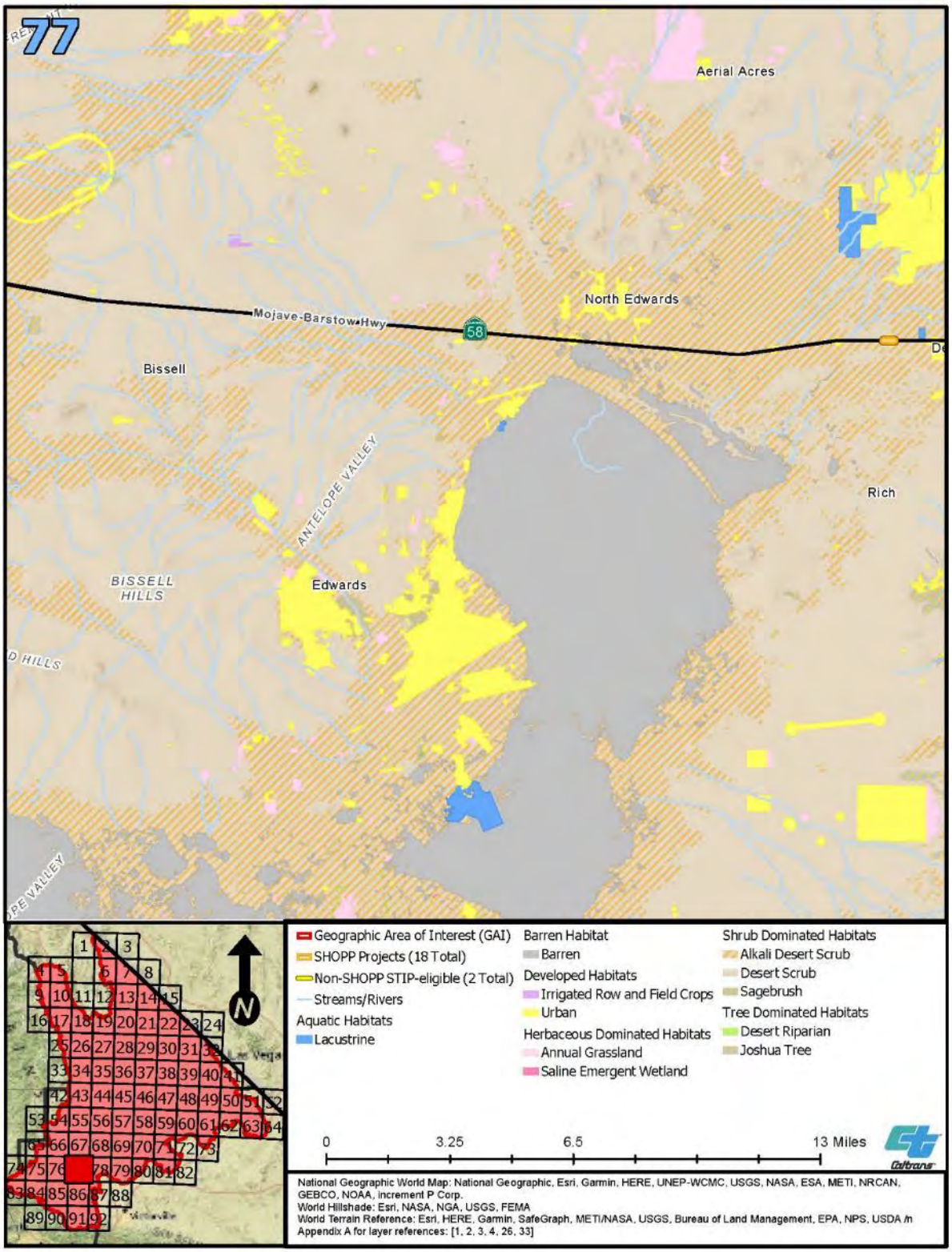
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


77
Aerial Acres
Mojave-Barstow-Hwy
58
North Edwards
Bissell
ANTELOPE VALLEY
Rich
BISSELL HILLS
Edwards
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Saline Emergent Wetland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
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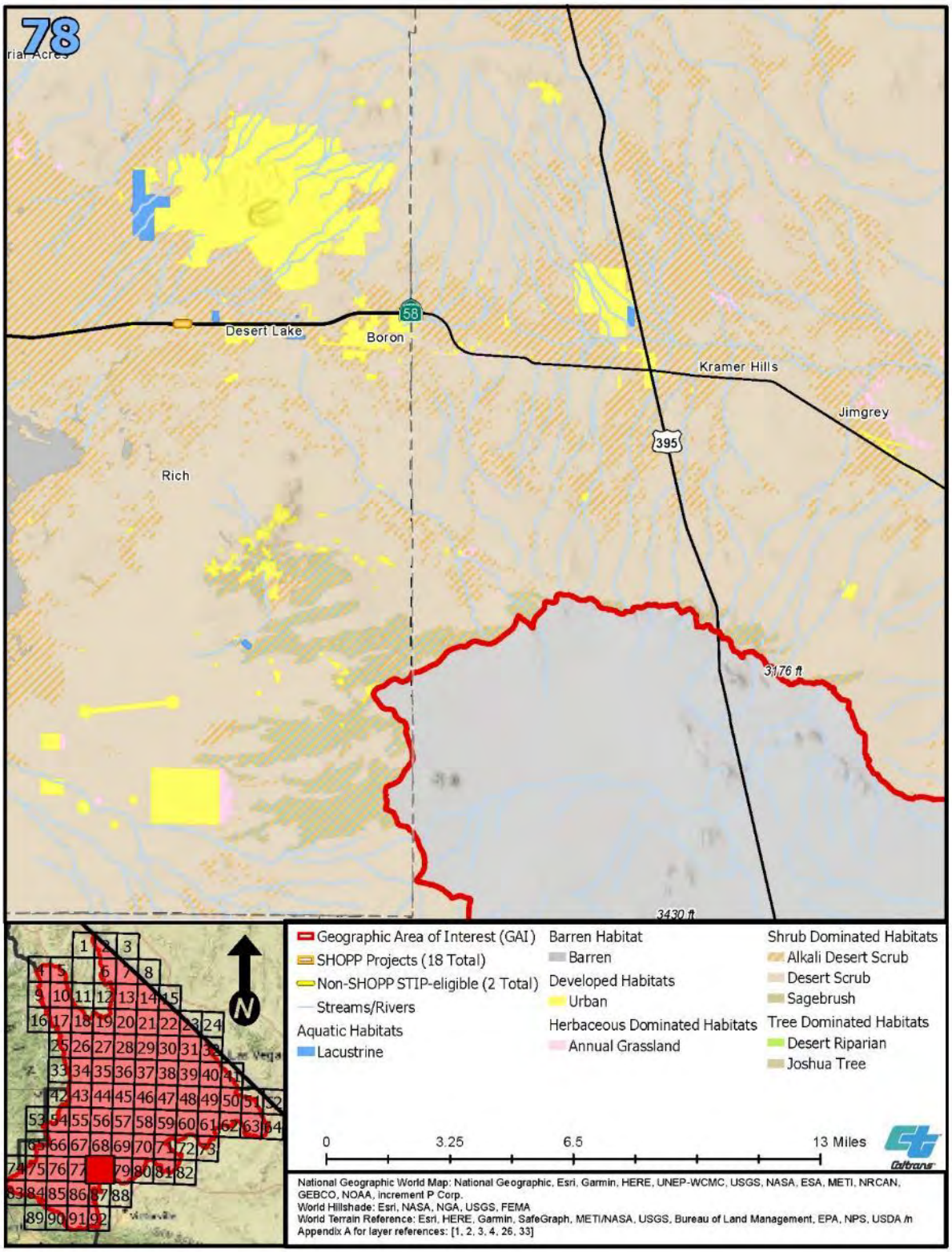
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


78
Desert Lake
Boron
58
Kramer Hills
Jimgrey
395
Rich
3176 ft
3430 ft
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
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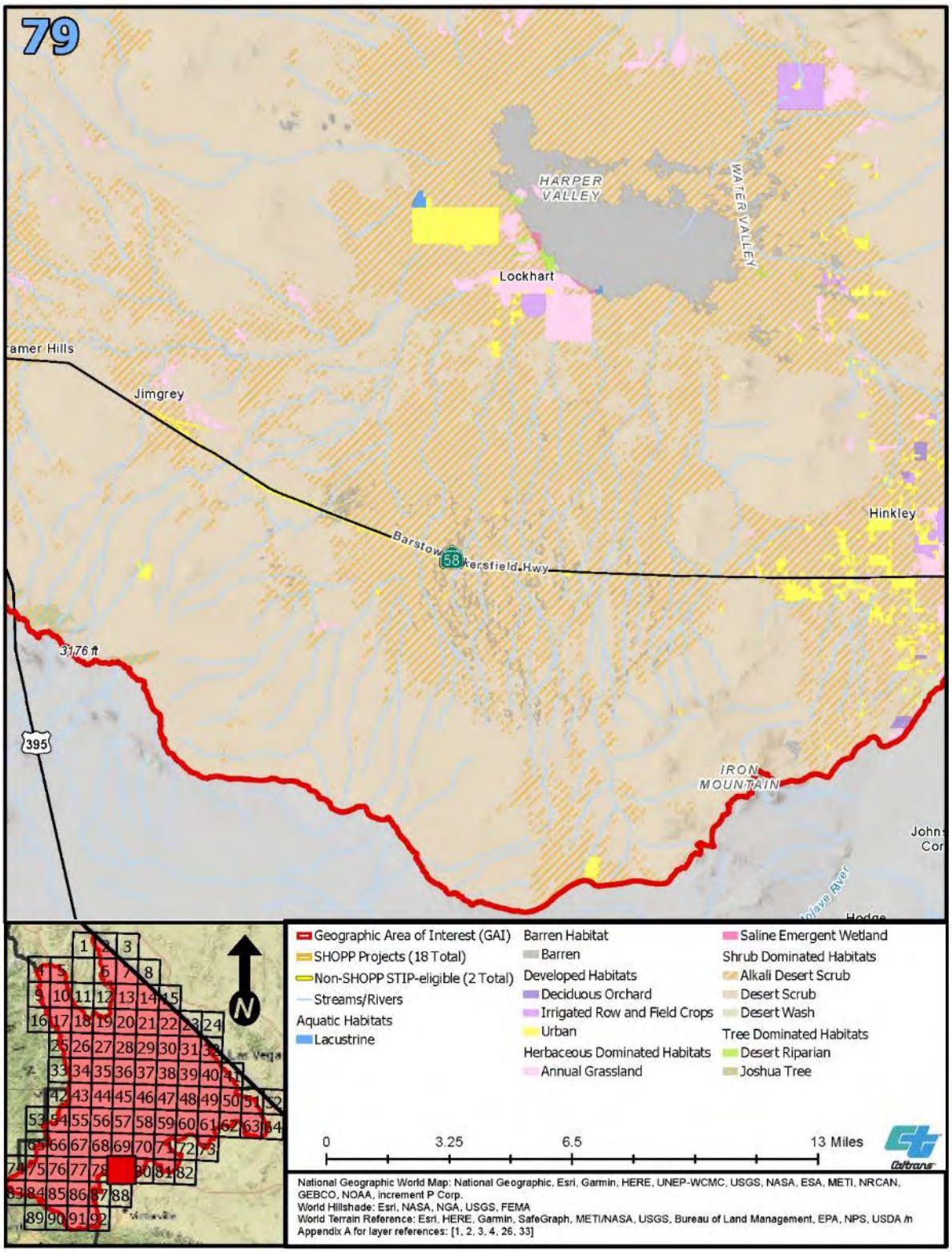
79
HARPER VALLEY
WATER VALLEY
Lockhart
Jimgrey
Hinkley
Barstow
58
Kersfield Hwy
3,176 ft
395
IRON MOUNTAIN
Hodge
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Saline Emergent Wetland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Tree Dominated Habitats
Desert Riparian
Joshua Tree
0
3.25
6.5
13 Miles
N
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
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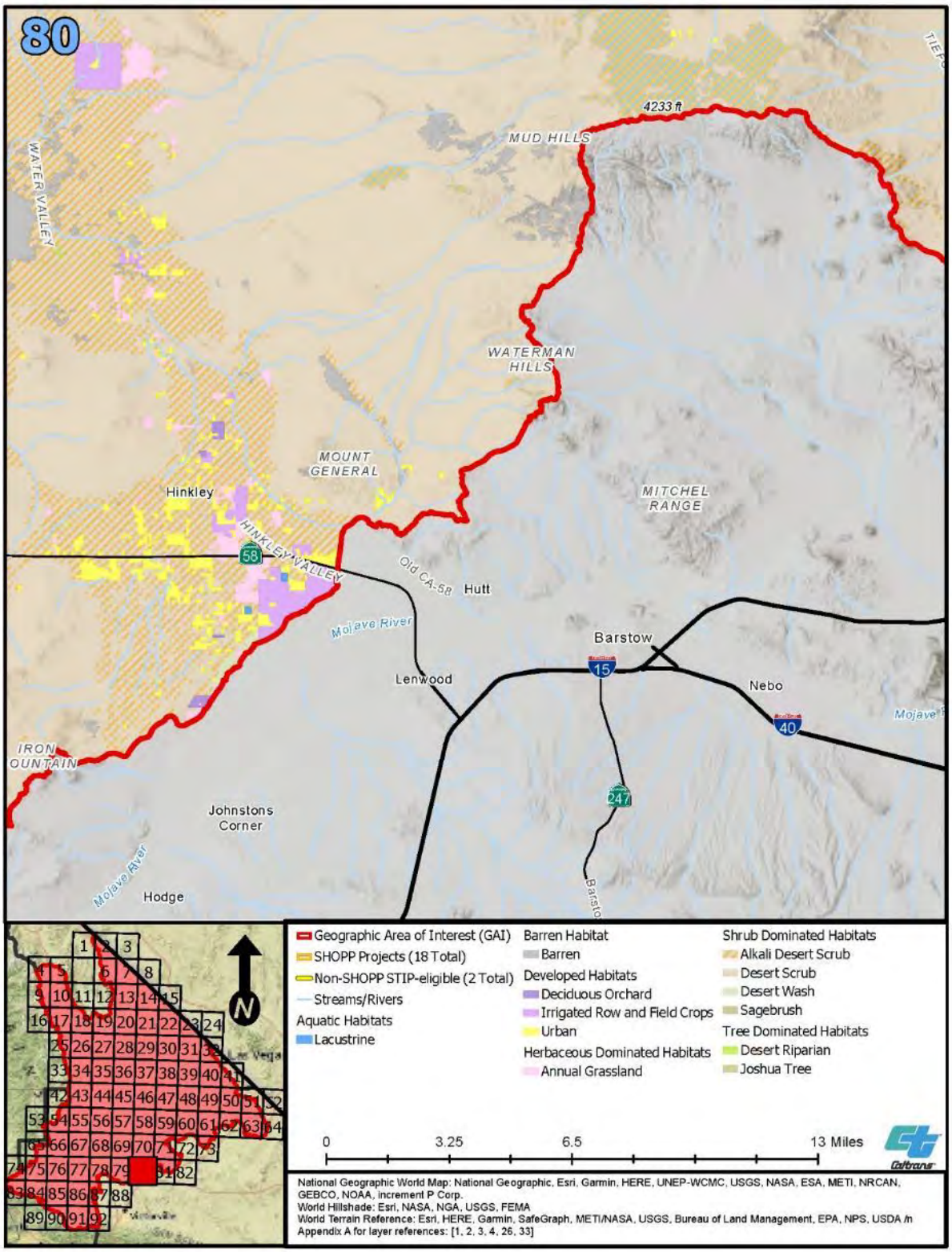
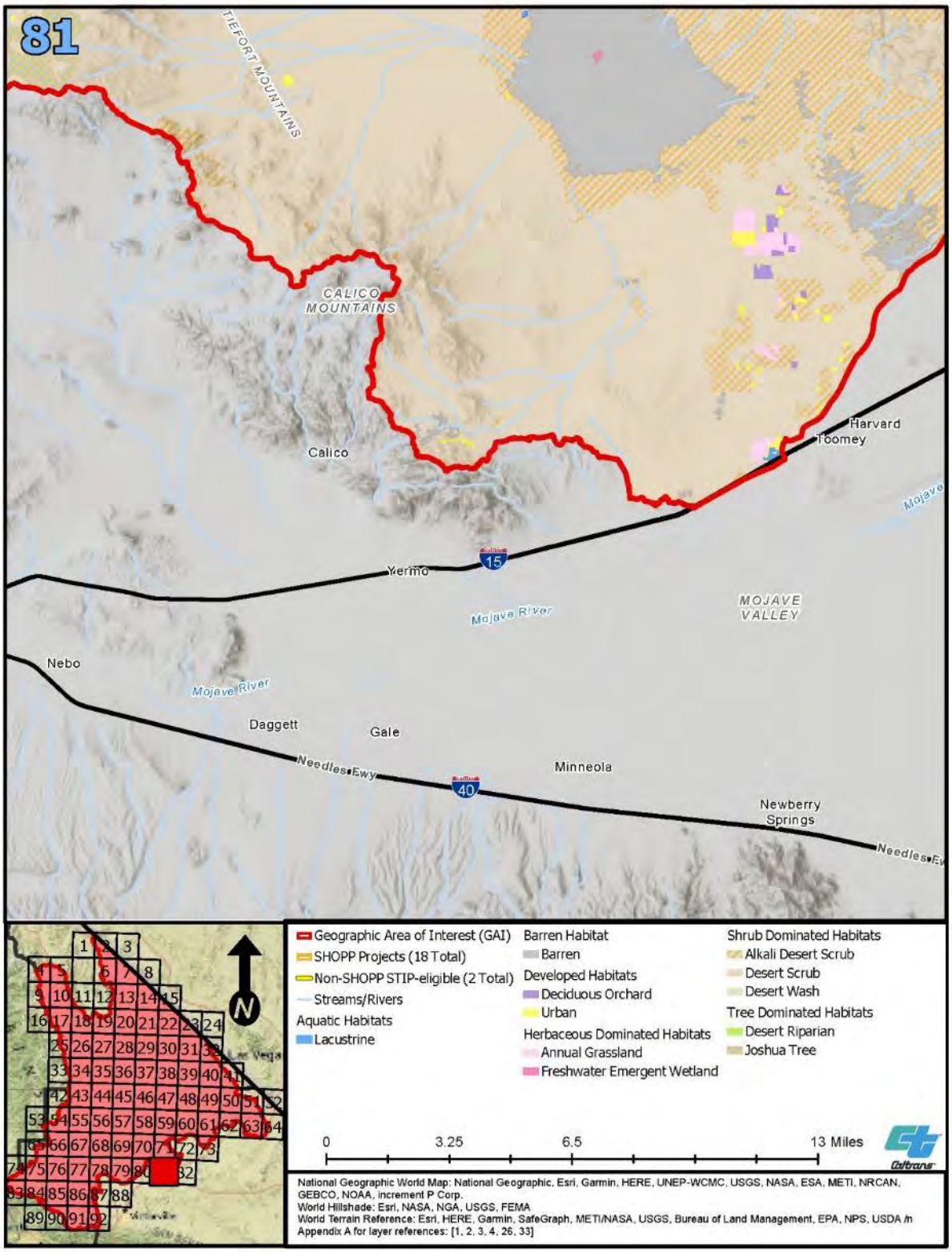
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


80
4233 ft
MUD HILLS
WATER VALLEY
WATERMAN HILLS
MOUNT GENERAL
MITCHEL RANGE
Hinkley
HINKLEY VALLEY
58
Old CA-58
Hutt
Mojave River
Barstow
15
Lenwood
Nebo
40
Mojave
IRON MOUNTAIN
247
Johnstons Corner
Mojave River
Hodge
Barstow
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


81
TIEFORT MOUNTAINS
CALICO MOUNTAINS
Calico
Harvard
Toomey
Mojave
Yermo
15
Mojave River
MOJAVE VALLEY
Nebo
Mojave River
Daggett
Gale
Needles Hwy
Minneola
40
Newberry Springs
Needles Hwy
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Tree Dominated Habitats
Desert Riparian
Joshua Tree
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
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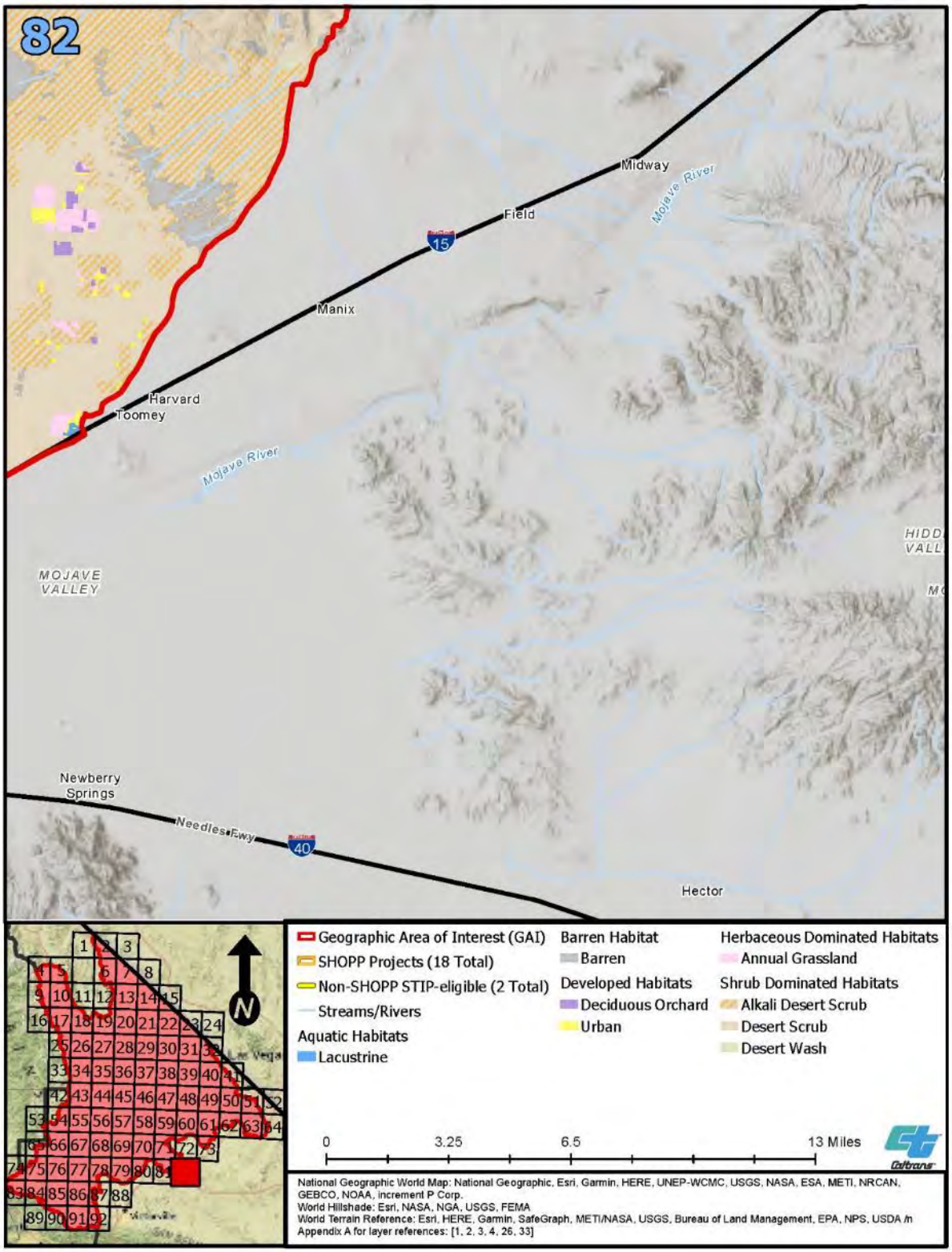
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


82
Midway
Field
Manix
Harvard
Toomey
Mojave River
MOJAVE VALLEY
Newberry Springs
Needles Fwy
Hector
15
40
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
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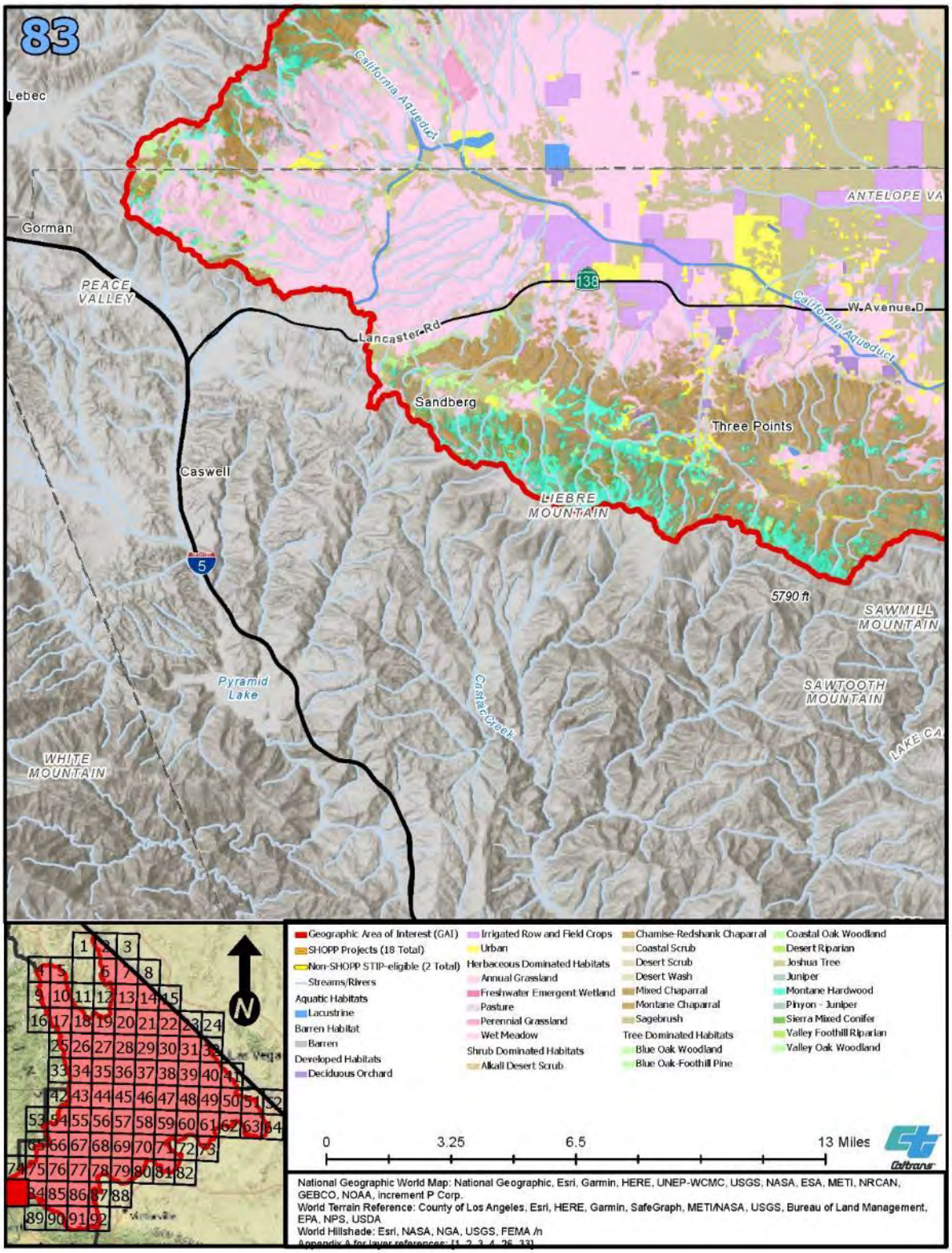
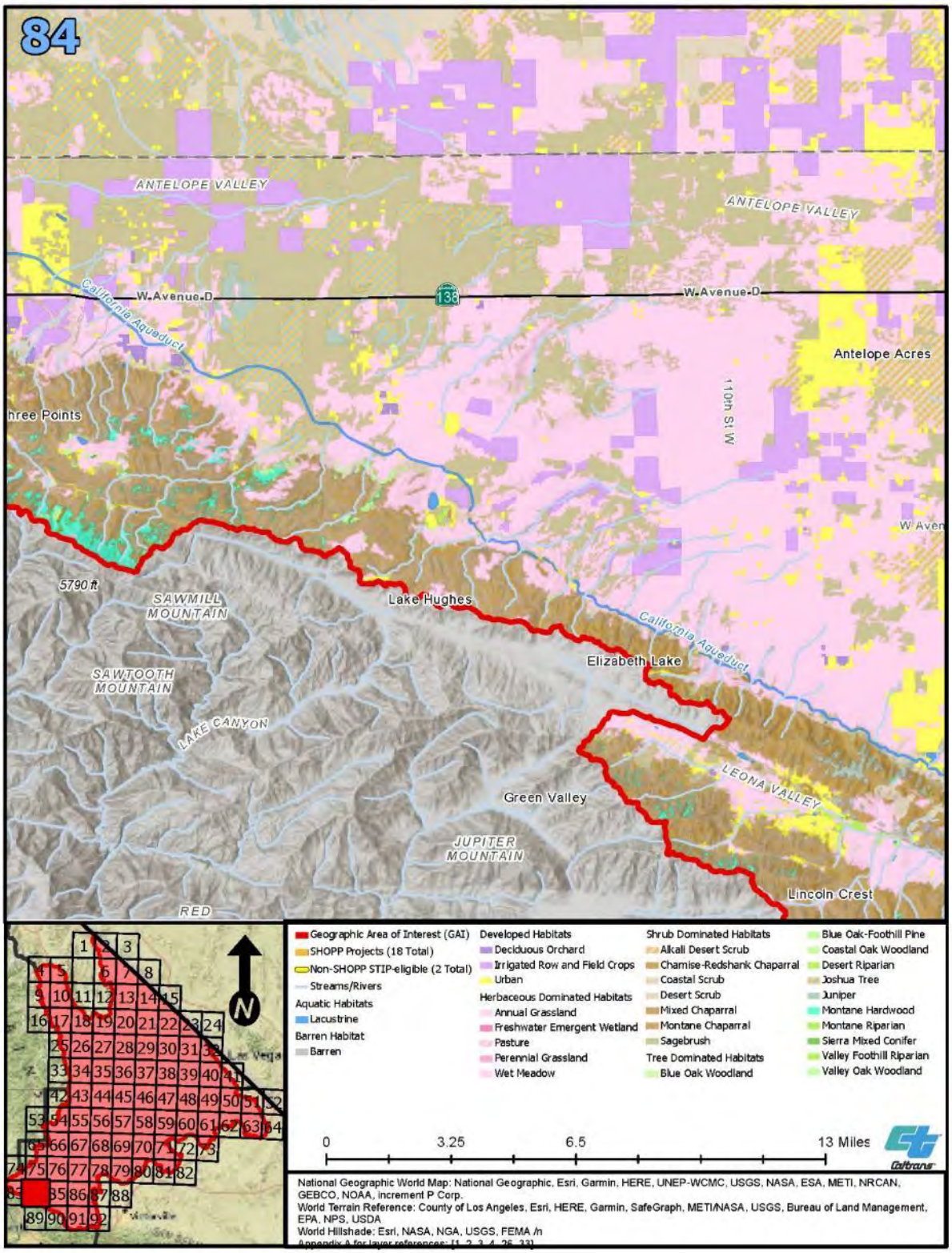
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


83
Lebec
California Aqueduct
ANTELOPE VA
Gorman
PEACE VALLEY
138
W Avenue D
Lancaster Rd
California Aqueduct
Sandberg
Three Points
Caswell
LIEBRE MOUNTAIN
5
5790 ft
SAWMILL MOUNTAIN
Pyramid Lake
Castac Creek
SAWTOOTH MOUNTAIN
WHITE MOUNTAIN
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Pasture
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Chamise-Redshank Chaparral
Coastal Scrub
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak Woodland
Blue Oak-Foothill Pine
Coastal Oak Woodland
Desert Riparian
Joshua Tree
Juniper
Montane Hardwood
Pinyon - Juniper
Sierra Mixed Conifer
Valley Foothill Riparian
Valley Oak Woodland
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS, FEMA /n


84
ANTELOPE VALLEY
ANTELOPE VALLEY
W Avenue D
W Avenue D
California Aqueduct
138
Antelope Acres
110th St W
hree Points
5790 ft
SAWMILL MOUNTAIN
Lake Hughes
California Aqueduct
Elizabeth Lake
SAWTOOTH MOUNTAIN
LAKE CANYON
LEONA VALLEY
Green Valley
JUPITER MOUNTAIN
Lincoln Crest
RED
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Pasture
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Chamise-Redshank Chaparral
Coastal Scrub
Desert Scrub
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Blue Oak Woodland
Blue Oak-Foothill Pine
Coastal Oak Woodland
Desert Riparian
Joshua Tree
Juniper
Montane Hardwood
Montane Riparian
Sierra Mixed Conifer
Valley Foothill Riparian
Valley Oak Woodland
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
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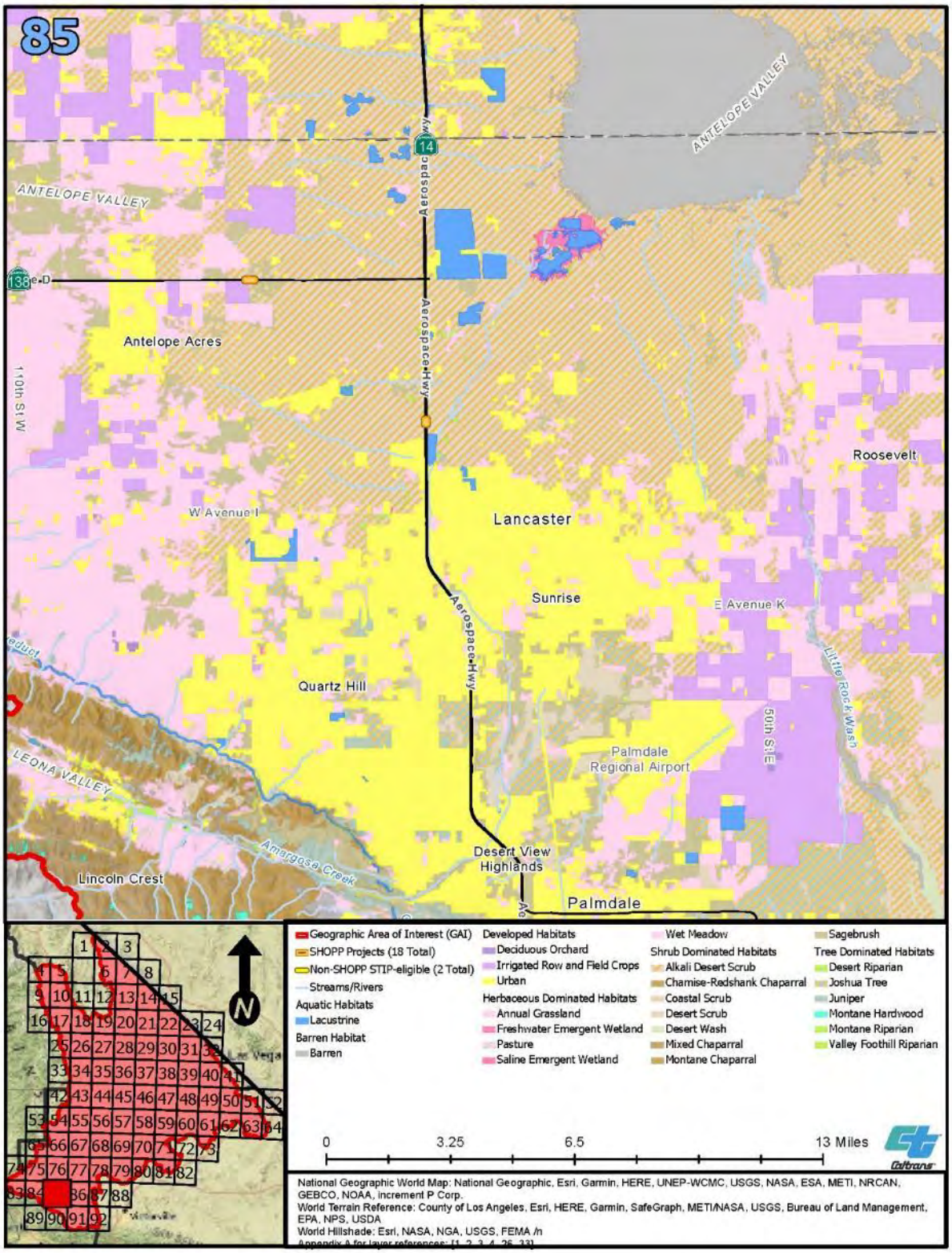
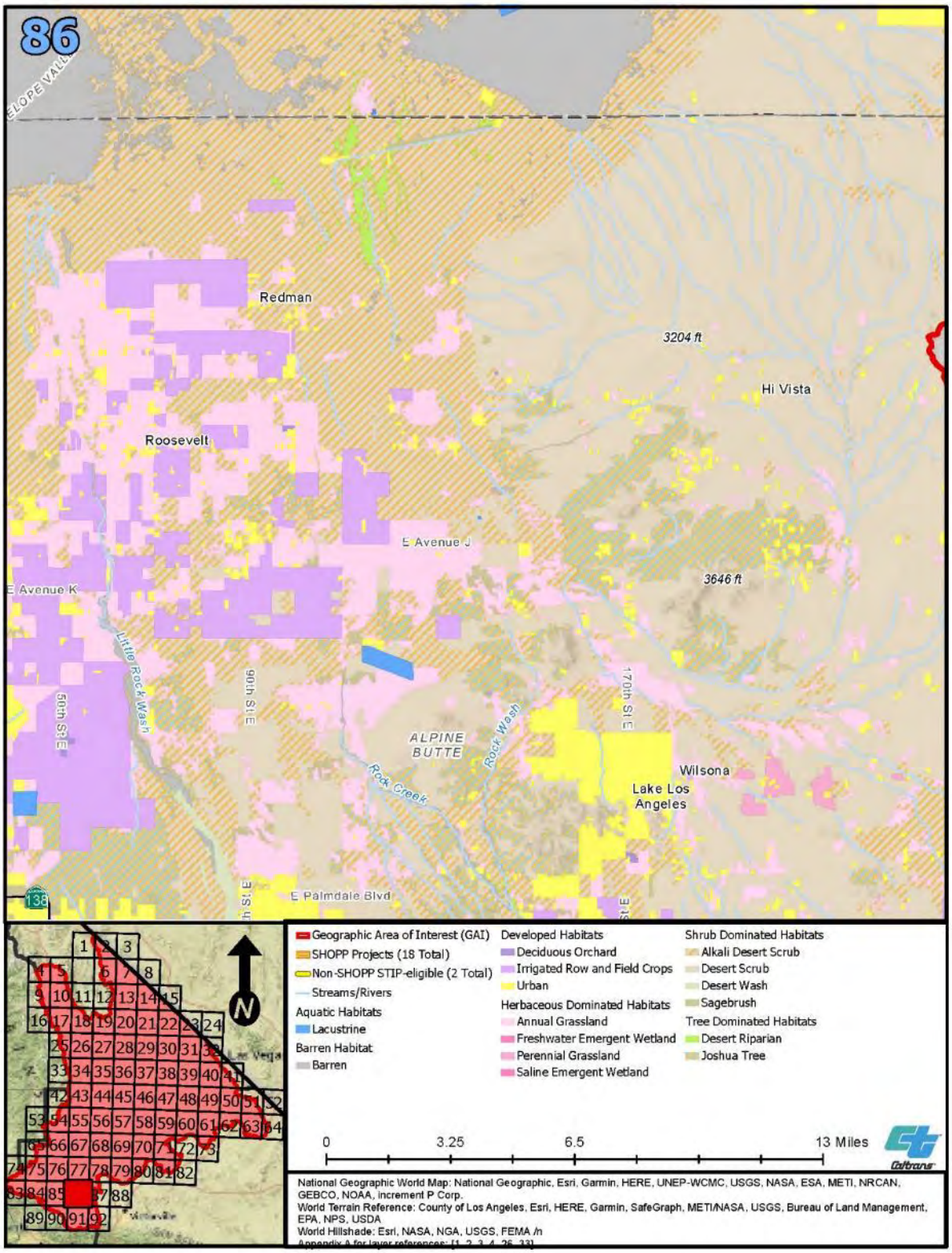
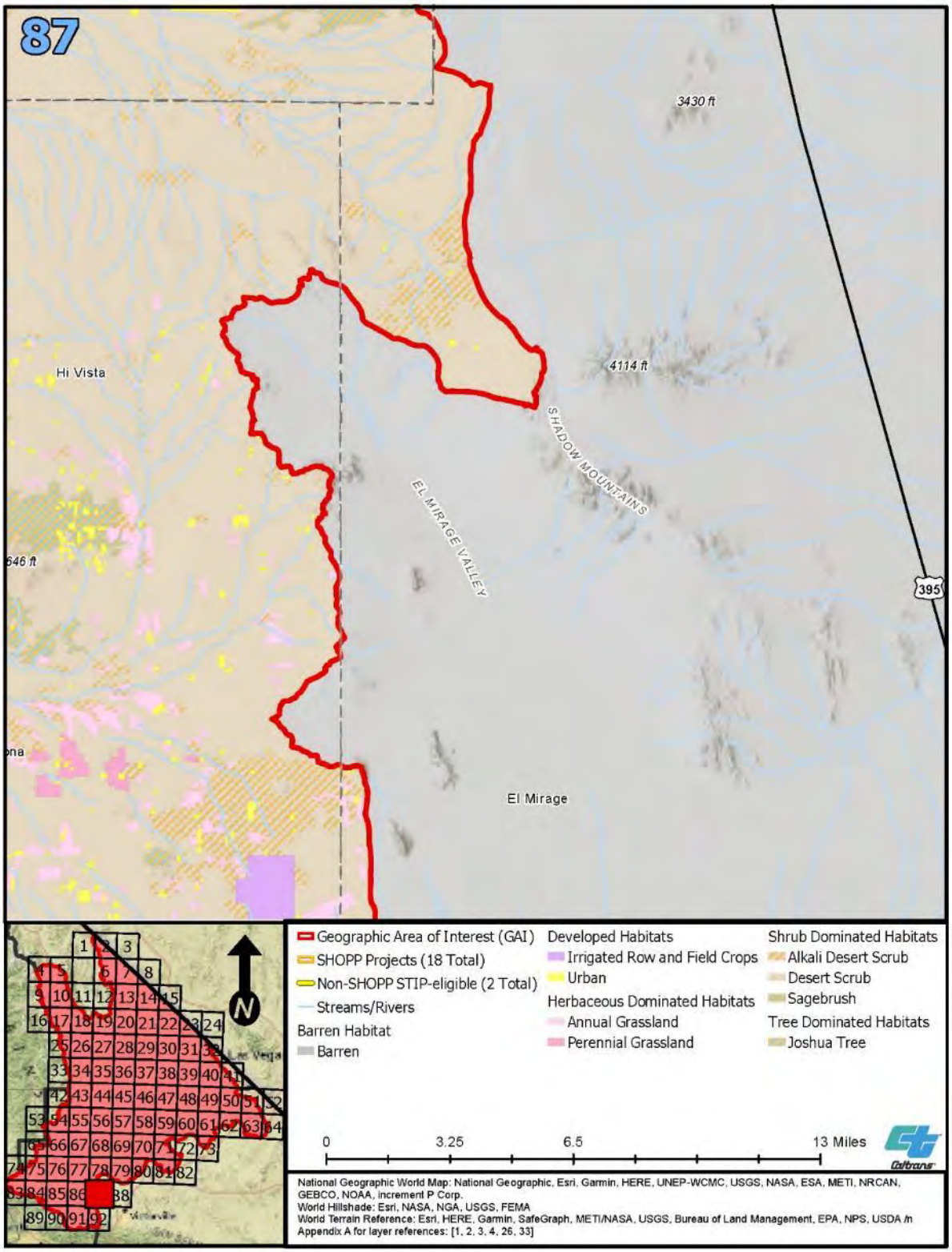
World Hillshade: Esri, NASA, NGA, USGS, FEMA /n


85
ANTELOPE VALLEY
Aerospace Hwy
14
138
Antelope Acres
110th St W
W Avenue I
Lancaster
Roosevelt
Sunrise
E Avenue K
Quartz Hill
Palmdale Regional Airport
50th St E
Little Rock Wash
LEONA VALLEY
Amargosa Creek
Desert View Highlands
Lincoln Crest
Palmdale
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Pasture
Saline Emergent Wetland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Chamise-Redshank Chaparral
Coastal Scrub
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
Juniper
Montane Hardwood
Montane Riparian
Valley Foothill Riparian
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS, FEMA /n


86
Redman
Roosevelt
Hi Vista
3204 ft
3646 ft
E Avenue J
E Avenue K
Little Rock Wash
50th St E
90th St E
170th St E
ALPINE BUTTE
Rock Wash
Rock Creek
Wilsona
Lake Los Angeles
E Palmdale Blvd
138
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Perennial Grassland
Saline Emergent Wetland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Desert Wash
Sagebrush
Tree Dominated Habitats
Desert Riparian
Joshua Tree
0
3.25
6.5
13 Miles
N
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS, FEMA /n


87
3430 ft
4114 ft
Hi Vista
SHADOW MOUNTAINS
EL MIRAGE VALLEY
El Mirage
395
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Barren Habitat
Barren
Developed Habitats
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Perennial Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
Sagebrush
Tree Dominated Habitats
Joshua Tree
0
3.25
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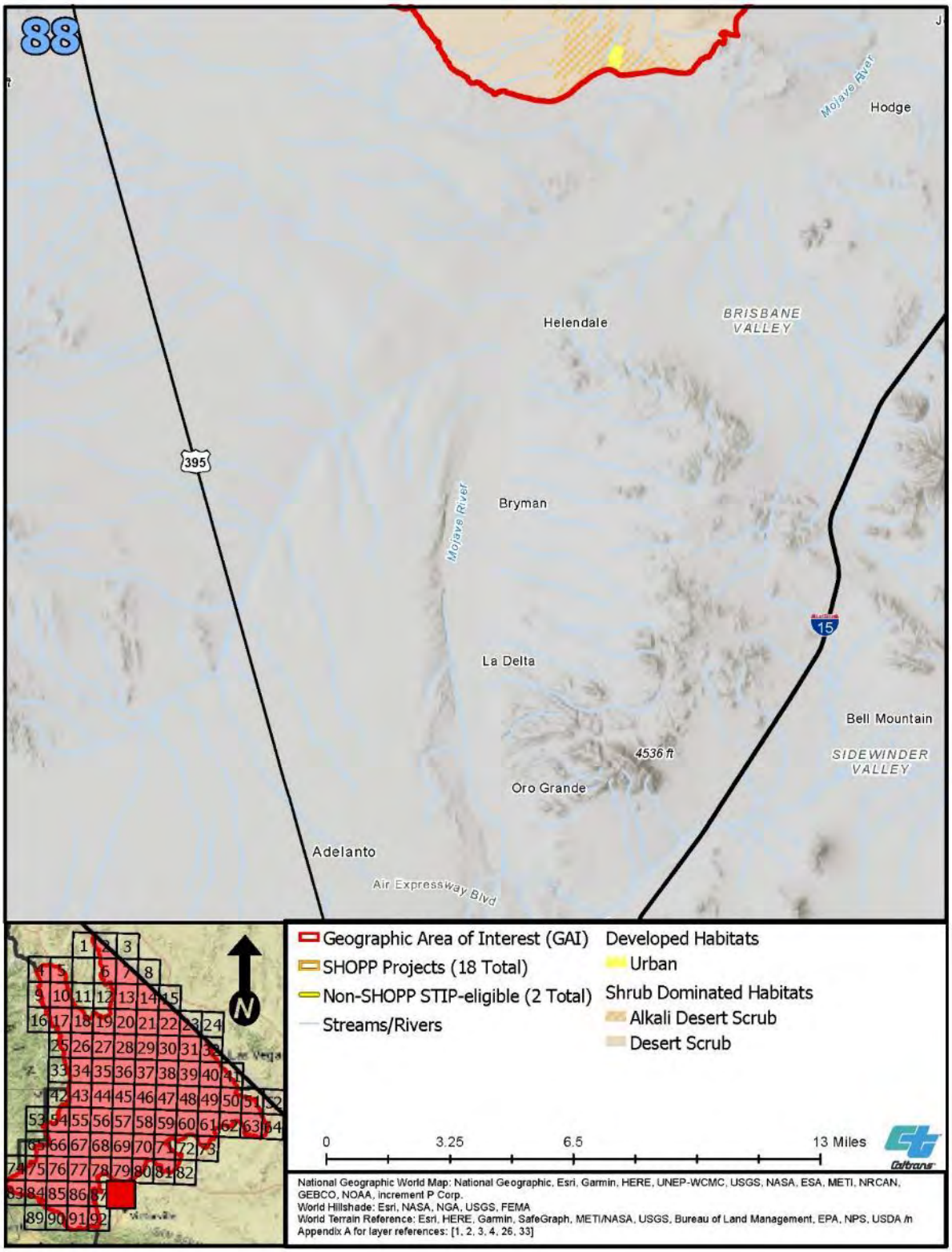
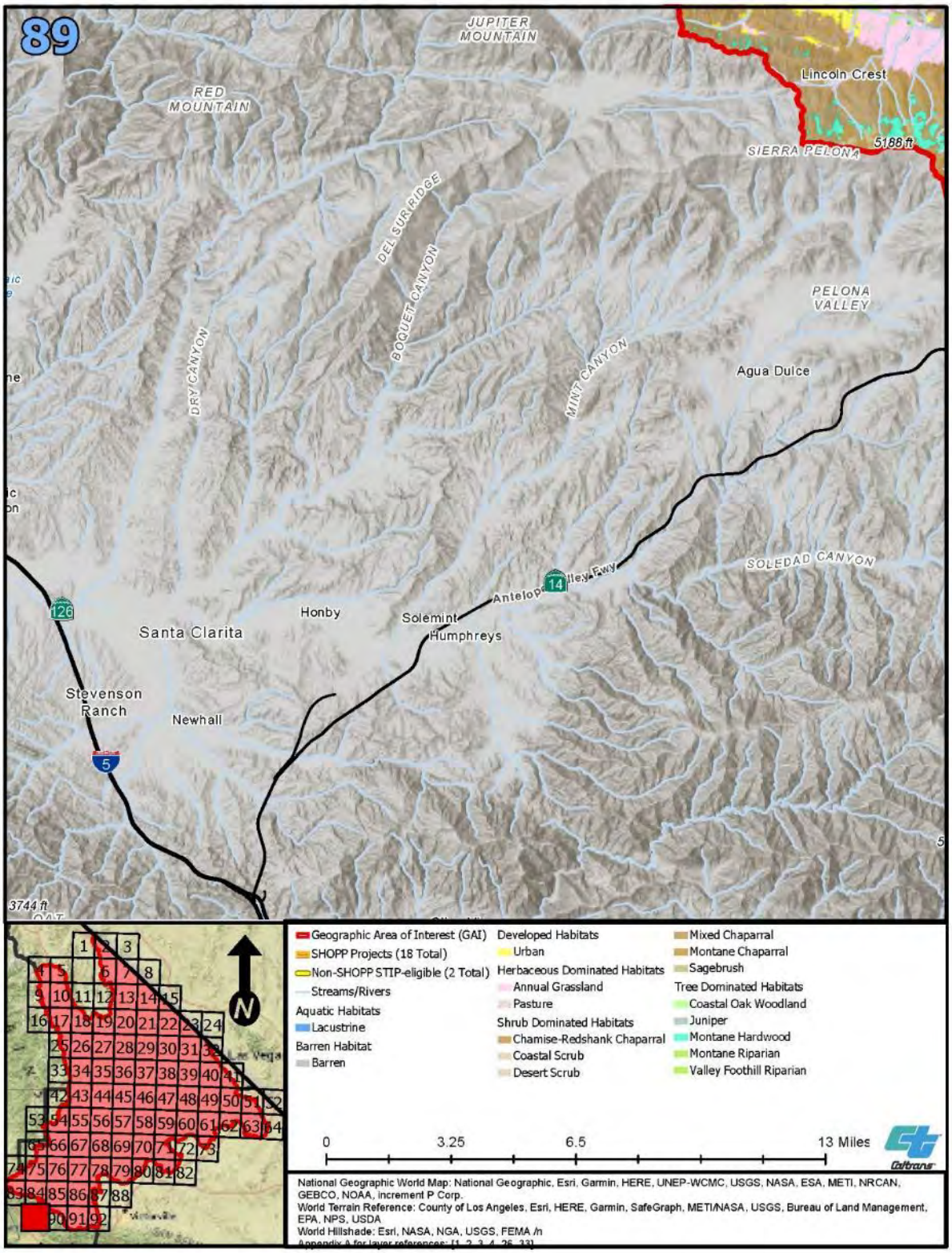
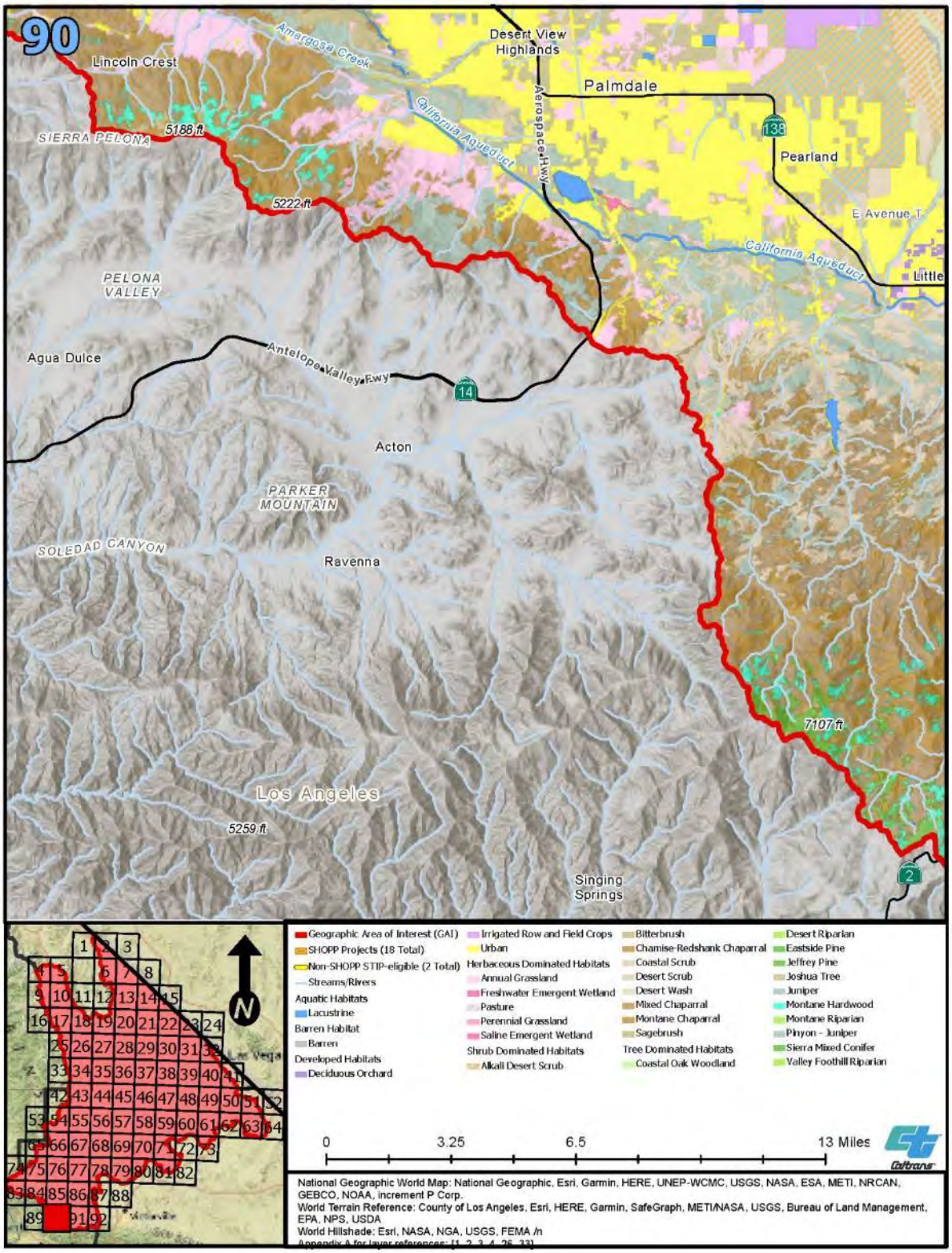
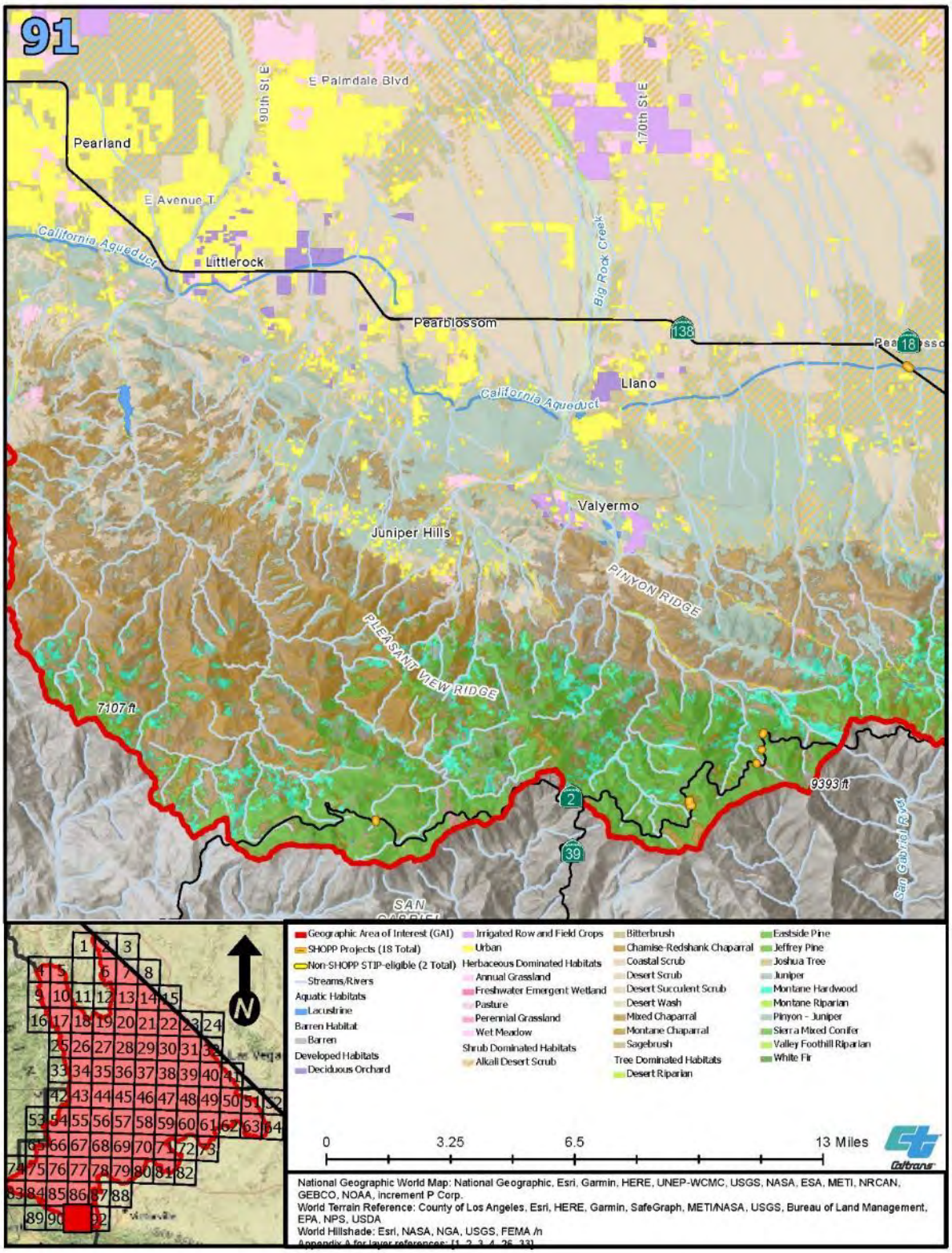
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


88
Hodge
Mojave River
Helendale
BRISBANE VALLEY
395
Bryman
Mojave River
15
La Delta
Bell Mountain
4536 ft
SIDEWINDER VALLEY
Oro Grande
Adelanto
Air Expressway Blvd
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Developed Habitats
Urban
Shrub Dominated Habitats
Alkali Desert Scrub
Desert Scrub
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]


89
JUPITER MOUNTAIN
RED MOUNTAIN
Lincoln Crest
5186 ft
SIERRA PELONA
DEL SUR RIDGE
BOUQUET CANYON
DRY CANYON
MINT CANYON
PELONA VALLEY
Agua Dulce
SOLEDAD CANYON
Antelope Valley Fwy
Honby
Solemint
Humphreys
Santa Clarita
Stevenson Ranch
Newhall
126
14
5
3744 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Urban
Herbaceous Dominated Habitats
Annual Grassland
Pasture
Shrub Dominated Habitats
Chamise-Redshank Chaparral
Coastal Scrub
Desert Scrub
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Coastal Oak Woodland
Juniper
Montane Hardwood
Montane Riparian
Valley Foothill Riparian
0
3.25
6.5
13 Miles
N
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS, FEMA /n


90
Lincoln Crest
Amargosa Creek
Desert View Highlands
Palmdale
California Aqueduct
Aerospace Hwy
138
Pearland
E Avenue T
California Aqueduct
Little
SIERRA PELONA
5188 ft
5222 ft
PELONA VALLEY
Agua Dulce
Antelope Valley Fwy
14
Acton
PARKER MOUNTAIN
SOLEDAD CANYON
Ravenna
7107 ft
Los Angeles
5259 ft
Singing Springs
2
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Pasture
Perennial Grassland
Saline Emergent Wetland
Shrub Dominated Habitats
Alkali Desert Scrub
Bitterbrush
Chamise-Redshank Chaparral
Coastal Scrub
Desert Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Coastal Oak Woodland
Desert Riparian
Eastside Pine
Jeffrey Pine
Joshua Tree
Juniper
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Sierra Mixed Conifer
Valley Foothill Riparian
N
0
3.25
6.5
13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA
World Hillshade: Esri, NASA, NGA, USGS, FEMA /n


91
E Palmdale Blvd
90th St E
170th St E
Pearland
E Avenue T
California Aqueduct
Littlerock
Big Rock Creek
Pearblossom
138
18
Llano
California Aqueduct
Valyermo
Juniper Hills
PINYON RIDGE
PLEASANT VIEW RIDGE
7107 ft
9393 ft
2
39
San Gabriel River
SAN
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Freshwater Emergent Wetland
Pasture
Perennial Grassland
Wet Meadow
Shrub Dominated Habitats
Alkali Desert Scrub
Bitterbrush
Chamise-Redshank Chaparral
Coastal Scrub
Desert Scrub
Desert Succulent Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Desert Riparian
Eastside Pine
Jeffrey Pine
Joshua Tree
Juniper
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Sierra Mixed Conifer
Valley Foothill Riparian
White Fir
N
0
3.25
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13 Miles
Caltrans
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
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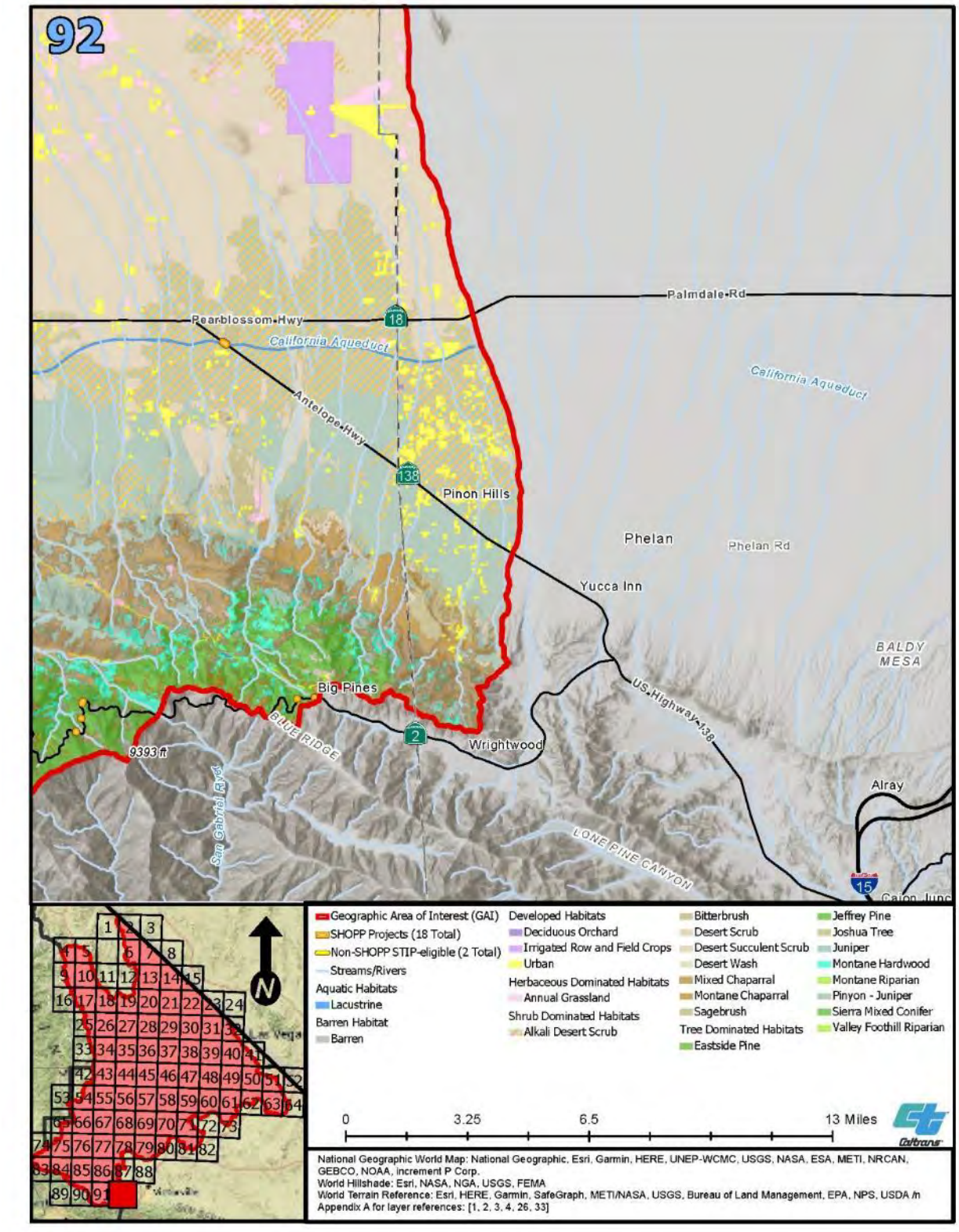
92
Palmdale Rd
Pearblossom Hwy
California Aqueduct
Antelope Hwy
Pinon Hills
Phelan
Phelan Rd
Yucca Inn
BALDY MESA
Big Pines
US Highway 138
BLUE RIDGE
9393 ft
Wrightwood
San Gabriel River
LONE PINE CANYON
Alray
Cajon Junc
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
Aquatic Habitats
Lacustrine
Barren Habitat
Barren
Developed Habitats
Deciduous Orchard
Irrigated Row and Field Crops
Urban
Herbaceous Dominated Habitats
Annual Grassland
Shrub Dominated Habitats
Alkali Desert Scrub
Bitterbrush
Desert Scrub
Desert Succulent Scrub
Desert Wash
Mixed Chaparral
Montane Chaparral
Sagebrush
Tree Dominated Habitats
Eastside Pine
Jeffrey Pine
Joshua Tree
Juniper
Montane Hardwood
Montane Riparian
Pinyon - Juniper
Sierra Mixed Conifer
Valley Foothill Riparian
0
3.25
6.5
13 Miles
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Terrain Reference: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 26, 33]

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APPENDIX C: COMPLETE SAMNA SPECIES RESULTS

Complete terrestrial species SAMNA results for the GAI are provided in Tables C-1 through C-3, which include SAMNA results for the portions of the Mojave Desert Section (starts on page C-3), Sierra Nevada Section (starts on page C-11), and Southern California Mountains and Valleys Section (starts on page C-18) 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. Hence, the number of species that have 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 to 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 impacted 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 C-1 through C-3 are mapped in Appendix B. While desert tortoise, Joshua tree, Mojave ground squirrel, burrowing owl, and willow flycatcher are the species of mitigation need identified for this GAI, 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 desert tortoise 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 C-1 through C-3 and are provided in tables 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 C-1. Complete SAMNA Results for the Mojave Desert Section in the GAI, by Land Cover (acres)

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Desert Wash	Irrigated Row and Field Crops	Joshua Tree	Lacustrine	Sagebrush	Urban	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
Lane Mountain milk-vetch	*Astragalus jaegerianus*	FE	0.00	0.00	0.00	10.05	0.00	0.00	0.75	0.00	0.00	0.00	**10.80**
Red Rock tarplant	*Deinandra arida*	SR	0.00	0.00	0.00	10.05	0.00	0.00	0.00	0.00	0.00	0.00	**10.05**
Rock lady	*Holmgrenanthe petrophila*	SR	0.00	0.00	0.00	10.05	0.00	0.00	0.00	0.00	0.00	0.00	**10.05**
Spreading navarretia	*Navarretia fossalis*	FT	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**1.91**
Amargosa nitrophila	*Nitrophila mohavensis*	FE, SE	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**1.91**
Eureka Dunes evening-primrose	*Oenothera californica* ssp. *eurekensis*	SR	0.00	0.00	0.00	10.05	0.00	0.00	0.00	0.00	0.00	0.00	**10.05**
Eureka Valley dune grass	*Swallenia alexandrae*	FT, SR	0.00	0.00	0.00	10.05	0.00	0.00	0.00	0.00	0.00	0.00	**10.05**
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
California red-legged frog	*Rana draytonii*	FT, SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	**0.23**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Desert Wash	Irrigated Row and Field Crops	Joshua Tree	Lacustrine	Sagebrush	Urban	Total
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
Mohave desert tortoise	*Gopherus agassizii*	FT, ST	8.97	1.91	0.15	10.05	0.10	0.00	0.75	0.00	0.19	0.00	**22.12**
California legless lizard	*Anniella pulchra*	FS, SSC	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	**0.18**
Desert night lizard [a]	*Xantusia vigilis*	FS, SSC	8.97	1.91	0.00	10.05	0.10	0.00	0.75	0.00	0.19	0.00	**21.97**
Gila monster	*Heloderma suspectum*	FS, SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	**0.50**
Coachwhip [b]	*Masticophis [Coluber] flagellum* [c]	SSC	8.97	1.91	0.00	10.05	0.10	0.00	0.75	0.00	0.19	0.00	**21.97**
Western patch-nosed snake [d]	*Salvadora hexalepis*	SSC	8.97	1.91	0.15	10.05	0.10	0.00	0.75	0.00	0.19	0.00	**22.12**
Gophersnake	*Pituophis catenifer*	None	8.97	1.91	0.00	10.05	0.10	0.37	0.75	0.00	0.19	59.94	**82.28**
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
American white pelican [e]	*Pelecanus erythrorhynchos*	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	**0.23**
Great blue heron	*Ardea herodias*	SFS	0.00	1.91	0.00	0.00	0.00	0.37	0.00	0.23	0.00	59.94	**62.45**
Great egret	*Ardea alba*	SFS	0.00	1.91	0.00	0.00	0.00	0.37	0.00	0.23	0.00	57.53	**60.04**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Desert Wash	Irrigated Row and Field Crops	Joshua Tree	Lacustrine	Sagebrush	Urban	Total
Osprey	*Pandion haliaetus*	SFS	5.33	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	**5.51**
White-tailed kite	*Elanus leucurus*	FS, SFP	3.64	1.91	0.00	10.05	0.00	0.37	0.00	0.00	0.00	57.53	**73.50**
Northern harrier	*Circus hudsonius [cyaneus]* [c]	SSC	8.97	1.91	0.15	10.05	0.10	0.00	0.00	0.23	0.19	59.94	**81.54**
Swainson's hawk	*Buteo swainsoni*	FS, ST	0.00	1.91	0.00	10.05	0.00	0.00	0.00	0.00	0.18	57.53	**69.67**
Golden eagle	*Aquila chrysaetos*	FS, SFS, SFP	8.97	1.91	0.15	10.05	0.10	0.00	0.75	0.00	0.19	59.94	**82.06**
Peregrine falcon	*Falco peregrinus*	FS, SFP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	**0.13**
California quail [f]	*Callipepla californica*	SSC	8.97	1.91	0.00	10.05	0.00	0.00	0.25	0.00	0.19	57.53	**78.90**
Mountain plover	*Charadrius montanus*	FS	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.18	0.00	**0.55**
Burrowing owl	*Athene cunicularia*	FS, SSC	8.97	1.91	0.15	10.05	0.10	0.00	0.75	0.00	0.19	59.94	**82.06**
Long-eared owl	*Asio otus*	SSC	0.00	1.91	0.00	10.05	0.00	0.00	0.00	0.00	0.19	0.00	**12.15**
Short-eared owl	*Asio flammeus*	SSC	1.41	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.18	1.95	**3.91**
Cactus wren [g]	*Campylorhynchus brunneicapillus*	FS, SSC	0.00	0.00	0.00	10.05	0.00	0.00	0.75	0.00	0.00	59.94	**70.74**
Bewick's wren [h]	*Thryomanes bewickii*	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	59.94	**60.69**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Desert Wash	Irrigated Row and Field Crops	Joshua Tree	Lacustrine	Sagebrush	Urban	Total
Le Conte's thrasher [i]	*Toxostoma lecontei*	FS, SSC	8.97	0.00	0.00	10.05	0.10	0.00	0.75	0.00	0.00	0.00	**19.87**
Loggerhead shrike	*Lanius ludovicianus*	SSC	8.97	1.91	0.15	10.05	0.10	0.00	0.75	0.00	0.19	59.94	**82.06**
Spotted towhee [j]	*Pipilo maculatus*	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	**0.13**
Bell's sparrow [k]	*Artemisiospiza belli*	FT, SSC	8.97	0.00	0.00	10.05	0.00	0.00	0.75	0.00	0.19	0.00	**19.96**
Savannah sparrow [l]	*Passerculus sandwichensis*	SE	8.97	1.91	0.00	10.05	0.10	0.00	0.00	0.00	0.19	0.00	**21.22**
Song sparrow [m]	*Melospiza melodia*	SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	31.67	**31.90**
Red-winged blackbird [n]	*Agelaius phoeniceus*	SSC	0.00	1.91	0.00	0.00	0.00	0.37	0.00	0.00	0.00	59.94	**62.22**
Tricolored blackbird	*Agelaius tricolor*	FS, ST, SSC	0.00	1.91	0.00	0.00	0.00	0.37	0.00	0.00	0.00	57.48	**59.76**
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	**2.14**
Bendire's thrasher	*Toxostoma bendirei*	FS, SSC	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	**0.50**
Crissal thrasher	*Toxostoma crissale*	FS, SSC	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	**0.08**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Desert Wash	Irrigated Row and Field Crops	Joshua Tree	Lacustrine	Sagebrush	Urban	Total
Gilded flicker	*Colaptes chrysoides*	FS, SE	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	**0.50**
Lucy's warbler	*Leiothlypis [Oreothlypis] luciae* [c]	FS, SSC	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	**0.08**
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
Yuma myotis	*Myotis yumanensis*	FS	5.33	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	**5.40**
Long-eared myotis	*Myotis evotis*	FS	5.33	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	**5.56**
Fringed myotis	*Myotis thysanodes*	FS	0.00	0.00	0.14	0.00	0.08	0.00	0.50	0.00	0.00	0.00	**0.72**
Small-footed myotis	*Myotis ciliolabrum*	FS	5.33	0.00	0.15	0.18	0.00	0.00	0.50	0.23	0.00	2.47	**8.86**
Spotted bat	*Euderma maculatum*	FS, SSC	8.97	1.91	0.00	10.05	0.10	0.00	0.75	0.00	0.19	59.94	**81.91**
Townsend's big-eared bat	*Corynorhinus townsendii*	FS, SSC	8.97	1.91	0.15	10.05	0.10	0.37	0.75	0.00	0.19	59.94	**82.43**
Pallid bat	*Antrozous pallidus*	FS, SSC	8.97	1.91	0.15	10.05	0.10	0.37	0.75	0.00	0.19	59.94	**82.43**
Western mastiff bat	*Eumops perotis*	FS, SSC	3.64	1.91	0.03	10.05	0.08	0.37	0.75	0.00	0.00	59.94	**76.77**
Brush rabbit [o]	*Sylvilagus bachmani*	FE, SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	**0.13**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Desert Wash	Irrigated Row and Field Crops	Joshua Tree	Lacustrine	Sagebrush	Urban	Total
Black-tailed jackrabbit [p]	*Lepus californicus*	SSC	8.97	1.91	0.00	10.05	0.10	0.37	0.75	0.00	0.19	59.94	**82.28**
Mohave ground squirrel	*Xerospermophilus mohavensis*	FS, ST	8.97	1.91	0.00	10.05	0.00	0.00	0.25	0.00	0.00	0.00	**21.18**
Round-tailed ground squirrel [q]	*Xerospermophilus tereticaudus*	FS, SSC	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	**0.02**
San Joaquin pocket mouse	*Perognathus inornatus*	FS	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**1.91**
Great Basin pocket mouse	*Perognathus parvus*	FS, SSC	5.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**5.33**
Little pocket mouse [r]	*Perognathus longimembris*	FE, SSC	5.33	0.00	0.00	0.18	0.10	0.00	0.75	0.00	0.02	0.00	**6.38**
Merriam's kangaroo rat [s]	*Dipodomys merriami*	FE, SCE, SSC	8.97	1.91	0.00	10.05	0.10	0.00	0.75	0.00	0.19	0.00	**21.97**
Deer mouse [t]	*Peromyscus maniculatus*	SSC	8.97	1.91	0.15	10.05	0.10	0.37	0.75	0.00	0.19	59.94	**82.43**
Southern grasshopper mouse	*Onychomys torridus*	SSC	8.97	1.91	0.00	10.05	0.10	0.00	0.00	0.00	0.19	0.00	**21.22**
Desert woodrat [u]	*Neotoma lepida*	SSC	8.97	0.00	0.00	10.05	0.10	0.00	0.75	0.00	0.19	0.00	**20.06**
California vole	*Microtus californicus*	FE, SE	5.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	**5.35**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Desert Wash	Irrigated Row and Field Crops	Joshua Tree	Lacustrine	Sagebrush	Urban	Total
Kit fox [v]	*Vulpes macrotis*	FE, ST	8.97	1.91	0.15	10.05	0.10	0.00	0.75	0.00	0.19	0.00	**22.12**
Ringtail	*Bassariscus astutus*	SFP	6.75	0.54	0.15	4.96	0.10	0.00	0.50	0.00	0.00	0.00	**13.00**
American badger	*Taxidea taxus*	SSC	8.97	1.91	0.15	10.05	0.10	0.37	0.75	0.00	0.19	0.00	**22.49**
Western spotted skunk [w]	*Spilogale gracilis*	SSC	8.97	1.91	0.00	0.00	0.00	0.37	0.00	0.00	0.18	59.89	**71.32**
Mountain lion	*Puma concolor*	ST	0.00	0.00	0.00	0.18	0.02	0.00	0.50	0.00	0.00	0.00	**0.70**
Bighorn sheep	*Ovis canadensis*	SFP	5.34	0.00	0.00	0.18	0.10	0.00	0.00	0.00	0.00	0.00	**5.62**
Total	N/A	N/A	**8.97**	**1.91**	**0.15**	**10.05**	**0.10**	**0.37**	**0.75**	**0.23**	**0.19**	**59.94**	**82.66**

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

[a] Desert night lizard: Only the Sierra subspecies (*Xantusia vigilis sierrae*) is special status, and it does not occur in the GAI.

[b] Coachwhip: Only the San Joaquin subspecies (*Masticophis flagellum ruddocki*) is special status, and it does not occur in the GAI.

[c] Scientific name or regulatory status has changed since the SAMNA model was run (Caltrans 2021).

[d] Western patch-nosed snake: Only the Coast subspecies (*Salvadora hexalepis virgultea*) is special status, and it does not occur in the GAI.

[e] American white pelican: This species is only considered special status in the portion of its range where it nests, and it does not nest in the GAI.

[f] California quail: Only the Catalina subspecies (*Callipepla californica catalinensis*) is special status, and it does not occur in the GAI.

[g] Cactus wren: Only the San Diego subspecies (*Campylorhynchus brunneicapillus sandiegensis*) is special status, and it does not occur in the GAI.

[h] Bewick's wren: Only the San Clemente subspecies (*Thryomanes bewickii leucophrys*) is special status, and it does not occur in the GAI (was endemic to San Clemente Island and is now extinct).

[i] Le Conte's thrasher: Only the San Joaquin population is special status, and it does not occur in the GAI.

[j] Spotted towhee: Only the San Clemente subspecies (*Pipilo maculatus clementae*) is special status, and it does not occur in the GAI.

[k] Bell's sparrow: Only the San Clemente subspecies (*Artemisiospiza belli clementeae*) is special status, and it does not occur in the GAI.

[l] Savannah sparrow: There are three special-status subspecies of savannah sparrow, none of which occur in the GAI.

[m] Song sparrow: There are five special-status subspecies of song sparrow, none of which occur in the GAI.

[n] Red-winged blackbird: Only the Kern subspecies (*Agelaius phoeniceus aciculatus*) is special status, and it does not occur in the GAI (restricted to Lake Isabella and Walker Basin).

[o] Brush rabbit: Only the riparian subspecies (*Sylvilagus bachmani riparius*) is special status, and it does not occur in the GAI.

[p] Black-tailed jackrabbit: Only the San Diego subspecies (*Lepus californicus benettii*) is special status, and it does not occur in the GAI.
[q] Round-tailed ground squirrel: Only the Palm Springs subspecies (*Xerospermophilus tereticaudus chlorus*) is special status, and it does not occur in the GAI.
[r] Little pocket mouse: There are four special-status subspecies of little pocket mouse, none of which occur in the GAI.
[s] Merriam's kangaroo rat: Only the San Bernardino subspecies (*Dipodomys merriami parvus*) is special status, and it does not occur in the GAI.
[t] Deer mouse: Only the Anacapa and San Clemente Island subspecies (*Peromyscus maniculatus anacapae* and *Peromyscus maniculatus clementis*) are special status, and they do not occur in the GAI.
[u] Desert woodrat: Only the San Diego subspecies (*Neotoma lepida intermedia*) is special status, and it does not occur in the GAI.
[v] Kit fox: Only the San Joaquin subspecies (*Vulpes macrotis mutica*) is special status, and it does not occur in the GAI.
[w] Western spotted skunk: Only the Channel Islands subspecies (*Spilogale gracilis amphiala*) is special status, and it does not occur in the GAI.

Table C-2. Complete SAMNA Results for the Sierra Nevada Section in the GAI, by Land Cover (acres)

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Juniper	Urban	Total
Plants	See below	See below	See below	See below	See below	See below	See below	See below	See below
Lane Mountain milk-vetch [a]	*Astragalus jaegerianus*	FE	0.00	0.00	0.00	0.07	0.00	0.00	**0.07**
Kaweah brodiaea [a]	*Brodiaea insignis*	FS, SE	0.00	1.07	0.00	0.00	0.00	0.00	**1.07**
Succulent owl's-clover [a]	*Castilleja campestris* var. *succulenta*	FT, SE	0.00	1.07	0.00	0.00	0.00	0.00	**1.07**
Springville clarkia [a]	*Clarkia springvillensis*	FT, SE	0.00	1.07	0.00	0.00	0.00	0.00	**1.07**
Red Rock tarplant	*Deinandra arida*	SR	0.00	0.00	0.00	0.07	0.00	0.00	**0.07**
Striped adobe-lily	*Fritillaria striata*	FS, ST	0.00	1.07	0.00	0.00	0.00	0.00	**1.07**
Rock lady [a]	*Holmgrenanthe petrophila*	SR	0.00	0.00	0.00	0.07	0.00	0.00	**0.07**
Eureka Dunes evening-primrose [a]	*Oenothera californica* ssp. *eurekensis*	SR	0.00	0.00	0.00	0.07	0.00	0.00	**0.07**
San Joaquin adobe sunburst	*Pseudobahia peirsonii*	FT, SE	0.00	1.07	0.00	0.00	0.00	0.00	**1.07**
Keck's checkerbloom [a]	*Sidalcea keckii*	FE	0.00	1.07	0.00	0.00	0.00	0.00	**1.07**
Eureka Valley dune grass [a]	*Swallenia alexandrae*	FT, SR	0.00	0.00	0.00	0.07	0.00	0.00	**0.07**
Amphibians	See below	See below	See below	See below	See below	See below	See below	See below	See below
Foothill yellow-legged frog	*Rana boylii*	FS, SE, SSC	0.00	0.99	0.00	0.00	0.00	0.00	**0.99**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Juniper	Urban	Total
Reptiles	See below	See below	See below	See below	See below	See below	See below	See below	See below
Mohave desert tortoise	*Gopherus agassizii*	FT, ST	0.01	0.25	0.35	0.27	0.00	0.00	**0.88**
Common sagebrush lizard	*Sceloporus graciosus*	FS	0.00	0.00	0.00	0.00	0.10	0.00	**0.1**
Desert night lizard [b]	*Xantusia vigilis*	FS, SSC	0.01	1.14	0.00	0.27	0.00	0.00	**1.42**
Blainville's horned lizard	*Phrynosoma blainvillii*	FS, SSC	0.01	1.14	0.00	0.00	0.10	0.00	**1.25**
California legless lizard	*Anniella pulchra*	FS, SSC	0.00	0.00	0.00	0.27	0.00	0.00	**0.27**
Coachwhip [c]	*Masticophis [Coluber] flagellum* [d]	SSC	0.01	1.14	0.00	0.27	0.10	0.00	**1.52**
Western patch-nosed snake [e]	*Salvadora hexalepis*	SSC	0.01	1.14	2.26	0.27	0.00	0.00	**3.68**
Common gartersnake [f]	*Thamnophis sirtalis*	SSC	0.00	0.99	0.00	0.00	0.00	0.00	**0.99**
Gophersnake	*Pituophis catenifer*	None	0.01	1.14	0.00	0.27	0.10	3.25	**4.77**
Birds	See below	See below	See below	See below	See below	See below	See below	See below	See below
American white pelican [g]	*Pelecanus erythrorhynchos*	SSC	0.00	0.00	0.05	0.00	0.00	0.00	**0.05**
Great blue heron	*Ardea herodias*	SFS	0.00	1.14	0.00	0.00	0.10	3.25	**4.49**
Osprey	*Pandion haliaetus*	SFS	0.01	1.14	2.26	0.27	0.10	0.00	**3.78**
White-tailed kite	*Elanus leucurus*	FS	0.00	0.00	0.05	0.13	0.00	0.00	**0.18**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Juniper	Urban	Total
Bald eagle	*Haliaeetus leucocephalus*	FS, SFS, SE, SFP	0.00	1.14	2.26	0.00	0.10	0.00	**3.50**
Northern harrier	*Circus hudsonius [cyaneus]* [d]	SSC	0.01	1.14	2.26	0.27	0.10	3.25	**7.03**
Swainson's hawk	*Buteo swainsoni*	FS, ST	0.00	0.00	0.05	0.13	0.00	0.00	**0.18**
Golden eagle	*Aquila chrysaetos*	FS, SFS, SFP	0.01	1.14	2.26	0.27	0.10	3.25	**7.03**
Peregrine falcon	*Falco peregrinus*	FS, SFP	0.00	1.14	2.26	0.00	0.10	3.25	**6.75**
California condor	*Gymnogyps californianus*	FE, FS, SE, SFP	0.00	0.99	0.00	0.00	0.00	0.00	**0.99**
California quail [h]	*Callipepla californica*	SSC	0.01	1.14	0.00	0.27	0.10	3.25	**4.77**
Burrowing owl	*Athene cunicularia*	FS, SSC	0.00	0.99	1.95	0.13	0.00	3.00	**6.07**
Long-eared owl	*Asio otus*	SSC	0.00	1.14	0.00	0.27	0.10	0.00	**1.51**
Purple martin	*Progne subis*	SSC	0.00	0.99	0.00	0.00	0.00	3.00	**3.99**
Cactus wren [i]	*Campylorhynchus brunneicapillus*	FS, SSC	0.00	0.00	0.00	0.27	0.00	0.26	**0.53**
Bewick's wren [j]	*Thryomanes bewickii*	SSC	0.00	0.00	0.00	0.00	0.10	3.25	**3.35**
Le Conte's thrasher [k]	*Toxostoma lecontei*	FS, SSC	0.01	0.00	0.00	0.27	0.00	0.00	**0.28**
Loggerhead shrike	*Lanius ludovicianus*	SSC	0.01	1.14	2.26	0.27	0.10	3.25	**7.03**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Juniper	Urban	Total
Hutton's vireo [l]	*Vireo huttoni*	SSC	0.00	0.00	0.00	0.00	0.00	2.43	**2.43**
Yellow warbler	*Setophaga petechia*	SSC	0.00	0.00	0.00	0.00	0.00	3.00	**3.00**
Spotted towhee [m]	*Pipilo maculatus*	SSC	0.00	0.00	0.00	0.00	0.10	3.25	**3.35**
California towhee [n]	*Melozone [Pipilo] crissalis* [d]	FT, SE	0.00	0.00	0.00	0.00	0.00	3.00	**3.00**
Common yellowthroat [o]	*Geothlypis trichas*	SSC	0.00	0.99	0.00	0.00	0.00	0.00	**0.99**
Rufous-crowned sparrow [p]	*Aimophila ruficeps*	SSC	0.00	0.99	0.00	0.00	0.00	0.00	**0.99**
Bell's sparrow [q]	*Artemisiospiza belli*	FT, SSC	0.01	0.00	0.00	0.27	0.10	0.00	**0.38**
Savannah sparrow [r]	*Passerculus sandwichensis*	SE	0.01	1.14	0.00	0.27	0.10	0.00	**1.52**
Song sparrow [s]	*Melospiza melodia*	SSC	0.00	1.14	0.00	0.00	0.00	3.25	**4.39**
Red-winged blackbird [t]	*Agelaius phoeniceus*	SSC	0.00	1.14	0.00	0.00	0.00	3.25	**4.39**
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC	0.00	0.25	0.00	0.00	0.00	0.00	**0.25**
Mammals	See below	See below	See below	See below	See below	See below	See below	See below	See below
Ornate shrew [u]	*Sorex ornatus*	SSC	0.00	0.99	0.00	0.00	0.00	0.00	**0.99**
Broad-footed mole [v]	*Scapanus latimanus*	SSC	0.00	1.14	0.00	0.00	0.00	0.00	**1.14**
Yuma myotis	*Myotis yumanensis*	FS	0.01	1.14	0.00	0.22	0.10	3.23	**4.70**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Juniper	Urban	Total
Long-eared myotis	*Myotis evotis*	FS	0.00	0.00	1.90	0.00	0.00	0.00	**1.90**
Fringed myotis	*Myotis thysanodes*	FS	0.00	1.14	2.26	0.00	0.10	3.25	**6.75**
Small-footed myotis	*Myotis ciliolabrum*	FS	0.00	0.99	1.90	0.09	0.00	3.00	**5.98**
Spotted bat	*Euderma maculatum*	FS, SSC	0.01	1.14	0.00	0.27	0.10	3.25	**4.77**
Townsend's big-eared bat	*Corynorhinus townsendii*	FS, SSC	0.01	1.14	2.26	0.27	0.10	3.25	**7.03**
Pallid bat	*Antrozous pallidus*	FS, SSC	0.01	1.14	2.26	0.27	0.10	3.25	**7.03**
Western mastiff bat	*Eumops perotis*	FS, SSC	0.01	1.14	2.26	0.27	0.10	3.25	**7.03**
Brush rabbit [w]	*Sylvilagus bachmani*	FE, SE	0.01	1.14	0.00	0.00	0.00	3.25	**4.40**
Black-tailed jackrabbit [x]	*Lepus californicus*	SSC	0.01	1.14	0.00	0.27	0.10	3.25	**4.77**
Mohave ground squirrel	*Xerospermophilus mohavensis*	FS, ST	0.01	0.25	0.00	0.27	0.00	0.00	**0.53**
Little pocket mouse [y]	*Perognathus longimembris*	FE, SSC	0.00	0.00	0.00	0.07	0.00	0.00	**0.07**
California pocket mouse [z]	*Chaetodipus californicus*	SSC	0.00	1.14	0.00	0.00	0.00	0.00	**1.14**
San Joaquin pocket mouse	*Perognathus inornatus*	FS	0.00	1.14	2.26	0.00	0.00	0.00	**3.40**
Merriam's kangaroo rat [aa]	*Dipodomys merriami*	FE, SCE, SSC	0.01	0.25	0.00	0.27	0.00	0.00	**0.53**

Common Name	Scientific Name	Status	Alkali Desert Scrub	Annual Grassland	Barren	Desert Scrub	Juniper	Urban	Total
Deer mouse [bb]	*Peromyscus maniculatus*	SSC	0.01	1.14	2.26	0.27	0.10	3.25	**7.03**
Southern grasshopper mouse	*Onychomys torridus*	SSC	0.01	1.14	0.00	0.27	0.00	0.00	**1.42**
Desert woodrat [cc]	*Neotoma lepida*	SSC	0.01	0.00	0.00	0.27	0.00	0.00	**0.28**
California vole [dd]	*Microtus californicus*	FE, SE	0.00	0.99	0.00	0.00	0.00	2.43	**3.42**
Kit fox [ee]	*Vulpes macrotis*	FE, ST	0.00	0.00	0.05	0.13	0.00	0.00	**0.18**
Ringtail	*Bassariscus astutus*	SFP	0.01	1.14	2.26	0.27	0.10	0.00	**3.78**
American badger	*Taxidea taxus*	SSC	0.01	1.14	2.26	0.27	0.10	0.00	**3.78**
Western spotted skunk [ff]	*Spilogale gracilis*	SSC	0.01	1.14	0.00	0.00	0.10	3.25	**4.50**
Mountain lion	*Puma concolor*	ST	0.00	1.14	0.00	0.27	0.10	0.00	**1.51**
Bighorn sheep	*Ovis canadensis*	FE, SE, SFP	0.01	0.00	0.00	0.27	0.00	0.00	**0.28**
Total	N/A	N/A	**0.01**	**1.14**	**2.26**	**0.27**	**0.10**	**3.25**	**7.03**

Notes: FE = federally endangered; FS = federally sensitive (USFS and/or BLM sensitive); FT = federally threatened; SCE = state candidate endangered; 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 Sierra Nevada Section of the GAI.

[b] Desert night lizard: Only the Sierra subspecies (*Xantusia vigilis sierrae*) is special status, and it does not occur in the GAI.

[c] Coachwhip: Only the San Joaquin subspecies (*Masticophis flagellum ruddocki*) is special status, and it does not occur in the GAI.

[d] Scientific name or regulatory status has changed since the SAMNA model was run (Caltrans 2021).

[e] Western patch-nosed snake: Only the Coast subspecies (*Salvadora hexalepis virgultea*) is special status, and it does not occur in the GAI.

[f] Common gartersnake: Only the South Coast population is special status, and it does not occur in the GAI.

[g] American white pelican: Only considered special status in the portion of its range where it nests, and it does not nest in the GAI.

[h] California quail: Only the Catalina subspecies (*Callipepla californica catalinensis*) is special status, and it does not occur in the GAI.

[i] Cactus wren: Only the San Diego subspecies (*Campylorhynchus brunneicapillus sandiegensis*) is special status, and it does not occur in the GAI.
[j] Bewick's wren: Only the San Clemente subspecies (*Thryomanes bewickii leucophrys*) is special status, and it does not occur in the GAI (was endemic to San Clemente Island and is now extinct).
[k] Le Conte's thrasher: Only the San Joaquin population is special status, and it does not occur in the GAI.
[l] Hutton's vireo: Only the Catalina subspecies (*Vireo huttoni unitti*) is special status, and it does not occur in the GAI.
[m] Spotted towhee: Only the San Clemente subspecies (*Pipilo maculatus clementae*) is special status, and it does not occur in the GAI.
[n] California towhee: Only the Inyo subspecies (*Melozone crissalis eremophilus*) is special status, and it does not occur in the Sierra Nevada section of the GAI.
[o] Common yellowthroat: Only the San Francisco/saltmarsh subspecies (*Geothlyps trichas sinuosa*) is special status, and it does not occur in the GAI.
[p] Rufous-crowned sparrow: Only the Santa Cruz Island subspecies (*Aimophila ruficeps obscura*) is special status, and it does not occur in the GAI.
[q] Bell's sparrow: Only the San Clemente subspecies (*Artemisiospiza belli clementeae*) is special status, and it does not occur in the GAI.
[r] Savannah sparrow: There are three special-status subspecies of savannah sparrow, none of which occur in the GAI.
[s] Song sparrow: There are five special-status subspecies of song sparrow, none of which occur in the GAI.
[t] Red-winged blackbird: Only the Kern subspecies (*Agelaius phoeniceus aciculatus*) is special status, and it does not occur in the GAI (restricted to Lake Isabella and Walker Basin).
[u] Ornate shrew: There are five special-status subspecies of ornate shrew, none of which occur in the GAI.
[v] Broad-footed mole: Only the Alameda Island subspecies (*Scapanus latimanus parvus*) is special status, and it does not occur in the GAI.
[w] Brush rabbit: Only the riparian subspecies (*Sylvilagus bachmani riparius*) is special status, and it does not occur in the GAI.
[x] Black-tailed jackrabbit: Only the San Diego subspecies (*Lepus californicus benettii*) is special status, and it does not occur in the GAI.
[y] Little pocket mouse: There are four special-status subspecies of little pocket mouse, none of which occur in the GAI.
[z] California pocket mouse: Only the Dulzura subspecies (*Chaetodipus californicus femoralis*) is special status, and it does not occur in the GAI.
[aa] Merriam's kangaroo rat: Only the San Bernardino subspecies (*Dipodomys merriami parvus*) is special status, and it does not occur in the GAI.
[bb] Deer mouse: Only the Anacapa and San Clemente Island subspecies (*Peromyscus maniculatus anacapae* and *Peromyscus maniculatus clementis*) are special status, and they do not occur in the GAI.
[cc] Desert woodrat: Only the San Diego subspecies (*Neotoma lepida intermedia*) is special status, and it does not occur in the GAI.
[dd] California vole: There are five special-status subspecies of California vole, none of which occur in the Sierra Nevada section of the GAI.
[ee] Kit fox: Only the San Joaquin subspecies (*Vulpes macrotis mutica*) is special status, and it does not occur in the GAI.
[ff] Western spotted skunk: Only the Channel Islands subspecies (*Spilogale gracilis amphiala*) is special status, and it does not occur in the GAI.

Table C-3. Complete SAMNA Results for the Southern California Mountains and Valleys Section in the GAI, by Land Cover (acres)

Common Name	Scientific Name	Status	Barren	Eastside Pine	Jeffrey Pine	Montane Chaparral	Sierran Mixed Conifer	Urban	Total
Amphibians	See below	See below	See below	See below	See below	See below	See below	See below	See below
Ensatina [a]	*Ensatina eschscholtzii*	FS	0.00	0.00	0.00	0.17	0.15	0.00	**0.32**
Southern mountain yellow-legged frog	*Rana muscosa*	FE, FS, SE	0.00	0.00	0.04	0.00	0.15	0.00	**0.19**
San Gabriel slender salamander	*Batrachoseps gabrieli*	FS	0.26	0.00	0.00	0.00	0.00	0.00	**0.26**
Reptiles	See below	See below	See below	See below	See below	See below	See below	See below	See below
Common sagebrush lizard [b]	*Sceloporus graciosus*	FS	0.00	0.05	0.04	0.17	0.15	0.00	**0.41**
Desert night lizard [c]	*Xantusia vigilis*	FS, SSC	0.00	0.05	0.00	0.00	0.00	0.00	**0.05**
Western skink [d]	*Plestiodon skiltonianus*	FS	0.00	0.00	0.00	0.17	0.15	0.00	**0.32**
Ring-necked snake	*Diadophis punctatus*	FS	0.00	0.00	0.00	0.00	0.00	0.40	**0.40**
Striped racer [e]	*Masticophis [Coluber] lateralis* [f]	FT, ST	0.00	0.00	0.00	0.17	0.15	0.00	**0.32**
Western patch-nosed snake [g]	*Salvadora hexalepis*	SSC	0.41	0.00	0.00	0.17	0.00	0.00	**0.58**
Gophersnake	*Pituophis catenifer*	None	0.00	0.05	0.04	0.17	0.15	0.71	**1.12**
California mountain kingsnake	*Lampropeltis zonata*	None	0.00	0.00	0.04	0.17	0.15	0.00	**0.36**
California mountain kingsnake (San Bernardino population)	*Lampropeltis zonata parviruba*	FS	0.00	0.00	0.04	0.17	0.15	0.00	**0.36**

Common Name	Scientific Name	Status	Barren	Eastside Pine	Jeffrey Pine	Montane Chaparral	Sierran Mixed Conifer	Urban	Total
Two-striped gartersnake	*Thamnophis hammondii*	FS, SSC	0.00	0.00	0.04	0.17	0.00	0.00	**0.21**
Birds	See below	See below	See below	See below	See below	See below	See below	See below	See below
American white pelican [h]	*Pelecanus erythrorhynchos*	SSC	0.41	0.00	0.00	0.00	0.00	0.00	**0.41**
Great blue heron	*Ardea herodias*	SFS	0.00	0.05	0.00	0.00	0.15	0.71	**0.91**
Osprey	*Pandion haliaetus*	SFS	0.41	0.05	0.04	0.17	0.15	0.00	**0.82**
Bald eagle	*Haliaeetus leucocephalus*	FS, SFS, SE, SFP	0.41	0.05	0.04	0.17	0.15	0.00	**0.82**
Northern harrier	*Circus hudsonius [cyaneus]* [f]	SSC	0.04	0.00	0.00	0.00	0.15	0.35	**0.54**
Northern goshawk	*Accipiter gentilis*	FS, SFS, SSC	0.00	0.05	0.04	0.17	0.15	0.00	**0.41**
Golden eagle	*Aquila chrysaetos*	FS, SFS, SFP	0.41	0.05	0.04	0.17	0.15	0.71	**1.53**
Peregrine falcon	*Falco peregrinus*	FS, SFP	0.41	0.05	0.04	0.17	0.15	0.71	**1.53**
California quail [i]	*Callipepla californica*	SSC	0.00	0.05	0.00	0.17	0.15	0.71	**1.08**
Spotted owl [j]	*Strix occidentalis*	FT, ST	0.00	0.05	0.04	0.00	0.15	0.00	**0.24**
California spotted owl	*Strix occidentalis occidentalis*	FS, SSC	0.00	0.05	0.04	0.00	0.15	0.00	**0.24**

Common Name	Scientific Name	Status	Barren	Eastside Pine	Jeffrey Pine	Montane Chaparral	Sierran Mixed Conifer	Urban	Total
Long-eared owl	*Asio otus*	SSC	0.00	0.05	0.00	0.17	0.15	0.00	**0.37**
Black swift	*Cypseloides niger*	SSC	0.04	0.00	0.00	0.00	0.00	0.58	**0.62**
Olive-sided flycatcher	*Contopus cooperi*	SSC	0.00	0.05	0.04	0.00	0.15	0.00	**0.24**
Purple martin	*Progne subis*	SSC	0.00	0.00	0.00	0.00	0.00	0.61	**0.61**
Cactus wren [k]	*Campylorhynchus brunneicapillus*	FS, SSC	0.00	0.00	0.00	0.00	0.00	0.71	**0.71**
Bewick's wren [l]	*Thryomanes bewickii*	SSC	0.00	0.00	0.00	0.17	0.00	0.71	**0.88**
Loggerhead shrike	*Lanius ludovicianus*	SSC	0.41	0.05	0.04	0.00	0.00	0.71	**1.21**
Hutton's vireo [m]	*Vireo huttoni*	SSC	0.00	0.00	0.00	0.00	0.00	0.24	**0.24**
Yellow warbler	*Setophaga petechia*	SSC	0.00	0.05	0.04	0.17	0.15	0.71	**1.12**
Spotted towhee [n]	*Pipilo maculatus*	SSC	0.00	0.05	0.04	0.17	0.15	0.71	**1.12**
California towhee [o]	*Melozone [Pipilo] crissalis* [f]	FT, SE	0.00	0.00	0.00	0.17	0.00	0.71	**0.88**
Bell's sparrow [p]	*Artemisiospiza belli*	FT, SSC	0.00	0.05	0.00	0.17	0.00	0.00	**0.22**
Song sparrow [q]	*Melospiza melodia*	SSC	0.00	0.05	0.04	0.00	0.15	0.71	**0.95**
Red-winged blackbird [r]	*Agelaius phoeniceus*	SSC	0.00	0.00	0.00	0.00	0.00	0.71	**0.71**

Common Name	Scientific Name	Status	Barren	Eastside Pine	Jeffrey Pine	Montane Chaparral	Sierran Mixed Conifer	Urban	Total
Mammals	See below	See below	See below	See below	See below	See below	See below	See below	See below
Ornate shrew [s]	*Sorex ornatus*	SSC	0.00	0.00	0.00	0.17	0.15	0.00	**0.32**
Broad-footed mole [t]	*Scapanus latimanus*	SSC	0.00	0.05	0.04	0.00	0.15	0.00	**0.24**
Yuma myotis	*Myotis yumanensis*	FS	0.00	0.05	0.04	0.17	0.15	0.71	**1.12**
Long-eared myotis	*Myotis evotis*	FS	0.41	0.05	0.04	0.17	0.15	0.00	**0.82**
Fringed myotis	*Myotis thysanodes*	FS	0.41	0.05	0.04	0.17	0.15	0.71	**1.53**
Small-footed myotis	*Myotis ciliolabrum*	FS	0.41	0.05	0.04	0.17	0.15	0.71	**1.53**
Spotted bat	*Euderma maculatum*	FS, SSC	0.00	0.05	0.04	0.17	0.15	0.71	**1.12**
Townsend's big-eared bat	*Corynorhinus townsendii*	FS, SSC	0.41	0.05	0.04	0.17	0.15	0.71	**1.53**
Pallid bat	*Antrozous pallidus*	FS, SSC	0.41	0.05	0.04	0.17	0.15	0.71	**1.53**
Western mastiff bat	*Eumops perotis*	FS, SSC	0.41	0.00	0.00	0.17	0.00	0.71	**1.29**
Brush rabbit [u]	*Sylvilagus bachmani*	FE, SE	0.00	0.00	0.00	0.00	0.00	0.24	**0.24**
Black-tailed jackrabbit [v]	*Lepus californicus*	SSC	0.00	0.00	0.00	0.00	0.15	0.68	**0.83**
Lodgepole chipmunk	*Neotamias [Tamias] speciosus* [f]	FS	0.00	0.00	0.04	0.17	0.00	0.00	**0.21**
Northern flying squirrel	*Glaucomys sabrinus*	None	0.00	0.05	0.02	0.00	0.00	0.00	**0.07**

Common Name	Scientific Name	Status	Barren	Eastside Pine	Jeffrey Pine	Montane Chaparral	Sierran Mixed Conifer	Urban	Total
San Bernardino flying squirrel [w]	*Glaucomys oregonensis [sabrinus] californicus* [f]	FS, SSC	0.00	0.05	0.02	0.00	0.00	0.00	**0.07**
California pocket mouse [x]	*Chaetodipus californicus*	SSC	0.00	0.00	0.00	0.17	0.00	0.00	**0.17**
Deer mouse [y]	*Peromyscus maniculatus*	SSC	0.41	0.05	0.04	0.17	0.15	0.71	**1.53**
Desert woodrat [z]	*Neotoma lepida*	SSC	0.00	0.00	0.00	0.17	0.00	0.00	**0.17**
California vole [aa]	*Microtus californicus*	FE, SE	0.00	0.05	0.00	0.17	0.15	0.71	**1.08**
Ringtail	*Bassariscus astutus*	SFP	0.41	0.05	0.04	0.17	0.15	0.00	**0.82**
American badger	*Taxidea taxus*	SSC	0.41	0.05	0.04	0.17	0.15	0.00	**0.82**
Western spotted skunk [bb]	*Spilogale gracilis*	SSC	0.00	0.05	0.04	0.17	0.15	0.71	**1.12**
Mountain lion	*Puma concolor*	ST	0.00	0.05	0.04	0.17	0.15	0.00	**0.41**
Big-eared woodrat [cc]	*Neotoma macrotis*	FS, SSC	0.00	0.00	0.00	0.17	0.15	0.00	**0.32**
Total	N/A	N/A	**0.41**	**0.05**	**0.04**	**0.17**	**0.15**	**0.71**	**1.53**

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

[a] Ensatina: Only the yellow-blotched subspecies (*Ensatina eschscholtzii croceater*) is special status, and it does not occur in the Southern California Mountains and Valleys Section of the GAI.

[b] Common sagebrush lizard: Only the northern subspecies (*Sceloporus graciosus graciosus*) is special status, and it does not occur in the Southern California Mountains and Valleys Section of the GAI.

[c] Desert night lizard: Only the Sierra subspecies (*Xantusia vigilis sierrae*) is special status, and it does not occur in the GAI.

[d] Western skink: Only the Coronado subspecies (*Plestiodon skiltonianus interparietalis*) is special status, and it does not occur in the GAI.

[e] Striped racer: Only the Alameda subspecies (*Masticophis lateralis euryxanthus*) is special status, and it does not occur in the GAI.

[f] Scientific name or regulatory status has changed since the SAMNA model was run (Caltrans 2021).
[g] Western patch-nosed snake: Only the Coast subspecies (*Salvadora hexalepis virgultea*) is special status, and it does not occur in the GAI.
[h] American white pelican: Only considered special status in the portion of its range where it nests, and it does not nest in the GAI.
[i] California quail: Only the Catalina subspecies (*Callipepla californica catalinensis*) is special status, and it does not occur in the GAI.
[j] Spotted owl: The northern subspecies (*Strix occidentalis caurina*) is state and federally listed threatened, and it does not occur in the GAI.
[k] Cactus wren: Only the San Diego subspecies (*Campylorhynchus brunneicapillus sandiegensis*) is special status, and it does not occur in the GAI.
[l] Bewick's wren: Only the San Clemente subspecies (*Thryomanes bewickii leucophrys*) is special status, and it does not occur in the GAI (was endemic to San Clemente Island and is now extinct).
[m] Hutton's vireo: Only the Catalina subspecies (*Vireo huttoni unitti*) is special status, and it does not occur in the GAI.
[n] Spotted towhee: Only the San Clemente subspecies (*Pipilo maculatus clementae*) is special status, and it does not occur in the GAI.
[o] California towhee: Only the Inyo subspecies (*Melozone crissalis eremophilus*) is special status, and it does not occur in the Southern California Mountains and Valleys section of the GAI.
[p] Bell's sparrow: Only the San Clemente subspecies (*Artemisiospiza belli clementeae*) is special status, and it does not occur in the GAI.
[q] Song sparrow: There are five special-status subspecies of song sparrow, none of which occur in the GAI.
[r] Red-winged blackbird: Only the Kern subspecies (*Agelaius phoeniceus aciculatus*) is special status, and it does not occur in the GAI (restricted to Lake Isabella and Walker Basin).
[s] Ornate shrew: There are five special-status subspecies of ornate shrew, none of which occur in the GAI.
[t] Broad-footed mole: Only the Alameda Island subspecies (*Scapanus latimanus parvus*) is special status, and it does not occur in the GAI.
[u] Brush rabbit: Only the riparian subspecies (*Sylvilagus bachmani riparius*) is special status, and it does not occur in the GAI.
[v] Black-tailed jackrabbit: Only the San Diego subspecies (*Lepus californicus benettii*) is special status, and it does not occur in the GAI.
[w] San Bernardino flying squirrel: This subspecies does not occur in the GAI.
[x] California pocket mouse: Only the Dulzura subspecies (*Chaetodipus californicus femoralis*) is special status, and it does not occur in the GAI.
[y] Deer mouse: Only the Anacapa and San Clemente Island subspecies (*Peromyscus maniculatus anacapae* and *Peromyscus maniculatus clementis*) are special status, and they do not occur in the GAI.
[z] Desert woodrat: Only the San Diego subspecies (*Neotoma lepida intermedia*) is special status, and it does not occur in the GAI.
[aa] California vole: There are five special-status subspecies of California vole, none of which occur in the Southern California Mountains and Valleys section of the GAI.
[bb] Western spotted skunk: Only the Channel Islands subspecies (*Spilogale gracilis amphiala*) is special status, and it does not occur in the GAI.
[cc] Big-eared woodrat: Only the Monterey subspecies (*Neotoma macrotis luciana*) is special status, and it does not occur in the GAI.

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APPENDIX D: HYDROLOGIC UNITS

Sub-basin Descriptions

Seven sub-basins overlap the GAI. A description of each sub-basin is provided in the following sections. A crosswalk between the HUC-8 sub-basins and HUs is provided in Table D-1 at the end of this appendix.

Antelope-Fremont Valleys Sub-basin

The Antelope-Fremont Valleys sub-basin drains an area of approximately 2,155,221 acres (3,368 square miles) and includes 3,120 rivers and streams that traverse 4,383 miles (Table 2-7 in Chapter 2, *Environmental Setting*). As noted in Table D-1, the Antelope-Fremont Valleys sub-basin includes portions of the Antelope, Cuddeback, Fremont, Grapevine, Indian Wells, Kern River, Los Angeles River, Mojave, San Gabriel River, Santa Clara-Calleguas, and Trona HUs.

The Antelope HU corresponds to the Antelope Valley basin, an enclosed inland basin that is bounded by the Tehachapi Mountains and Garlock Fault Zone to the north and west, and the San Gabriel Mountains and San Andreas Rift Zone to the south and west. Streams originate in the mountains and foothills surrounding the valley, and eventually pond in dry lakes (Los Angeles County Department of Public Works 1987). The part of the Antelope HU that lies within the Antelope-Fremont Valleys sub-basin includes portions of the Buttes, Chafee, Gloster, Lancaster, Neenach, North Muroc, Rock Creek, and Willow Springs hydrologic areas.

The Cuddeback HU includes the watershed of the Cuddeback dry lake basin.

The part of the Fremont HU that lies within the Antelope-Fremont Valleys sub-basin includes portions of the Dove Springs, East Tehachapi, Kelson Landis, and Koehn hydrologic areas.

The part of the Grapevine HU that lies within the Antelope-Fremont Valleys sub-basin includes portions of the Tehachapi Creek, Tejon Creek, and San Emigdio hydrologic areas.

The part of the Indian Wells HU that lies within the Antelope-Fremont Valleys sub-basin includes a portion of the Rose hydrologic area.

The Kern River HU is associated with the Kern River, flowing approximately 165 miles. The north fork of the Kern River originates within Sequoia National Park, west of Mount Whitney. The south fork of the Kern River originates within the Inyo National Forest. Both forks meet at Isabella Dam and flow approximately 30 miles southwest before emptying onto the Central Valley floor (Kern River Watershed Coalition Authority 2014). The GAI only includes the extreme eastern portion of the Kern River HU, which includes a portion of the Upper Kern hydrologic area near the headwaters of the Kern River.

The Los Angeles River HU is associated with the Los Angeles River, Big Tujunga Creek, and Rio Hondo watersheds. The Los Angeles River is approximately 55 miles long and

originates in the Santa Monica, Santa Susana, and San Gabriel Mountains, flowing from areas covered by forest or open space land through highly urbanized areas. Lower parts of the river are highly modified and lined with concrete (Los Angeles RWQCB 2014). The GAI only includes the extreme northern portion of the Los Angeles River HU, which includes a portion of the San Fernando hydrologic area.

The Mojave HU is associated with the Mojave River, its surface waters originating on the northern slope of the San Bernardino Mountains, flowing approximately 110 miles through the Mojave Desert, and ultimately terminating at Soda Lake. The main stem forms upstream of the Mojave Forks Dam, north of the GAI at the confluence of Deep Creek, a perennial stream, and the West Fork Mojave River, typically an ephemeral stream (Lahontan RWQCB 2019). The part of the Mojave HU that lies within the Antelope-Fremont Valleys sub-basin includes portions of the El Mirage, Lockhart, and Middle Mojave hydrologic areas.

The San Gabriel River HU includes the San Gabriel River, which originates in the San Gabriel Mountains, where the upper reaches of the river are in undisturbed riparian and woodland habitats. The middle reaches of the river have been modified to control flood and debris flows, and to recharge groundwater. The lower reaches are concrete-lined, flowing through urban areas of Los Angeles, ultimately discharging into the Pacific Ocean near the city of Long Beach (Los Angeles RWQCB 2014). The GAI only includes the extreme northern portion of the San Gabriel River HU, which includes a portion of the San Gabriel Valley hydrologic area.

The Santa Clara-Calleguas HU contains the Santa Clara River watershed and portions of the Calleguas Creek watershed. The headwaters of the Santa Clara River originate on the northern slope of the San Gabriel Mountains. The Santa Clara River ultimately discharges into the Pacific Ocean between the cities of Ventura and Oxnard (Kamer and Fairey 2005). The GAI only includes the extreme northern portion of the Santa Clara-Calleguas HU, which includes portions of the Piru and Upper Santa Clara hydrologic areas.

The part of the Trona HU that lies within the Antelope-Fremont Valleys sub-basin includes a portion of the Searles Valley hydrologic area.

Coyote-Cuddeback Lakes Sub-basin

The Coyote-Cuddeback Lakes sub-basin drains an area of approximately 1,182,408 acres (1,848 square miles) and includes 859 rivers and streams that traverse 1,730 miles (Table 2-7 in Chapter 2, *Environmental Setting*). As noted in Table D-1, the Coyote-Cuddeback Lakes sub-basin includes portions of the Amargosa, Antelope, Ballarat, Bicycle, Coyote, Cuddeback, Fremont, Goldstone, Granite, Leach, Mojave, Superior, and Trona HUs. Descriptions of the Antelope, Cuddeback, Fremont, and Mojave HUs are provided in the Antelope-Fremont Valleys sub-basin section. No descriptions were found for the Bicycle, Coyote, Goldstone, Leach, or Superior HUs.

The Amargosa HU is associated with the Amargosa River watershed, which originates in springs near Beatty, Nevada and terminates at the playa in Death Valley. The approximately 180-mile-long Amargosa River is mostly intermittent, except for portions of the river in the Amargosa Canyon area in California, and near Beatty, Nevada (The Nature Conservancy 2014). The part of the Amargosa HU that lies within the Coyote-Cuddeback Lakes sub-basin includes a portion of the Silurian Hills hydrologic area.

The part of the Antelope HU that lies within the Coyote-Cuddeback Lakes sub-basin includes a portion of the North Muroc hydrologic area.

The part of the Ballarat HU that lies within the Coyote-Cuddeback Lakes sub-basin includes a portion of the Robbers hydrologic area.

The part of the Fremont HU that lies within the Coyote-Cuddeback Lakes sub-basin includes a portion of the Koehn hydrologic area.

The part of the Granite HU that lies within the Coyote-Cuddeback Lakes sub-basin includes portions of the McLean and Nelson hydrologic areas.

The part of the Mojave HU that lies within the Coyote-Cuddeback Lakes sub-basin includes portions of the Afton, Lockhart, Lower Mojave, and Middle Mojave hydrologic areas.

The part of the Trona HU that lies within the Coyote-Cuddeback Lakes sub-basin includes portions of the Pilot Knob and Searles Valley hydrologic areas.

Death Valley-Lower Amargosa Sub-basin

The Death Valley-Lower Amargosa sub-basin drains an area of approximately 3,234,916 acres (5,055 square miles) and includes 2,581 rivers and streams that traverse 5,176 miles (Table 2-7 in Chapter 2, *Environmental Setting*). As noted in Table D-1, the Death Valley-Lower Amargosa sub-basin includes portions of the Amargosa, Ballarat, Bicycle, Eureka, Granite, Ivanpah, Leach, Mesquite, Mojave, Owlshead, Race Track, and Saline HUs. Descriptions of the Amargosa, Ballarat, and Granite HUs are provided in the Coyote-Cuddeback Lakes sub-basin section. A description of the Mojave HU is provided in the Antelope-Fremont Valleys sub-basin section. No descriptions were found for the Bicycle, Ivanpah, Leach, or Mesquite HUs.

The part of the Amargosa HU that lies within the Death Valley-Lower Amargosa sub-basin includes portions of the Amargosa Desert, Death Valley, Ryan, and Silurian Hills hydrologic areas.

The part of the Ballarat HU that lies within the Death Valley-Lower Amargosa sub-basin includes portions of the Brown, Panamint Valley, Robbers, Wild Rose, and Wingate Pass hydrologic areas.

The Eureka HU is associated with Eureka Valley in Inyo County, adjacent to the California-Nevada state line. The GAI only includes the extreme eastern portion of the Eureka HU, which includes portions of the Marble Bath and Marble Canyon hydrologic areas.

The part of the Granite HU that lies within the Death Valley-Lower Amargosa sub-basin includes portions of the McLean and Nelson hydrologic areas.

The part of the Mojave HU that lies within the Death Valley-Lower Amargosa sub-basin includes portions of the Afton, Baker, and Kelso hydrologic areas.

The part of the Owlshead HU that lies within the Death Valley-Lower Amargosa sub-basin includes portions of the Lost Lake and Owl Lake hydrologic areas.

The part of the Race Track HU that lies within the Death Valley-Lower Amargosa sub-basin includes portions of the Hidden Valley, Sand Flat, Teakettle Junction, and Ulida hydrologic areas.

The Saline HU is associated with the aquatic resources within Saline Valley in Inyo County, south of Eureka Valley and east of Owens Valley. The GAI only includes the extreme southern portion of the Saline HU, which includes portions of the Cameo and Salt Lake hydrologic areas.

Indian Wells-Searles Valleys Sub-basin

The Indian Wells-Searles Valleys sub-basin drains an area of approximately 1,292,390 acres (2,019 square miles) and includes 1,280 rivers and streams that traverse 2,205 miles (Table 2-7 in Chapter 2, *Environmental Setting*). As noted in Table D-1, the Indian Wells-Searles Valleys sub-basin includes portions of the Ballarat, Coso, Cuddeback, Fremont, Indian Wells, Kern River, Mojave, Owens, Superior, Trona, and Upper Cactus HUs. A description of the Ballarat HU is provided in the Coyote-Cuddeback Lakes sub-basin section. Descriptions of the Cuddeback, Fremont, Indian Wells, Kern River, Mojave, and Trona HUs are provided in the Antelope-Fremont Valleys sub-basin section. No descriptions were found for the Superior or Upper Cactus HUs.

The part of the Ballarat HU that lies within the Indian Wells-Searles Valleys sub-basin includes portions of the Brown, Darwin, Panamint Valley, and Robbers hydrologic areas.

The part of the Coso HU that lies within the Indian Wells-Searles Valleys sub-basin includes portions of the Airport and Wild Horse hydrologic areas.

The part of the Fremont HU that lies within the Indian Wells-Searles Valleys sub-basin includes portions of the Dove Springs and Koehn hydrologic areas.

The part of the Indian Wells HU that lies within the Indian Wells-Searles Valleys sub-basin includes portions of the China Lake and Rose hydrologic areas.

The part of the Kern River HU that lies within the Indian Wells-Searles Valleys sub-basin includes a portion of the Upper Kern hydrologic area.

The part of the Mojave HU that lies within the Indian Wells-Searles Valleys Lake sub-basin includes a portion of the Lockhart hydrologic area.

The Owens HU is associated with the aquatic resources located within Owens Valley, including the Owens River and its tributaries. The Owens River originates within Long Valley and flows south through Owens Valley, terminating at Owens Lake, now a dry

lakebed due to water from the Owens River being diverted to Los Angeles (Inyo County Water Department 2016). The part of the Owens HU that lies within the Indian Wells-Searles Valleys sub-basin includes a portion of the Centennial hydrologic area.

The part of the Trona HU that lies within the Indian Wells-Searles Valleys Lake sub-basin includes portions of the Pilot Knob, Salt Wells, and Searles Valley hydrologic areas.

Owens Lake Sub-basin

The Owens Lake sub-basin drains an area of approximately 877,197 acres (1,371 square miles) and includes 602 rivers and streams that traverse 1,070 miles (Table 2-7 in Chapter 2, *Environmental Setting*). As noted in Table D-1, the Owens Lake sub-basin includes portions of the Ballarat, Coso, Eureka, Indian Wells, Kern River, Kings River, Owens, Saline, and Upper Cactus HUs. A description of the Ballarat HU is provided in the Coyote-Cuddeback Lakes sub-basin section. A description of the Coso HU is provided in the Indian Wells-Searles Valleys sub-basin section. Descriptions of the Eureka, Owens, and Saline HUs are provided in the Death Valley-Lower Amargosa sub-basin section. Descriptions of the Indian Wells and Kern River HUs are provided in the Antelope-Fremont Valleys sub-basin section. No description was found for the Upper Cactus HU.

The part of the Ballarat HU that lies within the Owens Lake sub-basin includes portions of the Darwin and Santa Rosa Flat hydrologic areas.

The part of the Coso HU that lies within the Owens Lake sub-basin includes a portion of the Airport hydrologic area.

The part of the Eureka HU that lies within the Owens Lake sub-basin includes a portion of the Marble Canyon hydrologic area.

The part of the Indian Wells HU that lies within the Owens Lake sub-basin includes a portion of the Rose hydrologic area.

The part of the Kern River HU that lies within the Owens Lake sub-basin includes a portion of the Upper Kern hydrologic area.

The Kings River HU is associated with the Kings River, an approximately 272-mile-long waterway. The Kings River has headwaters in the Sierra Nevada and flows to the Central Valley, terminating at the Tulare Lake Basin (South Fork Kings River) and the confluence of the San Joaquin River at Mendota Pool (North Fork Kings River) (Water Education Foundation 2021). The GAI only includes the extreme eastern portion of the Kings River HU, which includes a portion of the Upper Kings hydrologic area.

The part of the Owens HU that lies within the Owens Lake sub-basin includes portions of the Centennial, Lower Owens, and Upper Owens hydrologic areas.

The part of the Saline HU that lies within the Owens Lake sub-basin includes a portion of the Salt Lake hydrologic area.

Panamint Valley Sub-basin

The Panamint Valley sub-basin drains an area of approximately 1,043,787 acres (1,631 square miles) and includes 1,005 rivers and streams that traverse 1,812 miles (Table 2-7 in Chapter 2, *Environmental Setting*). As noted in Table D-1, the Panamint Valley sub-basin includes portions of the Amargosa, Ballarat, Coso, Goldstone, Granite, Indian Wells, Leach, Owens, Owlshead, Saline, Superior, and Trona HUs. Descriptions of the Amargosa, Ballarat, and Granite HUs are provided in the Coyote-Cuddeback Lakes sub-basin section. A description of the Coso HU is provided in the Indian Wells-Searles Valleys sub-basin section. Descriptions of the Indian Wells and Trona HUs are provided in the Antelope-Fremont Valleys sub-basin section. Descriptions of the Owens, Owlshead, and Saline HUs are provided in the Death Valley-Lower Amargosa sub-basin section. No descriptions were found for the Goldstone, Leach, or Superior HUs.

The part of the Amargosa HU that lies within the Panamint Valley sub-basin includes a portion of the Death Valley hydrologic area.

The part of the Ballarat HU that lies within the Panamint Valley sub-basin includes portions of the Brown, Darwin, Lee Flat, Panamint Valley, Robbers, Santa Rosa Flat, Wild Rose, and Wingate Pass hydrologic areas.

The part of the Coso HU that lies within the Panamint Valley sub-basin includes portions of the Airport and Wild Horse hydrologic areas.

The part of the Granite HU that lies within the Panamint Valley sub-basin includes portions of the McLean and Nelson hydrologic areas.

The part of the Indian Wells HU that lies within the Panamint Valley sub-basin includes a portion of the China Lake hydrologic area.

The part of the Owens HU that lies within the Panamint Valley sub-basin includes portions of the Centennial and Lower Owens hydrologic areas.

The part of the Owlshead HU that lies within the Panamint Valley sub-basin includes a portion of the Lost Lake hydrologic area.

The part of the Saline HU that lies within the Panamint Valley sub-basin includes a portion of the Salt Lake hydrologic area.

The part of the Trona HU that lies within the Panamint Valley sub-basin includes portions of the Pilot Knob and Searles Valley hydrologic areas.

Upper Amargosa Sub-basin

The Upper Amargosa sub-basin drains an area of approximately 741,903 acres (1,159 square miles) and includes 626 rivers and streams that traverse 1,232 miles (Table 2-7 in Chapter 2, *Environmental Setting*). As noted in Table D-1, the Upper Amargosa sub-basin includes portions of the Amargosa, Mesquite, and Pahrump HUs. A description of the Amargosa HU is provided in the Coyote-Cuddeback Lakes sub-basin section. No descriptions were found for the Pahrump or Mesquite HUs.

The part of the Amargosa HU that lies within the Upper Amargosa sub-basin includes portions of the Amargosa Desert, Death Valley, Ryan, and Silurian Hills hydrologic areas.

Crosswalk: HUC-8s to HUs

The SAMNA Reporting Tool expresses the landscape in terms of USGS HUC-8 sub-basins (Caltrans 2021; USGS 2014). However, the State Water Board considers beneficial uses in terms of HUs (California Department of Water Resources 2016). Table D-1 provides a crosswalk between the HUC-8 and HU classification systems for the GAI.

Table D-1. Crosswalk Table of HUC-8 Sub-basins with HUs in the GAI

HUC-8 #	HUC-8 Name	HUC-8 Acreage[a]	HU #	HU Name	HU Acreage[a]
18090206	Antelope-Fremont Valleys	2,155,257	403	Santa Clara-Calleguas	627,323
18090206	Antelope-Fremont Valleys	2,155,257	404	Santa Clara-Calleguas	567,432
18090206	Antelope-Fremont Valleys	2,155,257	405	San Gabriel River	454,267
18090206	Antelope-Fremont Valleys	2,155,257	412	Los Angeles River	533,853
18090206	Antelope-Fremont Valleys	2,155,257	554	Kern River	1,595,870
18090206	Antelope-Fremont Valleys	2,155,257	556	Grapevine	839,713
18090206	Antelope-Fremont Valleys	2,155,257	621	Trona	1,266,546
18090206	Antelope-Fremont Valleys	2,155,257	624	Indian Wells	728,222
18090206	Antelope-Fremont Valleys	2,155,257	625	Fremont	581,613
18090206	Antelope-Fremont Valleys	2,155,257	626	Antelope	973,883
18090206	Antelope-Fremont Valleys	2,155,257	627	Antelope	732,793
18090206	Antelope-Fremont Valleys	2,155,257	627	Cuddeback	732,793
18090206	Antelope-Fremont Valleys	2,155,257	628	Mojave	1,669,511
18090207	Coyote-Cuddeback Lakes	1,182,441	609	Amargosa	3,761,363
18090207	Coyote-Cuddeback Lakes	1,182,441	614	Leach	98,722
18090207	Coyote-Cuddeback Lakes	1,182,441	615	Granite	54,674
18090207	Coyote-Cuddeback Lakes	1,182,441	616	Bicycle	87,899
18090207	Coyote-Cuddeback Lakes	1,182,441	617	Goldstone	44,685
18090207	Coyote-Cuddeback Lakes	1,182,441	618	Coyote	159,543
18090207	Coyote-Cuddeback Lakes	1,182,441	619	Superior	184,099
18090207	Coyote-Cuddeback Lakes	1,182,441	621	Ballarat	1,266,546
18090207	Coyote-Cuddeback Lakes	1,182,441	621	Trona	1,266,546

HUC-8 #	HUC-8 Name	HUC-8 Acreage[a]	HU #	HU Name	HU Acreage[a]
18090207	Coyote-Cuddeback Lakes	1,182,411	625	Fremont	581,613
18090207	Coyote-Cuddeback Lakes	1,182,411	627	Antelope	732,793
18090207	Coyote-Cuddeback Lakes	1,182,411	627	Cuddeback	732,793
18090207	Coyote-Cuddeback Lakes	1,182,411	628	Mojave	1,669,511
18090207	Coyote-Cuddeback Lakes	1,182,411	629	Mojave	1,806,012
18090203	Death Valley-Lower Amargosa	3,441,527	606	Eureka	377,433
18090203	Death Valley-Lower Amargosa	3,441,527	607	Saline	472,795
18090203	Death Valley-Lower Amargosa	3,441,527	608	Race Track	77,769
18090203	Death Valley-Lower Amargosa	3,441,527	609	Amargosa	3,761,323
18090203	Death Valley-Lower Amargosa	3,441,527	611	Mesquite	132,163
18090203	Death Valley-Lower Amargosa	3,441,527	612	Ivanpah	278,493
18090203	Death Valley-Lower Amargosa	3,441,527	613	Owlshead	102,000
18090203	Death Valley-Lower Amargosa	3,441,527	614	Leach	98,723
18090203	Death Valley-Lower Amargosa	3,441,527	615	Granite	54,674
18090203	Death Valley-Lower Amargosa	3,441,527	616	Bicycle	87,899
18090203	Death Valley-Lower Amargosa	3,441,527	620	Ballarat	237,362
18090203	Death Valley-Lower Amargosa	3,441,527	621	Ballarat	1,266,546
18090203	Death Valley-Lower Amargosa	3,441,527	629	Mojave	1,806,012
18090205	Indian Wells-Searles Valleys	1,292,391	554	Kern River	1,595,870
18090205	Indian Wells-Searles Valleys	1,292,391	603	Owens	2,003,430
18090205	Indian Wells-Searles Valleys	1,292,391	619	Superior	184,099

HUC-8 #	HUC-8 Name	HUC-8 Acreage[a]	HU #	HU Name	HU Acreage[a]
18090205	Indian Wells-Searles Valleys	1,292,391	620	Ballarat	237,362
18090205	Indian Wells-Searles Valleys	1,292,391	621	Ballarat	1,266,546
18090205	Indian Wells-Searles Valleys	1,292,391	621	Trona	1,266,546
18090205	Indian Wells-Searles Valleys	1,292,391	622	Coso	160,285
18090205	Indian Wells-Searles Valleys	1,292,391	623	Upper Cactus	10,385
18090205	Indian Wells-Searles Valleys	1,292,391	624	Indian Wells	728,222
18090205	Indian Wells-Searles Valleys	1,292,391	625	Fremont	581,613
18090205	Indian Wells-Searles Valleys	1,292,391	627	Cuddeback	732,793
18090205	Indian Wells-Searles Valleys	1,292,391	628	Mojave	1,669,511
18090103	Owens Lake	877,214	552	Kings River	1,897,568
18090103	Owens Lake	877,214	554	Kern River	1,595,870
18090103	Owens Lake	877,214	603	Owens	2,003,430
18090103	Owens Lake	877,214	606	Eureka	377,433
18090103	Owens Lake	877,214	607	Saline	472,795
18090103	Owens Lake	877,214	620	Ballarat	237,362
18090103	Owens Lake	877,214	622	Coso	160,285
18090103	Owens Lake	877,214	623	Upper Cactus	10,385
18090103	Owens Lake	877,214	624	Indian Wells	728,222
18090204	Panamint Valley	1,043,788	603	Owens	2,003,430
18090204	Panamint Valley	1,043,788	607	Saline	472,795
18090204	Panamint Valley	1,043,788	609	Amargosa	3,761,363
18090204	Panamint Valley	1,043,788	613	Owlshead	102,000
18090204	Panamint Valley	1,043,788	614	Leach	98,723
18090204	Panamint Valley	1,043,788	615	Granite	54,674
18090204	Panamint Valley	1,043,788	617	Goldstone	44,685
18090204	Panamint Valley	1,043,788	619	Superior	184,099

HUC-8 #	HUC-8 Name	HUC-8 Acreage[a]	HU #	HU Name	HU Acreage[a]
18090204	Panamint Valley	1,043,788	620	Ballarat	237,362
18090204	Panamint Valley	1,043,788	621	Ballarat	1,266,546
18090204	Panamint Valley	1,043,788	621	Trona	1,266,546
18090204	Panamint Valley	1,043,788	622	Coso	160,285
18090204	Panamint Valley	1,043,788	624	Indian Wells	728,222
18090202	Upper Amargosa	2,180,980	609	Amargosa	3,761,323
18090202	Upper Amargosa	2,180,980	610	Pahrump	140,195
18090202	Upper Amargosa	2,180,980	611	Mesquite	132,163

Source: Caltrans 2021
[a] Numbers were rounded to the nearest whole number.

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APPENDIX E: AQUATIC RESOURCE LOCATIONS

Aquatic resource locations are shown by HUC-8 sub-basin and HU in the following maps, which also include major landmarks for perspective. These locations were excerpted from the SAMNA Reporting Tool's water and wetland layers (Caltrans 2021a, 2021b). Hydrologic units are described in Appendix D, which includes a crosswalk table of HUC-8 subbasins and HUs. These 92 maps correspond with the land cover maps in Appendix B.

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 upon them (Caltrans 2021a, 2021b).

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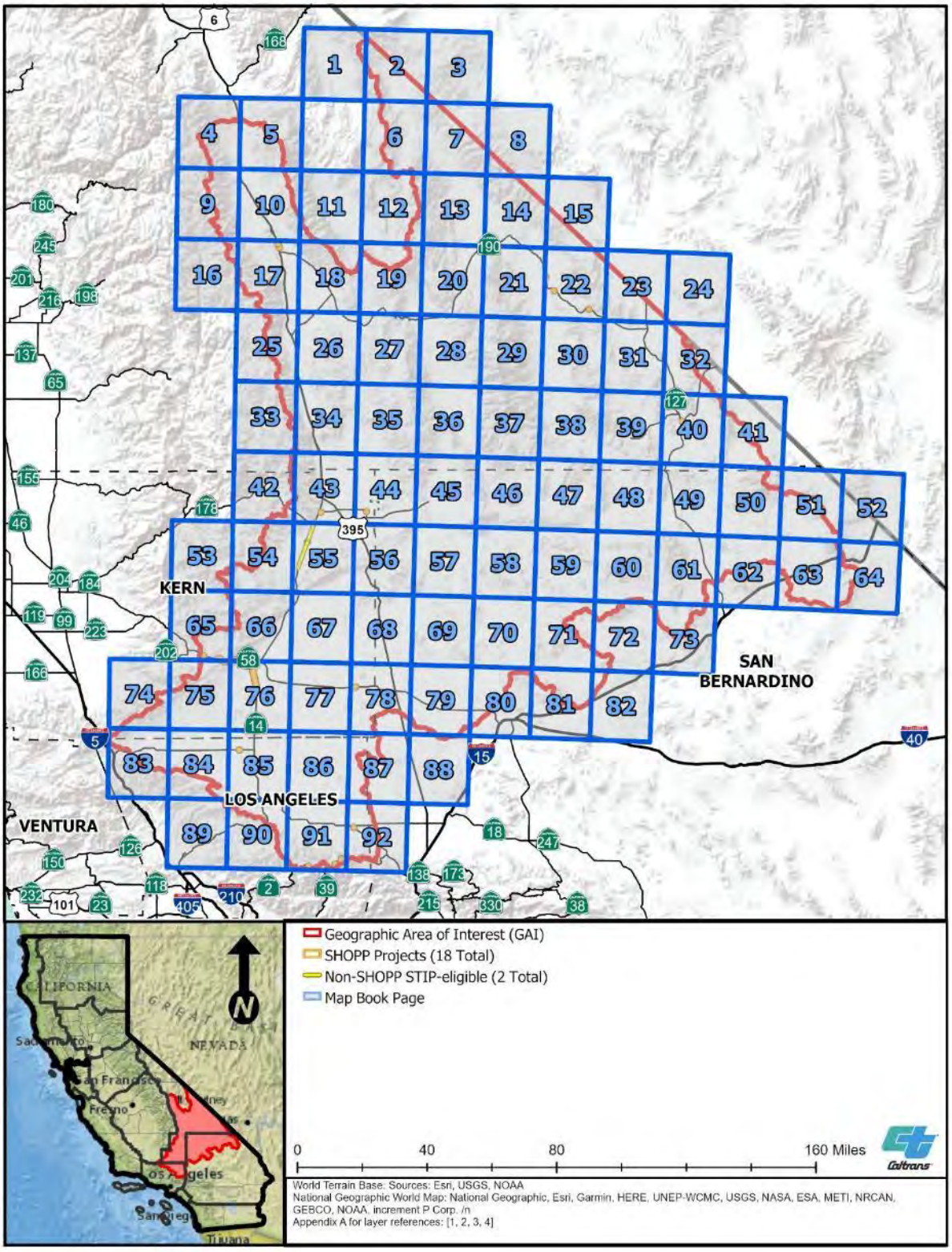
KERN
SAN BERNARDINO
LOS ANGELES
VENTURA
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Map Book Page
0
40
80
160 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp. /n
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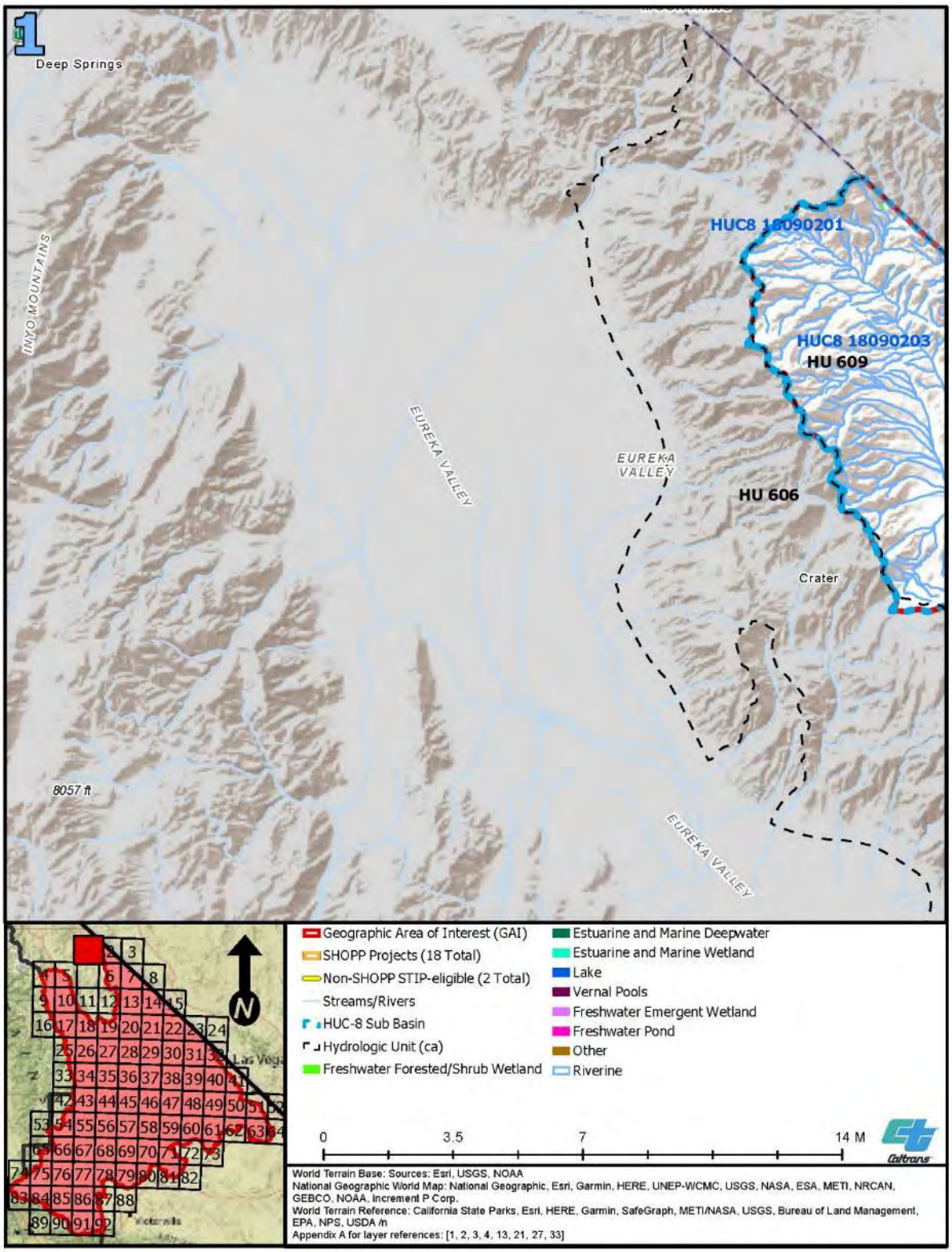
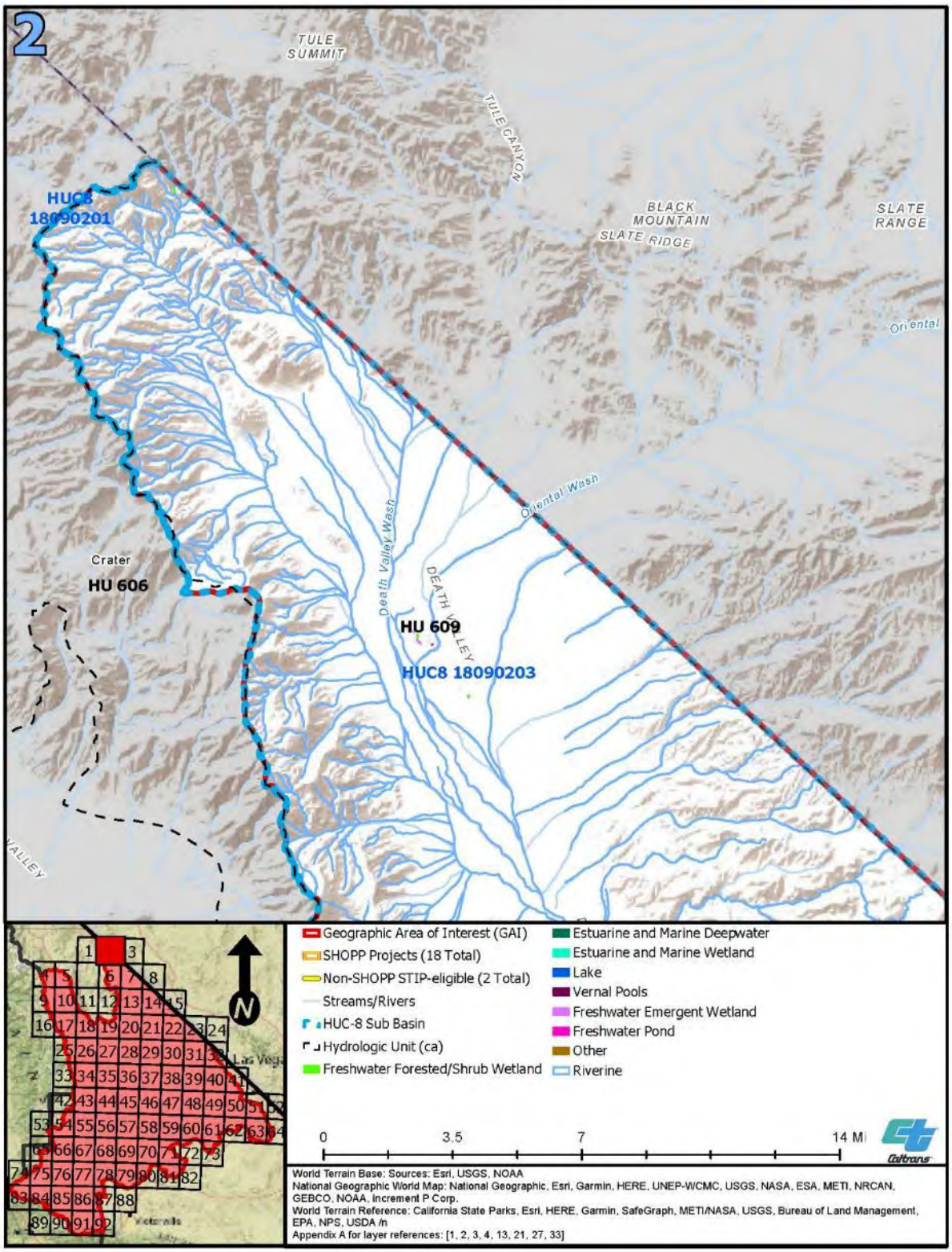
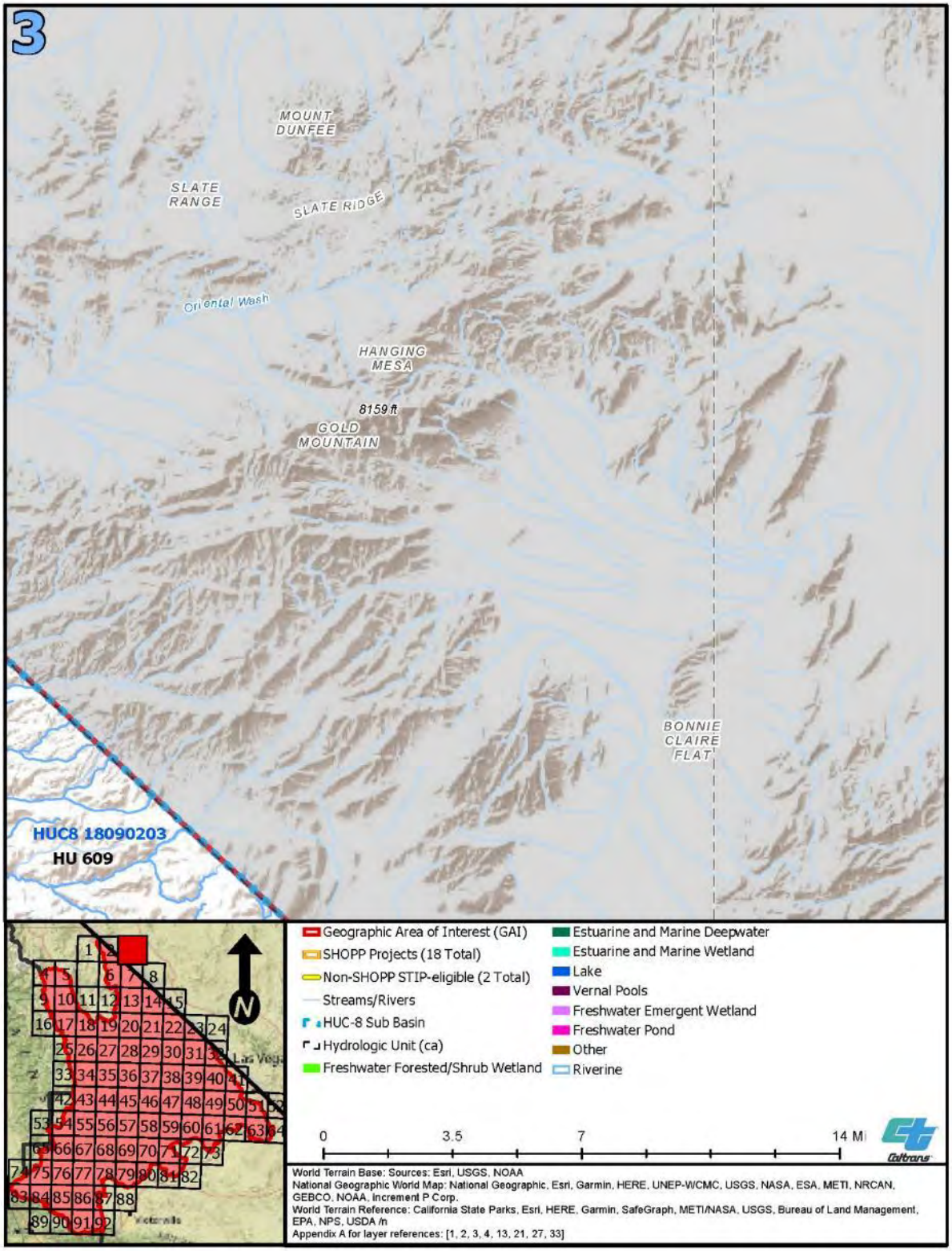
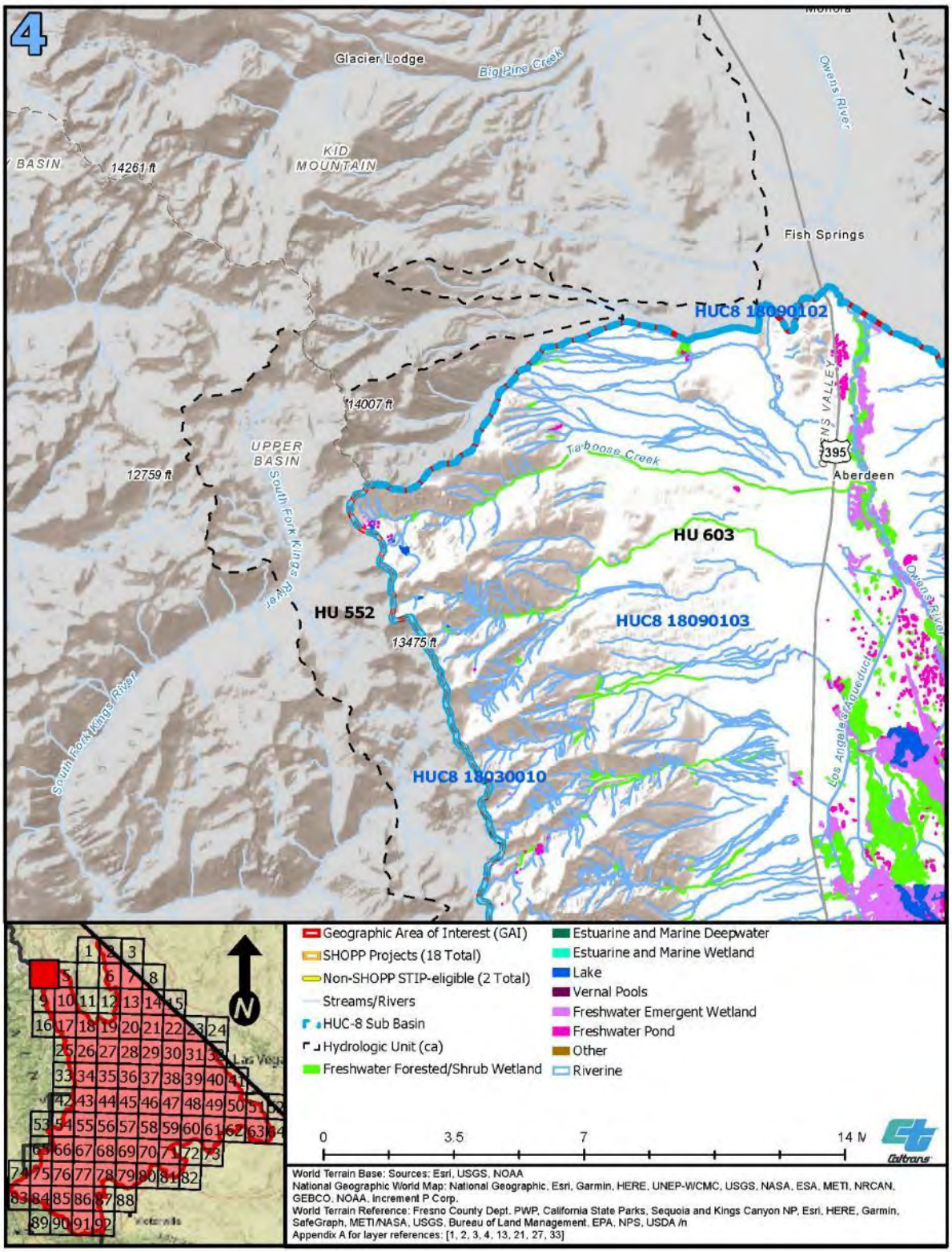
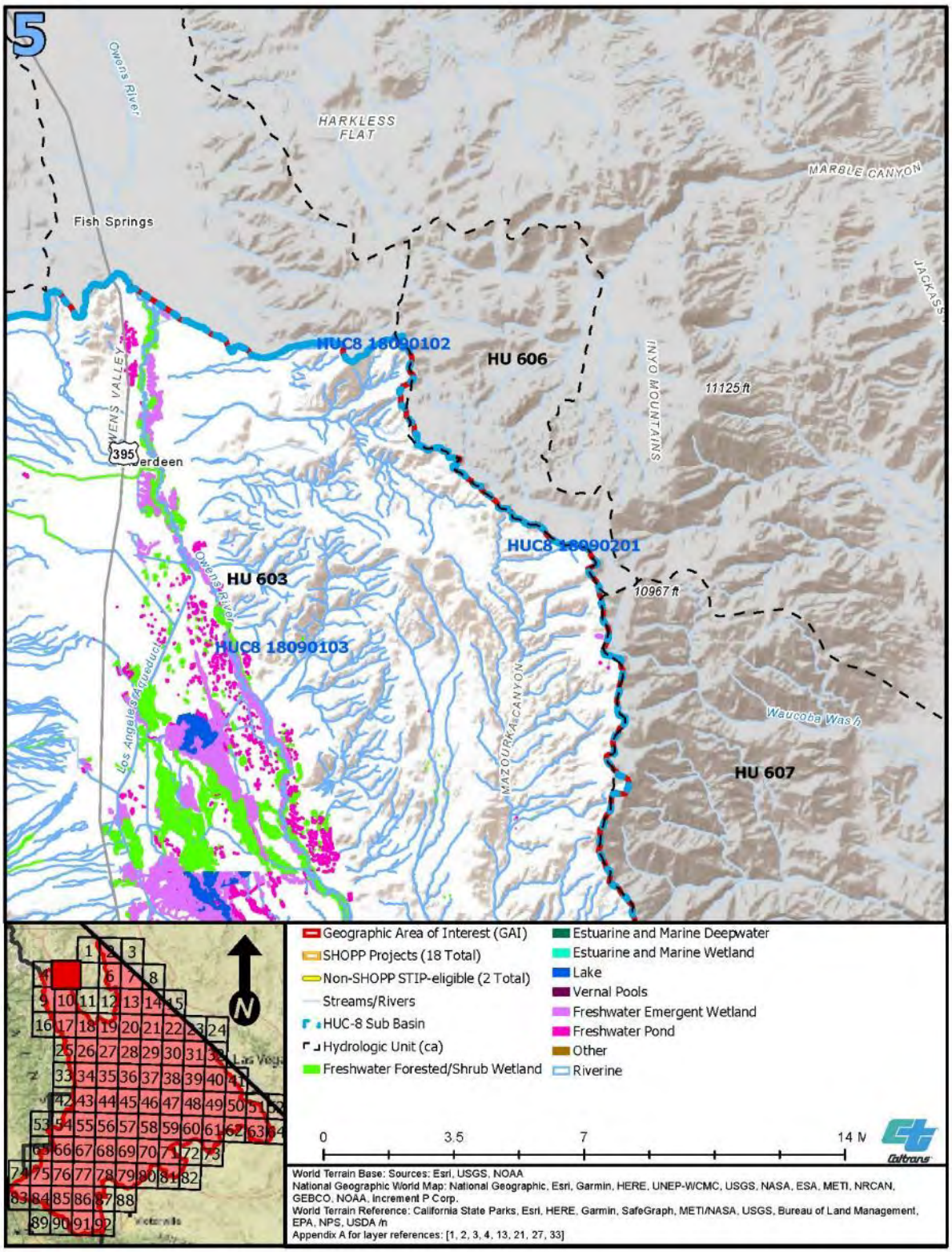

1
Deep Springs
INYO MOUNTAINS
EUREKA VALLEY
EUREKA VALLEY
EUREKA VALLEY
HUC8 18090201
HUC8 18090203
HU 609
HU 606
Crater
8057 ft
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


2
TULE SUMMIT
TULE CANYON
HUC8 18090201
BLACK MOUNTAIN
SLATE RIDGE
SLATE RANGE
Oriental
Oriental Wash
Death Valley Wash
DEATH VALLEY
Crater
HU 606
HU 609
HUC8 18090203
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


3
MOUNT DUNFEE
SLATE RANGE
SLATE RIDGE
Oriental Wash
HANGING MESA
8159 ft
GOLD MOUNTAIN
BONNIE CLAIRE FLAT
HUC8 18090203
HU 609
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


4
Glacier Lodge
Big Pine Creek
Owens River
BASIN
14261 ft
KID MOUNTAIN
Fish Springs
HUC8 18090102
14007 ft
UPPER BASIN
Owens Valley
395
Tabboose Creek
12759 ft
South Fork Kings River
Aberdeen
HU 603
HU 552
HUC8 18090103
13475 ft
Owens River
Los Angeles Aqueduct
South Fork Kings River
HUC8 18030010
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
N
0
3.5
7
14 Mi
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: Fresno County Dept. PWP, California State Parks, Sequoia and Kings Canyon NP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


5
Owens River
HARKLESS FLAT
MARBLE CANYON
Fish Springs
JACKASS
HUC8 18090102
HU 606
OWENS VALLEY
INYO MOUNTAINS
11125 ft
395
HUC8 18090201
HU 603
Owens River
10967 ft
HUC8 18090103
Los Angeles Aqueduct
MAZOURKA CANYON
Waucoba Wash
HU 607
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
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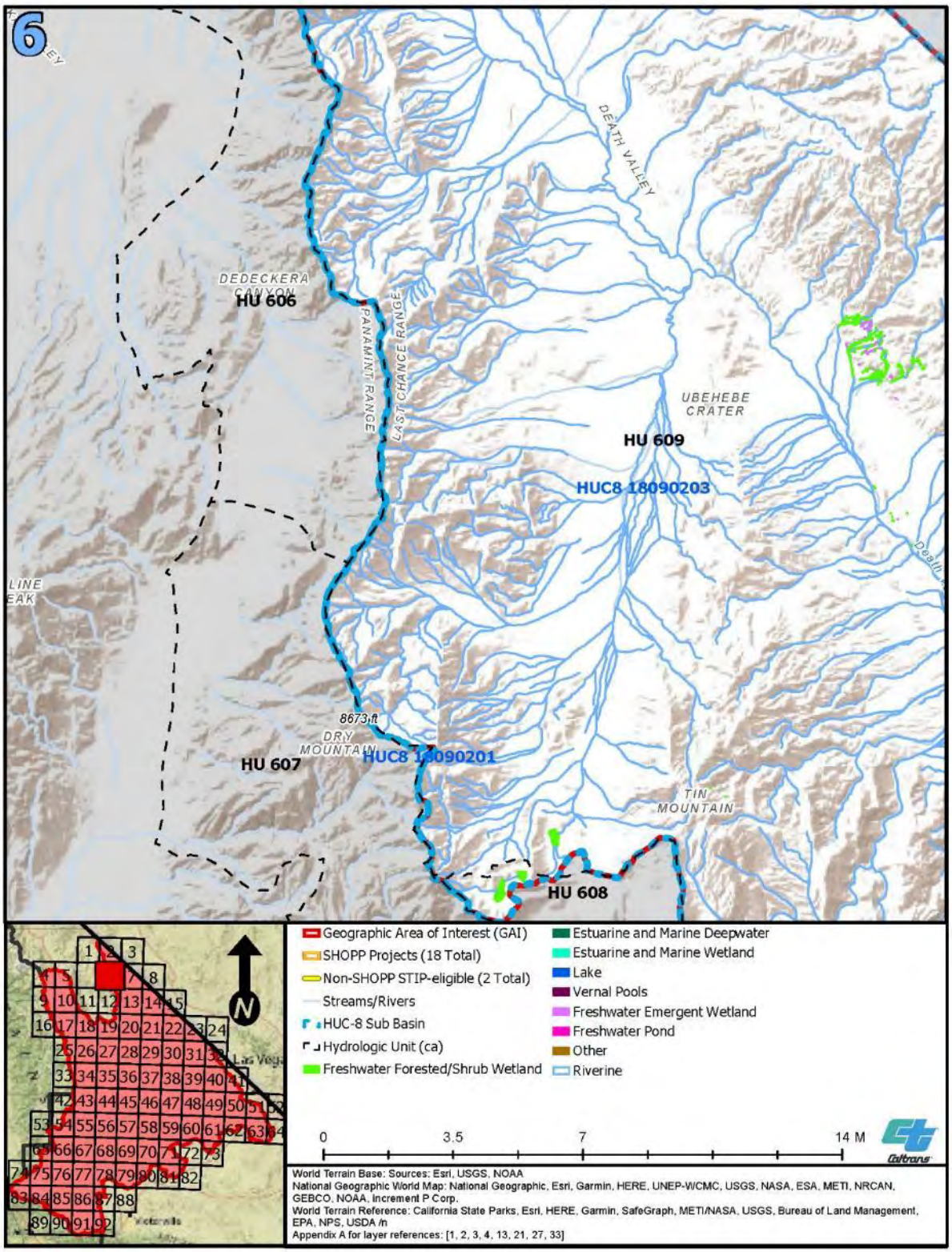
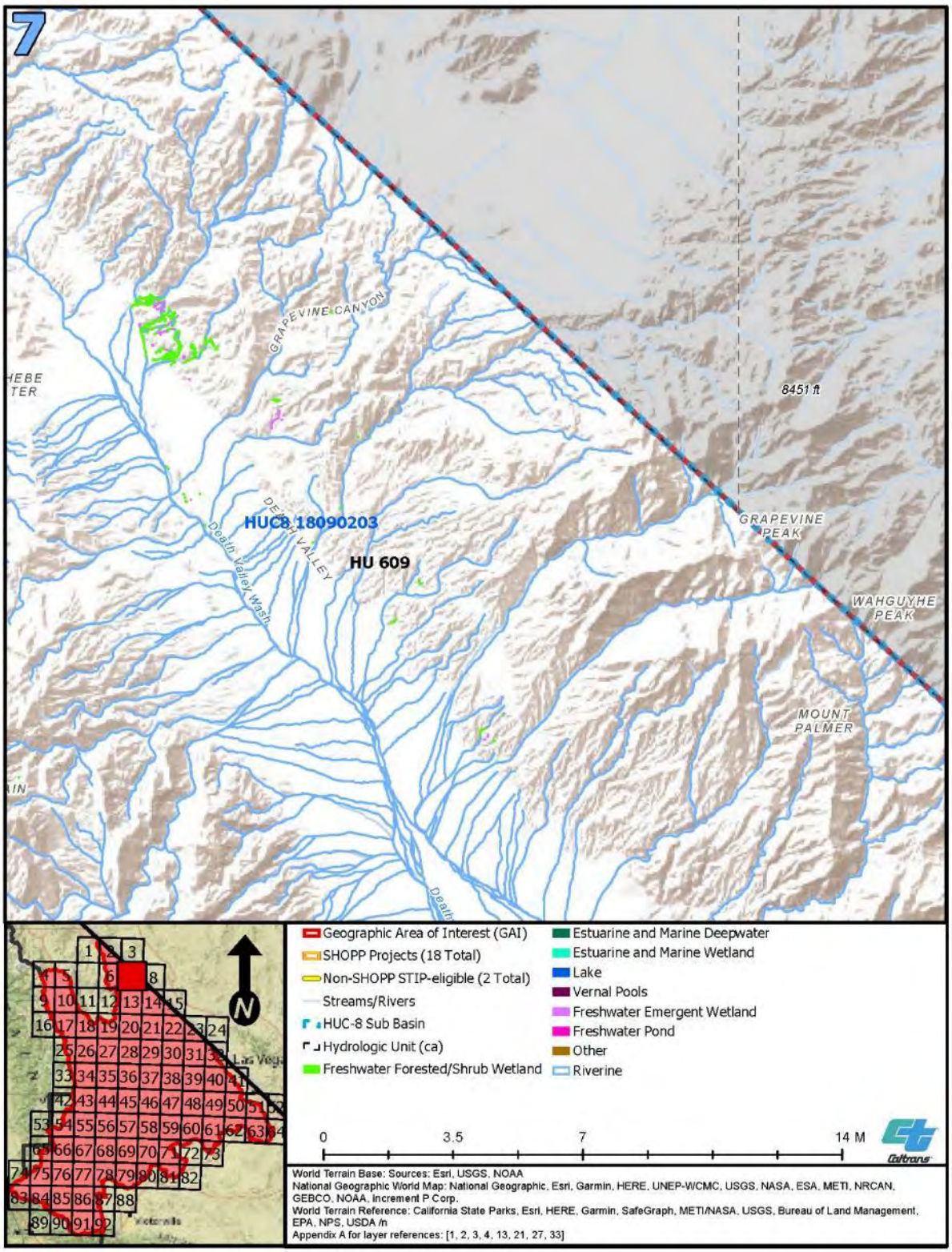
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


6
DEATH VALLEY
DEDECKERA CANYON
HU 606
PANAMINT RANGE
LAST CHANCE RANGE
UBEHEBE CRATER
HU 609
HUC8 18090203
8673ft
DRY MOUNTAIN
HU 607
HUC8 18090201
TIN MOUNTAIN
HU 608
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


7
GRAPEVINE CANYON
8451 ft
HUC8 18090203
HU 609
Death Valley Wash
DEATH VALLEY
GRAPEVINE PEAK
WAHGUYHE PEAK
MOUNT PALMER
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
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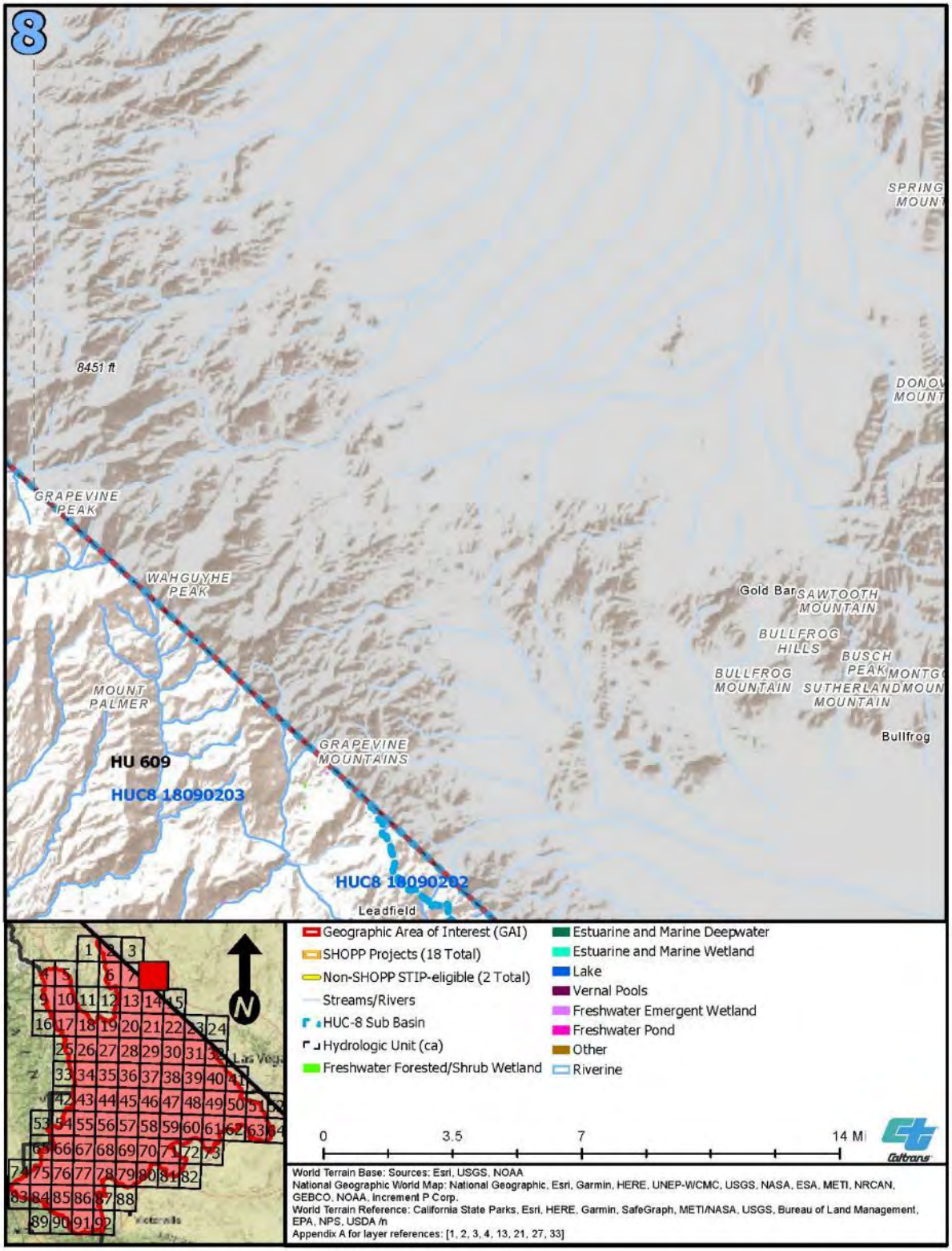
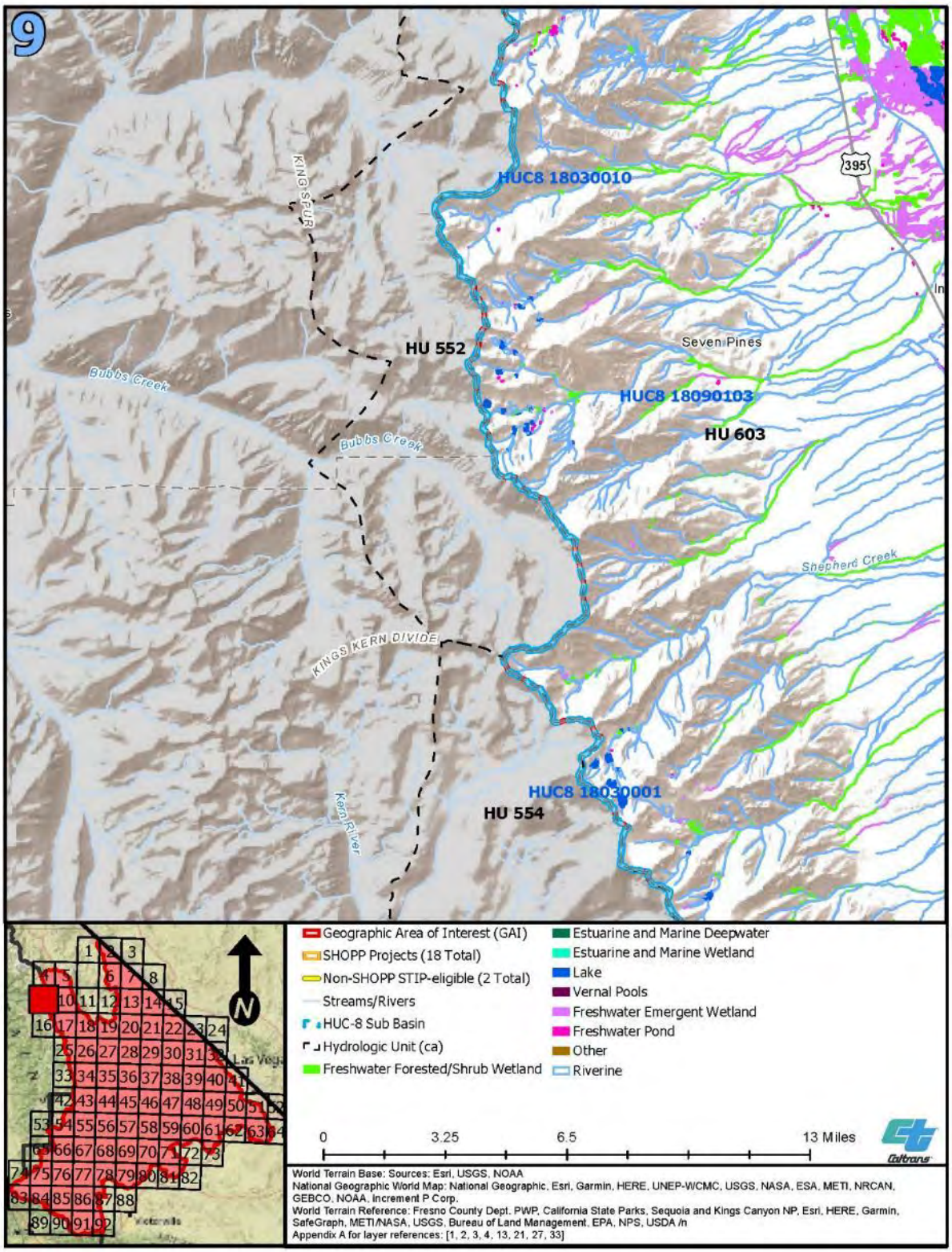
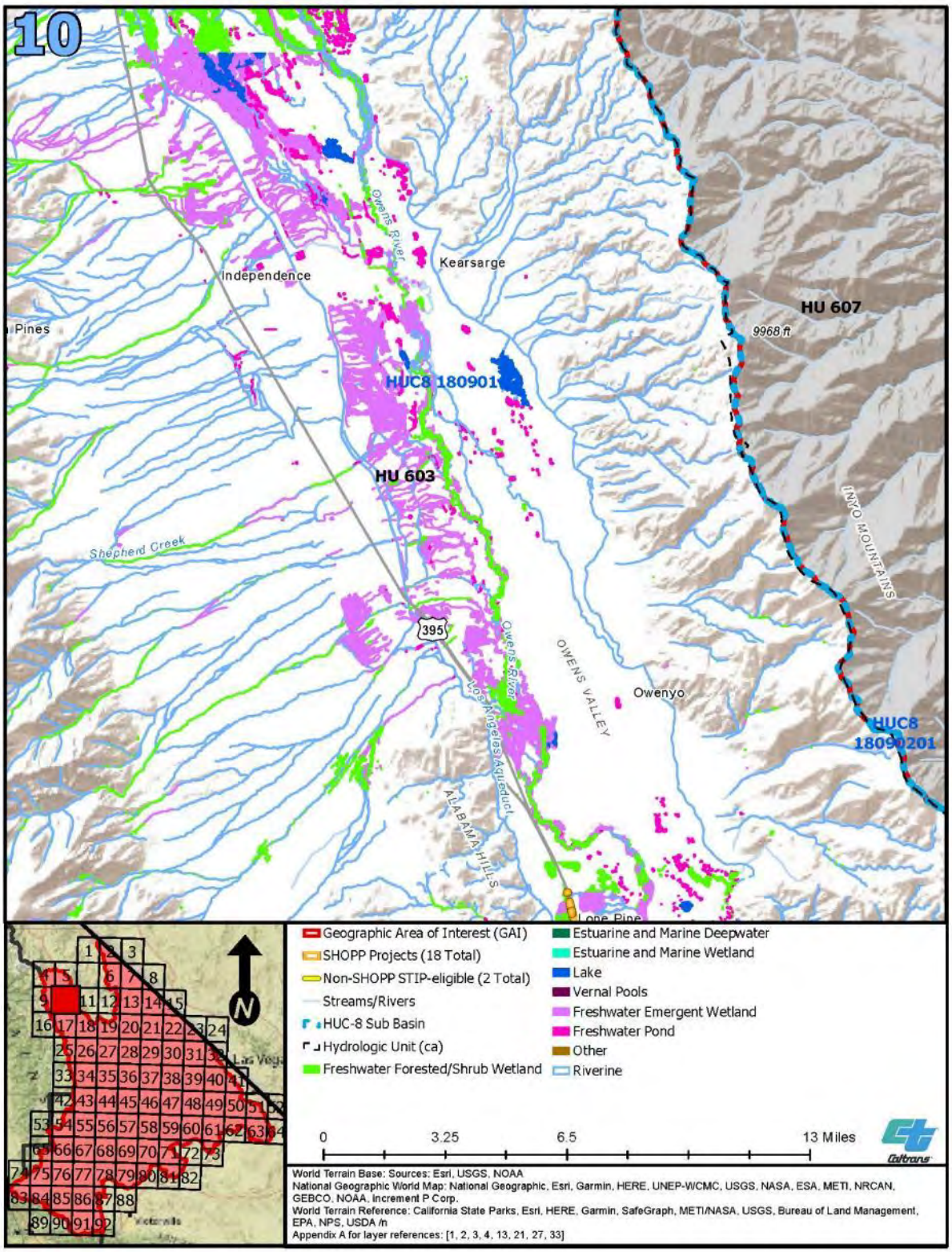
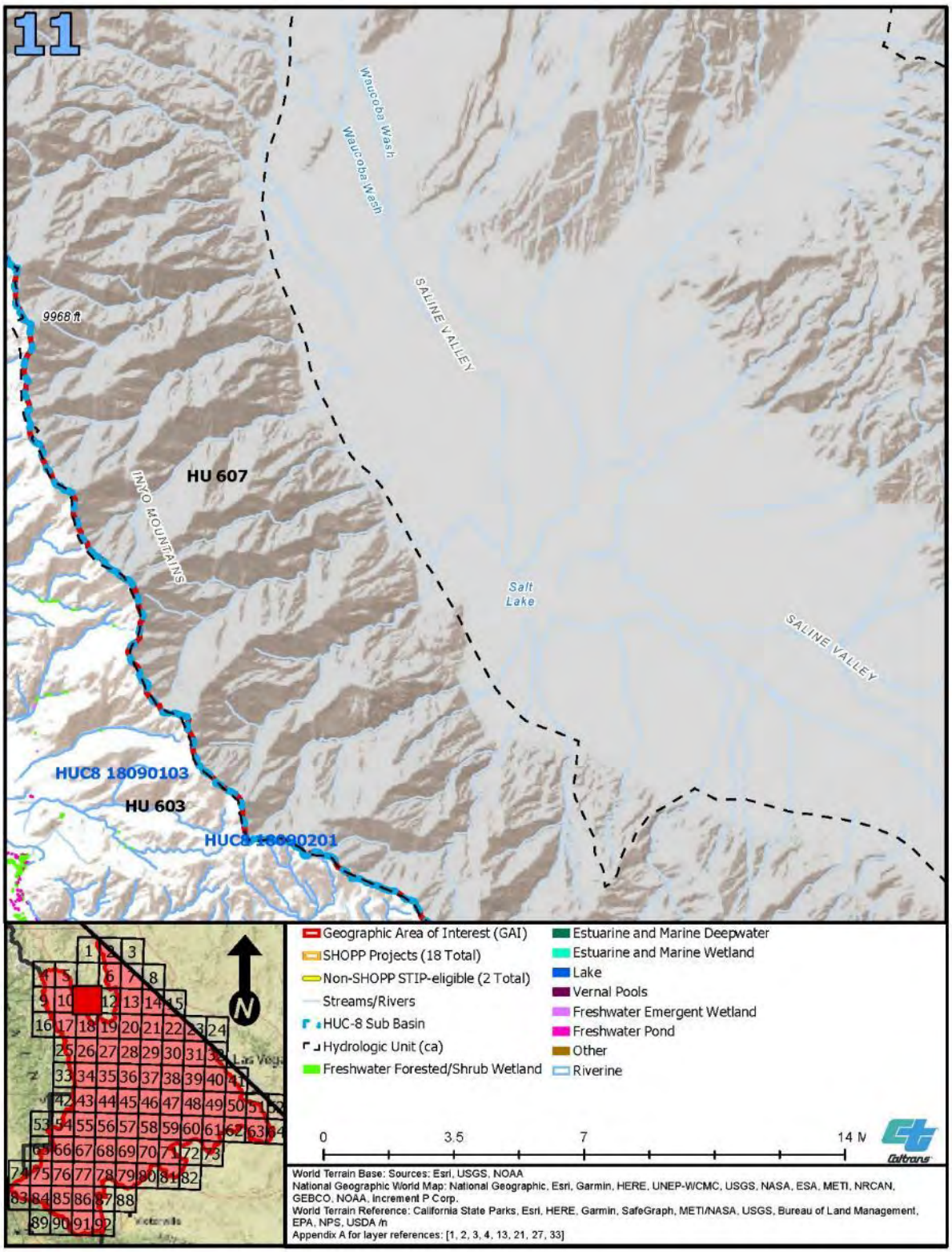
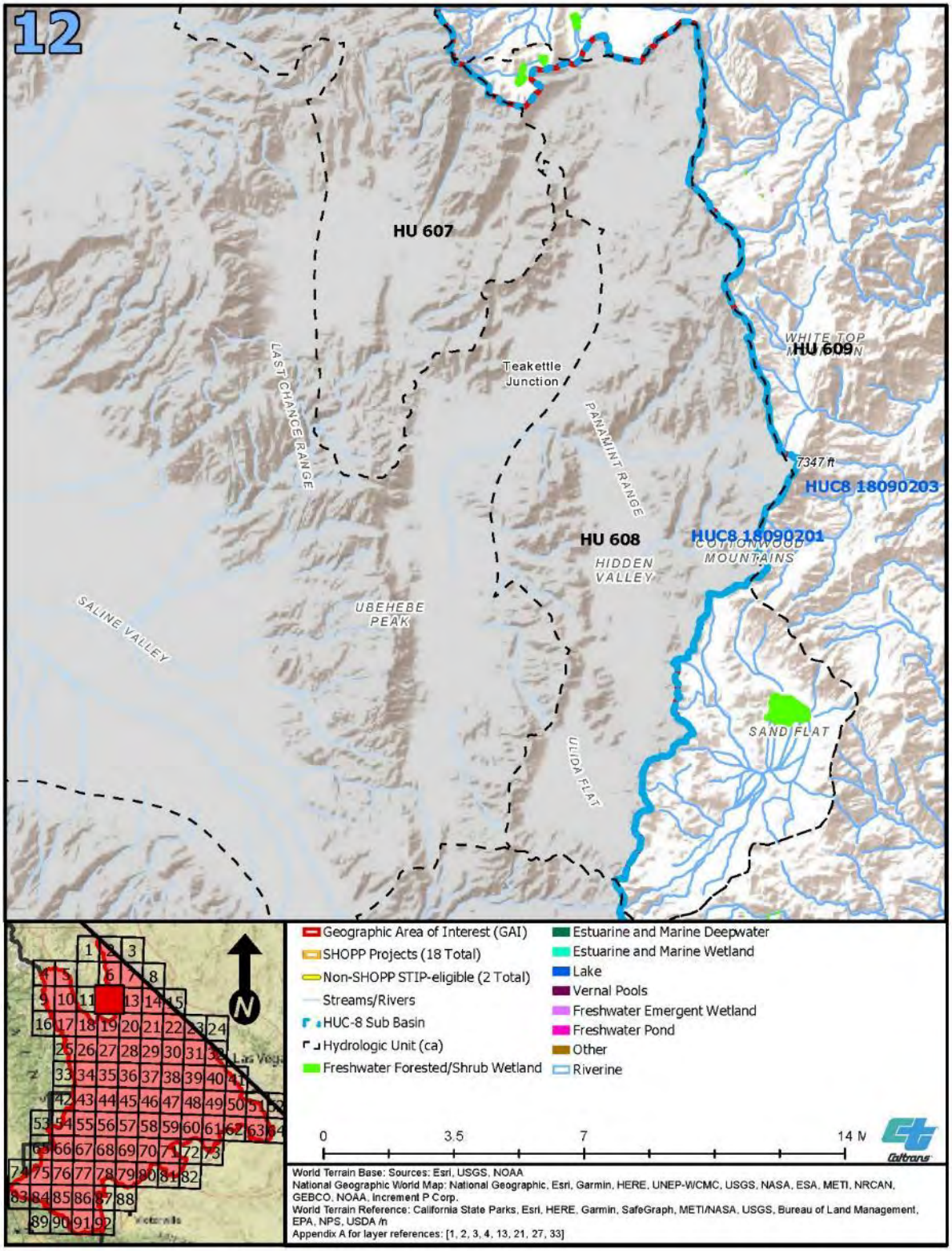
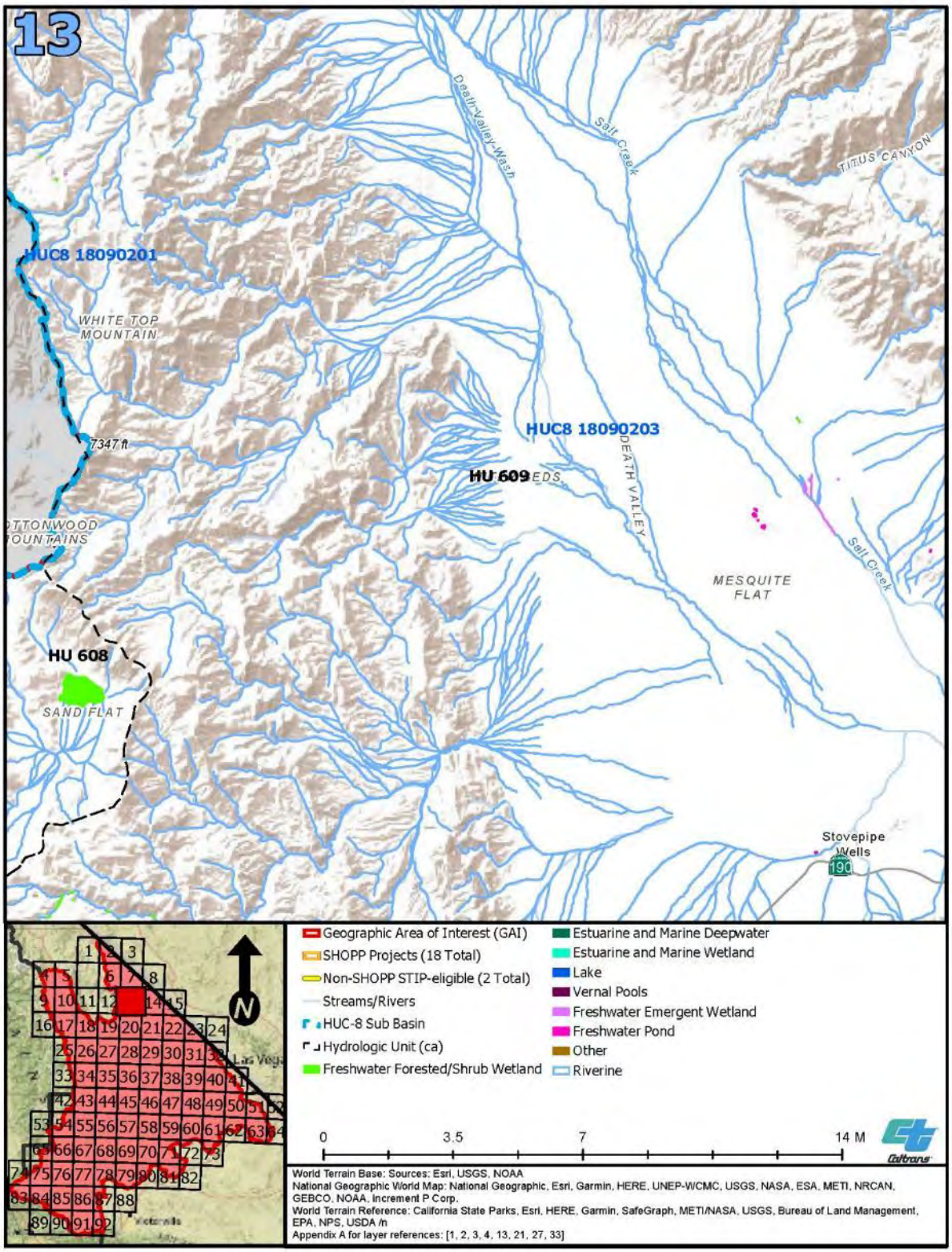

8
8451 ft
GRAPEVINE PEAK
WAHGUYHE PEAK
MOUNT PALMER
GRAPEVINE MOUNTAINS
HU 609
HUC8 18090203
HUC8 18090202
Leadfield
Gold Bar
SAWTOOTH MOUNTAIN
BULLFROG HILLS
BUSCH PEAK
BULLFROG MOUNTAIN
SUTHERLAND MOUNTAIN
Bullfrog
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

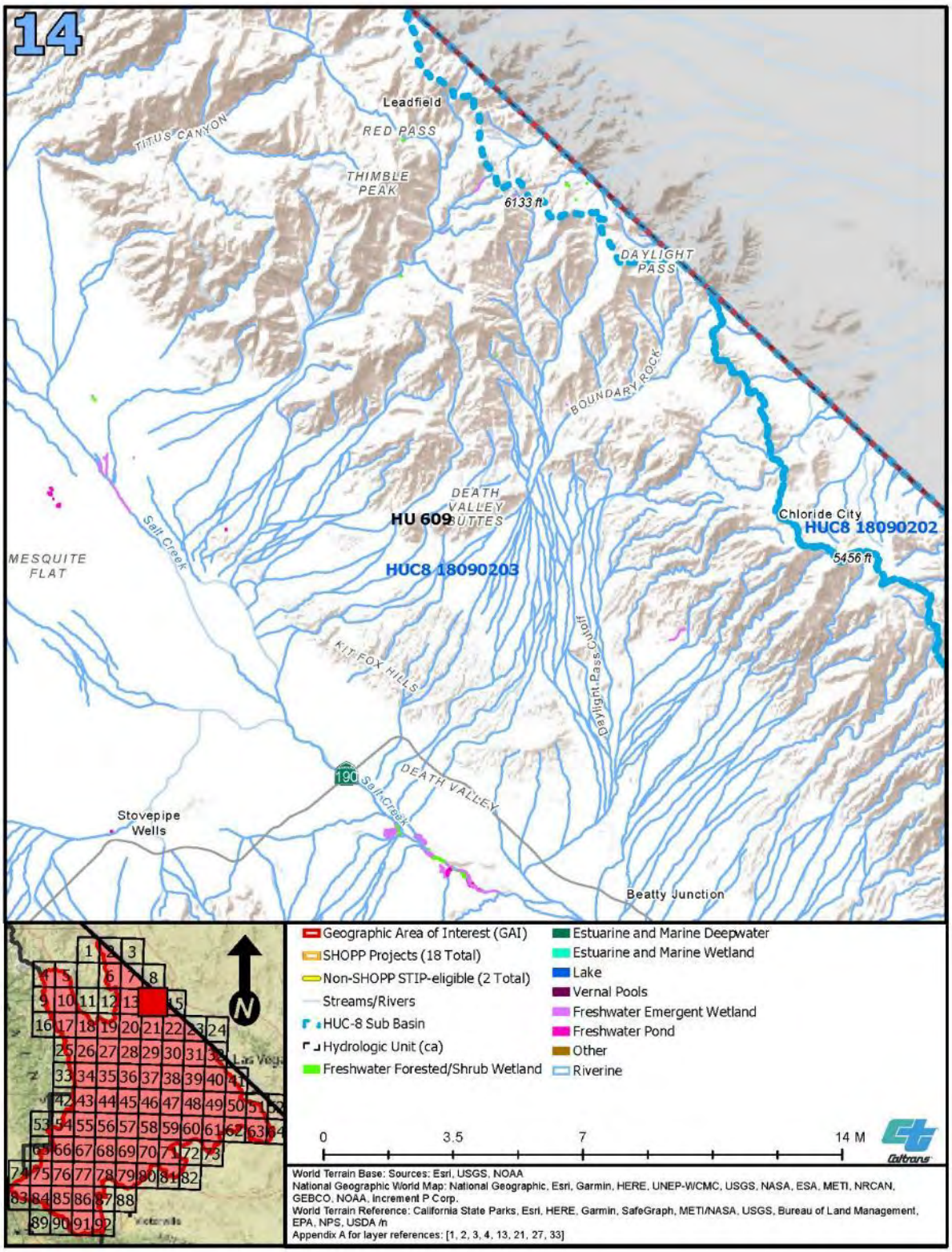

9
HUC8 18030010
HU 552
HUC8 18090103
HU 603
HUC8 18030001
HU 554
KINGS FUR
Bubbs Creek
Bubbs Creek
KINGS KERN DIVIDE
Kern River
Seven Pines
Shepherd Creek
395
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: Fresno County Dept. PWP, California State Parks, Sequoia and Kings Canyon NP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

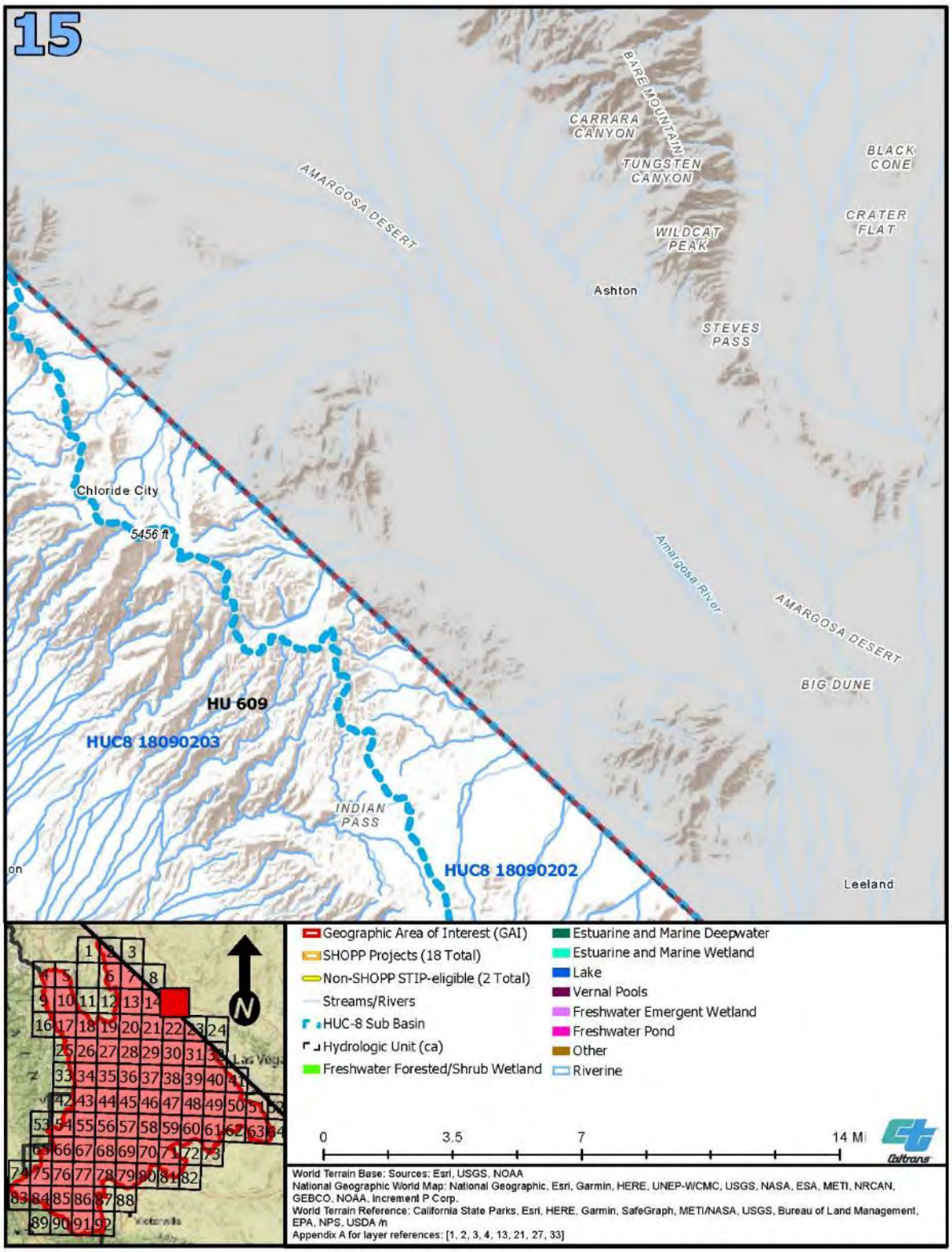

10
Independence
Kearsarge
Owens River
Pines
HU 607
9968 ft
HUC8 180901
HU 603
Shepherd Creek
395
Owens River
Los Angeles Aqueduct
OWENS VALLEY
Owenyo
INYO MOUNTAINS
HUC8
18090201
ALABAMA HILLS
Lone Pine
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

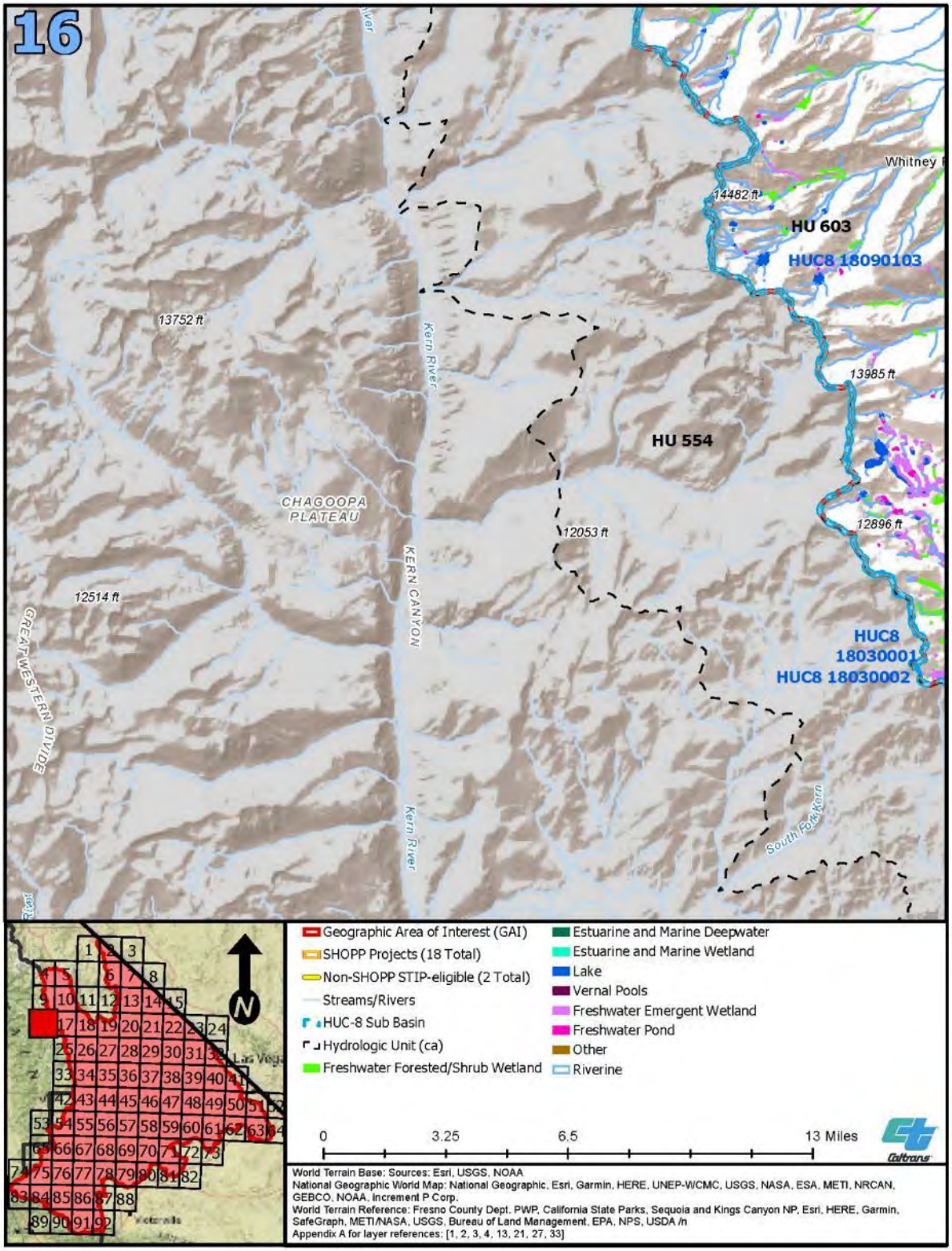

11
Waucoba Wash
Waucoba Wash
SALINE VALLEY
9968 ft
HU 607
INYO MOUNTAINS
Salt Lake
SALINE VALLEY
HUC8 18090103
HU 603
HUC8 18090201
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

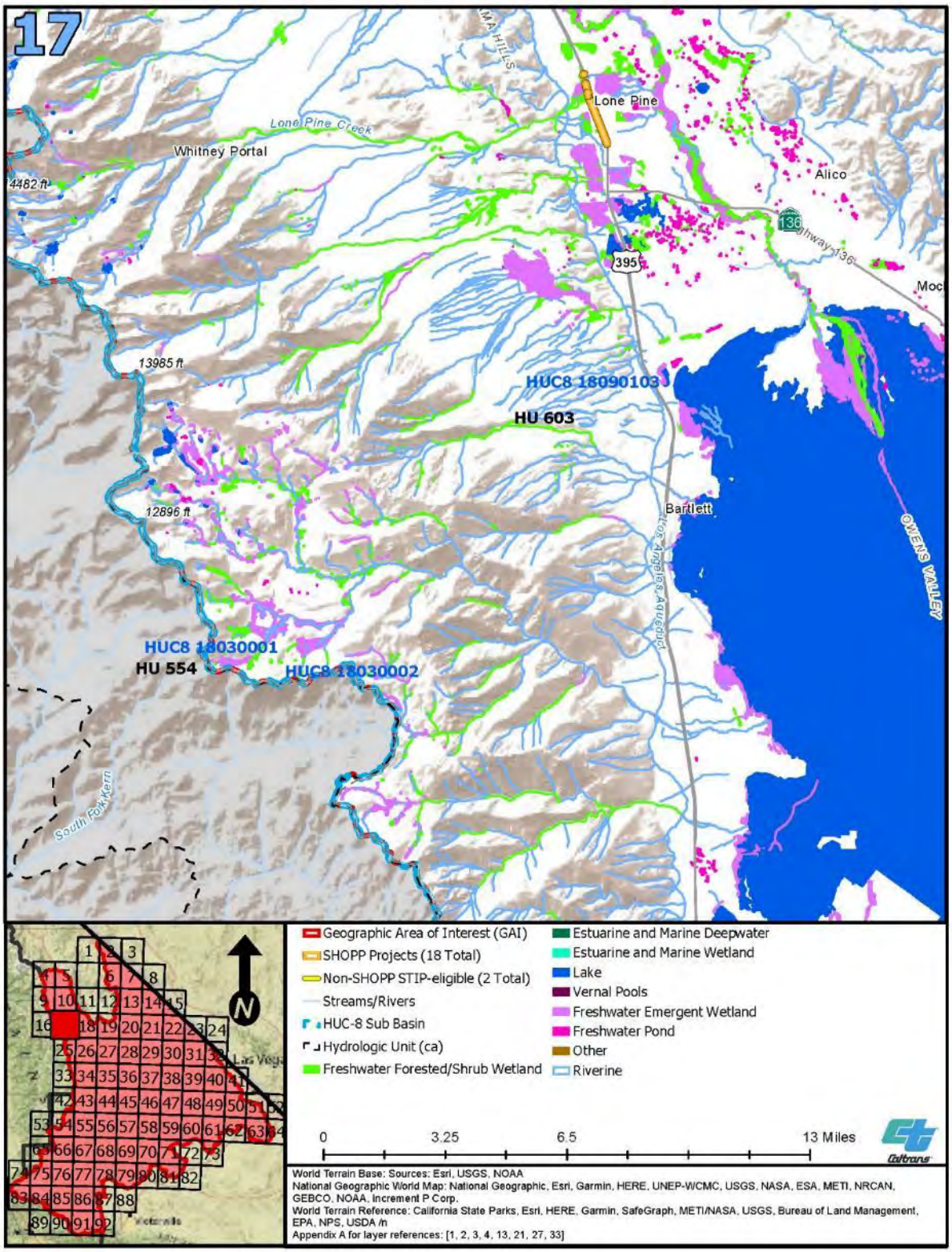

12
HU 607
HU 608
HU 609
Teakettle Junction
LAST CHANCE RANGE
PANAMINT RANGE
WHITE TOP MOUNTAIN
7347 ft
HUC8 18090203
HUC8 18090201
COTTONWOOD MOUNTAINS
HIDDEN VALLEY
UBEHEBE PEAK
SALINE VALLEY
SAND FLAT
ULIDA FLAT
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

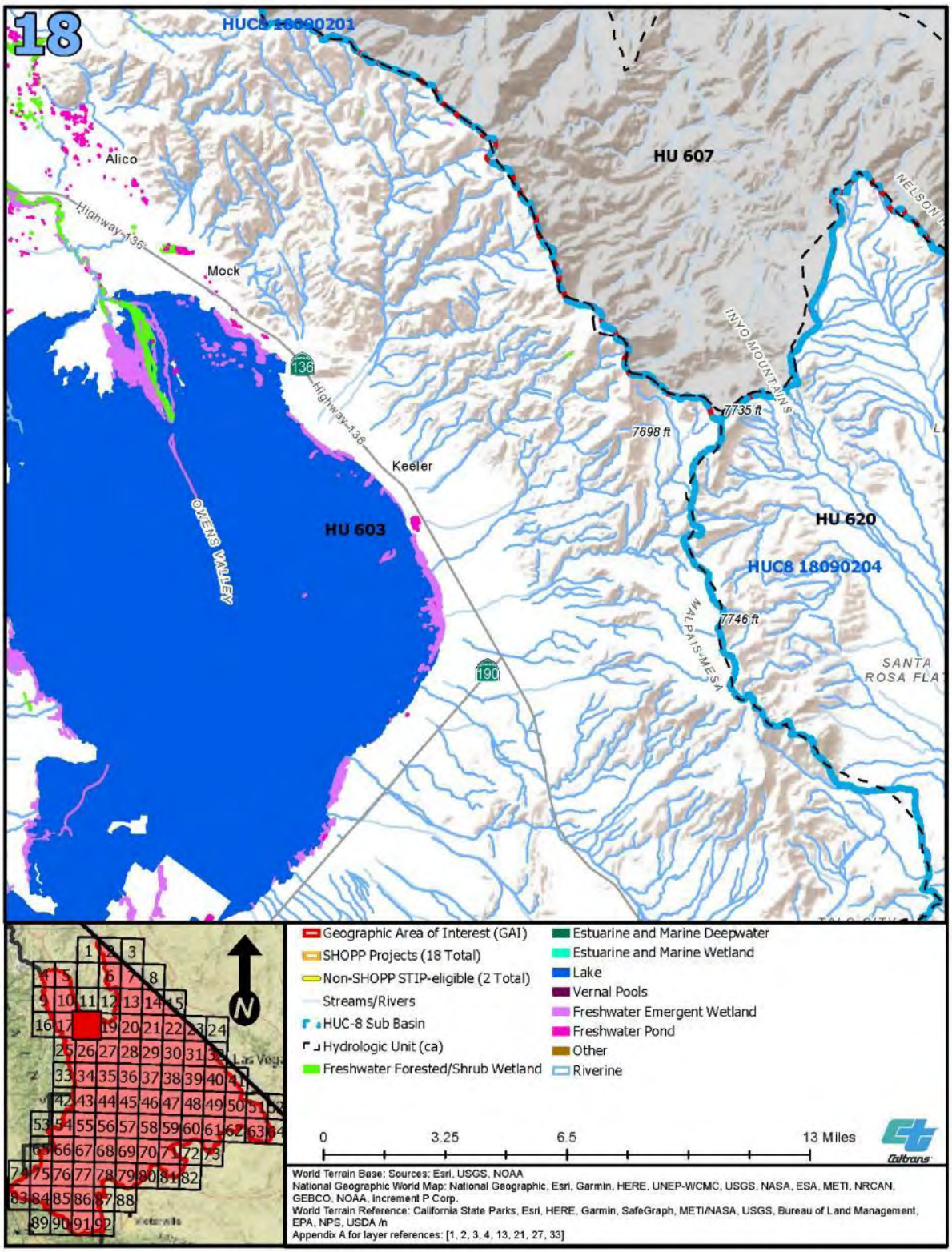

13
HUC8 18090201
WHITE TOP MOUNTAIN
7347 ft
HUC8 18090203
HU 609
DEATH VALLEY
MESQUITE FLAT
Salt Creek
TITUS CANYON
HU 608
SAND FLAT
Stovepipe Wells
190
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

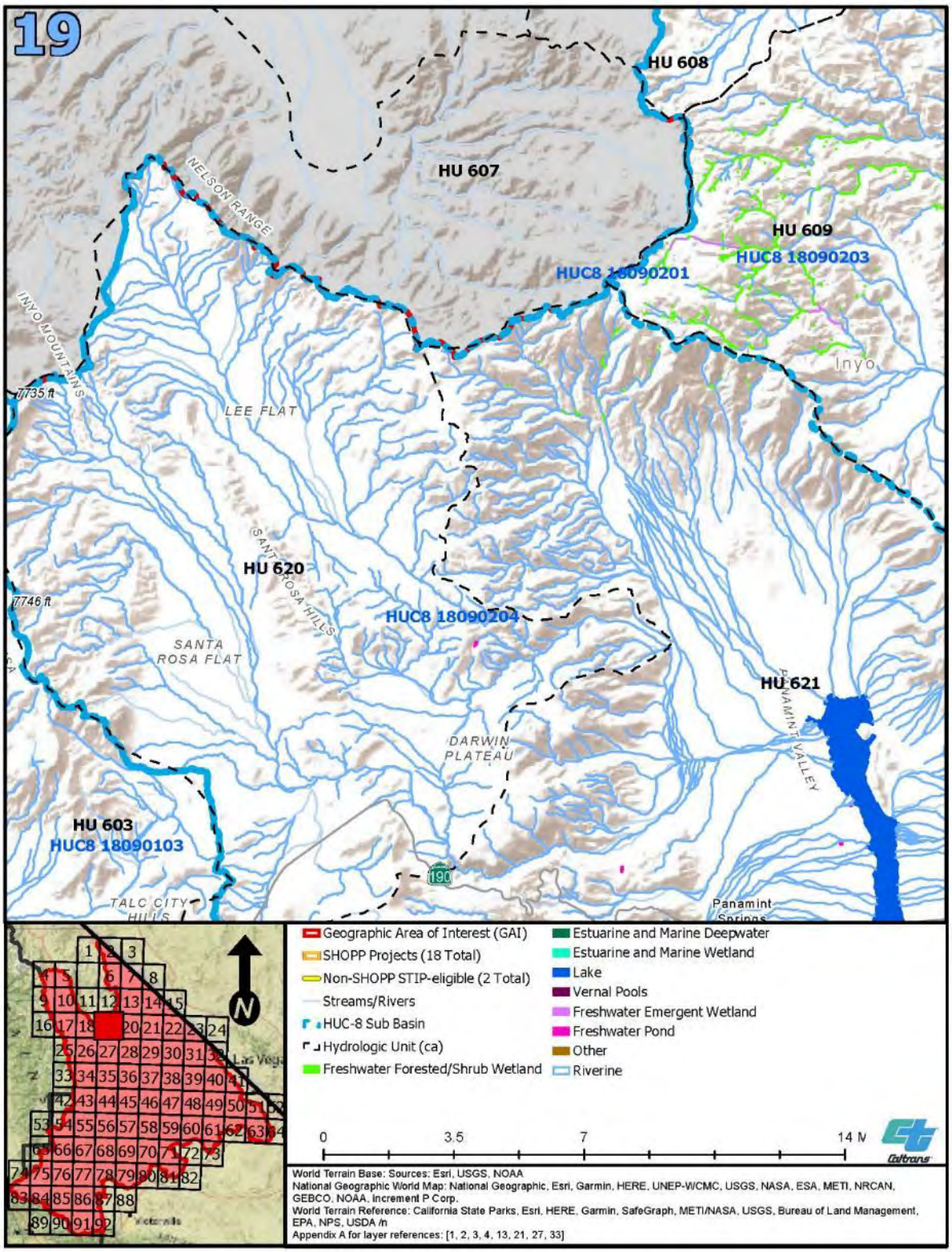

14
Leadfield
RED PASS
TITUS CANYON
THIMBLE PEAK
6133 ft
DAYLIGHT PASS
BOUNDARY ROCK
DEATH VALLEY BUTTES
HU 609
HUC8 18090203
Chloride City
HUC8 18090202
5456 ft
MESQUITE FLAT
Salt Creek
KIT FOX HILLS
Daylight Pass Cinoif
190
DEATH VALLEY
Salt Creek
Stovepipe Wells
Beatty Junction
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

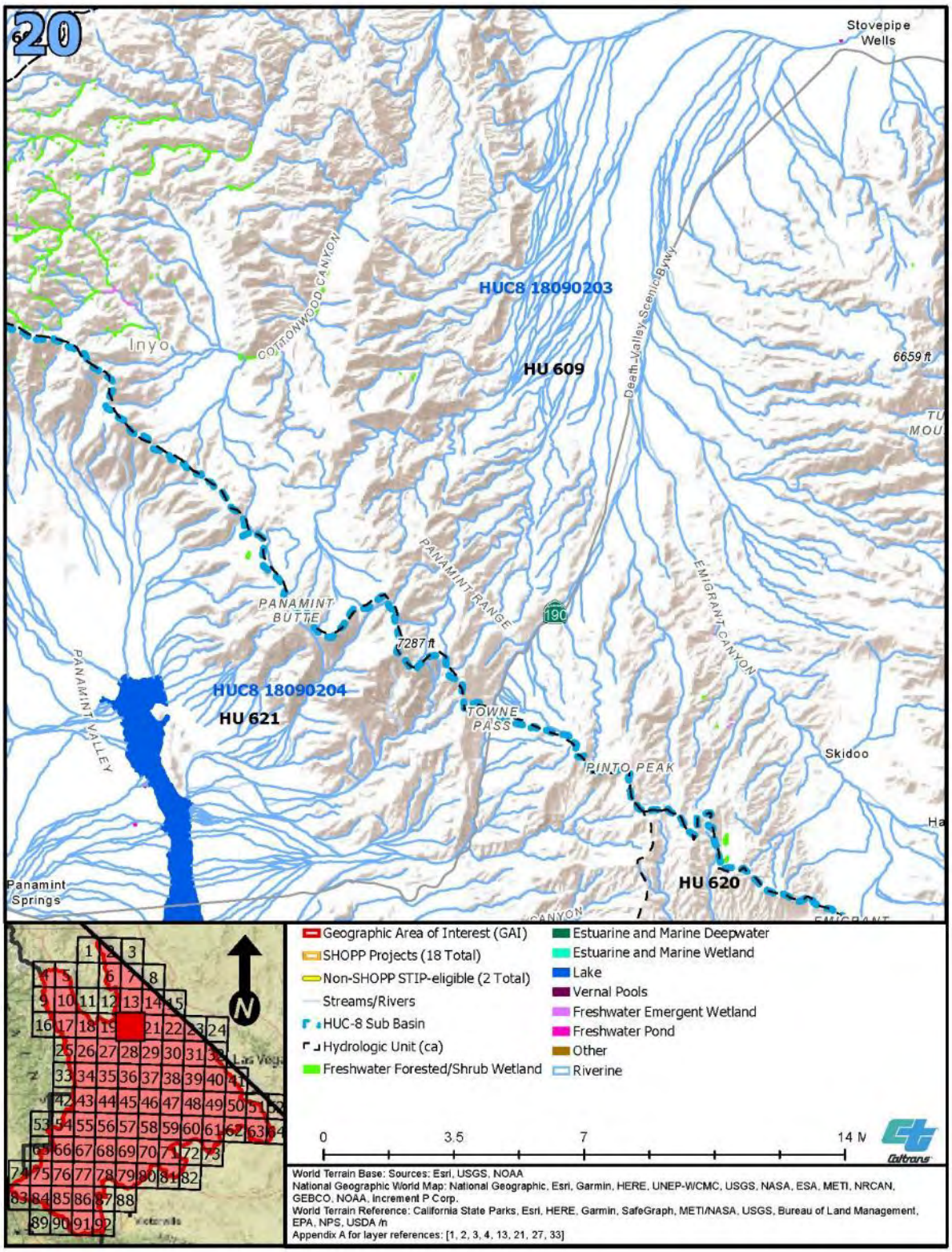

15
BARE MOUNTAIN
CARRARA CANYON
TUNGSTEN CANYON
BLACK CONE
AMARGOSA DESERT
CRATER FLAT
WILDCAT PEAK
Ashton
STEVES PASS
Chloride City
5456 ft
Amargosa River
AMARGOSA DESERT
BIG DUNE
HU 609
HUC8 18090203
INDIAN PASS
HUC8 18090202
Leeland
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

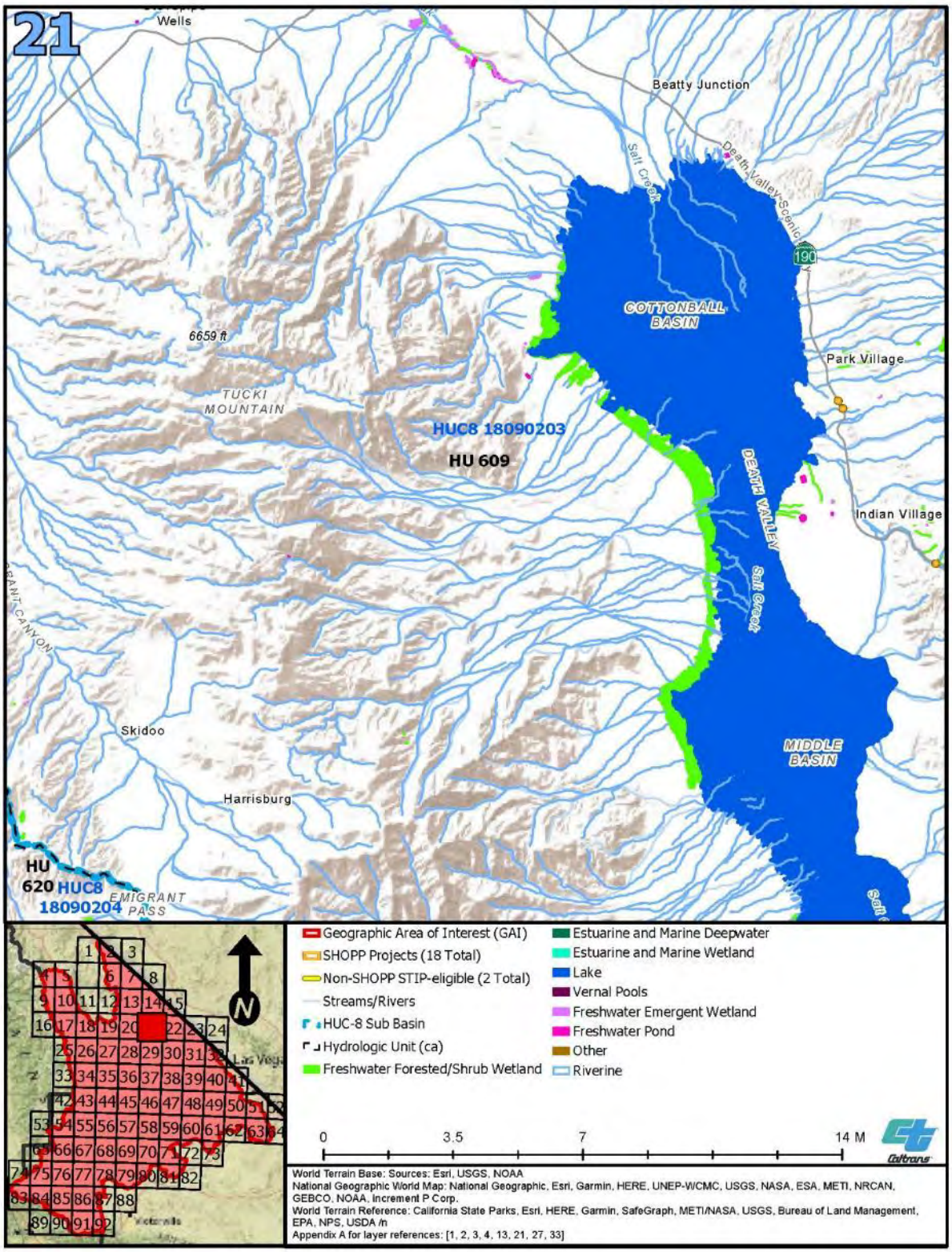

16
Whitney
14482 ft
HU 603
HUC8 18090103
13752 ft
Kern River
13985 ft
HU 554
CHAGOOPA PLATEAU
12053 ft
12896 ft
KERN CANYON
12514 ft
GREAT WESTERN DIVIDE
HUC8 18030001
HUC8 18030002
South Fork Kern
Kern River
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: Fresno County Dept. PWP, California State Parks, Sequoia and Kings Canyon NP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

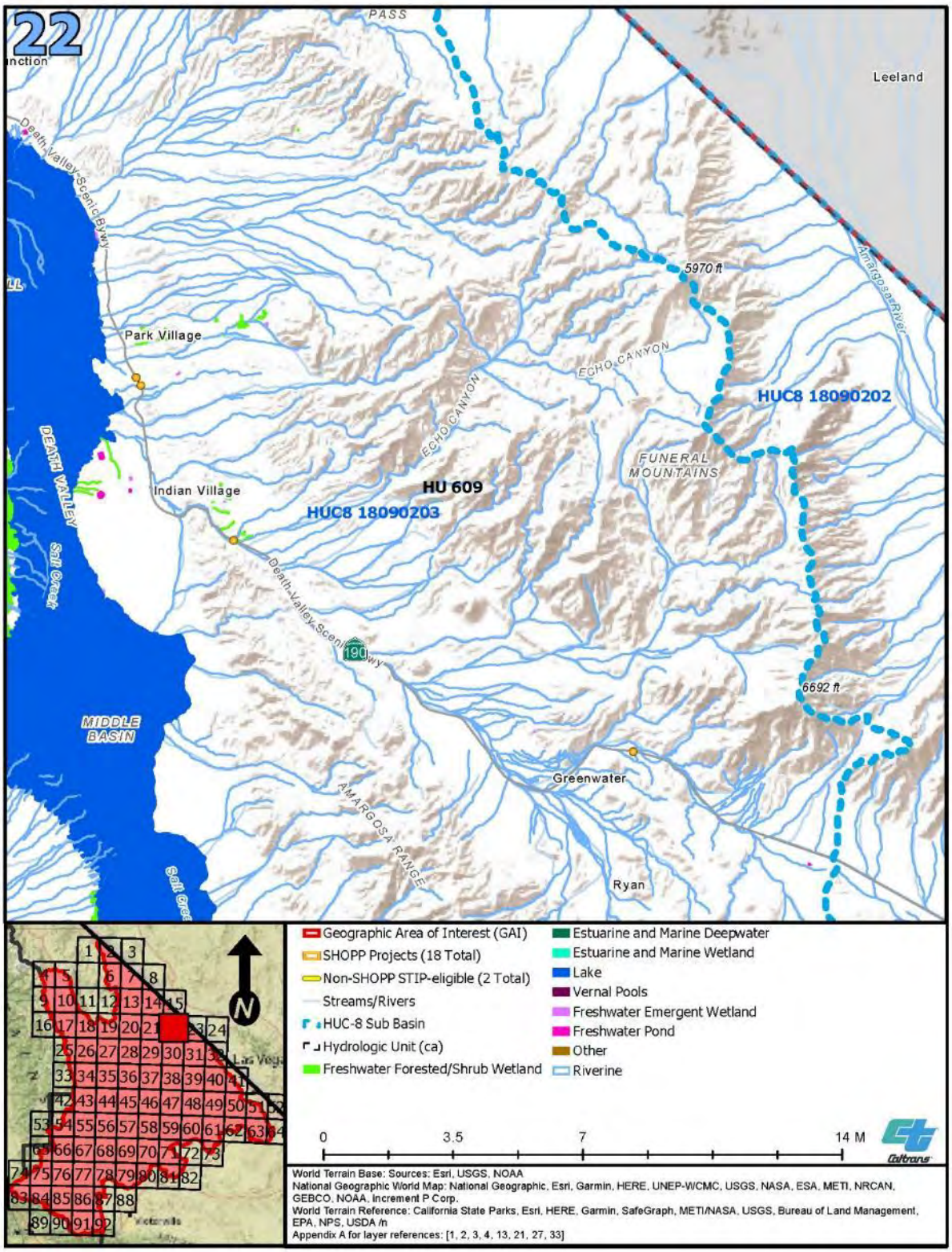

17
Lone Pine
Lone Pine Creek
Whitney Portal
4482 ft
Alico
136
Highway 136
395
Moc
13985 ft
HUC8 18090103
HU 603
12896 ft
Bartlett
Los Angeles Aqueduct
OWENS VALLEY
HUC8 18030001
HU 554
HUC8 18030002
South Fork Kern
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

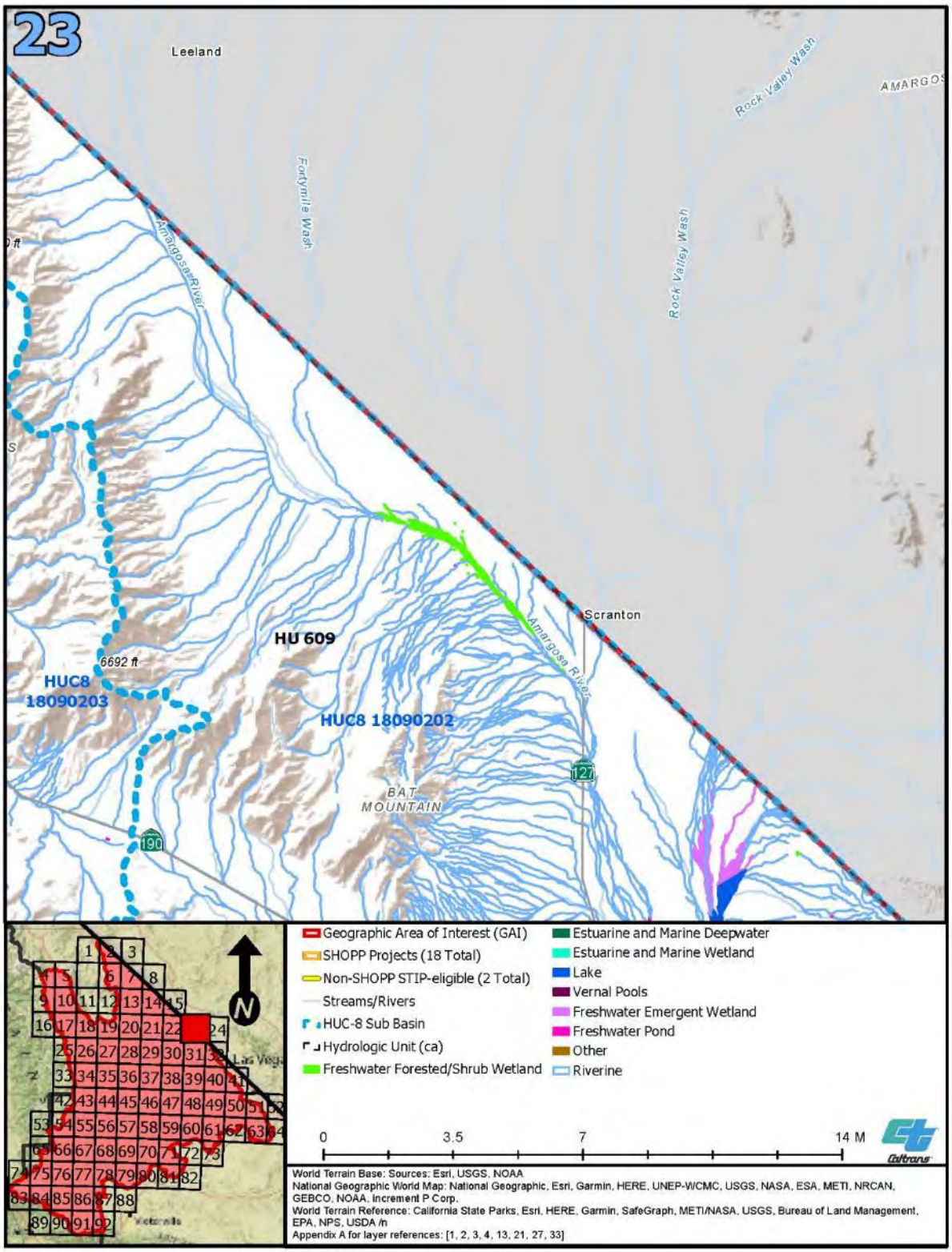

18
HUC8 18090201
Alico
Highway 136
Mock
136
Highway 136
Keeler
OWENS VALLEY
HU 603
HU 607
INYO MOUNTAINS
7735 ft
7698 ft
HU 620
HUC8 18090204
7746 ft
WALPAIS MESA
190
SANTA ROSA FLA
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

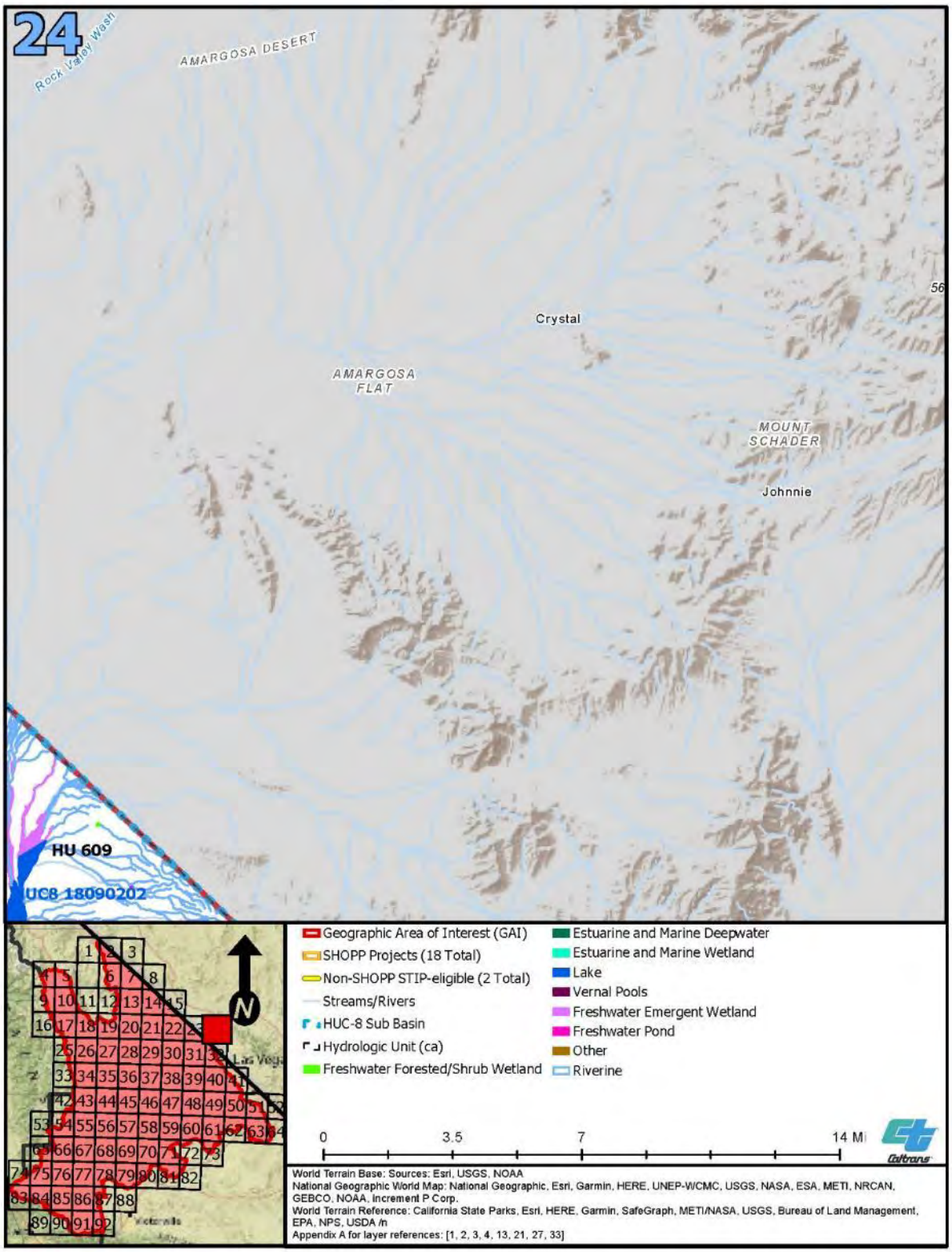

19
HU 608
HU 607
HU 609
HUC8 18090203
HUC8 18090201
NELSON RANGE
INYO MOUNTAINS
7735 ft
LEE FLAT
Inyo
HU 620
SANTA ROSA HILLS
7746 ft
HUC8 18090204
SANTA ROSA FLAT
HU 621
PANAMINT VALLEY
DARWIN PLATEAU
HU 603
HUC8 18090103
190
TALC CITY HILLS
Panamint Springs
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

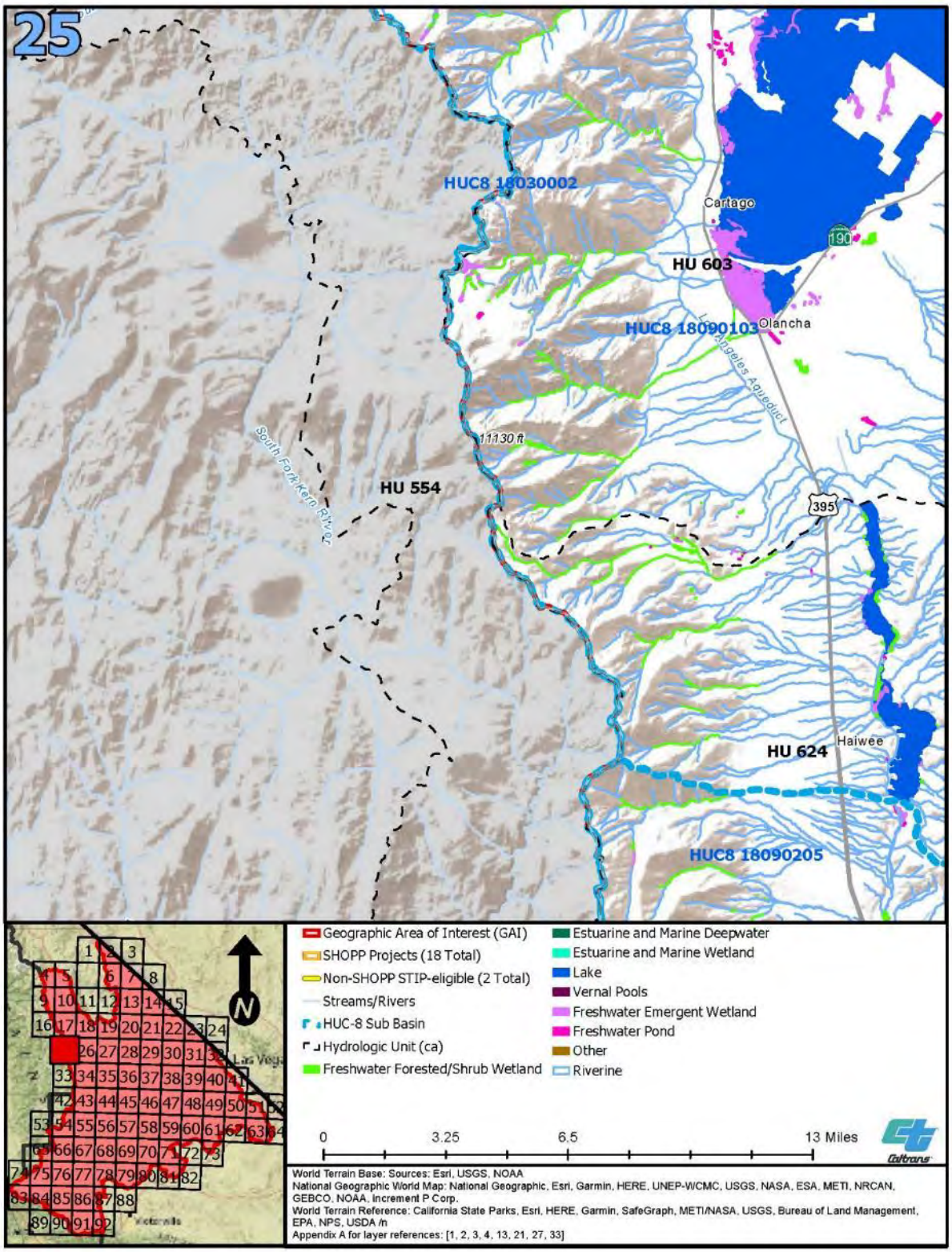

20
Stovepipe Wells
HUC8 18090203
HU 609
Death Valley Scenic Bywy
6659 ft
Inyo
COTTONWOOD CANYON
PANAMINT BUTTE
PANAMINT RANGE
7287 ft
EMIGRANT CANYON
HUC8 18090204
HU 621
PANAMINT VALLEY
TOWNE PASS
PINTO PEAK
Skidoo
HU 620
Panamint Springs
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

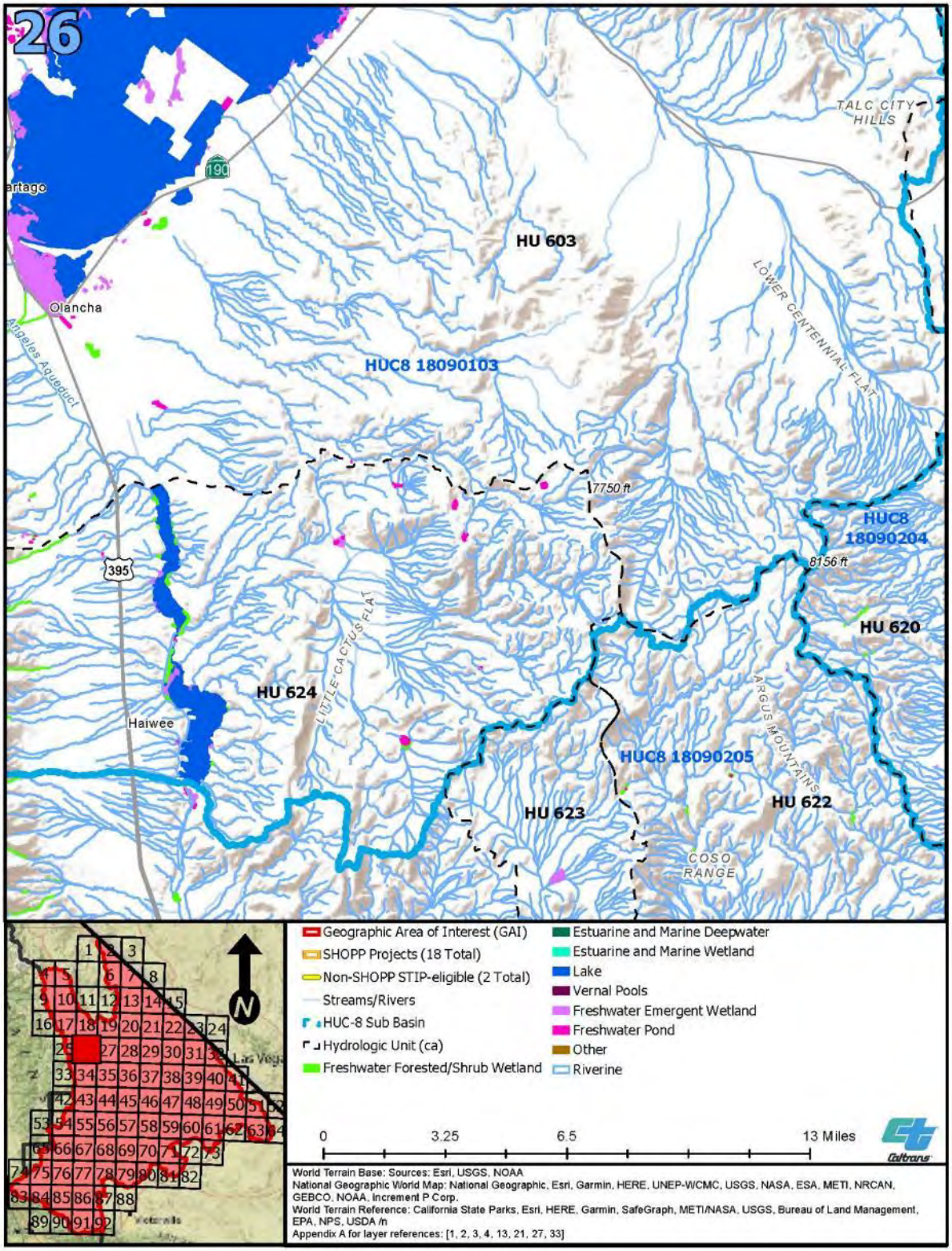

21
Wells
Beatty Junction
Salt Creek
Death Valley Scenic Hwy
190
COTTONBALL BASIN
6659 ft
TUCKI MOUNTAIN
HUC8 18090203
HU 609
Park Village
DEATH VALLEY
Indian Village
Salt Creek
MIDDLE BASIN
Skidoo
Harrisburg
HU 620
HUC8 18090204
EMIGRANT PASS
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

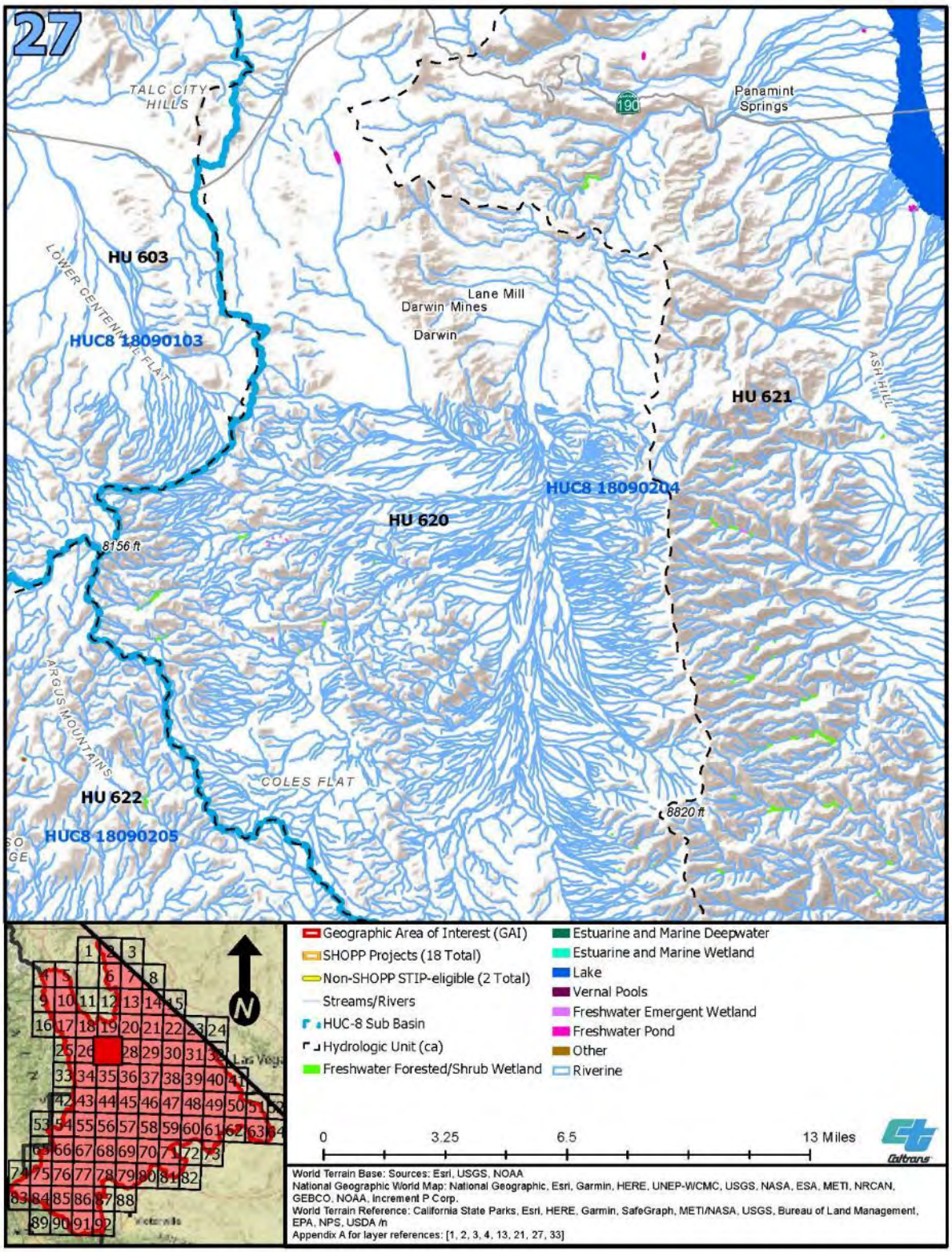

22
PASS
Leeland
Death Valley Scenic Byway
5970 ft
Amargosa River
Park Village
ECHO CANYON
ECHO CANYON
HUC8 18090202
DEATH VALLEY
FUNERAL MOUNTAINS
Indian Village
HU 609
HUC8 18090203
Death Valley Scenic Byway
190
6692 ft
MIDDLE BASIN
Greenwater
AMARGOSA RANGE
Ryan
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

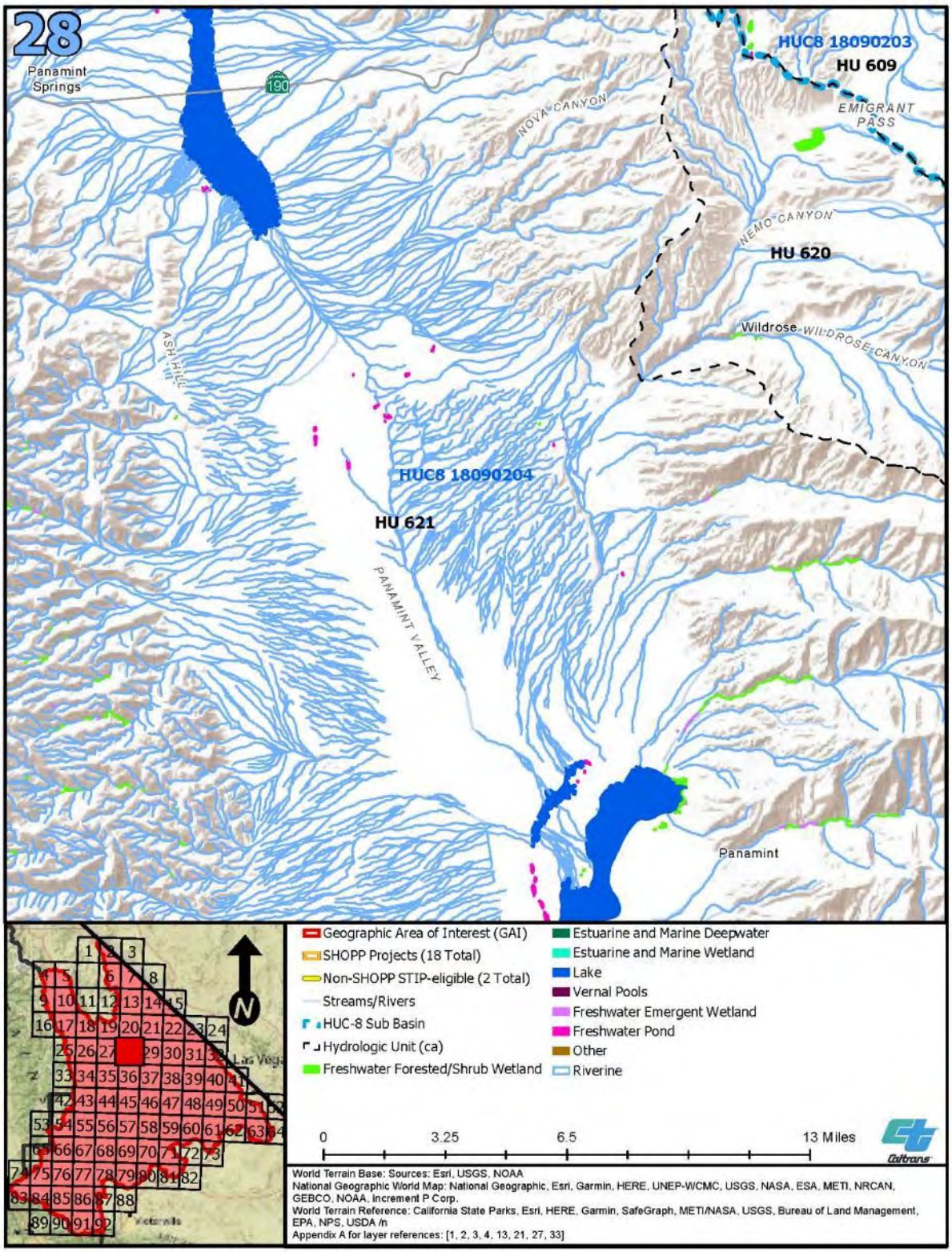

23
Leeland
Rock Valley Wash
AMARGOS
Fortymile Wash
Amargosa River
Rock Valley Wash
Scranton
HU 609
6692 ft
HUC8
18090203
HUC8 18090202
Amargosa River
BAT
MOUNTAIN
127
190
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

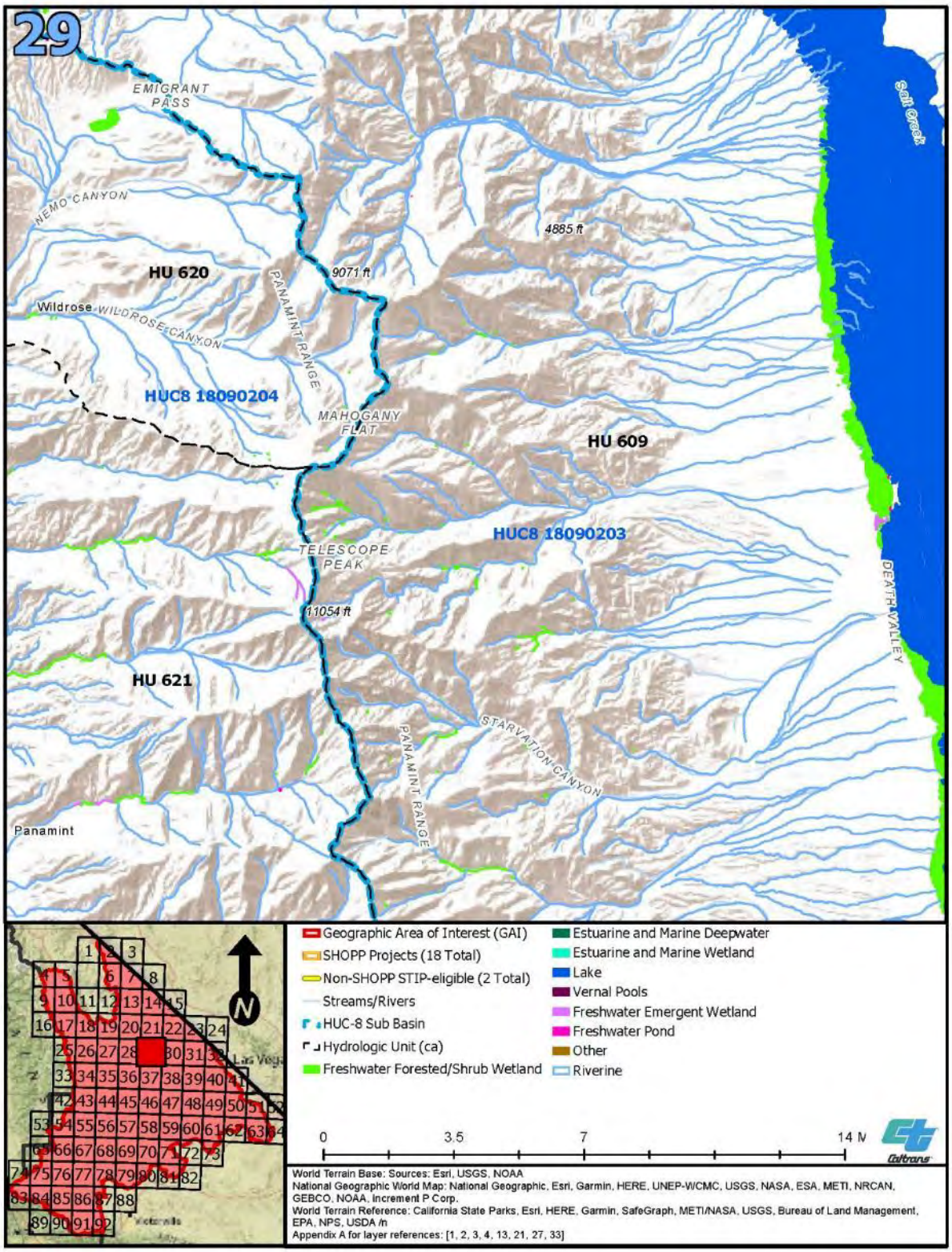

24
Rock Valley Wash
AMARGOSA DESERT
Crystal
AMARGOSA FLAT
MOUNT SCHADER
Johnnie
HU 609
UC8 18090202
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

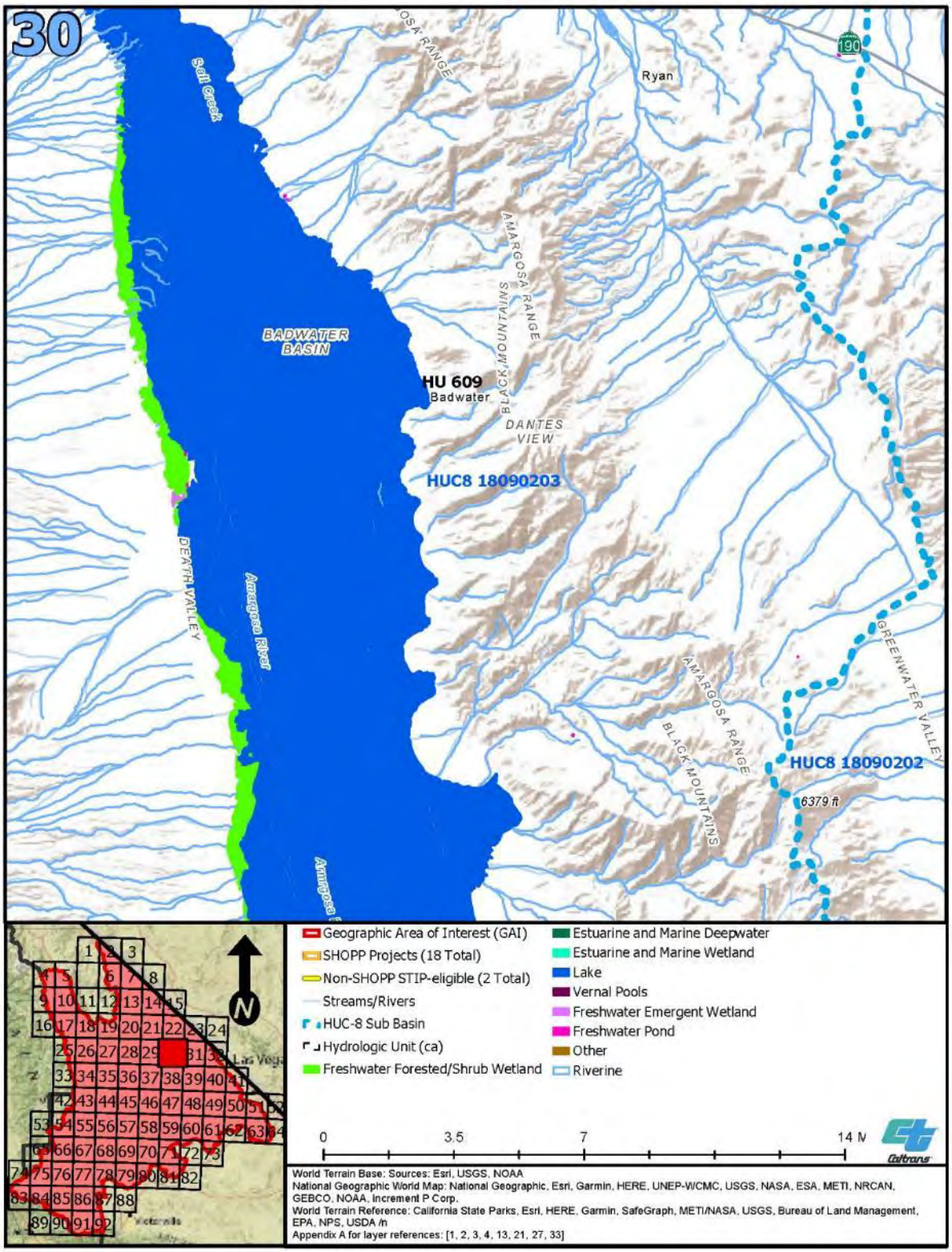

25
HUC8 18030002
Cartago
190
HU 603
HUC8 18090103
Olancha
Los Angeles Aqueduct
11130 ft
South Fork Kern River
HU 554
395
HU 624
Haiwee
HUC8 18090205
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
N
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

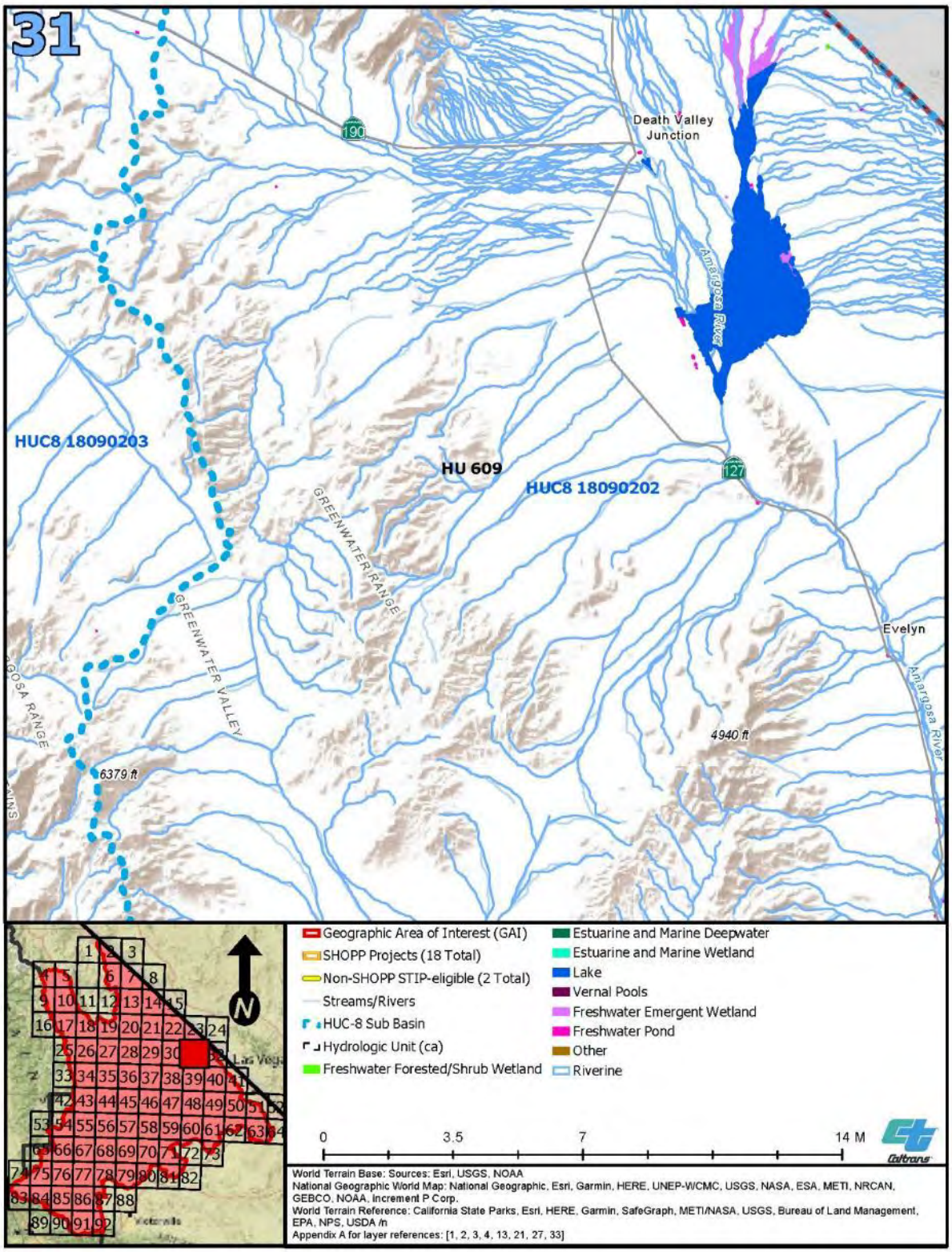

26
TALC CITY HILLS
HU 603
LOWER CENTENNIAL FLAT
Olancha
HUC8 18090103
Angeles Aqueduct
7750 ft
HUC8 18090204
8156 ft
395
HU 620
LITTLE CACTUS FLAT
HU 624
Haiwee
ARGUS MOUNTAINS
HUC8 18090205
HU 622
HU 623
COSO RANGE
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

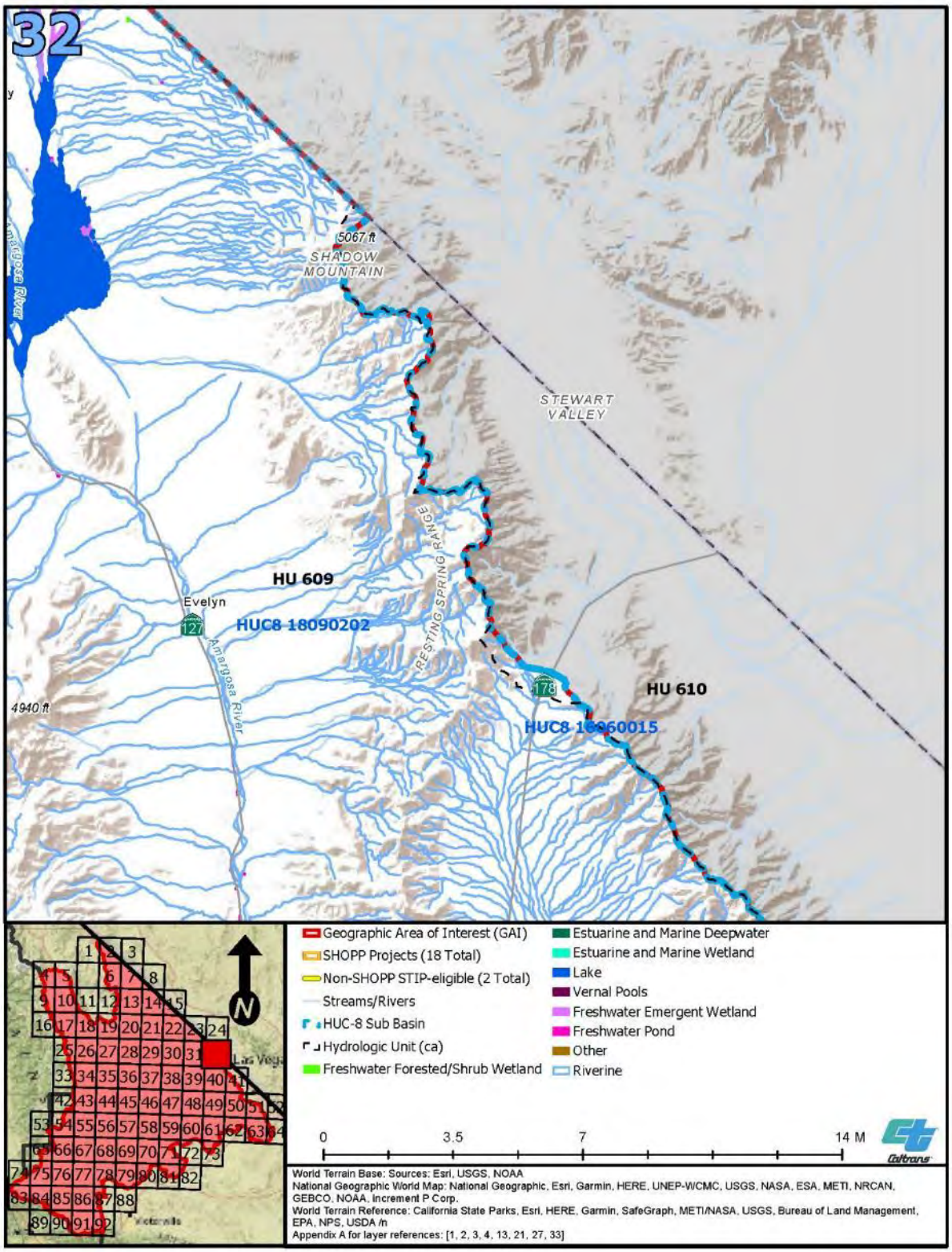

27
TALC CITY HILLS
190
Panamint Springs
HU 603
LOWER CENTENNIAL FLAT
HUC8 18090103
Lane Mill
Darwin Mines
Darwin
ASH HILL
HU 621
HUC8 18090204
HU 620
8156 ft
ARGUS MOUNTAINS
COLES FLAT
HU 622
HUC8 18090205
8820 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

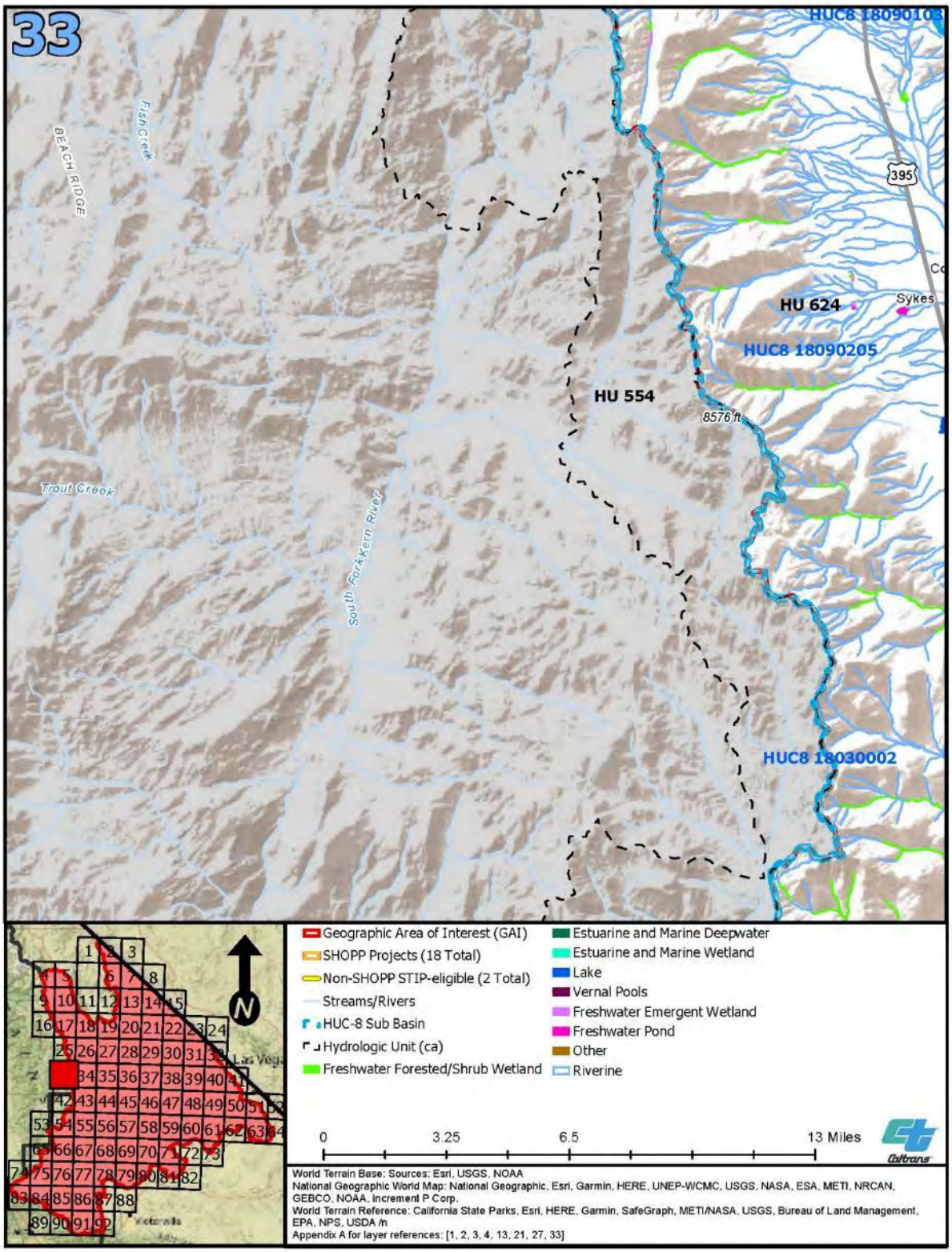

28
Panamint Springs
190
HUC8 18090203
HU 609
EMIGRANT PASS
NOVA CANYON
NEMO CANYON
HU 620
Wildrose
WILDROSE CANYON
ASH HILL
HUC8 18090204
HU 621
PANAMINT VALLEY
Panamint
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

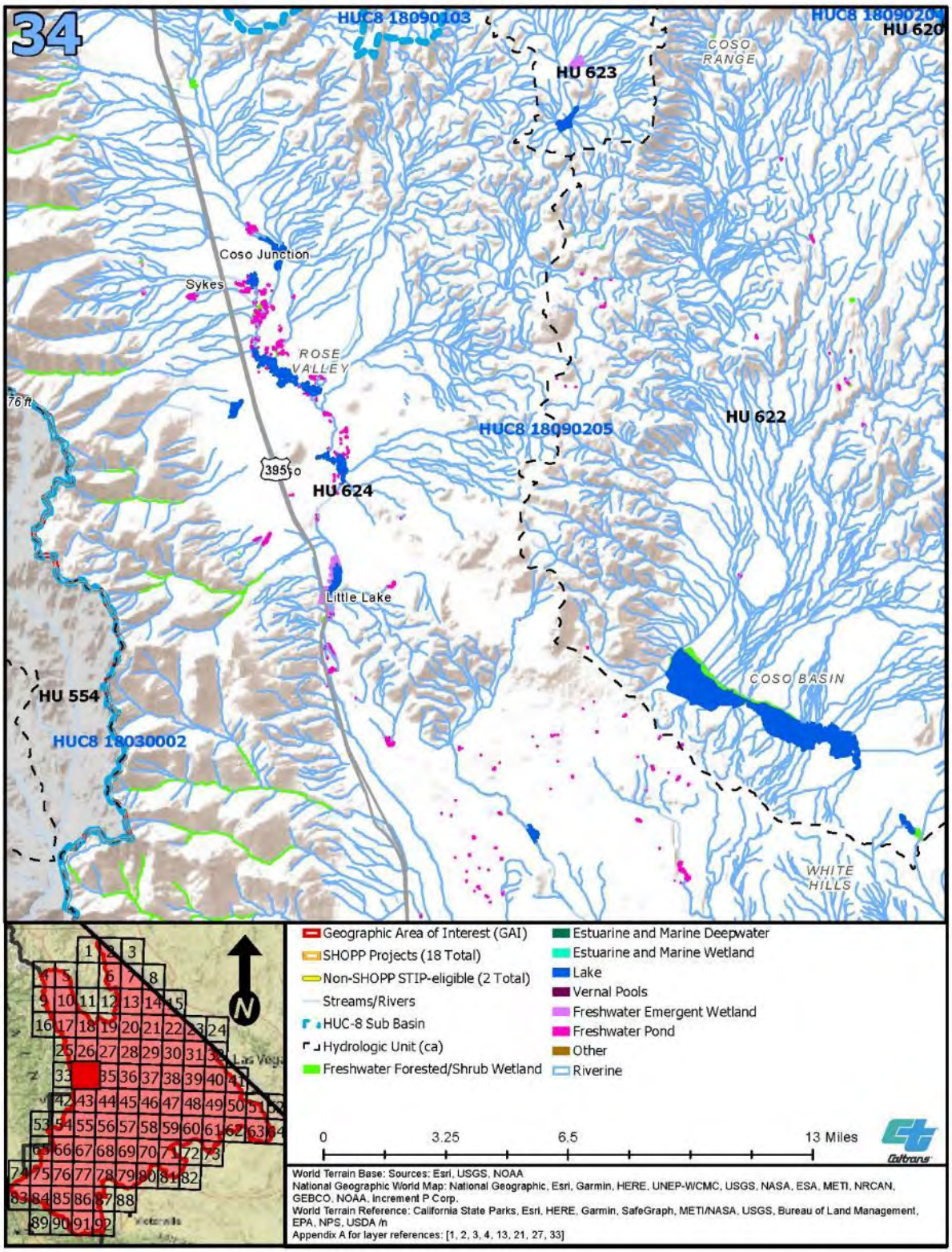

29
EMIGRANT PASS
NEMO CANYON
4885 ft
HU 620
9071 ft
PANAMINT RANGE
Wildrose
WILDROSE CANYON
HUC8 18090204
MAHOGANY FLAT
HU 609
HUC8 18090203
TELESCOPE PEAK
11054 ft
HU 621
STARVATION CANYON
PANAMINT RANGE
Panamint
Salt Creek
DEATH VALLEY
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

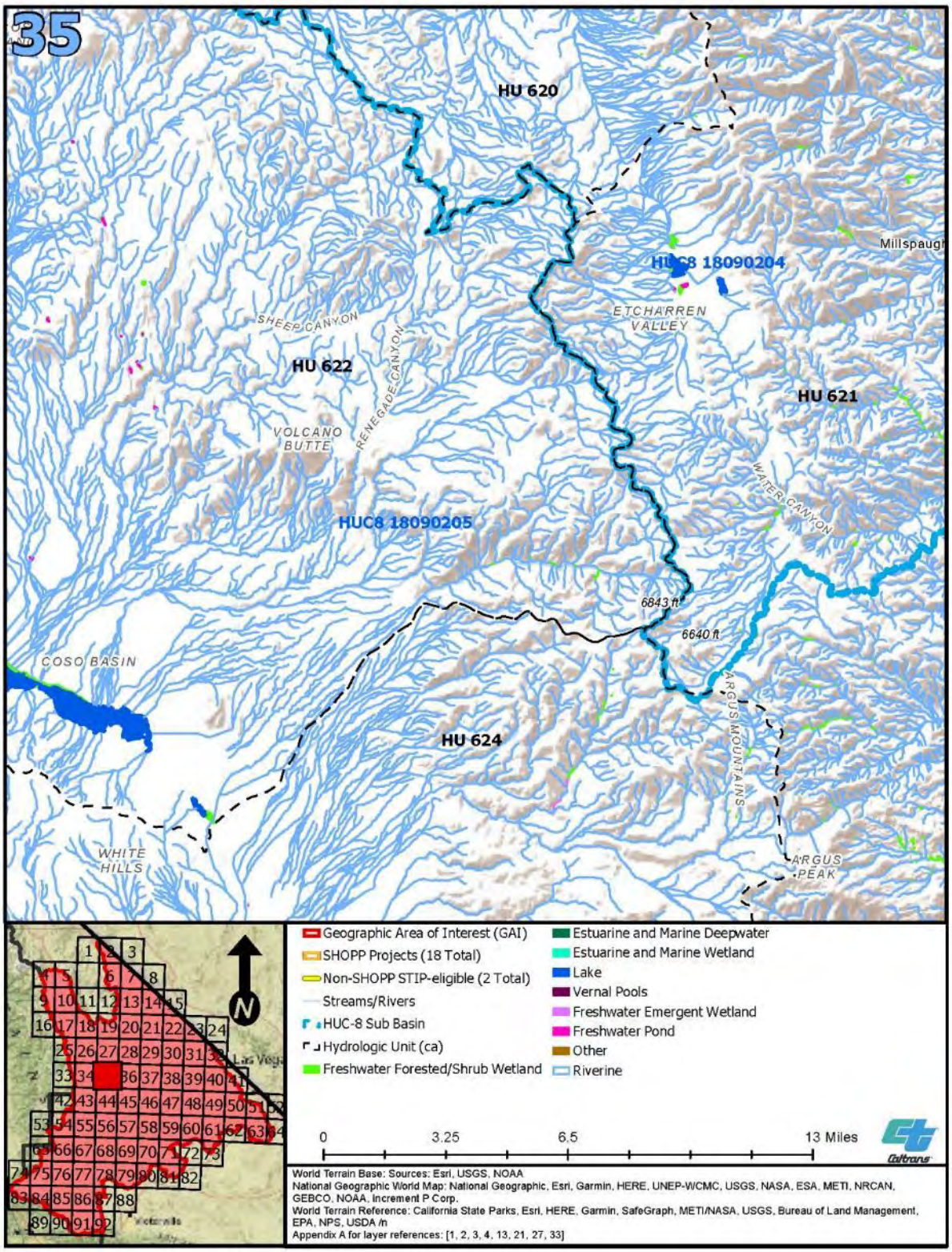

30
Salt Creek
AMARGOSA RANGE
Ryan
190
BADWATER BASIN
BLACK MOUNTAINS
AMARGOSA RANGE
HU 609
Badwater
DANTES VIEW
HUC8 18090203
DEATH VALLEY
Amargosa River
GREENWATER VALLEY
AMARGOSA RANGE
BLACK MOUNTAINS
HUC8 18090202
6379 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
N
0
3.5
7
14 Mi
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

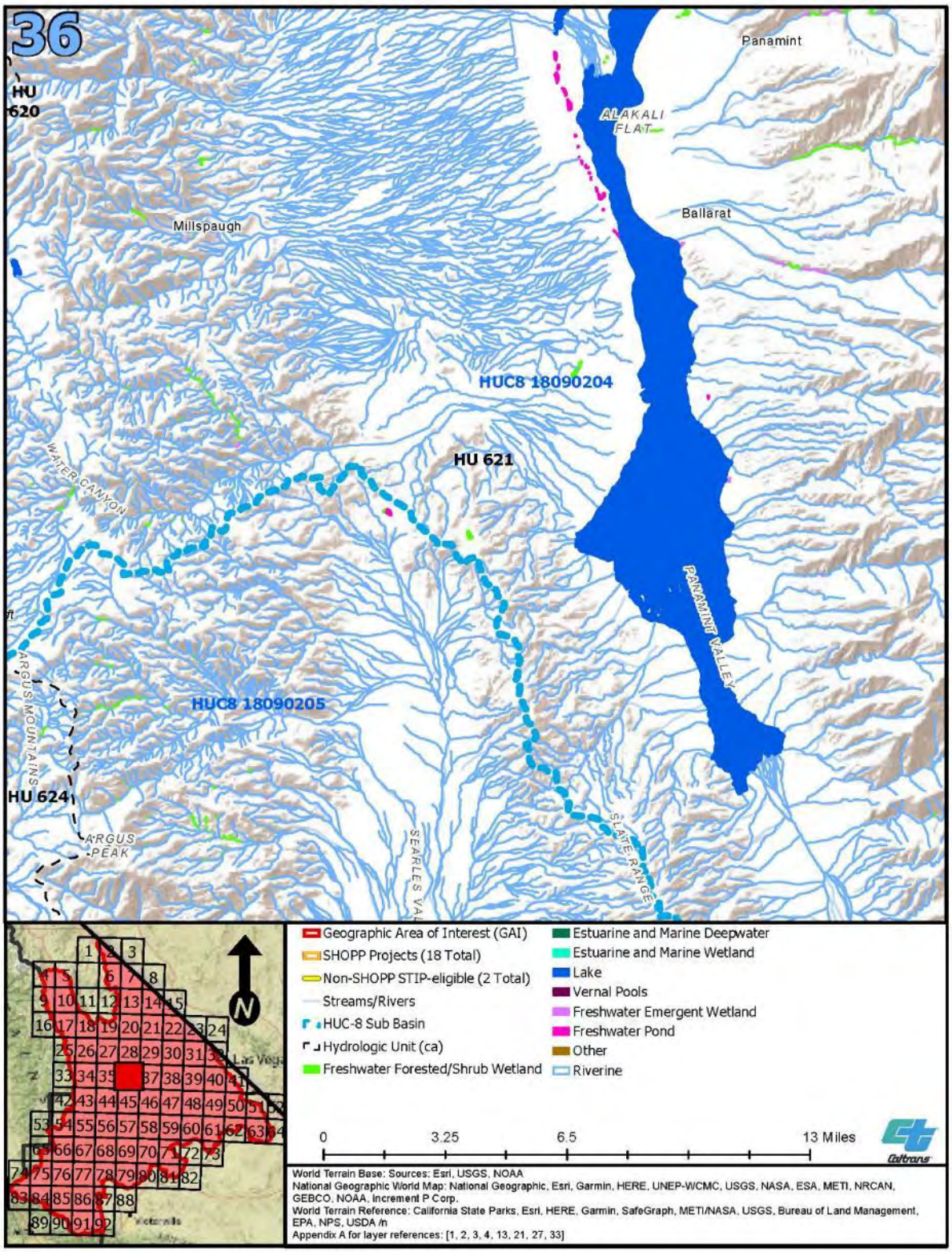

31
Death Valley Junction
190
127
Amargosa River
HUC8 18090203
HU 609
HUC8 18090202
GREENWATER RANGE
GREENWATER VALLEY
Evelyn
Amargosa River
4940 ft
6379 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

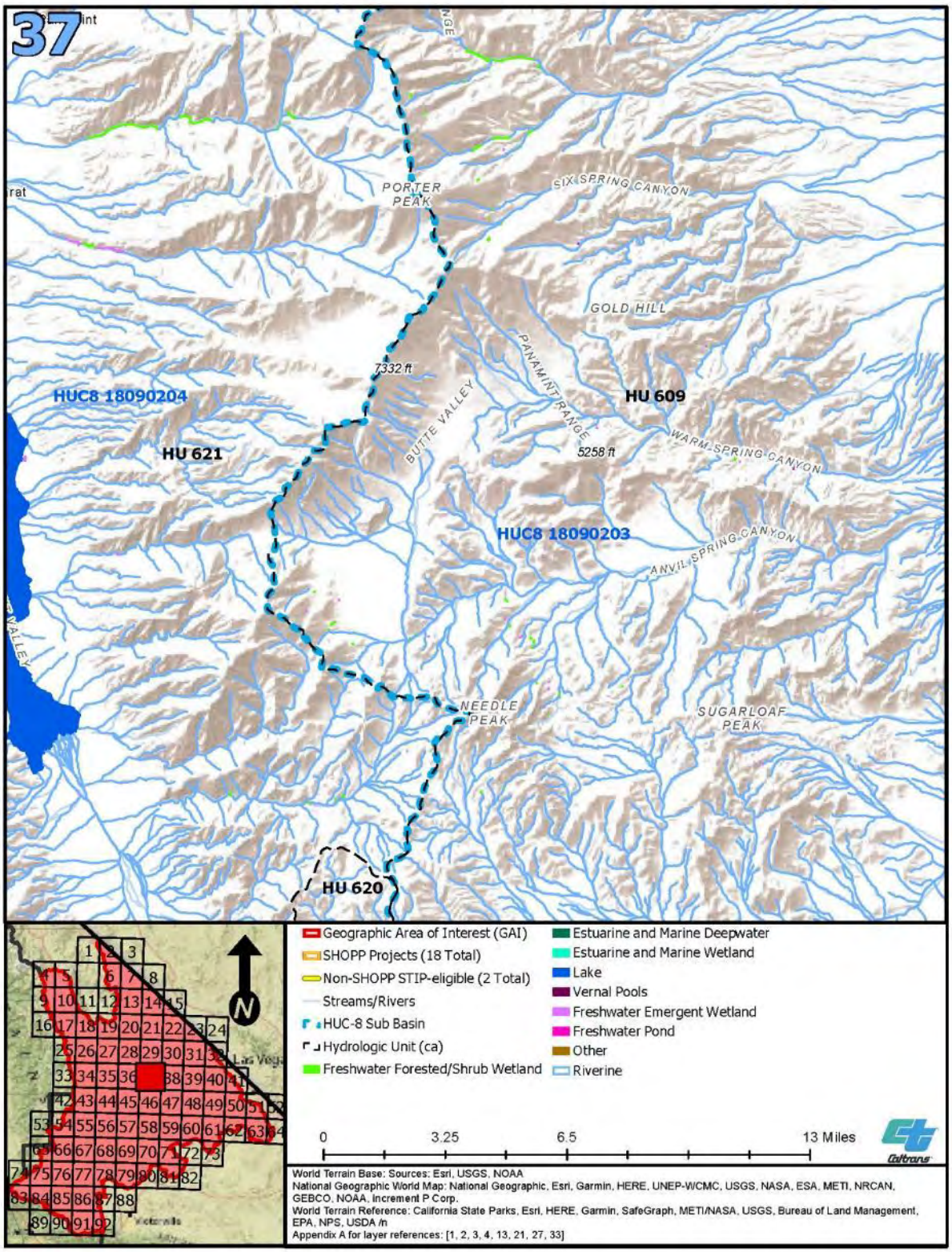

32
5067 ft
SHADOW MOUNTAIN
STEWART VALLEY
RESTING SPRING RANGE
HU 609
HUC8 18090202
Evelyn
127
Amargosa River
4940 ft
178
HU 610
HUC8 16060015
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

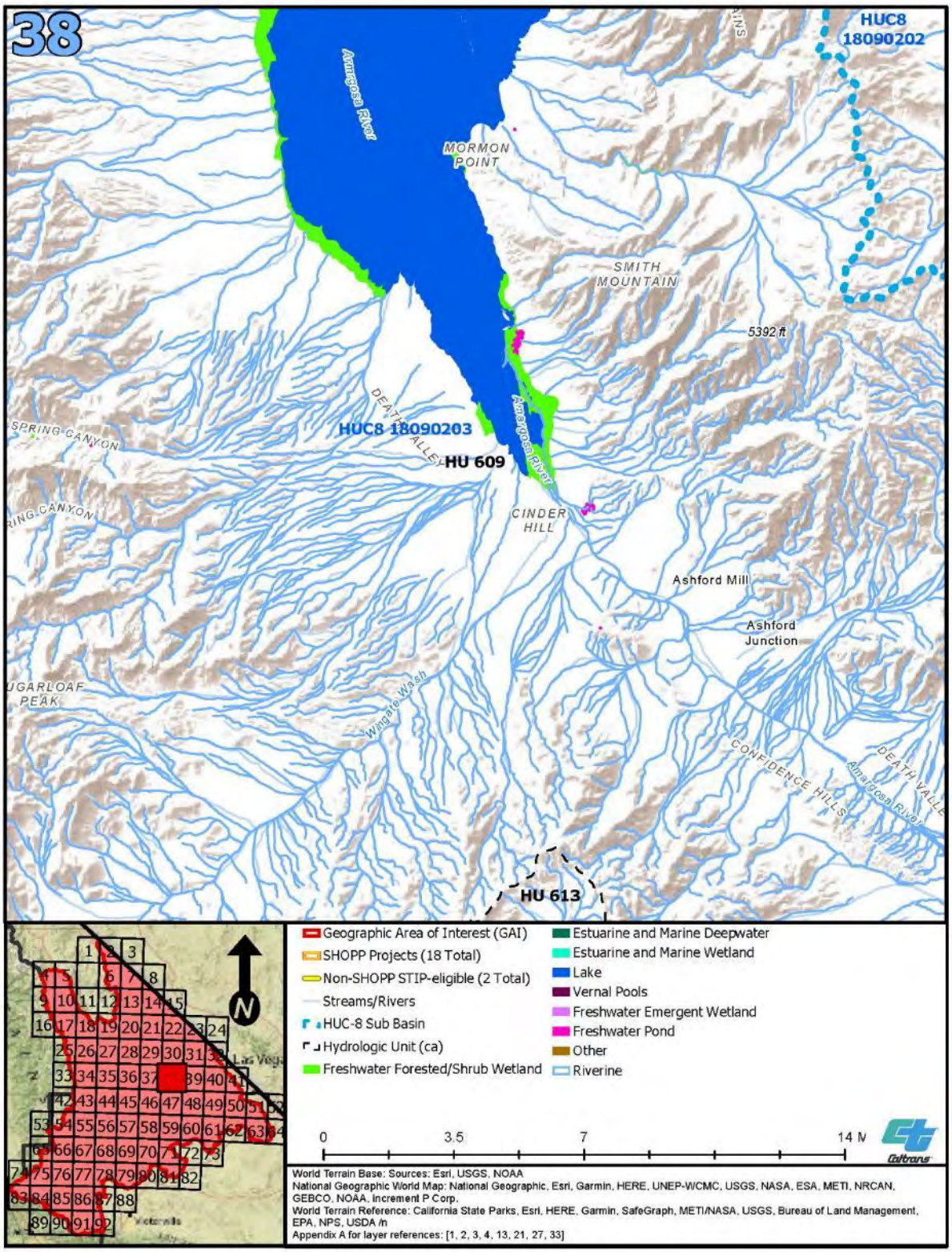

33
HUC8 18090103
BEACH RIDGE
Fish Creek
395
Sykes
HU 624
HUC8 18090205
HU 554
8576 ft
Trout Creek
South Fork Kern River
HUC8 18030002
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

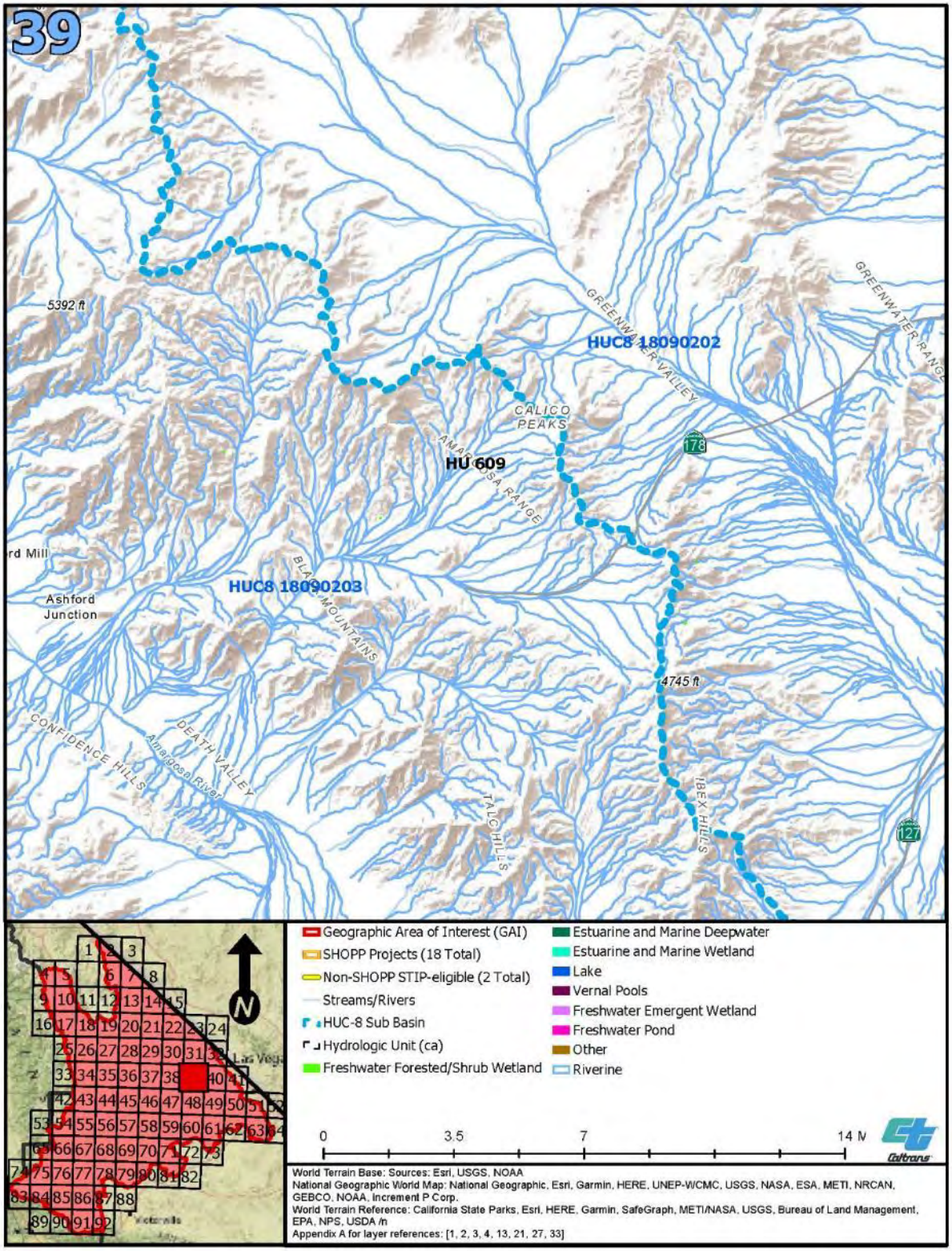

34
HUC8 18090103
HUC8 18090203
HU 620
COSO RANGE
HU 623
Coso Junction
Sykes
ROSE VALLEY
76 ft
HUC8 18090205
HU 622
395
HU 624
Little Lake
COSO BASIN
HU 554
HUC8 18030002
WHITE HILLS
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

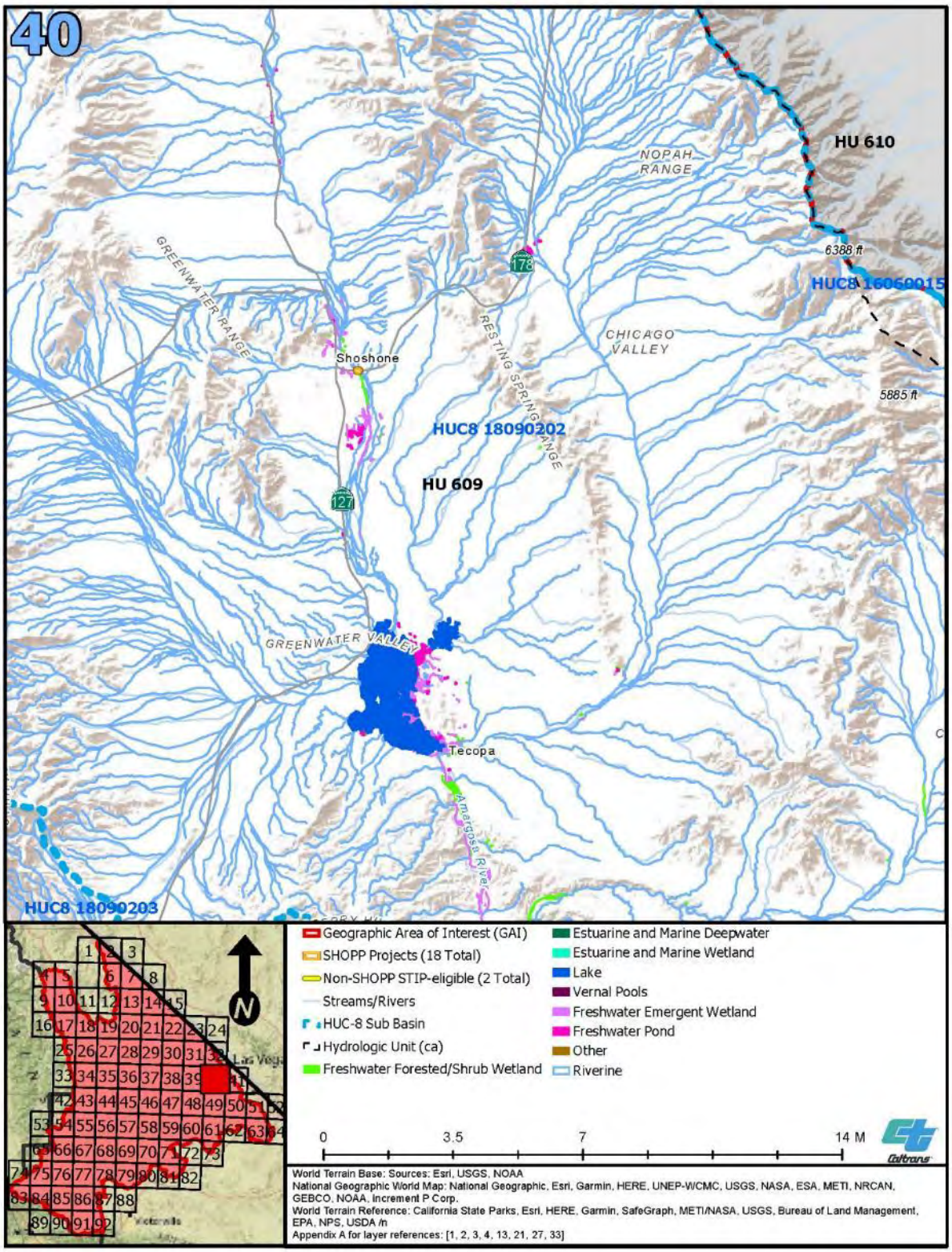

35
HU 620
HUC8 18090204
Millspaugh
ETCHARREN VALLEY
SHEEP CANYON
RENEGADE CANYON
HU 622
HU 621
VOLCANO BUTTE
WATER CANYON
HUC8 18090205
6843 ft
6640 ft
COSO BASIN
HU 624
ARGUS MOUNTAINS
WHITE HILLS
ARGUS PEAK
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

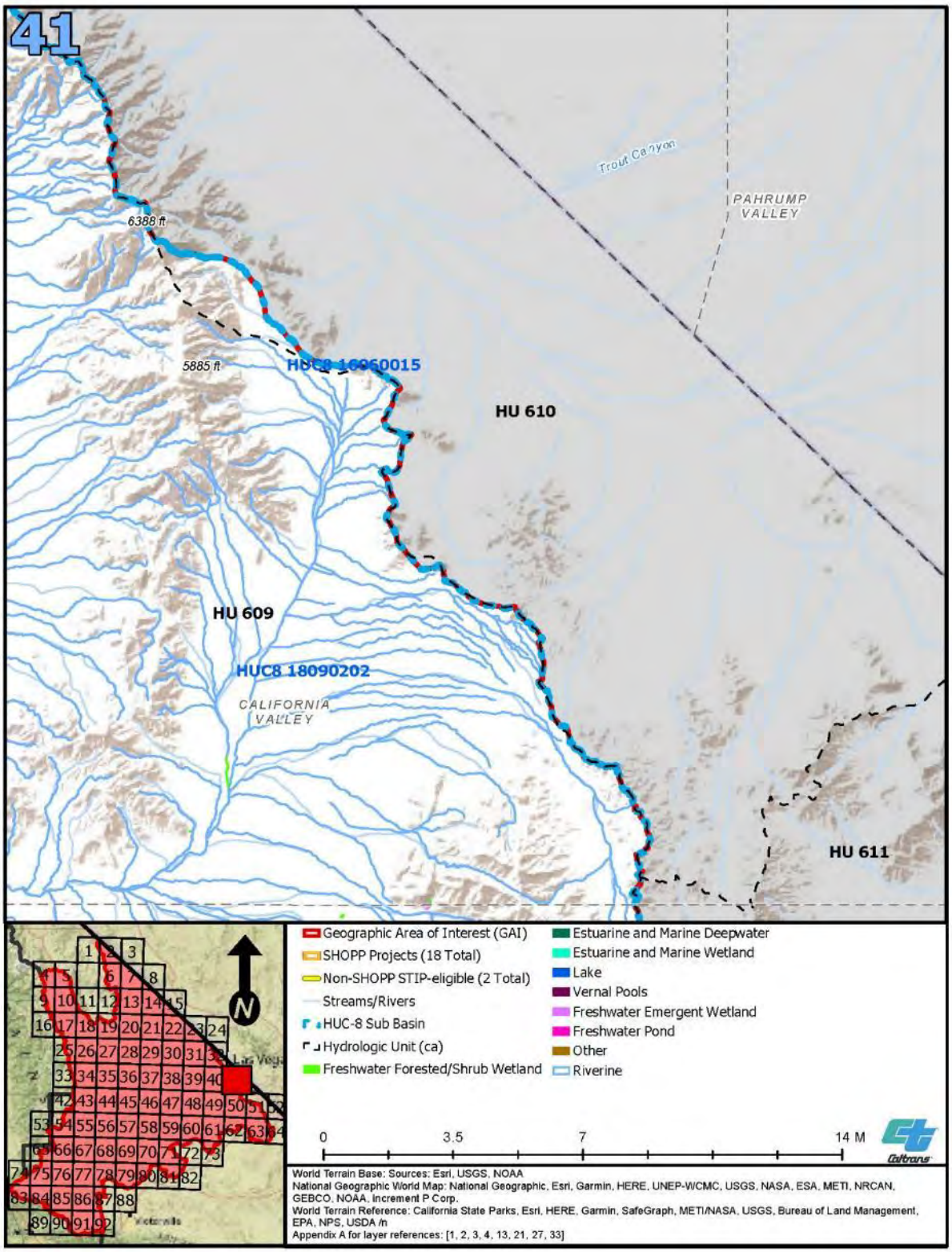

36
HU 620
Panamint
ALAKALI FLAT
Ballarat
Millspaugh
HUC8 18090204
HU 621
WATER CANYON
PANAMINT VALLEY
HUC8 18090205
ARGUS MOUNTAINS
HU 624
ARGUS PEAK
SLATE RANGE
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

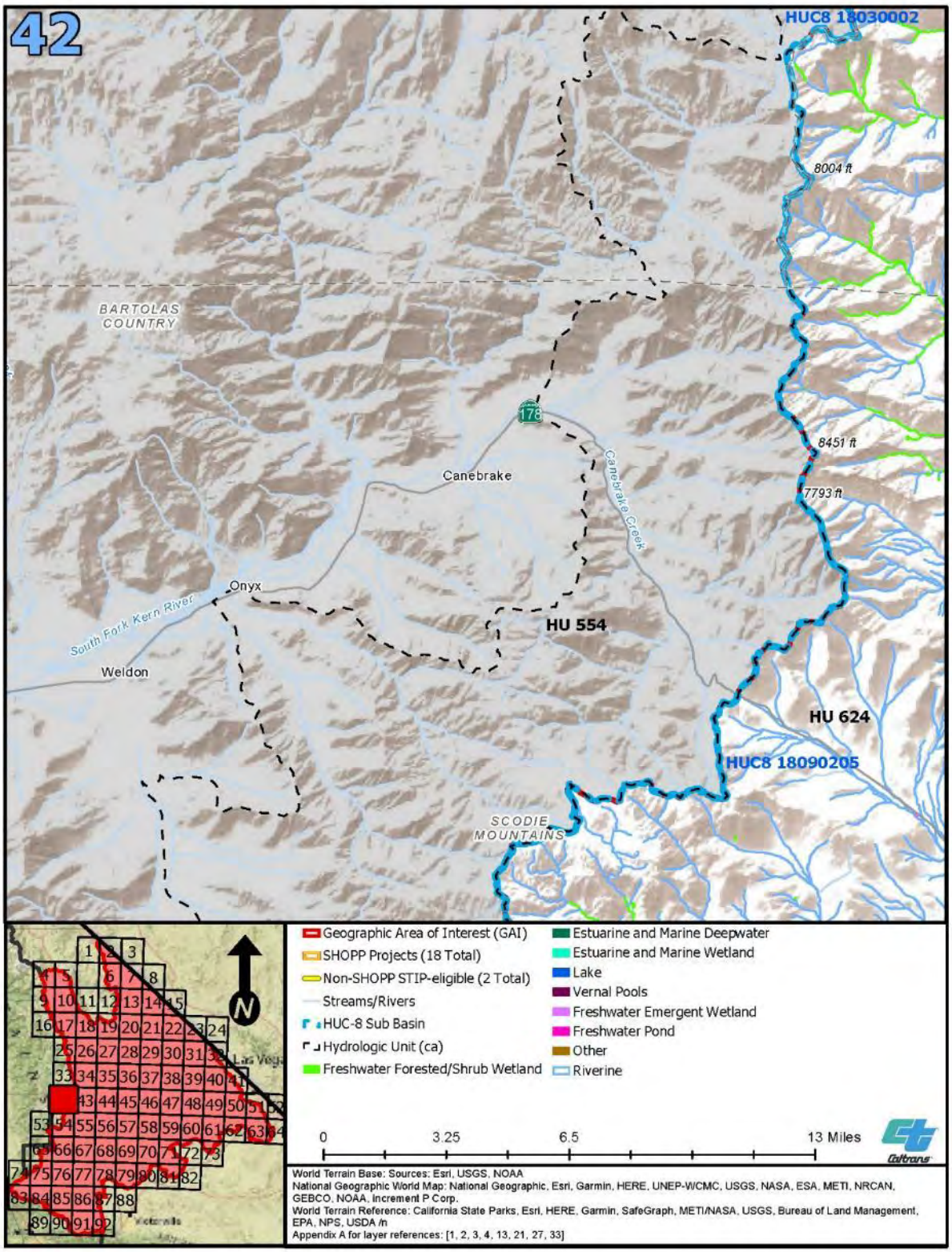

37
PORTER PEAK
SIX SPRING CANYON
GOLD HILL
7332 ft
PANAMINT RANGE
5258 ft
WARM SPRING CANYON
BUTTE VALLEY
HUC8 18090204
HU 621
HU 609
HUC8 18090203
ANVIL SPRING CANYON
NEEDLE PEAK
SUGARLOAF PEAK
HU 620
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

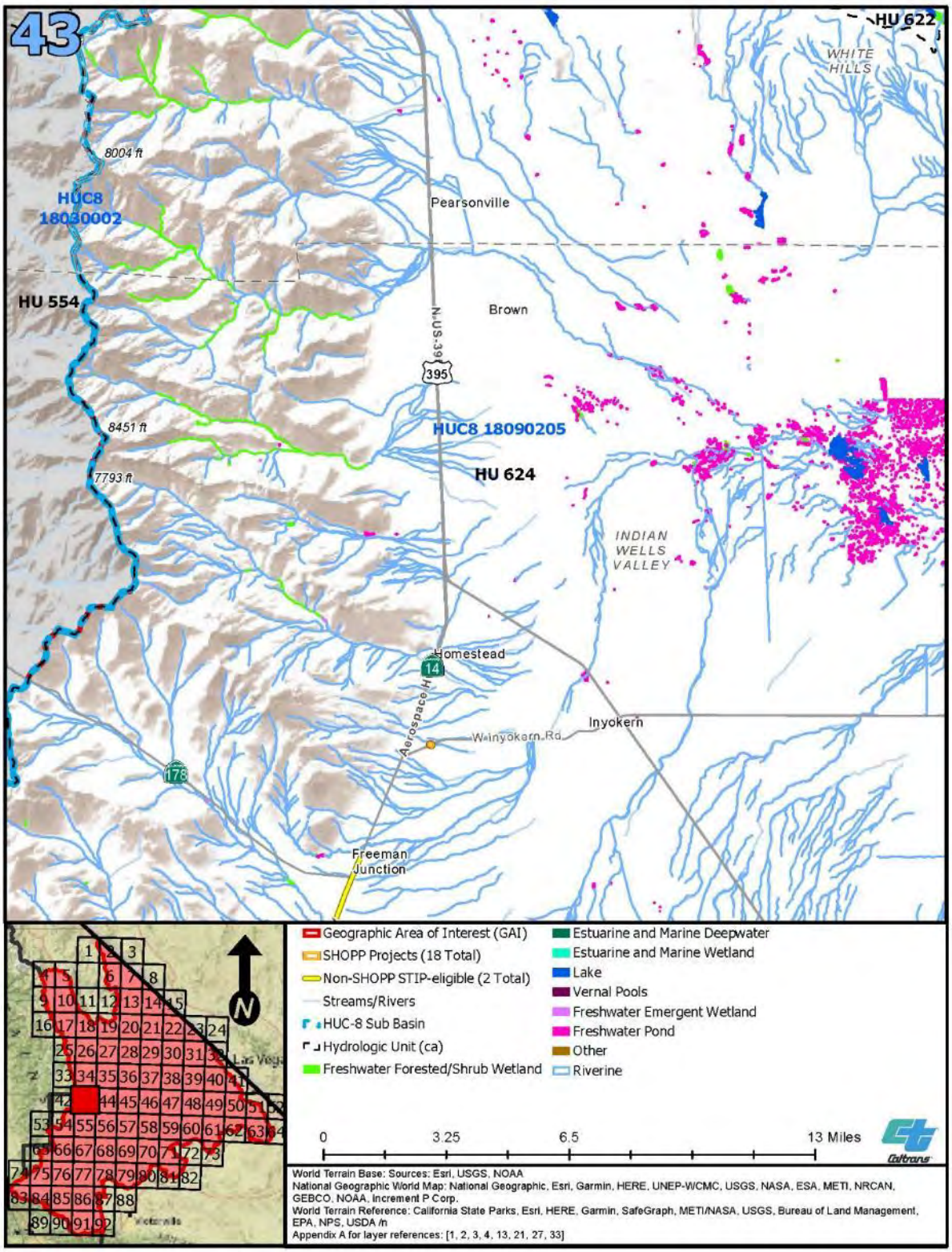

38
HUC8
18090202
Amargosa River
MORMON POINT
SMITH MOUNTAIN
5392 ft
HUC8 18090203
HU 609
SPRING CANYON
CINDER HILL
Ashford Mill
Ashford Junction
SUGARLOAF PEAK
Wingate Wash
CONFIDENCE HILLS
DEATH VALLEY
HU 613
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

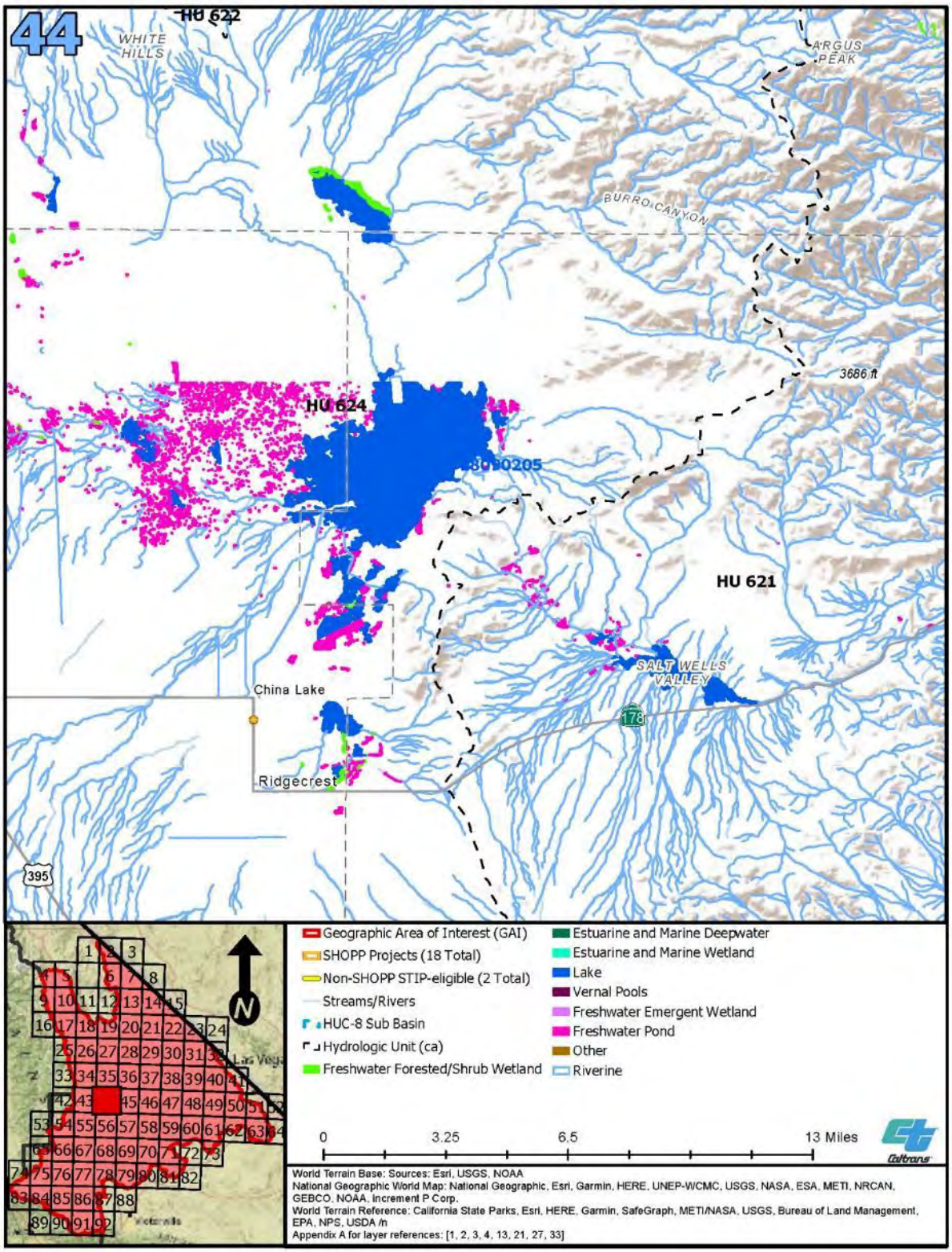

39
5392 ft
HUC8 18090202
GREENWATER VALLEY
GREENWATER RANGE
CALICO PEAKS
HU 609
AMARGOSA RANGE
178
rd Mill
Ashford Junction
HUC8 18090203
BLACK MOUNTAINS
4745 ft
CONFIDENCE HILLS
Amargosa River
DEATH VALLEY
TALC HILLS
IBEX HILLS
127
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
N
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

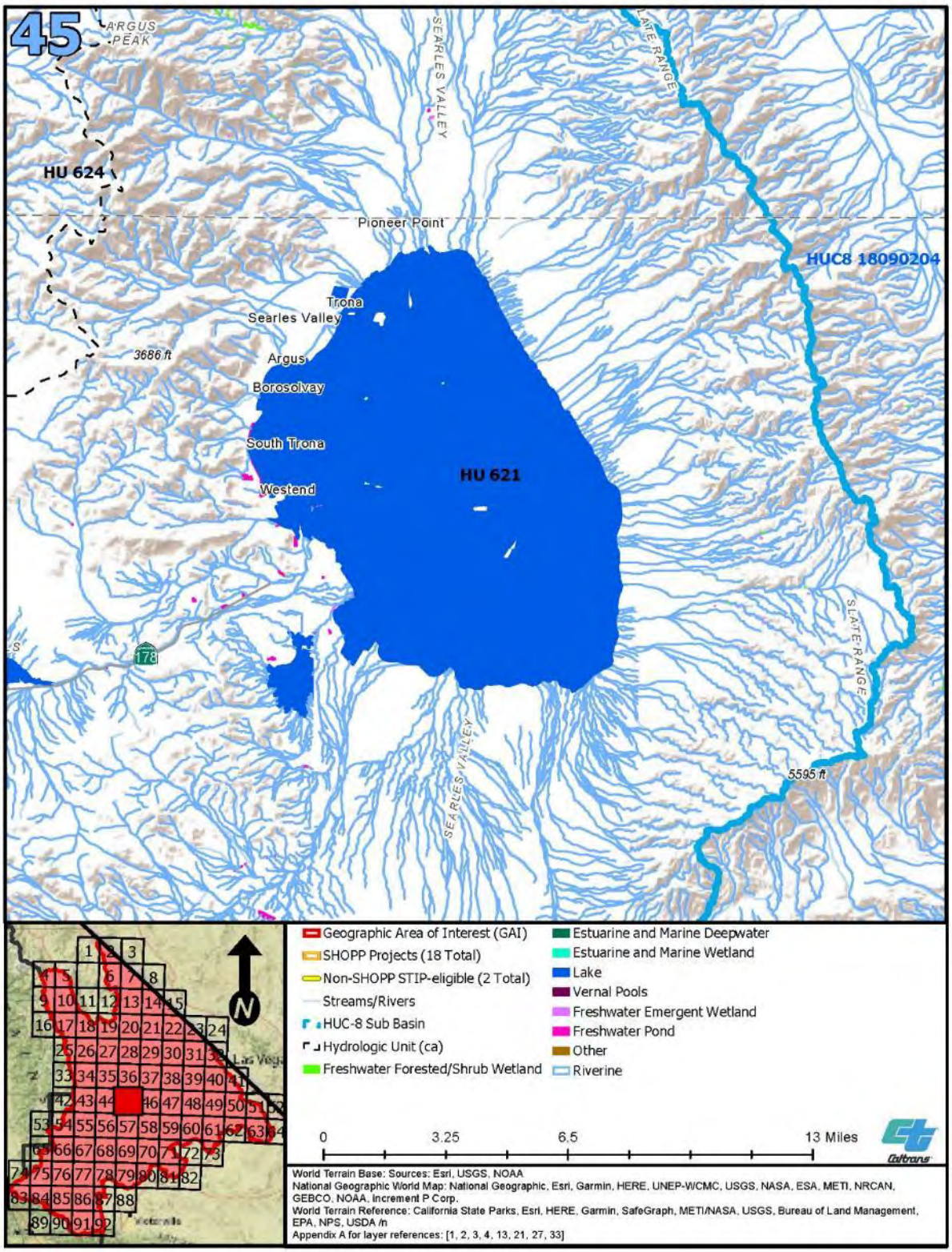

40
HU 610
NOPAH RANGE
6388 ft
HUC8 16060015
5885 ft
GREENWATER RANGE
RESTING SPRING RANGE
CHICAGO VALLEY
Shoshone
HUC8 18090202
HU 609
GREENWATER VALLEY
Tecopa
Amargosa River
HUC8 18090203
178
127
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

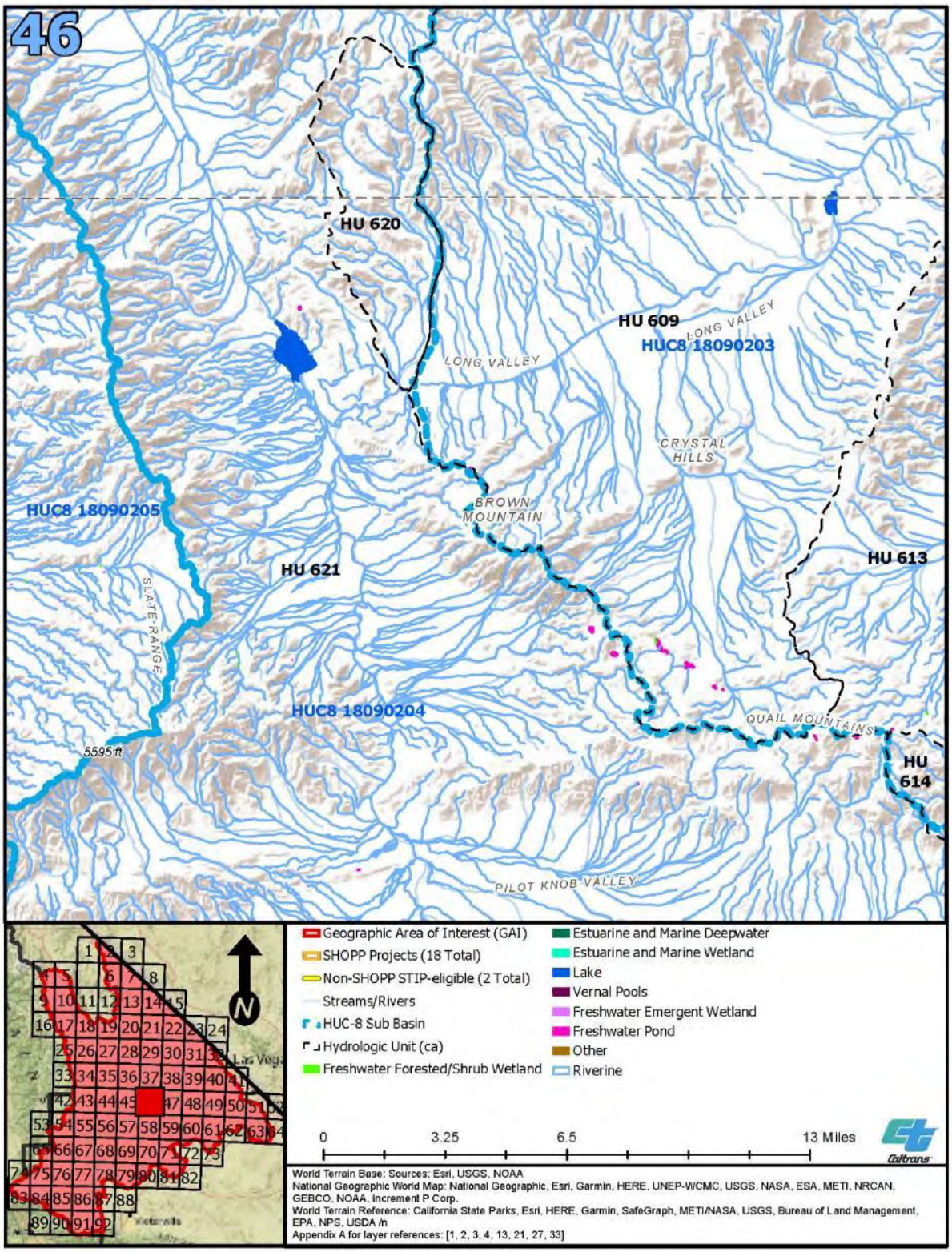

41
Trout Canyon
PAHRUMP VALLEY
6388 ft
5885 ft
HUC8 16060015
HU 610
HU 609
HUC8 18090202
CALIFORNIA VALLEY
HU 611
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

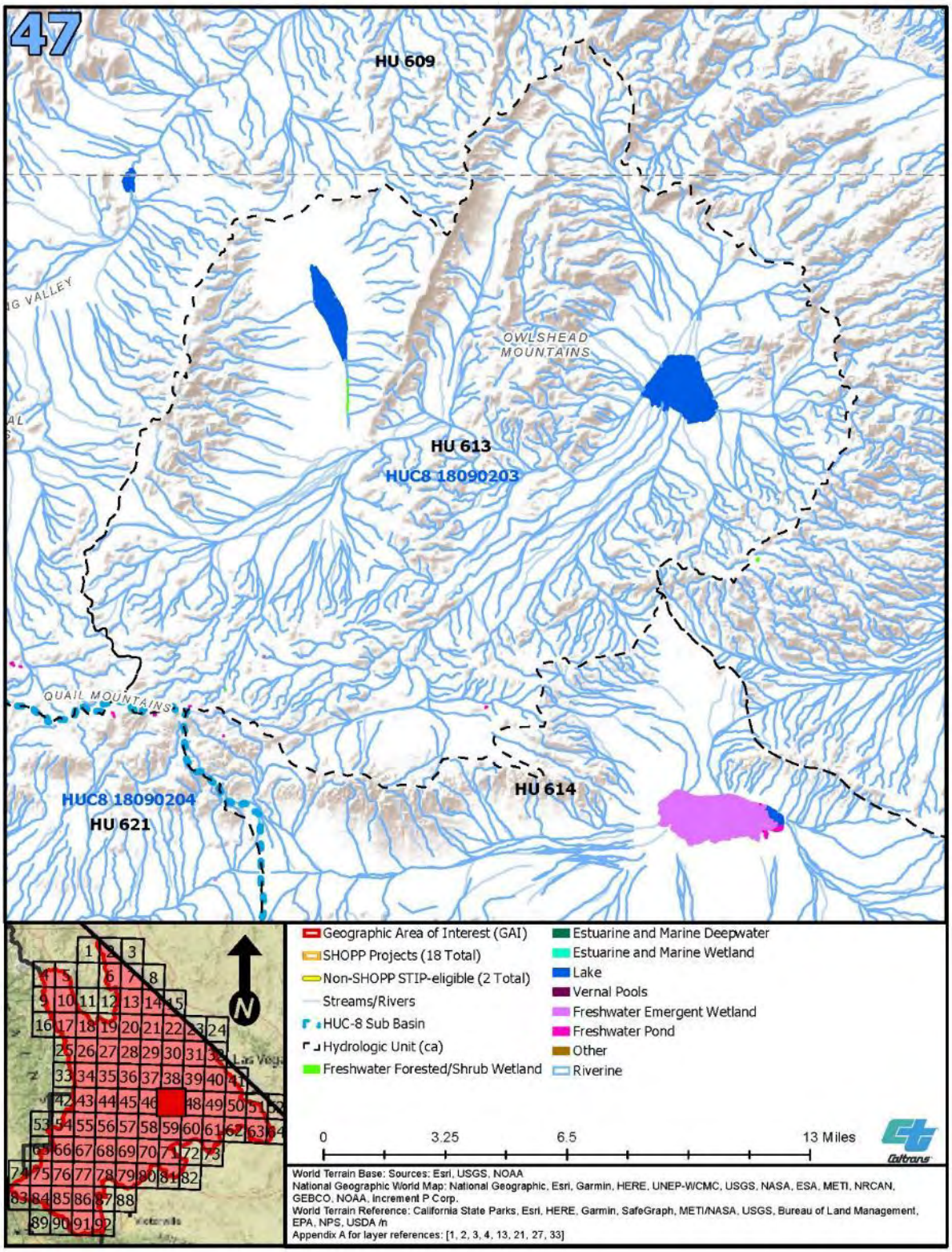

42
HUC8 18030002
8004 ft
BARTOLAS COUNTRY
178
8451 ft
Canebrake
Canebrake Creek
7793 ft
Onyx
South Fork Kern River
HU 554
Weldon
HU 624
HUC8 18090205
SCODIE MOUNTAINS
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

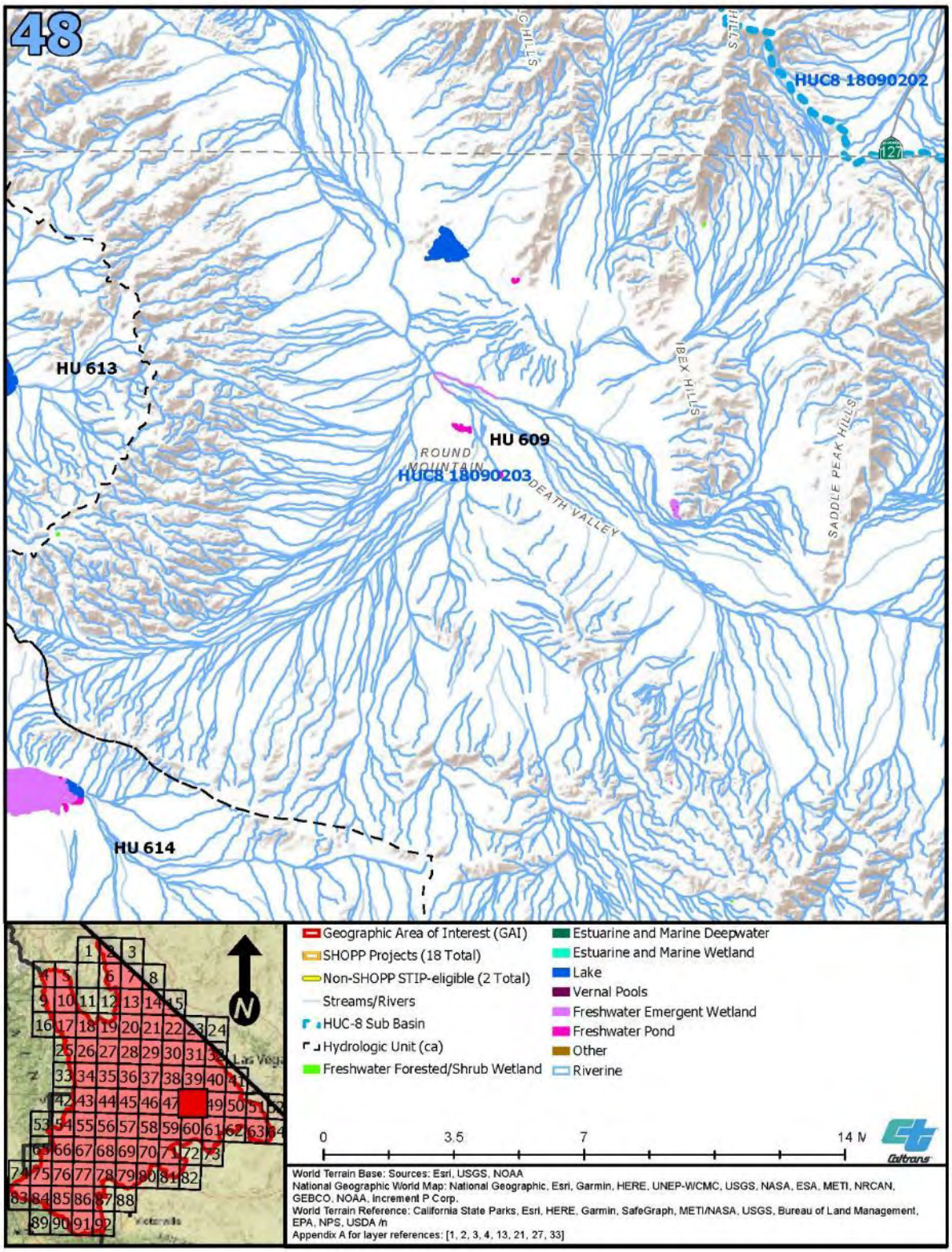

43
HU 622
WHITE HILLS
8004 ft
HUC8 18030002
Pearsonville
HU 554
Brown
N US-395
395
8451 ft
HUC8 18090205
7793 ft
HU 624
INDIAN WELLS VALLEY
Homestead
14
Aerospace Hwy
Inyokern
Inyokern Rd
178
Freeman Junction
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

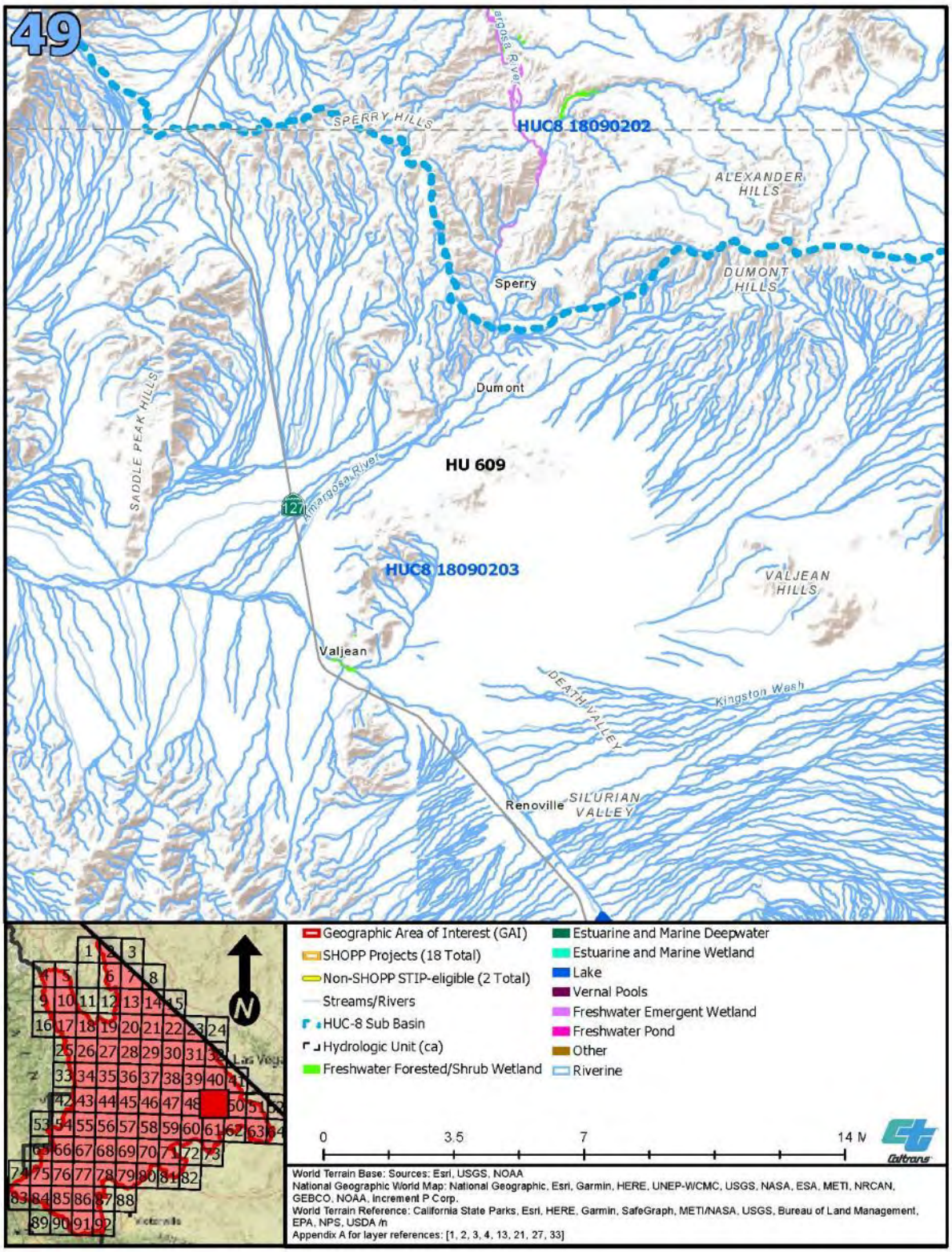

44
HU 622
WHITE HILLS
ARGUS PEAK
BURRO CANYON
3686 ft
HU 624
HU 621
SALT WELLS VALLEY
178
China Lake
Ridgecrest
395
Las Vegas
Victorville
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

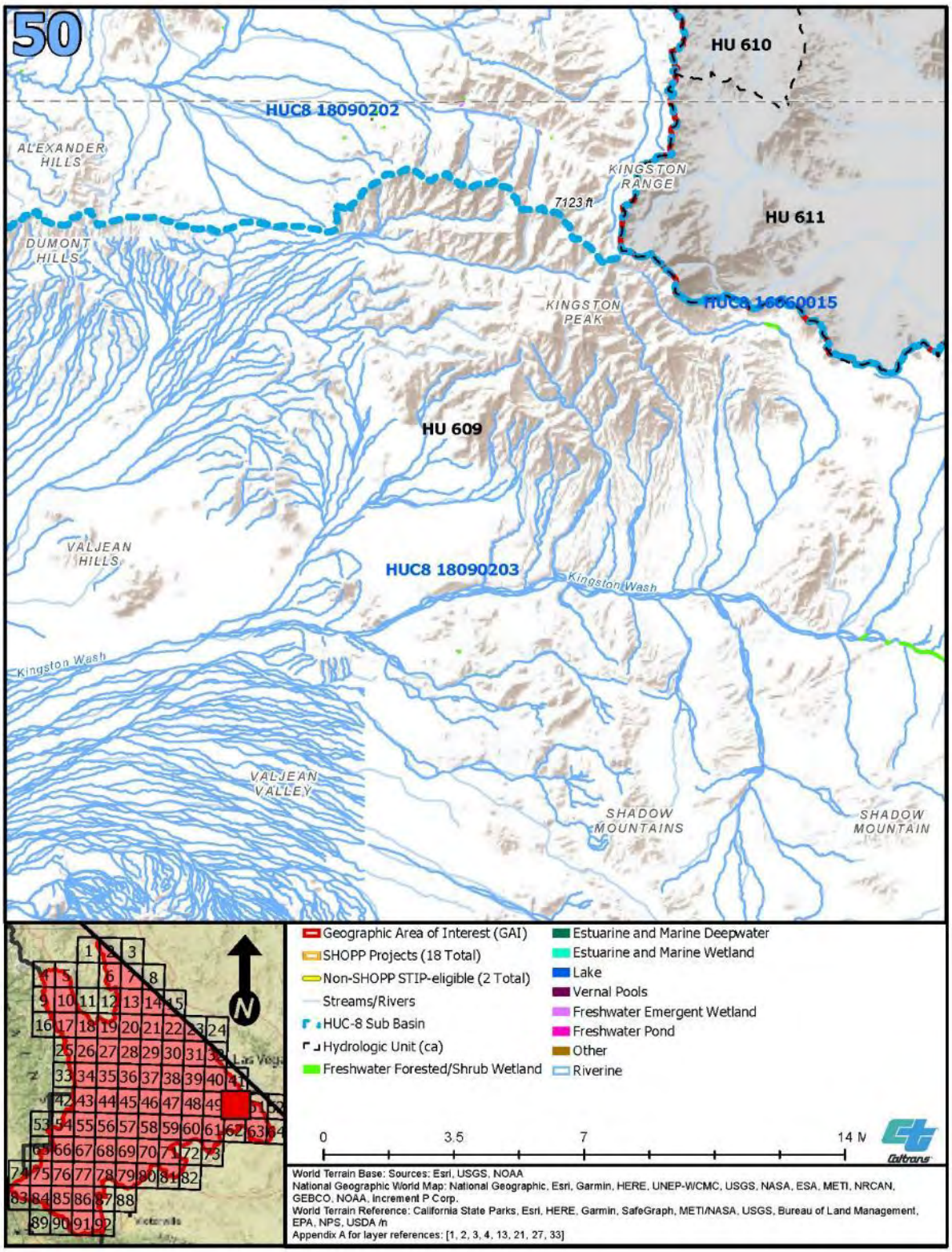

45
ARGUS PEAK
SEARLES VALLEY
SLATE RANGE
HU 624
Pioneer Point
HUC8 18090204
Trona
Searles Valley
3686 ft
Argus
Borosolvay
South Trona
HU 621
Westend
178
5595 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

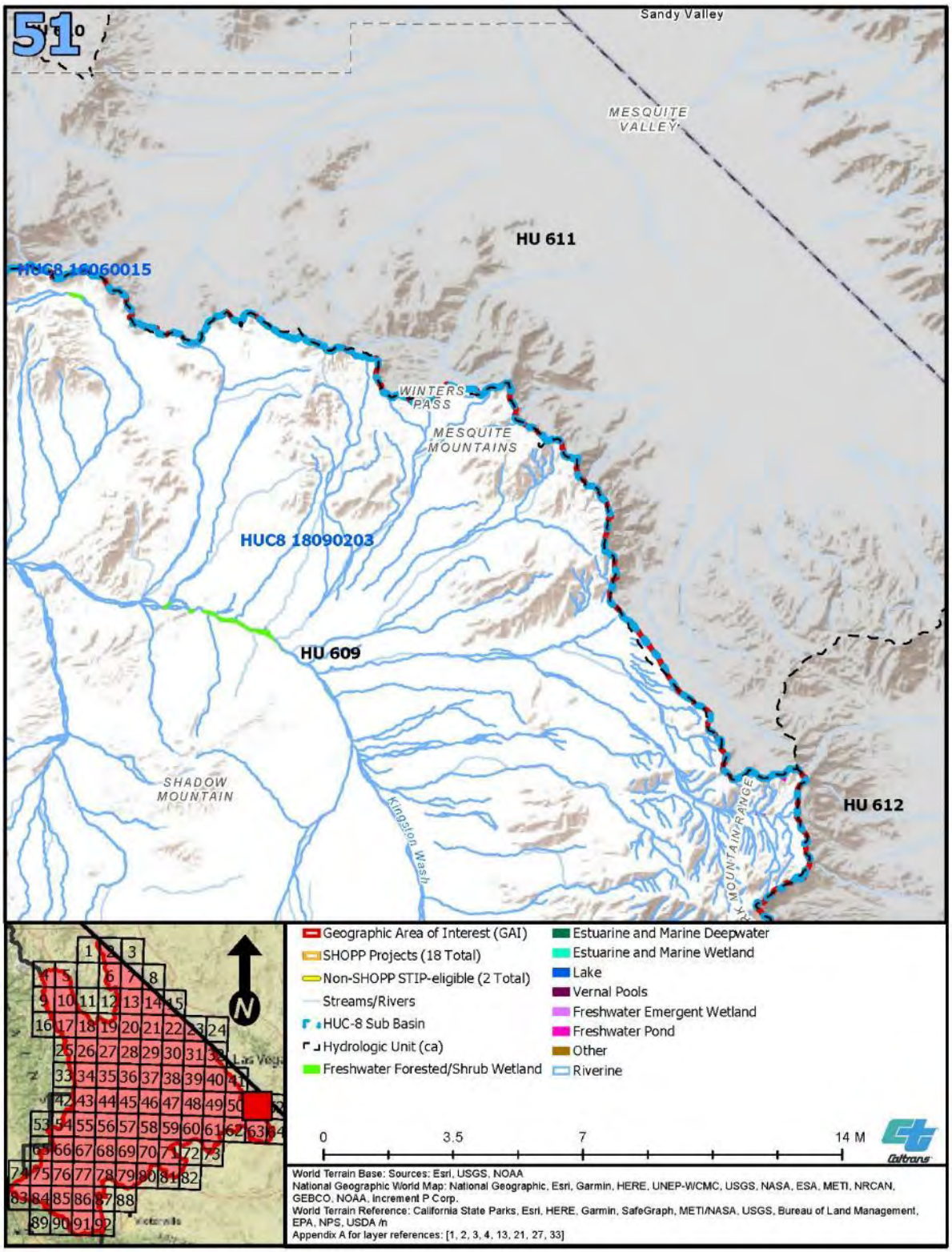

46
HU 620
HU 609
HUC8 18090203
LONG VALLEY
LONG VALLEY
CRYSTAL HILLS
BROWN MOUNTAIN
HUC8 18090205
HU 621
HU 613
SLATE RANGE
HUC8 18090204
QUAIL MOUNTAINS
5595 ft
HU 614
PILOT KNOB VALLEY
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

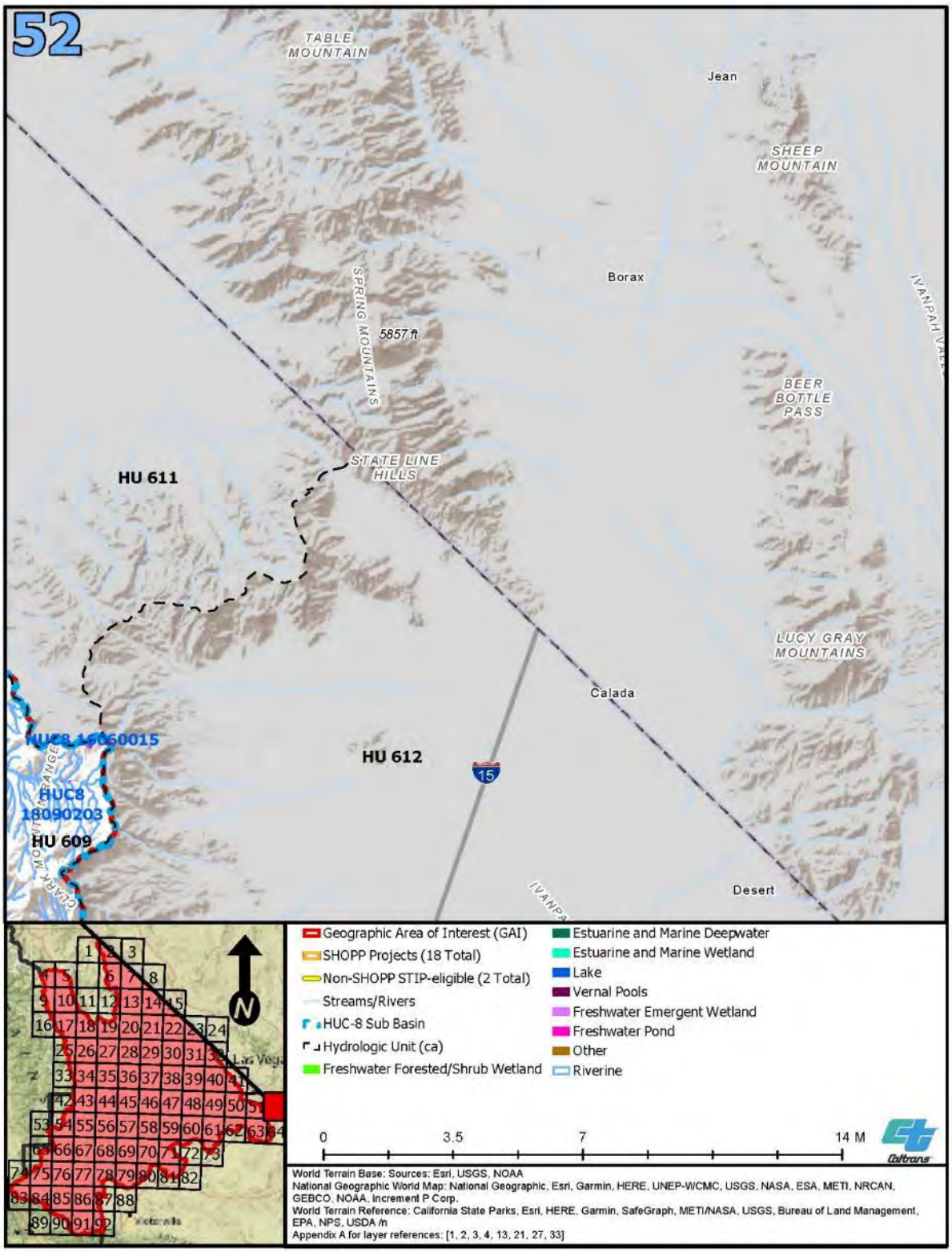

47
HU 609
OWLSHEAD MOUNTAINS
HU 613
HUC8 18090203
QUAIL MOUNTAINS
HUC8 18090204
HU 621
HU 614
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

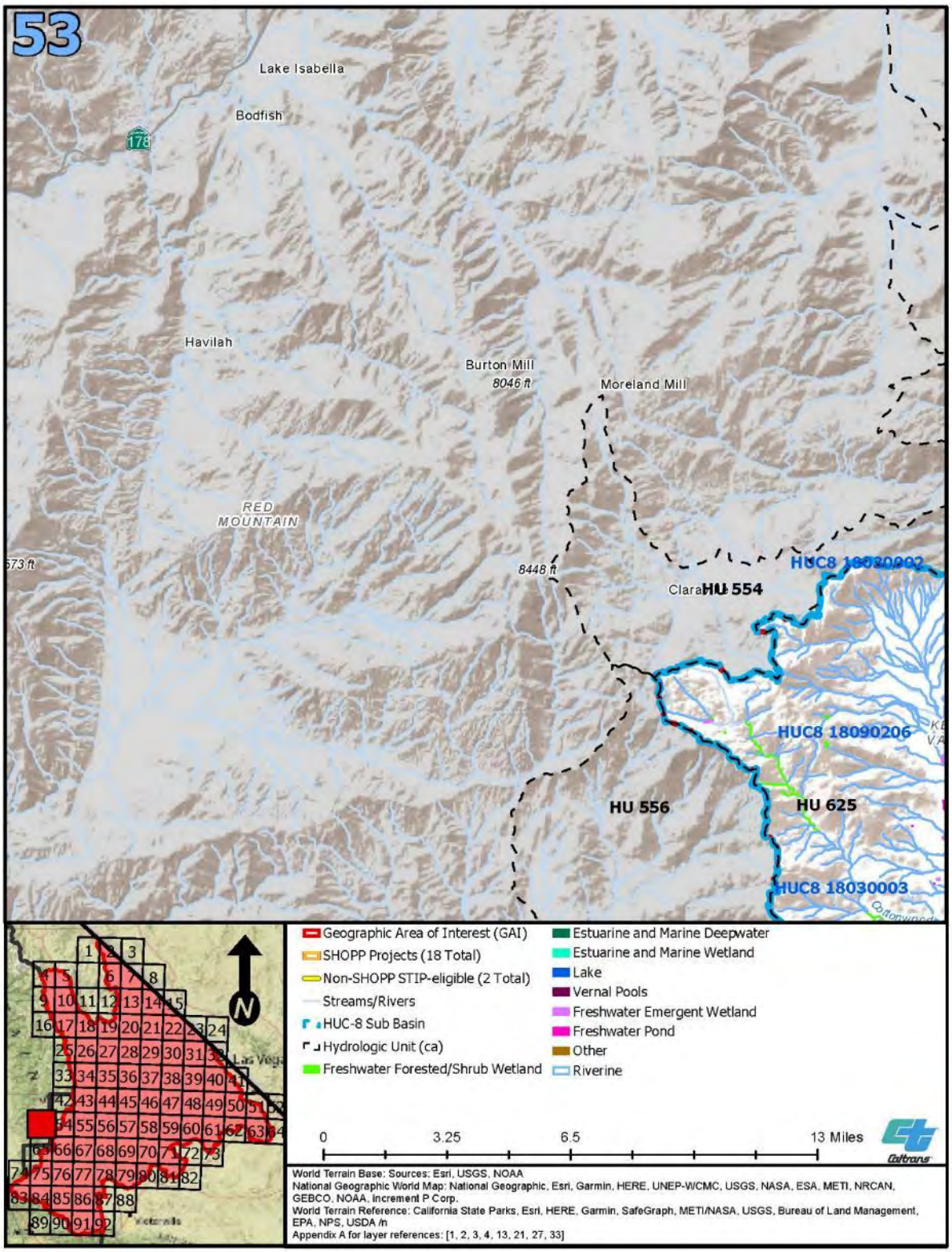

48
HUC8 18090202
HU 613
HU 609
ROUND MOUNTAIN
HUC8 18090203
DEATH VALLEY
IBEX HILLS
SADDLE PEAK HILLS
HU 614
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

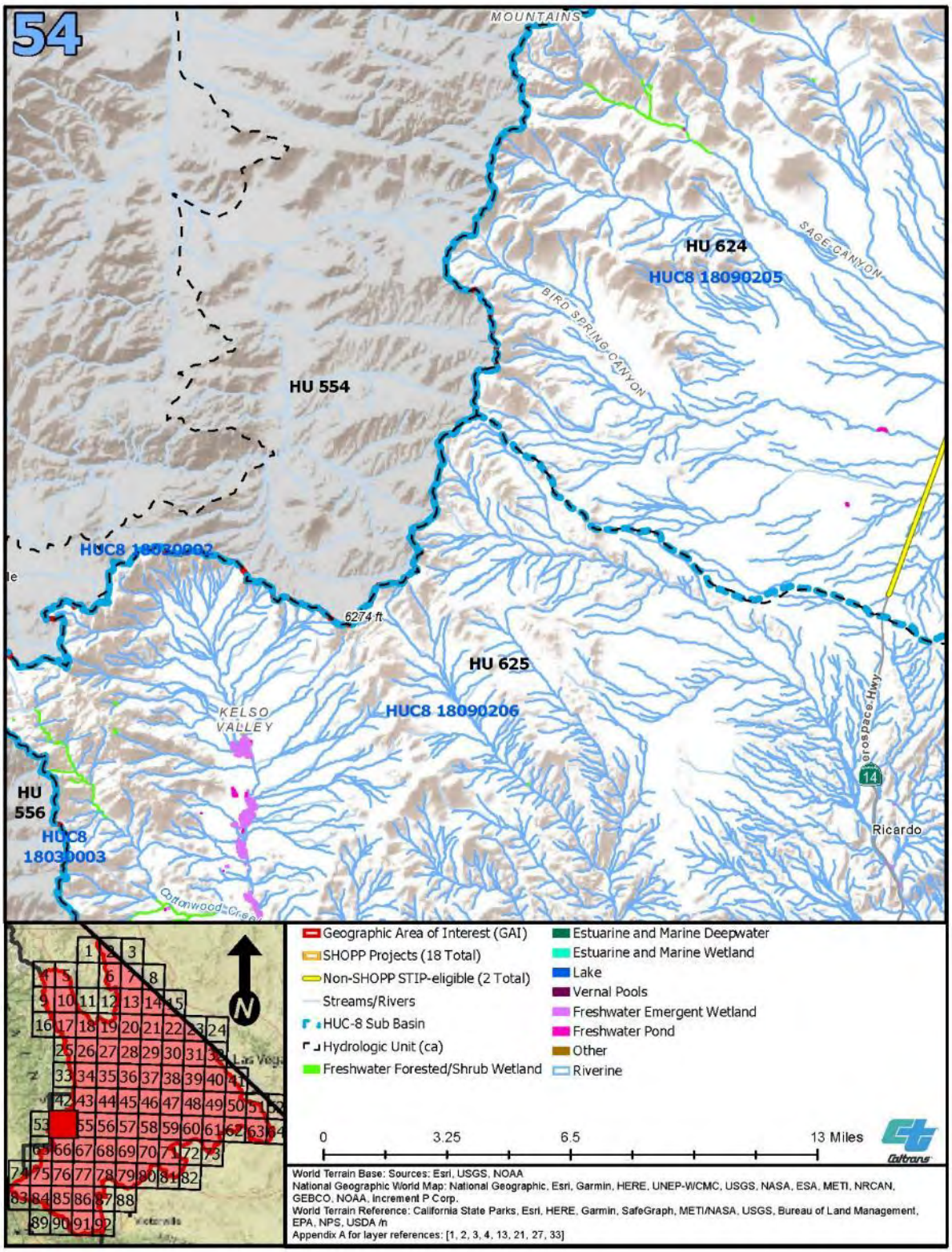

49
SPERRY HILLS
HUC8 18090202
ALEXANDER HILLS
DUMONT HILLS
Sperry
Dumont
SADDLE PEAK HILLS
HU 609
127
HUC8 18090203
VALJEAN HILLS
Valjean
DEATH VALLEY
Kingston Wash
Renoville
SILURIAN VALLEY
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

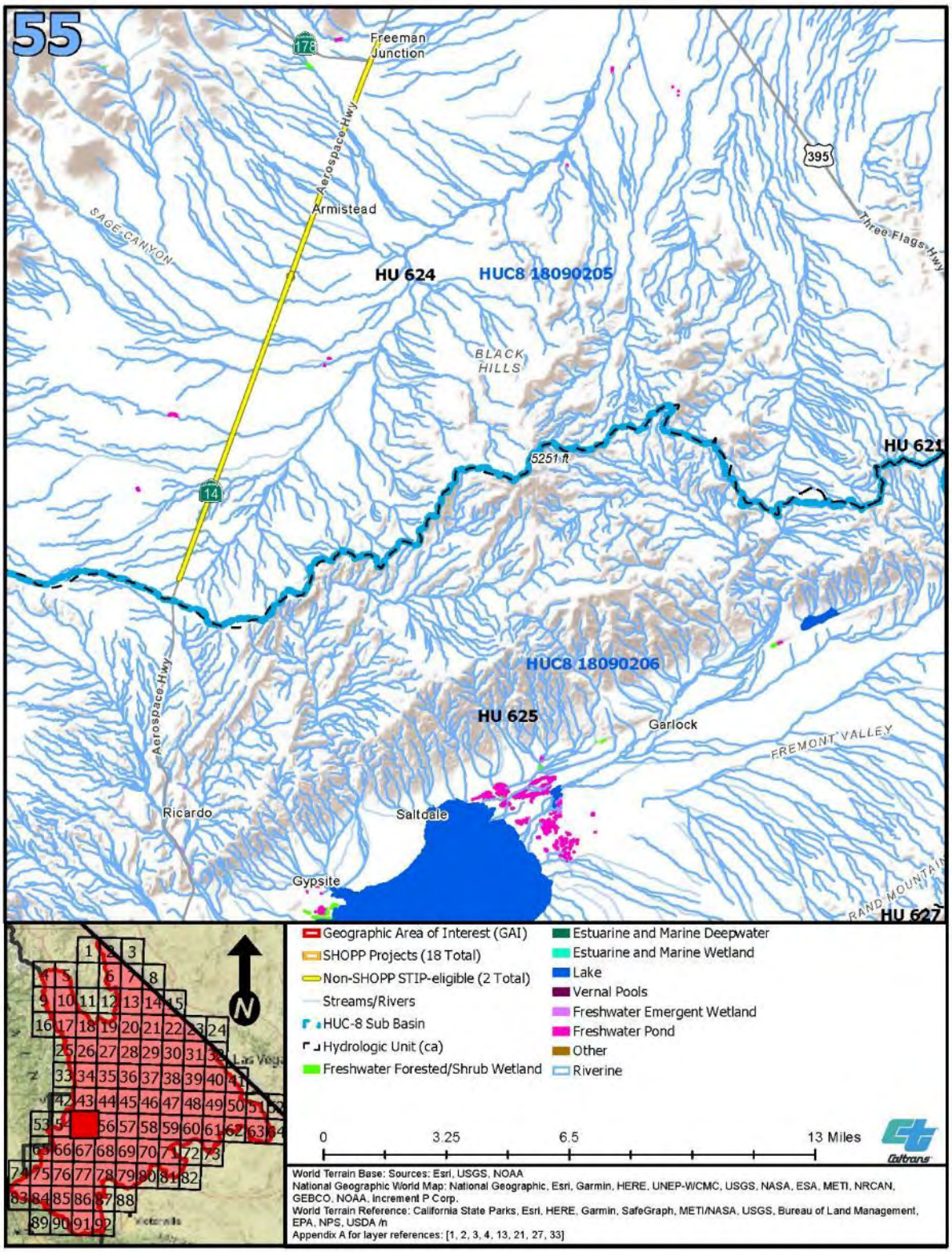

50
HU 610
HUC8 18090202
ALEXANDER HILLS
KINGSTON RANGE
7123 ft
HU 611
DUMONT HILLS
KINGSTON PEAK
HUC8 18060015
HU 609
VALJEAN HILLS
HUC8 18090203
Kingston Wash
Kingston Wash
VALJEAN VALLEY
SHADOW MOUNTAINS
SHADOW MOUNTAIN
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

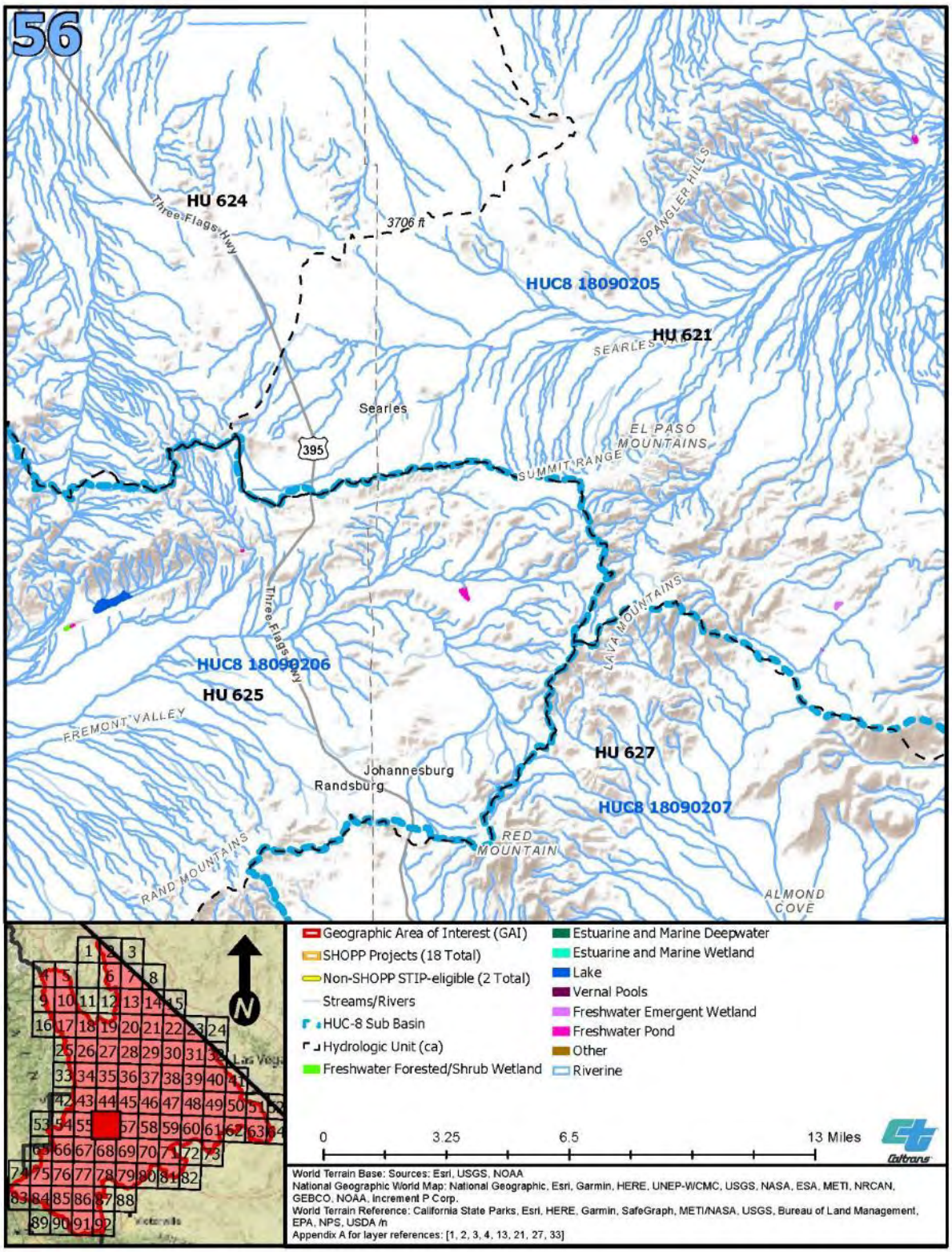

51
Sandy Valley
MESQUITE VALLEY
HU 611
HUC8 18060015
WINTERS PASS
MESQUITE MOUNTAINS
HUC8 18090203
HU 609
SHADOW MOUNTAIN
Kingston Wash
HU 612
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

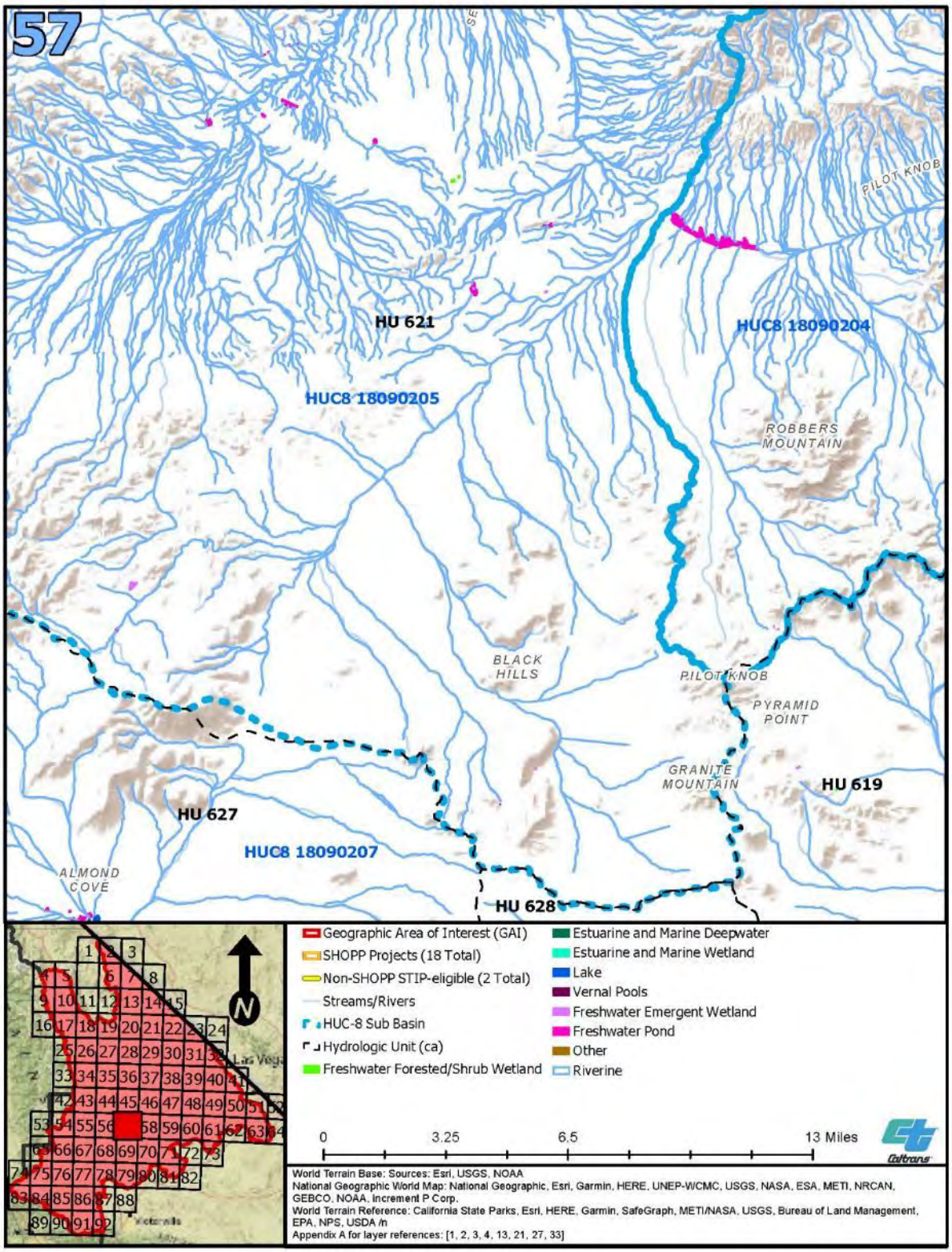

52
TABLE MOUNTAIN
Jean
SHEEP MOUNTAIN
Borax
SPRING MOUNTAINS
5857 ft
IVANPAH VALLEY
BEER BOTTLE PASS
STATE LINE HILLS
HU 611
LUCY GRAY MOUNTAINS
Calada
HUC8 18090015
HU 612
15
HUC8 18090203
HU 609
CLARK MOUNTAIN RANGE
Desert
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

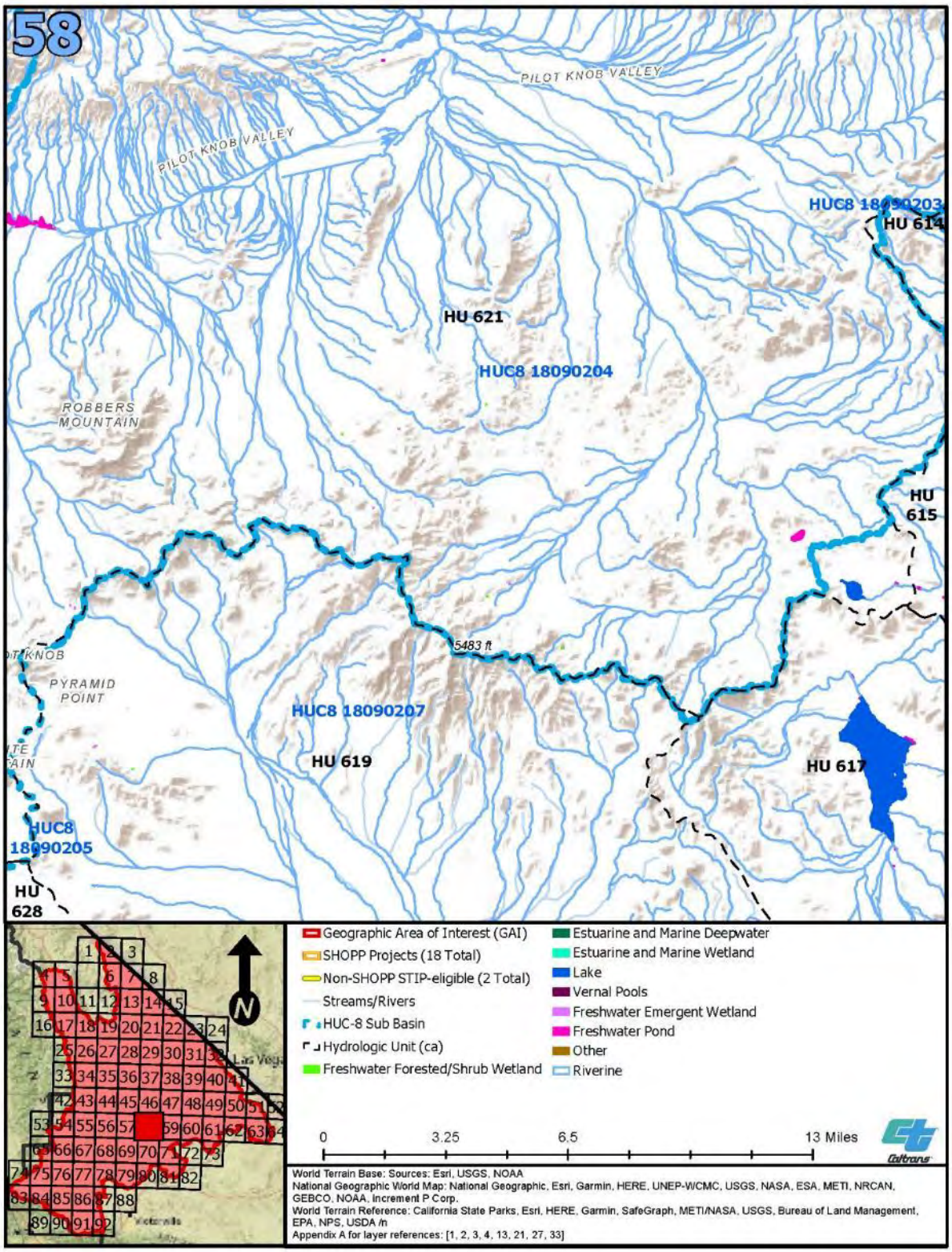

53
Lake Isabella
Bodfish
178
Havilah
Burton Mill
8046 ft
Moreland Mill
RED
MOUNTAIN
8448 ft
HUC8 18030002
HU 554
HUC8 18090206
HU 556
HU 625
HUC8 18030003
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

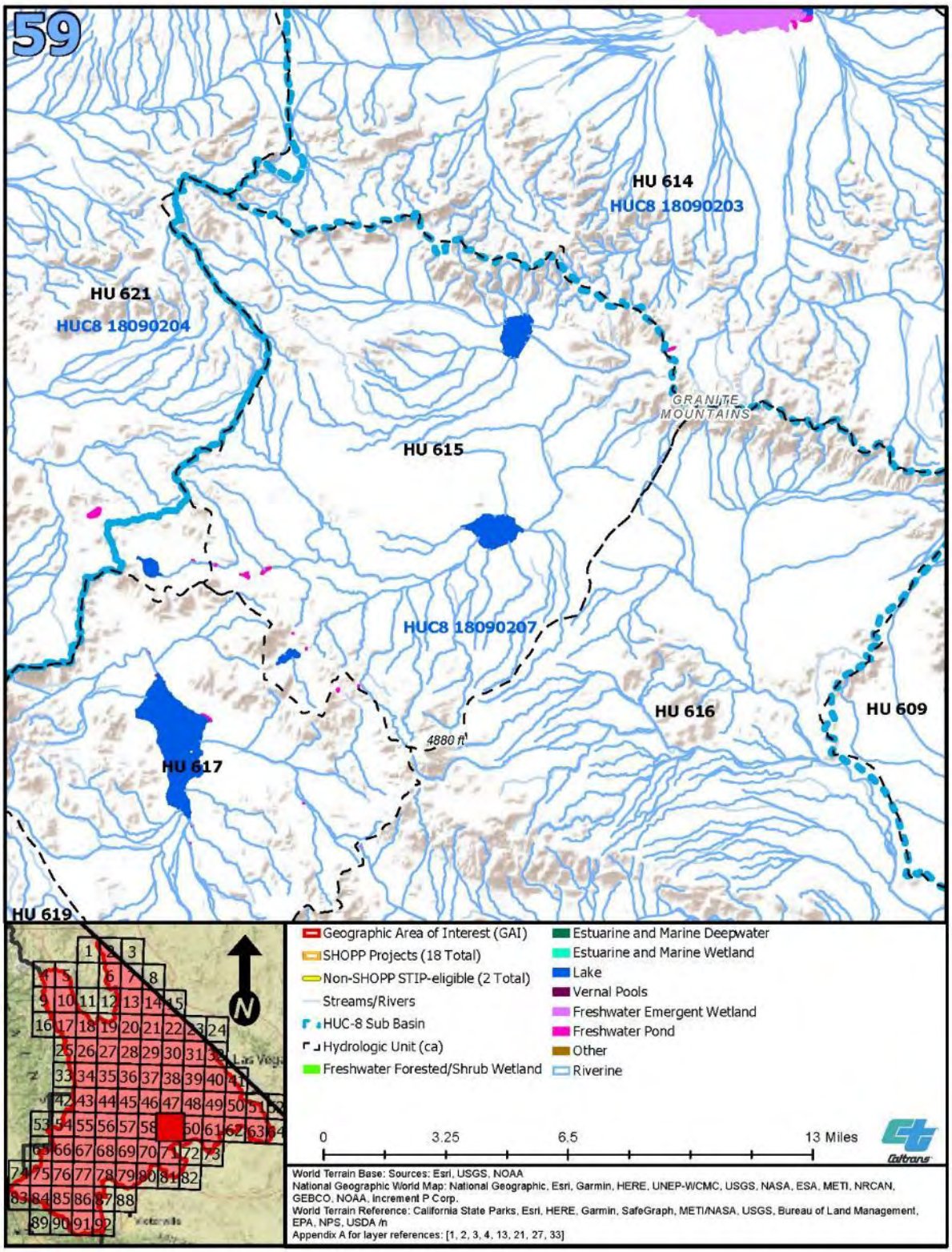

54
MOUNTAINS
HU 624
HUC8 18090205
SAGE CANYON
BIRD SPRING CANYON
HU 554
HUC8 18090207
6274 ft
HU 625
HUC8 18090206
KELSO VALLEY
HU 556
HUC8 18030003
Cottonwood Creek
Ricardo
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

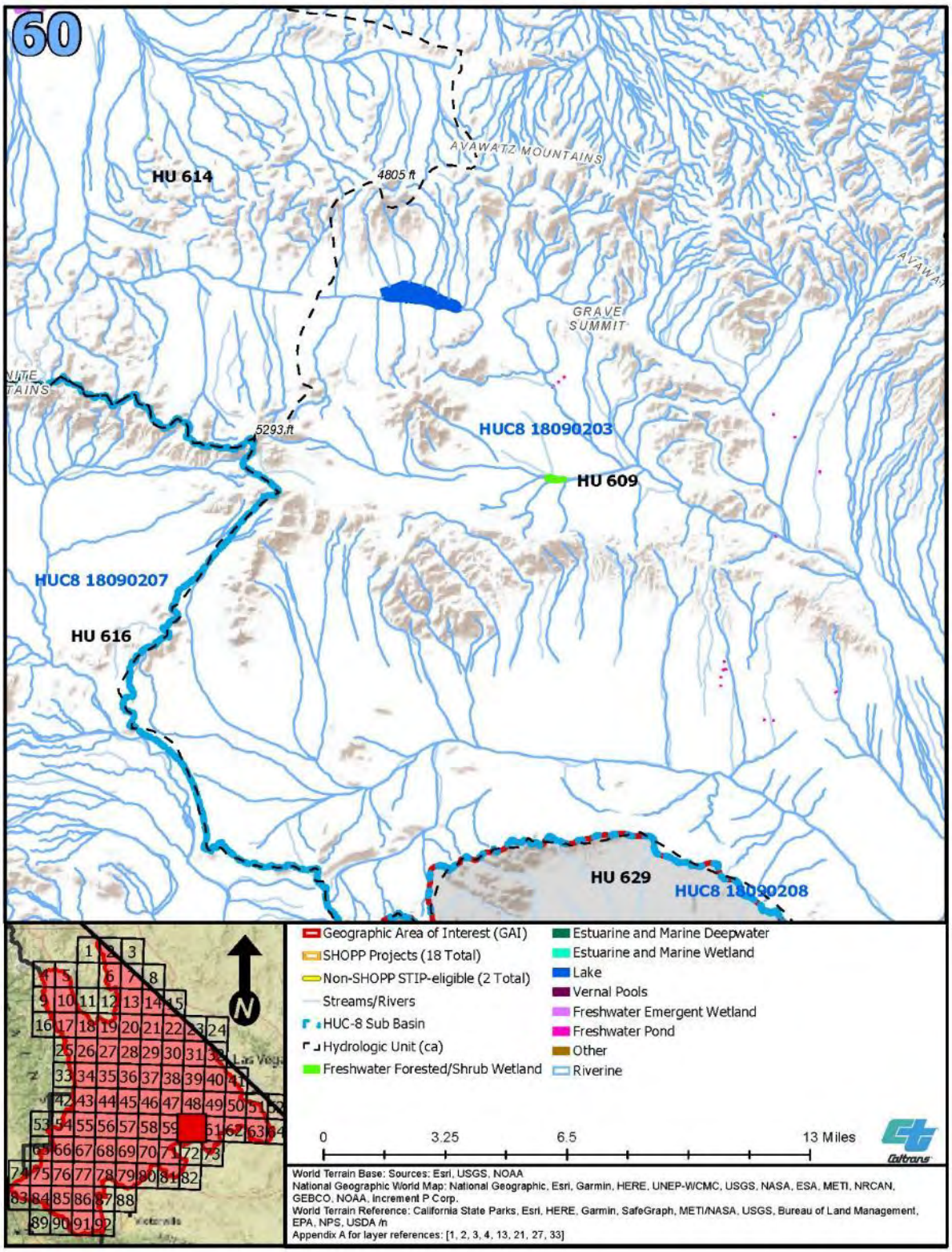

55
Freeman Junction
Aerospace Hwy
Armistead
SAGE CANYON
HU 624
HUC8 18090205
BLACK HILLS
395
Three Flags Hwy
HU 621
5251 ft
14
HUC8 18090206
HU 625
Garlock
FREMONT VALLEY
Aerospace Hwy
Ricardo
Saltdale
Gypsite
HU 627
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

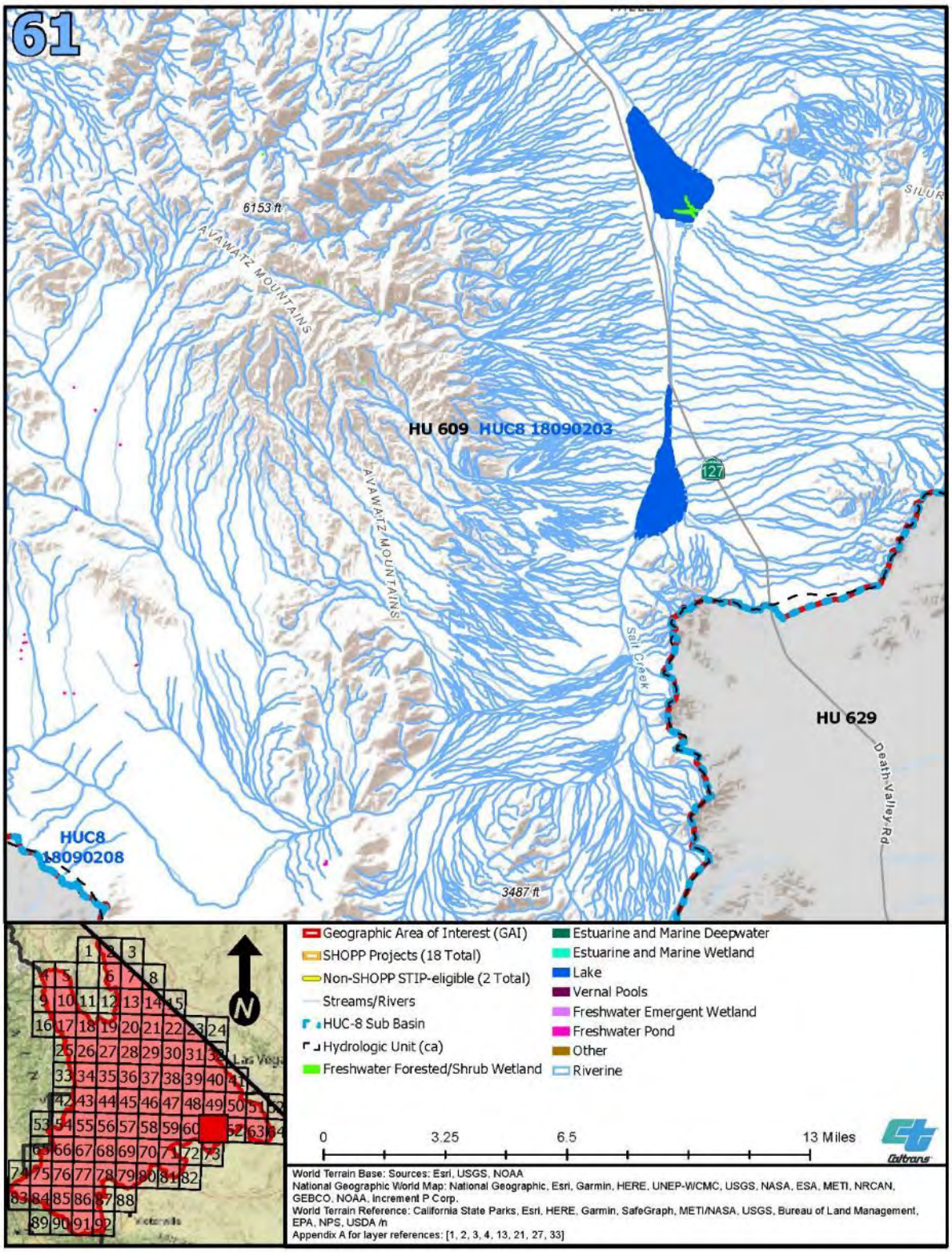

56
HU 624
Three Flags Hwy
3706 ft
SPANGLER HILLS
HUC8 18090205
HU 621
SEARLES VALLEY
Searles
395
EL PASO MOUNTAINS
SUMMIT RANGE
Three Flags Hwy
LAVA MOUNTAINS
HUC8 18090206
HU 625
FREMONT VALLEY
HU 627
Johannesburg
Randsburg
HUC8 18090207
RED MOUNTAIN
RAND MOUNTAINS
ALMOND COVE
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
N
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

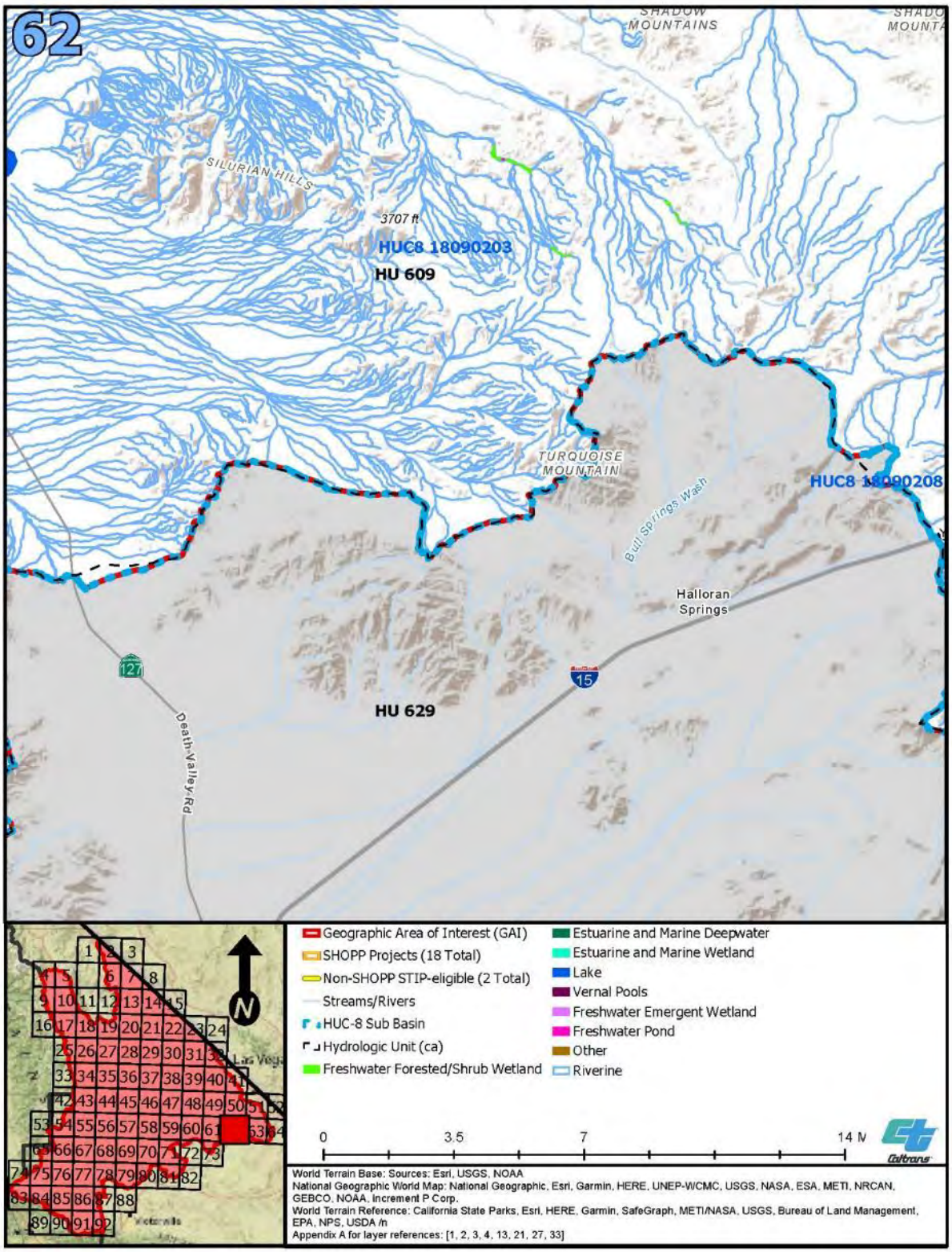

57
HU 621
HUC8 18090205
HUC8 18090204
PILOT KNOB
ROBBERS MOUNTAIN
BLACK HILLS
PILOT KNOB
PYRAMID POINT
GRANITE MOUNTAIN
HU 619
HU 627
HUC8 18090207
ALMOND COVE
HU 628
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

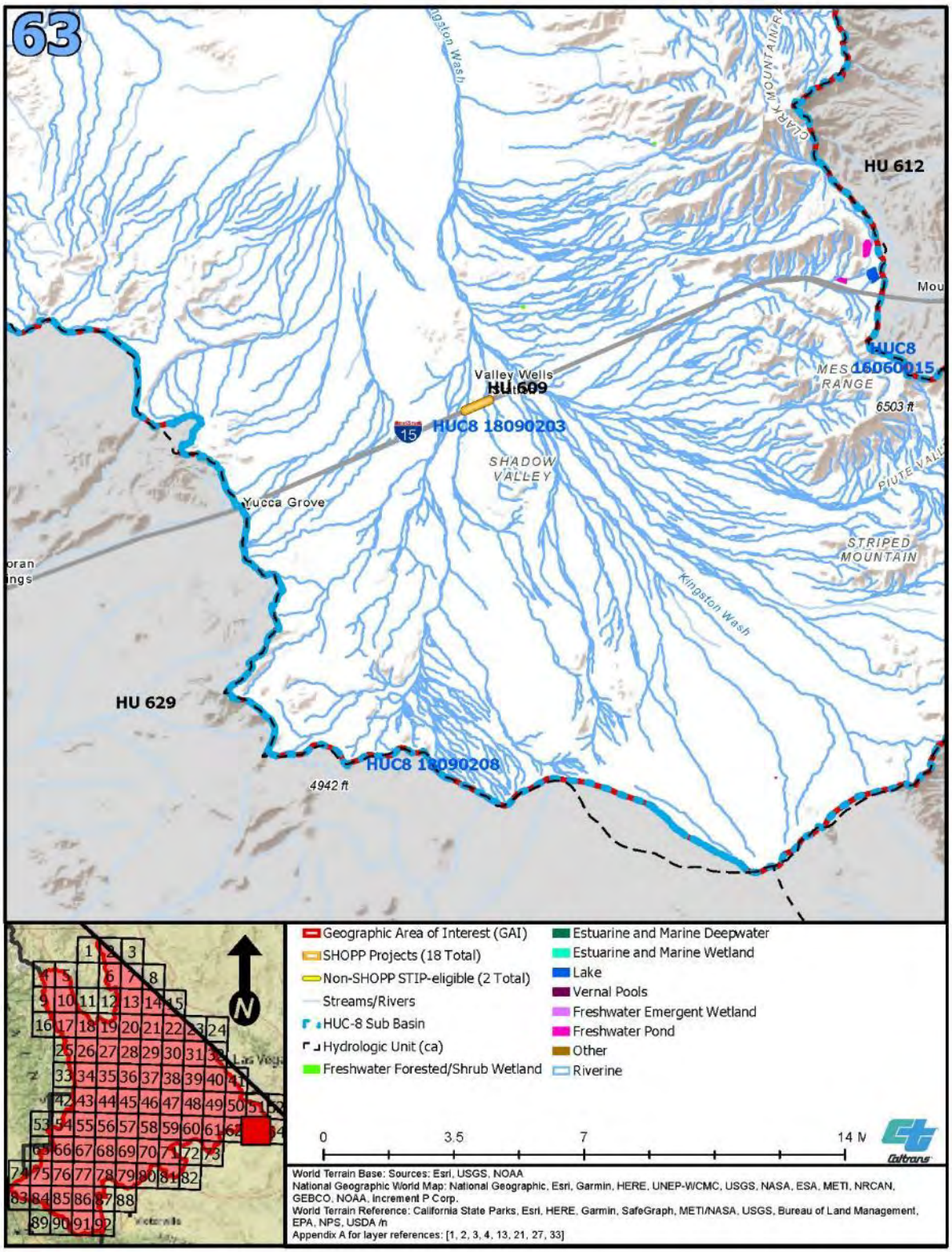

58
PILOT KNOB VALLEY
PILOT KNOB VALLEY
HUC8 18090203
HU 614
HU 621
HUC8 18090204
ROBBERS MOUNTAIN
HU 615
5483 ft
PYRAMID POINT
HUC8 18090207
HU 619
HU 617
HUC8 18090205
HU 628
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

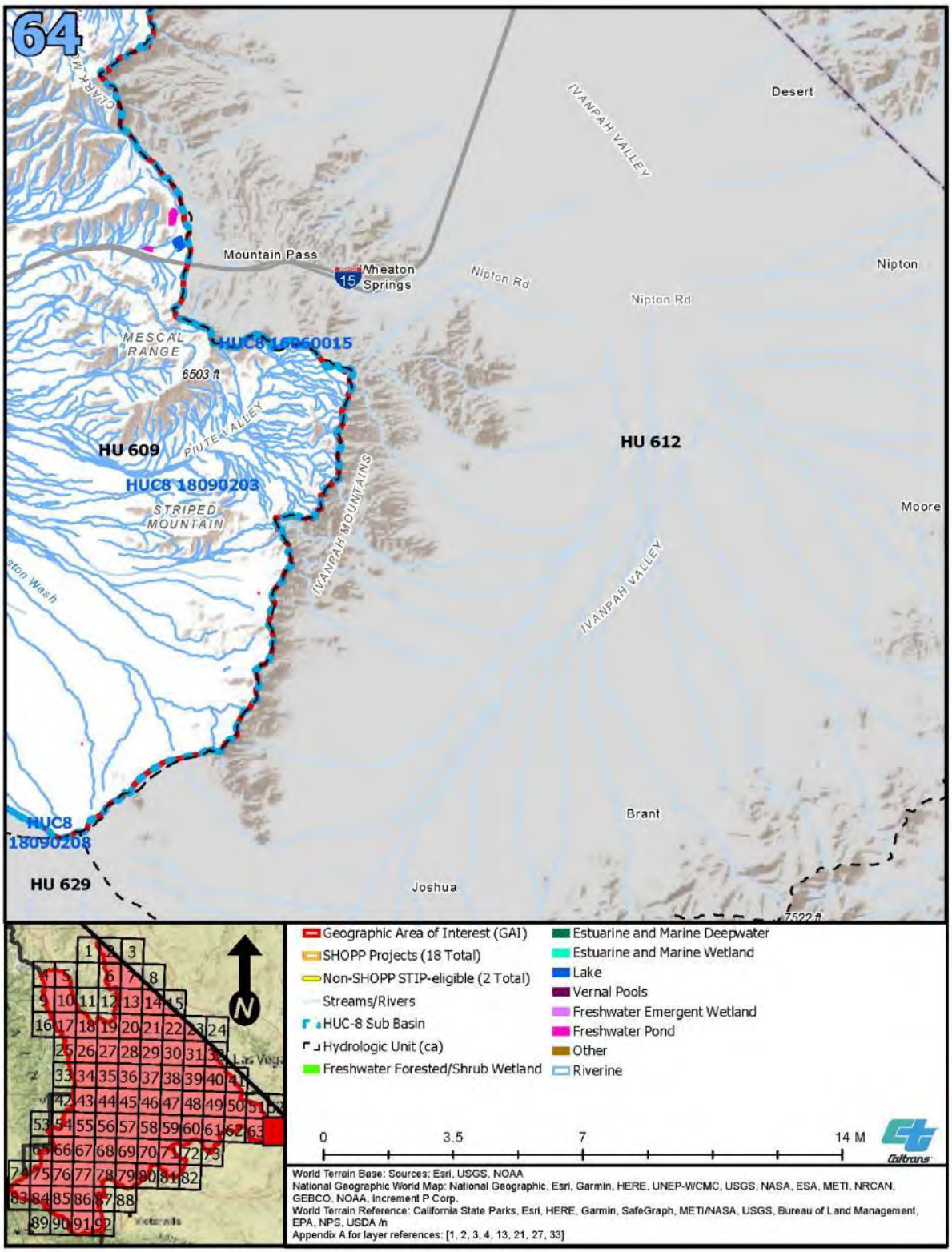

59
HU 614
HUC8 18090203
HU 621
HUC8 18090204
GRANITE MOUNTAINS
HU 615
HUC8 18090207
HU 616
HU 609
4880 ft
HU 617
HU 619
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

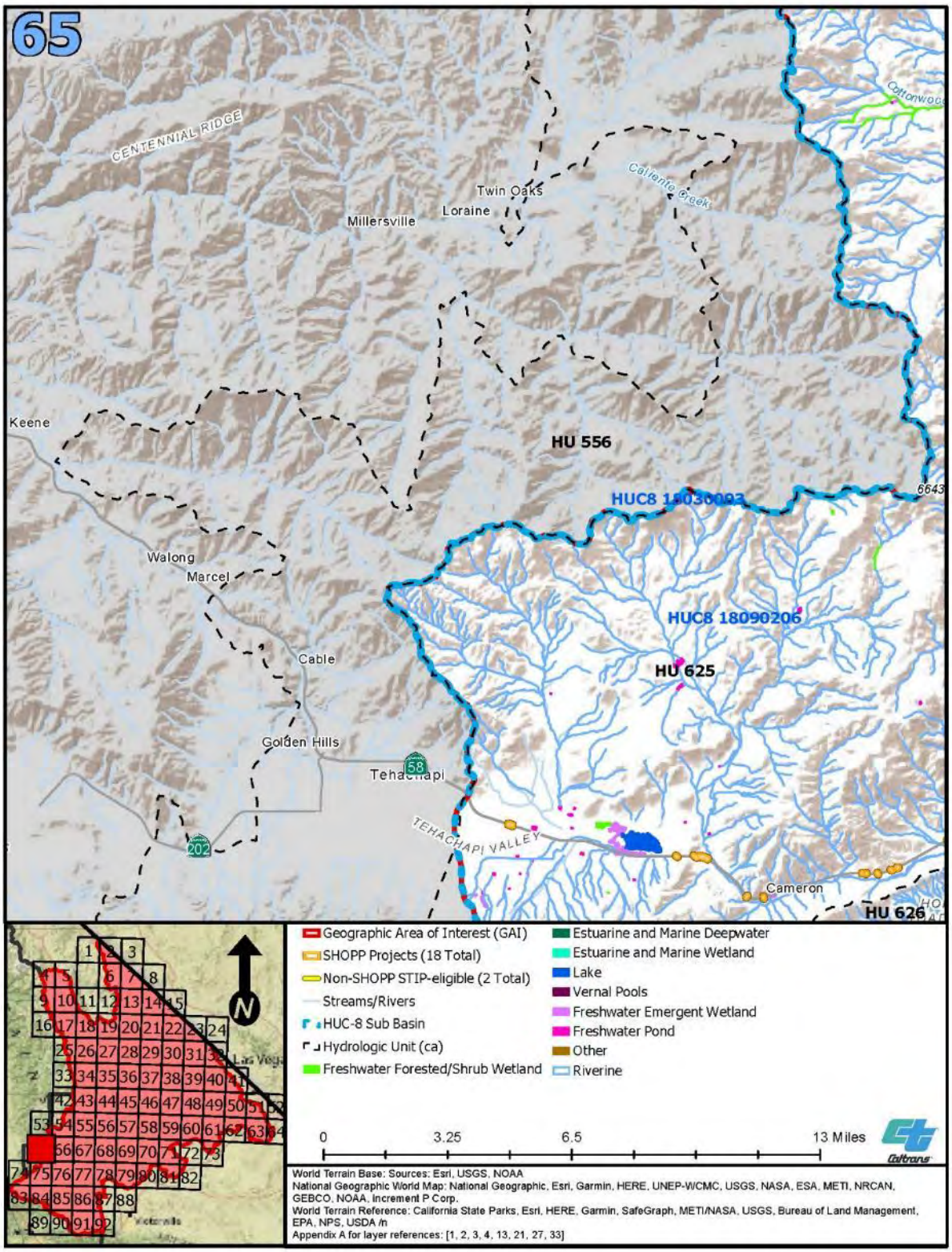

60
HU 614
AVAWATZ MOUNTAINS
4805 ft
GRAVE SUMMIT
5293.ft
HUC8 18090203
HU 609
HUC8 18090207
HU 616
HU 629
HUC8 18090208
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
N
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

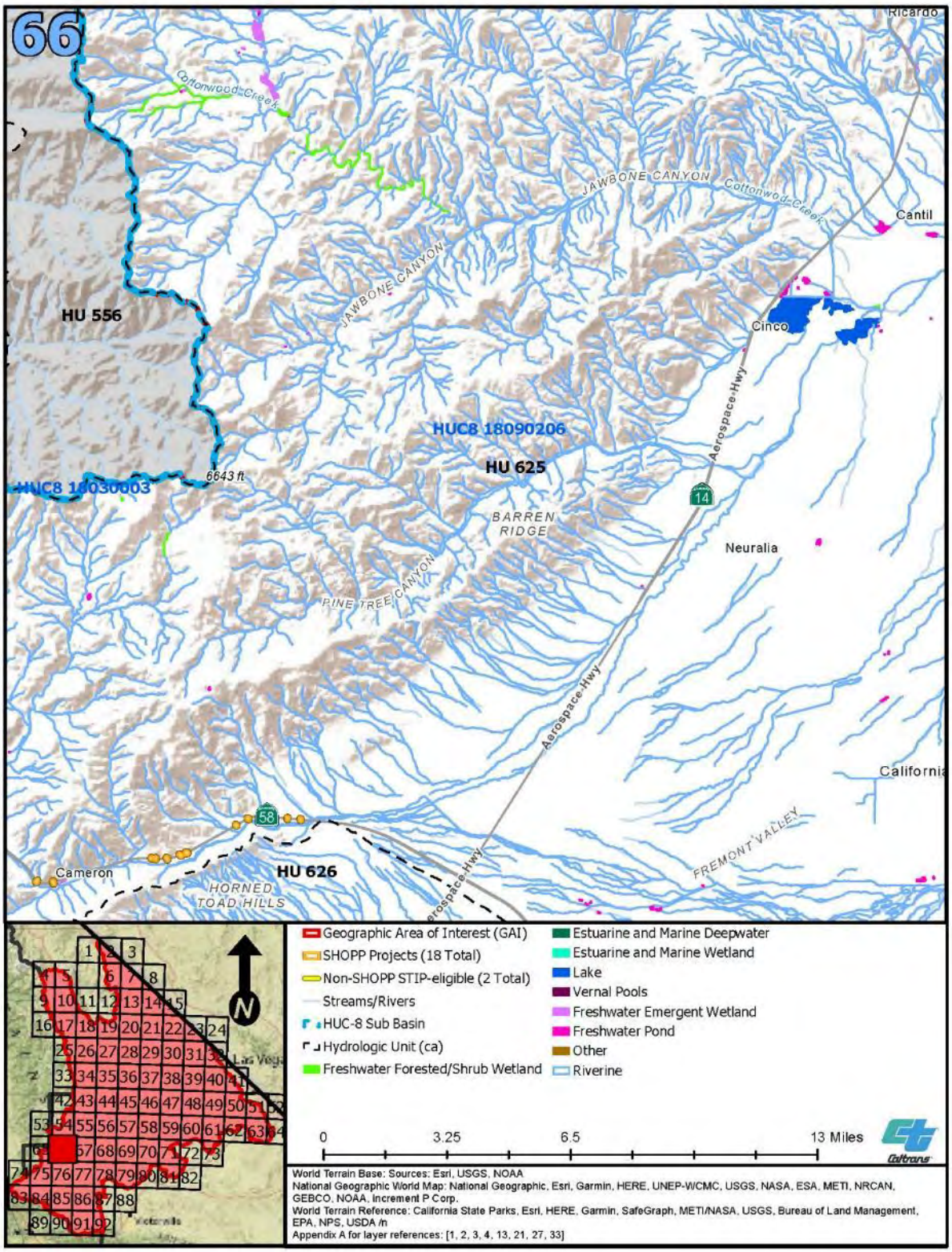

61
6153 ft
AVAWATZ MOUNTAINS
HU 609 HUC8 18090203
AVAWATZ MOUNTAINS
127
Salt Creek
HU 629
Death Valley Rd
HUC8
18090208
3487 ft
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

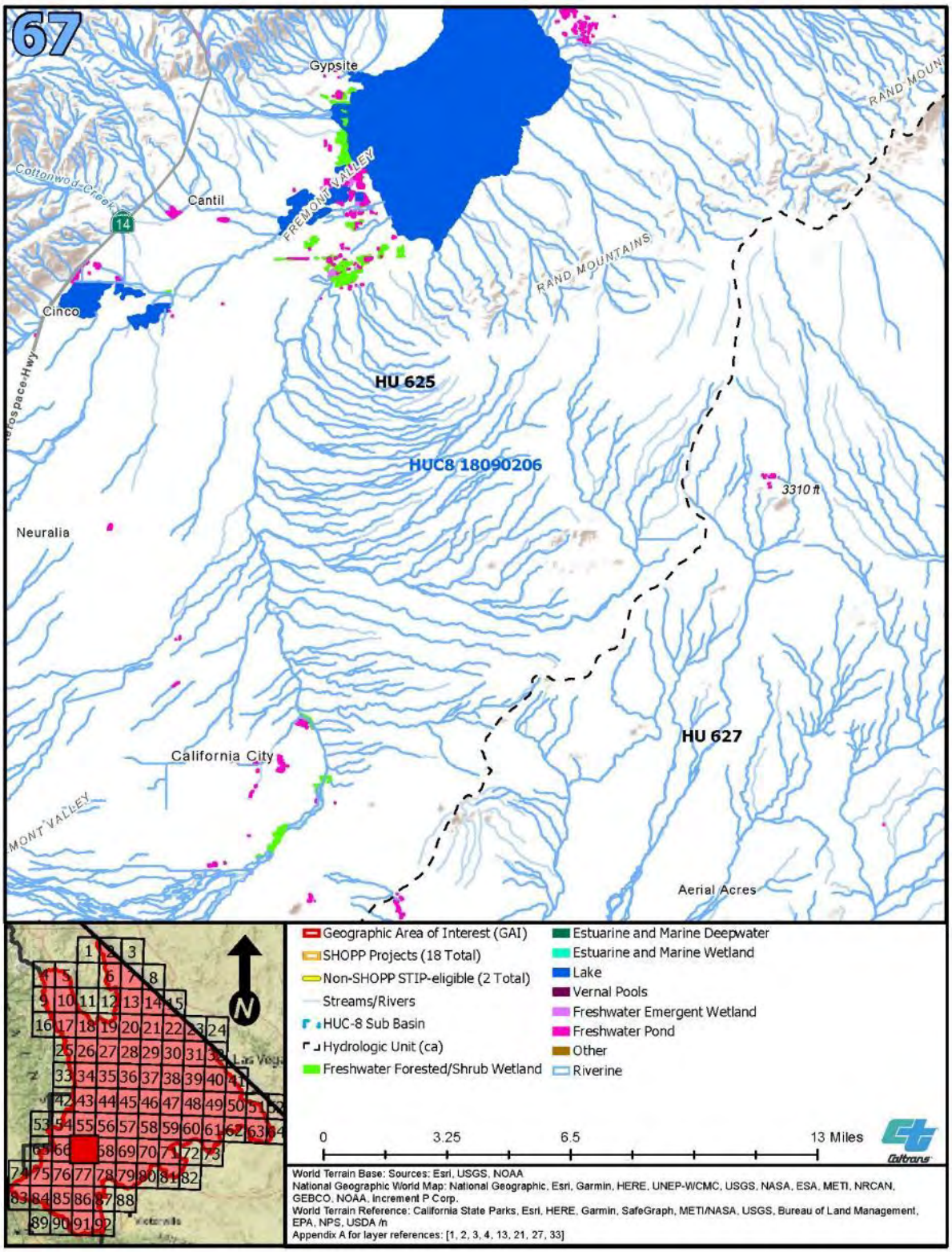

62
SHADOW MOUNTAINS
SILURIAN HILLS
3707 ft
HUC8 18090203
HU 609
TURQUOISE MOUNTAIN
HUC8 18090208
Bull Springs Wash
Halloran Springs
127
15
HU 629
Death Valley Rd
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

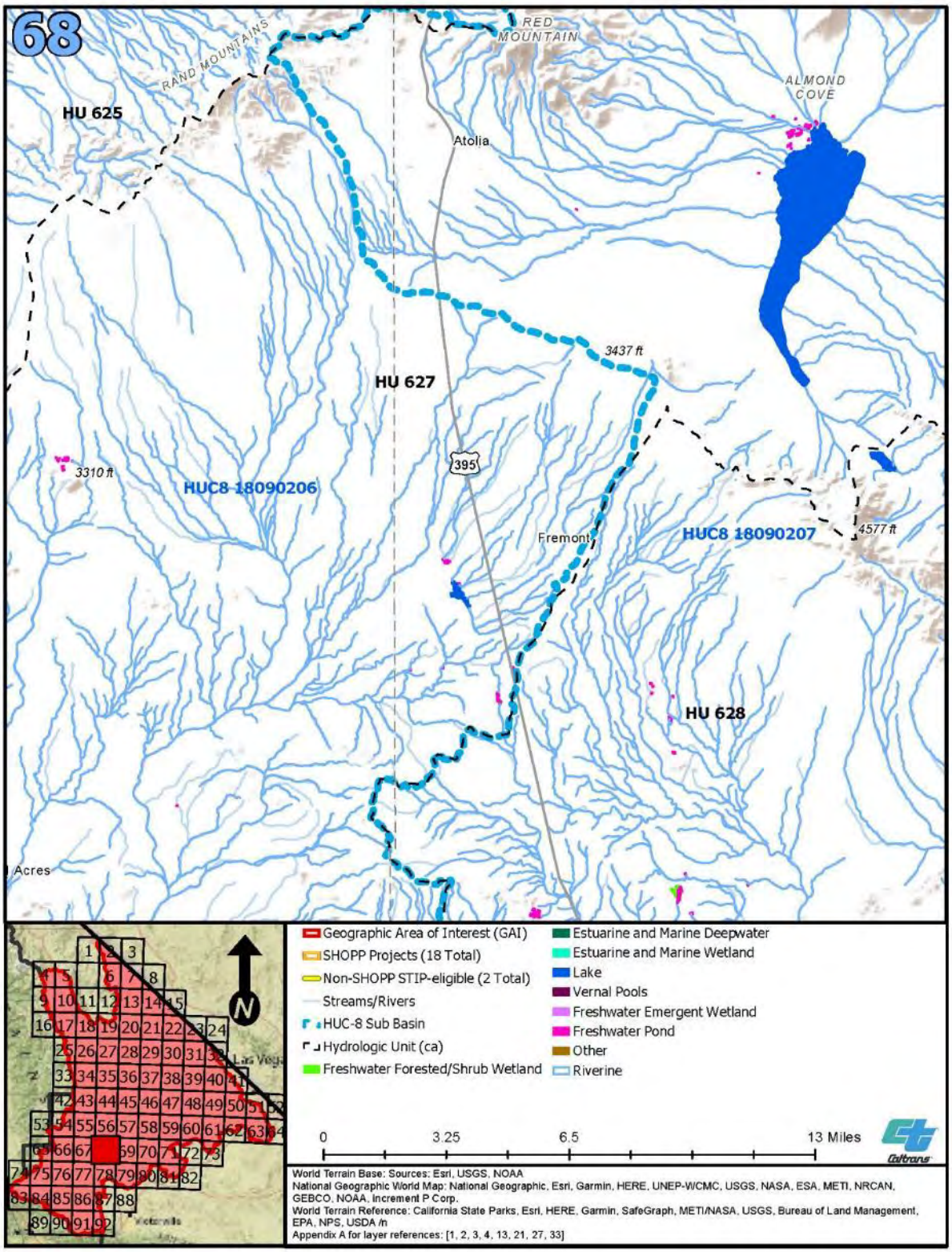

63
HU 612
HUC8 16060015
MESQUITE RANGE
6503 ft
Valley Wells
HU 609
HUC8 18090203
SHADOW VALLEY
Yucca Grove
STRIPED MOUNTAIN
Kingston Wash
HU 629
HUC8 18090208
4942 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 Mi
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

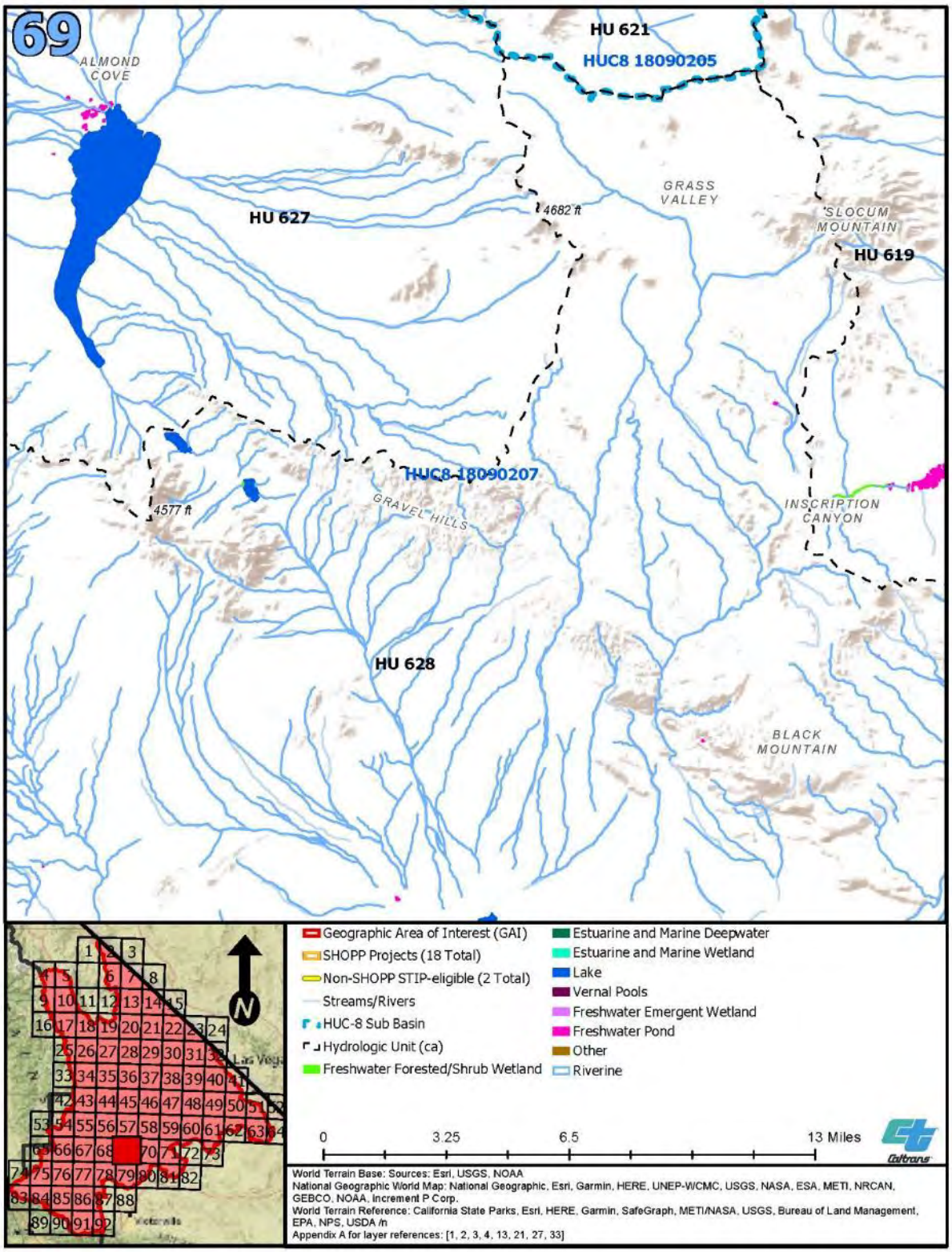

64
Desert
IVANPAH VALLEY
Mountain Pass
Wheaton Springs
15
Nipton Rd
Nipton
Nipton Rd
MESCAL RANGE
6503 ft
HUC8 18090015
HU 609
PIUTE VALLEY
HU 612
HUC8 18090203
STRIPED MOUNTAIN
IVANPAH MOUNTAINS
Moore
IVANPAH VALLEY
Brant
HUC8 18090208
HU 629
Joshua
7522 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.5
7
14 M
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

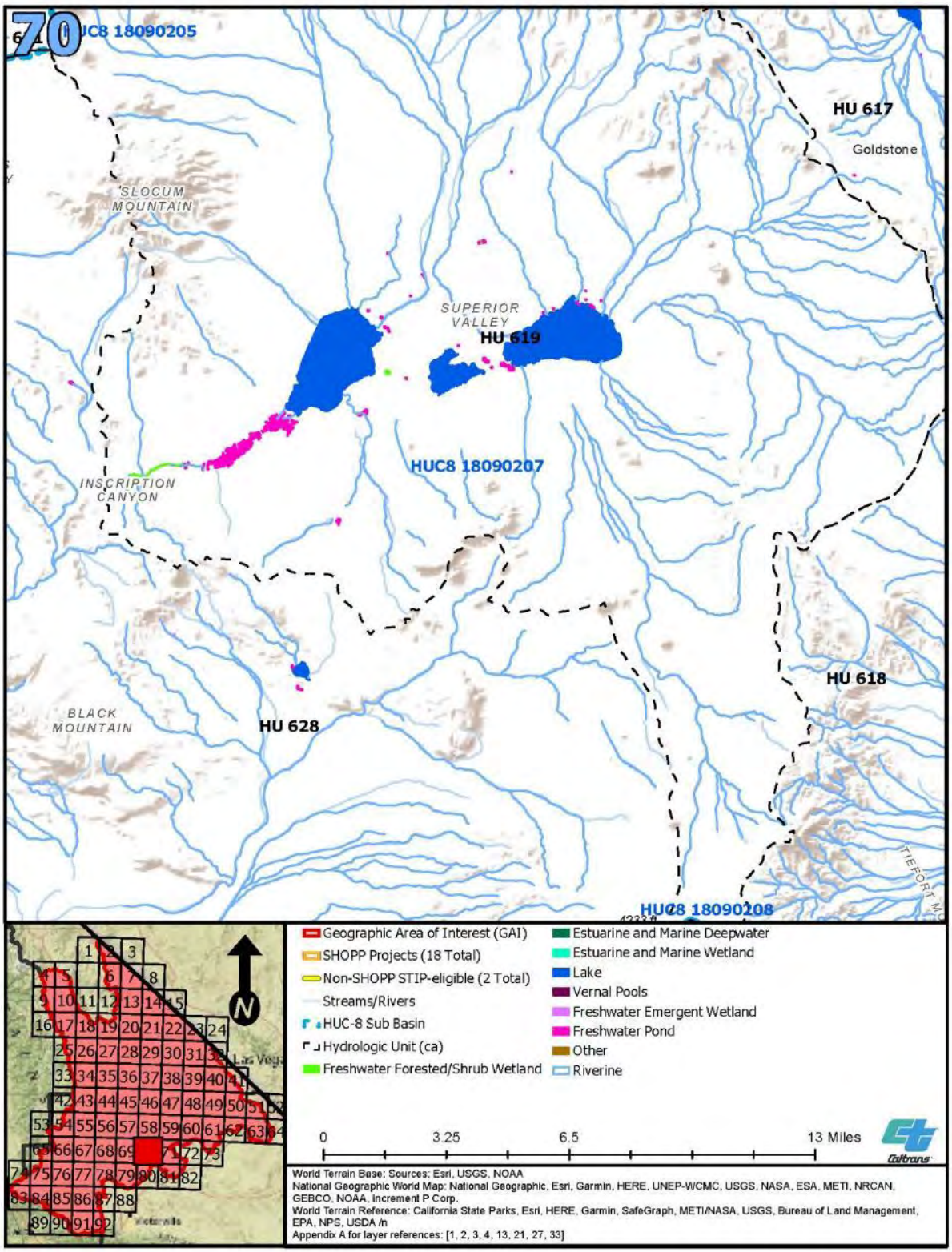

65
CENTENNIAL RIDGE
Twin Oaks
Loraine
Millersville
Caliente Creek
Keene
HU 556
HUC8 18090093
Walong
Marcel
HUC8 18090206
Cable
HU 625
Golden Hills
Tehachapi
58
202
TEHACHAPI VALLEY
Cameron
HU 626
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

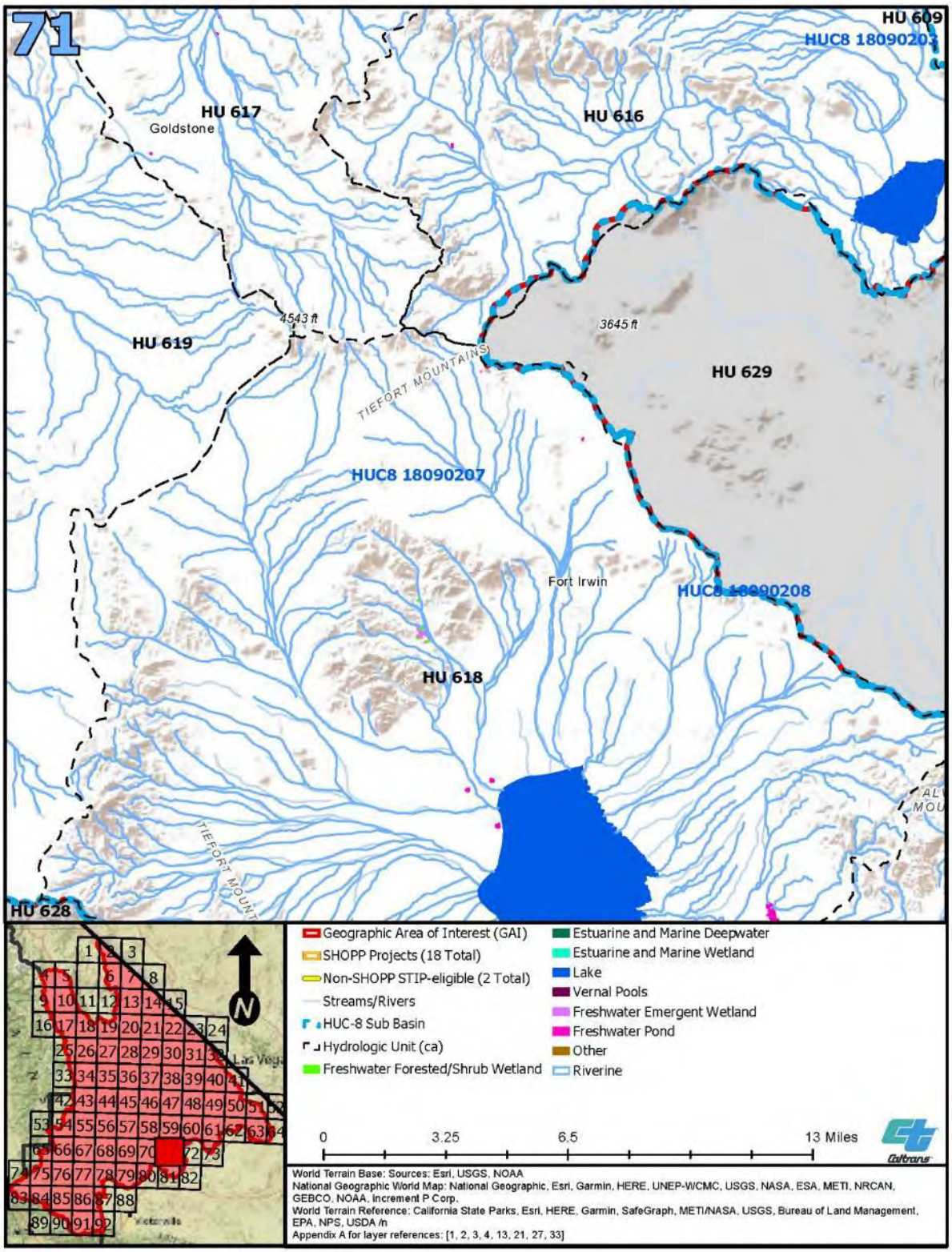

66
Cottonwood Creek
JAWBONE CANYON
Cottonwood Creek
Ricardo
Cantil
Cinco
HU 556
HUC8 18090206
HU 625
6643 ft
HUC8 18030003
BARREN RIDGE
Neuralia
PINE TREE CANYON
Aerospace Hwy
14
58
Cameron
HU 626
HORNED TOAD HILLS
FREMONT VALLEY
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
N
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

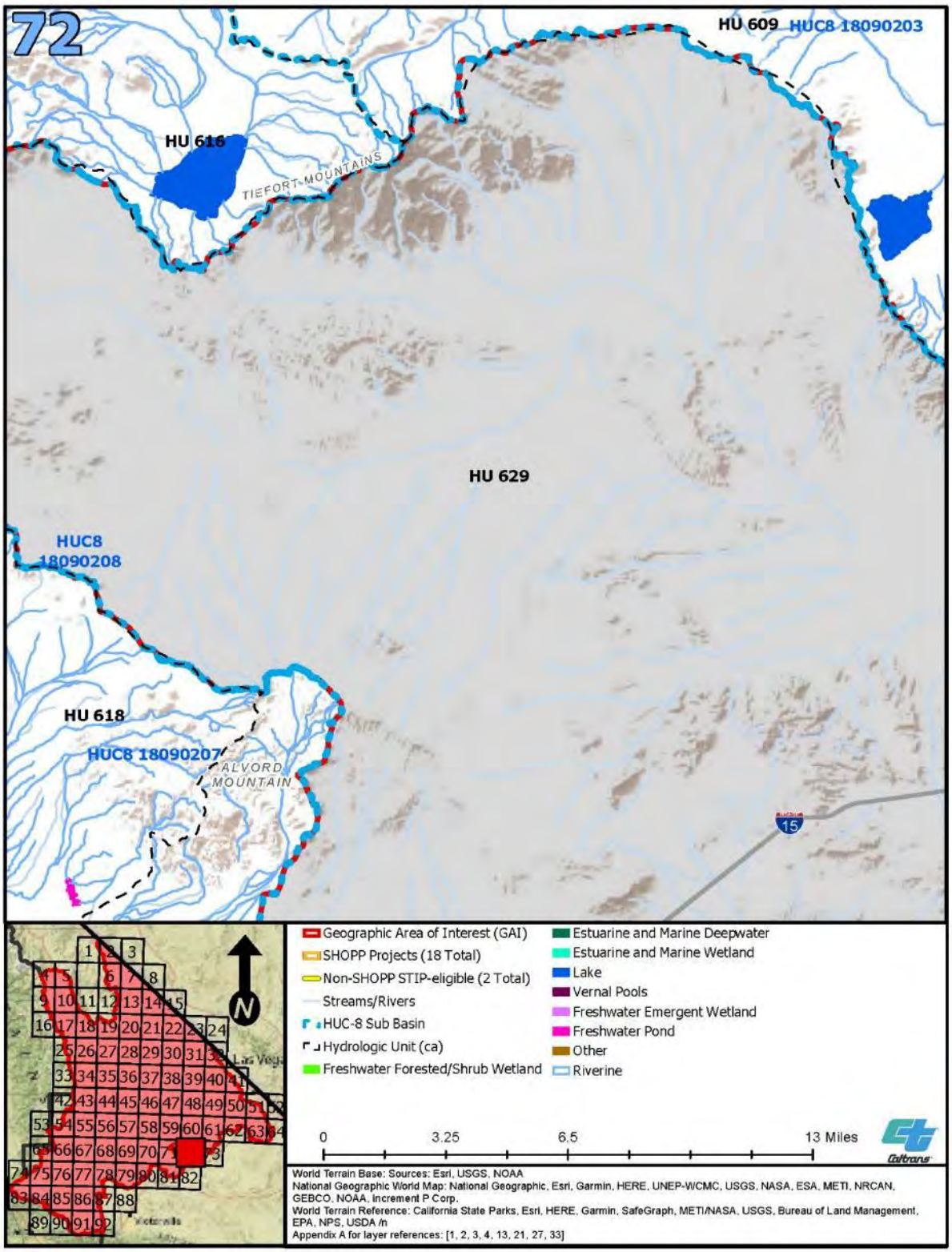

67
Gypsite
Cantil
Cinco
Neuralia
California City
HU 625
HUC8 18090206
HU 627
3310 ft
Aerial Acres
FREMONT VALLEY
RAND MOUNTAINS
Cottonwood Creek
14
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

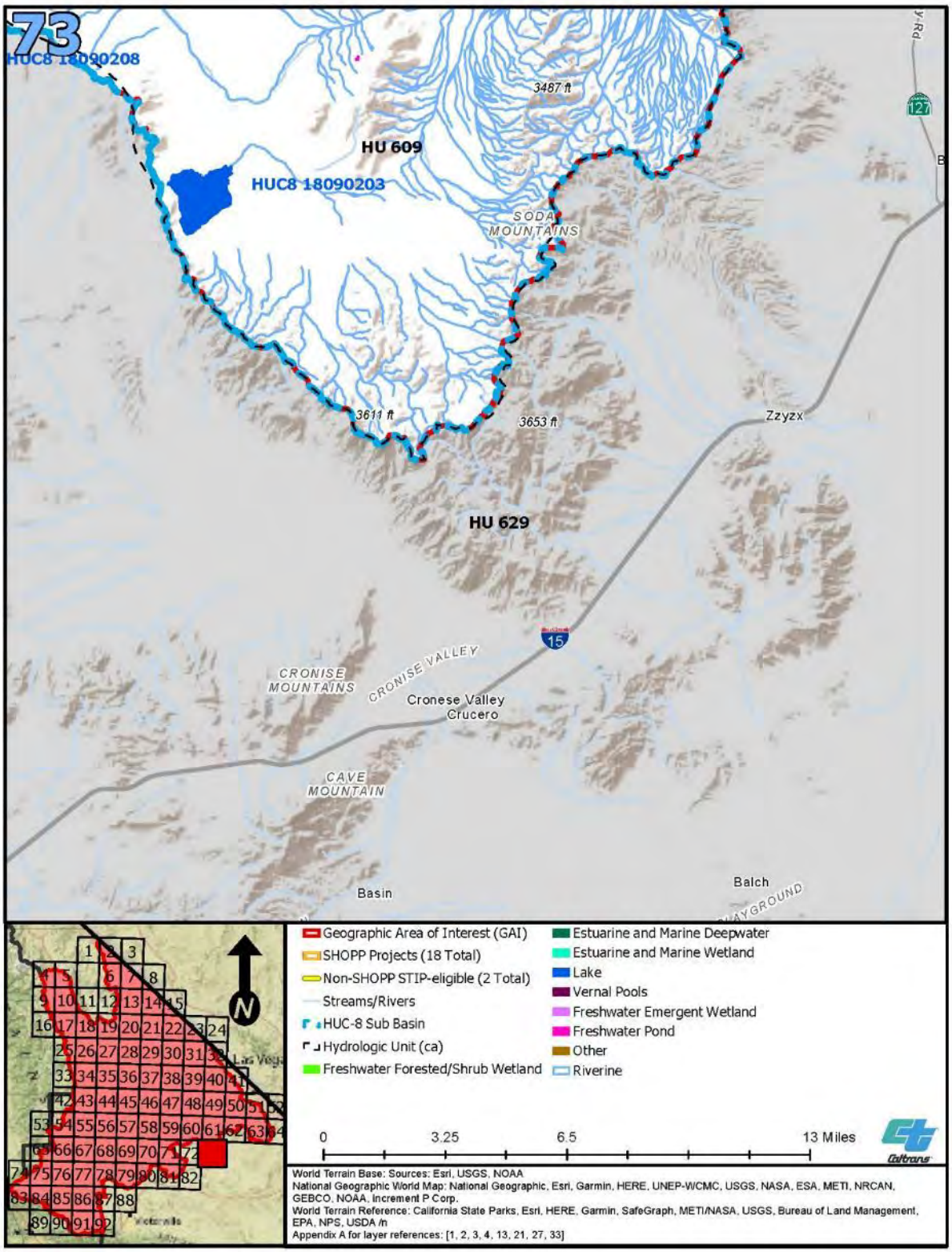

68
RAND MOUNTAINS
RED MOUNTAIN
ALMOND COVE
HU 625
Atolia
3437 ft
HU 627
395
3310 ft
HUC8 18090206
HUC8 18090207
4577 ft
Fremont
HU 628
Acres
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

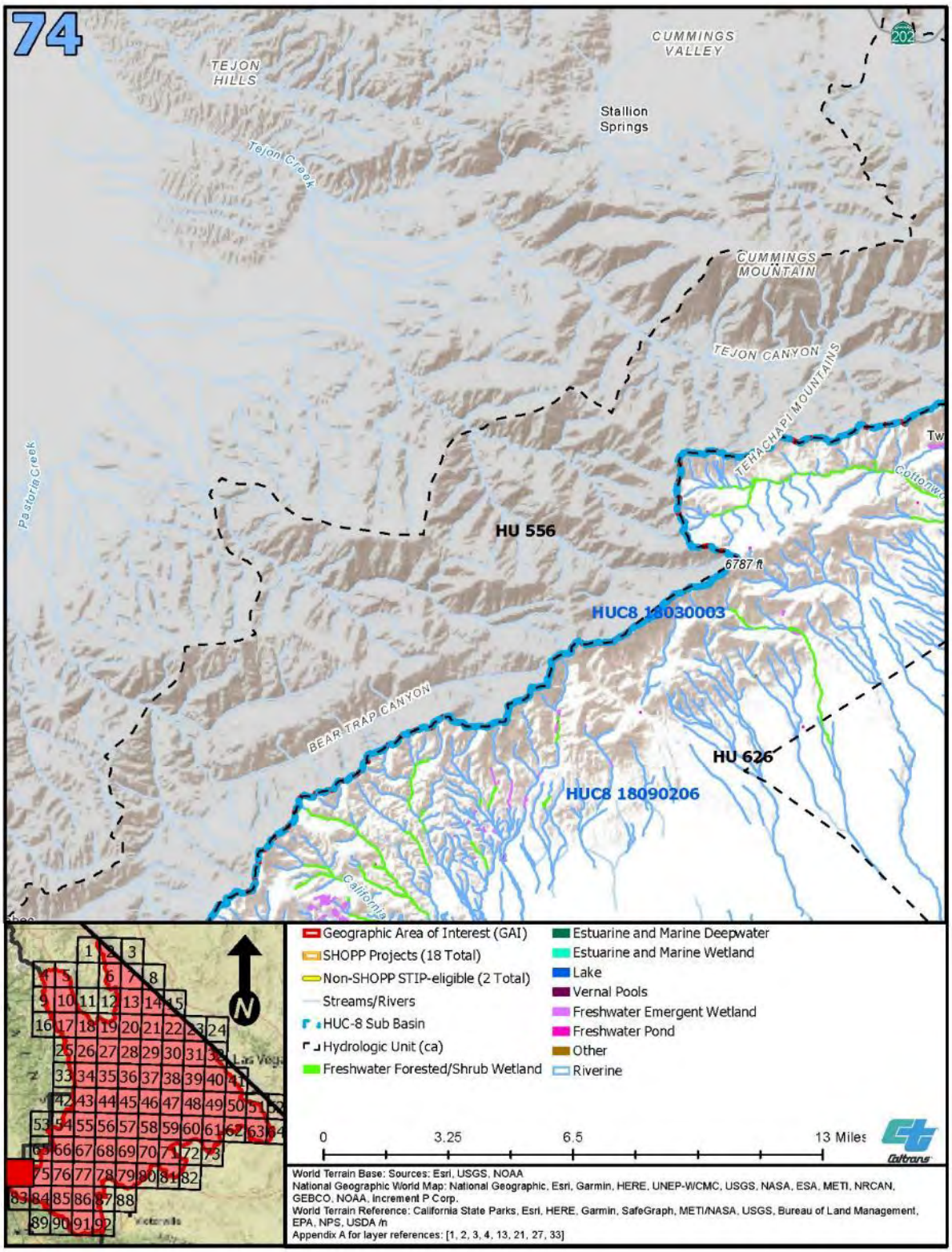

69
ALMOND COVE
HU 621
HUC8 18090205
GRASS VALLEY
4682 ft
HU 627
SLOCUM MOUNTAIN
HU 619
HUC8 18090207
GRAVEL HILLS
4577 ft
INSCRIPTION CANYON
HU 628
BLACK MOUNTAIN
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

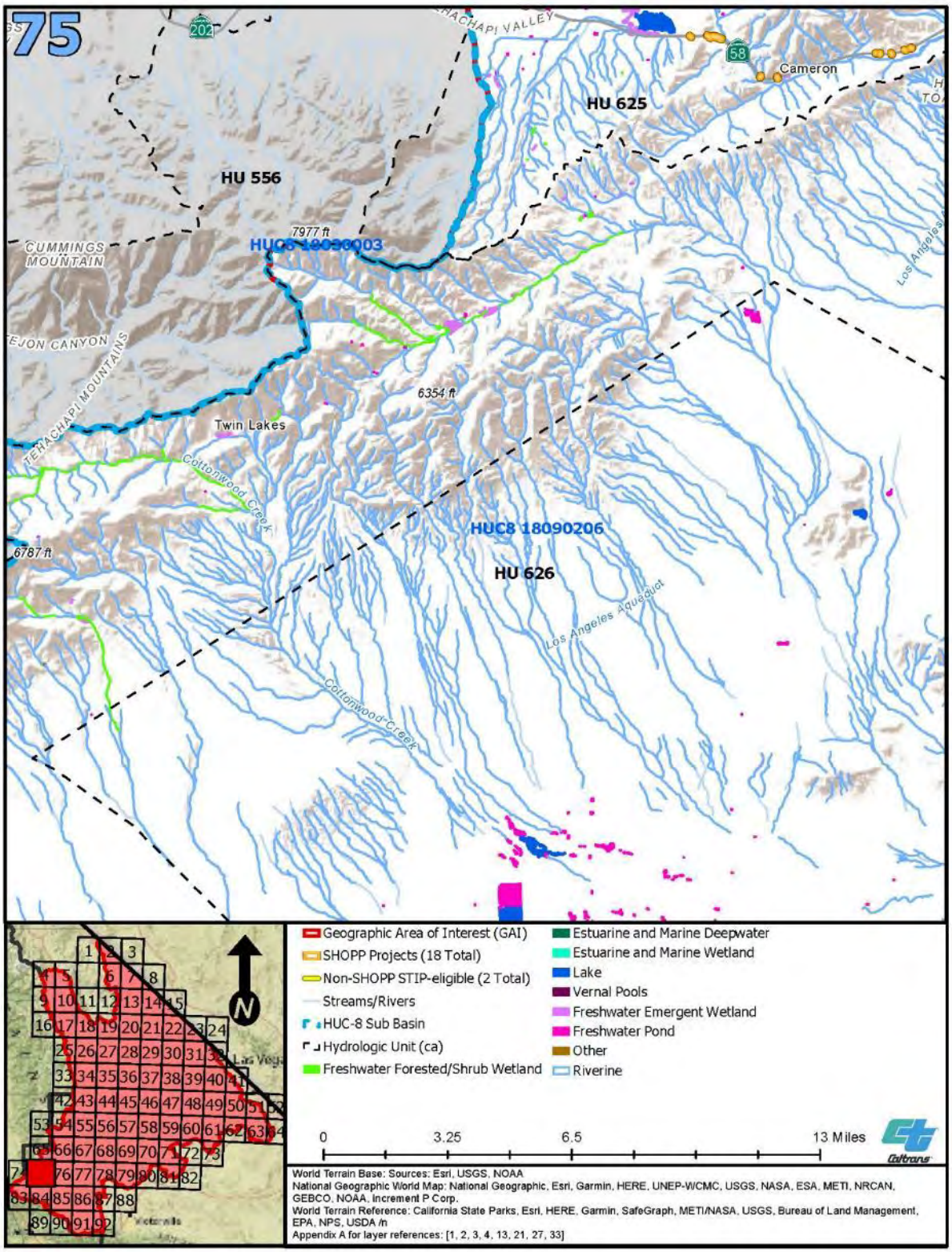

70
HUC8 18090205
HU 617
Goldstone
SLOCUM MOUNTAIN
SUPERIOR VALLEY
HU 619
HUC8 18090207
INSCRIPTION CANYON
HU 618
BLACK MOUNTAIN
HU 628
HUC8 18090208
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

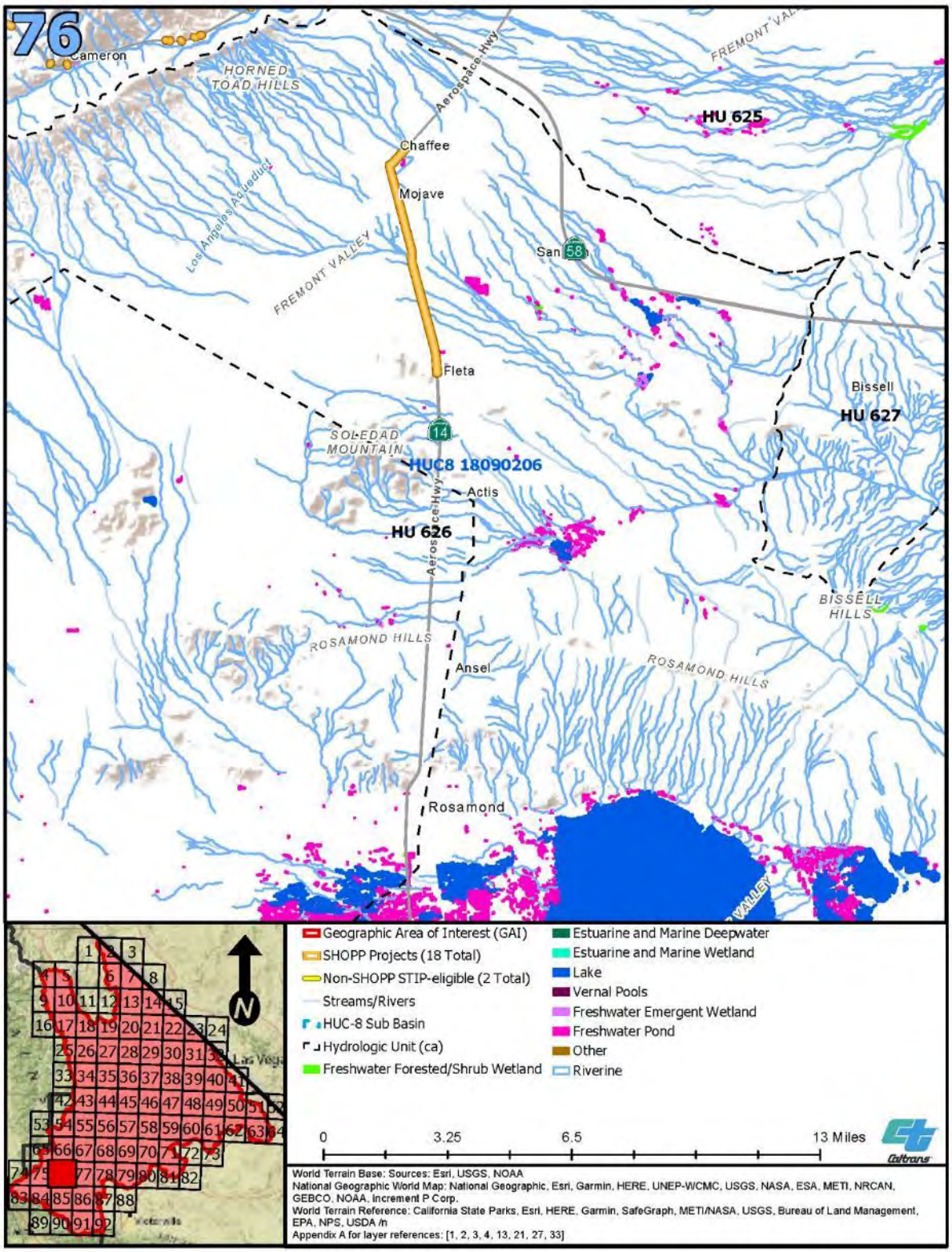

71
HU 609
HUC8 18090203
HU 617
Goldstone
HU 616
4543 ft
3645 ft
HU 619
HU 629
TIEFORT MOUNTAINS
HUC8 18090207
Fort Irwin
HUC8 18090208
HU 618
HU 628
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

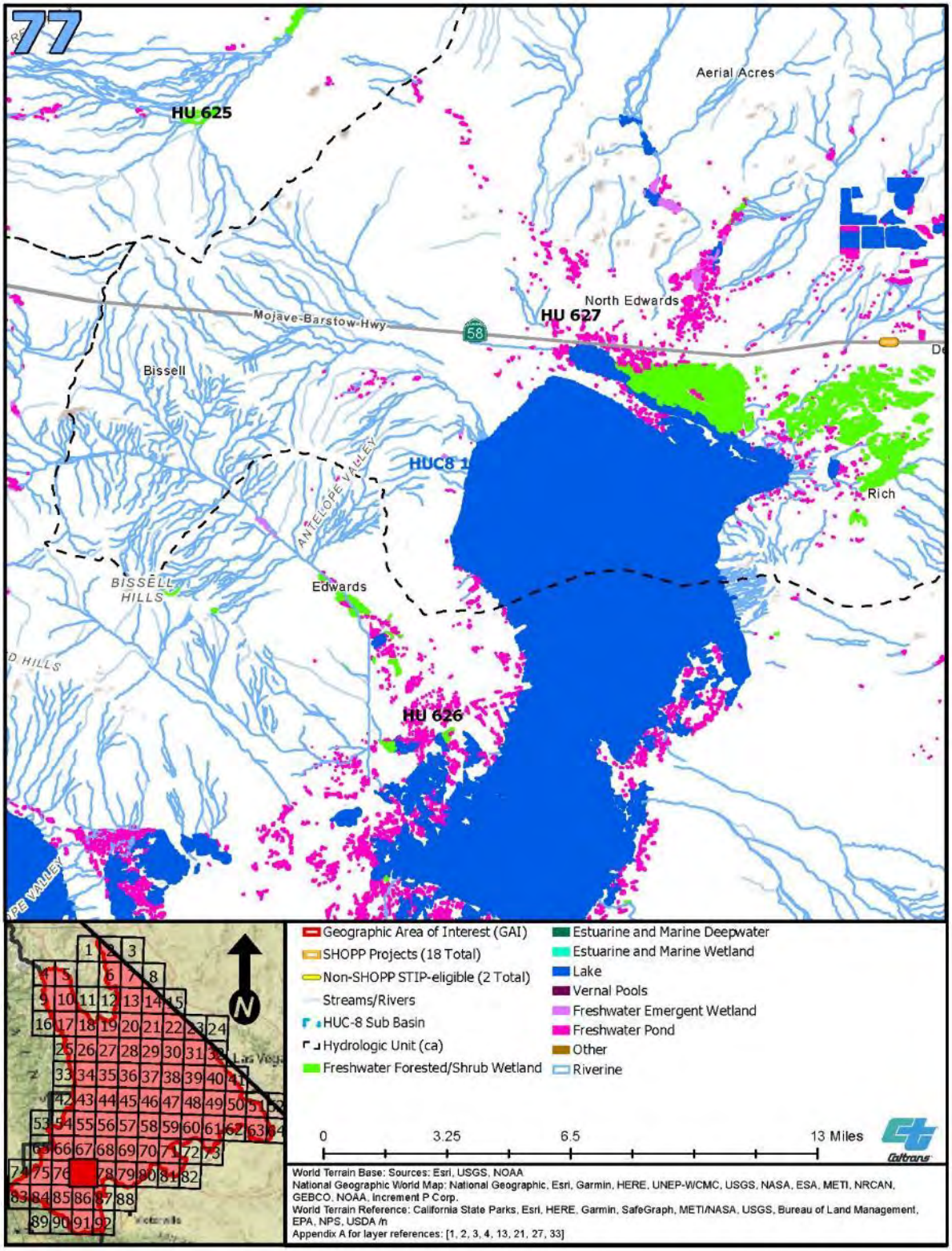

72
HU 609
HUC8 18090203
HU 616
TIEFORT MOUNTAINS
HU 629
HUC8
18090208
HU 618
HUC8 18090207
ALVORD
MOUNTAIN
15
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

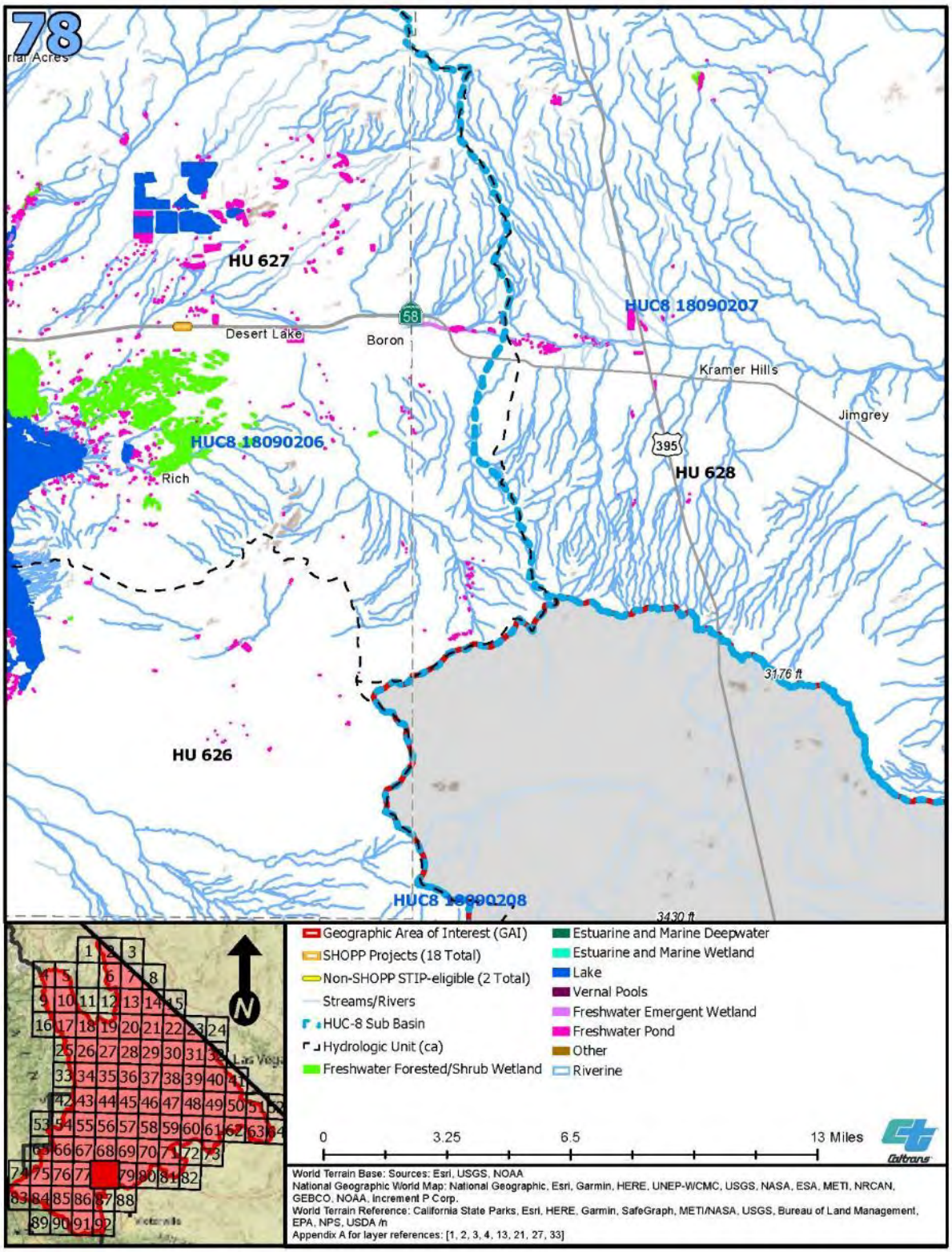

73
HUC8 18090208
HU 609
HUC8 18090203
3487 ft
SODA MOUNTAINS
3611 ft
3653 ft
Zzyzx
HU 629
CRONISE MOUNTAINS
CRONISE VALLEY
Cronese Valley
Crucero
CAVE MOUNTAIN
Basin
Balch
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

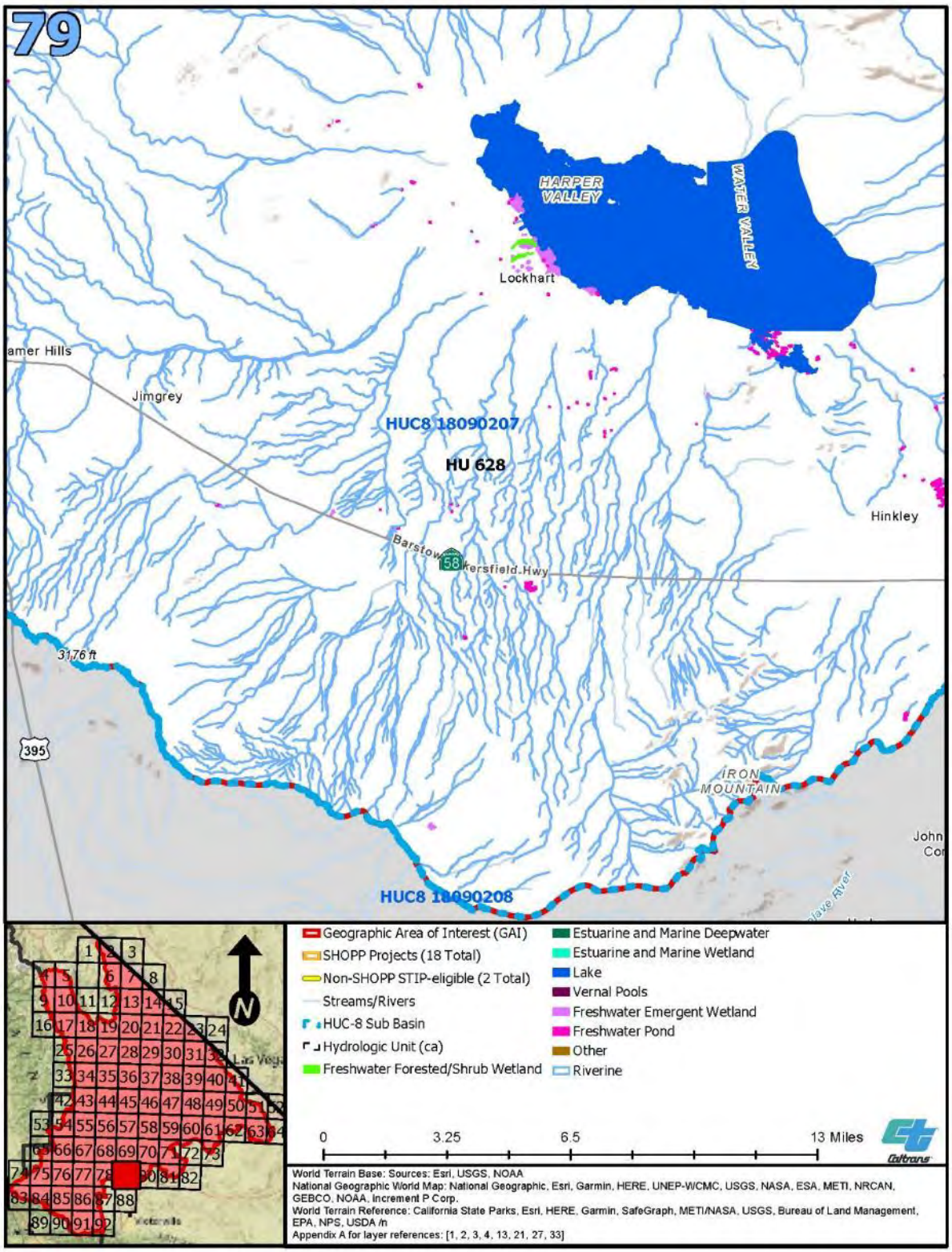

74
TEJON HILLS
CUMMINGS VALLEY
Stallion Springs
Tejon Creek
CUMMINGS MOUNTAIN
TEJON CANYON
TEHACHAPI MOUNTAINS
Pastoria Creek
HU 556
6787 ft
HUC8 18030003
BEAR TRAP CANYON
HU 626
HUC8 18090206
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

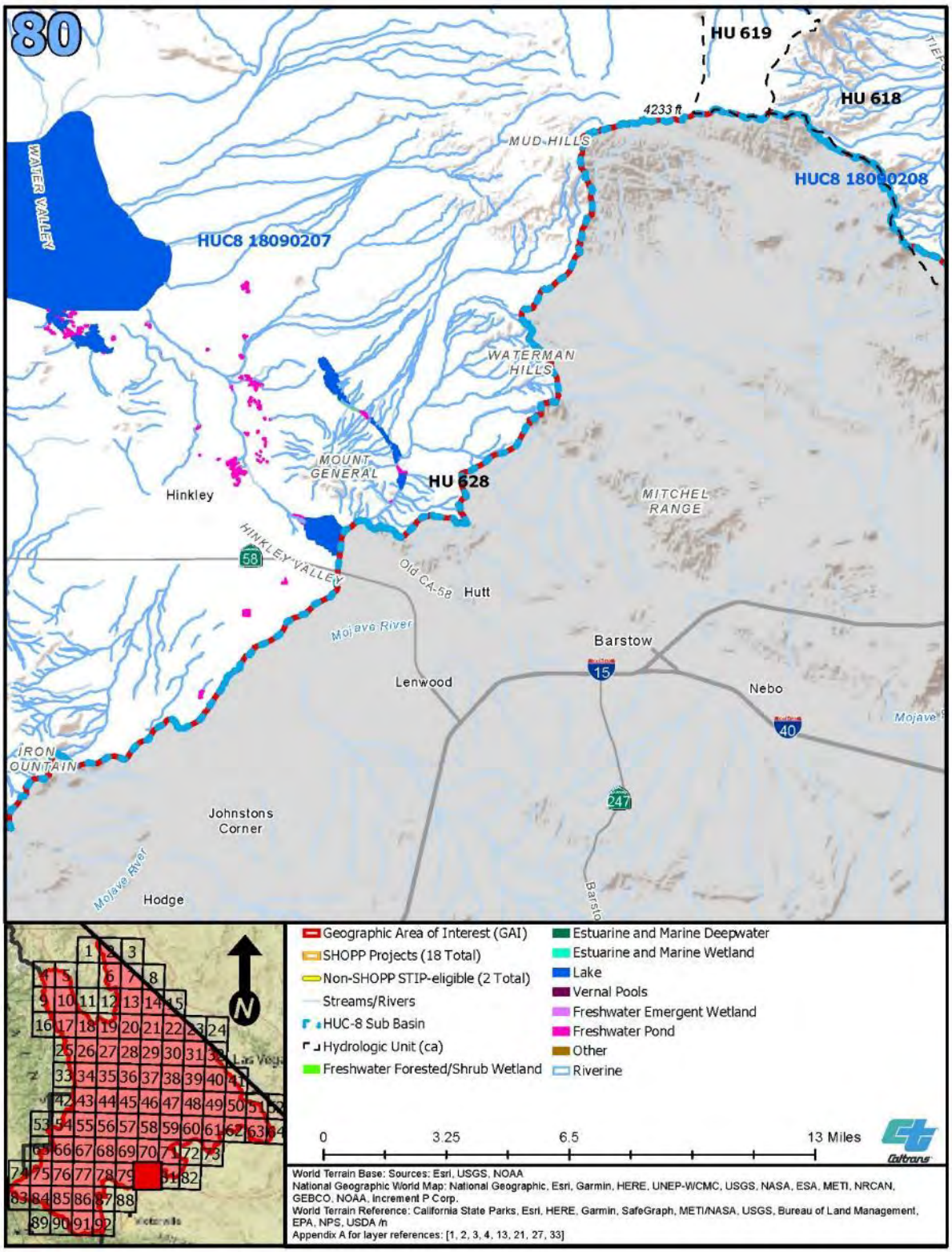

75
202
58
Cameron
HU 625
HU 556
7977 ft
HUC8 18090003
CUMMINGS MOUNTAIN
TEJON CANYON
TEHACHAPI MOUNTAINS
6354 ft
Twin Lakes
Cottonwood Creek
HUC8 18090206
6787 ft
HU 626
Los Angeles Aqueduct
Cottonwood Creek
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

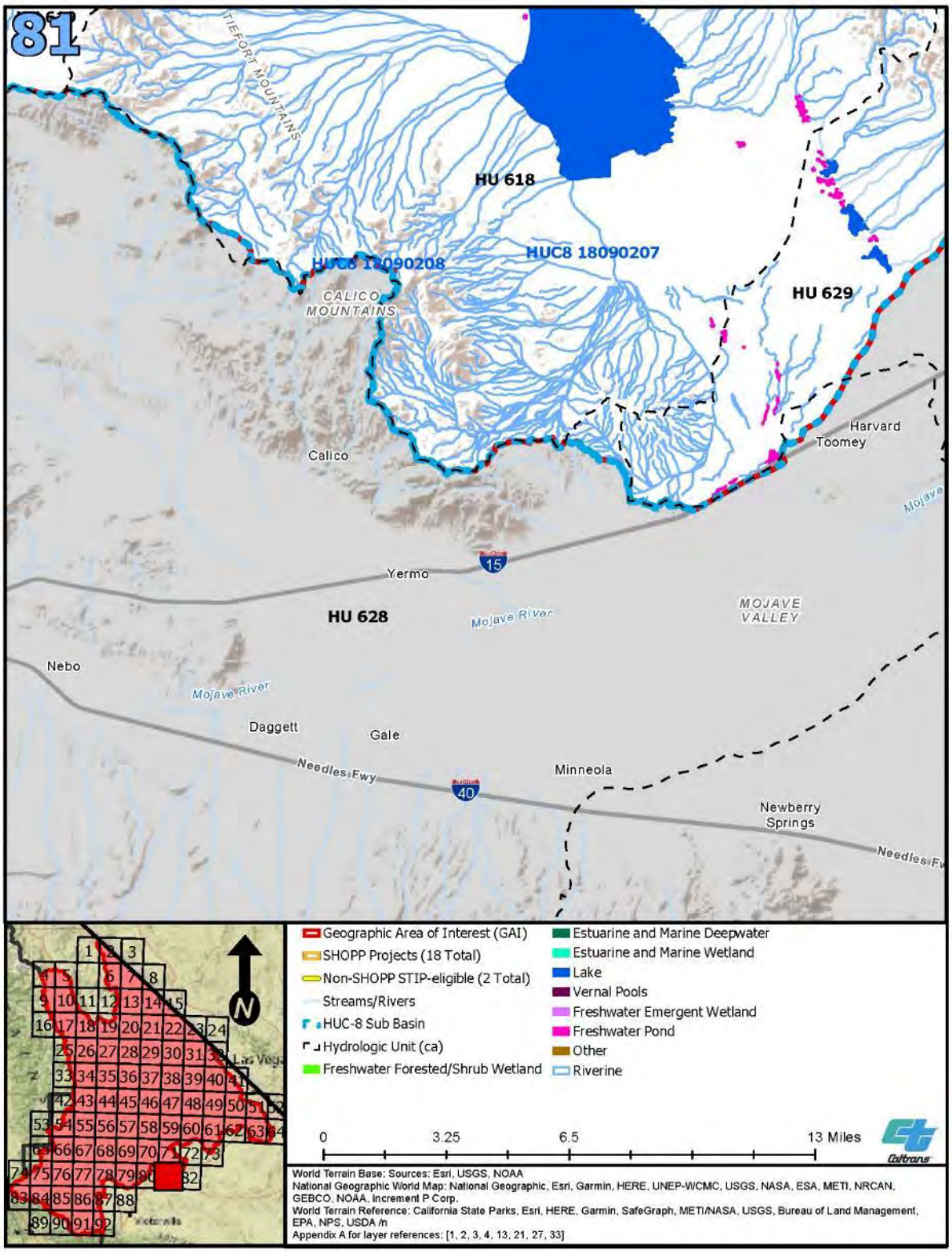

76
Cameron
HORNED TOAD HILLS
Aerospace Hwy
FREMONT VALLEY
HU 625
Chaffee
Mojave
Los Angeles Aqueduct
FREMONT VALLEY
San
58
Fleta
Bissell
HU 627
SOLEDAD MOUNTAIN
14
HUC8 18090206
Actis
Aerospace Hwy
HU 626
BISSELL HILLS
ROSAMOND HILLS
Ansel
ROSAMOND HILLS
Rosamond
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

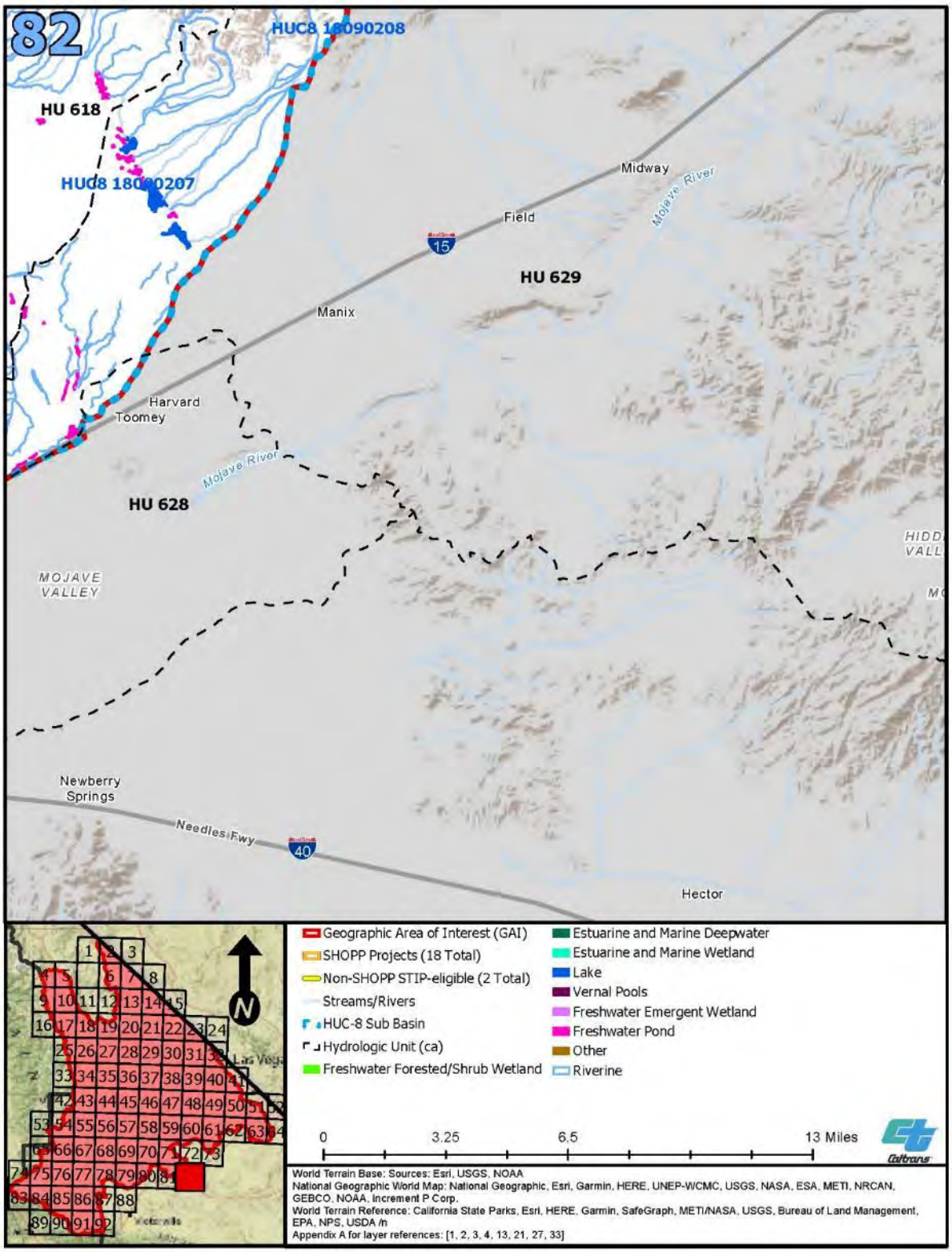

77
Aerial Acres
HU 625
Mojave-Barstow-Hwy
58
North Edwards
HU 627
Bissell
HUC8 1
ANTELOPE VALLEY
Rich
BISSELL HILLS
Edwards
HU 626
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

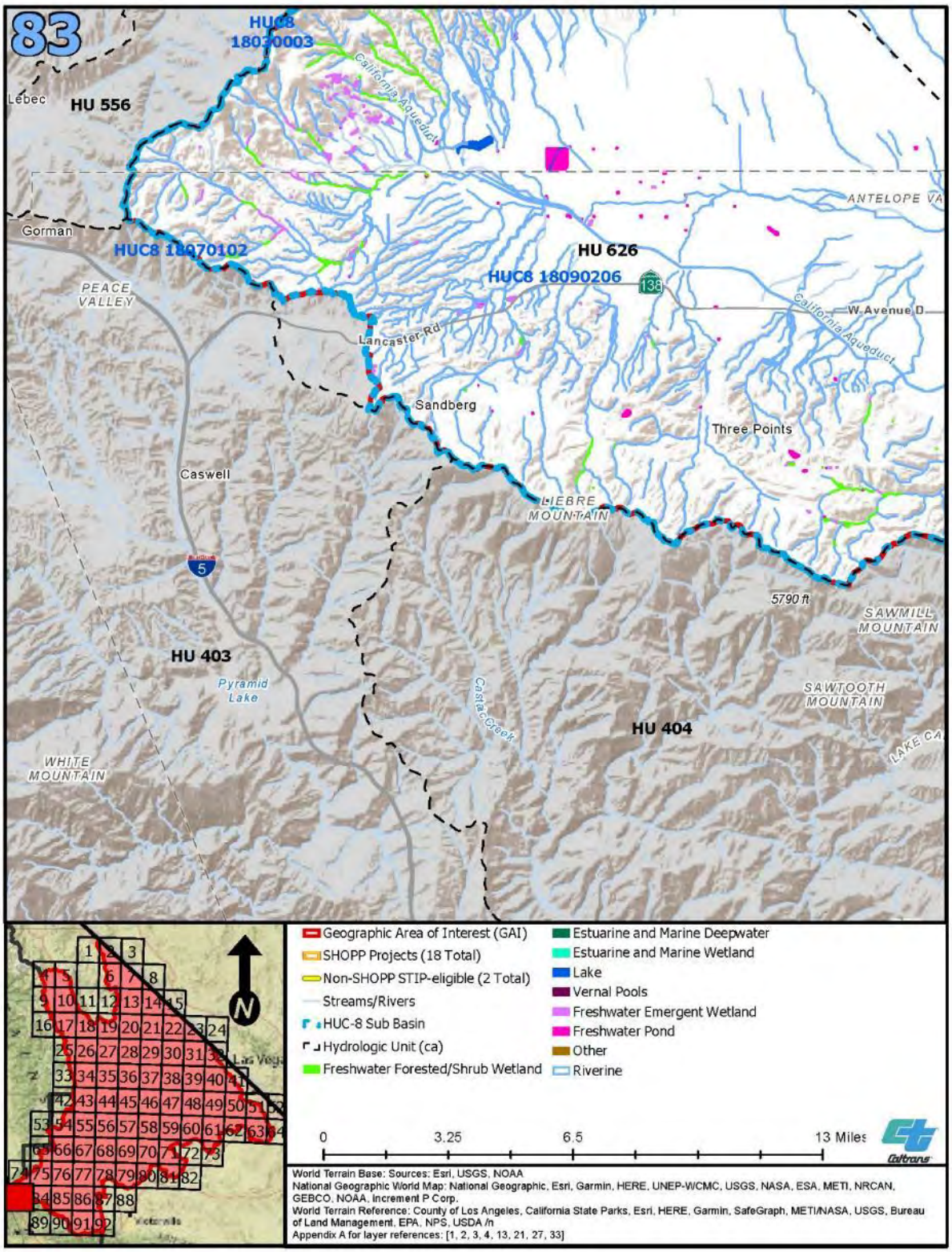

78
HU 627
HUC8 18090207
Desert Lake
Boron
58
Kramer Hills
Jimgrey
395
HUC8 18090206
Rich
HU 628
3176 ft
HU 626
HUC8 18090208
3430 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

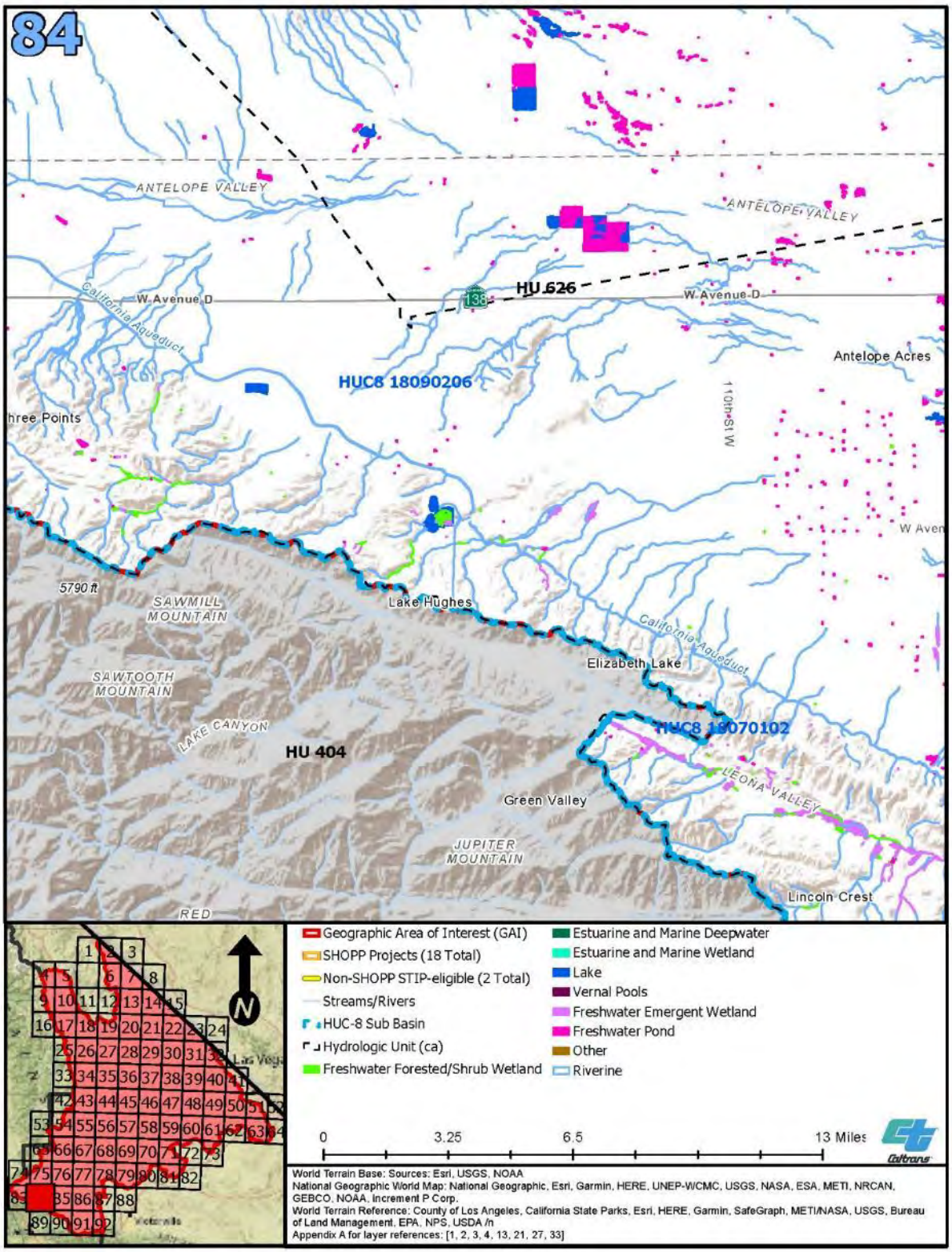

79
HARPER VALLEY
WATER VALLEY
Lockhart
Jimgrey
HUC8 18090207
HU 628
Hinkley
Barstow
58
Kersfield Hwy
3176 ft
395
IRON MOUNTAIN
HUC8 18090208
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

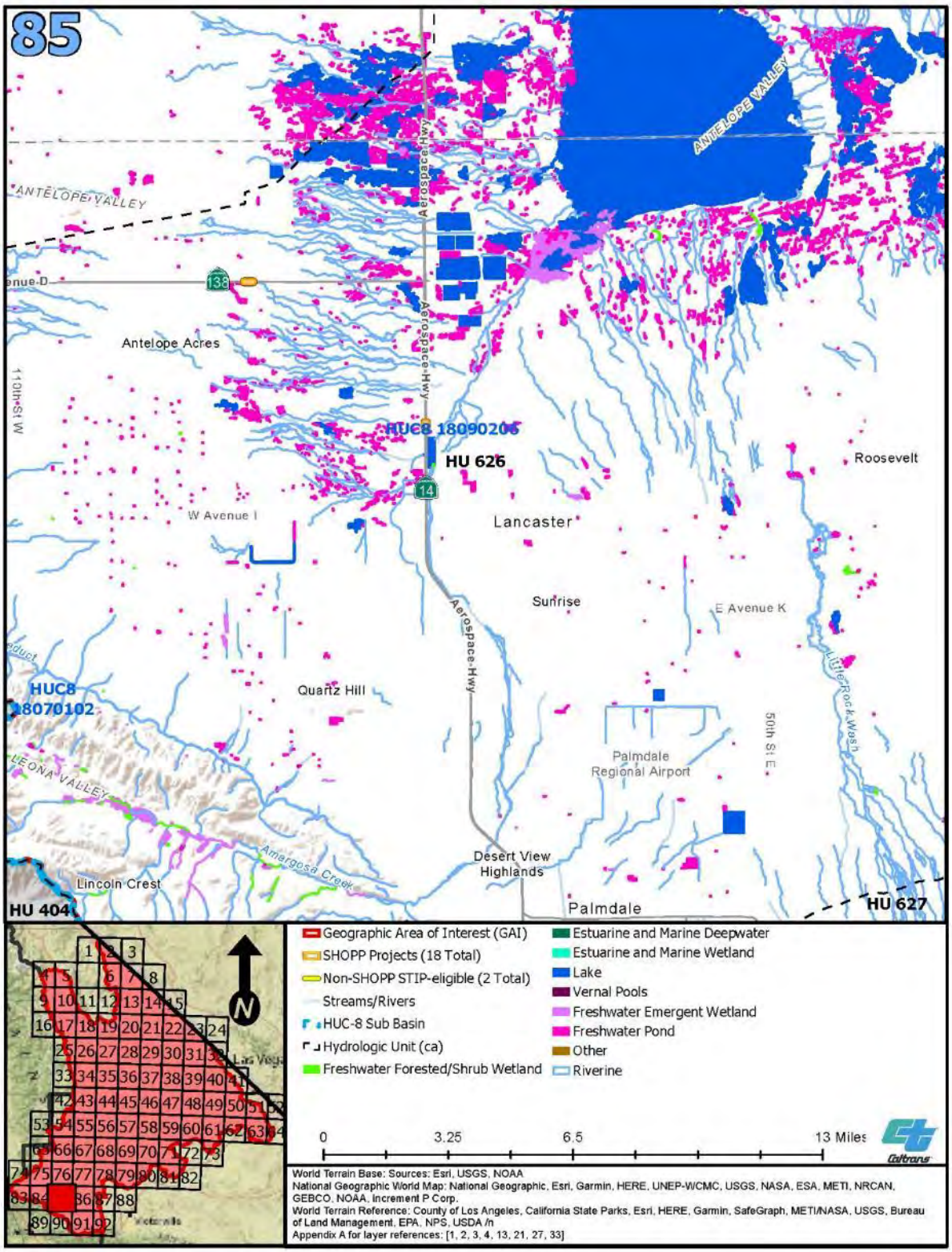

80
HU 619
HU 618
4233 ft
MUD HILLS
HUC8 18090208
WATER VALLEY
HUC8 18090207
WATERMAN HILLS
MOUNT GENERAL
HU 628
Hinkley
MITCHEL RANGE
HINKLEY VALLEY
58
Old CA-58
Hutt
Mojave River
Barstow
15
Lenwood
Nebo
40
IRON MOUNTAIN
247
Johnstons Corner
Mojave River
Hodge
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

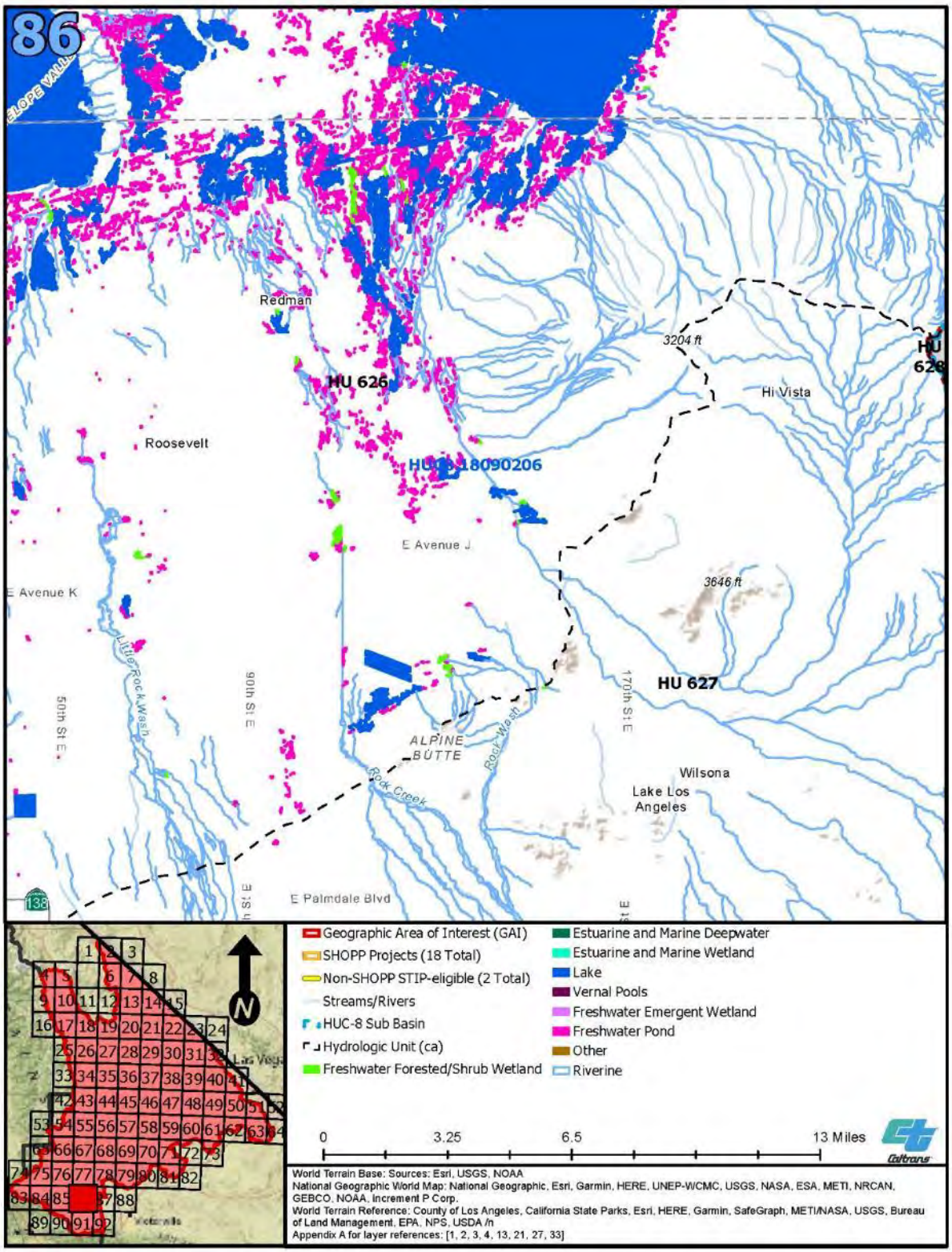

81
TIEFORT MOUNTAINS
HU 618
HUC8 18090208
HUC8 18090207
CALICO MOUNTAINS
HU 629
Harvard
Toomey
Calico
Yermo
15
HU 628
Mojave River
MOJAVE VALLEY
Nebo
Mojave River
Daggett
Gale
Needles Fwy
40
Minneola
Newberry Springs
Needles Fy
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

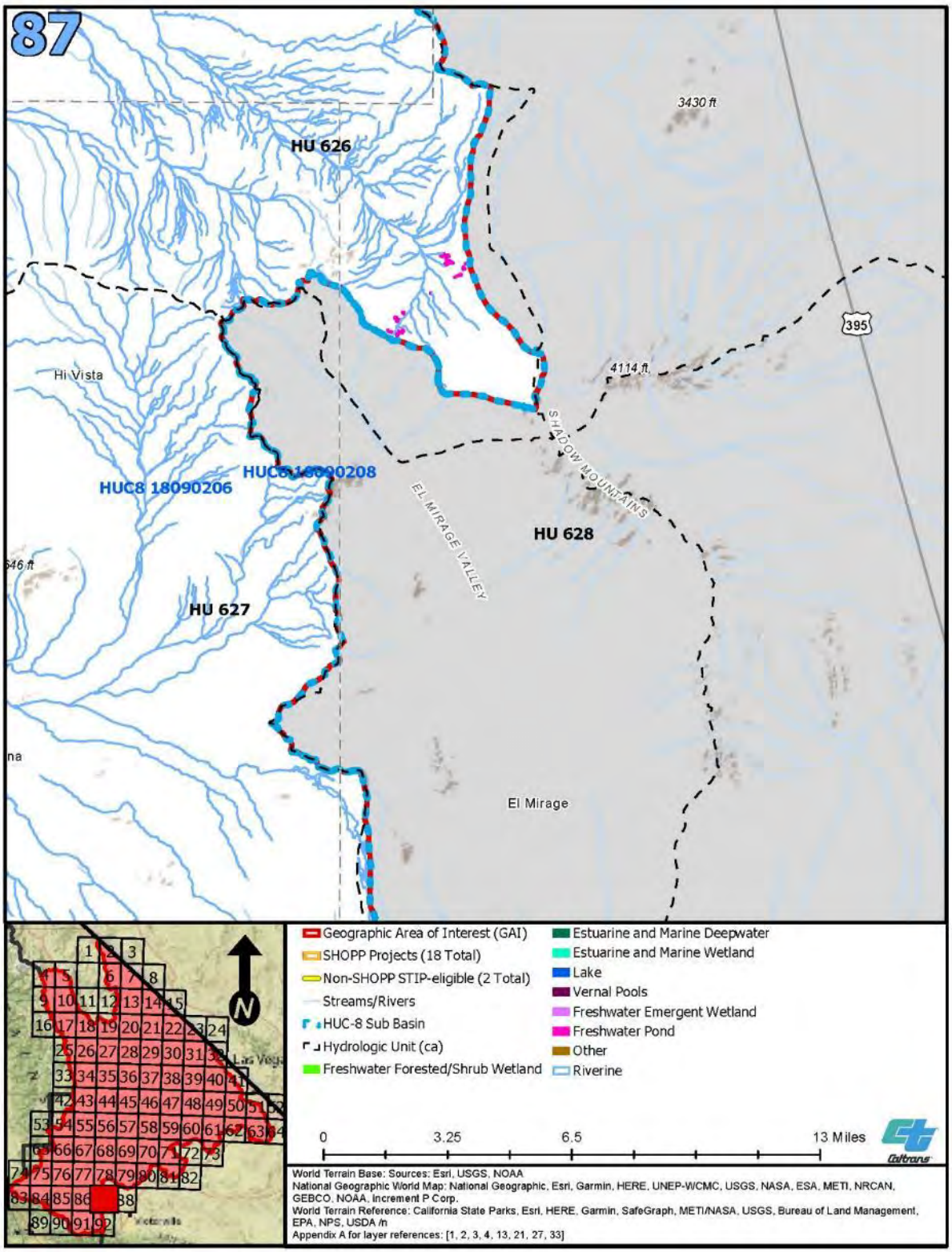

82
HUC8 18090208
HU 618
HUC8 18090207
Midway
Mojave River
Field
15
HU 629
Manix
Harvard
Toomey
Mojave River
HU 628
MOJAVE VALLEY
Newberry Springs
Needles Fwy
40
Hector
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]

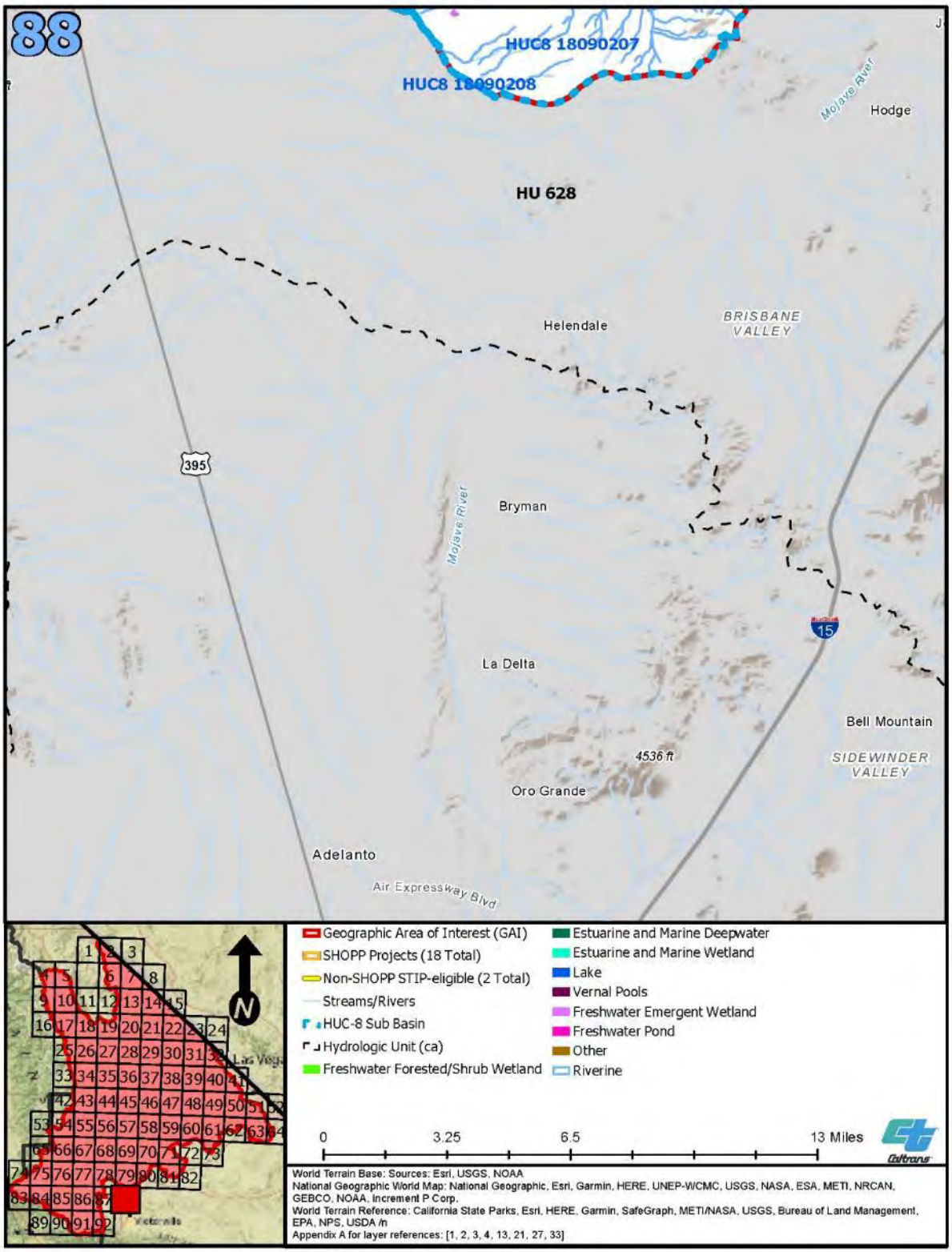

83
HUC8 18090003
Lebec
HU 556
California Aqueduct
ANTELOPE VA
Gorman
HUC8 18090102
HU 626
HUC8 18090206
138
PEACE VALLEY
W Avenue D
California Aqueduct
Lancaster Rd
Sandberg
Three Points
Caswell
LIEBRE MOUNTAIN
5
5790 ft
SAWMILL MOUNTAIN
HU 403
Pyramid Lake
SAWTOOTH MOUNTAIN
Castaic Creek
HU 404
WHITE MOUNTAIN
LAKE CA
N
Las Vegas
Victorville
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


84
ANTELOPE VALLEY
ANTELOPE VALLEY
W Avenue D
W Avenue D
California Aqueduct
HU 626
HUC8 18090206
Antelope Acres
110th St W
hree Points
5790 ft
SAWMILL MOUNTAIN
Lake Hughes
California Aqueduct
Elizabeth Lake
SAWTOOTH MOUNTAIN
LAKE CANYON
HU 404
HUC8 18070102
LEONA VALLEY
Green Valley
JUPITER MOUNTAIN
Lincoln Crest
RED
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


85
ANTELOPE VALLEY
Aerospace Hwy
Antelope Acres
HUC8 18090206
HU 626
Roosevelt
Lancaster
W Avenue I
Sunrise
E Avenue K
HUC8
18070102
Quartz Hill
Palmdale
Regional Airport
50th St E
Little Rock Wash
LEONA VALLEY
Amargosa Creek
Desert View
Highlands
Lincoln Crest
HU 404
HU 627
Palmdale
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


86
Redman
HU 626
Roosevelt
HU 18090206
E Avenue J
E Avenue K
3204 ft
Hi Vista
3646 ft
HU 627
ALPINE BUTTE
Rock Creek
Wilsona
Lake Los Angeles
E Palmdale Blvd
50th St E
60th St E
170th St E
Little Rock Wash
Rock Wash
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


87
HU 626
3430 ft
395
Hi Vista
4114 ft
SHADOW MOUNTAINS
HUC8 18090206
HUC8 18090208
EL MIRAGE VALLEY
HU 628
HU 627
El Mirage
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


88
HUC8 18090207
HUC8 18090208
Mojave River
Hodge
HU 628
Helendale
BRISBANE VALLEY
395
Bryman
Mojave River
15
La Delta
Bell Mountain
4536 ft
SIDEWINDER VALLEY
Oro Grande
Adelanto
Air Expressway Blvd
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
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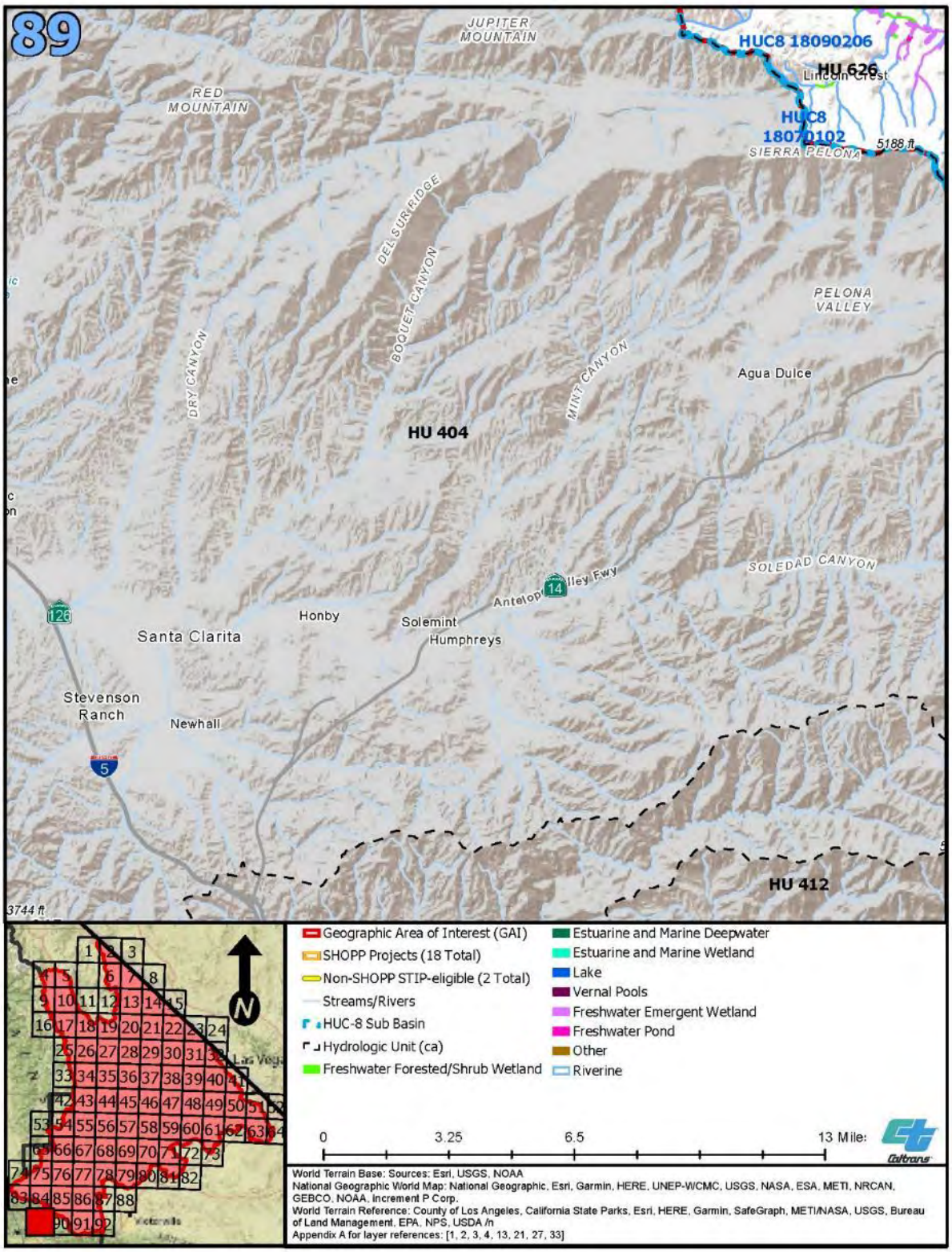
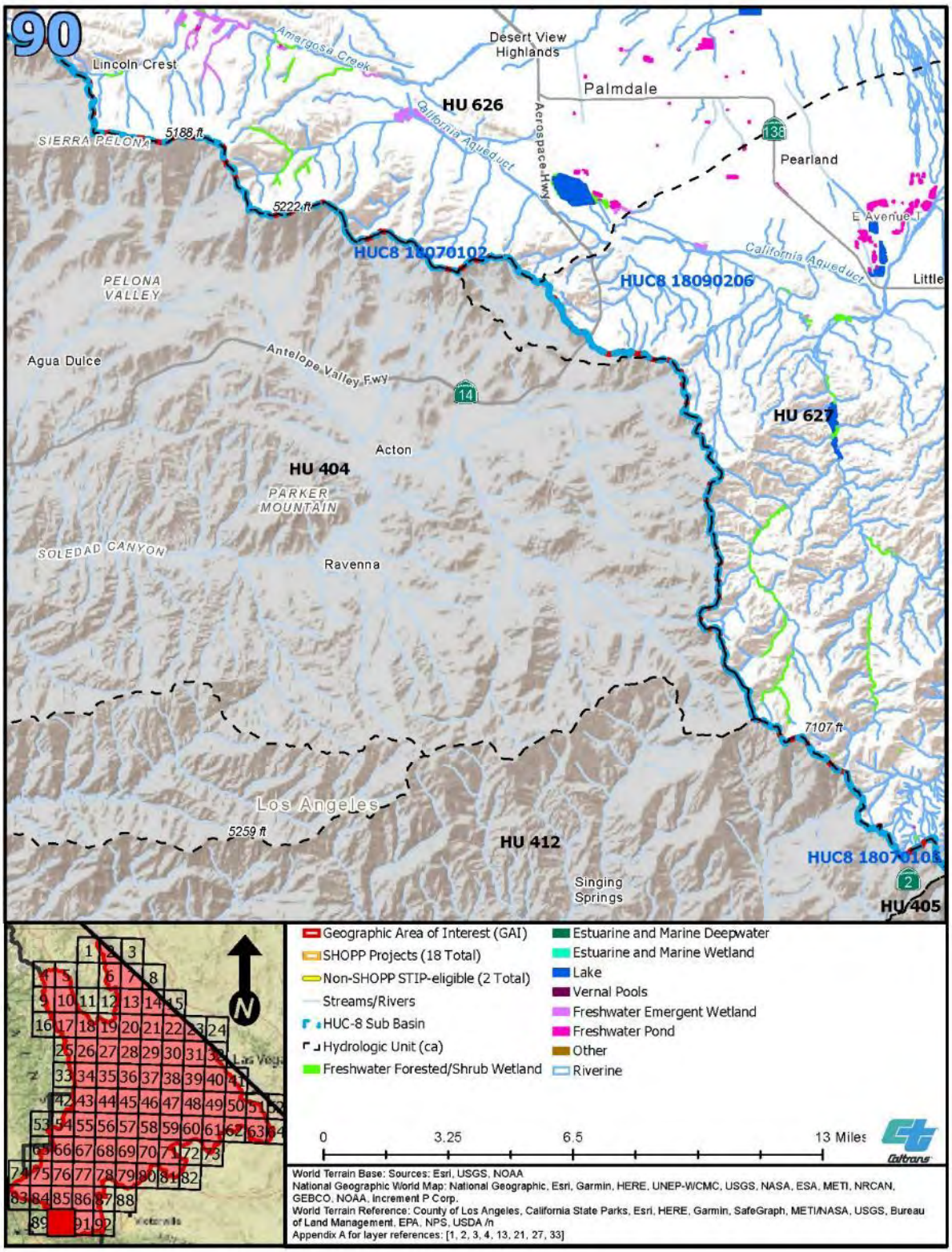
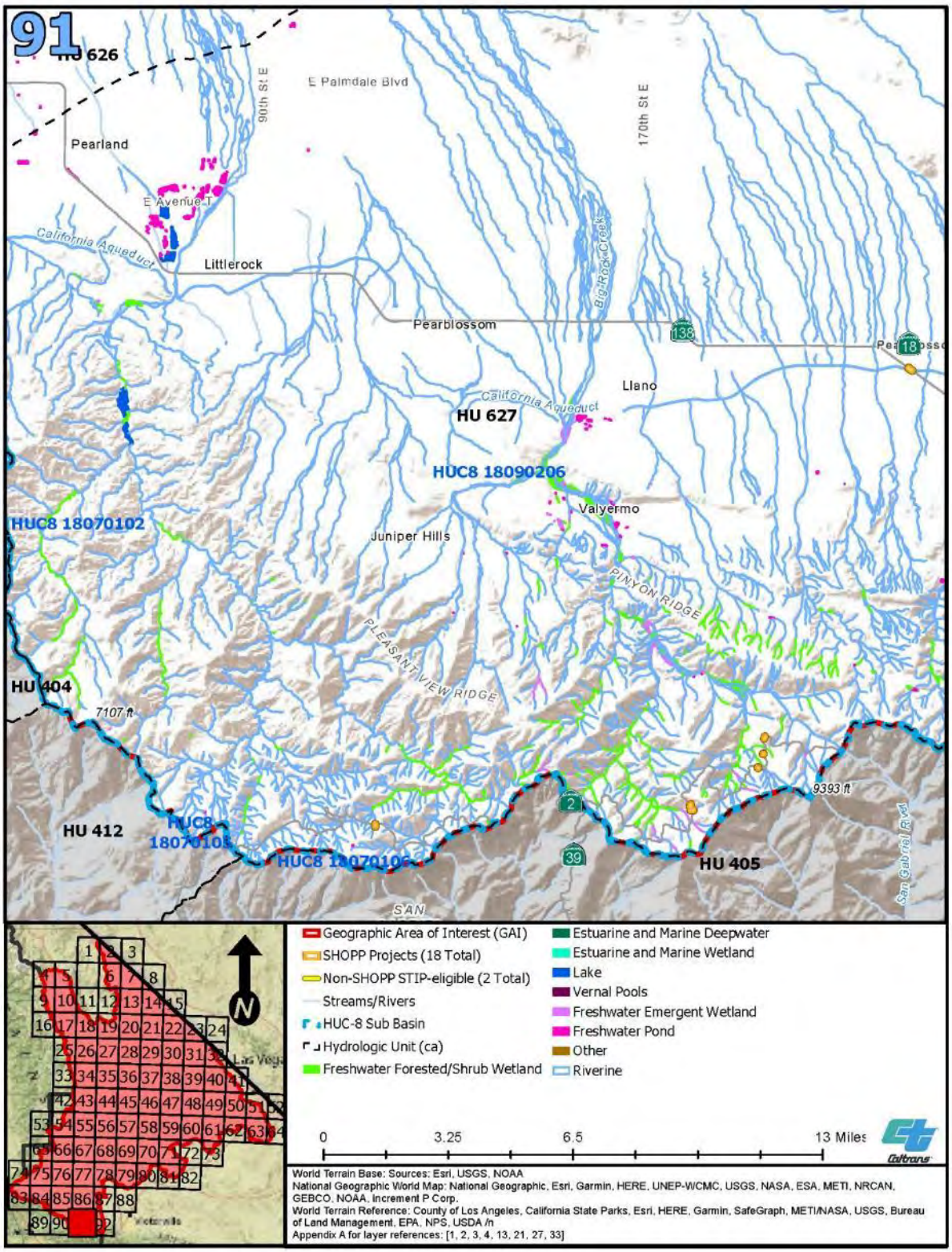
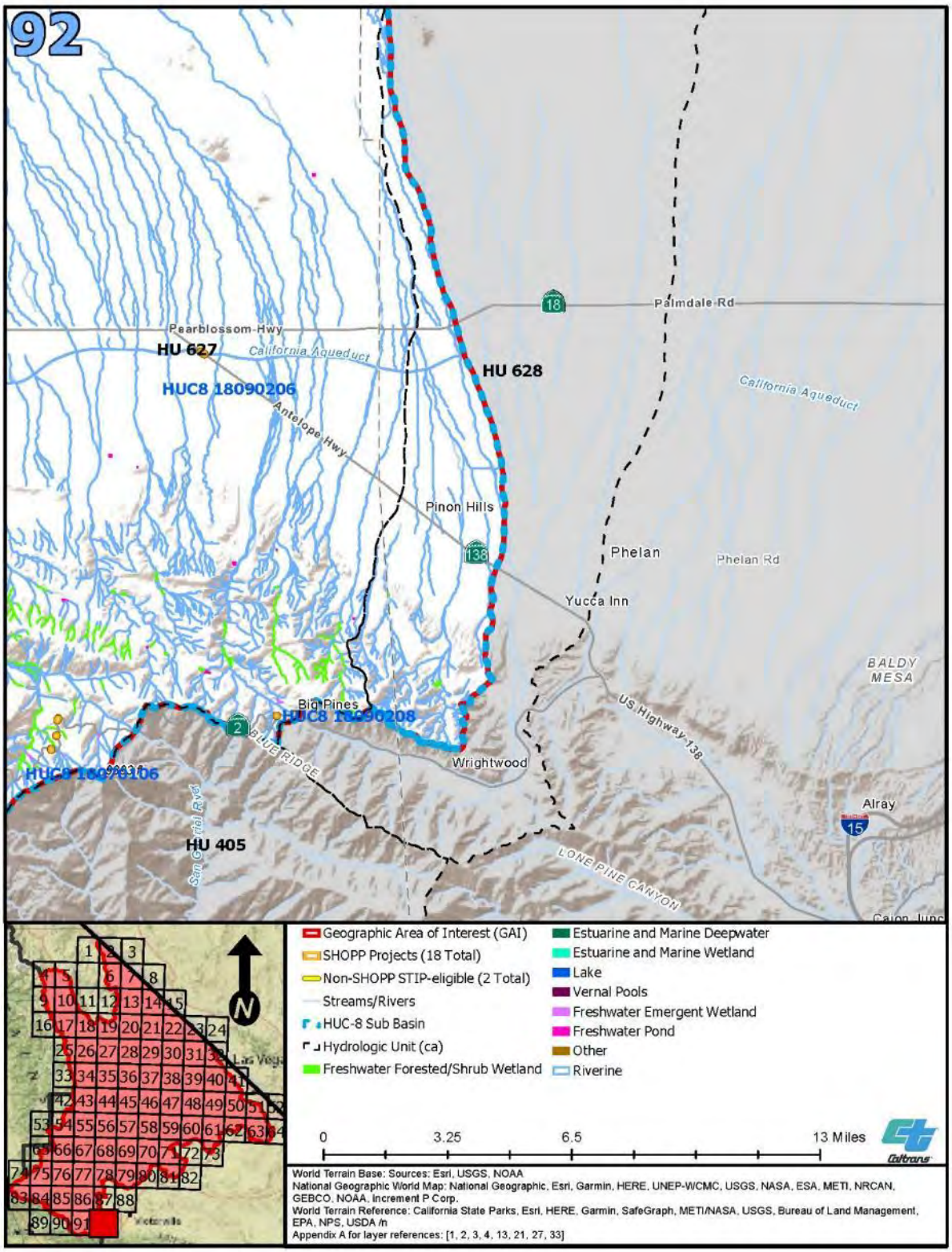
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


89
JUPITER MOUNTAIN
HUC8 18090206
HU 626
Lincoln Crest
RED MOUNTAIN
HUC8 18070102
SIERRA PELONA
5188 ft
DEL SUR RIDGE
BOUQUET CANYON
PELONA VALLEY
DRY CANYON
MINT CANYON
Agua Dulce
HU 404
SOLEDAD CANYON
Antelope Valley Fwy
14
126
Honby
Solemint
Humphreys
Santa Clarita
Stevenson Ranch
Newhall
5
HU 412
3744 ft
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Mile:
N
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


90
Lincoln Crest
Amargosa Creek
Desert View Highlands
Palmdale
HU 626
California Aqueduct
Aerospace Hwy
138
Pearland
E Avenue I
5188 ft
SIERRA PELONA
5222 ft
HUC8 18070102
HUC8 18090206
California Aqueduct
Little
PELONA VALLEY
Agua Dulce
Antelope Valley Fwy
14
HU 627
Acton
HU 404
PARKER MOUNTAIN
SOLEDAD CANYON
Ravenna
7107 ft
Los Angeles
5259 ft
HU 412
HUC8 18070105
Singing Springs
2
HU 405
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
N
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
World Terrain Reference: County of Los Angeles, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


91
HU 626
E Palmdale Blvd
90th St E
170th St E
Pearland
E Avenue T
California Aqueduct
Littlerock
Big Rock Creek
Pearblossom
138
18
Llano
California Aqueduct
HU 627
HUC8 18090206
Valyermo
HUC8 18070102
Juniper Hills
PINYON RIDGE
PLEASANT VIEW RIDGE
HU 404
7107 ft
9393 ft
HU 412
HUC8 18070105
HUC8 18070106
2
39
HU 405
San Gabriel River
SAN
N
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
Caltrans
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.
World Terrain Reference: County of Los Angeles, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA /n
Appendix A for layer references: [1, 2, 3, 4, 13, 21, 27, 33]


92
Pearblossom Hwy
HU 627
California Aqueduct
HUC8 18090206
Antelope Hwy
HU 628
Palmdale Rd
California Aqueduct
Pinon Hills
Phelan
Phelan Rd
Yucca Inn
BALDY MESA
Big Pines
HUC8 18090208
US Highway 138
Wrightwood
BLUE RIDGE
HUC8 18090106
Alray
HU 405
LONE PINE CANYON
Geographic Area of Interest (GAI)
SHOPP Projects (18 Total)
Non-SHOPP STIP-eligible (2 Total)
Streams/Rivers
HUC-8 Sub Basin
Hydrologic Unit (ca)
Freshwater Forested/Shrub Wetland
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Estuarine and Marine Wetland
Lake
Vernal Pools
Freshwater Emergent Wetland
Freshwater Pond
Other
Riverine
0
3.25
6.5
13 Miles
World Terrain Base: Sources: Esri, USGS, NOAA
National Geographic World Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
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