

GAP/LANDFIRE National Terrestrial Ecosystems 2011 Summary Report: California

NVCS Hierarchy Key

Class

Formation

Macrogroup

Ecological System

Land Cover Name	Hectares	Sq. Miles	% Area
Forest & Woodland			
Warm Temperate Forest & Woodland			
Longleaf Pine Woodland			
East Gulf Coastal Plain Near-Coast Pine Flatwoods - Open Understory Modifier	21	< 0.1	< 0.01 %
Californian Forest & Woodland			
California Coastal Live Oak Woodland and Savanna	1,104,735	1,726.1	1.06 %
California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna	4,215,744	6,587.1	4.04 %
California Central Valley Mixed Oak Savanna	2,784,168	4,350.3	2.67 %
Mediterranean California Mixed Oak Woodland	765,241	1,195.7	0.73 %
Mediterranean California Lower Montane Black Oak-Conifer Forest and Woodland	779,991	1,218.7	0.75 %
Mediterranean California Mixed Evergreen Forest	1,247,664	1,949.5	1.19 %
Central and Southern California Mixed Evergreen Woodland	63,145	98.7	0.06 %
California Coastal Closed-Cone Conifer Forest and Woodland	55,004	85.9	0.05 %
Southern California Oak Woodland and Savanna	80,639	126.0	0.08 %
Cool Temperate Forest & Woodland			
Rocky Mountain Subalpine-High Montane Conifer Forest			
Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland	13,447	21.0	0.01 %
Rocky Mountain Lodgepole Pine Forest	7,231	11.3	< 0.01 %
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	4,259	6.7	< 0.01 %
Rocky Mountain Aspen Forest and Woodland	251,756	393.4	0.24 %
Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland	2,547	4.0	< 0.01 %
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	8,326	13.0	< 0.01 %
Rocky Mountain Poor-Site Lodgepole Pine Forest	6,903	10.8	< 0.01 %
Southern Rocky Mountain Lower Montane Forest			
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	< 1	< 0.1	< 0.01 %
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	3	< 0.1	< 0.01 %
Southern Vancouverian Montane-Foothill Forest			
Mediterranean California Mesic Mixed Conifer Forest and Woodland	4,651,700	7,268.3	4.45 %
Klamath-Siskiyou Upper Montane Serpentine Mixed Conifer Woodland	9,559	14.9	< 0.01 %
Sierran-Intermontane Desert Western White Pine-White Fir Woodland	35,314	55.2	0.03 %

Land Cover Name	Hectares	Sq. Miles	% Area
Mediterranean California Dry-Mesic Mixed Conifer Forest and Woodland	5,543,091	8,661.1	5.31 %
Mediterranean California Mesic Serpentine Woodland and Chaparral	1,460,184	2,281.5	1.40 %
Klamath-Siskiyou Lower Montane Serpentine Mixed Conifer Woodland	14,880	23.2	0.01 %
California Montane Jeffrey Pine-(Ponderosa Pine) Woodland	1,816,156	2,837.7	1.74 %
Vancouverian Lowland & Montane Forest			
North Pacific Hypermaritime Sitka Spruce Forest	25,237	39.4	0.02 %
North Pacific Broadleaf Landslide Forest and Shrubland	16	< 0.1	< 0.01 %
California Coastal Redwood Forest	1,613,399	2,520.9	1.54 %
North Pacific Lowland Mixed Hardwood-Conifer Forest and Woodland	408	0.6	< 0.01 %
North Pacific Maritime Mesic-Wet Douglas-fir-Western Hemlock Forest	172	0.3	< 0.01 %
North Pacific Maritime Dry-Mesic Douglas-fir-Western Hemlock Forest	1	< 0.1	< 0.01 %
North Pacific Wooded Volcanic Flowage	176,503	275.8	0.17 %
Vancouverian Subalpine Forest			
Northern California Mesic Subalpine Woodland	183,556	286.8	0.18 %
Mediterranean California Subalpine Woodland	42,523	66.4	0.04 %
North Pacific Mountain Hemlock Forest	989	1.5	< 0.01 %
Sierra Nevada Subalpine Lodgepole Pine Forest and Woodland	806,733	1,260.5	0.77 %
Northern Pacific Mesic Subalpine Woodland	1,202	1.9	< 0.01 %
Mediterranean California Red Fir Forest	877,722	1,371.4	0.84 %
Intermountain Singleleaf Pinyon - Utah Juniper - Western Juniper Woodland			
Inter-Mountain Basins Juniper Savanna	231,415	361.6	0.22 %
Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland	100,636	157.2	0.10 %
Columbia Plateau Western Juniper Woodland and Savanna	586,741	916.8	0.56 %
Great Basin Pinyon-Juniper Woodland	3,022,332	4,722.4	2.89 %
Southern Rocky Mountain & Colorado Plateau Two-needle Pinyon - One-seed Juniper Woodland			
Colorado Plateau Pinyon-Juniper Shrubland	25	< 0.1	< 0.01 %
Colorado Plateau Pinyon-Juniper Woodland	15,831	24.7	0.02 %
Southern Rocky Mountain Pinyon-Juniper Woodland	4	< 0.1	< 0.01 %
Central Rocky Mountain Dry Lower Montane-Foothill Forest			
Northern Rocky Mountain Ponderosa Pine Woodland and Savanna	126,008	196.9	0.12 %
Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	10,349	16.2	< 0.01 %
Southern Vancouverian Dry Foothill Forest			
North Pacific Dry Douglas-fir-(Madrone) Forest and Woodland	23,587	36.9	0.02 %
North Pacific Oak Woodland	19,594	30.6	0.02 %
East Cascades Oak-Ponderosa Pine Forest and Woodland	24,472	38.2	0.02 %
Temperate Flooded & Swamp Forest			
Great Plains Floodplain Forest			
Western Great Plains Riparian Woodland and Shrubland	16	< 0.1	< 0.01 %
Rocky Mountain-Great Basin Montane Riparian Forest			
Columbia Basin Foothill Riparian Woodland and Shrubland	39,842	62.3	0.04 %
Rocky Mountain Subalpine-Montane Riparian Woodland	119	0.2	< 0.01 %
Rocky Mountain Lower Montane Riparian Woodland and Shrubland	5,574	8.7	< 0.01 %
Interior Warm & Cool Desert Riparian Forest			
North American Warm Desert Riparian Systems	4	< 0.1	< 0.01 %
North American Warm Desert Lower Montane Riparian Woodland and Shrubland	1	< 0.1	< 0.01 %
Mediterranean California Foothill and Lower Montane Riparian Woodland	1,051,663	1,643.2	1.01 %
Mediterranean California Serpentine Foothill and Lower Montane Riparian Woodland and Seep	784	1.2	< 0.01 %

Land Cover Name	Hectares	Sq. Miles	% Area
California Central Valley Riparian Woodland and Shrubland	117,000	182.8	0.11 %
Shrub & Herb Vegetation			
Mediterranean Scrub & Grassland			
Californian Chaparral			
Southern California Dry-Mesic Chaparral	2,135,738	3,337.1	2.05 %
California Mesic Chaparral	225,691	352.6	0.22 %
Northern and Central California Dry-Mesic Chaparral	1,171,963	1,831.2	1.12 %
California Xeric Serpentine Chaparral	92,510	144.5	0.09 %
California Maritime Chaparral	3,751	5.9	< 0.01 %
Klamath-Siskiyou Xeromorphic Serpentine Savanna and Chaparral	28,880	45.1	0.03 %
Californian Coastal Scrub			
Northern California Coastal Scrub	32,928	51.5	0.03 %
Southern California Coastal Scrub	2,067,263	3,230.1	1.98 %
Mediterranean California Coastal Bluff	7,123	11.1	< 0.01 %
Californian Annual & Perennial Grassland			
California Central Valley and Southern Coastal Grassland	8,621,202	13,470.6	8.26 %
California Mesic Serpentine Grassland	15,895	24.8	0.02 %
Temperate Grassland & Shrubland			
Central Rocky Mountain Montane-Foothill Grassland & Shrubland			
Columbia Basin Palouse Prairie	6	< 0.1	< 0.01 %
North Pacific Montane Shrubland	463	0.7	< 0.01 %
Northern Rocky Mountain Montane-Foothill Deciduous Shrubland	444	0.7	< 0.01 %
Northern Rocky Mountain Lower Montane, Foothill and Valley Grassland	63,331	99.0	0.06 %
Southern Rocky Mountain Montane Shrubland			
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	3	< 0.1	< 0.01 %
Southern Vancouverian Lowland Grassland & Shrubland			
Willamette Valley Upland Prairie and Savanna	943	1.5	< 0.01 %
California Northern Coastal Grassland	835,196	1,305.0	0.80 %
Warm Interior Chaparral			
Sonora-Mojave Semi-Desert Chaparral	18,563	29.0	0.02 %
Mogollon Chaparral	197	0.3	< 0.01 %
Cool Interior Chaparral			
Great Basin Semi-Desert Chaparral	1,527	2.4	< 0.01 %
California Montane Woodland and Chaparral	131,052	204.8	0.13 %
Rocky Mountain-Vancouverian Subalpine-High Montane Mesic Meadow			
Mediterranean California Subalpine Meadow	2,402	3.8	< 0.01 %
North Pacific Alpine and Subalpine Dry Grassland	1,509	2.4	< 0.01 %
Rocky Mountain Subalpine-Montane Mesic Meadow	10	< 0.1	< 0.01 %
North Pacific Montane Grassland	45,374	70.9	0.04 %
Temperate to Polar Scrub & Herb Coastal Vegetation			
Pacific Coastal Beach & Dune			
Mediterranean California Southern Coastal Dune	6,192	9.7	< 0.01 %
Mediterranean California Northern Coastal Dune	26,610	41.6	0.03 %
Temperate to Polar Bog & Fen			
North Pacific Bog & Fen			
Mediterranean California Subalpine-Montane Fen	23	< 0.1	< 0.01 %

Land Cover Name	Hectares	Sq. Miles	% Area
Temperate to Polar Freshwater Marsh, Wet Meadow & Shrubland			
Vancouverian Lowland Marsh, Wet Meadow & Shrubland			
North Pacific Montane Riparian Woodland and Shrubland	24,708	38.6	0.02 %
North Pacific Avalanche Chute Shrubland	347	0.5	< 0.01 %
Temperate Pacific Freshwater Mudflat	33,458	52.3	0.03 %
North Pacific Lowland Riparian Forest and Shrubland	3,231	5.0	< 0.01 %
Western North American Montane-Subalpine Marsh, Wet Meadow & Shrubland			
Rocky Mountain Alpine-Montane Wet Meadow	86	0.1	< 0.01 %
Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	45,407	70.9	0.04 %
Rocky Mountain Subalpine-Montane Riparian Shrubland	150	0.2	< 0.01 %
Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	297	0.5	< 0.01 %
Columbia Plateau Silver Sagebrush Seasonally Flooded Shrub-Steppe	13,504	21.1	0.01 %
Temperate Pacific Montane Wet Meadow	990	1.5	< 0.01 %
Warm Desert Lowland Freshwater Marsh, Wet Meadow & Shrubland			
North American Warm Desert Riparian Mesquite Bosque	13,832	21.6	0.01 %
North American Warm Desert Riparian Woodland and Shrubland	136,725	213.6	0.13 %
Arid West Interior Freshwater Marsh			
North American Arid West Emergent Marsh	50,144	78.4	0.05 %
Temperate Pacific Freshwater Emergent Marsh	252,324	394.3	0.24 %
Salt Marsh			
North American Coastal Salt Marsh			
Temperate Pacific Tidal Salt and Brackish Marsh	99,367	155.3	0.10 %
Warm & Cool Desert Alkali-Saline marsh, Playa & Shrubland			
Inter-Mountain Basins Playa	121,845	190.4	0.12 %
Inter-Mountain Basins Alkaline Closed Depression	16,948	26.5	0.02 %
Inter-Mountain Basins Greasewood Flat	60,403	94.4	0.06 %
North American Warm Desert Playa	781,503	1,221.1	0.75 %
Desert & Semi-Desert			
Warm Desert & Semi-Desert Scrub & Grassland			
Mojave-Sonoran Semi-Desert Scrub			
North American Warm Desert Active and Stabilized Dune	694,172	1,084.6	0.66 %
Sonoran Paloverde-Mixed Cacti Desert Scrub	25,169	39.3	0.02 %
Sonoran Mid-Elevation Desert Scrub	17	< 0.1	< 0.01 %
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	12,452,858	19,457.6	11.92 %
North America Warm-Desert Xeric-Riparian Scrub			
North American Warm Desert Wash	1,478,414	2,310.0	1.42 %
North American Warm Semi-Desert Cliff, Scree & Rock Vegetation			
North American Warm Desert Volcanic Rockland	922,482	1,441.4	0.88 %
North American Warm Desert Pavement	754,743	1,179.3	0.72 %
North American Warm Desert Badland	181	0.3	< 0.01 %
North American Warm Desert Bedrock Cliff and Outcrop	688,866	1,076.4	0.66 %
North American Warm Desert Ruderal Scrub & Grassland			
Apacherian-Chihuahuan Mesquite Upland Scrub	34	< 0.1	< 0.01 %
Cool Semi-Desert Scrub & Grassland			
Great Basin Saltbush Scrub			
Inter-Mountain Basins Mat Saltbush Shrubland	448,475	700.7	0.43 %

Land Cover Name	Hectares	Sq. Miles	% Area
Sonora-Mojave Mixed Salt Desert Scrub	1,146,717	1,791.7	1.10 %
Inter-Mountain Basins Mixed Salt Desert Scrub	101,695	158.9	0.10 %
Great Basin-Intermountain Xeric-Riparian Scrub			
Inter-Mountain Basins Wash	428	0.7	< 0.01 %
Intermountain Basins Cliff, Scree & Badlands Sparse Vegetation			
Inter-Mountain Basins Cliff and Canyon	9,867	15.4	< 0.01 %
Columbia Plateau Ash and Tuff Badland	1,088	1.7	< 0.01 %
Inter-Mountain Basins Shale Badland	137,816	215.3	0.13 %
Inter-Mountain Basins Volcanic Rock and Cinder Land	47,954	74.9	0.05 %
Great Basin-Intermountain Tall Sagebrush Steppe & Shrubland			
Columbia Plateau Steppe and Grassland	684,145	1,069.0	0.66 %
Inter-Mountain Basins Big Sagebrush Shrubland	2,032,896	3,176.4	1.95 %
Inter-Mountain Basins Big Sagebrush Steppe	744,858	1,163.8	0.71 %
Inter-Mountain Basins Montane Sagebrush Steppe	316,980	495.3	0.30 %
Great Basin Xeric Mixed Sagebrush Shrubland	235,312	367.7	0.23 %
Great Basin-Intermountain Dwarf Sagebrush Steppe & Shrubland			
Columbia Plateau Scabland Shrubland	32,850	51.3	0.03 %
Columbia Plateau Low Sagebrush Steppe	423,171	661.2	0.41 %
Great Basin-Intermountain Dry Shrubland & Grassland			
Inter-Mountain Basins Semi-Desert Shrub Steppe	54,245	84.8	0.05 %
Inter-Mountain Basins Active and Stabilized Dune	535	0.8	< 0.01 %
Mojave Mid-Elevation Mixed Desert Scrub	4,297,624	6,715.0	4.12 %
Inter-Mountain Basins Semi-Desert Grassland	46,388	72.5	0.04 %
Polar & High Montane Scrub, Grassland & Barrens			
Temperate & Boreal Alpine Tundra			
Rocky Mountain-Sierran Alpine Tundra			
Mediterranean California Alpine Fell-Field	1,690	2.6	< 0.01 %
Mediterranean California Alpine Dry Tundra	1,615	2.5	< 0.01 %
Vancouverian Alpine Tundra			
North Pacific Dry and Mesic Alpine Dwarf-Shrubland, Fell-field and Meadow	657	1.0	< 0.01 %
Mediterranean California Alpine Bedrock and Scree	1,608,573	2,513.4	1.54 %
Aquatic Vegetation			
Benthic Vascular Saltwater Vegetation			
Temperate Pacific Seagrass Intertidal Vascular Vegetation			
Mediterranean California Eelgrass Bed	18,890	29.5	0.02 %
Open Rock Vegetation			
Temperate & Boreal Cliff, Scree & Other Rock Vegetation			
Western North American Temperate Cliff, Scree & Rock Vegetation			
North Pacific Active Volcanic Rock and Cinder Land	23,501	36.7	0.02 %
Mediterranean California Serpentine Barrens	30	< 0.1	< 0.01 %
Central California Coast Ranges Cliff and Canyon	19,141	29.9	0.02 %
Klamath-Siskiyou Cliff and Outcrop	69,710	108.9	0.07 %
Southern California Coast Ranges Cliff and Canyon	34,826	54.4	0.03 %
Sierra Nevada Cliff and Canyon	22,426	35.0	0.02 %
Agricultural & Developed Vegetation			
Row & Close Grain Crop Cultural Formation			

Land Cover Name	Hectares	Sq. Miles	% Area
Herbaceous Agricultural Vegetation			
Cultivated Cropland	8,439,123	13,186.1	8.08 %
Pasture & Hay Field Crop			
Pasture & Hay Field Crop			
Pasture/Hay	1,952,367	3,050.6	1.87 %
Developed & Other Human Use			
Developed & Urban			
Developed & Urban			
Developed, Open Space	3,078,723	4,810.5	2.95 %
Developed, Low Intensity	1,750,372	2,735.0	1.68 %
Developed, Medium Intensity	1,850,672	2,891.7	1.77 %
Developed, High Intensity	442,754	691.8	0.42 %
Current and Historic Mining Activity			
Quarries, Mines, Gravel Pits and Oil Wells			
Quarries, Mines, Gravel Pits and Oil Wells	26,427	41.3	0.03 %
Introduced & Semi Natural Vegetation			
Introduced & Semi Natural Vegetation			
Introduced & Semi Natural Vegetation			
Introduced Upland Vegetation - Treed	10,987	17.2	0.01 %
Introduced Riparian and Wetland Vegetation	8,547	13.4	< 0.01 %
Introduced Upland Vegetation - Perennial Grassland and Forbland	46	< 0.1	< 0.01 %
Introduced Upland Vegetation - Annual Grassland	714,955	1,117.1	0.68 %
Introduced Upland Vegetation - Shrub	3,579	5.6	< 0.01 %
Recently Disturbed or Modified			
Recently Disturbed or Modified			
Recently Disturbed or Modified			
Disturbed, Non-specific	3	< 0.1	< 0.01 %
Recently Burned	763	1.2	< 0.01 %
Harvested Forest-Shrub Regeneration	367,111	573.6	0.35 %
Recently burned grassland	422	0.7	< 0.01 %
Recently burned forest	43,078	67.3	0.04 %
Disturbed/Successional - Grass/Forb Regeneration	4	< 0.1	< 0.01 %
Harvested Forest - Northwestern Conifer Regeneration	238,266	372.3	0.23 %
Recently burned shrubland	490	0.8	< 0.01 %
Harvested Forest - Grass/Forb Regeneration	42,893	67.0	0.04 %
Disturbed/Successional - Shrub Regeneration	15,965	24.9	0.02 %
Open Water			
Open Water			
Open Water			
Open Water (Fresh)	1,280,156	2,000.2	1.23 %
Open Water (Brackish/Salt)	3,306,204	5,165.9	3.17 %
Nonvascular & Sparse Vascular Rock Vegetation			
Barren			
Barren			
North American Alpine Ice Field	1,969	3.1	< 0.01 %

Land Cover Name	Hectares	Sq. Miles	% Area
Undifferentiated Barren Land	25,645	40.1	0.02 %
Unconsolidated Shore	32,428	50.7	0.03 %

GAP/LANDFIRE National Terrestrial Ecosystems 2011 - Ecological Systems

Summary

The GAP/LANDFIRE National Terrestrial Ecosystems represents a highly thematically detailed land cover map of the U.S. The GAP/LANDFIRE National Terrestrial Ecosystems dataset is produced by the U.S. Geological Survey in collaboration with the LANDFIRE Program. The GAP produces data and tools that help meet critical national challenges such as biodiversity conservation, renewable energy development, climate change adaptation, and infrastructure investment. Learn more about GAP and other GAP data (including protected areas and species habitat maps) at <https://gapanalysis.usgs.gov>. <https://gapanalysis.usgs.gov/gaplandcover/data>.

Abstract

This layer represents the finest level of thematic detail for the GAP/LANDFIRE National Terrestrial Ecosystems 2011 land cover. This data layer is the 2011 update of the National Gap Analysis Program Land Cover Data - Version 2.2 for the conterminous U.S. The map legend includes types described by NatureServe's Ecological Systems Classification (Comer et al. 2003) as well as land use classes described in the National Land Cover Dataset 2011 (Homer et al. 2015). These data cover the entire continental U.S. and are a continuous data layer. These raster data have a 30 m x 30 m cell resolution.

Comer, P., D. Faber-Langendoen, R. Evans, S. Gawler, C. Josse, G. Kittel, S. Menard, M. Pyne, M. Reid, K. Schulz, K. Snow, and J. Teague. 2003. Ecological Systems of the United States: A Working Classification of U.S. Terrestrial Systems. NatureServe, Arlington, Virginia.

Homer, C.G., Dewitz, J.A., Yang, L., Jin, S., Danielson, P., Xian, G., Coulston, J., Herold, N.D., Wickham, J.D., and Megown, K., 2015, Completion of the 2011 National Land Cover Database for the conterminous United States-Representing a decade of land cover change information. Photogrammetric Engineering and Remote Sensing, v. 81, no. 5, p. 345-354.

USGS National Boundary Dataset

Summary

The USGS Governmental Unit Boundaries dataset from The National Map (TNM) represents major civil areas for the Nation, including States or Territories, counties (or equivalents), Federal and Native American areas, congressional districts, minor civil divisions, incorporated places (such as cities and towns), and unincorporated places. Boundaries data are useful for understanding the extent of jurisdictional or administrative areas for a wide range of applications, including mapping or managing resources, and responding to natural disasters. Boundaries data also include extents of forest, grassland, park, wilderness, wildlife, and other reserve areas useful for recreational activities, such as hiking and backpacking. Boundaries data are acquired from a variety of government sources. The data represents the source data with minimal editing or review by USGS. Please refer to the feature-level metadata for information on the data source. The National Map boundaries data is commonly combined with other data themes, such as elevation, hydrography, structures, and transportation, to produce general reference base maps. The National Map viewer allows free downloads of public domain boundaries data in either Esri File Geodatabase or Shapefile formats. For additional information on the boundaries data model, go to <https://nationalmap.gov/boundaries.html>.

Compiled: 01/18/2017