



Pacific West Region National Natural Landmarks Program



History

The National Natural Landmarks (NNL) Program was established on May 18, 1962 by Secretary of the Interior, Stewart Udall, under the authority of the Historic Sites Act of 1935. Regulations that govern the NNL Program were initially published in 1980. Current NNL regulations were published on May 12, 1999 in the Federal Register (Title 36, Chapter 1, Part 62).

Background

Since 1962, the Secretary of the Interior has designated ninety-four national natural landmarks throughout American Samoa, California, Guam, Idaho, Hawaii, Nevada, Oregon, and Washington. Administratively, the six states and two U.S. Territories comprise the Pacific West Region of the National Park Service. Collectively, the NNL program recognizes outstanding regional examples of our nation's natural heritage forged by a partnership ethic, involving in some instances multiple types of ownership.

Drumheller Channels National Natural Landmark (WA) for example is comprised of state, federal, and private ownership. The site is nationally significant for its butte-and-basin scabland topography and provides excellent geomorphic evidence of late Pleistocene catastrophic floods on the Columbia Plateau. Audubon Canyon Ranch NNL (CA) on the other hand is comprised solely of private ownership, which is the largest known nesting area for great blue herons and American egrets on the West Coast. Classic illustration of steep cliffs and erosion-resistant outliers formed by wave action on a volcanic mass at Vaiava Strait (American Samoa)

represents a landmark designation of communal ownership. These three landmark sites, and the other ninety-one remaining ones throughout the Pacific West Region, represent a nationally significant array of ecological and geologic resources knitted together by a diverse public.

Definition and Purpose

A National Natural Landmark is a nationally significant natural area that has been designated by the Secretary of the Interior. To be nationally significant, a site must be one of the best examples of a type of biotic community or geologic feature in its biophysiological province. Examples of this natural diversity include terrestrial and aquatic ecosystems, features, exposures, and landforms that record active geologic processes as well as fossil evidence of biological evolution. The goals of the National Natural Landmarks Program are fourfold: to encourage and support landowner's efforts to protect NNL resources; to strengthen public awareness and appreciation of the natural history of the nation; to enhance the scientific and educational value of nationally significant sites; to develop a National Registry of Natural Landmarks that illustrate the biological and geological character of the nation's natural heritage.

Selection Criteria

The determination that a site is one of the best examples of a particular feature in a biophysiological province is assessed according to national significance criteria. Five criteria are applied in two tiers, primary and secondary. The primary criteria of illustrative character

CROWN POINT, Multnomah County, Oregon is a promontory rising nearly vertically about 725 feet above the Columbia River. It provides a strategic vantage point for observing a classic illustration of riverine processes.

Photo: Justin Miller



VAILAVA STRAIT, American Samoa is a classic illustration of steep cliffs and erosion-resistant outliers formed by wave action on a volcanic mass.

Photo: Tavita P. Togia

continued from page 1

and present condition are the most strongly weighted and apply to the primary natural features. Secondary significance criteria, consisting of diversity, rarity, and value for science and education, are considered when two or more sites are equivalent with respect

to primary criteria. In such instances, secondary natural features are considered in determining site significance.

The Pacific West Region of the National Park Service incorporate all or a portion of twelve biophysiological provinces of the United States and its territories. Studies of these provinces have produced a systematic inventory of Potential National Natural Landmarks (PNNLs). Potential NNLs can also be identified through proposals or suggestion by individuals and organizations.

Designation Process

The National Park Service contracts with scientists to conduct on-site evaluations of PNNLs. The evaluations gather additional information and comparatively evaluate the site against other similar sites, relying on national significance criteria. Completed on-site evaluations are peer-reviewed by other scientists and then by the National Park Service. If a site is deemed qualified and landowners have not objected in writing, the Director of the National Park Service then nominates the site to the National Park System Advisory Board, who in turn can recommend it to the Secretary of the Interior for designation. Once designated, the area is listed on the National Registry of Natural Landmarks. During the designation process, the National Park Service solicits comments from landowners, local, state, and federal government officials, and other interested groups and individuals.

As of September 2007, 581 sites have been designated as National Natural Landmarks. For the most current information on the National Natural Landmarks Program please log on the internet at <http://www.nature.nps.gov/nnl/>.

Program Management

The National Natural Landmarks Program does not place any land use restrictions on property as a direct result of federal designation. The NNL Program simply recognizes and encourages the voluntary, long-term commitment of public and

private owners to protect an area's outstanding values. In fact, designated sites do not even have to be open to the public. Conversely, national natural landmarks can be commercial ventures, if the integrity of the natural feature is maintained.

Concerning potential benefits to landowners, the National Park Service can provide technical assistance by advising owners on conservation practices, if so requested. In addition owners, who voluntarily agree to protect their landmark property, are eligible to receive a certificate and wooden plaque for appropriate indoor presentation or a bronze plaque for outdoor display at the site. In the case of federal ownership, agencies should consider the unique properties of natural landmarks in assessing the effects of their actions on the environment as required by the National Environmental Policy Act (NEPA). Depending on land ownership, national natural landmark designation can in fact enhance potential funding opportunities in some instances.

BIG SPRINGS, Fremont County, Idaho is the only first-magnitude spring in the country that issues forth from rhyolitic lava flows. It is the source of the South Fork of the Henrys Fork River.

Photo: Justin Miller



ANZA-BORREGO DESERT STATE PARK, San Diego County, California is the largest desert state park in the Nation. The site contains some of the best examples of the various biotic communities and geological phenomena of the Colorado Desert region.

Photo: Margi Brooks



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AMERICAN SAMOA

- 1 Aunu'u Island
- 2 Cape Taputapu
- 3 Fogama'a Crater
- 4 Le'ala Shoreline
- 5 Matafao Peak
- 6 Rainmaker Mountain
- 7 Vai'ava Strait

CALIFORNIA

AMADOR COUNTY

- 8 Black Chasm Cave

CONTRA COSTA COUNTY

- 9 Mt. Diablo State Park

EL DORADO COUNTY

- 10 Emerald Bay

IMPERIAL COUNTY

- 11 Imperial Sand Hills
- 12 San Felipe Creek Area

INYO COUNTY

- 13 Deep Springs Marsh
- 14 Eureka Dunes

KERN COUNTY

- 15 Sand Ridge Wildflower Preserve
- 16 Sharktooth Hill

LOS ANGELES COUNTY

- 17 Rancho La Brea

MARIN COUNTY

- 18 Audubon Canyon Ranch

MENDOCINO COUNTY

- 19 Elder Creek
- 20 Pygmy Forest

MONO COUNTY

- 21 Fish Slough

MONTEREY COUNTY

- 22 Point Lobos State Reserve

ORANGE COUNTY

- 23 Irvine Ranch

SACRAMENTO COUNTY

- 24 American River Bluffs and Phoenix Park Vernal Pools
- 25 Cosumnes River Riparian Woodlands

SAN BENITO COUNTY

- 26 San Andreas Fault

SAN BERNARDINO COUNTY

- 27 Amboy Crater
- 28 Cinder Cone Natural Area
- 29 Mitchell Caverns and Winding Stair Cave
- 30 Rainbow Basin
- 31 Trona Pinnacles
- 32 Turtle Mountains Natural Area

SAN DIEGO COUNTY

- 33 Anza-Borrego Desert State Park
- 34 Miramar Mounds
- 35 Tijuana River Estuary
- 36 Torrey Pines State Reserve

SAN LUIS OBISPO COUNTY

- 37 Nipomo Dunes-Point Sal Coastal Area

SAN MATEO COUNTY

- 38 Año Nuevo Point and Island

SHASTA COUNTY

- 39 Burney Falls

SISKIYOU COUNTY

- 40 Mount Shasta

SOLANO COUNTY

- 41 Dixon Vernal Pools



MAUNA KEA, Hawaii is an exposed portion of the highest insular mountain in the United States. It contains the highest lake in the country and evidence of glaciation above the 11,000-foot level. It is the most majestic expression of shield volcanism in the Hawaiian Archipelago, if not the world.

Photo: Sharon Ringsven

California continued

TULARE COUNTY

- 42 Pixley Vernal Pools

GUAM

- 43 Facpi Point
- 44 Fouha Point
- 45 Mount Lamlam
- 46 Puntan Dos Amantes

HAWAII

ISLAND OF HAWAII

- 47 Makalawena Marsh
- 48 Mauna Kea

ISLAND OF MAUI

- 49 Iao Valley
- 50 Kanaha Pond

ISLAND OF MOLOKAI

- 51 North Shore Cliffs

ISLAND OF OAHU

- 52 Diamond Head
- 53 Koolau Range Pali

IDAHO

ADAMS COUNTY

- 54 Sheep Rock

BLAINE COUNTY

- 55 Great Rift System

BONNEVILLE COUNTY

- 56 Hell's Half-Acre Lava Field

BUTTE COUNTY

- 57 Big Southern Butte

CASSIA COUNTY

- 58 Cassia Silent City of Rocks

VALLEY OF FIRE, Clark County, Nevada is an outstanding example of thrust faulting. A great fold has been exposed by erosion, revealing huge rock formations, deep canyons, and a great variety of colors. The site also supports gila monsters at the northern extreme of their range.

Photo: Joshua Bernick





FOUHA POINT, Guam contains exposures of volcanic rock with a nearby intertidal platform of two levels of coralline limestone.
Photo: Steve Gibbons



EUREKA DUNES, Inyou County, California located within Death Valley National Park, is an excellent example of aeolian (wind) geological processes. It is the tallest dune complex in the Great Basin biophysiological province of the United States. The site contains an endangered grass genus, one species of which is the only plant capable of surviving on and stabilizing the steep dune slopes.
Photo: Mark Pahuta



NEWBERRY CRATER, Deschutes County, Oregon located within the Deschutes National Forest, is a basin at the top of a dormant, though young, volcano. It is the largest Pleistocene volcano east of the Cascade Range.
Photo: Justin Miller

Idaho continued

ELMORE COUNTY

59 Crater Rings

FREMONT COUNTY

60 Big Springs

GOODING COUNTY

61 Niagara Springs

JEFFERSON COUNTY

62 North Menan Butte

SHOSHONE COUNTY

63 Hobo Cedar Grove Botanical Area

TWIN FALLS COUNTY

64 Hagerman Fauna Sites

NEVADA

CLARK COUNTY

65 Valley of Fire

ELKO COUNTY

66 Ruby Marsh

NYE COUNTY

67 Hot Creek Springs and Marsh

68 Ichthyosaur Site

69 Lunar Crater

70 Timber Mountain Caldera

OREGON

BENTON COUNTY

71 Willamette Floodplain

DESCHUTES COUNTY

72 Horse Ridge Natural Area

73 Newberry Crater

LAKE COUNTY

74 Fort Rock State Monument

MULTNOMAH COUNTY

75 Crown Point

WASCO COUNTY

76 Lawrence Memorial Grassland Preserve

GRANT COUNTY

77 John Day Fossil Beds



STEPTOE AND KAMIAK BUTTES, Whitman County, Washington are isolated mountain peaks of older rock surrounded by basalt, rising above the surrounding lava plateau. These peaks are outliers of the Couer d' Alene Mountains of Idaho.
Photo: Steve Gibbons

WASHINGTON

ASOTIN COUNTY

78 Grande Ronde Feeder Dikes

79 Grande Ronde Goosenecks

BENTON COUNTY

80 Wallula Gap

CLALLAM COUNTY

81 Point of Arches

DOUGLAS COUNTY

82 Boulder Park and McNeil Canyon
Haystack Rocks

83 Sims Corner Esker and Kame Complex

84 The Great Gravel Bar of Moses Coulee

85 Withrow Moraine and Jameson Lake
Drumlin Field

GRANT COUNTY

86 Drumheller Channels

87 Grand Coulee

KITTITAS COUNTY

88 Ginkgo Petrified Forest

89 Umtanum Ridge Water Gap

OKANOGAN COUNTY

90 Davis Canyon

THURSTON COUNTY

91 Mima Mounds

92 Nisqually Delta

WHITMAN COUNTY

93 Rose Creek Preserve

94 Steptoe and Kamiak Buttes

RUBY MARSH, Elko County, Nevada is located within Ruby Lake National Wildlife Refuge and is one of the largest and finest natural wetlands in Nevada. It is a stopover and nesting area for many migratory birds, including the greater sandhill crane and trumpeter swan.

Photo: Steven Koehler



BURNEY FALLS, Shasta County, California located within McArthur-Burney Falls State Park, contains some of the best examples in the western United States of a river drainage regulated by stratigraphically-controlled springs, and of a waterfall formed by undercutting of horizontal rock layers.

Photo: Mike Rubin



IRVINE RANCH, Orange County, California Irvine Ranch contains a remarkably complete stratigraphic succession ranging in age from late Cretaceous (80 million years ago) to the present. The primary biological features at the site include coastal sage scrub and chaparral communities, including rare Tecate cypress woodlands.

Photo: Stephen Francis



