

# Glossary of Terms

## ***Action alternative***

Project alternative that includes activities that would result in physical changes to the environment.

## ***Anadromous***

Fish that migrate up rivers from the sea to breed and spawn in fresh water.

## ***Anthropogenic***

Derived from human activities, as opposed to effects or processes that occur in the natural environment without human influences.

## ***Avulsion***

A sudden abandonment of an existing stream channel.

## ***Backbeach***

The region of a beach that extends from the highest elevation of the beach landward to the edge of the dunes, defined as the edge of permanent vegetation.

## ***CEQA Process***

The objective analysis of a proposal to determine the degree of its environmental impacts on the human environment, alternatives and mitigation that reduce those impacts, and the full and candid presentation of the analysis to, and involvement of, the interested and affected public.

## ***Cultural resources***

Aspects of a cultural system that are valued by or significantly representative of a culture or that contain significant information about a culture.

## ***Cumulative actions***

Actions that, when viewed with other actions in the past, the present, or the reasonably foreseeable future, regardless of who has undertaken or will undertake them, have an additive impact on the resource the proposal would affect.

## ***Cumulative impact***

Two or more environmental effects that, when considered together, are considerable or that compound or increase other environmental impacts.

## ***Density***

The number of individuals, usually by species, per unit area.

# Glossary of Terms (continued)

## ***Direct effect***

An impact that occurs as a result of the proposal or alternative in the same place and at the same time as the action.

## ***Environmental impact report (EIR)***

A detailed CEQA document that is prepared when a proposal or alternatives have the potential for significant impact on the human environment.

## ***Environmental impact statement (EIS)***

A detailed NEPA document that is prepared when a proposal or alternatives have the potential for significant impact on the human environment.

## ***Environmentally preferred alternative***

Of the alternatives analyzed, the one that would best promote the policies in NEPA Section 101. This is usually selected by the interdisciplinary team (IOT) members. It is presented in the NPS NEPA document (draft and final EIS or EA) for public review and comment.

## ***Eutrophication***

The process by which a body of water becomes enriched in dissolved nutrients (such as phosphates), stimulating the growth of aquatic plant life, which usually results in the depletion of dissolved oxygen.

## ***Facultative species***

Species that can occur both in wetland and upland habitat.

## ***Gabion***

A basket or cage filled with earth or rocks and used especially in building a support or abutment.

## ***Genotype***

The genetic makeup, as distinguished from the physical appearance, of an organism or a group of organisms.

## ***Grade Separated***

Topographically separated; in the case of the pedestrian bridge, it would be one or more feet higher or lower than the roadway.

# Glossary of Terms (continued)

## ***Human environment***

Defined by CEQ as the natural and physical environment, and the relationship of people with that environment (1508.14). Although the socioeconomic environment receives less emphasis than the physical or natural environment in the CEQ regulations, the NPS considers it to be an integral part of the human environment.

## ***Impact topics***

Specific natural, cultural, or socioeconomic resources that would be affected by the proposed action or alternatives (including no action). The magnitude, duration, and timing of the effect on each of these resources is evaluated in the impact section of an EA or an EIS.

## ***Indirect impact***

Reasonably foreseeable impacts that occur removed in time or space from the proposed action. These are “downstream” impacts, future impacts, or the impacts of reasonably expected connected actions (e.g., growth of an area after a highway to it is complete).

## ***Interannual***

Occurring between or semi-annually, i.e., from year to year.

## ***Invasive Species***

Species that reproduce aggressively, that are typically nonnative (i.e., do not naturally occur) to an ecosystem under consideration, and that cause or are likely to cause economic or environmental harm or harm to human health.

## ***Issues***

In NEPA, issues are environmental, social, and economic problems or effects that may occur if the proposed action or alternatives (including no action) are implemented or continue to be implemented.

## ***Lead agency***

The agency either preparing or taking primary responsibility for preparing the NEPA document.

## ***Mainstem***

The main river channel of the river system into which tributaries flow.

# Glossary of Terms (continued)

## ***Major federal action***

Actions that have a large federal presence and that have the potential for significant impacts on the human environment. They include adopting policy; implementing rules or regulations; adopting plans, programs, or projects; ongoing activities; issuing permits; or financing projects completed by another entity.

## ***Manning's $n$***

Manning's Roughness Coefficient. Usually notated as " $n$ ," this unitless coefficient is used in hydraulic modeling to identify the "roughness" of an area, or its resistance to passing flow. A high  $n$  value means increased roughness. For example, a concrete channel would have a relatively low  $n$  value, whereas a stream channel with dense willow growth would have a relatively high  $n$  value.

## ***Mitigation***

A modification of the proposal or alternative that lessens the intensity of its impact on a particular resource.

## ***National Geodetic Vertical Datum (NGVD)***

A fixed surface reference established by the U.S. Coast and Geodetic Survey to which relief features and elevation data are referenced.

## ***NEPA process***

The objective analysis of a proposal to determine the degree of its environmental and interrelated social and economic impacts on the human environment, alternatives and mitigation that reduce those impacts, and the full and candid presentation of the analysis to, and involvement of, the interested and affected public.

## ***No-Action Alternative***

Project alternative that would result in no project being implemented.

## ***Notices of Availability***

Separate notices submitted to the Federal Register that the draft EIS and the final EIS are ready for distribution.

# Glossary of Terms (continued)

## ***Notice of Intent (NOI)***

The notice submitted to the Federal Register indicating that an EIS will be prepared. It describes the proposed action and alternatives, identifies a contact person at the NPS, and gives time, place, and descriptive details of the agency's scoping process.

## ***Notice of Preparation (NOP)***

Notice to public agencies of an intent to prepare an environmental impact report.

## ***Obligate wetland species***

Species that occur primarily in wetland habitat.

## ***Off-Peak Season***

Time period during which a recreational or tourist area received the least number of visitors.

## ***Peak Season***

Time period during which a recreational or tourist area received the greatest number of visitors.

## ***Phenological***

The scientific study of periodic biological phenomena, such as flowering, breeding, and migration, in relation to climatic conditions.

## ***Preferred alternative***

The alternative an NPS decision maker has identified as preferred at the draft EIS or EA stage. Identification of the preferred alternative helps the public focus its comments during review of the NEPA document.

## **Q**

Q is the recurrence interval (in years) of a given flow event. The recurrence interval (sometimes called the return period) is based on the probability that the given event will be equaled or exceeded in any given year. For example, a Q1 event is the 1-year recurrence interval event, or the event that has a 100% probability of occurring in any given year. A Q2 event has a 50% probability, a Q50 event has a 2% probability, and a Q100 event has a 1% probability of occurring in any given year.

***Proposal***

The stage at which the NPS has a goal and is preparing to make a decision on one or more alternative means of accomplishing that goal. The goal can be a project, plan, policy, program, and so forth. The NEPA process begins when the effects can be meaningfully evaluated.

***Record of Decision (ROD)***

The document that is prepared to substantiate a decision based on an EIS. It includes a statement of the decision made, a detailed discussion of decision rationale, and the reasons for not adopting all mitigation measures analyzed, if applicable.

***Refugia***

An area that has escaped ecological changes occurring elsewhere and so provides a suitable habitat for species.

***Revegetation***

Plant stock that is germinated and grown in one location, and then planted at another site.

***Riparian***

Relating to, or living or located on the banks of a river or stream.

***Salmonid***

Of, belonging to, or characteristic of the family *Salmonidae*, which includes the salmon, trout, and whitefish.

***Scoping***

Internal NPS decision making on issues, alternatives, mitigation measures, the analysis boundary, appropriate level of documentation, lead and cooperating agency roles, available references and guidance, defining purpose and need, and so forth. External scoping is the early involvement of the interested and affected public.

***Shoulder Seasons***

The time periods between a recreational area's peak season and off-peak season, when the recreational area receives an intermediate level of use, typically occurring in fall and spring.

***Soffitt***

The underside of a structural component, such as a bridge.

***Special-status species***

For purposes of this EIS/EIR, any species listed or proposed for listing under the state or federal endangered species acts, or recognized as locally rare by recognized authorities.

***Tiering***

The use of broader, programmatic NEPA documents to discuss and analyze cumulative regional impacts and define policy direction, and the incorporation by reference of this material in subsequent narrower NEPA documents to avoid duplication and focus on issues "ripe for decision" in each case.

## **Glossary of Terms (continued)**

### ***Thalweg***

The line defining the lowest points along the length of a river bed or valley.

### ***Tributary***

A smaller river or stream that flows into a larger river or stream.

### ***Watershed***

The area from which water drains to a single point or body of water; also called drainage basin.

### ***Wetland***

An area that floods periodically, has waterlogged soils, or is covered with a relatively shallow layer of fresh or saltwater.





# Species List: Common and Scientific Names

Common Name	Scientific Name
Invertebrates	
California freshwater shrimp	<i>Syncaris pacifica</i>
Monarch butterfly	<i>Danaus plexippus</i>
Myrtle's silverspot butterfly	<i>Speyeria zerene myrtlaeae</i>
Ricksecker's water scavenger beetle	<i>Hydrochara rickseckeri</i>
San Francisco fork-tailed damselfly	<i>Ischnura gemina.</i>
silverspot butterfly	<i>Speyeria zerene myrtleae</i>
Fish	
coast range sculpin	<i>Cottus aleuticus</i>
coho salmon	<i>Oncorhynchus kisutch</i>
Pacific staghorn sculpin	<i>Leptocottus armatus</i>
prickly sculpin	<i>Cottus asper</i>
rifle sculpin	<i>Cottus gulosus</i>
Sacramento blackfish	<i>Orthodon microlepidotus</i>
Sacramento perch	<i>Archoplites interruptus</i>
Sacramento pikeminnow	<i>Ptchocheilus grandis</i>
starry flounder	<i>Platichthys stellatus</i>
steelhead trout	<i>Oncorhynchus mykiss</i>
striped bass	<i>Morone saxatilis</i>
threespine stickleback	<i>Gasterosteus aculeatus</i>
tidewater goby	<i>Eucyclogobius newberryi</i>
topsmelt	<i>Atherinops affinis</i>
yellowfin goby	<i>Acanthogobius flavimanus</i>
Amphibians and Reptiles	
California newts	<i>Taricha torosa</i>
California red-legged frog	<i>Rana aurora draytonii</i>
ensatina	<i>Ensatina eschscholtzi</i>

# Species List: Common and Scientific Names (continued)

Common Name	Scientific Name
foothill yellow-legged frog	<i>Rana boylei</i>
northern alligator lizard	<i>Elgaria coeruleus</i> ,
slender salamander	<i>Batrachoseps attenuatus</i>
western aquatic garter snake	<i>Thamnophis couchi aquaticus</i>
western fence lizard	<i>Sceloporus occidentalis</i>
western pond turtle	<i>Emys [Clemmys] marmorata</i>
western terrestrial garter snake	<i>Thamnophis elegans</i>
Birds	
American goldfinch	<i>Caruelis tristis</i>
American Peregrine Falcon	<i>Falco peregrinus anatum</i>
Brewer's blackbird	<i>Euphagus cyanocephalus</i>
California brown pelican	<i>Pelecanus occidentalis californicus</i>
northern spotted owl	<i>Strix occidentalis caurina</i>
song sparrow	<i>Melospiza melodia</i> ,
Swainson's thrush	<i>Catharus ustulatus</i>
Willow flycatcher	<i>Empidonax traillii</i>
Wilson's warbler	<i>Wilsonia pusilla</i>
yellow-bellied racer	<i>Coluber constrictor</i>
Mammals	
bobcat	<i>Lynx rufus</i>
brush rabbit	<i>Sylvilagus bachmani</i>
California giant salamander	<i>Dicamptoden ensatus</i>
California vole	<i>Microtis californicus</i>
Columbian black-tailed deer	<i>Odocoileus hemionus columbianus</i>
coyote	<i>Canis latrans</i>
deer mouse	<i>Peromyscus maniculatus</i>

# Species List: Common and Scientific Names (continued)

Common Name	Scientific Name
gray fox	<i>Urocyon cinereoargenteus</i>
roof rat	<i>Rattus rattus</i>
striped skunk	<i>Mephitis mephitis</i>
western gray squirrels	<i>Sciurus griseus</i>
western harvest mouse	<i>Reithrodontomys megalotis</i>
Plants	
annual bluegrass	<i>Poa annua</i>
annual fescues	<i>Vulpia</i> spp.
annual grasses	<i>Polypogon monspeliensis</i> , <i>Lolium perenne</i>
arroyo willow	<i>Salix lasiolepis</i>
Baltic rush	<i>Juncus balticus</i>
beach bur	<i>Ambrosia chamissonis</i>
beach layia	<i>Layia carnosa</i>
beach wild-rye	<i>L. pacificus</i>
black cottonwood	<i>Populus balsamifera</i>
blackberry	<i>R. ursinus</i> and <i>R. discolor</i>
blue wild rye	<i>Elymus glaucus</i>
Brazilian waterweed	<i>Egeria densa</i>
bull thistle	<i>Cirsium vulgare</i>
bulrush	<i>Scirpus</i> spp.
California bee plant	<i>Scrophularia californica</i>
California bottlebrush grass	<i>Elymus californicus</i>
California buckeye	<i>Aesculus californica</i>
cape ivy	<i>Delairea odorata</i> [ <i>Senecio mikanioides</i> ]
cattail	<i>Typha</i> spp.
clustered dock	<i>Rumex conglomeratus</i>

# Species List: Common and Scientific Names (continued)

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Common Name	Scientific Name
coast redwood	<i>Sequoia sempervirens</i>
cordgrass	<i>Spartina</i>
creeping bent	<i>Agrostis stolonifera</i>
creeping bent grass	<i>Agrostis stolonifera</i>
creeping wild-rye	<i>L. triticoides</i>
cut-leaved geranium	<i>Geranium dissectum</i>
dotted smartweed	<i>Polygonum punctatum</i>
dune grass	<i>Leymus mollis</i>
elderberry	<i>Sambucus</i> spp.
English ivy	<i>Hedera helix</i>
floating marsh pennywort	<i>Hydrocotyle ranunculoides</i>
glasswort	<i>Salicornia</i> spp.
hair grass	<i>Aira caryophyllea</i>
Harding grass	<i>Phalaris aquatica</i>
hedgehog dogtail	<i>Cynosurus echinatus</i>
hedgenettle	<i>Stachys ajugoides</i>
Himalayan blackberry	<i>Rubus discolor</i>
Kikuyu grass	<i>Pennisetum clandestinum</i>
Knotgrass	<i>Paspalum</i> spp.
Lobb's water-crowfoot	<i>Ranunculus lobbii</i>
Marin knotweed	<i>Polygonum marinense</i>
monkey flower	<i>Mimulus guttatus</i>
Monterey cypress	<i>Cupressus macrocarpa</i>
Monterey pine	<i>Pinus radiata</i>
morning glories	<i>Calystegia</i> spp.
Mugwort	<i>Artemesia douglasiana</i>

# Species List: Common and Scientific Names (continued)

Common Name	Scientific Name
Needle grass	<i>Nassella pulchra</i>
nettles	<i>Urtica dioica</i>
nodding semaphore grass	<i>Pleuropogon refractus</i>
ox-tongue	<i>Picris echioides</i>
panic veldt grass	<i>Ehrharta erecta</i>
pennyroyal	<i>Mentha pulegium</i>
pink sand verbena	<i>Abronia umbellata</i> ssp. <i>brevifolia</i>
plantain	<i>Plantago</i> spp.
Point Reyes bird's-beak	<i>Cordylanthus maritimus</i> var. <i>palustris</i>
Point Reyes lupine	<i>Lupinus tidestromii</i> var. <i>layneae</i>
poison hemlock	<i>Conium maculatum</i>
red alder	<i>Alnus rubra</i>
red elderberry	<i>Sambucus racemosa</i>
ripgut brome	<i>Bromus diandrus</i>
salt grass	<i>Distichlis spicata</i>
salt rush	<i>Juncus leseurii</i>
San Francisco spineflower	<i>Chorizanthe cuspidate</i>
San Francisco wallflower	<i>Erysimum franciscanum</i>
sea rocket	<i>Cakile maritime</i>
shore pine	<i>Pinus contorta</i> ssp. <i>contorta</i>
silverweed	<i>Potentilla anserina</i>
soft chess	<i>Bromus hordeaceus</i>
Sonoma alopecurus	<i>Alopecurus aequalis</i> var. <i>sonomensis</i>
spikerush	<i>Eleocharis macrostachya</i>
swamp bellflower	<i>Campanula californica</i>
tall cyperus	<i>Cyperus eragrostis</i>

## Species List: Common and Scientific Names (continued)

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Common Name	Scientific Name
tall fescue	<i>Festuca arundinaceae</i>
thimbleberry	<i>Rubus parviflorus</i>
three square rush	<i>Scirpus americanus</i>
Thurber's reed grass	<i>Calamagrostis crassiglumi</i>
water parsley	<i>Oenanthe sarmentosa</i>
water plantain	<i>Alisma plantago-aquatica</i>
yarrow	<i>Achillea millefolium</i>
yellow sand verbenas	<i>Ambrosia latifolia</i>
yellow willow	<i>S. lucida</i>

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Acronyms and Abbreviations

ADA	Americans with Disabilities Act	C-NC	Coastal Neighborhood Commercial/Mixed Use Zoning Designation
µ/m3	micrograms per cubic meter	CNDDDB	California Natural Diversity Database
5X Committee	Golden Gate National Recreation Area Historic Preservation Committee	CNEL	Community noise equivalent level
AB	Assembly Bill	CNPS	California Native Plant Society
ABAG	Association of Bay Area Governments	CO	Carbon monoxide
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act	C-OS	Coastal Open Space Zoning Designation
APE	area of potential effect	County	County of Marin
ARB	California Air Resources Board	Countywide Plan	Marin Countywide Plan
BAAQMD	Bay Area Air Quality Management District	CRLF	California red-legged frog
Big Lagoon Project	Wetland and Creek Restoration at Big Lagoon, Muir Beach, Marin County, California	C-SF	Coastal Single Family Zoning Designation
BMP	Best Management Practice	CTMP	Comprehensive Transportation Management Plan
CAA	Federal Clean Air Act	CWA	Clean Water Act
CAAA	Clean Air Act Amendments	CY	Cubic yards
CAAQS	California ambient air quality standard	dB	Decibel
C-AG	Coastal Agriculture Zoning Designation	DEIR	Draft Environmental Impact Report
Caltrans	California Department of Transportation	DEIS	Draft Environmental Impact Statement
CCC	California Coastal Commission	DFG	California Department of Fish and Game
CEQ	Council on Environmental Quality	DO	Dissolved oxygen
CEQA	California Environmental Quality Act	DPS	Distinct Population Segment
CESA	California Endangered Species Act	DTSC	California Department of Toxic Substances Control
CFR	Code of Federal Regulations	EA	Environmental Assessment
cfs	Cubic feet per second	EC	Electrical Conductivity
		EFH	Essential fish habitat
		ELJs	Engineered Log Jams

Acronyms and Abbreviations  
(Continued)

EO	Executive Order	LCP	Local Coastal Program
EPA	Environmental Protection Agency	Ldn	Day-night sound level
ESA	Federal Endangered Species Act	Leq	Equivalent continuous sound level
ESU	Evolutionary Significant Unit	Lmax	Maximum sound levels
FAF	Floodplain activation flows	Lmin	Minimum sound levels
FEMA	Federal Emergency Management Agency	LOS	Level of service
FHWA	Federal Highway Administration	LWD	Large woody debris
FIGR	Federated Indians of the Graton Rancheria	Lxx	Percentile-exceeded sound levels
FIRMs	Flood insurance rate maps	Manning’s <i>n</i>	<i>n</i>
FMMP	Farmland Mapping and Monitoring Program	MBCSD	Muir Beach Community Services District
FMP	Fire Management Plan	MBVFD	Muir Beach Volunteer Fire Department
fps	Feet per second	mg/l	Milligrams per liter
General Construction Permit	NPDES General Permit for Discharges of Storm Water Runoff Activity	MHHW	Mean higher high water
GGNRA	Golden Gate National Recreation Area	MMWD	Marin Municipal Water District
GMP	General Management Plan	MPM	Meyer-Peter and Muller
gpd	Gallons per day	MSCSD	Muir Beach Community Services District
HLA	Harding-Lawson and Associates	MSMAD	Marin-Sonoma Mosquito Abatement District
Hwy 1	Highway 1	MVCAC	Mosquito & Vector Control Association of California
I-580	U.S. Interstate 580	NAAQS	National ambient air quality standards
IPCC	Intergovernmental Panel on Climate Change	NEPA	National Environmental Policy Act
IPM	Integrated Pest Management	NFIP	National Flood Insurance Program
ITS	Intelligent Transportation System	<u>NGVD</u>	<u>National Geodetic Vertical Datum</u>
km	kilometer	NHPA	National Historic Preservation Act



Acronyms and Abbreviations  
(Continued)

NOAA Fisheries	National Oceanic and Atmospheric Administration’s National Marine Fisheries Service	SCAs	Stream and Creekside Conservation Areas
NOI	Notice of Intent	SFBAAB	San Francisco Bay Area Air Basin
NOP	Notice of Preparation	SFZC	San Francisco Zen Center
NOX	Oxides of nitrogen	SHPO	California Office of Historic Preservation
NPDES	National Pollutant Discharge Elimination System	SIP	State implementation plan
NPS	National Park Service	SWPPP	Stormwater pollution prevention plan
NRHP	National Register of Historic Places	SWRCB	State Water Resources Control Board
OS	Open Space Zoning Designation	TACs	Toxic air contaminants
PA	Programmatic Agreement	TCPs	Traditional cultural properties
PM10	Particulate matter 10 microns or less in diameter	TDS	Total Dissolved Solids
PM2.5	Particulate matter 2.5 microns or less in diameter	TIF	Transportation intercept facility
ppd	Pounds per day	tpy	Tons per year
ppm	parts per million	UBC	Uniform Building Code
PRBO	PRBO Conservation Science	UNESCO	United Nations Educational, Scientific, and Cultural Organization
PROPDEV-41	Marin County January 2006 Semi-Annual Proposed Development Survey	US-101	U.S. Highway 101
PSD	Prevention of Significant Deterioration	USACE	U.S. Army Corps of Engineers
PWA	Philip Williams & Associates, Ltd.	USFWS	U.S. Fish and Wildlife Service
Q	<u>Recurrence interval for storm events</u>	USGS	U.S. Geological Survey
ROD	Record of Decision	V/C	Volume to capacity
ROG	Reactive organic gases	WDR	Waste Discharge Requirements
RWQCB	Regional Water Quality Control Board		
SAM	Stable Channel Analytical Model		



# Index of Key Words

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