

Glossary



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Female bobolink

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accessibility	the state or quality of being easily approached or entered, particularly as it relates to complying with the Americans With Disabilities Act
accessible facilities	structures accessible for most people with disabilities without assistance; facilities that meet UFAS standards; ADA-accessible [e.g., parking lots, trails, pathways, ramps, picnic and camping areas, restrooms, boating facilities (docks, piers, gangways), fishing facilities, playgrounds, amphitheaters, exhibits, audiovisual programs, and wayside sites.]
aggregate	many parts considered together as a whole
agricultural land	nonforested land that is now or recently in orchards, pastures, crops, or other farm products
alternative	a reasonable way to fix an identified problem or satisfy a stated need [40 CFR 1500.2]
amphidromous fish	fish that can migrate from fresh water to the sea or the reverse, not only for breeding, but also regularly at other times during their life cycle
appropriate use	a proposed or existing use on a refuge that meets at least one of the following three conditions: <ol style="list-style-type: none"> 1. the use is a wildlife-dependent one; 2. the use contributes to fulfilling the refuge purpose(s), the System mission, or goals or objectives described in a refuge management plan approved after October 9, 1997, the date the National Wildlife Refuge System Improvement Act was signed into law; or 3. the use has been determined to be appropriate as specified in section 1.11 of the act.
approved acquisition boundary	a project boundary that the Director of the U.S. Fish and Wildlife Service approves upon completion of the planning and environmental compliance process. An approved acquisition boundary only designates those lands that the Service has authority to acquire or manage through various agreements. The approval of an acquisition boundary does not grant the Service jurisdiction or control over lands within the boundary, and it does not make lands within the refuge boundary part of the National Wildlife Refuge System. Lands do not become part of the System until the Service buys them or they are placed under an agreement that provides for their management as part of the System.
anadromous fish	from the Greek, literally “up-running”; fish that spend a large portion of their life cycle in the ocean and return to freshwater to breed
aquatic	growing in, living in, or dependent upon water
aquatic barrier	any obstruction to fish passage
aquifer	a formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs
area-sensitive species	species that require large areas of contiguous habitat
assemblage	in conservation biology, a predictable and particular collection of species within a biogeographic unit (e.g., ecoregion or habitat)
barrens	a colloquial name given to habitats with sparse vegetation or low agricultural productivity
basin	the land surrounding and draining into a water body

benthic	living at, in, or associated with structures on the bottom of a body of water
best management practices	land management practices that produce desired results; usually describing forestry or agricultural practices effective in reducing non-point source pollution, like reseeding skidder trails or not storing manure in a flood plain
biological diversity or biodiversity	the variety of life and its processes and includes the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur
biological integrity	biotic composition, structure, and functioning at genetic, organism, and community levels comparable with historic conditions, including the natural biological processes that shape genomes, organisms and communities
bog	a poorly drained area rich in plant residues, usually surrounded by an area of open water, and having characteristic flora; a type of peatland
breeding habitat	habitat used by migratory birds or other animals during the breeding season
buffer zones	land bordering and protecting critical habitats or water bodies by reducing runoff and nonpoint source pollution loading; areas created or sustained to lessen the negative effects of land development on animals, plants, and their habitats
candidate species	species for which we have sufficient information on file about their biological vulnerability and threats to propose listing them as threatened or endangered
catadromous fish	fish that spend most of their lives in fresh water, but migrate to sea to reproduce
categorical exclusion [CE, CX, CATEX, CATX]	pursuant to the National Environmental Policy Act (NEPA), a category of Federal agency actions that do not individually or cumulatively have a significant effect on the human environment [40 CFR 1508.4]
CFR	the Code of Federal Regulations
Challenge Grant Cost Share Program	a Service administered grant program that provides matching funds for projects supporting natural resource education, management, restoration, or protection on Service lands, other public lands, and private lands
citizen monitoring projects	projects coordinated locally to conduct environmental inventories; their data expand what agencies know, and are available to anyone interested
community	the locality in which a group of people resides and shares the same government
community type	a particular assemblage of plants and animals, named for its dominant characteristic
compatible use	“The term ‘compatible use’ means a wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Director, will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge.”—National Wildlife Refuge System Improvement Act of 1997 [Public Law 105-57; 111 Stat. 1253]
compatibility determination	a required determination for wildlife-dependent recreational uses or any other public uses of a refuge
Comprehensive Conservation Plan	mandated by the Improvement Act, a document that provides a description of the desired future conditions and long-range guidance for the project leader to accomplish purposes of the refuge system and the refuge. CCPs establish management direction to achieve refuge purposes. [P.L. 105-57; FWS Manual 602 FW 1.4]
conifer	a tree or shrub in the phylum Gymnospermae whose seeds are borne in woody cones. There are 500–600 species of living conifers
conservation	managing natural resources to prevent loss or degradation; includes preservation, restoration, and enhancement

conservation agreements	written agreements among two or more parties for the purpose of ensuring the survival and welfare of unlisted species of fish and wildlife or their habitats or to achieve other specified conservation goals. Participants voluntarily commit to specific actions that will remove or reduce threats to those species.
conservation easement	a legal agreement between a landowner and a land trust (e.g., a private, nonprofit conservation organization) or government agency that permanently limits the uses of a property to protect its conservation values. A non-possessory interest in real property owned by another imposing limitations or affirmative obligations with the purpose of returning or protecting the property's conservation values.
cool-season grass	introduced grass for crop and pastureland that grows in spring and fall and is dormant during hot summer months
cooperative agreement	a usually long-term habitat protection action, which can be modified by either party, in that no property rights are acquired. Lands under a cooperative agreement do not necessarily become part of the National Wildlife Refuge System
critical habitat	according to U.S. Federal law, the ecosystems upon which endangered and threatened species depend
cultural resource inventory	a professional study to locate and evaluate evidence of cultural resources within a defined geographic area; various levels of inventories may include background literature searches, comprehensive field examinations to identify all exposed physical manifestations of cultural resources, or sample inventories for projecting site distribution and density over a larger area. Evaluating identified cultural resources to determine their eligibility for the National Register follows the criteria in 36 CFR 60.4 (cf. FWS Manual 614 FW 1.7)
cultural resource overview	a comprehensive document prepared for a field office that discusses, among other things, project prehistory and cultural history, the nature and extent of known cultural resources, previous research, management objectives, resource management conflicts or issues, and a general statement of how program objectives should be met and conflicts resolved [An overview should reference or incorporate information from a field office's background or literature search described in section VIII of the Cultural Resource Management Handbook (FWS Manual 614 FW 1.7).]
database	a collection of data arranged for ease and speed of analysis and retrieval, usually computerized
dedicated open space	land to be held as open space forever
degradation	the loss of native species and processes due to human activities such that only certain components of the original biodiversity persist, often including significantly altered natural communities
designated wilderness area	an area designated by Congress as part of the National Wilderness Preservation System [FWS Manual 610 FW 1.5 (draft)]
diadromous	fish that migrate from freshwater to saltwater or the reverse; a generic term that includes anadromous, catadromous, and amphidromous fish
digitizing	the process of converting maps into geographically referenced electronic files for a geographic information system (GIS)
disturbance	any relatively discrete event in time that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment
division	an administrative unit of the refuge defined by a geographic feature, usually a river or other body of water

donation	a citizen or group may wish to give land or interests in land to the Service for the benefit of wildlife. Aside from the cost factor, these acquisitions are no different than any other means of land acquisition. Gifts and donations have the same planning requirements as purchases
drumlin	a ridge or oval hill with a smooth summit composed of material deposited by a glacier
easement	an agreement by which landowners give up or sell one of the rights on their property [e.g., landowners may donate rights-of-way across their properties to allow community members access to a river]. A non-possessory interest in real property owned by another imposing limitations or affirmative obligations with the purpose of returning or protecting the property's conservation values.
ecological processes	a complex mix of interactions among animals, plants, and their environment that ensures maintenance of an ecosystem's full range of biodiversity. Examples include population and predator-prey dynamics, pollination and seed dispersal, nutrient cycling, migration, and dispersal
ecoregion	a territory defined by a combination of biological, social, and geographic criteria, rather than geopolitical considerations; generally, a system of related, interconnected ecosystems
ecosystem	a natural community of organisms interacting with its physical environment, regarded as a unit
ecosystem service	a benefit or service provided free by an ecosystem or by the environment, such as clean water, flood mitigation, or groundwater recharge
ecotourism	visits to an area that maintains and preserves natural resources as a basis for promoting its economic growth and development
ecosystem approach	a way of looking at socioeconomic and environmental information based on the boundaries of ecosystems like watersheds, rather than on geopolitical boundaries
ecosystem-based management	an approach to making decisions based on the characteristics of the ecosystem in which a person or thing belongs; this concept considers interactions among the plants, animals, and physical characteristics of the environment in making decisions about land use or living resource issues
emergent wetland	wetlands dominated by erect, rooted, herbaceous plants
endangered species	a Federal- or State-listed protected species in danger of extinction throughout all or a significant portion of its range
endemic	a species or race native to a particular place and found only there
environmental education	curriculum-based education aimed at producing a citizenry that is knowledgeable about the biophysical environment and its associated problems, aware of how to help solve those problems, and motivated to work toward solving them
environmental health	the composition, structure, and functioning of soil, water, air, and other abiotic features comparable with historic conditions, including the natural abiotic processes that shape the environment
Environmental Assessment	(EA) a public document that discusses the purpose and need for an action, its alternatives, and provides sufficient evidence and analysis of its impacts to determine whether to prepare an environmental impact statement or a finding of no significant impact [40 CFR 1508.9]
Environmental Impact Statement	(EIS) a detailed, written analysis of the environmental impacts of a proposed action, adverse effects of the project that cannot be avoided, alternative courses of action, short-term uses of the environment versus the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources [40 CFR 1508.11]

estuaries	deepwater tidal habitats and adjacent tidal wetlands that are usually semi-enclosed by land but have open, partly obstructed, or sporadic access to the ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from land
estuarine wetlands	includes deepwater tidal habitats and adjacent tidal wetlands that are usually semi-enclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land
exemplary community type	an outstanding example of a particular community type
extinction	the termination of any lineage of organisms, from subspecies to species and higher taxonomic categories from genera to phyla. Extinction can be local, in which one or more populations of a species or other unit vanish but others survive elsewhere, or total (global), in which all the populations vanish
extirpated	status of a species or population that has completely vanished from a given area but that continues to exist in some other location
exotic species	a species that is not native to an area and has been introduced intentionally or unintentionally by humans; not all exotics become successfully established
Federal land	public land owned by the Federal Government, including national forests, national parks, and national wildlife refuges
Federal-listed species	a species listed either as endangered, threatened, or a species at risk (formerly, a “candidate species”) under the Endangered Species Act of 1973, as amended
Federal-recognized Native American Tribe	A group of Native American Indians recognized by the United States as an Indian Tribe. This recognition establishes a tribe as an entity with the capacity to engage in government-to-government relations with the United States, or individual states, and also as one eligible to receive federal services. Federal recognition is established as a result of historical and continued existence of a tribal government; by Executive Order or Legislation; and through the federal recognition process recently established by Congress.
fee-title acquisition	the acquisition of most or all of the rights to a tract of land; a total transfer of property rights with the formal conveyance of a title. While a fee title acquisition involves most rights to a property, certain rights may be reserved or not purchased, including water rights, mineral rights, or use reservation (e.g., the ability to continue using the land for a specified time period, such as the remainder of the owner’s life).
Finding of No Significant Impact (FONSI)	supported by an environmental assessment, a document that briefly presents why a Federal action will have no significant effect on the human environment, and for which an environmental impact statement, therefore, will not be prepared [40 CFR 1508.13]
fire regime	the characteristic frequency, intensity, and spatial distribution of natural fires within a given ecoregion or habitat
fish passage project	providing a safe passage for fish around a barrier in the upstream or downstream direction
floodplain	flat or nearly flat land that may be submerged by floodwaters; a plain built up or in the process of being built up by stream deposition
forbs	flowering plants (excluding grasses, sedges, and rushes) that do not have a woody stem and die back to the ground at the end of the growing season
forest association	the community described by a group of dominant plant (tree) species occurring together, such as spruce-fir or northern hardwoods
forest land	land dominated by trees

forested wetlands	wetlands dominated by trees
fragmentation	the disruption of extensive habitats into isolated and small patches. Fragmentation has two negative components for biota: the loss of total habitat area; and, the creation of smaller, more isolated patches of habitat remaining.
GAP analysis	the use of various remote sensing data sets to build overlaid sets of maps of various parameters (e.g., vegetation, soils, protected areas, species distributions) to identify spatial gaps in species protection and management programs
geographic information system	(GIS) a computerized system to compile, store, analyze and display geographically referenced information [e.g., GIS can overlay multiple sets of information on the distribution of a variety of biological and physical features.]
grant agreement	the legal instrument used when the principal purpose of the transaction is the transfer of money, property, services, or anything of value to a recipient in order to accomplish a public purpose of support or stimulation authorized by Federal statute and substantial involvement between the Service and the recipient is <i>not</i> anticipated
grassland	a habitat type with landscapes dominated by grasses
grassroots conservation organization	any group of concerned citizens who act together to address a conservation need
groundwater	water in the ground that is in the zone of saturation, from which wells and springs and groundwater runoff are supplied
guild	a group of organisms, not necessarily taxonomically related, that are ecologically similar in characteristics such as diet, behavior, or microhabitat preference, or with respect to their ecological role in general
habitat block	a landscape-level variable that assesses the number and extent of blocks of contiguous habitat, taking into account size requirements for populations and ecosystems to function naturally. It is measured here by a habitat-dependent and ecoregion size-dependent system
habitat fragmentation	the breaking up of a specific habitat into smaller, unconnected areas. A habitat area that is too small may not provide enough space to maintain a breeding population of the species in question.
habitat conservation	protecting an animal or plant habitat to ensure that the use of that habitat by the animal or plant is not altered or reduced
habitat	the place where a particular type of plant or animal lives. An organism's habitat must provide all of the basic requirements for life, and should be free of harmful contaminants.
historic conditions	the composition, structure and functioning of ecosystems resulting from natural processes that we believe, based on sound professional judgment, were present prior to substantial human-related changes to the landscape
hydrologic or flow regime	characteristic fluctuations in river flows
hydrology	the science of waters of the earth: their occurrences, distributions, and circulations; their physical and chemical properties; and their reactions with the environment, including living beings
important fish areas	the aquatic areas identified by private organizations, local, state, and federal agencies that meet the purposes of the Conte Act
impoundment	a body of water, such as a pond, confined by a dam, dike, floodgate, or other barrier, that is used to collect and store water for future use
indicator species	a species used as a gauge for the condition of a particular habitat, community, or ecosystem.

indigenous	native to an area
indigenous species	a species that, other than as a result of an introduction, historically occurred or currently occurs in a particular ecosystem
informed consent	“the grudging willingness of opponents to go along with a course of action that they actually oppose.”—Bleiker
interjurisdictional fish	populations of fish that are managed by two or more States or national or tribal governments because of the scope of their geographic distributions or migrations
interpretive facilities	structures that provide information about an event, place, or thing by a variety of means, including printed, audiovisual, or multimedia materials [e.g., kiosks that offer printed materials and audiovisuals, signs, and trail heads.]
interpretive materials	any tool used to provide or clarify information, explain events or things, or increase awareness and understanding of the events or things [e.g., printed materials like brochures, maps or curriculum materials; audio/visual materials like video and audio tapes, films, or slides; and, interactive multimedia materials, CD-ROM or other computer technology.]
interpretive materials projects	any cooperative venture that combines financial and staff resources to design, develop, and use tools for increasing the awareness and understanding of events or things related to a refuge
introduced invasive species	non-native species that have been introduced into an area and, because of their aggressive growth and lack of natural predators, displace native species
invasive species	an alien species whose introduction causes or is likely to cause economic or environmental harm or harm to human health
invertebrate	any animal lacking a backbone or bony segment that encloses the central nerve cord
issue	any unsettled matter that requires a management decision [e.g., a Service initiative, an opportunity, a management problem, a threat to the resources of the unit, a conflict in uses, a public concern, or the presence of an undesirable resource condition]. A CCP should document, describe, and analyze issues even if they cannot be resolved during the planning process (FWS Manual 602 FW 1.4).]
kettle hole	a generally circular hollow or depression in an <i>outwash plain</i> or <i>moraine</i> , believed to have formed where a large block of subsurface ice has melted
keystone species	species that are critically important for maintaining ecological processes or the diversity of their ecosystems
lacustrine wetlands	includes wetlands and deepwater habitats with all of the following characteristics. <ol style="list-style-type: none"> 1. situated in a topographic depression or a dammed river channel; 2. lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30% areal coverage; and 3. total area exceeds eight ha (20 acres)
Land Protection Plan (LPP)	a document that identifies and prioritizes lands for potential Service acquisition from a willing seller, and also describes other methods of providing protection. Landowners within project boundaries will find this document, that is released with environmental assessments, most useful.
land trusts	organizations dedicated to conserving land by purchase, donation, or conservation easement from landowners
landform	the physical shape of the land reflecting geologic structure and processes of geomorphology that have sculpted the structure
landscape	an aggregate of landforms, together with its biological communities

late-successional	species, assemblages, structures, and processes associated with mature natural communities that have not experienced significant disturbance for a long time
limiting factor	an environmental limitation that prevents further population growth
limits of acceptable change	a planning and management framework for establishing and maintaining acceptable and appropriate environmental and social conditions in recreation settings
local land	public land owned by local governments, including community or county parks or municipal watersheds
local agencies	generally, municipal governments, regional planning commissions, or conservation groups
long-term protection	mechanisms like fee title acquisition, conservation easements, or binding agreements with landowners that ensure land use and land management practices will remain compatible with maintaining species populations over the long term
macroinvertebrates	invertebrates large enough to be seen with the naked eye (e.g., most aquatic insects, snails, and amphipods)
management alternative	a set of objectives and the strategies needed to accomplish each objective [FWS Manual 602 FW 1.4]
management plan	a plan that guides future land management practices on a tract.
management strategy	a general approach to meeting unit objectives. A strategy may be broad, or it may be detailed enough to guide implementation through specific actions, tasks, and projects (FWS Manual 602 FW 1.4).
mesic soil	sandy-to-clay loams containing moisture retentive organic matter; well drained (no standing matter)
migratory nongame birds of management concern	species of nongame birds that (a) are believed to have undergone significant population declines; (b) have small or restricted populations; or (c) are dependent upon restricted or vulnerable habitats
mission statement	a succinct statement of the purpose for which the unit was established; its reason for being
mitigation	actions to compensate for the negative effects of a particular project [e.g., wetland mitigation usually restores or enhances a previously damaged wetland or creates a new wetland.]
moraine	a mass or ridge of earth scraped up by ice and deposited at the edge or end of a glacier
National Environmental Policy Act of 1969 (NEPA)	requires all Federal agencies to examine the environmental impacts of their actions, incorporate environmental information, and use public participation in planning and implementing environmental actions [Federal agencies must integrate NEPA with other planning requirements, and prepare appropriate NEPA documents to facilitate better environmental decision-making (40 CFR 1500).]
National Wildlife Refuge Complex (Complex)	an internal Service administrative linking of refuge units closely related by their purposes, goals, ecosystem, or geopolitical boundaries
National Wildlife Refuge System (System)	all lands and waters and interests therein administered by the Service as wildlife refuges, wildlife ranges, wildlife management areas, waterfowl production areas, and other areas for the protection and conservation of fish and wildlife, including those that are threatened with extinction
native	a species that, other than as a result of an introduction, historically occurred or currently occurs in a particular ecosystem
native plant	a plant that has grown in the region since the last glaciation, and occurred before European settlement

natural disturbance event	any natural event that significantly alters the structure, composition, or dynamics of a natural community: e.g., floods, fires, and storms
natural range of variation	a characteristic range of levels, intensities, and periodicities associated with disturbances, population levels, or frequency in undisturbed habitats or communities
Neotropical migrant	birds, bats, or invertebrates that seasonally migrate between the Nearctic and Neotropics
non-consumptive, wildlife-oriented recreation	wildlife observation and photography and environmental education and interpretation
non-native species	See “exotic species.”
non-point source pollution	a diffuse form of water quality degradation in which wastes are not released at one specific, identifiable point but from a number of points that are spread out and difficult to identify and control
nonforested wetlands	wetlands dominated by shrubs or emergent vegetation
nonpoint source	a diffuse form of water quality degradation produced by erosion of land that causes sedimentation of streams, eutrophication from nutrients and pesticides used in agricultural and silvicultural practices, and acid rain resulting from burning fuels that contain sulfur
Notice of Intent	(NOI) an announcement we publish in the Federal Register that we will prepare and review an environmental impact statement [40 CFR 1508.22]
obligate species	a species that must have access to a particular habitat type to persist
occurrence site	a discrete area where a population of a rare species lives or a rare plant community type grows
old fields	areas formerly cultivated or grazed, where woody vegetation has begun to invade
outdoor education project	any cooperative venture that combines financial and staff resources to develop outdoor education activities like labs, field trips, surveys, monitoring, or sampling
outdoor education	educational activities that take place in an outdoor setting
outwash plain	the plain formed by deposits from a stream or river originating from the melting of glacial ice that are distributed over a considerable area; generally coarser, heavier material is deposited nearer the ice and finer material carried further away
palustrine wetlands	includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0 percent
Partners for Wildlife Program	a voluntary, cooperative habitat restoration program among the Service, other government agencies, public and private organizations, and private landowners to improve and protect fish and wildlife habitat on private land while leaving it in private ownership
partnership	a contract or agreement among two or more individuals, groups of individuals, organizations, or agencies, in which each agrees to furnish a part of the capital or some service in kind (e.g., labor) for a mutually beneficial enterprise
payment in lieu of taxes	see Revenue Sharing Act of 1935, Chapter One, Legal Context
pelagic	living in the water column, well above the bottom and some distance from land, as do oceanic fish or birds (contrast <i>demersal</i> and <i>benthic</i>)
phytoplankton	the ensemble of tiny plants that float or drift in marine waters. These tiny plants can produce such dense blooms in the Gulf of Maine that they turn our waters green. Phytoplankton are the base of the food chain on which ultimately most shellfish, fish, birds, and marine mammals depend (the exceptions being those that feed mostly on detritus from benthic plants). (See also <i>Zooplankton</i> .)

point source	a source of pollution that involves discharge of waste from an identifiable point, such as a smokestack or sewage-treatment plant
population monitoring	assessing the characteristics of populations to ascertain their status and establish trends on their abundance, condition, distribution, or other characteristics
prescribed fire	the application of fire to wildland fuels, either by natural or intentional ignition, to achieve identified land use objectives [FWS Manual 621 FW 1.7]
priority general public use	a compatible wildlife dependent recreational use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation
private land	land owned by a private individual or group or non-government organization
private organization	any non-government organization
proposed wilderness	an area of the Refuge System that the Secretary of the Interior has recommended to the President for inclusion in the National Wilderness Preservation System
protection	mechanisms like fee title acquisition, conservation easements, or binding agreements with landowners that ensure land use and land management practices will remain compatible with maintaining species populations at a site
public	individuals, organizations, and non-government groups; officials of Federal, State, and local government agencies; Native American tribes, and foreign nations
public involvement	offering an opportunity to interested individuals and organizations whom our actions or policies may affect to become informed; soliciting their opinions. We thoroughly study public input, and give it thoughtful consideration in shaping decisions about managing refuges.
public involvement plan	long-term guidance for involving the public in the comprehensive planning process
public land	land owned by the local, State, or Federal Government
rare species	species identified for special management emphasis because of their uncommon occurrence
rare community types	plant community types classified as rare by any State program; includes exemplary community types
recharge	refers to water entering an underground aquifer through faults, fractures, or direct absorption
Record of Decision	(ROD) a concise public record of a decision by a Federal agency pursuant to NEPA. A ROD includes <ul style="list-style-type: none"> ■ the decision; ■ all the alternatives considered; ■ the environmentally preferable alternative; ■ a summary of monitoring and enforcement, where applicable, for any mitigation; and, ■ whether all practical means have been adopted to avoid or minimize environmental harm from the alternative selected (or if not, why not)
refuge goals	“...descriptive, open-ended, and often broad statements of desired future conditions that convey a purpose but do not define measurable units.”—Writing Refuge Management Goals and Objectives: A Handbook
refuge purposes	“The terms ‘purposes of the refuge’ and ‘purposes of each refuge’ mean the purposes specified in or derived from the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, refuge unit, or refuge subunit.”—National Wildlife Refuge System Improvement Act of 1997

refuge lands	lands in which the Service holds full interest in fee title or partial interest like an easement
relatively intact	the conservation status category indicating the least possible disruption of ecosystem processes. Natural communities are largely intact, with species and ecosystem processes occurring within their natural ranges of variation.
relatively stable	the conservation status category between <i>vulnerable</i> and <i>relatively intact</i> in which extensive areas of intact habitat remain, but local species declines and disruptions of ecological processes have occurred
restoration	management of a disturbed or degraded habitat that results in the recovery of its original state; such as reestablishing habitat for native plants and animals
restoration ecology	the process of using ecological principles and experience to return a degraded ecological system to its former or original state
riparian	referring to the interface between freshwater habitats and the terrestrial landscape
riparian agricultural land	agricultural land along a stream or river
riparian forested land	forested land along a stream or river
riparian habitat	habitat along the banks of a stream or river
riverine	within the active channel of a river or stream
riverine wetlands	generally, all the wetlands and deepwater habitats occurring within a freshwater river channel not dominated by trees, shrubs, or persistent emergents
runoff	water from rain, melted snow, or agricultural or landscape irrigation that flows over a land surface into a water body
scale	the magnitude of a region or process. Refers to both spatial size—for example, a (relatively small-scale) patch or a (relatively large-scale) landscape; and a temporal rate—for example, (relatively rapid) ecological succession or (relatively slow) evolutionary speciation
Service presence	Service programs and facilities that it directs or shares with other organizations; public awareness of the Service as a sole or cooperative provider of programs and facilities
shrublands	habitats dominated by various species of shrubs
site improvement	any activity that changes the condition of an existing site to better interpret events, places, or things related to a refuge [e.g., improving safety and access, replacing non-native with native plants, refurbishing footbridges and trailways, and renovating or expanding exhibits.]
source population	a population in a high-quality habitat where the birth rate greatly exceeds the death rate, and the excess individuals emigrate
special focus area	an area of high biological value. We normally direct most of our resources to special focus areas that were delineated because of <ol style="list-style-type: none"> 1. the presence of Federal-listed endangered and threatened species, species at risk (formerly, “candidate species”), rare species, concentrations of migrating or wintering waterfowl, or shorebird stopover habitat; 2. their importance as migrant landbird stopover or breeding habitat; 3. the presence of unique or rare communities; or 4. the presence of important fish habitat
species assemblage	the combination of particular species that occur together in a specific location and have a reasonable opportunity to interact with one another

species at risk	a species being considered for Federal listing as threatened or endangered (formerly, a “candidate species”)
species of concern	species not Federal-listed as threatened or endangered, but about which we or our partners are concerned
species diversity	usually synonymous with “species richness,” but may also include the proportional distribution of species
species richness	a simple measure of species diversity calculated as the total number of species in a habitat or community
State agencies	natural resource agencies of State governments
State land	State-owned public land
State-listed species	see “Federal-listed species”
step-down management plan	a plan for dealing with specific refuge management subjects, strategies, and schedules, e.g., cropland, wilderness, and fire [FWS Manual 602 FW 1.4]
stopover habitat	habitat where birds rest and feed during migration
strategy	a specific action, tool, technique, or combination of actions, tools, and techniques for meeting unit objectives
succession	the natural, sequential change of species composition of a community in a given area
surface water	all waters whose surface is naturally exposed to the atmosphere, or wells or other collectors directly influenced by surface water
sustainable development	the attempts to meet economic objectives in ways that do not degrade the underlying environmental support system. Note that there is considerable debate over the meaning of this term...we define it as “human activities conducted in a manner that respects the intrinsic value of the natural world, the role of the natural world in human wellbeing, and the need for humans to live on the income from nature’s capital rather than the capital itself.”
telecommunications	communicating via electronic technology
telecommunications project	any cooperative venture that combines financial and staff resources to develop and use computer-based applications for exchanging information about a watershed with others
terrestrial	living on land
threatened species	a Federal-listed, protected species that is likely to become an endangered species in all or a significant portion of its range
tiering	incorporating by reference the general discussions of broad topics in environmental impact statements into narrower statements of environmental analysis by focusing on specific issues [40 CFR 1508.28]
tributary	a stream or river that flows into a larger stream, river, or lake, feeding it water
trust resource	a resource that the Government holds in trust for the people through law or administrative act. A Federal trust resource is one for which responsibility is given wholly or in part to the Federal Government by law or administrative act. Generally, Federal trust resources are nationally or internationally important no matter where they occur; like endangered species or migratory birds and fish that regularly move across state lines. They also include cultural resources protected by Federal historic preservation laws, and nationally important or threatened habitats, notably wetlands, navigable waters, and public lands like state parks and national wildlife refuges.
turbidity	refers to the extent to which light penetrates a body of water. Turbid waters are those that do not generally support net growth of photosynthetic organisms
unfragmented habitat	large, unbroken blocks of a particular type of habitat

unit objective	desired conditions that must be accomplished to achieve a desired outcome. Objectives are the basis for determining management strategies, monitoring refuge accomplishments, and measuring their success. Objectives should be attainable, time-specific, and stated quantitatively or qualitatively (FWS Manual 602 FW 1.4).
upland	dry ground (i.e., other than wetlands)
upland meadow or pasture	upland pastures are areas maintained in grass for livestock grazing; upland meadows are hay production areas. Meadows may occur naturally in tidal marshes and inland flooded river valleys or, more frequently, at upland sites where vegetation has been cleared and grasses planted. Eventually, meadows will revert to old fields and forest if they are not mowed, grazed, or burned. Grasses in both managed meadows and pastures usually are similar, but pasture herbs often differ because of selective grazing.
upwelling	a process whereby nutrient-rich waters from the ocean depths rise to the surface; it commonly occurs along continental coastlines
urban runoff	water from rain, melted snow, or landscape irrigation flowing from city streets and domestic or commercial properties that may carry pollutants into a sewer system or water body
vernal pool	depressions holding water for a temporary period, usually in the spring, and in which various amphibians lay eggs
vision statement	a concise statement of what the unit could achieve in the next 10 to 15 years
warm-season grass	native grass that grows the most during summer; when cool-season grasses are dormant
watchable wildlife	all wildlife is watchable. A watchable wildlife program is one that helps maintain viable populations of all native fish and wildlife species by building an active, well-informed constituency for conservation. Watchable wildlife programs are tools for meeting wildlife conservation goals while at the same time fulfilling public demand for wildlife-dependent recreational activities (other than sport hunting, sport fishing, or trapping).
watershed	the geographic area within which water drains into a particular river, stream, or body of water. A watershed includes both the land and the body of water into which the land drains.
well protected	in CCP analysis, a rare species or community type is considered well protected if 75 percent or more of its occurrence sites are on dedicated open space
wet meadows	meadows located in moist, low-lying areas, often dominated by large colonies of reeds or grasses. Saltmarsh meadows are subject to daily coastal tides.
wetlands	lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. These areas are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted to life in saturated soil conditions.
wilderness study areas	lands and waters identified by inventory as meeting the definition of wilderness and being evaluated for a recommendation they be included in the Wilderness System. A wilderness study area must meet these criteria: <ol style="list-style-type: none"> 1. generally appears to have been affected primarily by the forces of nature, with the imprint of human substantially unnoticeable; 2. has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3. has at least 5,000 contiguous, roadless acres, or sufficient size to make practicable its preservation and use in an unimpaired condition [FWS Manual 610 FW 1.5 (draft)].

wildfire	a free-burning fire requiring a suppression response; all fire other than prescribed fire that occurs on wildlands [FWS Manual 621 FW 1.7].
wildland fire	every wildland fire is either a wildfire or a prescribed fire [FWS Manual 621 FW 1.3].
wildlife-dependent recreational use	a use of a national wildlife refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation (National Wildlife Refuge System Administration Act of 1966).
wildlife management	manipulating wildlife populations, either directly by regulating the numbers, ages, and sex ratios harvested, or indirectly by providing favorable habitat conditions and alleviating limiting factors.
wildlife-oriented recreation	recreational activities in which wildlife is the focus of the experience. “The terms ‘wildlife-dependent recreation’ and ‘wildlife dependent recreational use’ mean a use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation.”—National Wildlife Refuge System Improvement Act of 1997].
working landscape	the rural landscape used for agriculture, forestry, or fishing all contribute to the working landscape.