



Appendix H

Glossary of Terms, Phrases, Abbreviations, and Acronyms

Appendix A
Appropriate Use Findings

Appendix B
Compatibility Determinations

Appendix C
Implementation

Appendix D
Wilderness Review

Appendix E
Biological Resources of Concern

Appendix F
Statement of Compliance

Appendix G
Integrated Pest Management

**Appendix H
Glossary**

Appendix I
Contributors

Appendix J
Acquisition History

Appendix K
Public Involvement

Appendix L
Hydrological Modeling

Appendix M
References

Appendix N
List of Refuge Species

Appendix O
Wildland Fire Management Plan

Appendix P
Maps

Appendix H. Glossary of Terms, Phrases, Abbreviations, and Acronyms

H.1 Acronyms and Abbreviations

AAR	After Action Review
ABC	American Bird Conservancy
ADA	Americans with Disabilities Act
Administration Act	National Wildlife Refuge System Administration Act
AHM	Adaptive harvest management
a.i.	Active ingredient
AMR	Appropriate management response
ARPA	Archaeological Resources Protection Act
ARRA	American Recovery and Reinvestment Act
ARS	Agricultural Research Service
ATSDR	Agency for Toxic Substances and Disease Registry
ATV	All-terrain vehicle
BAF	Bioaccumulation factors
BCC	Birds of Conservation Concern
BCF	Bioconcentration factors
BCR	Bird Conservation Region
BI	Burning Index
BIDEH	Biological Integrity, Diversity, and Environmental Health
BMC	Birds of Management Concern
BMPs	Best management practice(s)
BPA	Bonneville Power Administration
<i>B.t.i.</i>	<i>Bacillus thuringiensis var. israelensis</i>
CCP	Comprehensive conservation plan
CD	Compatibility determination
CDL	Commercial Driver's License
CEQ	White House Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cfs	Cubic feet per second
CIG	Climate Impacts Group (University of Washington)
CO	Carbon dioxide
COA	Conservation Opportunity Areas
CWS	Clean Water Services
DBH	Diameter at breast height
DCP	Disease contingency plan
DEM	Digital elevation model
DEQ	Department of Environmental Quality (Oregon)
DSL	Department of State Lands
DSM	Division of Smoke Management
EA	Environmental assessment
EDRR	Early detection and rapid response
EEC	Estimated environmental concentration

EMDS	Ecosystem Management Decision Support
E.O.	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESR	Emergency Stabilization and Rehabilitation
ESU	Evolutionarily Significant Unit
FAO	Food and Agriculture Organization
FCR	Fire-cracked rock
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FmHA	Farmers Home Administration
FMP	Fire Management Plan
FMU	Fire Management Unit
GBADC	Game Birds Above Desired Condition
GBBDC	Gamebirds Below Desired Condition
GHGs	Greenhouse gases
GIS	Geographic information system
GLO	General Land Office
GPS	Global positioning system
GUS	Groundwater ubiquity score
HACCP	Hazard Analysis and Critical Control Points
HAP	Hazardous air pollutants
HAR	Height above river
HHS	Health and Human Services
IBA	Important Bird Area
IC	Incident commander
IFQS	Interagency Fire Qualification System
Improvement Act	National Wildlife Refuge System Improvement Act of 1997
IPCC	Intergovernmental Panel on Climate Change
IPM	Integrated pest management
IQCS	Incident Qualification and Certification System
IRPG	Incident Response Pocket Guide
KFF	Ken Foster Farm
LCC	Landscape Conservation Cooperative
LCP	Land Conservation Plan
LEED	Leadership in Energy and Environmental Design
LiDAR	Light Detection and Ranging
LOC	Level of Concern
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest Observed Effect Level
MIST	Minimum impact suppression tactics
MOA	Memorandum of agreement
MOU	Memorandum of understanding
mph	Miles per hour
MSDS	Material Safety Data Sheet
MSL	Mean sea level
MYA	Million years ago
NAAEE	North American Association for Environmental Education
NAGPRA	Native American Graves Repatriation Act
NAS	National Audubon Society

NAWMP	North American Waterfowl Management Plan
NBC	National Business Center
NEPA	National Environmental Policy Act
NFDRS	National Fire Danger Rating System
NGO	Nongovernmental organization
NH ₃	Ammonia
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NOAA	National Oceanic and Atmospheric Administration
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
NO _x	Nitrogen oxides
NRHP	National Register of Historic Places
NWCG	National Wildfire Coordinating Group
OCCRI	Oregon Climate Change Research Institute
OCS	Oregon Conservation Strategy
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
OPRD	Oregon Parks and Recreation Department
OSHA	Occupational Safety and Health Administration
Pb	Lead
PCJV	Pacific Coast Joint Venture
PFC	Pacific Flyway Council
PIF	Partners in Flight
PM _{2.5}	Particulate matter less than or equal to 2.5 micrometers
PM ₁₀	Particulate matter less than or equal to 10 micrometers
ppb	parts per billion
PPE	Personal protective equipment
ppm	parts per million
PUP	Pesticide Use Proposal
PUPS	Pesticide Use Proposal System
REI	Restricted entry interval
RMIS	Refuge Management Information System
ROCs	Resource(s) of Concern
RONs	Refuge Operating Needs System
RQ	Risk quotient
RV	Recreational vehicle
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SARA	Superfund Amendments and Reauthorization Act
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SDTF	Spray Drift Task Force
Service	U.S. Fish and Wildlife Service (also USFWS)
SHPO	State Historic Preservation Office
SO ₂	Sulfur dioxide
SUP	Special Use Permit
SWCA	SWCA Environmental Consultants
T/E	Threatened and endangered species

TMDL	Total maximum daily load
TRWC	Tualatin River Watershed Council
TSCA	Toxic Substances Control Act
TVFR	Tualatin Valley Fire and Rescue
TVID	Tualatin Valley Irrigation District
TWA	Time-weighted-average
U.S.C.	United States Code
USDA APHIS-PPQ	U.S. Department of Agriculture—Animal Plant Health Inspection Service, Plant Protection and Quarantine
USDOJ	U.S. Department Of Interior
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGCRP	United States Global Change Research Program
USGS	U.S. Geological Survey
USHCN	United States Historical Climatology Network
VOC	Volatile organic compounds
WID	Wapato Improvement District
YCPA	Yamhill County Public Health
YMCA	Young Men’s Christian Association

H.2 Glossary

Accessible. Without fences or vegetative barriers (tall, dense vegetation) at its margins.

Adaptive management. “The rigorous application of management, research, and monitoring to gain information and experience necessary to assess and modify management activities. A process that uses feedback from refuge research and monitoring and evaluation of management actions to support or modify objectives and strategies at all planning levels” ([620 FW 1](#)).

A “... decision process that promotes flexible decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps adjust policies or operations as part of an iterative learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. It is not a ‘trial and error’ process, but rather emphasizes learning while doing. Adaptive management does not represent an end in itself, but rather a means to more effective decisions and enhanced benefits. Its true measure is in how well it helps meet environmental, social, and economic goals; increases scientific knowledge; and reduces tensions among stakeholders” ([522 DM 1](#)).

Alternative. Different sets of objectives and strategies or means of achieving refuge purposes and goals, helping fulfill the National Wildlife Refuge System (Refuge System) mission, and resolving issues ([602 FW 1.6](#)). The “no action” alternative is current refuge management, while the “action” alternatives are all other alternatives.

Anadromous fish. Fish that are born in fresh water, migrate to the ocean to grow into adults, and return to fresh water to spawn.

Appropriate use. “A proposed or existing use on a refuge that meets at least one of the following four conditions.

- (1) The use is a wildlife-dependent recreational use as identified in the Improvement Act.
- (2) The use contributes to fulfilling the refuge purpose(s), the Refuge System mission, or goals or objectives described in a refuge management plan approved after October 9, 1997, the date the Improvement Act was signed into law.
- (3) The use involves the take of fish and wildlife under State regulations.
- (4) The use has been found to be appropriate as specified in section 1.11” ([603 FW 1](#)).

Approved Acquisition Boundary. National wildlife refuge boundary approved by the U.S. Fish and Wildlife Service director for potential acquisition of lands by the Service.

Approved Refuge Boundary. A national wildlife refuge boundary approved by the national or regional U.S. Fish and Wildlife Service (USFWS) director. Within this boundary, the Service may negotiate with landowners to acquire lands not already owned by the Service.

Archaeology. The scientific study of material evidence remaining from past human life and culture.

Benefiting resources. Those species, species groups, or resources expected to benefit from actions taken for a Resource of Concern.

Big Six. Wildlife-dependent recreational uses under Refuge System Improvement Act. The big sixes uses are hunting, fishing, wildlife observation, photography, and environmental education and interpretation.

Birds of Conservation Concern. A category assembled by the USFWS Division of Migratory Birds identifying the migratory and nonmigratory species (beyond those already designated as federally threatened or endangered) that represent the division’s highest conservation priorities.

Biological Diversity (also Biodiversity). The variety of life and its processes, including the variety of living organisms, the genetic differences among them, and communities and ecosystems in which they occur ([601 FW 3](#)). The Refuge System’s focus is on indigenous species, biotic communities, and ecological processes.

Biological integrity. Biotic composition, structure, and functioning at genetic, organism, and community levels comparable with historical conditions, including the natural biological processes that shape genomes, organisms, and communities ([601 FW 3](#)).

Candidate species. Plant or animal species for which USFWS or NOAA Fisheries has on file sufficient information on biological vulnerability and threats to support a proposal to list as endangered or threatened ([USFWS Endangered Species Glossary](#)).

Categorical exclusion. A category of actions that do not individually or cumulatively have a significant effect on the human environment and have been found to have no such effect in procedures adopted by a Federal agency pursuant to the National Environmental Policy Act (NEPA) ([40 CFR 1508.4](#)).

Climate change. A “... change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use” (IPCC 2008).

Compatible use. 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” ([602 FW 3](#)).

Compatibility Determination. A written determination signed and dated by the refuge manager and regional chief signifying that a proposed or existing use of a national wildlife refuge is a compatible use or is not a compatible use. The director makes this delegation through the Regional Direction ([603 FW 2](#)).

Comprehensive Conservation Plan (CCP). A document that describes the desired future conditions of a refuge or planning unit and provides long-range guidance and management direction to achieve the purpose(s) of the refuge; helps fulfill the mission of the Refuge System; maintains and, where appropriate, restores the biological integrity, diversity, and environmental health of each refuge and the Refuge System; helps achieve the goals of the National Wilderness Preservation System, if appropriate; and meets other mandates (USFWS Habitat Management Planning Policy, [602 FW 1.4](#)).

Concern. See Issue.

Connectivity. The arrangement of habitats that allows organisms and ecological processes to move across the landscape; patches of similar habitats are either close together or linked by corridors of appropriate vegetation. The opposite of **fragmentation**.

Conservation Targets (also see **Resources of Concern**; **Priority Species**, **Species Groups**, and **Communities**). Term used by land management agencies and conservation organizations to describe the resources (ecological systems, ecological communities, species, species groups, or other natural resources) selected as the focus of conservation actions.

Consumptive use. Recreational activities, such as hunting and fishing, that involve harvest or removal of wildlife or fish, generally to be used as food by humans.

Contaminants or **environmental contaminants.** Chemicals present at levels greater than those naturally occurring in the environment resulting from anthropogenic or natural processes that potentially result in changes to biota at any ecological level (USGS 1999). They are pollutants that degrade other resources upon contact or mixing.

Cooperative agreement. An official agreement between two parties.

Cover. The estimated percent of an area, projected onto a horizontal surface, that is occupied by a particular plant species.

Cultural resources. The physical remains, objects, historic records, and traditional lifeways that connect us to our nation’s past (USFWS no date).

Cultural resource inventory. A professionally conducted study designed to locate and evaluate evidence of cultural resources present within a defined geographic area. Inventories may involve various levels, including background literature search, comprehensive field examination to identify all exposed physical manifestations of cultural resources, or sample inventory to project site distribution and density over a larger area. Evaluation of identified cultural resources to determine eligibility for the National Register of Historic Places follows the criteria found in [36 CFR 60.4 \(614 FW 1.7\)](#).

DM. U.S. Department of the Interior Manual.

Decadence. Marked by decay or decline, used for plants showing little or no new growth.

Deciduous. Trees and shrubs that shed all of their leaves each year.

Depredation. Causing serious damage to agricultural, horticultural, and fish cultural interests (Adapted from [50 CFR 21.42](#)).

Direct Loss. Loss of food or loss of habitat as nonnative species outcompete natives.

Disturbance. Significant alteration of habitat structure or composition, or of the behavior of wildlife. May be a natural (e.g., fire) or human-caused event (e.g., aircraft overflight).

Ecosystem. A dynamic and interrelating complex of plant and animal communities and their associated nonliving environment.

Ecosystem management. Management of natural resources using systemwide concepts to ensure that all plants and animals in ecosystems are maintained at viable levels in native habitats and basic ecosystem processes are perpetuated indefinitely.

Effect (impact). A direct result of an action that occurs at the same time and place; or an indirect result of an action that occurs later in time or in a different place and is reasonably foreseeable; or the cumulative results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions ([40 CFR 1508.8](#)).

El Niño/La Niña - Southern Oscillation. A quasiperiodic climate pattern that occurs across the tropical Pacific Ocean. The *Southern Oscillation* refers to variations in the temperature of the surface of the tropical eastern Pacific Ocean (warming and cooling known as *El Niño* and *La Niña* respectively) and in air surface pressure in the tropical western Pacific. The two variations are coupled: the warm oceanic phase, El Niño, accompanies high air surface pressure in the western Pacific, while the cold phase, La Niña, accompanies low air surface pressure in the eastern Pacific.

Endemic. In the conservation context, exclusively native to a place. For example, kangaroos are endemic to Australia.

Environmental assessment. A concise public document, prepared in compliance with NEPA, that briefly discusses the purpose and need for an action and alternatives to such action, and provides sufficient evidence and analysis of impacts to determine whether to prepare an environmental impact statement or finding of no significant impact ([40 CFR 1508.9](#)).

Environmental harm. Environmental harm by pest species refers to a biologically substantial decrease in environmental quality as indicated by a variety of potential factors, including declines in native species populations or communities, degraded habitat quality or long-term habitat loss, and/or altered ecological processes.

Endangered Species (Federal). An animal or plant species in danger of extinction throughout all or a significant portion of its range.

Endangered Species (State). A plant or animal species in danger of becoming extinct or extirpated in a state within the near future if factors contributing to its decline continue. Populations of these species are at critically low levels or their habitats have been degraded or depleted to a significant degree.

Environmental education study sites. Outdoor locations where groups of students engage in hands-on activities within an environmental education curriculum.

Environmental health. Composition, structure, and functioning of soil, water, air, and other abiotic features comparable with historical conditions, including the natural abiotic processes that shape the environment ([601 FW 3](#)).

Enhance. To improve the condition of an area or habitat, usually for the benefit of certain native species.

Ethnographical. The study and systematic recording of human cultures; also: a descriptive work produced from such research.

Executive Order. A president's or governor's declaration, which has the force of law, usually based on existing statutory powers, and requiring no action by the Congress or state legislature.

Exotic. See **Nonnative species**.

Experimental population. A population (including its offspring) of a listed species designated by rule published in the Federal Register that is wholly separate geographically from other populations of the same species. An experimental population may be subject to less stringent prohibitions than are applied to the remainder of the species to which it belongs.

Focal Species (also Priority Resources of Concern or Focal Conservation Target). A suite of conservation targets that for purposes of planning are sorted and condensed to represent threats to biological integrity, diversity, and environmental health at the refuge level.

Friends of the Refuge. Friends of the Tualatin River National Wildlife Refuge, the official, nonprofit, volunteer organization supporting the refuge.

Geocaching. Known as letter boxing, an outdoor activity in which participants use a global positioning system (GPS) to recover techniques to hide and seek containers.

Goal. Descriptive, open-ended, and often broad statement of desired future conditions that conveys a purpose but does not define measurable units ([620 FW 1.6](#)).

Habitat. Suite of existing environmental conditions required by an organism for survival and reproduction. It is the place where an organism typically lives.

Habitat Management Plan. A plan that provides refuge managers a decision-making process; guidance for the management of refuge habitat; and long-term vision, continuity, and consistency for habitat management on refuge lands (USFWS Habitat Management Planning Policy [620 FW 1.4](#)).

Habitat restoration. Management emphasis designed to move ecosystems to desired conditions and processes, and/or to healthy ecosystems.

Historical conditions. 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 ([601 FW 3](#)).

Hydrology. A graph of waterflows in a river or stream. A hydrograph provides a way of seeing seasonal and yearly changes in the flow or discharge of a waterway.

Important Bird Areas. A site designated by the National Audubon Society that provides essential habitat for one or more species of bird and that is recognized as being important on a global, continental, or state level.

Indicator. A measurable characteristic of a key ecological attribute that strongly correlates with the status of the key ecological attribute; something that serves as a sign or symptom.

Indigenous knowledge. The “... knowledge that an indigenous (local) community accumulates over generations of living in a particular environment. This definition encompasses all forms of knowledge—technologies, know-how skills, practices and beliefs—that enable the community to achieve stable livelihoods in their environment” (United Nations Environment Programme 2012).

Inholding. Refers to lands within an approved refuge boundary that are not owned by the Service. These can be private lands or lands owned by a city, county, state, or other Federal agencies.

Integrated Pest Management. A “... sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools in a way that minimizes economic, health, and environmental risks” (FIFRA, [7 U.S.C. 136](#) et seq.).

“Examples of tools listed in the IPM definition include, but are not limited to, the following:

- (1) Biological tools - predators, parasites, and pathogens;
- (2) Cultural tools - crop rotation, alterations in planting dates, and sanitation;
- (3) Physical tools - barriers, traps, hand-pulling, hoeing, mowing, and tilling;
- (4) Chemical tools - pesticides, such as herbicides, insecticides, or fungicides” ([517 DM 1](#)).

Interpretation. A teaching technique that combines factual information with stimulating explanation. Frequently used to help people understand natural and cultural resources.

Invasive species. An “... alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health” (EO 13112).

Inventory. A survey of the plants or animals inhabiting an area.

Inviolate Sanctuary. The original intent of the term “inviolate sanctuary” is found in the Migratory Bird Conservation Act (first passed in 1918 as the Migratory Bird Treaty Act and amended in 1934 and 1938). This Act originally required that all refuges be inviolate sanctuaries and deemed that refuges’ primary purposes were as breeding grounds and habitat for migratory birds. Migratory bird hunting was prohibited on migratory waterfowl areas by the Act, but most other human uses were not addressed. The 1938 amendment to the Act gave refuge managers authority to decide if, when, and how bird hunting would be allowed. The 1949 Duck Stamp Act allowed waterfowl hunting on refuges, but restricted the percentage of each refuge open to hunting. Current policy states that portions of a refuge are considered “inviolate sanctuaries” if they were (a) acquired with the approval of the Migratory Bird Conservation Commission for the purpose of an inviolate sanctuary; (b) acquired with MBCC approval or Land and Water Conservation Fund funds to protect a threatened or endangered species; or (c) established by an instrument or document that states the intent to manage the area as an “inviolate sanctuary for migratory birds” or to fulfill the purpose of the Migratory Bird Conservation Act. Policy further allows migratory game bird hunting on no more than 40 percent of the area considered inviolate sanctuary if compatible with a refuge’s purposes and mission. Inviolate sanctuary classification imposes no limits on hunting nonmigratory birds, fur bearers, or other game species.

Issue. Any unsettled matter that requires a management decision, for example, an initiative, opportunity, resource management problem, threat to the resources of the unit, conflict in uses, public concern, or the presence of an undesirable resource condition ([620 FW 1.6](#)).

Key ecological attributes. Those aspects of the environment, such as ecological processes or patterns of biological structure and composition that are critical to sustain the long-term viability of the target. These key ecological attributes are further divided into measurable indicators.

Keystone species. Species that enrich ecosystem function in a unique and significant manner through their activities, and have an effect that is disproportionate to their numerical abundance. Their removal initiates changes in ecosystem structure and often loss of diversity. These keystone species may be habitat modifiers (e.g., Cottonwoods, beavers), predators (e.g., bobcat, coyote), or herbivores (e.g., elk).

Kalapuya. *It-galapu ywi-yu-ks*, A Chinookan term for the Willamette Valley people, consisting of eight Tribes speaking three different languages, formerly inhabiting the valley of the Willamette River in Oregon.

Land Protection. The acquisition of fee title, easement, or lease of a given land parcel to protect important natural resource values on the land from incompatible land uses.

Listed Species (Federal). Species that have been formally listed under the Endangered Species Act as threatened or endangered. Also includes candidate and proposed species. An endangered species is one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future. Proposed species include taxa for which the Service or National Marine Fisheries Service has published a proposal to list as endangered or threatened in the Federal Register. Candidate species include those taxa for which the Service has sufficient biological information to support a proposal to list as endangered or threatened.

Maintenance. The upkeep of constructed facilities, structures, and capitalized equipment necessary to realize the originally anticipated useful life of a fixed asset. Maintenance includes preventative

maintenance; cyclic maintenance; repairs; replacement of parts, components, or items of equipment; periodic condition assessment; periodic inspections, adjustment, lubrication and cleaning (nonjanitorial) of equipment; painting, resurfacing, rehabilitation; special safety inspections; and other actions to ensure continuing service and to prevent breakdown.

Metro. Regional government for the Portland metropolitan area, including Clackamas, Multnomah, and Washington Counties and associated municipalities. Metro coordinates regionwide land-use planning; provides garbage, recycling, and transportation services; acquires, restores, and manages natural areas; and operates cemeteries, event facilities, and the zoo.

Migration. Seasonal movement of wildlife from one area to another and back.

Migratory birds. Those species of birds listed under [50 CFR 10.13](#) (as defined by various treaties) ([720 FW 1](#), Policies and Responsibilities of the Migratory Bird Program).

Mixed deciduous/coniferous forest. Forest that usually has a mixture of Douglas-fir, oak, and maple, with a shrub understory.

Moist soil plants. Plants that are adapted to periodic flooding and drying conditions.

Monitoring. The process of collecting information to track changes of selected parameters over time.

National Environmental Policy Act of 1969 as amended (42 U.S.C. 4321-4375). A Federal law that requires all Federal agencies, including the Service, to examine the environmental impacts of their actions, incorporate environmental information, and use public participation in the planning and implementation of all 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 Register of Historic Places. The nation's master inventory of known historic properties administered by the National Park Service. Includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archeological, or cultural significance at the national, state, and local levels (USFWS no date).

National Wildlife Refuge System. Various categories of areas administered by the Secretary of the Interior for the conservation of fish and wildlife, including species threatened with extinction; all lands, waters, and interests therein administered by the Secretary as wildlife refuges; areas for the protection and conservation of fish and wildlife that are threatened with extinction; wildlife ranges; game ranges; wildlife management areas; or waterfowl production areas.

National Wildlife Refuge System Administration Act of 1966, as amended (16 U.S.C. 668dd-668ee). A Federal law that provides guidance on the administration and management of the national wildlife refuge system.

National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). A Federal law that amended and updated the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668).

Native. "With respect to a particular ecosystem, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem" ([601 FW 3](#)).

Nonconsumptive recreation. Recreational activities that do not involve harvest, removal, or consumption of fish, wildlife, or other natural resources.

Nonnative species. A species that is present in the planning area but was not known to exist prior to Euro-American settlement of the Americas.

Noxious weed. A plant species designated by Federal or state law as generally possessing one or more of the following characteristics: aggressive or difficult to manage; a carrier or host of serious insect or disease; or nonnative, new, or not common to the region. According to the Federal Noxious Weed Act (PL 93-639), a noxious weed is one that causes disease or has adverse effects on man or his environment and therefore is detrimental to the agriculture and commerce of the United States and to the public health.

Objective. A concise statement of what we want to achieve, how much we want to achieve, when and where we want to achieve it, and who is responsible for the work. Objectives derive from goals and provide the basis for determining strategies, monitoring refuge accomplishments, and evaluating the success of strategies. Objectives should be attainable, time-specific, and measurable ([620 FW 1.6](#)).

Operations. Activities related to the normal performance of the functions for which a facility or item of equipment is intended to be used. Costs such as utilities (electricity, water, sewage) fuel, janitorial services, window cleaning, rodent and pest control, upkeep of grounds, vehicle rentals, waste management, and personnel costs for operating staff are generally included within the scope of operations.

Outreach. The process of providing information to the public on a specific issue through the use of the media, printed materials, and presentations.

Pacific Flyway. One of four major north-south travel corridors for migratory birds. The Pacific Flyway is west of the Rocky Mountains.

Permanent wetland. Wetlands or portions of refuge that retain water throughout the year. Permanently flooded waters are generally occupied by submergent wetland plants such as pondweeds.

Pest. “(1) any insect, rodent, nematode, fungus, weed, or (2) any other form of terrestrial or aquatic plant or animal life or virus, bacteria, or other micro-organism (except viruses, bacteria, or other micro-organisms on or in living man or other living animals) which the [U.S. Environmental Protection Agency] Administrator declares to be a pest under section 25(c)(1)” (FIFRA, [7 U.S.C. 136](#) et seq.).

“...living organisms, including invasive plants and introduced or native organisms, that may interfere with achieving our management goals and objectives on or off our lands, or that jeopardize human health or safety” ([569 FW 1](#)).

Planning team. The primary Service staff and others who played a key role in developing and writing the CCP/EA for a refuge. Planning teams are interdisciplinary in membership and function. Teams generally consist of a planning team leader, the refuge manager and staff biologists, a state natural resource agency representative, and other appropriate program specialists (e.g., social

scientists, ecologists, recreation specialists). We also ask other Federal and Tribal natural resource agencies to provide team members, as appropriate. The planning team prepares the CCP and appropriate NEPA documentation ([620 FW 1.6](#)).

Plant community. An assemblage of plant species that is unique in its composition; occurs in particular locations under particular influences; a reflection or integration of the environmental influences on the site such as soils, temperature, elevation, solar radiation, slope, aspect, and rainfall; and denotes a general kind of climax plant community (e.g., Oregon white oak woodland).

Preferred Alternative. This is the alternative determined [by the decision maker] to best achieve the refuge purpose, vision, and goals; to best contribute to the Refuge System mission; to best address the significant issues; and to be consistent with principles of sound fish and wildlife management.

Preplanning. The first phase of the CCP planning process. It includes identifying the planning area and data needs; establishing the planning team and planning schedule; reviewing available information; preparing a public involvement plans and conducting internal scoping.

Priority Public Uses. Defined in Improvement Act as hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

Priority Resources of Concern. See **Resources of Concern** and **Focal Species** definitions.

Public. Individuals, organizations, and groups; officials of Federal, state, and local government agencies; Indian Tribes; and foreign nations. It may include anyone outside the planning team. It includes those who may or may not have indicated an interest in Service issues and those who may be affected by Service decisions.

Public Land Order. Public lands consist of that class of land remaining from the original public domain that was acquired by the United States by treaty, purchase, or cession from a foreign power.

Quality. A national wildlife refuge public use program is considered high quality if it:

- A. “Promotes safety of participants, other visitors, and facilities;
- B. Promotes compliance with applicable laws and regulations and responsible behavior;
- C. Minimizes or eliminates conflict with fish and wildlife population or habitat goals or objectives in an approved plan;
- D. Minimizes or eliminates conflicts with other compatible wildlife-dependent recreation;
- E. Minimizes conflicts with neighboring landowners;
- F. Promotes accessibility and availability to a broad spectrum of the American people;
- G. Promotes resource stewardship and conservation;
- H. Promotes public understanding and increases public appreciation of America’s natural resources and our role in managing and conserving these resources;
- I. Provides reliable/reasonable opportunities to experience wildlife;
- J. Uses facilities that are accessible to people and blend into the natural setting; and
- K. Uses visitor satisfaction to help define and evaluate programs.” (General Guidelines for Wildlife-Dependent Recreation, [605 FW 1](#)).

Refuge. Tualatin River National Wildlife Refuge.

Refuge Operating Needs System (RONS). A national database of unfunded refuge operating needs required to meet and/or implement station goals, objectives, management plans, and legal mandates. It is used as a planning, budgeting, and communication tool describing funding and staffing needs of the Refuge System.

Refuge purpose(s). 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. For refuges that encompass congressionally designated wilderness, the purposes of the Wilderness Act are additional purposes of the refuge ([620 FW 1.6](#)).

Refuge System. National Wildlife Refuge System.

Resource of Concern (ROC). All plant and/or animal species, species groups, or communities specifically identified in refuge purpose(s), Refuge System mission, or international, national, regional, State, or ecosystem conservation plans or acts. For example, waterfowl and shorebirds are ROCs on a refuge whose purpose is to protect “migrating waterfowl and shorebirds.” Federal or state threatened and endangered species on that same refuge are also a resource of concern under terms of the respective endangered species acts (Habitat Management Planning Policy, [620 FW1.4](#)).

Restore. To bring back to a former or original condition.

Riparian habitat. Refers to an area of habitat that is transitional from terrestrial to aquatic ecosystems; including streams, lakes, wet areas, and adjacent plant communities and their associated soils that have free water at or near the surface; an area whose components are directly or indirectly attributed to the influence of water; of or relating to a river; specifically applied to ecology, “riparian” describes the land immediately adjoining and directly influenced by streams. For example riparian vegetation includes any and all plant life growing on the land adjoining a stream and directly influenced by the stream.

Riverine. Flowing perennial to intermittent waters bounded by a channel. This habitat encompasses a river or stream, its channel, and the associated aquatic vegetation.

Ruderal. Growing where the natural vegetational cover has been disturbed by humans. Generally referring to a weedy area.

Sanctuary. At the Tualatin River NWR, the term sanctuary is used colloquially to mean areas that are closed to all public uses during a portion or all of the year. Also see **Inviolate Sanctuary**.

Semipermanent Villages. Lasting or intended to last for a long time but not permanent

Seasonal Wetlands. Areas that are periodically inundated or have soils saturated to the surface at some time during the growing season (but not year-round).

Service. U.S. Fish and Wildlife Service.

Scoping. The phase of notifying the public of the opportunity to participate in the planning process to help identify issues, concerns, and opportunities related to the project early in the planning process.

Significant Effect. Use of the term in NEPA requires consideration of both context and intensity ([40 CFR 1508.27](#)). Context means the significance of an action must be analyzed in its current and proposed short- and long-term effects on the whole of a given resource (e.g., affected region). Intensity refers to the severity of the effect.

Species of Concern (Federal). Taxa whose conservation status is of concern to the Service (many were previously known as Category 2 candidates), but for which further information is still needed. Such species receive no legal protection and use of the term does not necessarily imply that a species will eventually be proposed for listing.

Step-down Management Plan. A plan that provides specific guidance on management subjects (e.g., habitat, public use, fire, safety) or groups of related subjects. It describes strategies and implementation schedules for meeting CCP goals and objectives ([620 FW 1.6](#)).

Strategy. A specific action, tool, technique, or combination of actions, tools, and techniques used to meet unit objectives ([620 FW 1.6](#)).

Thatch. The dense covering of cut grass that remains after mowing or accumulating after several growing seasons. Thatch inhibits growth of new grass.

Threatened Species (Federal). An animal or plant species, listed by the Service, as likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Threatened Species (State). A plant or animal species identified by a state wildlife agency as likely to become endangered in a state within the near future if factors contributing to population decline or habitat degradation or loss continue.

TriMet. Local agency that provides public transportation in the Portland area via bus, commuter rail, light rail, and street car.

Upland prairie/oak savanna. Characterized by widely spaced Garry oak trees with grassland habitats (upland prairie) occurring between them.

Vegetation type (habitat type, forest cover type). A land classification system based upon the concept of distinct plant associations.

Vision Statement. A concise statement of what the planning unit should be, or what we hope to do, based primarily upon the Refuge System mission and specific refuge purposes, and other mandates. The vision statement for the refuge is tied to the mission of the Refuge System; the purpose(s) of the refuge; the maintenance or restoration of the ecological integrity of each refuge and the Refuge System; and other mandates ([620 FW 1.6](#)).

Volatile Organic Compounds (VOCs). Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, that participates in atmospheric photochemical reactions.
(http://www.epa.gov/ttn/naaqs/ozone/ozonetech/def_voc.htm)

Waterfowl. Resident and migratory ducks, geese, and swans.

Water Quality. A term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

Watershed. The land area that drains water to a particular stream, river, or lake. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map, often a ridge. Large watersheds, like the Mississippi River Basin contain thousands of smaller watersheds.

Wetlands. Wetlands are 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 at some time during the growing season of each year ([660 FW 2](#)).

Wildlife-dependent recreational use. A use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation. These are the six priority public uses of the Refuge System as established in the Administration Act, as amended. Wildlife-dependent recreational uses, other than the six priority public uses, are those that depend on the presence of wildlife. The Service will consider these other uses in the preparation of refuge CCPs; however, the six priority public uses always will take precedence ([620 FW 1.6](#)).