

 $White-tailed \ deer \ are \ easily \ sighted \ at \ the \ Complex. \ Dense \ populations \ at \ the \ refuge \ have influenced \ the \ composition \ of \ plant \ communities.$

Glossary

Glossary

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.

- **alternative:** a reasonable way to fix an identified problem or satisfy a stated need (40 CFR 1500.2). Alternatives are different means of accomplishing refuge purposes and goals, contributing to the System mission, and resolving issues. See **management alternative**.
- **anadromous:** fish that spend a large proportion of their life cycle in the ocean and return to freshwater to breed.
- **angler:** someone who fishes, primarily referring to fishing with hooks, and usually with no intent to sell.
- **anuran:** or Salientian. Consists of frogs, toads and their close fossil relatives.
- **appropriate use:** a proposed or existing use on a refuge that meets at least one of the following three conditions: (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 appropriate as specified in section 1.11 of that act.
- **approved acquisition boundary :** a project boundary that the Director of the U.S. Fish & Wildlife Service approves upon completion of the planning and environmental compliance process. An approved acquisition boundary only designates those lands which 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.

aquatic: growing in, living in, or dependent upon water.

Area of Biological Significance (ABS): contiguous landscapes, typically defined by watersheds or other geomorphologic feature, containing trust species and other species and habitats of special concern.

aquatic: growing in, living in, or dependent upon water.

Bailey System: technique for mapping ecoregions developed by Robert G. Bailey of the United States Department of Agriculture Forest Service.

- **barrens:** a colloquial name given to habitats with sparse vegetation or low agricultural productivity.
- **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 (i.e., 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. In their broader sense, practices that benefit target species).
- **bight:** a bend in a coast forming an open bay, or a bay formed by such a bend.
- **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.

- Bird Conservation Area (BCA): The New York State Bird Conservation Area Program was established in 1997 to safeguard and enhance bird populations and their habitats on State lands and waters. To date, twenty-eight BCAs have been designated. For more information: http://www.dec.state.ny.us/website/dfwmr/ wildlife/bca/
- **bird conservation region (BCR):** ecologically distinct regions in North America with similar bird communities, habitats, and resource management issues (see *http://www.nabci-us.org/bcrs.html* for more information).
- **breeding habitat:** habitat used by migratory birds or other animals during the breeding season.
- **buffer zones:** protective land borders around critical habitats or water bodies that reduce runoff and nonpoint source pollution loading; areas created or sustained to lessen the negative effects of land development on animals and plants and their habitats.

candidate species: see Federally listed species.

- **canopy:** the uppermost spreading branchy layer of a forest.
- **canopy dominants:** the major trees whose branches make up the canopy of a forest.
- **Categorical Exclusion (CE, CX, CATEX, CATX):** 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.
- **cation exchange capacity:** an indicator of soil fertility. It shows the soil's ability to supply three important plant nutrients: calcium, magnesium and potassium. Any element with a positive charge is called a cation.
- **Challenge Cost Share Program:** a grant program administered by the USFWS providing matching funds for projects supporting natural resource education, management, restoration

and protection on Service lands, other public lands and on private lands.

- **Code of Federal Regulations (CFR):** a compilation of all regulations issued by the agencies of the Federal government. It may be searched over the Internet at Exit from EPA pages *www.access.gpo.gov/nara/cfr/cfrtable-search.html*. Title 40 of the CFR ("40 CFR") contains regulations governing the environment.
- **community type:** a particular assemblage of plants and animals, named for the characteristic plants.
- **compatible use:** an allowed use that will not materially interfere with, or detract from, purposes for which the unit was established (Service Manual 602 FW 1.4).
- **compatibility determination:** a compatibility determination is required for a wildlifedependant recreational use or any other public use of a refuge. A compatible use is one which, in the sound professional judgement of the Refuge Manager, will not materially interfere with or detract from fulfillment of the Refuge System Mission or refuge purpose(s).

Complex or the Complex: see National Wildlife Refuge Complex.

Comprehensive Conservation Plan (CCP): a document that describes the desired future conditions of the refuge and provides long-range guidance and management direction to accomplish the purposes of the refuge, contribute to the mission of the System, and meet other relevant mandates. See *http://www.fws.gov/northeast/planning/*.

concern: see issue.

- **conservation:** the management of natural resources to prevent loss or waste. Management actions may include preservation, restoration, and enhancement.
- **conservation easement:** a legal agreement between a landowner and a land trust or government agency that permanently limits

a property's uses in order 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:** 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 authorized by Federal statute and substantial involvement between the Service and the recipient is anticipated.
- Coordination Areas: defined as a "wildlife management area that has been withdrawn from the public domain or acquired by the Federal Government and subsequently made available to a state by cooperative agreement between the U.S. Fish & Wildlife Service and the state fish and wildlife agency, pursuant to the Fish and Wildlife Coordination Act of March 10, 1934 or the Bankhead Jones Act." See http://www.fws.gov/refuges/faqs/ CoordAreas.html.
- **cover types:** a non-technical higher-level floristic and structural description of vegetation cover.
- **critical habitat:** according to U.S. Federal law, the ecosystems upon which endangered and threatened species depend.
- **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 follows the

criteria found in 36 CFR 60.4 (Service Manual 614 FW 1.7).

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.

Department of Environmental Conservation (DEC, NYSDEC): exists to "conserve,

improve, and protect New York State's natural resources and environment, and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well being." See http://www.dec.state.ny.us/ for more information.

- **Department of the Interior:** the nation's principal conservation agency whose mission is to protect America's treasures for future generations, provide access to our nation's natural and cultural heritage, offer recreation opportunities, honor our trust responsibilities to American Indians and Alaska Natives and our responsibilities to island communities. conduct scientific research, provide wise stewardship of energy and mineral resources, foster sound use of land and water resources, and conserve and protect fish and wildlife. Interior is a large, decentralized agency with over 70,600 employees and 200,000 volunteers located at approximately 2,400 operating locations across the United States, Puerto Rico, U.S. territories, and freely associated states. See *http://www.doi.gov/* for more information.
- **designated wilderness area:** an area designated by Congress as part of the National Wilderness Preservation System (FWS Manual 610 FW 1.5 draft). Also known as **wilderness**.
- **disturbance:** any relatively discrete event in time that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment.
- **duff:** An organic surface soil layer below the litter layer in which the original form of plant and

animal matter cannot be identified with the unaided eye.

- **easement:** an agreement by which a landowner gives up or sells one of the rights on his/her property. For example, a landowner may donate a right of way across his/her property to allow community members access to a river. See also conservation easement.
- 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 predatorprey 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.
- 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 ecosystem boundaries, rather than town, city, or county 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 takes into consideration interactions between the plants, animals, and physical characteristics of the environment when making decisions about land use or living resource issues.
- **emergent wetland:** wetlands dominated by erect, rooted, herbaceous plants.

- **endangered species:** a federally protected species which is in danger of extinction throughout all or a significant portion of its range.
- **endemic:** native to and found only in a particular region. See also **indigenous species**, also referred to as **native**.
- environmental education (EE): education aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work toward their solution (Stapp et al. 1969).
- 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 concise public document, prepared in compliance with the National Environmental Policy Act, that briefly discusses the purpose and need for an action, 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.
- Environmental Impact Statement (EIS): a detailed written statement required by section 102(2)(C) of the NEPA, analyzing the environmental impacts of a proposed action, adverse effects of the project that cannot be avoided, alternative courses of action, short-tern uses of the environment versus the maintenance and enhancement of longterm productivity, and any irreversible and irretrievable commitment of resources.
- **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 open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land.
- **estuarine wetlands:** "The Estuarine system consists of 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" (Cowardin et al. 1979.

- **eutrophication:** the process of nutrient enrichment in aquatic ecosystems. In marine systems, eutrophication results principally from nitrogen inputs from human activities such as sewage disposal and fertilizer use. The addition of nitrogen to coastal waters stimulates algal blooms and growth of bacteria, can cause broad shifts in ecological communities, and contribute to anoxic events and fish kills.
- **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. Also known as **non-native species**.
- **extirpated:** no longer occurring in a given geographic area.
- **Federal Aviation Administration (FAA):** The government agency responsible for air safety and operation of the air traffic control system. Visit *http://www.faa.gov/* for more information.
- Federal Fee Demonstration program: an experimental initiative that authorized the four federal land management agencies—the National Park Service, the Fish & Wildlife Service, the Bureau of Land Management and the U.S. Forest Service—to charge fees to visitors and keep the revenues for reinvestment into visitor facilities and services.
- **Federal land:** public land owned by the Federal government, including lands such as National Forests, National Parks and National Wildlife Refuges.
- **Federally listed species** or **Federal-listed species**: a species listed under the federal Endangered Species Act of 1973, as amended, either as endangered, threatened or species at risk. Formerly known as **candidate species**.
- **Federal Register (FR):** The official daily publication for rules, proposed rules, and

notices of Federal agencies and organizations, as well as executive orders and other presidential documents. The Federal Register is published by the Office of the Federal Register, National Archives and Records Administration.

- **Finding of No Significant Impact (FONSI):** a document prepared in compliance with the National Environmental Policy Act, supported by an environmental assessment, 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.
- **fire regime:** the characteristic frequency, intensity, and spatial distribution of natural fires within a given ecoregion or habitat.
- **fire return interval:** the number of years between two successive fire events at a specific site or an area of a specified size.
- **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.

flow regime: see hydrologic regime.

- **focus areas:** within each Area of Biological Significance, focus areas further delineate concentrations or "hot spots" for species and habitats of special concern.
- **forb:** a flowering plant, excluding grasses, sedges, and rushes, that does not have a woody stem and dies back to the ground at the end of the growing season.
- **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.
- **fuel ladder:** branches, shrubs, or an understory layer of trees, which allow a fire to spread from the ground to the canopy.

- **fuel loading:** adding to the amount of available and potentially combustible material, usually expressed as tons/acre.
- **fulling mill:** a mill which undertakes the process of fulling. Fulling is the beating and cleaning of cloth in water to shrink the loose fibers of the cloth, making it a denser fabric.
- **gallinaceous:** of or relating to the order galliformes. Galliformes is an order of birds which are usually terrestrial, ground-nesting, rather large and heavy-bodied, have short wings and legs, a large crop, and a muscular gizzard, and produce numerous eggs and precocial young. The order includes the pheasants, turkeys, grouse, partridges, quails, and related birds.
- **geographic information system (GIS):** a computerized system used to compile, store, analyze and display geographically referenced information. Can be used to overlay information layers containing the distributions of a variety of biological and physical features.
- **global positioning system (GPS):** A worldwide radio-navigation system that was developed by the U.S. Department of Defense. GPS provides highly accurate position and velocity information, on a continuous global basis to an unlimited number of users. The system is unaffected by weather and provides a worldwide common grid reference system. The GPS receiver automatically selects appropriate signals from the satellites in view and translates these into three-dimensional position, velocity, and time. System accuracy for civil users is 100 meters horizontally.
- **goal:** descriptive, open-ended, and often broad statement of desired future conditions that conveys a purpose but does not define measurable units.
- **grassland:** a habitat type with landscapes dominated by grasses and with biodiversity characterized by species with wide distributions, communities being relatively resilient to short-term disturbances but not to prolonged, intensive burning or grazing. In

such systems, larger vertebrates, birds, and invertebrates display extensive movement to track seasonal or patchy resources.

grist mill: a mill for grinding grain.

- **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.
- **habitat conservation:** the protection of an animal or plant's habitat to ensure that the use of that habitat by the animal or plant is not altered or reduced.
- habitat fragmentation: 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 management plan (HMP): A site-specific wildlife habitat plan.
- **herbaceous:** of, relating to, or having the characteristics of an herb; having little or no woody tissue.
- **herbivory:** the loss of vegetation due to consumption by another organism.
- **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.
- **host plant:** the plant used for food by a specific species. Butterflies typically lay their eggs on the host plant used by the caterpillar. A single species of butterfly may use one or several species of plants as host plants.
- **hydrologic regime:** characteristic fluctuations in river flows. Also known as **flow regime**.
- **impoundment:** a body of water, such as a pond, confined by a dam, dike, floodgate, or other barrier, which 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. A characteristic or surrogate species for a community or ecosystem.
- indigenous species: a species that, other than as a result of introduction, historically occurred or currently occurs in a particular ecosystem. See also endemic. Also referred to as native species.
- **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 provides information about an event, place or thing by a variety of means including printed materials, audiovisuals or multimedia materials. Examples of these would be kiosks which offer printed materials and audiovisuals, signs and trailheads.
- interpretive materials: any tool used to provide or clarify information, explain events or things, or serve to increase awareness and understanding of the events or things. Examples of these would be: (1) printed materials such as brochures, maps or curriculum materials;
 (2) audio/visual materials such as videotapes, films, slides, or audio tapes; and (3) interactive multimedia materials, such as cd-rom and other computer technology.
- **invasability:** the relative ability for an **invasive species** to negatively affect a given ecosystem. For example, an **invasive plant** like Asiatic bittersweet has high invasbility because it spreads rapidly, where black locust has low invasability because it spreads more slowly.
- **invasive species, invasive plants:** non-native species which have been introduced into an ecosystem, and, because of their aggressive growth habits and lack of natural predators, displace native species. Invasive plants often spread from a single location, coalesce, and convert the native plant community into a uniform patch of invasive species. These invasive plant-dominated areas represent

a much lower diversity of plant species and vegetation heights than would be found normally, and as such, are of reduced value to forest and grassland-dependent migratory birds.

- **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 concerns, or the presence of an undesirable resource condition. Issues should be documented, described, and analyzed in the CCP even if resolution cannot be accomplished during the planning process (Service Manual 602 FW 1.4). Also referred to as **concern**.
- 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, which is released with environmental assessments, most useful.
- **land trusts:** private, nonprofit organizations dedicated to conserving land by purchasing land, receiving donations of lands, or accepting conservation easements from landowners.
- Leave No Trace: "...to avoid or minimize impacts to natural area resources and help ensure a positive recreational experience for all visitors. America's public lands are a finite resource whose social and ecological values are linked to the integrity of their natural conditions and processes. Land managers face a perennial struggle in their efforts to achieve an appropriate balance between the competing mandates to preserve natural and cultural resources and provide high quality recreational use. Visitor education designed to instill low impact ethics and skills is a critical management component and is seen as a light-handed approach that can reduce the need for more

direct and regulatory forms of management." (Source: *http://www.lnt.org/about/history.html*)

- **lepidoptera:** the insect order which includes butterflies and moths.
- **litter:** the uppermost layer of organic debris on a forest floor, composed mainly of fresh or slightly decomposed leaves, bark, twigs, flowers, fruits, and other vegetable matter.

loafing: spending time in idleness.

local agencies: generally referring to municipal governments, regional planning commissions or conservation groups.

Long Island National Wildlife Refuge Complex

(Complex or the Complex) : the internal Service administrative linking of Amagansett, Conscience Point, Morton, Oyster Bay, Seatuck, Target Rock, and Wertheim National Wildlife Refuges, along with Lido Beach Wildlife Management Area and the Sayville Unit. In this document, these are referred to as Amagansett, Conscience Point, Lido Beach, Morton, Oyster Bay, Seatuck, Sayville, Target Rock and Wertheim, i.e. without their associated designations. The Complex headquarters is located at Wertheim. Visit our web page at http://www.fws.gov/northeast/ longislandrefuges/.

Long Island Wetland Restoration Initiative:

partner agencies and organizations working together to restore tidal saltmarshes and native grassland habitat on Long Island. Visit http://nyfo.fws.gov/info/cdreports/ lifowetlandinitiative.pdf for more info.

long term protection: mechanisms such as fee title acquisition, conservation easements or binding agreements with landowners that ensure land use and land management practices will remain compatible with maintenance of the species population at the site.

management alternative: a set of objectives and the strategies needed to accomplish each objective (Service Manual 602 FW 1.4).

- **management plan:** a plan that guides future land management practices on a tract of land. In the context of this environmental impact statement, management plans would be designed to produce additional wildlife habitat along with the primary products, such as timber or agricultural crops.
- **management strategy:** a general approach to meet unit objectives. A strategy may be broad, or it may be detailed enough to guide implementation through specific actions, tasks, and projects (Service Manual 602 FW 1.4).
- **mean high tide line:** the average of all high tide lines.
- **mean high water:** The average height of the high waters over a 19 year period.
- **Memorandum of Understanding (MOU):** An agreement between agencies that states specific measures the agency will follow to accomplish a large or complex project.
- **mission statement:** succinct statement of the unit's purpose and reason for being.
- **mitigation:** actions taken to compensate for the negative effects of a particular project. Fore example, wetland mitigation usually takes the form of restoration or enhancement of a previously damaged wetland or creation of a new wetland.
- **moraine:** a mass or ridge of earth scraped by ice and deposited at the edge of a glacier.
- National Ambient Air Quality Standards (NAAQS): in the United States, national standards for the ambient concentrations in air of different air pollutants (e.g. ozone and particulate matter) designed to protect human health and welfare. Visit http://epa.gov/ttn/ naaqs/.

National Environmental Policy Act of 1969

(NEPA): requires all agencies, including the Service, to examine the environmental impacts of their actions, incorporate environmental information, and use public parti- cipation 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 Wildlife Refuge (refuge or NWR): a designated area of land, water, or an interest in land or water within the System, but does not include Coordination Areas. See National Wildlife Refuge System.
- National Wildlife Refuge Complex: an internal Service administrative linking of refuge units closely related by their purposes, goals, ecosystem, or geopolitical boundaries. See also Long Island National Wildlife Refuge Complex.

National Wildlife Refuge System (Refuge

System or **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.

"The mission of the System is to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."

Also see **National Wildlife Refuge** and *http://www.fws.gov/refuges/*.

native: see endemic and indigenous species.

- **native plant:** a plant that has grown in the region since the last glaciation and occurred before European settlement.
- **neotropical migrant:** birds, bats, or invertebrates that seasonally migrate between the neararctic 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:** nutrients or toxic substances that enter water from dispersed and uncontrolled sites.
- **nontraditional angler:** an individual or group not typically engaged in angling e.g, women, children, families. Also see **angler**.
- **Notice of Intent** (**NOI**): a notice that an environmental impact statement will be prepared and considered. Published in the Federal Register.
- **objective:** an objective is 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 management strategies, monitoring refuge accomplishments, and evaluating the success of the strategies. Also, see unit objective.
- **occurrence site:** a discrete area where a population of a rare species lives or a rare plant community type grows.
- odonata: the insect order which includes dragonflies and damselflies.
- old field: an area that was formerly cultivated or grazed and where woody vegetation has begun to invade. If left undisturbed, it will eventually succeed into a forest. Many old fields occur at sites marginally suitable for crop production or pasturing. Old fields are highly variable in the Northeast, depending on soil, land use history, and management.

Open Marsh Water Management (OMWM):

a form of mosquito control that intends to eliminate the use of larvicides, by providing access for predaceous salt marsh fishes to mosquito breeding sites. Some techniques include filling ditches and creating tidal channels and open water ponds that simulate pre-ditching hydrologic features. OMWM techniques can potentially improve conditions for shorebirds and waterfowl within degraded salt marshes. **overbrowsing:** the elimination of forest undergrowth by herbivores.

overstory: see canopy.

- palustrine wetlands: "The Palustrine system 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%" (Cowardin et al. 1979).
- **pannes:** Calcareous, wet, interdunal depressions that form near the water table in interdunal areas.
- **Partners for Wildlife Program:** a voluntary habitat restoration program undertaken by the Service in cooperation with other governmental agencies, public and private organizations, and private landowners to improve and protect fish and wildlife habitat on private lands while leaving the land in private ownership.
- **partnership:** a contract or agreement entered into by two or more individuals, groups of individuals, organizations or agencies in which each agrees to furnish a part of the capital or some in-kind service, i.e., labor, for a mutually beneficial enterprise.
- **passerine:** a bird of the order passeriformes, also known as "perching birds," or, less accurately, as "songbirds." Of the 10,000 or so extant species of birds, over half (~5,300) are perching birds. Perching birds have a worldwide distribution, with representatives on all continents except Antarctica, and reaching their greatest diversity in the tropics.
- **Payments in Lieu of Taxes:** Federal payments to local governments that help offset losses in property taxes due to nontaxable Federal lands within their boundaries (cf: Refuge Revenue Sharing Act of 1935, Chapter One, Legal Context).

piscivorous: feeding on fish.

planning area: a planning area may include lands outside existing planning unit boundaries currently studied for inclusion in the System and/or partnership planning efforts. It may also include watersheds or ecosystems that affect the planning unit.

- planning team: planning teams are interdisciplinary in membership and function. Teams generally consist of a Planning Team Leader; Refuge Manager and staff biologists; and other appropriate specialists including social scientists, ecologists, and recreation specialists. Team members may come from our other programs and other Federal, Tribal, and State natural resource agencies. The planning team prepares the CCP.
- **population monitoring:** assessments of the characteristics of populations to ascertain their status and establish trends related to their abundance, condition, distribution, or other characteristics.
- **prescribed fire:** 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 public use:** a compatible wildlifedependent recreational use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation.
- **private land:** land that is owned by a private individual, group of individuals, or non-governmental organization.
- **private landowner:** any individual, group of individuals or non–governmental organization that owns land.
- **private organization:** any non–governmental 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. See **designated wilderness area**.
- **protection:** mechanisms such as fee title acquisition, conservation easements or binding

agreements with landowners that ensure land use and land management practices will remain compatible with maintenance of the species population at the site.

- **public:** individuals, organizations, and groups; officials of Federal, State, and local government agencies; Indian tribes; and foreign nations. It may include anyone outside the core planning team. It includes those who may or may not have indicated an interest in the Service issues and those who do or do not realize that Service decisions may affect them.
- **public involvement:** a process that offers impacted and interested individuals and organizations an opportunity to become informed about, and to express their opinions on Service actions and policies. In the process, these views are studied thoroughly and thoughtful consideration of public views is given in shaping decisions for refuge management.
- **public land:** land that is owned by the local, state, or Federal government.
- **purposes of the refuge:** 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.
- **rare species:** species identified for special management emphasis because of their uncommon occurrence within a location.
- **Record of Decision (ROD):** a concise public document prepared by the Federal agency, pursuant to NEPA, that contains a statement of the decision, identification of all alternatives considered, identification of the environmentally preferable alternative, a statement as to whether all practical means to avoid or minimize environmental harm from the alternative selected have been adopted-and if not, why they were not-and a summary of monitoring and enforcement where applicable for any mitigation.
- **refuge goals:** descriptive, open-ended and often broad statements of desired future conditions

that convey a purpose but do not define measurable units.

- **refuge lands:** those lands in which the Service holds full interest in fee title, or partial interest such as easements.
- **restoration:** management of a disturbed or degraded habitat that results in the recovery of its original state. For example, restoration may involve planting native grasses and forbs, removing shrubs, prescribed burning, or reestablishing habitat for native plants and animals on degraded grassland.

return intervals: see fire return intervals.

- **riparian:** the interface between freshwater habitats and the terrestrial landscape.
- **riverine:** within the active channel of a river or stream.
- **robust emergents:** vigorous wetland vegetation which protrudes above the water level e.g. *Phragmites*, cattail.
- **runoff:** water from rain, melted snow, or agricultural or landscape irrigation that flows over the land surface into a water body.
- sandplain grassland: dry grassland that has resisted succession due to fire, wind, grazing, mowing, or salt spray. Characterized by thin, acidic, nutrient-poor soils over deep sand deposits, sandplains primarily occur on the coast and off-coast islands, or inland, where glaciers or rivers have deposited sands.
- **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.
- **sound professional judgement:** an opinion or management decision formed by an individual, or group of individuals, whose work requires the application of theories, concepts, principles, and methodologies typically acquired through

completion of a bachelor's or post-bachelor's degree program. Such judgments often require consistent exercise of discretion.

- **Species of Special Concern:** a species not on the federal list of threatened or endangered species, but a species for which the Service or one of its partners has concerns.
- state-listed species: threatened or endangered species within a state's borders that may or may not also be federal-listed species. Also see federally listed species.
- **step-down management plans:** plans that describe management strategies and implementation schedules. A series of plans dealing with specific management subjects; for example, croplands, wilderness, and fire (Service Manual 602 FW 1.4).
- **stopover habitat:** habitat used during bird migration for rest and feeding.
- **strand habitat:** a beach or very shallow coastal area dominated by shoreline processes, particularly wave processes.
- **strategy:** a specific action, tool or technique or combination of actions, tools, and techniques used to meet unit objectives.
- **succession:** natural, sequential change of species composition of a community in a given area.
- **surfactant:** a material that facilitates and accentuates the emulsifying, wetting and other surface-modifying properties of substances.
- **symbolic fencing:** Signs, rope, or any other markers that can be used to convey to the public that they are not permitted in a particular area.
- **threatened species:** a federally protected species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
- **tributary:** a stream or river that flows into a larger stream, river or lake.

trust resource: a resource held in trust for the people by the government through law or administrative act. A federal trust resource is one for which trust responsibility is given, in part, to the federal government through federal legislation or administrative act. Generally, federal trust resources are those considered to be of national or international importance no matter where they occur. Trust resources include, but are not limited to, endangered species and migratory birds and fish that regularly move across state lines. In addition to species, trust resources also include cultural resources protected through federal historic preservation laws and nationally important and threatened habitats-notably wetlands, navigable waters, and public lands such as state parks and national wildlife refuges.

trust species: see trust resource.

- **turbidity:** refers to the extent to which light penetrates a body of water. Turbid waters have reduced light penetration, and therefore do not generally support net growth of photo-synthetic organisms.
- **understory:** Plants such as small trees, bushes, herbs and grasses that grow below the **canopy** level in a forest.
- **unfragmented habitat:** large blocks of unbroken habitat of a particular type.
- **unit objective:** desired conditions which must be accomplished to realize a desired outcome. Objectives are the basis for determining management strategies, monitoring refuge accomplishments, and measuring the success of the strategies. Objectives should be attainable and time-specific and may be stated quantitatively or qualitatively (Service Manual 602 FW 1.4).

upland: any land that is not wetland.

U.S. Army Corps of Engineers (USACE):

military and civilian engineers, scientists and other specialists that handle engineering and environmental matters. The USACE is made up of approximately 34,600 Civilian and 650 military members. Responsibilities include planning, designing, building and operating water resources and other civil works projects; designing and managing the construction of military facilities for the Army and Air Force; and providing design and construction management support for other Defense and federal agencies. Visit *http://www.usace.army. mil/* for more information.

U.S. Fish & Wildlife Service (USFWS,

FWS): The Service helps protect a healthy environment for people, fish and wildlife, and helps Americans conserve and enjoy the outdoors and our living treasures. The Service's major responsibilities are for migratory birds, endangered species, certain marine mammals, and freshwater and anadromous fish. Our mission is "...working with others to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people." Visit http://www.fws.gov/ who/ for info.

- **vector-borne disease:** disease that results from an infection transmitted to humans and other animals by blood-feeding arthropods, such as mosquitoes, ticks, and fleas e.g., dengue fever, viral encephalitis, lyme disease, and malaria.
- **vernal pool:** depressions holding water for a temporary period in the spring and used by a variety of amphibians for egg laying.
- vision statement: concise statement of what the planning unit could be, or what we could do, in the next 10 to 15 years, based primarily upon the System mission and specific refuge purposes, and other relevant mandates.
- warm-season grass: native prairie grass that puts on the most growth during summer when coolseason grasses are dormant.
- watchable wildlife: all wildlife is watchable. A watchable wildlife program is a strategy to help maintain viable populations of all native fish and wildlife species by building an effective, well-informed constituency for conservation. Watchable wildlife programs are tools by which wildlife conservation goals can be met while at the same time fulfilling public demand for

wildlife recreational activities. These activities do not include sport hunting, trapping or sport fishing.

- 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.
- wetlands: The U.S. Fish & Wildlife Service's definition of wetlands states that "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" (Cowardin et al 1979).

wilderness: see designated wilderness area.

- wildlife management: the practice of manipulating wildlife populations, either directly through regulating the numbers, ages, and sex ratios harvested, or indirectly by providing favorable habitat conditions and alleviating limiting factors.
- Wildlife Management Area (WMA): land owned by New York State under the control and management of the DEC's Division of Fish, Wildlife and Marine Resources. These lands have been acquired primarily for the production and use of wildlife.
- wildlife-dependent recreational use: a use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation. These uses are the six priority general public uses of the Refuge System as established in the National Wildlife Refuge System Administration Act.
- wildlife-oriented recreation: recreational activities in which wildlife is the focus of the experience. For example, sport hunting and fishing, and plant and animal viewing and photography.