

## CHAPTER 11

### GLOSSARY

**Accuracy:** The closeness of a measured value to the true value.

**Alkalinity:** The alkaline nature of a substance (water) derived by measuring its ability to accept hydrogen ions.

**Anthropogenic:** Resulting from human influence.

**Aquifer:** An underground, water-bearing layer of porous rock, sand, or gravel.

**Aquifer Storage and Recovery:** The injection of fresh water into a confined saline aquifer during times when supply exceeds demand (wet season), and recovering it during times when there is a supply deficit (dry season).

**Barrier:** Any feature that restricts movement from one place to another.

**Benthic:** Pertaining to the bottom or sediment habitats of a body of water.

**Biodiversity:** Biodiversity is the total variety of life and its processes. Biodiversity exists at three different levels: the total variety represented by all species of plants and animals; the variety of different genes within each species; and the variety of different habitats and ecosystems in which these species exist.

**Biological Opinion:** Document stating the opinion of the Fish and Wildlife Service or the National Marine Fisheries Service on whether or not a Federal action is likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of critical habitat.

**Biomass:** The amount of living material in a particular sample, population, or area, usually measured as dry mass.

**Biota:** The plants and animals of an area.

**Buffer:** Buffers are multi-use transition areas designed and managed to protect core reserves and critical corridors from the destructive impacts of human activities. They are designed with consideration for the specific ecological features to be protected and the specific activities that threaten them. These lands may be owned and managed through a wide variety of public and/or private programs.

**Central and Southern Florida Project:** A complete system of canals, storage areas, and water control structures spanning the area from Lake Okeechobee to both the east and west coasts and from Orlando south to the Everglades. It was designed and constructed during the 1950s by the U.S. Army Corps of Engineers to provide flood control and improve navigation and recreation.

**Compliance monitoring:** In a water quality management program, compliance is associated with meeting permit conditions based on ambient standards. Ongoing monitoring provides periodic water quality data, which are used to assess compliance.

**Comprehensive Everglades Restoration Plan (CERP):** The framework and guide for the restoration, protection, and preservation of the South Florida ecosystem. CERP also provides for water-related needs of the region, such as water supply and flood protection.

**Conductance:** The ability of an aqueous solution to carry an electric current. Conductance is used as a measure of total dissolved solids in water.

**Conservation:** The use of all methods and procedures that are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the] act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transportation, and in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regular taking.

**Consultation:** A process that determines whether a proposed Federal action is likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat; begins with a Federal agency's written request and submittal of a complete initiation package; and concludes with the issuance of a biological opinion and incidental take statement.

**Corridor:** Ecological corridors are landscape linkages designed to permit large-scale and long-term ecological processes to continue operating within fragmented ecosystems. They may be designed to facilitate movements of animals (for seasonal migration, breeding, foraging, or other purposes), plant propagules (via seed dispersal, movement of pollen or pollinators, or other mechanisms), and/or essential abiotic resources, such as water or nutrients. Long-term genetic implications are usually a fundamental consideration in corridor planning. Appropriate design and management of a corridor depends upon the ecological purposes it is intended to serve. Primary corridors are the essential uninterrupted connections that integrate the landscape at the regional level. In most landscape situations, such corridors will be miles wide and structured so that a central spine managed like a core reserve is sheltered by strips of primary buffer within broader areas of secondary buffer. Primary corridors should generally be oriented along riparian systems or wildlife movement routes.

**Create:** The creation of natural community analogs on massively disturbed land where it is impossible or unfeasible to restore an historic natural community. Historic natural communities are used as general models, and only species that are within their historic ranges are used to construct these natural community analogs (e.g., the restoration of tropical hardwood hammocks on fill pads surrounding buildings along the Tamiami Trail).

**Critical Habitat:** The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of Section 4 of the Endangered Species Act, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of the Endangered Species Act, upon a determination by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service that such areas are essential for the conservation of the species.

**Discharge (or flow):** The rate of water movement past a reference point, measured as volume per unit time (usually expressed as cubic feet or cubic meters per second).

**Dispersal:** The movement of organisms away from a location, such as their point of origin.

**Drawdown:** A lowering of the water level in a reservoir or other body of water.

**Drought:** A long period of abnormally low rainfall, especially one that adversely affects growing or living conditions.

**Easement:** An interest in the land of another that provides the easement holder specified rights without actual ownership.

**Ecosystem:** Biological communities together with their environment, functioning as a unit.

**Endangered Species Act:** The Endangered Species Act of 1973, as amended, Title 16 *United States Code* (U.S.C.) Section 1531 et seq.

**Environment:** The complex of climatic, soil, and biotic factors acting upon organisms.

**Epifauna:** Animals that live on the surface of a substrate, such as rocks, pilings, marine vegetation, or the lake floor itself.

**Eutrophication:** The process of nutrient enrichment in a water body. Eutrophication often results from nitrogen and phosphorous inputs from human activities such as sewage disposal and runoff from uplands. Such input stimulates algal blooms and bacteria growth, which contribute to depletion of oxygen in the water, anoxic conditions, and eventually leads to fish kills.

**Evapotranspiration:** The process by which water is released to the atmosphere by evaporation from a water surface or movement from a plant surface (more specifically known as transpiration).

**Everglades Protection Area:** As defined in the Everglades Forever Act, the Everglades Protection Area is comprised of Water Conservation Areas 1, 2A, 2B, 3A, and 3B, the Arthur R. Marshall Loxahatchee National Wildlife Refuge, and the Everglades National Park.

**Exotic species:** Any introduced plant, animal, or protist species that is not native to the area and may be considered a nuisance.

**Fauna:** All animal life associated with a given habitat.

**Federally listed threatened and endangered species:** Species of wildlife which have been determined by the Fish and Wildlife Service to be endangered or threatened under the Endangered Species Act, as amended.

**Fiscal year:** The South Florida Water Management District's fiscal year begins on October 1 and ends on September 30 the following year.

**Flora:** All plant life associated with a given habitat.

**Florida Statutes:** The Florida Statutes are a permanent collection of state laws organized by subject area into a code made up of titles, chapters, parts, and sections. The Florida Statutes are updated annually by laws that create, amend, or repeal statutory material.

**Geographic information systems (GIS):** A computerized system of organizing and analyzing any spatial array of data and information.

**Greenway:** A greenway is a corridor that serves both ecological and recreational functions. It can include terrestrial and/or properly buffered aquatic systems. A well-designed regional greenway system links non-motorized community transportation and recreation trails through secondary corridors to long-distance routes embedded in the buffers of primary ecological corridors and cores.

**Habitat:** Area or type of environment that an plant or animal normally lives in or is found in.

**Hydric:** Wet.

**Hydrology:** The scientific study of the properties, distribution, and effects of water on the earth's surface, in the soil and underlying rocks, and in the atmosphere.

**Hydroperiod:** Duration and frequency of inundation in a wetland area.

**Impoundment:** A reservoir used for retaining water.

**Infauna:** Aquatic animals that live on the substrate of a body of water.

**Inflow:** The act or process of flowing in or into.

**Infrastructure:** The fundamental facilities and systems serving a county, city, or area, in this case as related mainly to transportation for example, bridges, roads, railways, etc.

**Introduction:** A plant or animal moved from one place to another by man.

**Intrusion:** The invasion of a body of fresh water by a body of salt water, due to its greater density. It can occur either in surface water or groundwater bodies. The term is applied to the flooding of freshwater marshes by sea water, the upward migration of sea water into rivers and navigation channels, and the movement of sea water into freshwater aquifers along coastal regions.

**Lake Belt Area:** An approximately 80-square-mile area in the northern half of Miami-Dade County bordering Water Conservation Area 3B and the Everglades National Park has designated under Florida Statute 373.4149.

**Landscape:** An areal entity that is a composite of all the characteristics that distinguish a certain area on the earth's surface from other areas.

**Levee:** Small rise or embankment used to keep water in certain areas, for example, the Dade-Broward Levee helps keep water within the Pennsuco Wetlands.

**Listed species:** Any species of fish, wildlife, or plant that has been determined to be endangered or threatened under Section 4 of the Endangered Species Act.

**Littoral:** The region of well-lit water close to shore. Home to most of the aquatic plant life (both rooted and floating) in a pond or lake because the high amount of sunlight reaching it allows for significant photosynthetic activity.

**Littoral shelf:** Of, pertaining, or existing on a shore, in this case along the shores of the lakes being created in the Lake Belt.

**Littoral zone:** The shore zone from the high water mark to a depth where light is barely sufficient for rooted aquatic plants to grow.

**Loading (or mass loading):** The amount of material carried into a specified area, expressed as mass per unit of time. One example is phosphorus loading into Water Conservation Area 2A, measured in metric tons per year.

**Long-term plan:** The conceptual plan for achieving and maintaining water quality goals for all discharges to the Everglades Protection Area. The long-term plan contains activities to achieve that goal and to permit the State of Florida and the South Florida Water Management District to fulfill their obligations under the Everglades Forever Act.

**Management:** Any intentional or planned activity that has an effect on an existing natural community which has been degraded in some way. Management that attempts to restore natural community functions, structures and/or composition is termed restorative management. Restorative management includes both in-kind restoration and not-in-kind restoration.

**Marl:** A clay, sand, limestone mixture of varying proportions that is soft and crumbly and usually contains shell fragments.

**Marsh:** An area of soft, wet, low-lying land, characterized by grassy vegetation and often forming a transition zone between water and land.

**Median:** The middle value in a set of ordered data. The median is often used to express the typical (average) value of a group of water quality data because the median is less influenced than the arithmetic average by outlying values routinely seen in such data.

**Melaleuca:** Any of various chiefly Australian shrubs or trees belonging to the genus *Melaleuca*, of the myrtle family, considered an invasive species in Florida, the State is actively trying to eradicate it from many areas where it threatens wetlands such as the Everglades National Park.

**Migration:** In genetics, gene flow between populations; often used more generally for broad-scale movement of organisms with or without gene flow.

**Mitigation:** Compensation required for the alteration of natural resources or habitat pivotal to the survival or well-being of listed species.

**Model:** A conceptual or mathematical simulation of reality (e.g., biological) for purposes of describing, analyzing, or understanding nature.

**Muck:** Dark, organic soil derived from well-decomposed plant biomass.

**Native plant:** The term "native plant" may be defined several ways. The broadest definition would say native plants are plants that were indigenous to the landscape before European settlers arrived on the North American continent. If this definition was applied to just Florida, then it would say native plants are those plants that were indigenous to Florida before the arrival of European settlers. This definition may be extended even further to say that native plants are those plants that occur naturally and are not present due to ANY type of human activity, including American Indian activities before the arrival of European settlers.

**Nutrients:** Organic or inorganic compounds essential for the survival of an organism. In aquatic environments, nitrogen and phosphorus are important nutrients that affect the growth rate of plants.

**Outflow:** The act or process of flowing out of.

**Parameter:** A variable or constant representing a characteristic of interest. For example, conductance is a water quality parameter. Use of this term is highly subjective and varies greatly across disciplines.

**Parts per billion (ppb):** A unit of measure, equivalent to micrograms per liter (1 ppb = 1 µg/L).

**pH:** A measure of the concentration of hydrogen ions in a solution.

**Plan:** A predetermined course of action.

**Population:** A group of fish or wildlife in the same taxon below the subspecific level, in common spatial arrangement that interbreed when mature.

**Quality control:** Steps taken to ensure that quality standards are met.

**Recovery:** Improvement in the status of listed species to the point at which listing is no longer appropriate under the criteria set in Section 4(a)(1) of Endangered Species Act; the process by which species' ecosystems are restored so they can support self-sustaining and self-regulating populations of the listed species as persistent members of native biotic communities.

**Reserve:** Nature preserve, national park, refuge, natural reserve, or other conservation land. A tract of land set aside to preserve it in its natural condition.

**Reservoir:** A man-made or natural water body used for water storage.

**Restoration:** Management actions to return a vegetative community or ecosystem to its original, natural condition.

**Risk assessment:** A tool to estimate the probability of extinction (or persistence) for a particular species.

**Ruling grade:** The steepest grade on a given stretch of track, which determines the maximum tonnage that can be hauled in a train having a given horsepower at a stated minimum speed.

**Slough:** A depression associated with swamps and marshlands as part of a bayou, inlet or backwater; it contains areas of slightly deeper water and a slow current and can be thought of as the broad, shallow rivers of the Everglades.

**Species:** Any subspecies of fish or wildlife or plants, and any distinct population segment of any species or vertebrate fish or wildlife which interbreeds when mature.

**Species abundance:** In ecology, the relative distribution of the number of individuals of each species in a community.

**Species of concern:** The Florida Fish and Wildlife Conservation Commission maintains the State list of animals designated as endangered, threatened, or species of special concern, in accordance with Rules 68A-27.003, 68A-27.004, and 68A-27.005, respectively, of the Florida Administrative Code for Wetlands.

**Species richness:** The number of species occurring in a particular area for a specified sampling period.

**Structure:** Man-made pump stations, reservoirs, channel improvements canals, levees, and diversion channels.

**Variety:** A rank in the hierarchy of botanical classification; the principal category between species and form; an ambiguous term often used for any variant group within a species.

**Vegetation type:** A plant community with distinguishable characteristics.

**Water Conservation Areas (WCAs):** Diked areas of the remnant Everglades that are hydrologically controlled for flood control and water supply purposes. The primary targets of the Everglades restoration, and major components of the Everglades Protection Area.

**Watershed:** A region or area bounded peripherally by a water parting and draining ultimately to a particular watercourse or body of water.

**Wetland:** An area that is inundated or saturated by surface water or groundwater with vegetation adapted for life under those soil conditions (for example, swamps, bogs, and marshes).

**Zoning:** Land-use zoning; the demarcation of a planning area by ordinance into zones and the establishment of regulations to govern their use.