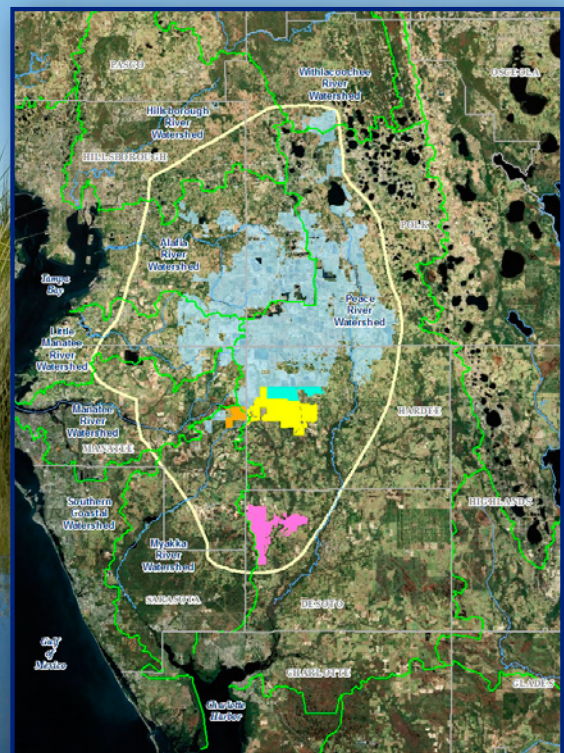


CHAPTER 10

GLOSSARY



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GLOSSARY

Administrative Record: A record of all documents relied upon in preparing a NEPA document.

Aesthetic resources: The components of the environment as perceived through the visual sense only. Aesthetic specifically refers to beauty in both form and appearance.

Affected Environment: The environment of the study area that could be affected by the alternatives under consideration.

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

Alternative: A way to fix the identified problem or satisfy the stated need. Under NEPA, and the USACE's regulations for implementing NEPA, an EIS examines all reasonable alternatives to the proposal, as well as the No Action Alternative and the Applicant's Preferred Alternative (the proposed action).

Anthropogenic: Resulting from human influence.

Applicant: An individual, company, or other organization for whom an application for a permit from a Federal or state regulatory agency has been formally submitted.

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

Aquifer storage and recovery (ASR): 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.

Baseline or base case: The existing environmental conditions against which impacts of the proposed action and its alternatives can be compared.

Basin: The land area that drains water to a particular stream, river, lake, or other surface water body. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map. Equivalent to watershed.

Beneficiation: In phosphate mining, the process of physical/chemical separation of phosphate rock material from sands and clays, all of which form the matrix of materials excavated from below the ground surface – in the CFPD, from within the surficial aquifer.

- 1 **Benthic:** Pertaining to the bottom or sediment habitats of a body of water.
- 2 **Best management practices (BMPs):** Structural, nonstructural, and managerial techniques to prevent or
3 reduce pollution of surface water, or to accomplish other desired environmental protection goals.
- 4 **Biodiversity:** Refers to the variety and variability among living organisms and the ecological complexes
5 in which they occur. Diversity can be defined as the number of different items and their relative
6 frequencies. Biodiversity in a system is important because it is an indication of the system's health and
7 resilience - the greater the biodiversity, the better the health of the system and the greater its resilience in
8 responding to stressors.
- 9 **Biological Opinion:** Document stating the opinion of the U.S. Fish and Wildlife Service or the National
10 Marine Fisheries Service on whether a Federal action is likely to jeopardize the continued existence of
11 listed species or result in the destruction or adverse modification of critical habitat.
- 12 **Biomass:** The amount of living material in a particular sample, population, or area, usually measured as
13 dry mass.
- 14 **Biota:** The plants and animals of an area.
- 15 **Buffer:** Multiuse transition areas designed and managed to protect core reserves and critical corridors
16 from the destructive impacts of human activities. Buffers are designed with consideration for the specific
17 ecological features to be protected and the specific activities that threaten them. These lands may be
18 owned and managed through a wide variety of public and/or private programs. Buffer Zone is an area to
19 remain untouched between a construction activity and a regulated wetland.
- 20 **Central Florida Phosphate District (CFPD):** The CFPD is a geographic area in central/west central
21 Florida which consists of an area of approximately 1.32 million acres in Hillsborough, Polk, Manatee,
22 Hardee, and Desoto counties (with a very small portion of Sarasota county included). The CFPD
23 boundary has been defined by the Florida Department of Environmental Protection as the Conceptual
24 Phosphate Mineable Limit (FDEP, 2012). The agency indicated that this area "...has been determined by
25 geologic and phosphate company prospect data to be the area containing phosphate reserves which are
26 mineable under current economic and technological restraints." Potential reserves within areas where the
27 geologic formations extend beyond the boundary of the CFPD are considered to either be of lesser
28 quality, occur deeper below ground surface, or otherwise are not economically mineable with current
29 technology limitations.
- 30 **Compliance monitoring:** In a water quality management program, compliance is associated with
31 meeting permit conditions based on ambient standards. Ongoing monitoring provides periodic water
32 quality data, which are used to assess compliance.

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 Endangered Species Act (16 U.S.C. 1531 et seq.) 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. May also refer to interagency or intergovernmental process for reviewing potential effects on cultural resources with a State or Tribal Historic Preservation Office.

Cooperating agency: Any Federal agency other than a lead agency, which has jurisdiction by law or special expertise with respect to any environmental impact involved in a major federal action significantly affecting the quality of the human environment. A state or local agency of similar qualifications may, by agreement with the lead agency, become a cooperating agency.

Corridor: Landscape linkages designed to permit large-scale and long-term ecological processes to continue operating within fragmented ecosystems. Ecological corridors may be designed to facilitate movement 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 are 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.

Council on Environmental Quality (CEQ): Established by Congress within the Executive Office of the President as part of the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) coordinates federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives.

Cover type: A classification of land by its dominant feature, whether natural or man-altered, such as a body of water, plant species, or land use (e.g., lakes, dense melaleuca, or agriculture).

Critical habitat: The specific areas within the geographical area occupied by a species that is listed as endangered, in accordance with the provisions of Section 4 of the Endangered Species Act (16 U.S.C. 1531 et seq.), which have physical or biological features essential to the conservation of the species that may require special management considerations or protection; and specific areas outside the geographical area occupied by the listed species, 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.

Cumulative Impacts: The impacts on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Direct Impact: The effects of an action which are caused by the action and occur at the same time and place.

Direct runoff: Water that flows over the ground surface or through the ground directly into streams, rivers, and lakes.

Discharge (or flow): The rate of water movement past a reference point, measured as volume per unit of 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.

Dispersion: The phenomenon by which a solute in flowing groundwater is mixed with uncontaminated groundwater and becomes reduced in concentration. Dispersion is caused by both differences in the velocity that the water travels at the pore level and differences in the rate at which water travels through different strata in the flow path.

Dragline: With respect to this Areawide EIS, a dragline is an electrically-powered mechanical excavator used by phosphate mining operations to conduct earthwork movement to support the mining operations. The draglines are very large machines capable of excavating the soil overburden and the matrix of phosphate rock/phosphatic clays/sands and depositing them either in stockpile areas (overburden) or in slurry pits (matrix).

Drawdown: A lowering of the water level in an aquifer 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: A system made up of the community of living things (animals, plants, and microorganisms) which are functionally interrelated to each other and the physical and chemical environment in which they live.

Effects: *Effects* and *impacts*, as used in NEPA, are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental

Effluent: Wastewater--treated or untreated--that flows out of a treatment plant, sewer, or industrial outfall. Generally refers to wastes discharged into surface waters.

Endangered species: Plants or animals that are in danger of extinction through all or a significant portion of their ranges and that have been listed as endangered by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service following the procedures outlined in the Endangered Species Act and its implementing regulations (50 CFR §424).

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

Environmental Consequences: Environmental effects of project alternatives, including the proposed action, any adverse environmental effects which cannot be avoided, the relationship between short-term uses of the human environment and any irreversible or irretrievable commitments of resources which would be involved if the proposal should be implemented.

Environmental Impact Statement: A detailed written statement required by section 102(2)(C) of NEPA, analyzing the environmental impacts of a proposed action, adverse effects of the project that cannot be avoided, alternative courses of action, short-term uses of the environment versus the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources.

Environmental Justice: The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Environmental Resource Permit: A permit issued by the Florida Department of Environmental Protection or one of the state's water management districts authorizing actions impacting lands, wetlands, or any waters of the state through construction, dredge and fill actions, or similar activities.

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

Estuary: A place where fresh and salt water mix, such as a bay, salt marsh, or where a river enters an ocean.

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 and anoxic conditions, and eventually lead 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).

Executive Order: Official proclamation issued by the President that may set forth policy or direction or establish specific duties in connection with the execution of federal laws and programs.

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

Extraction: For this Areawide EIS, equivalent to excavation from the ground.

Fauna: All animal life associated with a given habitat.

Federal Action: An action by a federal agency. Federal actions may include supplying funding for a project, authorizing or permitting a project, undertaking or sponsoring a project.

Federally listed threatened and endangered species: Species of wildlife that have been determined by the U.S. Fish and Wildlife Service to be endangered or threatened under the Endangered Species Act, as amended (16 U.S.C. 1531 et seq.).

Fertilizer: Any of a large number of natural and synthetic materials, including manure and compounds containing nitrogen, phosphorus, and/or potassium, spread on or worked into soil to increase its capacity to support plant growth. As used in this document, "fertilizer" generally refers to a manufactured material.

Floodplain: The lowlands and relatively flat areas adjoining inland and coastal waters

Flora: All plant life associated with a given habitat.

Florida Statutes (F.S.): 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.

Floridan aquifer system: According to the USGS, “The Floridan aquifer system is a sequence of carbonate rocks mostly ranging in age from Paleocene to early Miocene that are hydraulically connected in varying degrees. This carbonate sequence includes units of very high to low permeability that form a regional flow system.” The FAS in southern west-central Florida lies below the surficial and intermediate aquifers and increases in depth to the south within the CFPD.

Fugitive Emissions: Any air pollutant emitted to the atmosphere other than from a stack. Sources of fugitive emissions include pumps; valves; flanges; seals; area sources such as ponds, lagoons, landfills, piles of stored material (e.g., coal); and road construction areas or other areas where earthwork is occurring.

Geographic Information System (GIS): A system of computer hardware, software, and geographic data designed to capture, store, update, manipulate, analyze, and display geographically referenced data.

Geologic era: The primary and largest division of geologic time, which are in turn divided into Periods, Epochs and Stages.

Geologic Formation: A formally named rock stratum (a bed or layer of sedimentary rock having approximately the same composition throughout) or geological unit (a volume of rock or ice of identifiable origin and age range that is defined by the distinctive and dominant), easily mapped and recognizable characteristics.

Greenhouse gas: Any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Greenway: 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.

Groundwater: Water below the ground surface in a zone of saturation.

Gyp Stack (Phosphogypsum Stack): Phosphogypsum is a solid byproduct of chemical processes used by the fertilizer manufacturing industry in converting phosphate rock into finished products. The material is stockpiled in “stacks”, also referred to as “gyp stacks”, pending identification of alternative means of disposal or reuse.

Habitat: The place where a population (e.g. human, animal, plant, microorganism) lives and its surroundings, both living and non-living.

- Historic property:** Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior.
- Human environment:** Includes the natural and physical environment and the relationship of people with that environment.
- Hydric:** Wet -- typically, used in reference to wet soils (water saturated soils).
- 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.
- Impervious surface:** A hard surface area that either prevents or retards the entry of water into the soil mantle or causes water to run off the surface in greater quantities or at an increased rate of flow.
- Impoundment:** A reservoir used for retaining water.
- Indirect Impacts:** Indirect impacts or effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.
- Infauna:** Aquatic animals that live on the substrate of a body of water.
- Inflow:** The act or process of flowing in or into (e.g., inflow of surface water).
- Infrastructure:** The fundamental facilities and systems serving a county, city, or any area—for the AEIS, particular emphasis is on phosphate mine infrastructure such as clay settling areas, pipelines and pump stations, wells, ditch and berm systems, roadways, railways, electrical or other utilities, etc.
- Intermediate aquifer system:** According to the USGS, "...the intermediate aquifer system is ... composed of multiple water-bearing zones separated by confining units. Deposition of a complex assemblage of carbonate and siliciclastic sediments during the late Oligocene to early Pliocene time resulted in discontinuities that are reflected in transitional and abrupt contacts between facies. The IAS in southern west-central Florida lies between the surficial and Floridan aquifers and varies in depth and thickness within the region.
- Introduction:** Movement of a plant or animal 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.

Karst: A landscape shaped by the dissolution of a layer or layers of soluble bedrock, usually carbonate rock such as limestone or dolomite.

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.

Land use: General term used to describe how land is or may be utilized or developed, whether for industrial, commercial, residential, agricultural, or natural purposes, or as open space.

Lead agency: The agency preparing, or having taken primary responsibility for preparing, the NEPA document.

Levee: An earthen embankment used to keep water in certain areas.

Listed species: A species, subspecies, or distinct vertebrate population segment that has been added to the Federal lists of Endangered and Threatened Wildlife and Plants as they appear in sections 17.11 and 17.12 of Title 50 of the Code of Federal Regulations (50 CFR 17.11 and 17.12).

Lithofacies: The rock record of any sedimentary environment, including both physical and organic constituents.

Littoral: Of, pertaining, or existing on a shore of a water body.

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.

Low-income populations: Low-income populations, defined in terms of Bureau of the Census annual statistical poverty levels (Current Population Reports, Series P-60 on Income and Poverty),

Major Federal Action: Actions with effects that may be major and which are potentially subject to Federal control and responsibility (40 CFR 1508.18).

Management: Any intentional or planned activity that has an effect on an existing natural community that 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.

Marsh: A type of wetland that does not accumulate appreciable peat deposits and is dominated by herbaceous vegetation. Marshes may be either fresh or saltwater, tidal or non-tidal.

Matrix: That part of the calcium phosphate zone that may be economic. This term is used to describe the entire minable section and is synonymous with "ore."

Maximum Contaminant Level (MCL): The designation given by the U.S. Environmental Protection Agency (EPA) to water-quality standards promulgated under the Safe Drinking Water Act. The MCL is the greatest amount of a contaminant that can be present in drinking water without causing a risk to human health. For surface or groundwaters, the MCL may be defined by applicable surface or groundwater water quality standards set by the applicable state.

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 it is less influenced than the arithmetic average by outlying values routinely seen in such data.

Midden: A deposit containing a variety of archaeological material, including animal bone, feces, shell, botanical material, vermin, pottery, and other artifacts associated with past human occupation.

Milligrams per Liter (mg/L): A unit of the concentration of a constituent in water or wastewater. It represents 0.001 gram of a constituent in 1 liter of water. It is approximately equal to one part per million (ppm).

Migration: Broad-scale movement of water or organisms (e.g., groundwater migration, pathogen migration).

Minimum Flows and Levels: Surface water flows and lake and groundwater levels for priority water bodies and water resources that SWFWMD must establish to protect these resources from significant harm. According to the Florida Water Resources Act of 1972, "minimum flows" are defined as "the minimum flow for a given watercourse shall be the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area" (Section 373.042, F.S.). A minimum level is defined as "the level of ground water in an aquifer and the level of surface water at which further withdrawals would be significantly harmful to the water resources of the area. Statutes provide that MFLs shall be calculated using the best available information.

Minority populations: Minority populations exist where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than in the general population or other appropriate unit of geographic analysis (such as a governing body's jurisdiction, a neighborhood, census tract, or other similar unit). "Minority" refers to individuals who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.

Mitigation: Planning actions taken to avoid an impact altogether to minimize the degree or magnitude of the impact, reduce the impact over time, rectify the impact, or compensate for the impact.

Model: A conceptual or mathematical simulation of reality for purposes of describing, analyzing, or understanding nature.

National Ambient Air Quality Standards (NAAQS): Standards defining the highest allowable levels of certain pollutants in the ambient air (i.e., the outdoor air to which the public has access).

National Pollutant Discharge Elimination System (NPDES): A provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States unless a special permit is issued by the Environmental Protection Agency, a state, or, where delegated, a tribal government on an Indian reservation.

National Register of Historic Places (NRHP): The nation's inventory of known historic properties that have been formally listed by the National Park Service (NPS). The National Register of Historic Places is administered by the NPS on the behalf of the Secretary of the Interior. National Register listings include districts, landscapes, sites, buildings, structures, and objects that meet the set of criteria found in 36 CFR 60.4.

Native plant: In its broadest definition, plants that were indigenous to the landscape before European settlers arrived on the North American continent. If applied to just Florida, plants 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 Native American activities before the arrival of European settlers.

Natural resources: The viable and/or renewable products of nature and their environments of soil, air, and water. Included are the plants and animals occurring on grasslands, rangelands, croplands, forests, lakes, and streams.

No Action Alternative: As defined by 33 CFR Part 325, Appendix B, Paragraph 9.b.5(b), the No Action Alternative is one which results in no construction requiring a Corps permit. It may be brought by (1) the applicant electing to modify his proposal to eliminate work under the jurisdiction of the Corps or (2) by the denial of the permit.

Notice of Availability (NOA): An NOA is the Federal Register notice that announces the availability of a draft or final Environmental Impact Statement (EIS).

Notice of Intent (NOI): A notice that an environmental impact statement will be prepared and considered.

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.

- 1 **Outflow:** The act or process of flowing out of.
- 2 **Overburden:** Unconsolidated soil layers consisting of sands and clays overlaying the matrix of material
3 containing the targeted phosphate ore.
- 4 **Parameter:** A variable or constant representing a characteristic of interest. For example, conductance is
5 a water quality parameter. Use of this term is highly subjective and varies greatly across disciplines.
- 6 **Participating agency:** Federal, state, and local agencies who agree to support a NEPA evaluation
7 through contribution of information, participation in issues identification, and in document reviews.
- 8 **Particulate matter:** A complex mixture of extremely small particles and liquid droplets. Particle pollution
9 is made up of a number of components, including acids (such as nitrates and sulfates), organic
10 chemicals, metals, and soil or dust particles.
- 11 **Parts per billion (ppb):** The number of "parts" by weight of a substance per billion parts of water. This
12 unit is commonly used to represent pollutant concentrations. A unit of measure, equivalent to micrograms
13 per liter (1 ppb = 1 µg/L).
- 14 **Parts per million (ppm):** The number of "parts" by weight of a substance per million parts of water. This
15 unit is commonly used to represent pollutant concentrations. A unit of measure, equivalent to milligrams
16 per liter (1 ppm = 1 mg/L).
- 17 **Percolation:** The downward movement of water through porous material such as soil or rock. **pH:** A
18 measure of the concentration of hydrogen ions in a solution.
- 19 **Phosphogypsum:** Phosphogypsum refers to the gypsum formed as a by-product of processing
20 phosphate ore into fertilizer with sulfuric acid.
- 21 **Plan:** A predetermined course of action.
- 22 **Population:** A group in the same taxon below the subspecific level. In demographics, a group of people
23 sharing common cultural/racial/income characteristics.
- 24 **Potentiometric surface:** A surface that represents the level to which water will rise in tightly cased wells;
25 the water table is a particular potentiometric surface for an unconfined aquifer.
- 26 **Proposed Action:** In a NEPA document, this is the primary action being considered. Its impacts are
27 analyzed together with the impacts from alternative ways to achieve the same objective and the required
28 no action alternative, which means continuing with the status quo.
- 29 **Purpose and Need:** Explanation of why the federal agency and project proponent are undertaking the
30 proposed action and what objectives they intend to achieve. The statement of purpose and need provides

the basis for developing a range of reasonable alternatives and, ultimately, the identification of the preferred alternative.

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

Radon: A colorless, radioactive, inert gaseous element formed by the radioactive decay of radium.

Raster: A regular grid of cells covering an area; each cell within this matrix contains an attribute value as well as location coordinates.

Reclamation: The conversion of mined or other disturbed lands into economically productive properties.

Record of Decision (ROD): At the time of its decision, each agency shall prepare a concise public record of decision. The record, which may be integrated into any other record prepared by the agency, shall:

(a) State what the decision was.

(b) Identify all alternatives considered by the agency in reaching its decision, specifying the alternative or alternatives which were considered to be environmentally preferable.

(c) State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.

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 the Endangered Species Act (16 U.S.C. 1531 et seq.); 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.

Refugia: An area that provides an organism with suitable habitat in times of stress. For example, during drier periods within the Lake Belt region, some fish species may survive by seeking out and inhabiting the deeper pools within a marsh.

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

Reservoir: A manmade 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.

Runoff: The portion of rainfall or irrigation water that flows across ground surface and is eventually returned to streams.

Scoping process: An early and open process for determining the extent and variety of issues to be addressed and for identifying the significant issues related to a proposed action.

Section 404: In reference to Section 404 of the Clean Water Act (CWA). The portion of the CWA addressing conditions under which authorization to fill Waters of the United States may be permitted.

Seepage: The movement of fluid particles through porous media.

Significant: As used in NEPA, requires consideration of both context and intensity. Context means that the significance of an action must be analyzed in several contexts such as society as a whole, and the affected region, interests, and locality. Intensity refers to the severity of impacts (40 CFR 1508.27).

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, wildlife, or plants, and any distinct population segment of any species of vertebrate fish or wildlife that interbreeds when mature.

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

Species of concern: A species identified by a State, federal, local agency; the state heritage program, an NGO, or other organization, that is recognized to be in need of conservation management in order to maintain existing limited populations, distributions, or declining populations. The Florida Fish and Wildlife Conservation Commission maintains the State list of species designated as endangered, threatened, or 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.

Stakeholder: Interested party, as in agencies, other organizational groups, or individual members of the public interested in a given issue.

Stormwater: Surface water runoff from the land or other surfaces generated due to rainfall.

Structure: Manmade pump stations, reservoirs, channel improvements, canals, levees, and diversion channels.

Sub-basin: A portion of a larger basin or watershed within which surface water collects and drains through a stream or similar water conveyance.

Surface water: All bodies of water on the surface of the earth and open to the atmosphere, such as streams, rivers, lakes, reservoirs, ponds, seas, and estuaries.

Surficial aquifer system: The water table system. Shallow aquifer generally located from just below the ground surface to the vertical limit of the first impermeable or relatively impermeable rock layer.

Threatened species: Any plants or animals that are likely to become endangered species within the foreseeable future throughout all or a significant portion of their ranges and which have been listed as threatened by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service following the procedures set out in the Endangered Species Act and its implementing regulations (50 CFR §424). (See endangered species.) The lists of threatened species can be found at 50 CFR §17.11 (wildlife), §17.12 (plants), and §227.4 (marine organisms).

Upland: Lands located upgradient topographically from defined wetlands.

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 table: The top of the water surface in the saturated part of an aquifer.

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.

Waters of the United States: As defined in 40 CFR 230.3(s), the term waters of the United States means:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) (From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;

1 or

2 (iii) Which are used or could be used for industrial purposes by industries in interstate commerce;

3 4. All impoundments of waters otherwise defined as waters of the United States under this
4 definition;

5 5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;

6 6. The territorial sea;

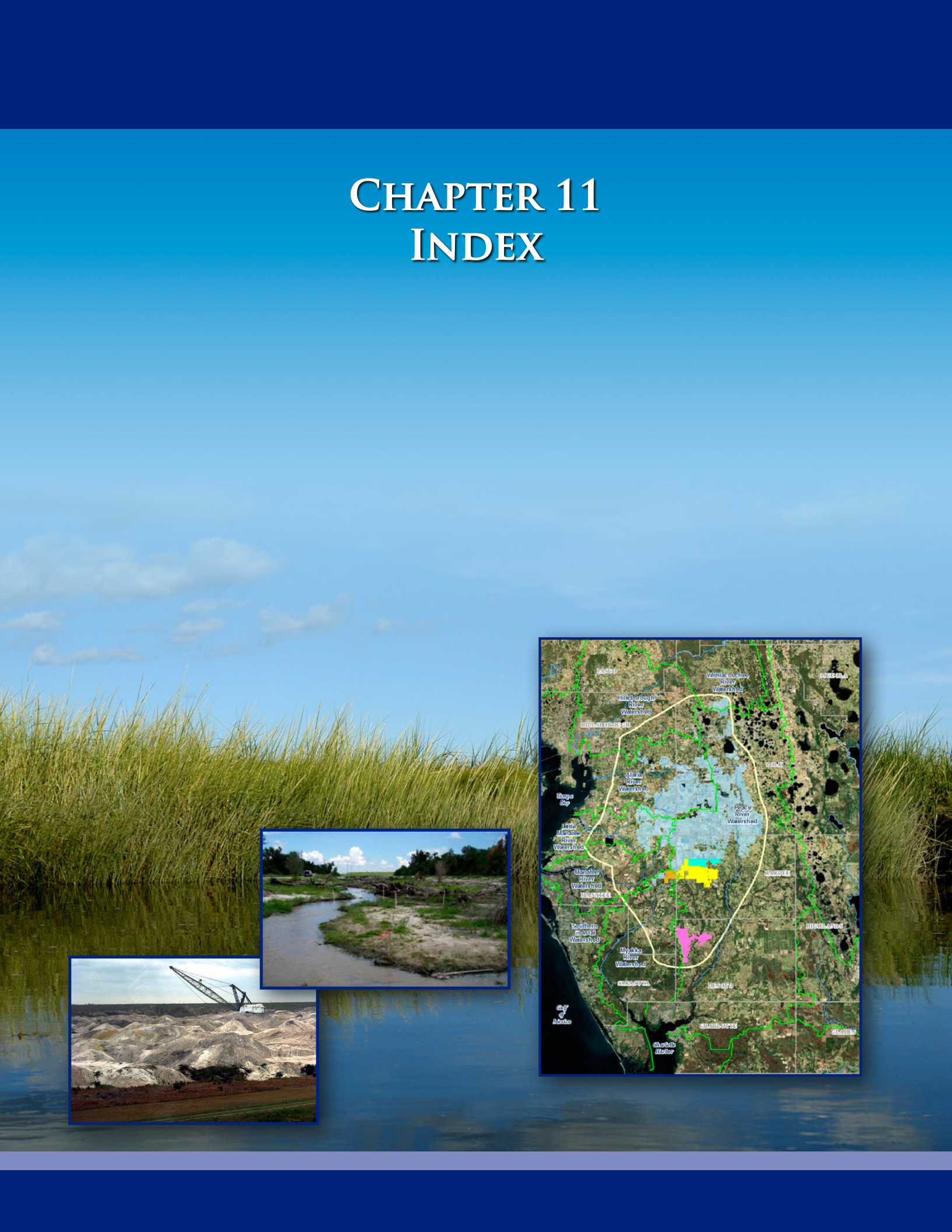
7 7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in
8 paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds
9 or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40
10 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

11 **Wetland:** Those areas that are inundated or saturated by surface or ground water at a frequency and
12 duration sufficient to support, and that under normal circumstances do support, a prevalence of
13 vegetation typically adapted for life in saturated soil conditions. Wetlands are areas that generally include
14 swamps, marshes, bogs, and similar areas.

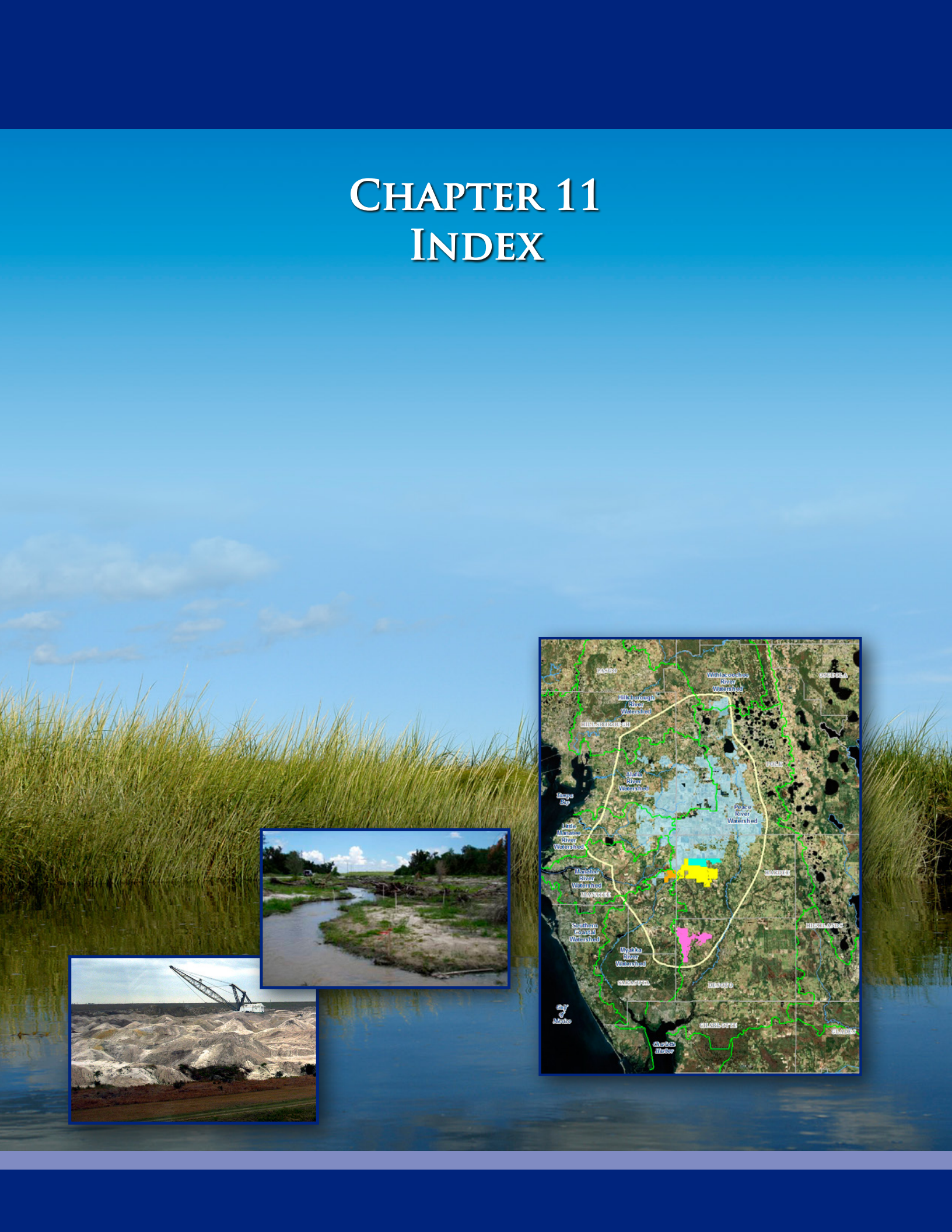
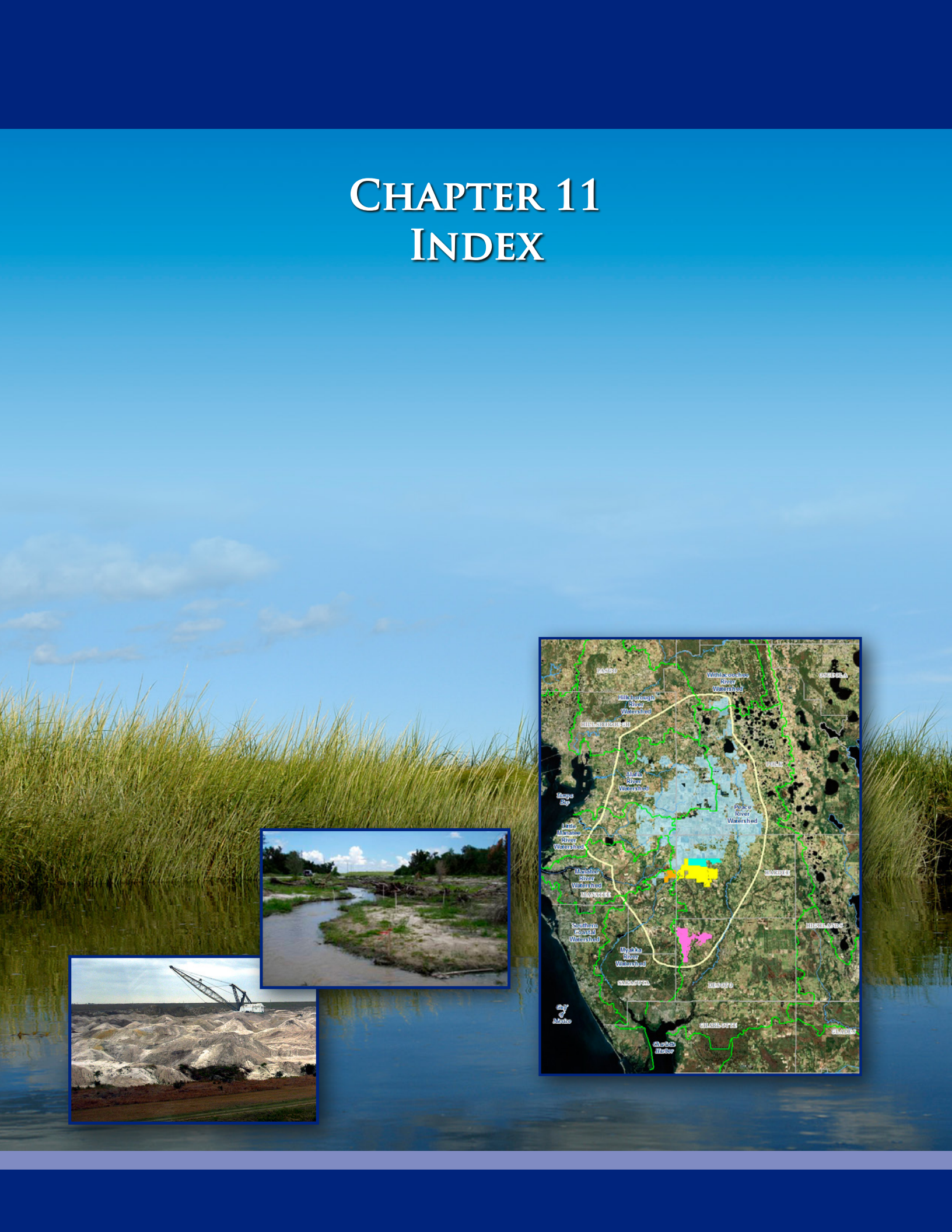
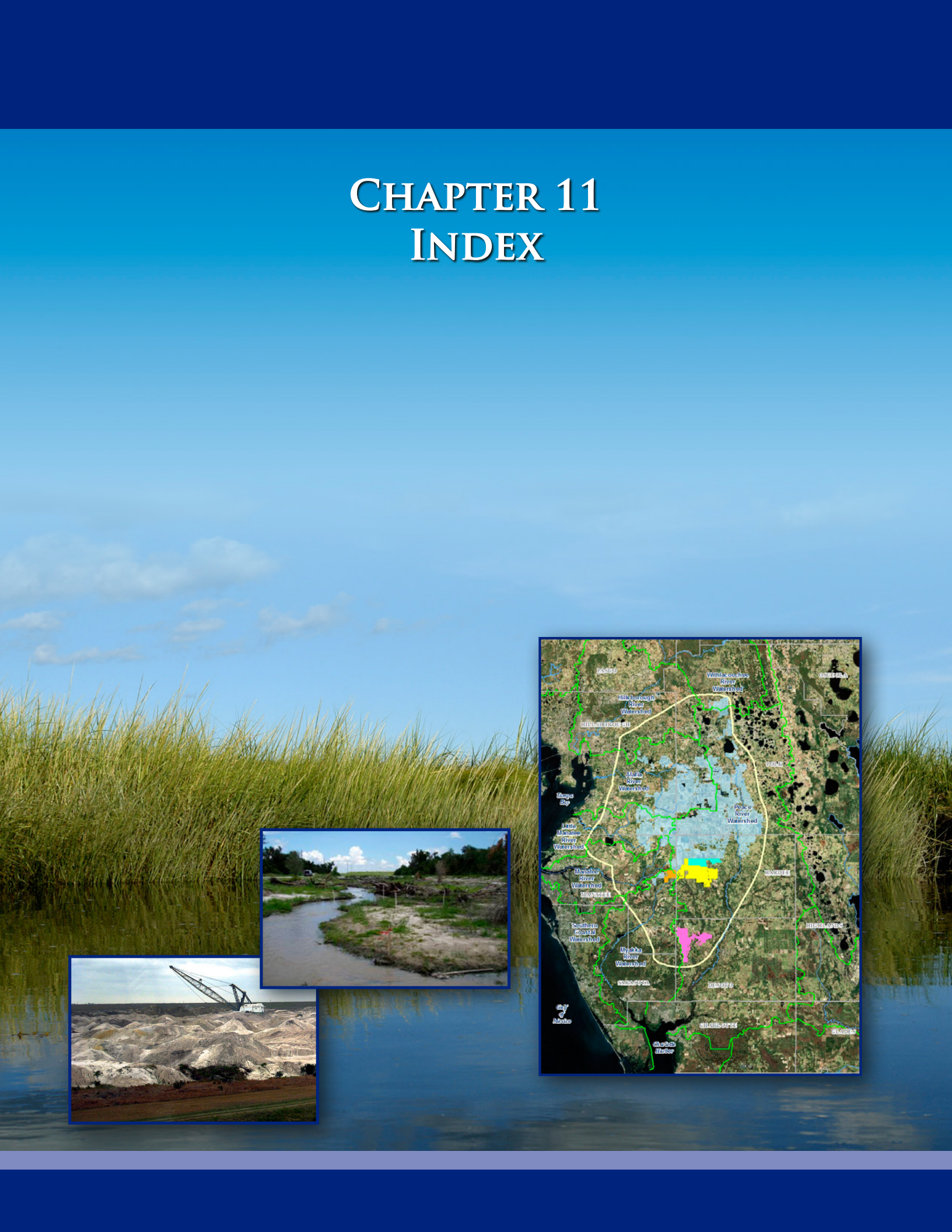
15 **Zoning:** The demarcation of a planning area by ordinance into land-use zones and the establishment of
16 regulations to govern their use.

CHAPTER 11

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The background image shows a serene landscape of tall, golden-brown grasses growing in shallow water under a clear blue sky. Overlaid on the right side is a detailed map of the Mississippi River watershed, showing its extensive reach across the United States and into Mexico. The map is color-coded to show different sub-watersheds, with labels such as 'Mississippi River Watershed', 'Atchafalaya River Watershed', 'Arkansas River Watershed', 'Illinois River Watershed', 'Missouri River Watershed', 'Ohio River Watershed', 'Tennessee River Watershed', 'Alabama River Watershed', 'Florida River Watershed', 'Gulf of Mexico', and 'Atlantic Ocean'. A yellow line traces the main course of the Mississippi River. Two specific areas are highlighted: a yellow patch in the central part of the watershed and a pink patch in the southern part. On the bottom left, there are two smaller inset photographs. The top inset shows a river with a large crane or barge in the distance, and the bottom inset shows a large pile of sand or sediment, likely from a dredging operation.



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