11.0 GLOSSARY

The following definitions are for the convenience of those reading this Environmental Impact Statement and do not replace definitions in state, federal, or local laws, regulations, and ordinances.

100-year floodplain: These floodplains represent an area of inundation having a one-percent chance of being equaled or exceeded in any given year.

500-year floodplain: These floodplains represent an area of inundation having a 0.2 percent chance of being equaled or exceeded in any given year.

Aerosol: A system of particles dispersed in a gas.

Aesthetics: The subjective perception of beauty in a landscape.

Air emissions: Pollution discharged into the atmosphere from smokestacks, other vents, and surface areas of commercial or industrial facilities; from residential chimneys; and from motor vehicle, locomotive, or aircraft exhausts.

Alluvial: Characterizing deposits of soil or gravel that are caused by flowing water.

Alternatives or alternative plans: Combinations of management measures that collectively meet study goals and objectives within the defined study constraints.

Ambient air: The air surrounding or contacting an organism, through which chemicals or pollutants can be carried and can reach the organism.

Ambient noise: The all-encompassing noise associated with a given environment at a specified time, being usually a composite of sounds from many sources at many directions, both near and far, that provide a relatively stable noise exposure with no particular dominant sound.

Ammonium carbonate: A compound of carbonate and ammonium, used in the manufacture of smelling salts and baking powder and ammonium compounds, which does not participate in atmospheric photochemical reactions.

Amphipod: A type of crustacean.

Amplitude: The maximum absolute value of a periodically varying quantity.

Anadromous: Species that ascend rivers from the sea for purposes of breeding.

Anthropogenic: Relating to, or resulting from, the influence of humans on nature (e.g., anthropogenic pollution).

Area of Potential Effects: Cultural resources study area equivalent to the "geographic area or areas within which an undertaking my directly or indirectly cause alterations in the character or use of historic properties" per 36 C.F.R. 800.16(d),

Aquifer: An underground bed or stratum of earth, gravel, or porous stone that contains water.

Arribada: A mass nesting of sea turtles.

Arsenic: A poisonous chemical element that is used especially to kill insects and weeds.

Asbestos: A soft gray mineral that does not burn that was used especially as a building material in the past, and that can cause serious diseases of the lungs when people breathe its dust.

Asbestos-containing material (ACM): Building materials containing asbestos.

Assay: Examination and determination as to characteristics (as weight, measure, or quality).

Assemblage/Species Assemblage: A group.

At-risk species: Biologists commonly refer to species as "at-risk" if they face possible extinction from a geographic area. For the purposes of conservation strategy, the USFWS defines "at-risk species" as those species that have either been proposed for listing, are candidates for listing, or have been petitioned for listing.

Atmospheric photochemical reaction: A chemical reaction initiated by the absorption of energy in the form of light which takes places in the Earth's atmosphere.

Attainment area: A geographic area that meets the National Ambient Air Quality Standard (NAAQS) is called an attainment area. An area with too much of a pollutant to meet the NAAQS for that pollutant is called a nonattainment area. NAAQSs are concentration levels for each of six criteria air pollutants, above which adverse effects on human health may occur. The six criteria pollutants are used as indicators of air quality.

Baseline: Information that is used as a starting point by which to compare other information.

Benefits: Valuation of positive performance measures.

Benthic: Living on or in sea, lake, or stream bottoms.

Bent: A framework placed across a structure to stiffen it.

Benzene: A colorless volatile flammable toxic liquid aromatic hydrocarbon C_6H_6 used in organic synthesis, as a solvent, and as a motor fuel; called also benzol.

Beryllium: A steel-gray light strong brittle toxic metallic element used chiefly as a hardening agent in alloys.

Best management practice (BMP): A practice or combination of practices determined to be the most practicable means of preventing or reducing, to a level compatible with environmental goals, the amount of pollution generated by nonpoint sources. BMPs are selected on the basis of site-specific conditions that reflect natural background conditions and political, social, economic, and technical feasibility.

Bioassay: Determination of the relative strength of a substance (such as a drug) by comparing its effect on a test organism with that of a standard preparation.

Bioeffect: A biological effect.

Biomass: The total mass of living matter (plant and animal) within a given unit of environmental area.

Bivalve: A typically marine animal that has a shell with two movable parts connected by a hinge, such as clams, oysters, or scallops.

Bog: A poorly drained usually acid area rich in accumulated plant material, frequently surrounding a body of open water, and having a characteristic plant community.

Brackish marsh (BRM): Intertidal plant community typically found in the area of the estuary where salinity ranges between 4 and 15 ppt.

Brackish water: A mixture of fresh and salt water.

Calving: Giving birth.

Candidate species: A plant or animal species for which USFWS or NOAA Fisheries has on file sufficient information on biological vulnerability and threats to support a proposal to list as threatened or endangered.

Carbon dioxide (CO_2): A colorless, odorless, nonpoisonous gas that is a normal part of the ambient air. CO_2 is a product of fossil fuel combustion, and some researchers have theorized that excess CO_2 raises atmospheric temperatures.

Carbon monoxide (CO): A colorless, practically odorless, and tasteless gas or liquid. It results from incomplete oxidation of carbon in combustion. It burns with a violet flame, is slightly soluble in water, and is soluble in alcohol and benzene.

Carbonic acid: A chemical compound with the chemical formula H_2CO_3. It is also a name sometimes given to solutions of carbon dioxide in water, because such solutions contain small amounts of H_2CO_3.

Carcinogen: A substance or agent producing or inciting cancer.

Cetaceans: Any of an order (Cetacea) of aquatic mostly marine mammals that includes the whales, dolphins, porpoises, and related forms and that have a torpedo-shaped nearly hairless body, paddle-shaped forelimbs but no hind limbs, one or two nasal openings at the top of the head, and a horizontally flattened tail used for locomotion.

Chassis: Special trailer or undercarriage on which containers are moved over the road.

Clean Water Act, Section 404(b)(1): There are several sections of this Act that pertain to regulating discharges into wetlands. The discharge of dredged or fill material into waters of the United States is subject to permitting specified under Title IV (Permits and Licenses) of this Act and specifically under Section 404 (Discharges of Dredge or Fill Material) of the Act.

Coastal zone: Coastal waters and adjacent lands that exert a measurable influence on the uses of the sea and its ecology.

Compensatory mitigation: The restoration (reestablishment or rehabilitation), establishment (creation), enhancement, and/or, in certain circumstances, preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts that remain after all appropriate and practicable avoidance and minimization has been achieved.

Component: A site or portion of a site that is spatially and chronological discrete.

Concurrence: Agreement; also, a situation in which two or more things happen at the same time.

Confluence: The intersection of two or more streams, or where one flows into another.

Connectivity: Property of ecosystems that allows for exchange of resources and organisms throughout the broader ecosystem.

Container: A box for transporting cargo, constructed with varying dimensions to withstand transportation stresses.

Contaminant: A chemical or biological substance in a form that can be incorporated into, onto, or be ingested by and that harms aquatic organisms, consumers of aquatic organisms, or users of the aquatic environment.

Control structure: A gate, lock, or weir that controls the flow of water.

Conveyance: The ability of a channel or other drainage element to move stormwater.

Corridor habitat: Habitat consisting of a band of vegetation, usually older forest, which serves to connect distinct patches on the landscape and permit the movement of plant and animal species between what would otherwise be isolated patches.

Critical habitat: Specific geographic areas, whether occupied by a listed species or not, that are essential for its conservation and that have been formally designated by rule published in the *Federal Register*.

Crossing Analysis: A separate study to be conducted jointly by the Applicant, the City of Charleston, the South Carolina Department of Commerce, and the South Carolina Department of Transportation to evaluate traffic patterns and crossings around the ICTF. The study will be performed over a 10-year period upon completion of the ICTF and operation at 500,000 container units.

Crustacean: A group of aquatic animals characterized by jointed legs and a hard shell that is shed periodically, e.g., shrimp, crabs, crayfish, isopods, and amphipods.

Cumulative impacts: The combined effect of all direct and indirect impacts to a resource over time.

Damage: This term from the Congressional language is interpreted to mean damage to real property.

Decapods: Any of an order (Decapoda) of crustaceans (such as shrimps, lobsters, and crabs) with five pairs of appendages one or more of which are modified into pincers, with stalked eyes, and with the head and body fused and covered by an outer shell. Also, any of the cephalopod mollusks with 10 arms including cuttlefishes, squids, and related forms.

Decibel (dB): A unit for expressing the relative intensity of sounds on a scale from zero for the least perceptible sound to about 130 for the average pain level.

Deciduous forest: Forest composed mostly of trees that lose their leaves in the winter.

Decomposition: Breakdown or decay of organic materials.

Delineate/Delineation: To indicate, show, or describe the location of something; a stream or wetland delineation clearly identifies the boundaries and extent of surface water features.

Demographic: Of or relating to the statistical study of human populations, especially with reference to size and density, distribution, and vital statistics.

Department of the Army Permit (DA): 33 C.F.R. Parts 321.1(b) prescribe the statutory authorities, and general and special policies and procedures applicable to the review of applications for Department of the Army (DA) permits for controlling certain activities in waters of the United States or the oceans. 33 C.F.R. Parts 321.1(c) describes the various forms of authorization. 33 C.F.R. Parts 320.2 describes the authorities to issue permits.

Deposition: The natural accumulation of soil, gravel, or cultural remains laid down by natural or artificial agencies.

Detention pond: A low lying area that is designed to temporarily hold a set amount of water while slowly draining to another location. Detention ponds are designed to slow the flow of water for flood control when large amounts of rain could cause flash flooding.

Detritus: The remains of plant material that has been destroyed or broken up.

Dewatering: The process of compacting dredged sediments through losing water after being deposited.

Diadromous: Migratory between salt and fresh waters.

Dioxins: Poisonous chemicals that are sometimes used in farming and industry such as pesticide manufacture, paper making, and waste incineration.

Direct impacts: Those effects that result from the initial construction of a measure (e.g., marsh destroyed during the dredging of a canal). Contrast with "Indirect Effects."

Discharge: The volume of fluid passing a point per unit of time, commonly expressed in cubic feet per second, millions of gallons per day, or gallons per minute.

Dissolved oxygen: Oxygen dissolved in water, available for respiration by aquatic organisms. One of the most important indicators of the condition of a water body.

Dissolved solids: The total amount of dissolved material, organic and inorganic, contained in water or wastes. Excessive dissolved solids make water unpalatable for drinking and unsuitable for industrial uses.

Diurnal: Relating to or occurring in a 24-hour period; daily.

Diversion: A turning aside or alteration of the natural course or flow of water. In coastal restoration, this usually consists of such actions as channeling water through a canal, pipe, or conduit to introduce water and water-borne resources into a receiving area.

Downwellings: The downward movements of colder, denser surface water, especially in the sea. Downwelling occurs when surface waters converge (come together), pushing the surface water downwards.

Dredged material/Dredge Spoil: Material excavated from waters of the United States or ocean waters. The term refers to material that has been dredged from a water body, while sediment refers to material in a water body prior to the dredging process.

Dynamic: Characterized by continuous change and activity.

Ecological: Refers to the relationship between living things and their environment.

Economic: Of or relating to the production, development, and management of material wealth, as of a country, household, or business enterprise.

Ecoregion: A major ecosystem defined by distinctive geography and receiving uniform solar radiation and moisture. In the United States, the U.S. EPA defines ecoregions using a classification system with four levels. Level I divides North America into 15 broad ecoregions; of these, 12 lay partly or wholly within the United States. Fifty Level II regions were created to allow for a narrower delineation of Level I areas. Three level I areas were not subdivided for level 2. Level III subdivides the continent into 182 smaller ecoregions; of these, 104 lay partly or wholly with the United States. Level IV is a further subdivision of Level III ecoregions. The Proposed Project lies within the Southern Coastal Plain Level III ecoregion, and the Sea Islands/Coastal Marsh Level IV ecoregion.

Ecosystem: An organic community of plants and animals viewed within its physical environment (habitat); the ecosystem results from the interaction between soil, climate, vegetation, and animal life.

Ecotone: A transition area between two adjacent but different plant communities.

Educational attainment: A person's highest level of formal education (high school, college, etc.).

Effluent: A discharge of pollutants into the environment, partially or completely treated or in its natural state. Generally used in regard to discharges into waters.

Elver: A young eel, especially when undergoing mass migration upriver from the sea.

Embankment: A linear mound of earth or stone existing or built to hold back water or to support a roadway.

Encroachment: Entering gradually into an area not previously occupied, such as a plant species distribution changing in response to environmental factors such as salinity.

Endangered species: Animals and plants that are threatened with extinction.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

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 (40 C.F.R. 1502.16).

Environmental Impact Statement (EIS): A document that describes the positive and negative environmental effects of a proposed action and the possible alternatives to that action. The EIS is used by the federal government and addresses social issues as well as environmental ones.

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.

Ephemeral: Lasting a very short time.

Eocene: An Epoch (a major division of the geologic timescale) lasting from 56 to 33.9 million years ago. The oldest known fossils of most of the modern orders of mammals appear in a brief period during the early Eocene.

Epifauna: Benthic animals that crawl about on the sea bottom, or sit firmly attached to it.

Erosion: The gradual destruction of something by natural forces (such as water, wind, or ice): the process by which something is eroded or worn away.

Essential Fish Habitat (EFH): Those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity.

Estuary / Estuarine: A semi-enclosed body of water with freshwater input and a connection to the sea where fresh water and salt water mix; pertaining to an estuary.

Evaporation: The process by which any substance is converted from a liquid state into, and carried off in, vapor, e.g., the evaporation of water.

Facility Footprint: Terms used to describe the approximately 135-acre site.

Feasible and prudent alternative: An alternative is feasible if it can be constructed as a matter of sound engineering. Typically, alternatives that are studied in a draft environmental impact statement or environmental assessment are feasible; otherwise they would not have been carried forward for detailed study. An alternative is determined to be prudent based on how it addresses safety or operational problems; how well the project purpose and need are met; the severity of social, economic, or environmental impacts; and the severity of impacts to environmental resources protected under other federal statutes. A feasible and prudent alternative would meet the requirements for both feasible alternatives and prudent alternatives.

Fine particulate matter: A mixture of solid particles and liquid droplets found in the air, with diameters that are 2.5 micrometers and smaller. These particles cannot be seen with the naked eye. Examples of fine particulate matter include combustion particles, organic compounds, and metals.

Flood Insurance Rate Map (FIRM): The official map of a community on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community.

Floodplain: The flat, low-lying portion of a stream valley subject to periodic inundation. Residences and businesses within the floodplain are considered to be at risk of damage by flooding.

Fluvial deposits: A sedimentary deposit from a river.

Fugitive dust emissions: Emissions of any solid particulate matter that becomes airborne without first passing through a stack or duct directly or indirectly as a result of the activities of man (i.e., anthropogenic), including the raising and/or keeping of animals.

Gastropod: Any of a large class (Gastropoda) of mollusks (as snails and slugs) usually with a univalve shell or none and a distinct head bearing sensory organs.

Goals: Statements on what to accomplish and/or what is needed to address a problem without specific detail.

Gradient: A slope; a series of progressively increasing or decreasing differences in a system or organism.

Groundwater: The supply of freshwater under the Earth's surface in an aquifer or soil that forms the natural reservoir for man's use.

Habitat: The specific area or environment in which a particular type of plant or animal lives. An organism's habitat provides all of the basic requirements for the maintenance of life. Typical coastal habitats include beaches, marshes, rocky shores, bottom sediments, mudflats, and the water itself.

Habitat assessment: The process by which the suitability of a site to provide habitat for a community or species is measured. This approach measures habitat suitability using an assessment model to determine HSI.

Habitat loss: The disappearance of places where target groups of organisms live. In coastal restoration, usually refers to the conversion of marsh or swamp to open water.

Hazardous air pollutants (HAPs): Chemicals that cause serious health and environmental effects. Health effects include cancer, birth defects, nervous system problems, and death due to massive accidental releases such as occurred at the pesticide plant in Bhopal, India. Hazardous air pollutants are released by sources such as chemical plants, dry cleaners, printing plants, and motor vehicles (cars, trucks, buses, etc.).

Hazardous, Toxic, and Radioactive Wastes (HTRW): The features of projects must be examined to ensure that their implementation will not result in excessive exposure to HTRW pollutants possibly located in the study area.

Herbaceous: A plant with no persistent woody stem above ground.

Holocene: Geological period from about 10,000 B.C. to the present characterized by the recession of glaciers.

Hydric soils: Soils that are characterized by, related to, or require an abundance of moisture.

Hydrology: The pattern of water movement on the Earth's surface, in the soil and underlying rocks, and in the atmosphere.

Hydrophytic vegetation: Any vegetation that can grow only in water or very wet soil.

Ichthyoids: A fish or fishlike vertebrate.

Illicit discharges: These discharges are frequently caused when the sewage disposal system interacts with the storm drain system. A variety of monitoring techniques is used to locate and eliminate illegal sewage connections. These techniques trace sewage flows from the stream or outfall, and go back up the pipes or conveyances to reach the problem connection (Brown, Caraco, and Pitt. 2004).

Impervious: Not allowing water to enter or pass through.

Indirect impacts: Those effects that are not a direct result of project construction, but occur as secondary impacts due to changes in the environment brought about by the construction. Contrast with "direct impacts."

Infrastructure: The basic facilities, services, and installations needed for the functioning of a community or society, such as transportation and communications systems, water and power lines, and public institutions including schools, post offices, and prisons.

Inorganic: Not derived from living organisms; mineral; matter other than plant or animal.

Interaquifer contamination: Contamination that moves from one aquifer to another.

Intertidal: Alternately flooded and exposed by tides.

Intertidal zone: The marine zone between the highest high tide point on a shoreline and the lowest tide point. The intertidal zone is sometimes subdivided into four separate habitats by height above tidal datum, typically numbered 1 to 4, land to sea.

Invasive Species: A species that is not native to an ecosystem and which causes, or is likely to cause, economic or environmental harm or harm to human health.

Invertebrates: Animals without backbones, including shrimp, crabs, oysters, and worms.

Iron: A heavy malleable ductile magnetic silver-white metallic element that readily rusts in moist air, occurs native in meteorites and combined in most igneous rocks, is the most used of metals, and is vital to biological processes.

Jurisdictional Determination (JD): An official Corps determination that jurisdictional [subject to the law] "waters of the United States," or "navigable waters of the United States," or both, are either present or absent on a particular site. An approved JD precisely identifies the limits of those waters on a project site determined to be jurisdictional under the Clean Water Act.

Lagoon: A shallow body of seawater generally isolated from the ocean by a barrier island. Also the body of water enclosed within an atoll, or the water within a reverse estuary.

Larva (pl. larvae): An embryo that differs markedly in appearance from its parents and becomes self-sustaining before assuming the physical characteristics of its parents. The stage in some animals' life cycles between egg and adult (most invertebrates).

Late Cretaceous: A geologic time period called an Epoch, lasting from approximately 100 million years before present to 66 million years before present. The Cretaceous period is named after the white limestone known as chalk which occurs widely in northern France and is seen in the white cliffs of south-eastern England, and which dates from this time.

Lead: A heavy metal that may be hazardous to human health if breathed or ingested.

Levee: A linear mound of earth or stone built to prevent a river from overflowing; a long, broad, low ridge built by a stream on its flood plain along one or both banks of its channel in time of flood.

Loam: Soil composed of a mixture of sand, clay, silt, and organic matter.

Logarithmic: A scale where a base number (such as 10) has been multiplied by itself to produce an increasing scale.

Macroinvertebrates: An invertebrate (lacking a backbone) large enough to be seen without magnification.

Macrophyte: A member of the visible plant life especially within a body of water.

Management measures: A feature (a structural element that requires construction or assembly on-site) or an activity (a nonstructural action) that can be combined with other management measures to form alternative plans.

Maritime Forest: A forest located next to or bordering the sea.

Measure: A programmatic restoration feature that can be assembled with other measures to produce alternative plans. See also "Project."

Mercury: A heavy metal, highly toxic if breathed or ingested. Mercury is residual in the environment, showing biological accumulation in all aquatic organisms, especially fish and shellfish. Chronic exposure to airborne mercury can have serious effects on the central nervous system.

Metallic carbides / metallic carbonates: Any of a class of chemical compounds in which carbon is combined with a metallic or semimetallic element.

Methodology: A set of practices, procedures, and rules.

Mitigation: Minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; compensating for the impact by replacing or providing substitute resources or environments.

Mudflats: Flat, unvegetated wetlands subject to periodic flooding and minor wave action.

National Environmental Policy Act (NEPA): Ensures that federal agencies consider the environmental impacts of their actions and decisions. NEPA requires all federal agencies to consider the values of environmental preservation for all significant actions and prescribes procedural measures to ensure that those values are fully respected.

National Register of Historic Places (NRHP): A register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture maintained by the Secretary of the Interior.

Natural features: This term from the Congressional language is interpreted to mean those features that primarily serve an ecosystem restoration purpose rather than features that primarily serve another purpose, such as levees or floodwalls.

Near-dock: Near-dock port facilities are located landward of the marine terminal. Cargo containers are transported by over-the-road (OTR) trucks and/or Utility Tractor Rig (UTR) trucks to the near-dock facility from the marine terminal or from the near-dock facility to the marine terminal. Near-dock facilities may serve multiple marine terminals.

Nephelometric Turbidity Units (NTUs): The unit used to describe turbidity. Nephelometric refers to the way the instrument, a nephelometer, measures how much light is scattered by suspended particles in the water.

Neritic zone: In marine biology, the neritic zone refers to that zone of the ocean where sunlight reaches the ocean floor. The neritic zone is sometimes also called coastal waters, the coastal ocean or the sublittoral zone.

Net loss: The amount of cumulative land gain less land loss, when gain is less than loss.

Nitrogen dioxide: A reddish-brown poisonous gas used in the manufacture of nitric acid. It is also an air pollutant, a constituent of untreated automobile exhaust.

Nitrogen oxide: Any of several oxides of nitrogen, most of which are produced in combustion and are considered to be atmospheric pollutants.

No-Action Alternative: Also referred to as the future without project condition (FWOP), the No-Action Alternative describes the project site's future if there is no federal action taken to solve the problem(s) at hand. Every alternative is compared to the same without-project condition.

Nonattainment area: A geographic area in which the level of a criteria air pollutant is higher than the level allowed by the federal standards. A single geographic area may have acceptable levels of one criterion air pollutant but unacceptable levels of one or more other criteria air pollutants; thus, an area can be both attainment and nonattainment at the same time. It has been estimated that 60 percent of Americans live in nonattainment areas.

Non-point source pollutant: A source of pollution that is not highly concentrated enough to warrant its being classified as point source pollution.

Nonthreshold pollutant: A substance or condition harmful to a particular organism at any level or concentration.

Noxious species: A plant or animal that has been designated as harmful to health, agriculture, recreation, natural habitats or ecosystems, wildlife, humans, or property. Noxious species can be native or non-native to an area.

Nursery: A place for larval or juvenile animals to live, eat, and grow.

Objectives: Statements that are more specific than goals, describing how to achieve the desired targets.

On-dock: On-dock port facilities are located immediately adjacent to a marine terminal. Cargo containers may be transferred directly between the marine terminal and the on-dock facility.

Ordinary high water mark: A line on the shore established by the fluctuations of water and indicated by physical characteristics, such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Organic: Composed of or derived from living things.

Organism: Any living human, plant, or animal.

Ozone: A triatomic form of oxygen that is a bluish irradiating gas of pungent odor, is formed naturally in the upper atmosphere by a photochemical reaction with solar ultraviolet radiation, or is generated commercially by a silent electric discharge in ordinary oxygen or air; it is a major agent in the formation of smogs, and is used especially in disinfection and deodorization and in oxidation and bleaching.

Palustrine: Of or related to a swamp or marsh.

Panamax: Refers to the maximum dimensions of a vessel to transit the Panama Canal (maximum beam of 32.3 meters or 106 feet).

Particulate matter: Very fine solid or liquid particles in the air or in an emission, including dust, fog, fumes, mist, smoke, and spray, etc.

PCBs: Polychlorinated biphenyls, a group of organic compounds used in the manufacture of plastics. In the environment, PCBs exhibit many of the same characteristics as DDT and may, therefore, be confused with that pesticide. PCBs are highly toxic to aquatic life, they persist in the environment for long periods of time and are biologically accumulative.

Peak flow: The highest flow volume within a stream following a precipitation event, or over a given period of time.

Peak hour traffic volume: Highest hourly traffic volume during a typical week.

Pelagic habitat: Habitat within ocean waters. The pelagic zone of the ocean begins at the low tide mark and includes the entire oceanic water column. The pelagic ecosystem is largely dependent on the phytoplankton inhabiting the upper, sunlit regions, where most ocean organisms live.

Performance standards: Observable or measurable physical (including hydrological), chemical, and/or biological attributes that are used to determine whether a compensatory mitigation project meets its objectives.

Period of analysis: The time horizon for which project benefits, deferred construction costs, and operation, maintenance, repair, rehabilitation, and replacement costs are analyzed. **For this study, the period of analysis is from 2018 (facility opening) through 2038 (20-year planning horizon).**

Permeability: The quality or state of being permeable (penetrable).

Perennial: Lasting for a long period of time; year-round.

Pervious: Giving passage or entrance; permeable.

Petrochemical: Any compound derived from petroleum or natural gas.

Pinnipeds: Carnivorous aquatic mammal of the order Pinnipedia, such as seals or walruses.

Phosphate: A salt or ester of phosphoric acid; an organic compound of phosphoric acid in which the acid group is bound to nitrogen or a carboxyl group in a way that permits useful energy to be released.

Photochemical oxidants: The products of reactions between nitrogen oxide and a wide variety of volatile organic compounds (VOCs). The most well-known 'oxidants' are ozone (O3), peroxyacetyle nitrate (PAN) and hydrogen peroxide (H_2O_2). The main impact on the natural environment is mostly due to elevated O3.

Photochemical smog: The chemical reaction of sunlight, nitrogen oxides and volatile organic compounds in the atmosphere, which leaves airborne particles and ground-level ozone.

Phytoplankton: Plantlike, usually single-celled members (generally microscopic) of the plankton community.

Plankton: Drifting or weakly swimming organisms suspended in water. Their horizontal position is to a large extent dependent on the mass flow of water rather than on their own swimming efforts.

Planktonic: Floating in the water column.

Planning horizon: The amount of time an organization will look into the future when preparing a strategic plan. The ICTF is projected to open in 2018; a 20-year planning horizon is considered in this EIS in order to evaluate potential impacts of the facility.

Planktonic larvae: The most common early life stage of marine invertebrates, many of whom live on the bottom as adults. Some examples are crabs, clams, sea stars, barnacles, shrimp, worms, sponges, corals, and sea urchins. Also known as "meroplankton."

Pleistocene: Geological period from about 3,000,000 B.C. to 10,000 B.C. characterized by the appearance and recession of glaciers.

Point source pollution: A source of pollution that is so highly concentrated it can be considered to come from a single point.

Pollutant load: The total amount of a pollutant in a waterbody, regardless of concentration.

Polybrominated diphenyl ethers (PBDEs): Compounds that are used as flame retardants in a wide array of products, including building materials, electronics, furnishings, motor vehicles, airplanes, plastics, polyurethane foams, and textiles.

Polychaetes: Segmented worms, mostly marine, bearing paddlelike appendages on the body segments, which, in turn, carry numerous bristles.

Polycyclic aromatic hydrocarbons (PAHs): A group of chemicals that occur naturally in coal, crude oil and gasoline. PAHs also are present in products made from fossil fuels, such as coal-tar pitch, creosote and asphalt. When coal is converted to natural gas, PAHs can be released.

Post-larval: Stage in an animal's lifecycle after metamorphosis from the larval stage, but when it is not yet fully grown.

Post-Panamax: Refers to vessels with maximum beam dimensions of 32.3 meters (106 feet) and greater (also see Panamax).

Potable water: Water that is fit to drink.

ppt: Parts per thousand. The salinity of ocean water is approximately 35 ppt.

Prehistoric: Human culture that existed prior to written records.

Preservation: The removal of a threat to and/or preventing the decline of aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and

maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Principles: Framing statements that can be used to evaluate alternatives while considering issues that affect them. Used along with targets and assessments of ecosystem needs to provide guidance in formulation of alternative plans.

Project: A constructible increment of an alternative plan.

Protected species: A term that includes all federal and state-listed threatened, endangered, at-risk, and candidate vegetation and wildlife species.

Pursuant: In accordance with; according to.

Proposed Project: The Navy Base ICTF or Alternative 1.

Proposed species: Any taxa proposed for listing as threatened or endangered.

Quadrangle map: A map of the rectangular area represented by one of the U.S. Geological Survey topographic and geological maps. The two common sizes of tracts are about 13 miles wide by 17 miles north to south and 6½ miles wide by 8½ miles north to south.

Quadrants: One of the four parts into which a plane is divided by the coordinate axes. The upper right-hand part is the first quadrant; the upper left-hand part the second; the lower left-hand part the third; and the lower right-hand part the fourth quadrant.

Qualitative: A descriptive measure of a thing; an assessment that does not rely on specific numeric measurement.

Quantitative: Able to assign a specific number; susceptible to measurement.

Radionuclide: A radioactive type of atom.

Radon: A gaseous, inert, radioactive element, formed by the radioactive decay of radium. Radon has at least 17 known isotopes. Traces of it are found in the air in various amounts.

Rebuild: To some extent, to build back a structure/landform that had once existed.

Receptors: Noise sensitive locations such as residences, churches, schools, and parks.

Recharge area: An area in which water reaches the zone of saturation by surface infiltration.

Record of Decision (ROD): A comprehensive summary required by the National Environmental Policy Act that discusses the factors leading to U.S. Army Corps of Engineers decisions on regulatory and Civil Works matters; it is signed by the USACE District Engineer after completion of appropriate environmental analysis and public involvement.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitate: To focus on historical or pre-existing ecosystems as models or references while emphasizing the reparation of ecosystem processes, productivity, and service.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Related Activity: Additional construction of new track that is required in order to connect the ICTF to existing Class I carrier rail networks is collectively referred to as Related Activity or Related Activities. This construction is not a part of the Proposed Project. It would be constructed by the Class I carriers and may require separate environmental permitting.

Relative sea level rise: Sea level rise measured by a tide gauge with respect to the land upon which it is situated. Relative sea level rise occurs where there is a local change in the level of the ocean relative to the land, which might be due to ocean rise and/or land level subsidence. See also eustatic sea level rise.

Relatively permanent waters: Waters where flow is year-round, or at least seasonally continuous.

Resident species: An animal that does not migrate.

Respirable particulate matter (PM10): Inhalable coarse particles with a diameter between 2.5 and 10 micrometers.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Restore: Return a wetland to a close approximation of its condition or function prior to disturbance by modifying conditions responsible for the loss or change; re-establish the function and structure of that ecosystem.

Riparian: The area of land along and adjacent to a waterway (river, bayou, creek, stream, etc.). Trees, plants, and grasses along these waterways are called riparian vegetation. A riparian zone from an ecological perspective may occur in many forms, including grassland, woodland, wetland, or even nonvegetative. Riparian zones may be natural or engineered for soil stabilization or restoration. In some regions, the terms riparian woodland, riparian forest, riparian buffer, or riparian corridor are used to characterize a riparian zone.

Risk: A measure of the probability and severity of undesirable consequences (including, but not limited to, loss of life, threat to public safety, and/or environmental and economic damages). In the case of ecosystem values, the important risk factors are those that affect the possibility of service flow disruptions and the reversibility of service flow disruptions.

Riverine: Relating to or resembling a river.

Runoff: The portion of rainfall, melted snow, or irrigation water that flows across ground surface and eventually is returned to streams. Runoff can pick up pollutants from the air or the land and carry them to receiving waters.

Saline marsh (SAW): Intertidal herbaceous plant community typically found in that area of the estuary with salinity ranging from 12 to 32 ppt.

Salinity: The concentration of dissolved salts in a body of water, commonly expressed as parts per thousand.

Salt marshes: See "Saline Marsh."

Sargassum seaweed: A brown, generally free-floating type of seaweed that usually inhabits shallow water and coral reefs.

Savanna: A grassy plain in tropical and subtropical regions, with few trees.

Scoping: Soliciting and receiving public input to determine issues, resources, impacts, and alternatives to be addressed in the draft EIS.

Scoping period: The scoping period for an EIS begins after publication in the *Federal Register* of a Notice of Intent (NOI) to prepare an EIS. The public scoping period is that portion of the process where the public is invited to participate.

Sea level: Long-term average position of the sea surface.

Sea level change (SLC): A long-term measure of relative sea level rise or lowering.

Sediment: The layer of soil, sand, and minerals at the bottom of surface water that absorbs contaminants.

Sedimentary: Rock formed of mechanical, chemical, or organic sediment.

Sedimentation: The action or process of forming or depositing sediment; settling.

Sedimentation/retention pond or basin: A pond that is larger than a catchment basin and preferably with lower velocity waterflows to enable suspended sediment to settle before the flow is discharged into a creek.

Semi-volatile organic compound (SVOC): A semi-volatile organic compound has a boiling point higher than water and may vaporize when exposed to temperatures above room temperature. Semi-volatile organic compounds include phenols and polynuclear aromatic hydrocarbons (PAHs).

Sessile: Fixed in one place; an immobile organism that is attached by its base, such as a plant or barnacle.

Sheet flow: Flow of water, sediment, and nutrients across a flooded wetland surface, as opposed to through channels.

Shoaling: The shallowing of an open-water area through deposition of sediments.

Silt fence: A perimeter sediment control device. Generally, silt fence is constructed of porous woven geotextile fabric attached to wooden posts.

Sirenians: Any large aquatic plant-eating mammal of the order Sirenia, such as a manatee or dugong.

Slough: A creek in a marsh or tidal flat.

Socioeconomic: Involving both social and economic factors.

Soil series: A group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetational conditions.

Soil surcharge: The material used to consolidate poorly drained soils; consolidation of poorly drained soils.

Solvent: A liquid in which other substances are dissolved in order to form a solution.

Source emission rate: Rate at which any pollutant is released from any place or object that produces it.

Spawning: The release or deposition of eggs by a fish, frog, mollusk, or crustacean.

Stabilize: To fix the level or fluctuation of; to make stable.

Staging area: An assembly place, or a place where things are stored adjacent to a construction site.

State Historic Preservation Office (SHPO): A state governmental function created by the National Historic Preservation Act (NHPA). The purposes of a SHPO include surveying and recognizing historic properties; reviewing nominations for properties to be included in the National Register of Historic Places; reviewing undertakings for the impact on the properties; and supporting federal organizations, state and local governments, and the private sector.

Stolon: A creeping horizontal plant stem or runner that takes root at points along its length to form new plants.

Storm sewer: A sewer built to carry away excess water in times of heavy rain.

Storm surge: An abnormal and sudden rise of the sea along a shore as a result of the winds of a storm.

Stormwater: Generated when precipitation from rain and snowmelt events flows over land or impervious surfaces and does not percolate into the ground. As the runoff flows over the land or impervious surfaces (paved streets, parking lots, and building rooftops), it accumulates debris, chemicals, sediment, or other pollutants that could adversely affect water quality if the runoff is discharged untreated.

Stormwater retention/detention pond: A pond designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration, and/or infiltration into the ground, or to hold surface and stormwater runoff for a short period of time and then release it to the surface and stormwater conveyance system.

Subsidence: The gradual downward settling or sinking of the Earth's surface with little or no horizontal motion.

Substrate: A layer of material on which an organism can grow and multiply.

Subtidal: A near-shore area of relatively shallow water that receives sunlight but which lies below the low-tide mark.

Sulfur dioxide (SO_2): A heavy, pungent, toxic gas that is easily condensed to a colorless liquid, is used especially in making sulfuric acid, in bleaching, as a preservative and as a refrigerant, and is a major air pollutant—especially in industrial areas.

Superfund: The common name used for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Surface water: Water on the Earth's surface exposed to the atmosphere as rivers, lakes, streams, and oceans.

Surface Transportation Study: A separate transportation study conducted in cooperation with the Applicant, the City of North Charleston, the South Carolina Ports Authority, and the South Carolina Department Transportation to identify rail and traffic impacts associated with rail and highway traffic related to the facility. This study will recommend alternatives to mitigate and manage traffic impacts; including the identification of optimal truck routes to and from the facility.

Sustain: To support and provide with nourishment to keep in existence; maintain.

Swale: A low or hollow place, especially a marshy depression between ridges.

Taxon: Ataxonomic categories, such as families or orders.

Taxonomic category: A classification used in the naming of organisms as a part of an ordered system that is intended to indicate natural relationships, especially evolutionary relationships.

Temperate: Mild; often used to describe the average temperature or climate of a region.

Terrace: A level, flat area in a landscape, resembling a step. Terrace features can result naturally from processes associated with moving water or geology.

Terrestrial habitat: The land area or environment where an organism lives; as distinct from water or air habitats.

Tertiary: A term for the geologic period from 66 million to 2.58 million years ago.

Threatened species: An animal or plant whose existence is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Throughput: The amount of cargo that reasonably can be expected to be processed, given the physical facilities available, the operating conditions present, and the business conditions characteristic of the trade in which the terminal is engaged.

Toluene: A liquid aromatic hydrocarbon C_7H_8 that resembles benzene but is less volatile, flammable, and toxic; is produced commercially from light oils from coke-oven gas and coal tar and from petroleum; and is used as a solvent, in organic synthesis, and as an anti-knock agent for gasoline.

Total Maximum Daily Load (TMDL): A calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards.

Total Suspended Solids (TSS): A water quality parameter that refers to the weight of organic and inorganic materials suspended in the water column.

Toxic pollutant: Pollutants—or combinations of pollutants, including disease-causing agents—that, after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator of the U.S. Environmental Protection Agency, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, or physical deformations in such organisms or their offspring.

Toxicity: The amount of toxin or poison found in a substance or produced by an organism; the potency of a toxic substance.

Toxics Release Inventory (TRI): A federal inventory of approximately 650 harmful chemicals or classes of chemicals released to the environment or transferred off-site by specific industries in the U.S.

Traditionally Navigable Waters (TNWs): A legal term used by the Corps and the EPA in order to assert jurisdiction over any water body that is (a) subject to the ebb and flow of the tide, and/or (b) the water body is presently used, or has been used in the past, or may be susceptible for use (with or without reasonable improvements) to transport interstate or foreign commerce.

Transient: An organism that passes through or by a place with only a brief stay or sojourn.

Transpiration: The process by which water passes through living plants into the atmosphere.

Tributary / Tributaries: Streams that flow into larger streams or bodies of water.

Tri-County: Berkeley, Charleston, and Dorchester counties.

Turbidity: An optical measure of the amount of material suspended in the water. Increasing the turbidity of the water decreases the amount of light that penetrates the water column. High levels of turbidity may be harmful to aquatic life.

Turbidity barrier: A device or curtain used to trap sediment in water bodies.

Twenty-foot equivalent unit (TEU): The volume of one 20-foot container; the standard volume unit for describing a container terminal's cargo-handling capacity.

Uncertainty: Uncertainty is the result of imperfect knowledge concerning the present or future state of a system, event, situation, or (sub) population under consideration. There are two types of uncertainty: the uncertainty attributed to inherent variation that is understood as variability over time and/or space, and the uncertainty attributed to our lack of knowledge about the system (e.g., what value to use for an input to a model or what model to use). Uncertainty can lead to lack of confidence in predictions, inferences, or conclusions.

Upland (UPL): A general term for non-wetland elevated land above low areas along streams or between hills.

Vinyl chloride: A colorless toxic gas used in the production of polyvinyl chloride and other commercially important chemicals.

Volatile organic compounds (VOC): Secondary petrochemicals—including light alcohols, acetone, trichloroethylene, perchloroethylene, dichloroethylene, benzene, vinyl chloride, toluene, and methylene chloride—that are used as solvents, degreasers, paint thinners, and fuels. Because of their volatile nature, they readily evaporate into the air, increasing the potential exposure to humans. Due to their low water solubility, environmental persistence, and widespread industrial use, they are commonly found in soil and groundwater.

Water column: The open-water environment, as distinct from the bed or shore, which may be inhabited by swimming marine or freshwater organisms.

Waters of the U.S.: 40 C.F.R. 230.3(s). The term waters of the United States means:

1. All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that 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) That 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; or
   (iii) That are or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (s)1 through 4 above;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s) 1 through 6 above; waste treatment systems, including treatment ponds or lagoons

designed to meet the requirements of CWA (other than cooling ponds as defined in 40 C.F.R. 423.11(m), which also meet the criteria of this definition) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Watershed: A geographical region of land or "drainage area" that drains to a common channel or outlet. Drainage of the land can occur directly into a bayou or creek, or through a series of systems that may include storm sewers, roadside ditches, and/or tributary channels.

Weir: A dam placed across a canal or river to raise, divert, regulate, or measure the flow of water.

Wetlands: Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and that, under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated-soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (40 C.F.R. Part 230), especially areas preserved for wildlife, zooplankton (planktonic animals that supply food for fish).

Wildlife value (WV): The maximum ambient water concentration of a substance at which adverse effects are not likely to result in population-level impacts to mammalian and avian wildlife populations from lifetime exposure through drinking water and aquatic food supply.

Xeric: Characterized by, relating to, or requiring only a small amount of moisture.

Zooplankton: Animal members of the plankton community.

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