



South Central Coast Louisiana

Feasibility Study with Integrated Environmental Impact Statement



Hurricane Ike flooding in Delcambre, Louisiana.

Appendix F – Glossary of Acronyms and Terms

November 2019

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Section 1

List of Acronyms

A

AAC	Average Annual Cost
AAHU	Average Annual Habitat Unit
ABPP	American Battlefield Protection Program
ac	Acres
ACE	Annual Chance Exceedance
ac-ft	Acre-Feet
ACS	American Community Survey
ACTT	Alabama-Coushatta Tribe of Texas
ADCIRC	Advanced Circulation Model
AEP	Annual Exceedance Probability
AM	Adaptive Management
APE	Area of Potential Effect
ARPA	Archaeological Resources Protection Act
ASTM	American Society for Testing and Materials
ATR	Agency Technical Review

B

BA	Biological Assessment
BBA	Bipartisan Budget Act
BCY	Bank Cubic Yards
BFE	Base Flood Elevation
BGEPA	Bald and Golden Eagle Protection Act
BLH	Bottomland Hardwood
BMP	Best Management Practices

C

CAR	Coordination Act Report
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CED	Comprehensive Environmental Document
CEQ	Council on Environmental Quality
CELCP	Coastal and Estuarine Land Conservation Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulation
CFS	Cubic Feet Per Second
CIAP	Coastal Impact Assistance Program
CLA	Comprehensive Levee Alignment
CNO	Choctaw Nation of Oklahoma
CO ²	Carbon Dioxide
CPRAB	Coastal Protection and Restoration Authority Board

CRMS	Coast Wide Reference Monitoring System
CSRM	Coastal Storm Risk Management
CSVR	Content-to-Structure Value Ratio
CT	Coushatta Tribe of Louisiana
CTL	Chitimacha Tribe of Louisiana
CWA	Clean Water Act
CWPPRA	Coastal Wetlands Planning, Protection and Restoration Act
CZMA	Coastal Zone Management Act

D

DOI	Department of Interior
DOTD	Department of Transportation and Development
DPOM	Draft Project Operation Manual

E

EABPL	East Atchafalaya Basin Protection Levee
EAD	Expected Annual Damages
EC	Engineering Circular
ECB	Existing Conditions Baseline
ECB	Engineering and Construction Bulletin
ECO-PCX	Ecosystem Restoration Planning Center of Expertise
ECY	Embankment Cubic Yards
EDC	Engineering During Construction
EFH	Essential Fish Habitat
EGM	Economic Guidance Memorandum
EIS	Environmental Impact Statement
EJ	Environmental Justice
EM	Engineering Manual
EO	Executive Order
EOC	End of Construction
EOP	Environmental Operating Principles
EQ	Environmental Quality
ER	Engineering Regulation
ESA	Environmental Site Assessment
ESA	Endangered Species Act

F

FAA	Federal Aviation Administration
FCCM	Facility Capital Cost of Money
FEMA	Federal Emergency Management Agency
FFE	First Floor Elevation
FIMA	Federal Insurance and Mitigation Administration
FIRM	Flood Insurance Rate Map
FMA	Flood Mitigation Assistance
FOS	Factor of Safety
FR	Federal Register
FRM	Flood Risk Management
ft	Feet
FWB	Freshwater Bayou

FWOP Future Without Project (or
the No Action Alternative
under NEPA)

FWP Future With Project
FY Fiscal Year

G

GHG Greenhouse Gas

GIS Geographic Information
System

GIWW Gulf Intracoastal Waterway

GOM Gulf of Mexico

GRP Gross Regional Product

H

HEC-FDA Hydrologic Engineering Center Flood Damage Analysis

HMA Hazard Mitigation Assistance

HMGP Hazard Mitigation Grant Program

HQUSACE Headquarters, U. S. Army
Corps of Engineers

HSDRRS Hurricane & Storm Damage Risk Reduction System

HSI Habitat Suitability Indices

HTRW Hazardous, Toxic and
Radioactive Waste

I

IDC Interest During Construction

IDS Integrated Delivery Schedule

IEPR Independent Expert Peer Review

IER Individual Environmental Reports

IPCC Intergovernmental Panel on Climate Change

IWR Institute for Water
Resources

J

JBCI Jena Band of Choctaw Indians

JSS Joint Storm Surge

L

L&WCF Land and Water Conservation Fund

LA Louisiana

LACPR Louisiana Coastal Protection and Restoration

LADEQ Louisiana Department of Environmental Quality

LCRP Louisiana Coastal Resources Program

LCY Loose Cubic Yards

LDNR Louisiana Department of Natural Resources

LDOA Louisiana Division of Archaeology

LDWF Louisiana Department of Wildlife and Fisheries

LERR Lands, Easements, Rights-of way
and Relocations

LiDAR Light Detection and Ranging

LNHP Louisiana Natural Heritage Program

LPDES Louisiana Permitted Discharge Elimination System

LT Long Term

M

MBCI	Mississippi Band of Choctaw Indians
MBTA	Migratory Bird Treaty Act
MCN	Muscogee (Creek) Nation
MMC	Modeling Mapping and Consequence Center
MMPA	Marine Mammal Protection Act
MOA	Memorandum of Agreement
MR&T	Mississippi River and Tributaries
MSA	Magnuson-Stevens Fishery Conservation and Management Act

N

NAGPRA	Native American Graves Protection and Repatriation Act
NATA	National-Scale Air Toxics Assessment
NAVD	North Atlantic Vertical Datum
NBEM	National Bald Eagle Management
NCC	Notice of Construction Completion
NED	National Economic Development
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NFS	Non-Federal Sponsor
NGVD	National Geodetic Vertical Datum
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NLCD	National Land Cover Database
NMFS	National Marine Fisheries Service
NMFS	National Fisheries Management Service
NOA	Notice of Availability
NOAA	National Oceanic Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NSI	National Structure Inventory
NWR	National Wildlife Refuge

O

O&M	Operation & Maintenance
OCM	Office of Coastal Management
OCS	Outer Continental Shelf
OFD	One Federal Decision
OMRR&R	Operations, Maintenance, Repair, Rehabilitation, and Replacement

ORCS	Old River Control Structure
OSE	Other Social Effects
P	
PA	Programmatic Agreement
PAL	Planning Aid Letter
PDM	Pre-Disaster Mitigation
PDT	Project Delivery Team
PED	Preconstruction, Engineering, and Design
PGL	Policy Guidance Letter
PIR	Project Implementation Report
PM	Particulate Matter
PPA	Project Partnership Agreement
Psf	Pounds per Square Foot
psu	Practical Salinity Units
R	
RA	Risk Analysis
RL	Ring Levee
RMP	Risk Management Plan
ROD	Record of Decision
RPEDS	Regional Planning and Environmental Division South
RSLC	Relative Sea Level Change
RSLR	Relative Sea Level Rise
S	
S&A	Supervision & Administration
SAV	Submerged Aquatic Vegetation
SCCL	South Central Coast Louisiana
SD	Standard Deviation
SHPO	State Historic Preservation Officer
SLR	Sea Level Rise
SMLD	St. Mary Levee District
SNO	Seminole Nation of Oklahoma
STA	Stormwater Treatment Area
STF	Seminole Tribe of Florida
STWAVE	Steady State Spectral WAVE
SWPPP	Stormwater Pollution Prevention Plan
T	
T&E	Threatened and Endangered
TB	Technical Bulletin
TBTL	Tunica-Biloxi Tribe of Louisiana
THPO	Tribal Historic Preservation Officer
TMDL	Total Maximum Daily Load
TSDF	Treatment, Storage and Disposal Facilities

TSP Tentatively Selected Plan

U

URA Uniform Relocation Assistance
and Real Property Acquisition Act
of 1970

US United States

USACE United States Army Corps of
Engineers

USDA United States Department of
Agriculture

USDOJ United State Department of
Interior

USEPA United States Environmental
Protection Agency

USFWS United States Fish and
Wildlife Service

USGS United States Geological
Survey

W

WABPL West Atchafalaya Basin
Protection Levee

WMA Wildlife Management Area

WQ Water Quality

WQC Water Quality Certification

WRDA Water Resources
Development Act

Y

Section 2

Glossary of Terms

A

Acre — Area of land equal to 43,560 square feet. In the S.I. metric system, one acre is equal to 4,046.9 square meters or 2.471 hectares.

Acre-foot — The quantity of water required to cover 1 acre to a depth of 1 foot. Equal to 43,560 cubic feet (1,233.5 cubic meters).

Activity — A specific project task that requires resources and time to complete.

Adverse Effect – In relation to historic properties, an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that will diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Adverse Impact — The detrimental effect of an environmental change relative to desired or baseline conditions.

Affected Environment — Existing biological, physical, social, and economic conditions of an area subject to change, both directly and indirectly, as a result of a proposed human action.

Air Quality — Measure of the health-related and visual characteristics of the air, often derived from quantitative measurements of the concentrations of specific injurious or contaminating substances.

Anthropogenic — Of, relating to, or resulting from the influence of human beings on nature.

Aquatic — Consisting of, relating to or being in water; living or growing in, on or near the water; or taking place in or on the water.

Aquifer — An underground geologic formation, a bed or layer of earth, gravel or porous stone, that yields water or in which water can be stored.

Authorization — An act by the Congress of the United States, which authorizes use of public funds to carry out a prescribed action.

B

Base Flood Elevation (BFE)— The BFE is the computed elevation to which flood waters are anticipated to rise during the base (1-percent-annual-chance) flood event. BFEs, typically rounded to the nearest whole foot, are shown on the flood map for areas where a detailed study has been completed.

Baseline — The initial approved plan for schedule, cost or performance management, plus or minus approved changes, to which deviations will be compared as the project proceeds.

Benthic — Bottom of rivers, lakes, or oceans; organisms that live on the bottom of water bodies.

Best Management Practices — The best available land, industrial and waste management techniques or processes that reduce pollutant loading from land use or industry, or which optimize water use.

Biological Opinion — Document issued under the authority of the Endangered Species Act stating the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Services finding as to whether a Federal action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat.

Borrow Canal — Canal or ditches where material excavated is used for earthen construction nearby. Also, typically denotes a canal with no conveyance or water routing purpose.

C

Canal — A human-made waterway that is used for draining or irrigating land or for navigation by boat.

Candidate Species — Plant or animal species not yet officially listed as threatened or endangered, but which is undergoing status review by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service.

Channel — Natural or artificial watercourse, with a definite bed and banks to confine and conduct continuously or periodically flowing water.

Coastal Ridge — Area of land bordering the coast whose topography is elevated higher than land further inland.

Control Structure — A human-created structure that regulates the flow of waters or the level of waters.

Conveyance Capacity — The rate at which water can be transported by a canal, aqueduct, or ditch. In this document, conveyance capacity is generally measured in cubic feet per second (cfs).

Cost-Benefit Analysis — An analysis, often stated as a ratio, used to evaluate a proposed course of action.

Critical Habitat — A description, which may be contained in a Biological Opinion, of the specific areas with physical or biological features essential to the conservation of a listed species and which may require special management considerations or protection; these areas have been legally designated via Federal Register notices.

Cubic feet per second (cfs) — A measure of the volume rate of water movement. As a rate of stream flow, a cubic foot of water passing a reference section in 1 second of time. One cubic foot per second equals 0.0283 meter /second (7.48 gallons per minute). One cubic foot per second flowing for 24 hours produces approximately 2 acre-feet.

Culture – The National Park Service defines culture as “a system of behaviors, values, ideologies, and social arrangements. These features, in addition to tools and expressive elements such as graphic arts, help humans interpret their universe as well as deal with features of their environments, natural and social. Culture is learned, transmitted in a social context, and modifiable. Synonyms for culture include life ways, customs, traditions, social practices, and folkways. The terms folk culture and folk life might be used to describe aspects of the system that are unwritten, learned without formal instruction, and deal with expressive elements such as dance, song, music and graphic arts as well as storytelling.”

Cultural Resources – Encompasses both culturally significant sites and historic properties.

Culturally Significant Site – Geographically defined areas supporting current or past human use such as a community meeting area, spiritual sites, places of worship, medicinal plant gathering areas or cemeteries and burial sites.

Culvert — A concrete, metal or plastic pipe that transports water.

D

Data – (cultural resources) Per Engineering Regulation 1105-2-100(b)(10), the DOI defines “data” as “evidence about historic and prehistoric periods, which are buried in the ground” and recovered as evidence...when construction projects pose threats that would result in their irreparable loss or destruction.”

Data Recovery – (cultural resources) also known as Mitigative Excavations is a way to remedy or offset an adverse effect or a change in qualifying characteristics within an archaeological site. Through mitigative excavations, important information that makes the site eligible for NRHP listing is retrieved from the site before the site’s integrity is compromised or destroyed.

Discharge — The rate of water movement as volume per unit time, usually expressed as cubic feet per second.

E

Ecology — The science of the relationships between organisms and their environments, also called bionomics; or the relationship between organisms and their environment.

Ecosystem — A functional group of animal and plant species that operate in a unique setting that is mostly self-contained.

Effectiveness — A measure of the quality of attainment in meeting objectives; this is distinguished from efficiency, which is measured by the volume of output achieved for the input used.

Endangered Species — Any species or subspecies of bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion of its range. Federally endangered species are officially designated by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service and published in the Federal Register.

Enhancement — Measures which develop or improve the quality or quantity of existing conditions or resources beyond a condition or level that would have occurred without an action; i.e., beyond compensation.

Environmental Consequences — The impacts to the Affected Environment that are expected from implementation of a given alternative.

Environmental Impact Statement (EIS) — An analysis required by the National Environmental Policy Act for all major Federal actions, which evaluates the environmental risks of alternative actions.

Estuary — A water passage where the tide meets a river current; an arm of the sea at the lower end of a river.

Evaluate — To appraise or determine the value of information, options or resources being provided to a project.

Evaporation — The change of a substance from the solid or liquid phase to the gaseous (vapor) phase.

Evapotranspiration — Evapotranspiration is part of the hydrologic cycle that is a combination of evaporation and transpiration. Solar energy induces evaporation, causing water vapor to condense and fall as precipitation. A portion of the precipitation seeps into the ground and is consumed by plants. It is then recycled back into the atmosphere in the form of transpiration. Exotic species — Introduced species not native to the place where they are found.

F

Fallowed Land — Cultivated land that lies idle during a growing season.

Feasibility Study — The second phase of a project. The purpose is to describe and evaluate alternative plans and fully describe recommended project.

Federally Endangered Species — An endangered species which is officially designated by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service and published in the Federal Register.

Flow — The volume of water passing a given point per unit of time.

Instream Flow Requirements — Amount of water flowing through a stream course needed to sustain instream values.

Minimum Flow — Lowest flow in a specified period of time.

Peak Flow — Maximum instantaneous flow in a specified period of time.

G

Geospatial Data — Information, which includes, but is not limited to surveys, maps, aerial photography, aerial imagery, and biological, ecological and hydrological modeling coverages.

Goal — Something to be achieved. Goals can be established for outcomes (results) or outputs (efforts).

Groundwater — Water stored underground in pore spaces between rocks and in other alluvial materials and in fractures of hard rock occurring in the saturated zone.

Groundwater Level — Refers to the water level in a well, and is defined as a measure of the hydraulic head in the aquifer system.

Groundwater Pumping — Quantity of water extracted from groundwater storage.

Groundwater Seepage — Groundwater flow in response to a hydraulic gradient.

Groundwater Table — The upper surface of the zone of saturation, except where the surface is formed by an impermeable body.

H

Habitat — Area where a plant or animal lives. Hammock — Localized, thick stands of trees that can grow on natural rises of only a few inches in the land.

Historic Properties — Encompasses archaeological, traditional, and built environment resources, including but not limited to buildings, structures, objects, districts and sites over 50 years of age.

Hydraulic Gradient — Denotes slope of watercourse, above or below ground water level. Typically, defines energy loss or consumption in the conveyance process.

Hydraulic Head (Lift) — Denotes relative comparison of water stages for gravity flow. Pump stations generally provide lift or increase water level elevations.

Hydrologic Condition — The state of an area pertaining to the amount and form of water present. For example, saturated ground (water table at surface), lake stage and river flow rate.

Hydric — Characterized by, relating to, or requiring an abundance of moisture.

Hydrologic Response — An observed decrease or increase of water in a particular area.

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.

Hydropattern — Refers to depth as well as hydroperiod. Hydropatterns are best understood by a graphic depiction of water level (above as well as below the ground) through annual cycles.

Hydroperiod — For non-tidal wetlands, the average annual duration of flooding is called the hydroperiod, which is based only on the presence of surface water and not its depth.

I

Impoundment — An aboveground reservoir used to store water.

Independent Technical Review Team — A group autonomous of the Project Team established to conduct reviews to ensure that design products are consistent with established criteria, guidance, procedures and policies.

Indicator Species — Organism, species, or community which indicates presence of certain environmental conditions.

Invertebrate — A small animal that does not have a backbone, examples include crayfish, insects and mollusks, which can be indicators of ecosystem status.

J

K

L

Lag — The amount of time after one task is started or completed before the next task can be started or completed.

Land Classification — An economic classification of variations in land reflecting its ability to sustain long-term agricultural production.

Levee — A human-created embankment that controls or confines water.

Littoral Zone — The shore of land surrounding a water body that is characterized by periodic inundation or partial saturation by water level. Typically defined by species of vegetation found.

Local Sponsor — The Coastal Protection and Restoration Authority.

M

Macrophytes — Visible plants found in aquatic environments, including sawgrass, sedges and lilies.

Marsh — An area of low-lying wetland.

Mercury — Heavy metal that is toxic to most organisms when converted into a byproduct of inorganic-organic reaction. Distributed into the environment mostly as residual particles from industrial processes.

Mitigation — To make less severe; to alleviate, diminish or lessen; one or all of the following may comprise mitigation: (1) avoiding an impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of an action and its implementation; (3) rectifying an impact by repairing, rehabilitating or restoring the affected environment; (4) reducing or eliminating an impact over time by preservation and maintenance operations during the life of an action; and (5) compensating for an impact by replacing or providing substitute resources or environments.

Model — A tool used to mathematically represent a process which could be based upon empirical or mathematical functions. Models can be computer programs, spreadsheets, or statistical analyses.

Monitoring — The capture, analysis and reporting of project performance, usually as compared to plan.

Muck — Soil type consisting of 25% to 65% plant material mixed with sand silt, and clay.

N

National Economic Development (NED) — Corps of Engineers benefit evaluation process used to justify Recreation expenditures.

No Action Alternative — The planning process by which the action agency decides to not carry forth any planned action to alter existing conditions. In this report the No Action Alternative is the same as the Future Without Project Condition (FWO) and is referred to throughout the document as FWO.

O

Objective — A goal expressed in specific, directly measurable terms.

Off-peak — Less than peak design flow rate during storm runoff producing events.

Operation, Maintenance, Repair, Rehabilitation, Replacement (OMRR&R) — 100% local sponsor responsibility to OMRR&R recreation facilities and amenities.

Outreach — Proactive communication and productive involvement with the public to best meet the water resource needs of south Louisiana.

Oxygen Demand — The biological or chemical demand of dissolved oxygen in water. Required by biological processes for respiration.

P

Performance Measure — A desired result stated in quantifiable terms to allow for an assessment of how well the desired result has been achieved.

Periphyton — The biological community of microscopic plants and animals attached to surfaces in aquatic environments, for example algae.

Phosphorus (P) — Element or nutrient required for energy production in living organisms. Distributed into the environment mostly as phosphates by agricultural runoff (fertilizer) and life cycles. Frequently the limiting factor for growth of microbes and plants in south Louisiana.

Project — A sequence of tasks with a beginning and an end that uses time and resources to produce specific results. Each project has a specific, desired outcome, a deadline or target completion date and a budget that limits the amount of resources that can be used to complete the project.

Project Partnership Agreement (PPA) — A document that describes the roles and responsibilities of the USACE and SFWMD for real estate acquisition, construction, construction management and operations and maintenance.

Project Delivery Team — An interdisciplinary group formed from the resources of the implementing agencies, which develops the products necessary to deliver the project.

Project Duration — The time it takes to complete an entire project from starting the first task to finishing the last task.

Project Implementation Report (PIR) — A decision document that will bridge the gap between the conceptual design contained in the Comprehensive Plan and the detailed design necessary to proceed to construction.

Proposed Action — Plan that a federal agency intends to implement or undertake and which is the subject of an environmental analysis. Usually, but not always, the proposed action is the agency's preferred alternative for a project. The proposed action and all reasonable alternatives are evaluated against the no action alternative.

Public Involvement — Process of obtaining citizen input into each stage of the development of planning documents. Required as a major input into any EIS.

Public Outreach — A program-level activity with the objectives of keeping the public informed of the status of the overall program and key issues associated with restoration implementation and providing effective mechanisms for public participation in the restoration plan development.

Pump Station — A human constructed structure that uses pumps to transfer water from one location to another.

Q

Quality Assurance (QA) — The process of evaluating overall project performance on a regular basis to provide confidence that the project will satisfy the relevant quality standards.

Quality Control (QC) — The process of monitoring specific project results to determine if they comply with relevant quality standards, and identifying means of eliminating causes of unsatisfactory performance.

R

Record of Decision — Concise, public, legal document which identifies and publicly and officially discloses the responsible official's decision on the alternative selected for implementation. It is prepared following completion of an Environmental Impact Statement.

Restoration — The recovery of a natural system's vitality and biological and hydrological integrity to the extent that the health and ecological functions are self-sustaining over time.

Risk Analysis — An evaluation of the feasibility or probability that the outcome of a project or policy will be the desired one; usually conducted to compare alternative scenarios, action plans or policies.

S

Scoping — The process of defining the scope of a study, primarily with respect to the issues, geographic area, and alternatives to be considered. The term is typically used in association with environmental documents prepared under the National Environmental Policy Act.

Scrub — A community dominated by pinewoods with a thick understory of oaks and saw palmetto, and which occupies well-drained, nutrient-poor sandy soils.

Seepage — Water that escapes control through levees, canals or other holding or conveyance systems.

Sheet Flow — Water movement as a broad front with shallow, uniform depth.

Slough — A depression associated with swamps and marshlands as part of a bayou, inlet or water and a slow current; can be thought of as the broad, shallow rivers.

Spatial Extent — Area that is continuous without non-integrating internal barriers or land usage.

Stakeholders — People or organizations having a personal or enterprise interest in the results of a project, who may or may not be involved in completing the actual work on that project.

Stormwater — Surface water resulting from rainfall that does not percolate into the ground or evaporate.

Subsidence — A local mass movement that principally involves the gradual downward settling or sinking of the earth's surface with little or no horizontal motion. It may be due to natural geologic processes or mass activity such as removal of subsurface solids, liquids, or gases, ground water extraction, and wetting of some types of moisture-deficient loose or porous deposits.

Sustainability — The state of having met the needs of the present without endangering the ability of future generations to be able to meet their own needs.

Swamp — A generally wet, wooded area where standing water occurs for at least part of the year.

T

Threatened species — Legal status afforded to plant or animal species that are likely to become endangered within the foreseeable future throughout all or a significant portion of their range, as determined by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service.

Trade-off — Allowing one aspect of a project to change, usually for the worse, in return for another aspect of the project getting better.

Traditional Cultural Property – The NPS defines “traditional” in this context as referring “to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices.”

Tributary — A stream feeding into a larger stream, canal or waterbody.

U

V

W

Water Budget — An account of all water inflows, outflows and change in storage for a pre-specified period of time.

Wave Attenuation Feature — Wave attenuation is commonly proportional to frequency and is estimated by integrating the attenuation constant γ over the ray pathway: $(10.3h)H_f = \exp(-\int \gamma dy dx)$. The built feature breaks the force of the ocean storm surge before it hits the main FRM structure.

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

Wetlands — Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

Wildlife Corridor — A relatively wide pathway used by animals to transverse from one habitat arena to another.

Wildlife Habitat — An area that provides a water supply and vegetative habitat for wildlife.

X

Y

Z

