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2017 Coastal Master Plan

Attachment C3-22.2: File Naming Convention

Report: Final

Date: April 2017

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Coastal Protection and Restoration Authority

This document was prepared in support of the 2017 Coastal Master Plan being prepared by the Coastal Protection and Restoration Authority (CPRA). CPRA was established by the Louisiana Legislature in response to Hurricanes Katrina and Rita through Act 8 of the First Extraordinary Session of 2005. Act 8 of the First Extraordinary Session of 2005 expanded the membership, duties, and responsibilities of CPRA and charged the new authority to develop and implement a comprehensive coastal protection plan, consisting of a master plan (revised every five years) and annual plans. CPRA's mandate is to develop, implement, and enforce a comprehensive coastal protection and restoration master plan.

Suggested Citation:

Mutsert, K.D., Fischbach, J., McCorquodale, A., Meselhe, E., Roberts, H., Visser, J., and White, E. D. (2017). *2017 Coastal Master Plan: Model Improvement Plan, Attachment C3-22.2: File Naming Convention.* Version Final. (pp. 1-29). Baton Rouge, Louisiana: Coastal Protection and Restoration Authority.

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1.0 Overview

The intent of a file naming convention was to uniquely identify data files produced in the 2017 Coastal Master Plan modeling effort. Only capital letters and numbers were used, there were no spaces (underscores were acceptable) or hyphens. In the event padding was needed, zeros were placed before the pertinent character. The file naming convention has eleven file name components: eleven components underscore delimited to the left of the period and one to the right. Specifically, the components of the file naming convention include: 1) Master Plan year; 2) Scenario; 3) Grouping; 4) Coastal Louisiana Risk Assessment model (CLARA) scenario; 5) Uncertainty; 6) Variance; 7) Region, 8) File type; 9) Start year "-" end year; 10) Subroutine; and 11) Parameter. An example file name is MP2017_S01_ G001_ C001_U01_ V01_PBB_I_01-05_H_NH4XX.[file extension]. Further description of each component is provided below.

1. Master Plan Year
    - MP2017 = 2017 Coastal Master Plan

2. Scenario (refers to the future environmental scenarios)
    - Capitol S and two numbers
        - S00 - initial condition
        - S01-05 - scenarios for production runs
        - S20-79 - 4.7 future scenario runs

3. Group Identifier (project/alternative groups)
    - Capitol G and three numbers
        - G000 - initial condition
        - G001 - Future Without Action (FWOA)
        - G002-G60 - restoration projects
        - G150-G158 - structural protection projects
        - G200s - test runs for project interactions
        - G300s - alternatives
        - G400 - draft master plan
        - G500 - final master plan

4. CLARA
    - Capital C and three numbers (see section 6.0 for further detail)

5. Uncertainty (for ICM uncertainty analysis runs)
    - Capitol U and two numbers (see section 7.0 for further detail)
    - This component was not used for CLARA analysis. A value of U01 was used across CLARA model output files as the default

6. Variance
    - Capital V and two numbers
        - CLARA variance designations
            - First digit: storm set designation
                - 1 = 60 storms
                - 2 = 92 storm set
            - Second digit: percentile output
                - 1 = 10, 5 = 50, 9 = 90th percentile, 0 = all percentiles

7. Region
    - CHP - Chenier Plain
    - ATT - Atchafalaya-Terrebonne
    - PBB - Pontchartrain-Barataria-Breton
    - SLA - All Louisiana
    - Ecoregions
        - AVT - Lower Atchafalaya/Vermilion Bay
        - LTB - Lower Terrebonne
        - UBA - Upper Barataria
        - BFD - Bird's Foot Delta
        - UPO - Upper Pontchartrain
        - LPO - Lower Pontchartrain
        - UTA - Upper Terrebonne/Upper Atchafalaya
        - MEL - Mermentau Lakes
        - LBA - Lower Barataria
        - BRE - Breton
        - CAS - Calcasieu/Sabine
        - ECR - Eastern Chenier Ridges
        - WCR - Western Chenier Ridges
        - EWCR - Combined ECR and WCR (used by the Planning Tool)

8. File Type
    - I (input)
    - N (internal)
    - O (output)

9. Start and End Year of the File (model year, NOT calendar year)
    - 0000 = initial condition file (i.e., represents year 1, day 1; LULC)
    - 0105 = simulation of year 1 through year 5
    - 1050 = In some cases, CLARA output files contain data for years 10, 25, and 50. In this instance, the year component is written as 10505050 = 1 year of output for CLARA (e.g., CLARA does not simulate timespans; value is the same for start and end year)

10. Subroutine
    - B – barrier island (BIMODE)
    - C – risk assessment (CLARA)
    - E – EwE (Ecopath with Ecosim)
    - H – hydro
    - M – metrics
    - S – surge and waves (ADCIRC/SWAN)
    - V – vegetation (LaVegMod v2)
    - W – wetland morphology
    - X – HSIs and SIs

11. Parameter Abbreviation – exactly five characters

2.0 ICM Inputs, Internal Calculations, and Outputs

Table 1 provides ICM-specific parameters designated as inputs, internal calculations, and outputs of the 2017 Coastal Master Plan modeling effort. In addition to the explicit output files summarized in the table below, there are many internal calculations that could be prepared as new output files; examples include: wave statistics (power, period, wavelength, etc.), bed roughness, water density, etc. Therefore, the below table should not necessarily be treated as a final list of potential data files.

Table 1: ICM-Related Data Files and Descriptive Information.

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
ALGXX	- - -	Hydro	O	Live algae in hydro compartments mean value for each day	mg/L	Daily
TOCXX	- - -	Hydro	O	Total carbon in hydro compartments mean value for each day	mg/L	Daily
Compartment_ out.csv	ICM/ morph/ HSI	Hydro	O	Various output summary values (e.g., annual and summer mean salinities, etc.)	Various	Annual
DETXX	- - -	Hydro	O	Dead algae (detritus) in hydro compartments at zero hour of each day	mg/L	Daily
DINXX	- - -	Hydro	O	Dissolved inorganic nitrogen at zero hour of each day	mg/L	Daily
DOXXX	- - -	Hydro	O	Dissolved oxygen in hydro compartments mean value for each day	mg/L	Daily
DONXX	- - -	Hydro	O	Dissolved organic nitrogen in hydro compartments mean value for each day	mg/L	Daily
Fflood.out	- - -	Hydro	O	Cumulative time marsh is flooded	Days	Daily
Grid_500m_out. csv	ICM/ morph/ HSI	Hydro	O	Various output summary values (e.g., annual and summer mean salinities, etc.)	Various	Annual

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
NH4XX	- - -	Hydro	O	Ammonium nitrogen in hydro compartments mean value for each day	mg/L	Daily
NO3XX	- - -	Hydro	O	Nitrate-nitrite nitrogen in hydro compartments mean value for each day	mg/L	Daily
NRMXX	- - -	Hydro	O	Denitrification/nitrogen removal	g/m2/yr	Daily
O2Sat	- - -	Hydro	O	Oxygen saturation for the day	mg/L	Daily
OrgNX	- - -	Hydro	O	Organic nitrogen in hydro compartments mean value for each day	mg/L	Daily
SALXX	- - -	Hydro	O	Salinity in hydro compartments mean value for each day	ppt	Daily
SedAcc.out	- - -	Hydro	O	Cumulative inorganic sediment accumulation in hydro compartments at zero hour of each day	g/m2/yr	Daily
SPHXX	- - -	Hydro	O	Soluble phosphorus in hydro compartments mean value for each day	mg/L	Daily
STGXX	- - -	Hydro	O	Water surface elevation in hydro compartments mean value for each day	m NAVD88	Daily

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
STGmX	- - -	Hydro	O	Water surface elevation in marsh portion of hydro compartments mean value for each day	m NAVD88	Daily
TKNXX	- - -	Hydro	O	Total Kjedhal nitrogen in hydro compartments mean value for each day	mg/L	Daily
TMPXX	- - -	Hydro	O	Water temperature in hydro compartments mean value for each day	degree Celsius	Daily
TPHXX	- - -	Hydro	O	Total phosphorus in hydro compartments mean value for each day	mg/L	Daily
TRGXX	- - -	Hydro	O	Tidal range in hydro compartments for each day	m	Daily
FLOXX	- - -	Hydro	O	Flowrate mean value for each day for links listed in 'links_to_write.csv'	cms	Daily
STGhr	- - -	Hydro	O	Hourly water level for the compartments listed in 'hourly_stage_to_write.csv'	m NAVD88	Hourly
Alg_monthly_ave_500m.out	HSI	Hydro	O	Monthly mean algae concentration in hydro compartments	mg/L	Monthly
TSS_monthly_ave_500m.out	HSI	Hydro	O	Monthly mean TSS in hydro compartments	mg/L	Monthly

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
Sal_monthly_ave_500m.out	HSI /EWE	Hydro	O	Monthly mean salinity in hydro compartments	ppt	Monthly
Tmp_monthly_ave_500m.out	HSI /EWE	Hydro	O	Monthly mean water temperature in hydro compartments	Degree Celsius	Monthly
AnthL.csv	Hydro	User	I	Anthropogenic nutrient loading factors for compartments	kg/L N-NO3	NA
AtmChemData.csv	Hydro	User	I	Atmospheric nutrient loading - P & NO3 constant, NH3 and OrgN varied	kg/day/m2	Daily
BCToC2.dat	Hydro	User	I	Water temperature for offshore Gulf boundary condition cells	Degree Celsius	Daily
Cells.csv	Hydro	User/ICM	I	Attributes for hydro compartments	Various	NA
Decay.csv	Hydro	User	I	Coefficients used by some WQ equations	Various	NA
Fetch.csv	Hydro	User	I	Fetch length in 16 different compass directions	m	NA
Grid_IDs_veg_matrix.csv	Hydro	User	I	Template for Veg ASCI grid files with gridID and NoData values	- - -	NA
Grid_interp_dist_500m.csv	Hydro	User	I	Distance from centroid of 500 m grid cell to ICM compartment centroid and point where links cross compartment boundary	m	NA

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
Grid_lookup_500m.csv	Hydro	User	I	Lookup table linking 500 m grid cell to corresponding ICM compartment and connecting links	- - -	NA
Grid_data_500m.csv	Hydro	User/morph	I	Table with mean bed and land elevations for each 500 m grid	m NAVD88	Annual
KBC.dat	Hydro	User	I	Number of ICM compartments that are boundary compartments	- - -	NA
Links.csv	Hydro	User/ICM	I	Attributes for hydro links	Various	NA
LinksClosedHours.dat	Hydro	User	I	Value of 1 means a lock is closed for the hour	1 or 0	Daily
Meteorology.csv	Hydro	User	I	Water and air temperature in the Mississippi River	degree Celsius	Daily
NH4Data.csv	Hydro	User	I	Daily time series of monthly ammonium concentration	mg/L NH4-N	Daily
NO2NO3Data.csv	Hydro	User	I	Daily time series of monthly nitrite-nitrate concentration	mg/L NO2-NO3-N	Daily
OrgNData.csv	Hydro	User	I	Daily time series of monthly total organic nitrogen concentration	mg/L TON	Daily
PET.csv	Hydro	User	I	Daily time series of gridded Monthly Potential ET rates	mm/day	Daily
PhosphorusData.csv	Hydro	User	I	Daily time series of monthly total phosphorus concentration	mg/L P	Daily

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
Precip.csv	Hydro	User	I	Daily precipitation	mm/day	Daily
Qmult.csv	Hydro	User	I	Multipliers to apply tributary flow time series to respective compartments as inflow time series	n/a (ratio, 0-1)	NA
Qmult_div.csv	Hydro	User	I	Multipliers to assign diversion flowrate time series to respective compartments as outflow time series	n/a (ratio, 0-1)	NA
RuncontrolR.dat	Hydro	User/ICM	I	Control parameters used by Hydrology Fortran program	- - -	NA
SBC.dat	Hydro	User	I	WQ values for offshore Gulf boundary condition cells	various	NA
Surge.csv	Hydro	User	I	Storm surge signal to add to Gulf water level boundary compartments	m WSEL	4-hourly
MissRToC.csv	Hydro	User	I	Daily time series of river temperature	Degree Celsius	Daily
TideData.csv	Hydro	User	I	Time series of tide gages at downstream boundary	m NAVD88	4-hourly
TideTranspose.csv	Hydro	User	I	Time lag required to transpose each near-shore tidal time series to offshore boundary condition compartments	- - -	NA

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
TideWeight.csv	Hydro	User	I	Weighting factors to apply to transposed tidal time series for offshore boundary condition compartments that do not have an observed time series	- - -	NA
TribF.csv	Hydro	User	I	Daily time series of total suspended solids concentration (fines component)	mg/L TSS - fines	Daily
TribS.csv	Hydro	User	I	Daily time series of total suspended solids concentration (sand component)	mg/L TSS - sand	Daily
TribQ.csv	Hydro	User	I	Daily flowrates for tributary flows into model domain	cms	Daily
WindVectorsX.csv	Hydro	User	I	Three-hourly gridded wind speed (positive is in Easterly direction)	m/s East	3-hourly
WindVectorsY.csv	Hydro	User	I	Three-hourly gridded wind speed (positive is in Northerly direction)	m/s North	3-hourly
Links_to_write.csv	Hydro	User	I	List of link IDs to print flowrate output data for	- - -	NA
Hourly_stage_to_write.csv	Hydro	User	I	List of compartment IDs to print hourly water surface elevation output data for	- - -	NA
Hotstart_in.dat	Hydro	User/hydro	I	Initial values for compartment variables	- - -	NA

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
ICM_control.csv	ICM	User	I	Control parameters used by main ICM Python program	- - -	NA
EHlinkBIMODEprofileLookup.csv	Hydro	User	I	Lookup table linking BIMODE profile number to corresponding dummy hydro link that is activated in case of breaching	- - -	NA
bicon.asc	Veg	User	I	Barrier Island model flag - is Veg grid a barrier island or not?	- - -	NA
initc.asc+	Veg	User	I	Initial conditions file for Veg model	- - -	NA
LaVegMod2_Establishment_Tables_JMV.xlsx	Veg	User	I	Establishment tables	- - -	NA
LaVegMod2_Mortality_Tables_JMV.xlsx	Veg	User	I	Mortality tables	- - -	NA
vegty.asc+	Morph/ HSI	Veg	O	Percent coverage of veg species - Veg model output (see Table 3)	% (0-1)	Annual
deadf.asc+	Morph	Veg	O	Portion of floatant marsh that died during model year - in ASCII grid format	% (0-1)	Annual
Initial_Edge	Morph	Morph	O	Raster of edge areas at start of year	- - -	Annual
Initial_LW	Morph	Morph	O	Raster of land/water areas at start of year	- - -	Annual

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
Initial_TOPO	Morph	Morph	O	Topobathy DEM at start of year	m NAVD88	Annual
Initial_LULC	Morph	Morph	O	Land type (e.g., fresh forested, fresh marsh, etc.) after Veg run for the year	- - -	Annual
OM_BD_basins	Morph	Morph	I	Raster of basin outlines used for generating the historic organic and bulk density values	- - -	NA
LULC7_mask	Morph	Morph	I	Raster of developed areas that are always classified as land type 7, regardless of Veg output	- - -	NA
Historic_OM_BD_byBasinMarshType	Morph	Morph	I	Table of organic matter loads and bulk densities for basin zones/marsh type combinations	- - -	NA
ICM_500mgrid	Morph	Morph	I	Raster of 500 m grid	- - -	NA
ICM_500mgrid_poly	Morph	Morph	I	Polygon of 500 m grid	- - -	NA
ICM_compartments	Morph	Morph	I	Polygon of hydro compartments	- - -	NA
Subsidence	Morph	Morph	I	Polygons of historic subsidence rates	- - -	NA
AcccretionZone_Edge	User	Morph	O	File Geodatabase Table of accretion in the marsh edge area - tabulated by Ecoregion/Veg Type zone	g/m2	Annual

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
AcccretionZone_Interior	User	Morph	O	File Geodatabase Table	g/m2	Annual
AcccretionZone_Water	User	Morph	O	File Geodatabase Table	g/m2	Annual
landw.img	User	Morph	O	Land/water raster at end of year (same as Initial_LW saved in next year's InitialConditions_.gdb)	- - -	Annual
Accmm.img	User	Morph	O	Raster of total annual vertical accretion (both inorganic sediment deposition and organic accretion)	mm	Annual
MWL.img	User	Morph	O	Raster of annual mean water level (stage)	m NAVD88	Annual
Salav.img	User	Morph	O	Raster of annual mean salinity	ppt	Annual
Salmx.img	User	Morph	O	Raster of maximum two week mean salinity of the year	ppt	Annual
Vgtyp.img	User	Morph	O	Raster of predominant vegetation type	NA	Annual
LWFzn.csv	User/PT	Morph	O	Csv file of land/water/floatant area summed over summary units (e.g., Ecoregion)	m^2/zone	Annual
VgTzn.csv	User/PT	Morph	O	Csv file of land/marsh type areas summed over summary units (e.g., Ecoregion)	m^2/zone	Annual

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
profile	BIMODE/Morph	BIMODE	O	Elevation and location of each BIMODE profile point	m UTM (x,y) m NAVD88 (z)	Annual
Shoreline_bay	BIMODE	BIMODE	O	Coordinates of BIMODE profile points that define shoreline position on bay side of island	m UTM	Annual
Shoreline_sea	BIMODE	BIMODE	O	Coordinates of BIMODE profile points that define shoreline position on Gulf side of island	m UTM	Annual
Window_file	BIMODE	BIMODE	I	Coordinates of BIMODE profile points that are defined passes between islands	m UTM	Annual
ALLIG	User	HSIs	O	Alligator Habitat Suitability Index	Index (0-1)	Annual
CRAYF	User	HSIs	O	Crayfish Habitat Suitability Index	Index (0-1)	Annual
GADWA	User	HSIs	O	Gadwall Habitat Suitability Index	Index (0-1)	Annual
GTEAL	User	HSIs	O	Green-Winged Teal Habitat Suitability Index	Index (0-1)	Annual
MOTDK	User	HSIs	O	Mottled Duck Habitat Suitability Index	Index (0-1)	Annual
BRWNP	User	HSIs	O	Brown Pelican Habitat Suitability Index	Index (0-1)	Annual

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
BLUCJ	User	HSIs	O	Juvenile Blue Crab Habitat Suitability Index	Index (0-1)	Annual
OYSTE	User	HSIs	O	Oyster Habitat Suitability Index	Index (0-1)	Annual
BSHRS	User	HSIs	O	Small Brown Shrimp Habitat Suitability Index	Index (0-1)	Annual
BSHRL	User	HSIs	O	Large Brown Shrimp Habitat Suitability Index	Index (0-1)	Annual
WSHRS	User	HSIs	O	Small White Shrimp Habitat Suitability Index	Index (0-1)	Annual
WSHRL	User	HSIs	O	Large White Shrimp Habitat Suitability Index	Index (0-1)	Annual
GMENJ	User	HSIs	O	Juvenile Gulf Menhaden Habitat Suitability Index	Index (0-1)	Annual
GMENA	User	HSIs	O	Adult Gulf Menhaden Habitat Suitability Index	Index (0-1)	Annual
SPSTJ	User	HSIs	O	Juvenile Spotted Seatrout Habitat Suitability Index	Index (0-1)	Annual
SPSTA	User	HSIs	O	Adult Spotted Seatrout Habitat Suitability Index	Index (0-1)	Annual
BAYAJ	User	HSIs	O	Juvenile Bay Anchovy Habitat Suitability Index	Index (0-1)	Annual

Filename	Used by:	Prepared by:	In/ Output	Description	Units	Output Fq.
BAYAA	User	HSIs	O	Adult Bay Anchovy Habitat Suitability Index	Index (0-1)	Annual
LMBAS	User	HSIs	O	Largemouth Bass Habitat Suitability Index	Index (0-1)	Annual
NITUP	User	HSIs	O	Nitrogen Uptake	µmol/h	Annual

2.0 Metrics

Codes used to identify metrics are identified in Table 2.

Table 2: Metrics, Abbreviations, and Output Frequencies.

Metric	Abbreviation	Output frequency
Sustainability of land	SUS	once per simulation
Navigation	NAV	once per simulation
Traditional fishing communities	SF	once per simulation
Support for oil and gas activities and communities	SOG	once per simulation
Support for agricultural communities	SAG	once per simulation
Natural processes	UNP	once per simulation
Social Vulnerability Index	SVI	once per simulation
Flood protection of historic properties	HST	once per simulation
Flood protection of strategic assets	CRT	once per simulation

3.0 Vegetation Habitat Classes and Associated Species

The vegetation species assigned to each habitat class are identified in Table 3.

Table 3: Vegetation Habitat Classes and Associated Species.

Habitat	Species	Abbreviation
Bottomland Hardwood Forest	Quercus lyrata Walter Quercus texana Buckley Quercus laurifolia Michx. Ulmus americana L. Quercus nigra L. Quercus virginiana Mill.	QULEX QUTEX QULA3 ULAMX QUNIX QUVIX
Swamp Forest	Salix nigra Marshall Taxodium distichum (L.) Rich. Nyssa aquatica L.	SANIX TADI2 NYAQ2
Fresh Floating Marsh	Panicum hemitomon Schult. Eleocharis baldwinii (Torr.) Chapm. Hydrocotyle umbellata L.	PAHE2 ELBA2 HYUM
Fresh Attached Marsh	Morella cerifera (L.) Small Panicum hemitomon Schult. Sagittaria latifolia Willd. Zizaniopsis miliacea (Michx.) Döll & Asch. Cladium mariscus (L.) Pohl Typha domingensis Pers.	MOCE2 PAHE2 SALA2 ZIMIZ CLMA10 TYDOX
Intermediate Marsh	Sagittaria lancifolia L. Phragmites australis (Cav.) Trin. ex Steud. Schoenoplectus californicus (C.A. Mey.) Palla Iva frutescens L. Baccharis halimifolia L.	SALAX PHAU7 SCCA11 IVFRX BAHAX
Brackish Marsh	Spartina patens (Aiton) Muhl. Paspalum vaginatum Sw.	SPPAX PAVA
Saline Marsh	Juncus roemerianus Scheele Distichlis spicata (L.) Greene Spartina alterniflora Loisel. Avicennia germinans (L.) L.	JUROX DISPX SPALX AVGEX
Dune	Uniola paniculata L. Panicum amarum Elliott Sporobolus virginicus (L.) Kunth.	UNPAX PAAM2 SPVI3
Swale	Spartina patens (Aiton) Muhl. Distichlis spicata (L.) Greene Solidago sempervirens L. Strophostyles helvola (L.) Elliott Baccharis halimifolia L.	SPPABI DISPBI SOSEX STHE9 BAHABI

4.0 EwE

The characters that comprise EwE parameter codes are identified in Table 4. **BJC01** is an example of a complete five letter code.

Table 4: EwE-Specific File Naming Information.

Data	Data type code	Group name	Two-letter species code	Month code
Biomass	**B**	Juvenile Atlantic croaker	JC	**01**
Catch	**C**	Adult Atlantic croaker	AC	**02**
Effort	**E**	Juvenile bay anchovy	JA	**03**
		Adult bay anchovy	AA	**04**
		Benthic algae	BA	**05**
		Benthic crustaceans	BC	**06**
		Juvenile black drum	JB	**07**
		Adult black drum	AB	**08**
		Juvenile blue catfish	JT	**09**
		Adult blue catfish	AT	**10**
		Juvenile blue crab	JL	**11**
		Adult blue crab	AL	**12**
		Juvenile brown shrimp	JN	
		Adult brown shrimp	AN	
		Detritus	DE	
		Dolphins	DO	
		Grass shrimp	GS	
		Juvenile Gulf menhaden	JM	
		Adult Gulf menhaden	AM	
		Juvenile Gulf sturgeon	JG	
		Adult Gulf sturgeon	AG	
		Killifishes	KI	
		Juvenile largemouth bass	JS	
		Adult largemouth bass	AS	
		Mollusks	MO	
		Oyster drill	OD	
		Oyster (spat)	SP	
		Oyster (seed)	SE	
		Oyster (sack)	SA	
		Phytoplankton	PH	
		Juvenile red drum	JR	
		Adult red drum	AR	

Data	Data type code	Group name	Two-letter species code	Month code
		SAV	SV	
		Sea birds	BI	
		Juvenile sea catfish	JX	
		Adult sea catfish	AX	
		Juvenile sharks	JH	
		Adult sharks	AH	
		Juvenile sheepshead	JE	
		Adult sheepshead	AE	
		Silversides	SI	
		Juvenile southern flounder	JF	
		Adult southern flounder	AF	
		Juvenile spot	JO	
		Adult spot	AO	
		Juvenile spotted seatrout	JU	
		Adult spotted seatrout	AU	
		Juvenile striped mullet	JP	
		Adult striped mullet	AP	
		Juvenile sunfishes	JI	
		Adult sunfishes	AI	
		Juvenile white shrimp	JW	
		Adult white shrimp	AW	
		Zoobenthos	ZB	
		Zooplankton	ZP	

5.0 ADCIRC and SWAN

The five letter parameter codes used by the storm surge/wave modeling team are listed below:

- ADCSW - ADCIRC and SWAN output information for CLARA input
- ADGRD - ADCIRC and SWAN unstructured mesh
- ADNOD - ADCIRC and SWAN model attributes
- ADMCF - ADCIRC model control file
- SWMCF - SWAN model control file
- ADWCF - ADCIRC wind control file
- ASCOD - ADCIRC and SWAN model code

6.0 CLARA

The five letter parameter codes used by the CLARA modeling team are described below:

First three characters:

- EAD – expected annual damage
- DRP – damage by return period
- FRP – flood depths by return period
- CRP – counts inundated by return period
- PRP – proportion inundated by return period
- MIT – count of properties mitigated
- DUR – duration of mitigation projects
- CNS – cost of nonstructural mitigation
- CEN – cost-effectiveness of nonstructural mitigation
- VAR – value of assets at risk
- CAR – counts of assets at risk
- SRL – severe repetitive loss properties
- LMI – low to moderate income populations
- CRT – counts and proportions of critical infrastructure assets flooded
- HST – counts and proportions of historical properties flooded

Fourth character (spatial aggregation):

- G – grid point
- P – parish
- U – planning unit
- B – census block
- T – census tract
- R – risk region
- N – nonstructural project area

Fifth character:

- A – by asset class
- S – by nonstructural strategy
- H – by historic assets
- C – by critical infrastructure type
- T – total (summed over the types, or not broken out)

CLARA Scenarios and CXXX Token File Naming Convention

The CXXX token was used by the CLARA team to represent a CLARA scenario. The first digit reflects assumptions with regards to flooding. Regarding the flood model scenarios, only one set of assumptions was used with respect to storm frequency and intensity for each landscape scenario. Fragility assumptions were still varied (see Attachment C3-25 for a complete description of the fragility assumptions). This means that the first digit in the CLARA token was 1, 4, or 7 indicating the low environmental scenario (i.e., S01). It was 2, 5, or 8 for the medium environmental scenarion (i.e., S04) and 3, 6, or 9 for the high environmental scenario (i.e., S03) as

this was the most extreme landscape scenario and thus the more extreme set of assumptions with respect to storm frequency and intensity is used. Refer to Table 5.

Table 5: CLARA File Naming Related to Storm and Fragility Scenarios.

No.	Storm frequency modifier (year 50)	Storm intensity modifier (year 50)	Fragility probability assumption
1	-28%	+10%	No fragility
2	-14%	+12.5%	No fragility
3	0%	+15%	No fragility
4	-28%	+10%	IPET
5	-14%	+12.5%	IPET
6	0%	+15%	IPET
7	-28%	+10%	MTTG
8	-14%	+12.5%	MTTG
9	0%	+15%	MTTG

The second digit is the digit that represented the population growth model used (Table 6); see Attachment C3-25 for a complete description of the growth scenarios. In all initial conditions data and any results for FWOA where population growth was not relevant (including flood depths, critical infrastructure, and historical properties records), this was set to 0 to indicate no population growth model was used. In the DRP and EAD results for FWOA, there were values of 1, 2, and 3 which represented the "historical growth", "concentrated growth", and "no growth" population growth models, respectively.

Table 6: CLARA File Naming Related to Population Growth Scenarios.

No.	Coast wide growth rate (per annum)	Difference in growth rates between areas
1	0.67%	1.0%
2	0.67%	1.5%
3	0.00%	1.0%

The third and final digit reflected the application of nonstructural project assumptions to create a project variant. 0 = FWOA; no nonstructural. See Attachment C3-25 for more information on the development of nonstructural project variants.

- 1-7 = a nonstructural project variant

7.0 ICM Uncertainty Analysis

Table 7 indicates the identifier used for each uncertainty analysis model run completed using the ICM. It also provides details about which input variable was perturbed, the magnitude of the perturbation, and the perturbation value. See Attachment C3-23 for more details on the ICM uncertainty analysis completed for the 2017 Coastal Master Plan.

Table 7: ICM Uncertainty Analysis File Naming and Descriptions.

File naming	Variable to be perturbed	Perturbation magnitude	Perturbation value
U01	Two week salinity		
	· 0-1ppt	+ 25th percentile	0.03
	· 1-5ppt		0.21
	· 5-20ppt		0.30
	· 20-35ppt		1.21
U02	Two week salinity		
	· 0-1ppt	- 25th percentile	-0.03
	· 1-5ppt		-0.21
	· 5-20ppt		-0.30
	· 20-35ppt		-1.21
U03	Two week salinity		
	· 0-1ppt	+ 75th percentile	0.27
	· 1-5ppt		1.07
	· 5-20ppt		1.88
	· 20-35ppt		3.77
U04	Two week salinity		
	· 0-1ppt	- 75th percentile	-0.27
	· 1-5ppt		-1.07
	· 5-20ppt		-1.88
	· 20-35ppt		-3.77

File naming	Variable to be perturbed	Perturbation magnitude	Perturbation value
U05	Annual water level	+ 75th percentile	0.10
U06	Annual water level	- 75th percentile	-0.10
U07	Annual water level variability	+ 75th percentile	0.03
U08	Annual water level variability	- 75th percentile	-0.03
U09	Annual TSS	+ 75th percentile	38.01
U10	Annual TSS	- 75th percentile	-38.01
U11	Organic sediment component	75th percentile OM & 25th percentile BD	
U12	Organic sediment component	25th percentile OM & 75th percentile BD	
U13	Fresh marsh	+22%	
U14	Fresh marsh	-22%	
U15	Intermediate marsh	+27%	
U16	Intermediate marsh	-27%	
U17	Brackish marsh	+38%	
U18	Brackish marsh	-38%	
U19	Saline marsh	+31%	
U20	Saline marsh	-31%	
U21	Composite perturbations - low (minimum land coast wide at year 50)	Salinity	Same as U04
		Mean Water Level	Same as U05
		Water Level Variability	Same as U07
		Annual TSS	Same as U12
		Organic sediment	Same as U10
U22	Composite perturbations - high (maximum land coast wide at year 50)	Salinity	Same as U03
		Mean Water Level	Same as U06

File naming	Variable to be perturbed	Perturbation magnitude	Perturbation value
		Water Level Variability	Same as U08
		Annual TSS	Same as U09
		Organic sediment	Same as U11