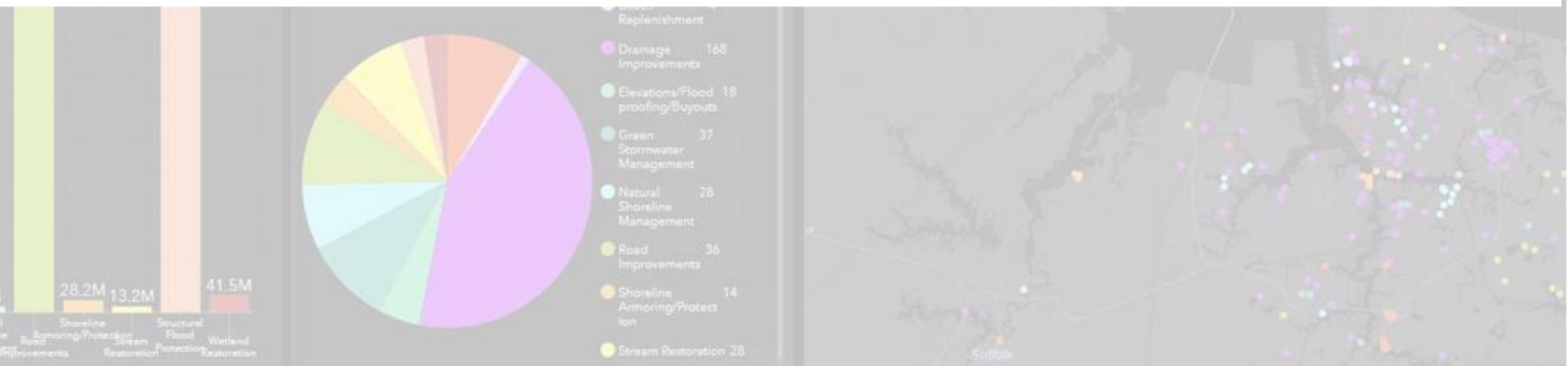


# RESILIENCY PROJECT TRACKING UPDATE



# Regional Inventory Updates

- **22** new projects added
- **21** projects advanced in status

Status	Total Cost	Change in Cost
Proposed and Programmed	<b>\$1.6 billion</b>	<b>+\$270.1 million</b>
Under Design and Under Construction	<b>\$1.6 billion</b>	<b>-\$137.6 million</b>
Completed	<b>\$122.6 million</b>	<b>+ \$10.6 million</b>
<b>Total</b>	<b>\$3.4 billion</b>	<b>+ \$143.2 million</b>

# Programs and Policies

- Program examples
  - ▣ Plans/studies related to flooding and sea level rise
  - ▣ Acquisition programs
  - ▣ Flood monitoring/alert systems
  - ▣ Community Rating System participation
  
- Policy examples
  - ▣ Freeboard standards
  - ▣ Comprehensive plan updates
  - ▣ Hazard mitigation plan activities

# City of Virginia Beach

Hampton Roads Resiliency Projects and Programs

## Policy Fast Facts

**Freeboard Standard:** Two feet above the base flood elevation for new construction or substantial improvement in the Special Flood Hazard Area (2013 Floodplain Ordinance)

**2016 Comprehensive Plan Update:** Environmental Stewardship Framework (Section 2.2) addresses sea level rise and recurrent flooding and requires a preliminary stormwater drainage analysis for development in the Southern Watershed prior to approval by Planning Commission and City Council.

**2017 Hampton Roads Hazard Mitigation Plan:** Includes mitigation actions related to repetitive loss properties, physical infrastructure, and public outreach.



## Program Spotlight

**Comprehensive Sea Level Rise and Recurrent Flooding Response Plan:**

**Multi-year, citywide analysis to identify strategies for reducing flood risk, including policy measures, structural flood control, and nature-based solutions.**

**Master Drainage Study:**

**Evaluating the City's stormwater system performance to multiple storm events and sea level rise as part of the stormwater master plan update.**



## By The Numbers

**Community Rating System score of 7**

**15%** Discount on flood insurance premiums in the Special Flood Hazard Area

**24,522** Flood insurance policies in force

# Louisiana Coastal Master Plan Data Viewer



Coastal Protection and Restoration Authority

Search by address

**Find My Info!**  
Enter address above to see your information

Land Change
Flood Risk
Coastal Vegetation

Social Vulnerability
2017 Coastal Master Plan
Resources to Reduce Risk

Nonstructural Projects
Structural Projects
Restoration Projects

- Scroll up for more -

**▲ St. Charles - Hahnville/Luling**  
Nonstructural Protection

St. Charles - Hahnville/Luling Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Fact Sheet

**▲ Project Details**

**Project Cost:** \$829.5 million  
**Total Mitigated Structures:** 3926  
**Implementation Period:** Years 31-50

	Structures (#)	Cost (\$Millions)	Structures (%)
<span style="color: #0072bc;">■</span> Floodproofing	110	\$65.2	<div style="display: flex; align-items: center; justify-content: center;"> <div style="width: 20px; height: 20px; background-color: #0072bc; border-radius: 50%; margin-right: 5px;"></div> <div style="text-align: center;"> <p>93.5%</p> </div> </div>
<span style="color: #92d050;">■</span> Elevation	3672	\$706.3	
<span style="color: #f08c00;">■</span> Voluntary Acquisition	144	\$58.0	
<b>Total</b>	<b>3926</b>	<b>\$829.5</b>	

**Current Phase:**

Conceptual Phase

Planning & Feasibility

Engineering & Design

Construction

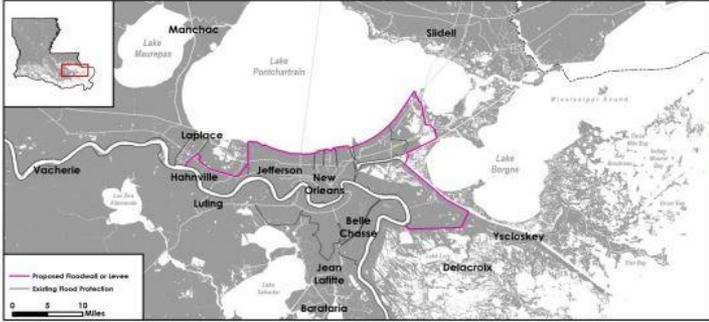
- Scroll down for more -

# Louisiana Coastal Master Plan Data Viewer

- Description
- Project Cost
- Scale of Influence
- Project Location
- Project Duration
- Population and LMI Statistics
- Severe Repetitive Loss Properties

## Greater New Orleans High Level Structural Protection

Project ID: 001.HP.04



### Description

Improvements of existing Hurricane and Storm Damage Risk Reduction System levees surrounding the East Bank of Greater New Orleans to elevations between 19 and 35 feet NAVD88. Project features approximately 202,000 feet of earthen levee and approximately 242,100 feet of T-wall.

### Scale of Influence

Local   Sub-basin   Basin   **Regional**

### Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	\$278,100,000
Construction	\$1,924,900,000
Operations & Maintenance	\$19,700,000
<b>Total</b>	<b>\$2,222,700,000</b>

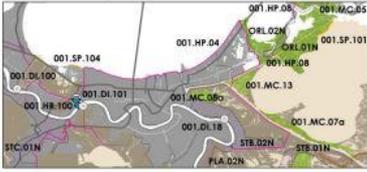
### Project Location

Orleans Parish; St. Bernard Parish; Jefferson Parish; St. Charles Parish; Plaquemines Parish

### Project Duration

Planning, Engineering, and Design is estimated to take 3 years.  
Construction is estimated to take 6 years.

### Other Nearby Projects in the Master Plan



### Other Project Area Statistics

Estimated Current Population	
U.S. Census (2010); U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)	593,700
Percent of Population who are Low-to-Moderate Income	
American Community Survey (2006 - 2010)	43%
Number of Severe Repetitive Loss Properties	
Governor's Office of Homeland Security (2015)	9,400

2017 Coastal Master Plan | Project Factsheet

2017 Coastal Master Plan  
Implementation Period II

# Louisiana Coastal Master Plan Data Viewer

Economic  
Damage

Expected Annual  
Damage

Economic  
Damage by  
Return Period

Critical  
Infrastructure

## Greater New Orleans High Level Structural Protection

Project ID: 001.HP.04



### Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

**Table 2: Expected Annual Damage**

Year	FWOA	FWP	Difference
0	\$917 M	-	-
25	\$2,299 M	\$2,055 M	\$243 M
50	\$5,829 M	\$5,052 M	\$777 M

### Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

**Table 1: Critical Infrastructure Counts**

Asset Type	Protected	Total
Airport Facility	-	-
Gas Processing	-	3
Government/Military	-	3
Electric Power Substation	2	57
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	14
Electric Power Plant	1	27
Port	-	3
Petroleum Pump Station	-	-
Refinery	-	8
Water and Sewer	-	16
Strategic Petroleum Reserve	-	-
<b>Total</b>	<b>3</b>	<b>131</b>

**Table 3: Economic Damage by Return Period at Year 50**

Risk Region	50 Year		100 Year		500 Year	
	FWOA	FWP	FWOA	FWP	FWOA	FWP
Jefferson - Kenner/Metairie	\$1,885 M	\$1,508 M	\$10,376 M	\$2,051 M	\$145,548 M	\$105,674 M
Livingston	\$340 M	\$340 M	\$451 M	\$454 M	\$507 M	\$507 M
Orleans - Lake Catherine	\$340 M	\$340 M	\$342 M	\$342 M	\$351 M	\$351 M
Orleans - New Orleans	\$9,913 M	\$1,765 M	\$23,194 M	\$10,739 M	\$78,145 M	\$64,680 M
Orleans - Rigolets	\$129 M	\$130 M	\$130 M	\$130 M	\$130 M	\$130 M
St. Bernard	\$283 M	\$279 M	\$748 M	\$737 M	\$13,580 M	\$12,237 M
St. Charles - Destrehan	\$21 M	\$21 M	\$21 M	\$21 M	\$45 M	\$31 M
St. Charles - Montz	\$48 M	\$48 M	\$101 M	\$101 M	\$196 M	\$201 M
St. James - Convent	< \$1 M	< \$1 M	< \$1 M	< \$1 M	< \$1 M	< \$1 M
St. John the Baptist - Garyville	\$133 M	\$134 M	\$158 M	\$158 M	\$209 M	\$209 M
St. John the Baptist - Laplace/Reserve	\$16,468 M	\$16,506 M	\$19,303 M	\$19,240 M	\$24,670 M	\$24,591 M
St. Tammany	\$26,828 M	\$26,740 M	\$40,135 M	\$40,068 M	\$53,582 M	\$53,570 M
St. Tammany - Slidell	\$18,532 M	\$18,486 M	\$21,568 M	\$21,488 M	\$25,013 M	\$24,955 M
<b>Total</b>	<b>\$74,921 M</b>	<b>\$66,297 M</b>	<b>\$116,527 M</b>	<b>\$95,529 M</b>	<b>\$341,976 M</b>	<b>\$287,135 M</b>