



# Our Plan!

Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN

# STAKEHOLDER LEADERSHIP GROUP

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# 1

# Conceiving Resiliency

Introduction

Vision + Principles

Background + Context

Executive Overview

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## 1.1

## INTRODUCTION

### Risk

In a recent report, more than **1,400** U.S. communities and towns are in danger due to rising sea levels. While the paper reported in the *Proceedings of the National Academy of Sciences* journal puts Florida at greatest risk, the findings indicate **Louisiana**, New Jersey and North Carolina face “enormous” difficulties.

In July of 2013, the Florida Keys reported water levels will be **18 inches** higher in **50 years** and has documented a sea level rise of **nine (9) inches** in the last century. So, when building the Stock Island fire station, county authorities added 18 inches to Federal flood planning directives that the ground floor be built up nine (9) feet. In that same report, New York City's mayor announced a multibillion-dollar plan for flood walls and levees to hold back rising water levels, similar to those in the Netherlands. Cuba — 90 miles off the U.S. coast — is demolishing thousands of houses, restaurants, hotels and improved docks to restore much of the coast to something approaching its natural state. And back in Florida, one of their first actions was to create a three- (3-) **county coalition** to develop an action plan that

includes **planning policies, stopping sea-water** from flowing into freshwater supplies and managing the region's **unique ecosystems** so that they can adapt. This group reviewed regional sea level data and projected a rise of up to **24 inches** in the next 50 years.<sup>1</sup>

Every challenge noted by other at-risk areas also confronts **Vermilion Parish**.

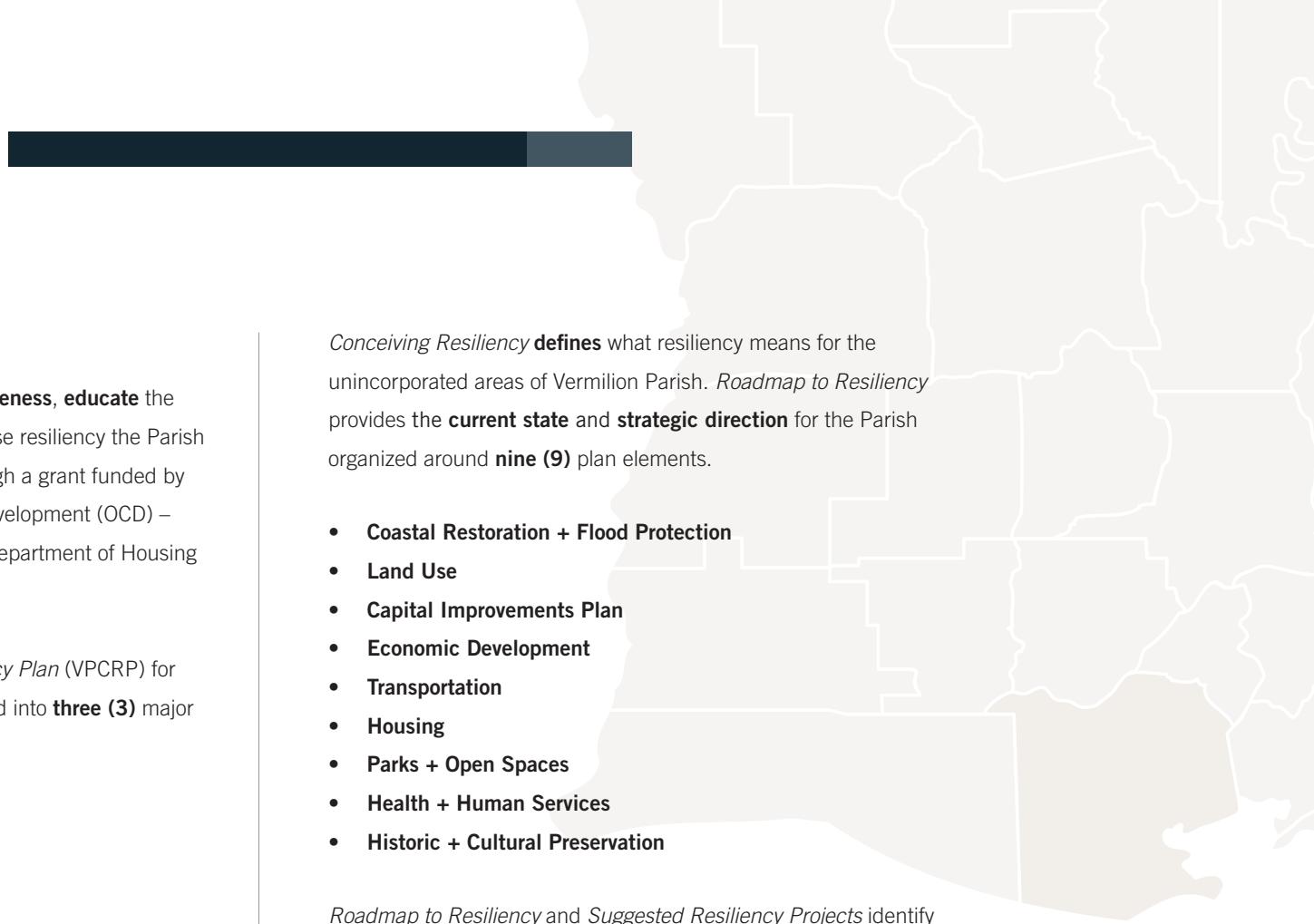
Vermilion Parish is a part of Louisiana's **working coast**. Vermilion Parish communities support the oil and gas infrastructure dotting the Louisiana and Gulf Coast. **Coastal erosion** threatens their very existence. Further, coastal erosion, along with the impact of some oil and gas industry activities, has been exacerbated by efforts to keep the Mississippi River navigable. Combined with damage done to wetlands by oil and gas companies, removing significant amounts of natural buffers that mitigate the damage of hurricanes to rural areas in the Southern part of the Parish, and saltwater intrusion is putting the productivity of remaining lands at further risk.<sup>2</sup>

<sup>1</sup> *The Daily Advertiser*, July 30, 2013, 7A.

<sup>2</sup> *The Morning Advocate*, August 9, 2013, 1.

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## This Plan

To mitigate risk, better understand, raise awareness, educate the public and seek funding for projects to increase resiliency the Parish has developed this Plan, made possible through a grant funded by the State of Louisiana Office of Community Development (OCD) – Disaster Recovery Unit (DRU) from the U.S. Department of Housing and Urban Development (HUD).

The *Vermilion Parish Comprehensive Resiliency Plan* (VPCRP) for unincorporated areas of the Parish is organized into **three (3)** major components:

- **Conceiving Resiliency**
- **Roadmap to Resiliency**
- **Achieving Resiliency**

These components are integrated so that no one section is independent from the other. This ensures the legitimacy of the *Plan* as a whole.

*Conceiving Resiliency* defines what resiliency means for the unincorporated areas of Vermilion Parish. *Roadmap to Resiliency* provides the **current state and strategic direction** for the Parish organized around **nine (9)** plan elements.

- **Coastal Restoration + Flood Protection**
- **Land Use**
- **Capital Improvements Plan**
- **Economic Development**
- **Transportation**
- **Housing**
- **Parks + Open Spaces**
- **Health + Human Services**
- **Historic + Cultural Preservation**

*Roadmap to Resiliency* and *Suggested Resiliency Projects* identify projects within the nine (9) focus areas that can improve Vermilion Parish resiliency.

In the *Achieving Resiliency* section, the *Plan* focuses on prioritizing and identifying strategies to implement the *Plan* and identifying resources that can support implementation.

## What is Resiliency?

Simply put, resiliency is a community's ability to **bounce back** after a disaster. It is measured, in part, by the speed and effectiveness at which a community is once again functioning after a major disruption.

## INTRODUCTION

### Why is Resiliency Important?

When faced with turbulent change, the speed and effectiveness at which people get back into their homes; businesses resume operations; and essential infrastructure, community systems and governmental and social services are again in place are important to ensuring a community's **return to viability**. Strengthening structures, handling facilities, guiding growth to less vulnerable areas, restoring natural boundaries and buffers, developing continuity of operation (COOP) plans and more, are key strategies to resilient communities.

### Why Have a Plan?

Planning is an important tool in a community's development, whether for new business growth, land use or resiliency planning or to consider other issues that help determine a **community's future**. Not only do plans provide recommendations for forward actions, they provide **prospective funding sources** important information about a community's challenges, assets, values and priorities.

Vermilion Parish leaders are very **knowledgeable** and **forward-thinking**. The greatest challenge is not in knowing what to do, but in finding resources to do what's needed. The *Plan* tells the Vermilion Parish story to those **prospective sources** for those who have **needed funds**.

Like going to the bank with a business plan, many funders and grantors are more likely to provide funds if a project is a part of an overall plan.

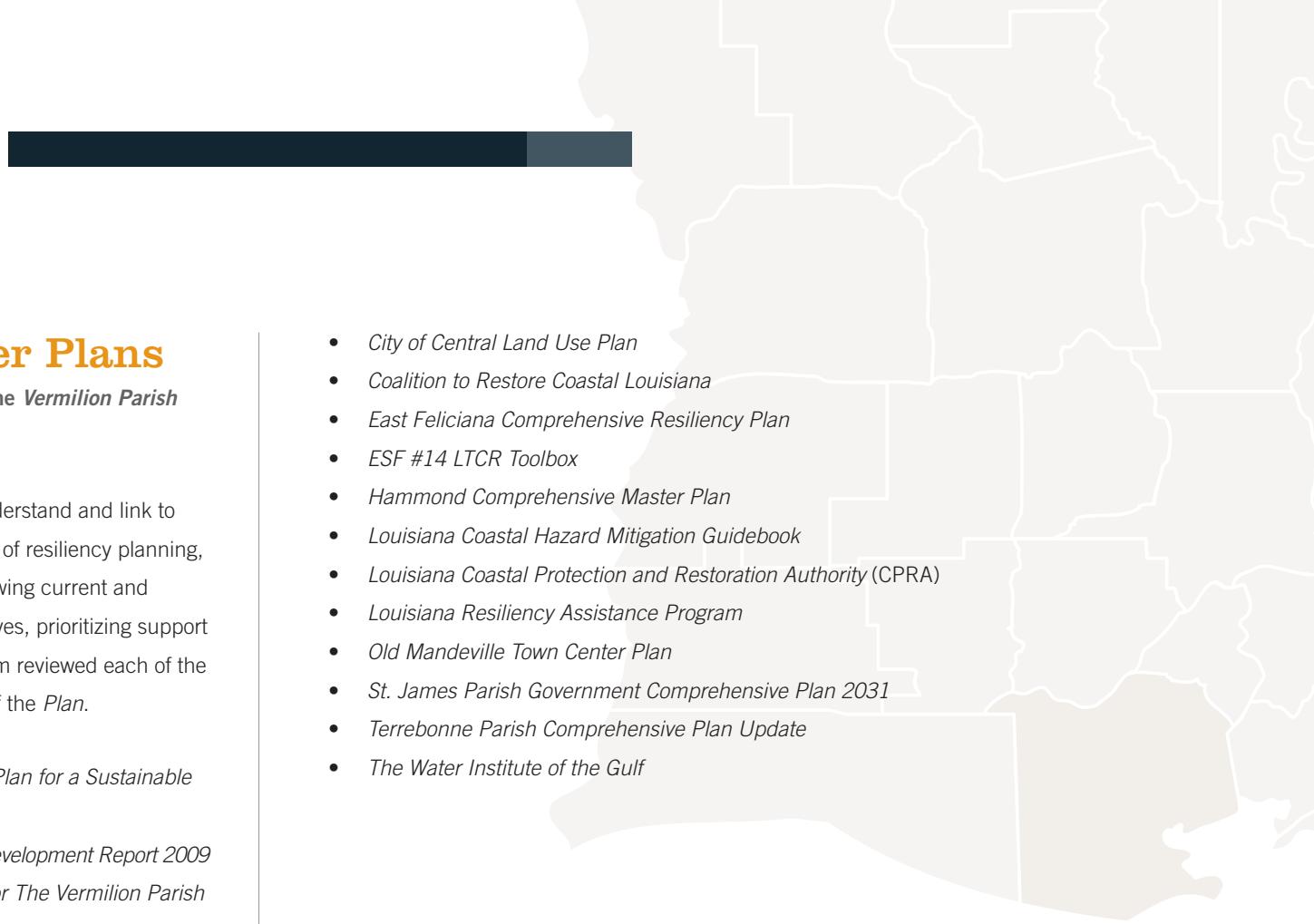
- Plans represent **community consensus**.
- Plans are approved by **political leadership**.
- Plans allow for **prioritizing** and matching projects to potential funding resources.
- Plans provide context, descriptions and paint a picture of the **current** state of a community for prospective funders to consider.

Most issues and ideas discussed in this *Plan* should come as no surprise to informed community leadership. However, seeing these issues and ideas through the lens of resiliency planning may likely provide different perspectives and encourage innovative and **collaborative** community-wide thinking.

Another important reason to plan is that through the process of plan development either closely held opinions and **perceptions** are validated or, if invalid, the planning process offers an opportunity to correct them.

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## Synergies with Other Plans

(In particular resiliency in accordance with the *Vermilion Parish Hazard Mitigation Plan*)

It is important that new planning initiatives understand and link to **other planning** and activity efforts. In the case of resiliency planning, it is particularly important to consider the following current and ongoing planning and other specialized initiatives, prioritizing support where appropriate. The *Plan* development team reviewed each of the documents listed to inform the development of the *Plan*.

- *Louisiana's 2012 Comprehensive Master Plan for a Sustainable Coast (2012 Coastal Master Plan)*
- *A Portrait of Louisiana: Louisiana Human Development Report 2009*
- *A Vision and A Task: An Action Agenda For The Vermilion Parish Economy – 2012*
- *Abbeville Design Review Guidelines Manual – 2011*
- *Abbeville Downtown Strategic Plan – March 2006*
- *Best Practices Manual for Development in Coastal Louisiana*
- *Breaux Bridge Comprehensive Study*
- *Capital Improvements Program: Road Systems, Public Works, & Public Buildings – 2012 - 2016 for the Vermilion Parish Police Jury*
- *Center for Planning Excellence (CPEX) Land Use Toolkit*
- *Church Point Comprehensive Long-Range Resiliency Plan*
- *City of Alexandria Community Assessment*

- *City of Central Land Use Plan*
- *Coalition to Restore Coastal Louisiana*
- *East Feliciana Comprehensive Resiliency Plan*
- *ESF #14 LTCR Toolbox*
- *Hammond Comprehensive Master Plan*
- *Louisiana Coastal Hazard Mitigation Guidebook*
- *Louisiana Coastal Protection and Restoration Authority (CPRA)*
- *Louisiana Resiliency Assistance Program*
- *Old Mandeville Town Center Plan*
- *St. James Parish Government Comprehensive Plan 2031*
- *Terrebonne Parish Comprehensive Plan Update*
- *The Water Institute of the Gulf*

## INTRODUCTION

- *Vermilion Parish Economic Development Report: Survey Results and Preliminary SWOT Analysis – November 2003*
- *Vermilion Parish Hazard Mitigation Plan Update – July 2010*
- *Vermilion Parish Office of Homeland Security and Emergency Preparedness Multi-Hazard Emergency Operations Plan – July 2011*
- *Vermilion Vision: 2014 – Vermilion Parish Economic Development District Strategic Plan 2004-2014*

## Unique Resource-Identification Tools

The VPCRP includes **two (2) unique tools**:

- **Unique FTP site.** Created by the VPCRP Development Team, the FTP site is a **data collection tool** that houses research resources, visuals, maps and documentation used to guide the development of the Plan.
- **Funding resources CD.** The funding resource tool was first conceived by a contracted

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in response to Hurricanes Katrina and Rita. It is now a national product distributed by FEMA. In the development of this Plan, the VPCRP Development Team has once again expanded the tool and it now has more than **1,100 entries**. In a later section of this Plan, the VPCRP Development Team identifies and prioritizes those resources, matching them to proposed projects recommended in the Plan.

## Funding Strategies

Throughout the narrative of this Plan you will hear an overarching theme – wherever possible, join with others who have a **shared interest** when seeking funding. Funders are more likely to support causes that have **broad community** and **regional** support. Collaborative efforts can be **between Parishes** or include **public-private partnerships** and are most powerful when they also have a **volunteer component**.

In the third section of this Plan, you will find a recommendation to **“package” priority projects** for a presentation to the legislature and to the congressional delegation. You will also find a recommendation to seek out **private grant making organizations** and a grid that **matches potential projects to prospective funding sources**.

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The most important recommendation we make regarding funding is to put **someone in charge of finding resources**, especially someone dedicated to **seeking out grants**. That person can be a volunteer or paid staff. In some cases a grant may be available to pay his/her salary.

## A Word About Economic Development

It should be noted that Vermilion Parish and indeed all of south Louisiana has an important role to play in enhancing resiliency in coastal communities across the Nation. The impacts of Hurricanes Katrina and Rita — this country's **largest disaster** to date — have resulted in south Louisiana becoming the **largest living laboratory** for response, recovery and resiliency planning. Lessons Learned here coupled with what we are learning about the impacts of sea level rise and saltwater intrusion put Vermilion Parish in a unique position to **capture** and **export knowledge** and **expertise**, teaching others what we have learned and are learning as a result of those disasters. One stakeholder put it this way, *"Why should Colorado be the leading expert on coastal erosion?"*

The expertise developed here presents a compelling opportunity for **job creation**. One recent report, when considering the cost of coastal restoration, noted its **economic benefits** to south Louisiana. *"I'm thinking how much money we'll make off it,"* James Carville, one of the country's most successful political consultants and a Louisiana native was quoted when speaking to a recent State of the Coast meeting in New Orleans.

*The greatest export from Louisiana 50 to 75 years from now, after all the oil and gas is gone, should be the State's expertise on how to deal with the challenges of a rising sea level.<sup>3</sup>*

<sup>3</sup> Carville: Focus on benefits, not costs of coastal restoration, The Advocate, March 19, 2014

## A Community-Based Plan Development Process

The VPCRP is a product of **community** thought and input. For a detailed discussion of the community outreach process, please see *May 2012 Public Outreach Meeting Summary Report* under separate cover.



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1.2

## VISION + PRINCIPLES

### Vision for a Resilient Future

Vermilion Parish is **significantly vulnerable** to coastal erosion, salt-water intrusion, severe storms that come up through the Gulf, storm surge, flooding and other natural threats. Its leadership is keenly aware that actions taken today **significantly** impact generations to come.

To that end, it sought and was **awarded** a grant through the State of Louisiana Office of Community Development (OCD) – Disaster Recovery Unit (DRU), from the U.S. Department of Housing and Urban Development (HUD) to consider resiliency and to create a plan – *Vermilion Parish Comprehensive Resiliency Plan* (VPCRP) – for the Parish that points it to a **more resilient future**.

Through a community and stakeholder outreach process Vermilion Parish residents were asked and told us what they **hoped** for with regard to the Parish's future. Vermilion Parish's vision for itself can be summarized like this:

Vermilion Parish is a **family-centered** community that treasures its **rural roots, rich history**, stunning **wetlands, green spaces** and **waterways** and **unique culture**. It strives for **innovation**

and an **economically diverse, thriving** and **growing** business community. It recognizes its **vulnerability** and wants to create a **legacy** that protects generations to come from the impacts of emergencies, natural and man-made disasters, economic instability, community disruption and more, by building a **safer, stronger** and more **resilient future**.

### PUBLIC TRUST

This Plan is heavily weighted to the top concerns expressed by **attendees** at the public outreach events – **coastal erosion, wetlands restoration, salt-water intrusion** and **agricultural** needs.

Stakeholders and the citizenry also expressed interest and concern in other areas. With regard to **agriculture**, Vermilion Parish residents want to see the **protection** and **retention** of farmlands for agricultural purposes. **Groundwater** and **fresh water** need to be protected. Residents want the Parish's unique **culture preserved** and its Cajun heritage promoted. The citizenry wants a **business-friendly image** and a **thriving, growing economy** to fund needed **infrastructure initiatives** and improve **educational** offerings so that young people

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can find **jobs** that **pay competitive wages** and stay in the Parish to raise their own families. Residents are interested in evaluating its **tax structure** to ensure funding for critical resiliency-based and other projects and want to become more **technologically savvy**, upgrading its technology infrastructure.

## Guiding Principles

Guiding principles are developed to ensure planning recommendations and strategies reflect and support the **core values** of Parish leaders and citizens. Having a clear understanding and consensus of Parish values ensures that recommendations and strategies within the Plan are **consistent** with these values, moving the Parish toward a **collective vision** and the **achievement** of its stated goals.

Guiding principles for this Plan – established through citizen and stakeholder input at the beginning of the planning process – are grouped into the **nine (9) topic areas** first introduced on page 4 of this document.

It is important to note throughout this document, that Vermilion Parish has been and continues to be very **proactive**. During the two-(2-) year planning effort, you will see throughout the Plan narrative that Vermilion Parish leadership has **already taken significant steps** in each of the areas noted below and within each of the sections of this Plan, to build a more resilient Parish.

## COASTAL RESTORATION + FLOOD PROTECTION

- **Protect the coast against erosion.**
- **Improve flood control measures**, including through berms and levees.
- Improve **water management** systems.
- **Increase flood protection** measures to prevent **saltwater intrusion** into farmlands.

## LAND USE

- Create **land-use guidance** to ensure Parish growth is **strategic** and to protect important community elements such as **parks, natural resources, agriculture, wetlands**, etc.
- Encourage growth of cities and **mixed land use** to avoid urban sprawl and that facilitate the **consolidation** of infrastructure development, while also protecting farmlands.
- Protect **existing development**.
- Protect **freshwater** and **groundwater**.
- **Adapt buildings.**

## CAPITAL IMPROVEMENTS PLAN (CIP)

- Set Parish **spending priorities** for improvements to focus priorities on those projects that also **improve resiliency**.
- Expand infrastructure capacity to increase **industrial capabilities**.

## ECONOMIC DEVELOPMENT

- **Strengthen** and **diversify** the Parish economy.
- Attract **new businesses** and residents while **retaining** those already in the Parish.
- **Formalize** and **assign** economic development responsibilities.
- **Incentivize** local shopping, eating and entertainment in order to **keep resident dollars** in Vermilion Parish.
- **Preserve** and **strengthen local industries**, including but not limited to:
  - :: Agriculture, aquaculture, tourism and oil and gas.

## TRANSPORTATION

- **Expand evacuation** routes.
- Promote transportation infrastructure projects that **support economic development** and **planning**.

## HOUSING

- **Educate** home (and business) owners on **hazard mitigation strategies** and **resiliency initiatives**.
- Encourage the **flood proofing** of homes and businesses, including **elevation** of existing structures and building to higher grades for new structures.
- Ensure development strategies include **affordable** work-force housing.

## PARKS + OPEN SPACES

- **Preserve marshlands** and **wetlands**.
- **Stabilize gulf shorelines**.
- **Brand** the Parish as the premier **parks, trails** and **fishing** location in the region.

## HEALTH + HUMAN SERVICES

- Build a **safe room** in the Abbeville General Hospital (NOTE: This project is underway.)
- Monitor and upgrade **waste management systems**.

## HISTORIC + CULTURAL PRESERVATION

- Preserve and promote Vermilion Parish **Cajun heritage**.
- **Inventory, protect** and **harden** historical structures.
- Foster resiliency by creating a **Community Coalition**.

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## 1.3

## BACKGROUND

### Vermilion Parish

The area now known as Vermilion Parish was inhabited by Native American tribes for thousands of years before it was established.

The land remained mostly unsettled through the **French colonial period**. It began growing by the time of the **Spanish colonial period** when French Acadians, or Cajuns, arrived in the southern region of Louisiana due to the **Great Expulsion** of 1760. This event, which occurred during the Seven Years' War, led to the **deportation** of thousands of **Acadians** by the British from their home in the region then known as **Acadie** (present day Nova Scotia, New Brunswick, Prince Edward Island and northern Maine). The Cajuns, looking for a new home, were drawn to this coastal area's **rich** and **fertile land** and **abundant** wildlife.

The Spanish government awarded **land grants** to those willing to provide **labor** in the **clearing** of land, the **building** of **bridges** and **levees** and the **maintenance** of **roadways**. Towns quickly **developed**, and in 1803 the U.S. acquired the territory of Louisiana through the **Louisiana Purchase**.

**Abbeville** was founded in 1843 by a French-born priest by the name of Antoine Desire Megret. He bought a tract of land and on this plot laid out the Town of Abbeville. By March 25, 1844, **Vermilion Parish** was **created** by the State legislature from the **southern** portion of **Lafayette Parish** under the administration of Governor Mouton, and Abbeville was **designated** as the **Parish Seat**.

Abbeville was first called "La Chapelle." It was incorporated in March 1850 and **earned** designation as the seat of Justice for Vermilion Parish in March 1854. Today, nearly **50 percent** of the more than 56,000 Parish residents boast of **Cajun ancestry**, with its vibrant **culture**, internationally recognized **cuisine** and unique **Southern hospitality** with some calling this "The Most Cajun Place on Earth."<sup>4</sup>

**Vermilion** is home to five other towns. **Delcambre**, partially located in **Iberia Parish** as well as **Vermilion**, has a **port** that houses much of the local **fishing** industry. It is also known for its **Shrimp Festival**.<sup>5</sup> **Erath** is home of **The Acadian Museum**. The museum

<sup>4</sup> History, Vermilion Chamber of Commerce, accessed June 6, 2014, <http://www.villageprofile.com/louisiana/vermilion/history.html>.

<sup>5</sup> Delcambre, Louisiana Travel, accessed June 17, 2014, <http://www.louisianatravel.com/cities/delcambre>.

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commemorates and honors the **Acadian heritage** and **Cajun people** of Louisiana. **Gueydan**, founded in 1902 by Jean-Pierre Gueydan, holds the **Duck Festival** annually the weekend before Labor Day. The town is known as the **Duck Capital of America**. **Kaplan**, incorporated in 1902, is known as the “**gateway to the wetlands**.” It is a popular destination for **outdoor lovers** in the area. **Maurice**, incorporated in 1911, was **founded** by **Maurice Villien**. It was originally known as **Mauriceville**.

**Vermilion Parish's deep history** is still **apparent** in the historic **architecture** of Downtown Abbeville and in the various **museums** located throughout the Parish. The **Vermilion Historical Society** was established in 1975 with a mission to **collect, preserve** and **communicate** the **history** of Vermilion Parish. The organization has **published** two (2) editions of the *History of Vermilion Parish, LA* and *Journeys Into the Past — Abbeville, LA* and *The Early Years* by Kenneth A. Dupuy. The Historical Society is also part of the **Abbeville Cultural and Historical Alliance**, which **operates** a **museum** at the **Alliance Center** featuring a collection of historic **artifacts, documents** and **photographs** pertaining to the Parish.<sup>6</sup>

<sup>6</sup> *Vermilion Parish*, Cajun Legacy, accessed June 6, 2014, <http://www.cajunlegacy.com/vermilion-parish.html>.

# 2

# Roadmap to Resiliency:

## OVERVIEW + CHALLENGES + EXISTING CONDITIONS

Coastal Restoration + Flood Protection (CR+FP)

Land Use (LU)

Capital Improvements Plan (CIP)

Economic Resiliency (ER)

Transportation Resiliency (TR)

Housing Resiliency (HR)

Parks + Open Spaces (P+OS)

Health + Human Services (H+HS)

Historic + Cultural Preservation (H+CP)

Tax Structure: Challenge In Funding  
Parish-Wide Projects

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2.1

## COASTAL RESTORATION + FLOOD PROTECTION (CR+FP)



**Protecting** the Parish's coast and **improving** flood protection were consistently identified as the **most important resiliency** considerations throughout public outreach efforts and stakeholder engagement. As a coastal Parish, Vermilion's existence, culture and its current economy are intrinsically tied to the coast. **Coastal erosion** and the **lack of sufficient flood control measures** are major deterrents to a safe and resilient Vermilion Parish. Coastal restoration and flood protection also overlap with other pressing issues such as **sea level rise**, **water management** and the protection of **environmentally critical** and **sensitive areas**. Where appropriate and necessary, this *Vermilion Parish Comprehensive Resiliency Plan* (VPCRP) speaks to these issues.

### Challenges

The **scale** of measures necessary to restore Vermilion Parish's coast and provide adequate flood protection are immense. Many necessary projects are **regional** – coastal deterioration and floodwaters do not recognize political boundaries. While the most impactful projects may require **billions** of dollars and **decades** to plan, study and build, there

are affordable measures that Parish residents and businesses can take now to **improve resiliency**. This section of the *Plan* identifies measures that can be taken at **varying scales** – household, business, Parish, region – to **improve resiliency** of the Parish.

Coastal restoration and community-scale flood protection are **complex** issues that often require years of study and some trial and error. This *Plan* leverages the work of other plans and guidance documents – such as *Louisiana's 2012 Comprehensive Master Plan for a Sustainable Coast* (2012 Coastal Master Plan), the *Vermilion Parish Hazard Mitigation Plan* and the *Best Practices Manual for Development in Coastal Louisiana* by the Center for Planning Excellence (CPEX). In doing so, the VPCRP is consistent with the state-of-the-art in coastal restoration and concurrent regional and statewide efforts.

Achieving success in the areas of coastal restoration and flood protection are the linchpin of a resilient Vermilion Parish. Without advances in this area any progress made in areas such as **economic**

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development, housing or transportation are minimized. This *Plan* element also contains a sub-section that addresses **water management**, an issue closely linked to **flood protection** and **coastal restoration**.

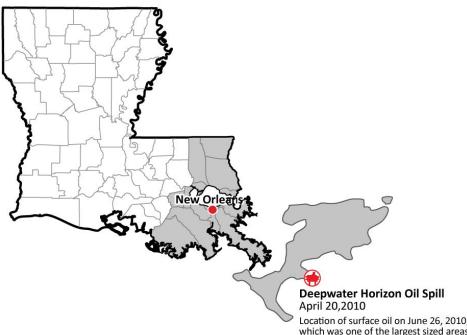
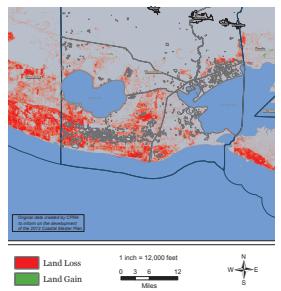
## Existing Conditions + Trends

- Coastal Erosion
- Saltwater Intrusion
- Impacts from Flooding

### COASTAL EROSION

According to the *2012 Coastal Master Plan*, the Louisiana coastline has lost **1,880 square miles of land** since the 1930's and predicts an additional **1,750 in the next 50 years**. That should give everyone reason to pause.

Vermilion Parish experiences coastal erosion on a daily basis from **wave action**. Coastal erosion is accelerated by **hurricane storm surge** and the coastline is vulnerable to **other hazards** such as the April 2010 Deepwater Horizon oil spill.



## SALTWATER INTRUSION

The National Oceanic and Atmospheric Administration (NOAA) Coastal Change Analysis Program estimates that **60 percent** of the Parish is **forest, wetlands** or **water**.<sup>1</sup> The Vermilion Parish Tax Assessor estimates that **73.73 percent of the Parish is agricultural lands, marsh lands or timber**. Farmers and water districts in Vermilion Parish are acutely aware of the critical and sensitive land areas and the urgency of water management practices. As an example, in November 2011, Vermilion Parish Police Jury (VPPJ) declared a state of emergency due to **high salt content** in the Mermantau Basin. Louisiana State University Agricultural Center (LSU Ag Center) agents estimate **7,000 acres** of crawfish-producing ponds were impacted by salt water. A lack of freshwater prevented flooding of some ponds because of fear of contaminating soils, which are used for planting rice in the upcoming growing season. Most rice fields are flooded with fresh water from the Mermantau Basin.

Parish residents know the significance of impacts from saltwater intrusion and coastal erosion. Some high salt content was a result of a **barge collision** with the Leland Bowman Locks causing salt water to flow into the basin. There are other causes of saltwater intrusion, including natural processes, **groundwater pumping**, construction of **navigation**, agricultural and drainage channels, **sea level rise** and **hurricane storm surge**.

The Vermilion Parish economy depends on crops and livestock grown by farmers that require freshwater and could be destroyed by saltwater intrusion.

<sup>1</sup> <http://www.csc.noaa.gov/ccpatlas/>

## IMPACTS FROM FLOODING

In January 2013, VPPJ declared a **state of emergency** due to flooding caused by 10 inches of rain that fell within three (3) days. The area can handle a 10-inch rain, however, problems are caused when areas north, like Rayne, Lafayette and Crowley, are also hit with a 10-inch rain that later drains into canals and flows south into the Mermentau River, causing it to overflow, making many roads untravelable and causing homes to flood.

In past years, there have been many instances of flooding documented in Vermilion Parish from hurricanes, major storms and other weather extremes. Using Hurricane Ike as an example, flood waters had a severe impact on the Parish.

## HURRICANE IKE 2008

Louisiana National Guard reported rising floodwater in lower Vermilion Parish causing increased flooding in Erath and Delcambre. Erath experienced house flooding and flooding at the Erath High School campus. LA Hwy 14 was **impassable** at Delcambre Canal Bridge, LA Hwy 675 north of LA Hwy 14 was **impassable** at approximately 50 yards north of LA Hwy 14.

The Vermilion River was cresting 12.1 feet at Perry (below Abbeville): the river had **still not crested upstream at Lafayette**. At 9:40 p.m. Friday, National Guard reported that Delcambre was flooding with water rising at **one (1) foot per hour**. On Shady Lane in Delcambre,

one individual **refused** to leave his home. National Guard was keeping a presence there to **monitor** the resident. On LA Hwy 14, east of the Delcambre Bridge, water was **crossing the highway** and **entering homes**. On LA Hwy 675, water rose one (1) foot in the previous hour. There was a power line down on Darnell Road, north of Lydia. National Guard personnel were en route to **support evacuating citizens**.

The National Guard was on LA Hwy 333 **warning residents** of water five (5) miles south of Henry and rising. All locks/floodgates were **closed** and **undamaged**, as were levees.

There was **significant** flooding on LA Hwy 82 and arteries off LA Hwys 330, 685 and 688. Chevron building in Intracoastal City was flooded. There was water on road at Avery Island bridge. The Sheriff reported all residents of Pecan Island, Forked Island and Intracoastal City **evacuated**. LA Hwy 333 flooded and was **impassable** three (3) miles south of Esther, including Intracoastal City.<sup>2</sup>

## HURRICANE IKE 100 MILES LARGER THAN KATRINA

**September, 2008**

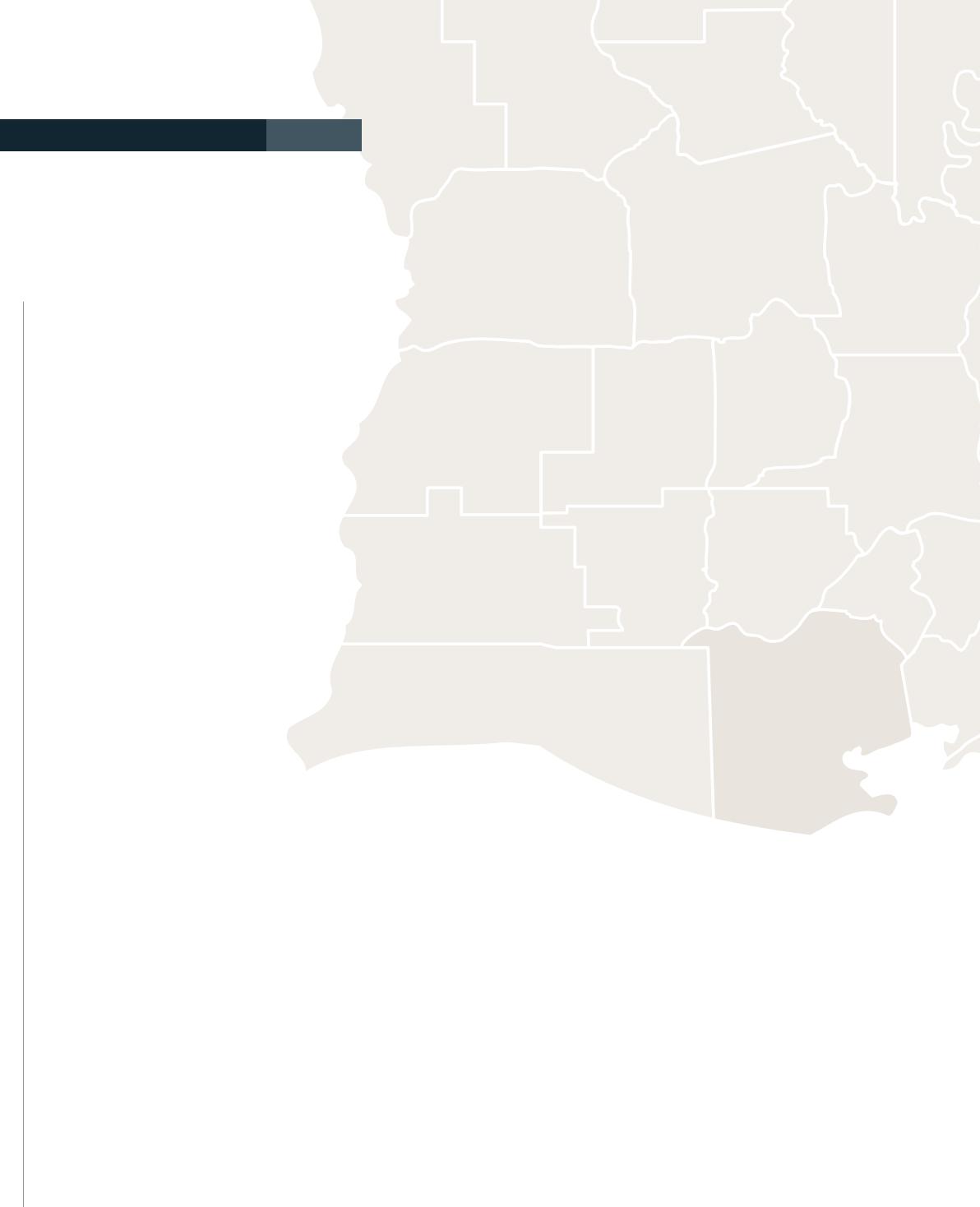
The Weather Channel reported a visual size comparison chart to Katrina and said that Hurricane Ike was **550 miles** wide total, which is more than 100 miles **larger** than Katrina.

<sup>2</sup> Office of Coastal Protection and Restoration News Release, Hurricanes Gustav & Ike, [emergencyla.gov](http://emergencyla.gov).

# Vermilion Parish

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Mandatory evacuation was issued for Vermilion Parish below LA Hwy 14 to include all of **Erath** and **Delcambre** and medical special needs patients south of LA Hwy 14 and on the west side of the Parish from the Meridian Line Road to Cameron and Jefferson Davis Parishes lines. [SOURCE: Louisiana Questions]



# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## 2.2

### LAND USE (LU)



While not the most frequently identified resiliency consideration, land use issues did emerge as a common topic of discussion during planning outreach efforts. One of the key visioning themes to come out of the outreach effort was a need to “*create land use guidance to ensure growth is supported by resilience.*” Additionally, the Plan’s Stakeholder Leadership Group identified **land use as a “big issue” opportunity** to increase Parish resiliency. This is consistent with activity across the State in recent years as the role of local land use management in increasing community resilience has gained considerable attention. Many efforts, including *Louisiana’s 2012 Comprehensive Master Plan for a Sustainable Coast* (2012 Coastal Master Plan), the *Louisiana Resiliency Assistance Program* and the *Center for Planning Excellence’s (CPEX) Louisiana Land Use Toolkit*, underscore the need for community resiliency planning to include land use considerations.

Planning for land use combines critical analysis of information about a place, including its **natural environment, location and density** of buildings, **risks and vulnerabilities, social and cultural facets, economic indicators** and others, with a consensus building effort to

**Resiliency researchers have found that communities with a “ . . . land use plan and hazard-mitigation strategy are able to build settlements that are resistant to natural disasters, able to recover quickly from a natural event, and last for many years with little cost in dollars or lives to their inhabitants. These are resilient, sustainable communities.”**<sup>3</sup>

<sup>3</sup> *Creating Hazard Resilient Communities Through Land Use Planning*, Raymond J. Burby, Robert E. Deyle, David R. Godschalk and Robert B. Olshansky, page 104



LOUISIANA LAND USE TOOLKIT HOMEPAGE

# Vermilion Parish

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determine **community goals**. One such overarching goal may be to create a more resilient community. Land use management strategies, which can take many forms, are then shaped to achieve those goals.

When the land use planning process is focused on risk and hazard mitigation, community-wide strategies may attempt to **protect existing development**, such as through the construction of levees or **berms**. Strategies may also include **adapting buildings** to withstand certain hazards or they may attempt to **limit** the construction of buildings, infrastructure or other investments in vulnerable areas altogether.

Land use recommendations should carefully consider whether they **encourage**, **discourage** or **constrain** development and which is their **intended outcome**. For example, building a series of levees to prevent flooding is likely to encourage more intense land use – residential, commercial and other – in the areas protected by the newly constructed levees. The question becomes: Is more development wanted within those protected areas or are those lands better left unprotected so they return to a natural state.

## Challenge

A challenge with land use considerations is the possible move to **zoning**. There is a wide disconnect on whether zoning is a path forward the Parish wishes to take. Like most communities that do not have zoning ordinances, the decision whether to put zoning ordinances in place are controversial within the Parish. This *Plan*

recommends land use mapping as a **first step** in encouraging development in less vulnerable areas of the Parish and discouraging development in vulnerable areas. Vermilion Parish leadership and current growth patterns are already moving in those directions as a matter of common sense. (See pages 27 and 28) of this chapter for further discussion on organic land use trends. However, that trend in development is not totally consistent, resulting in some “outliers” where development, especially through recovery rebuilding efforts, is continuing in areas of high vulnerability. At some point the Parish will need to decide whether it wants to strengthen that development direction through zoning ordinances or continue to let it happen naturally – hoping it does indeed happen naturally.

## Existing Conditions + Trends

- Population Shifts
- Organic Land Use

The following table summarizes land cover changes in the Parish from 1996 - 2006. Land cover data documents how much of the Parish covered by **forests**, **wetlands**, **impervious surfaces**, **agriculture** and other land and water types. The data is derived from aerial photography of the Parish that is then classified into a range of land cover groups.<sup>4</sup> This table further groups the land use classifications into major categories.

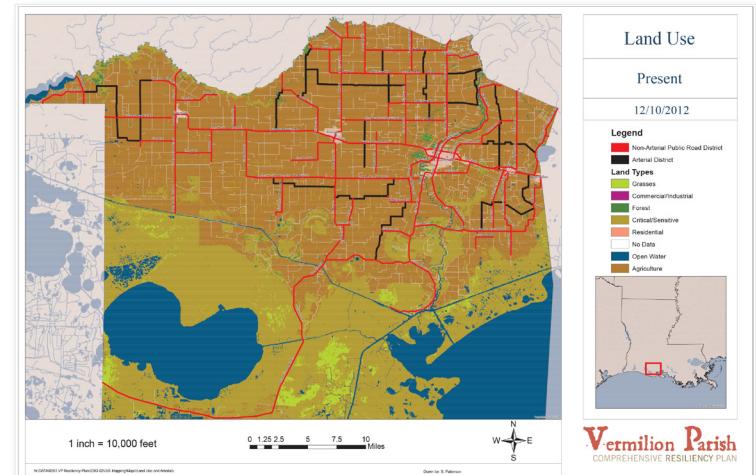
<sup>4</sup> The Coastal Change Analysis Program (C-CAP) produces a nationally standardized database of land cover and land change information for the coastal regions of the U.S. C-CAP products provide inventories of coastal intertidal areas, wetlands, and adjacent uplands with the goal of monitoring these habitats by updating the land cover maps every five years. C-CAP products are developed using multiple dates of remotely sensed imagery and consist of raster-based land cover maps for each date of analysis, as well as a file that highlights what changes have occurred between these dates and where the changes were located. <https://www.csc.noaa.gov/digitalcoast/data/capregional>

## LAND USE (LU)

LAND COVER CHANGES FROM 1996 – 2006				
LAND COVER	AREA (SQ. MI.)		CHANGE 1996-2006	
	1996	2006	SQ. MILES	%
DEVELOPED	33.08	33.28	0.2	0.60%
AGRICULTURE, GRASSLAND, FORESTED, SHRUB	573.31	577.4	4.09	0.71%
WETLAND	536.84	528.98	-7.86	-1.46%
BARREN LAND	8.23	10.76	2.53	30.74%
OPEN WATER	384.31	385.35	1.04	0.27%
<b>TOTAL</b>	<b>1,535.77</b>	<b>1,535.77</b>		

[SOURCE: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION]

Over the 10 years from 1996 to 2006 (more recent data is not currently available) it is estimated, using National Oceanic and Atmospheric Administration (NOAA) data, the Parish lost **7.86 square miles** of wetland (**5,030.4 acres**).



VERMILION PARISH LAND USE MAP

## POPULATION SHIFTS

One driver of land use changes are **population shifts**. From 2000 to 2010, population within the Parish has shifted to the **areas north** of Kaplan, Abbeville and Erath (see map). This shift in population **strengthens** the Parish's resiliency because it puts people further from the more hazard prone areas in the southern part of the Parish.

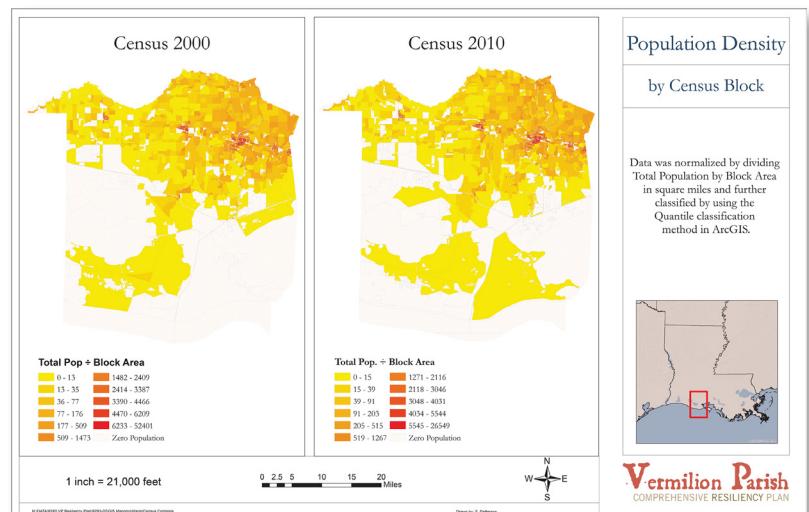
## ORGANIC LAND USE

Additionally, the map shows most of the **growth** happening in the **unincorporated areas** of the Parish. The table on the following page, which shows population changes according to the *U.S. Census* every 10 years since 1970, identifies this as a **long-term trend**.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

Since 1970, the population in the unincorporated areas has **increased 67 percent** while the population in the incorporated areas has **increased 4.4 percent**. From 2000 to 2010 the unincorporated areas of the Parish grew by **13 percent**, versus **0.7 percent** in the incorporated areas. While much of the Parish's unincorporated land lies within hazardous areas, the trend over the past 10 years has been for population growth to **seek safer lands** (and likely cheaper property insurance) in the northern portion of the Parish.



VERMILION PARISH POPULATION DENSITY BY CENSUS BLOCK: 2000 VS. 2010

POPULATION GROWTH FROM 1970 - 2010					
AREA	1970	1980	1990	2000	2010
CITY OF ABBEVILLE	10,996	12,391	11,187	11,887	12,257
TOWN OF DELCAMBRE	1,200	1,538	1,438	1,539	1,866
TOWN OF ERATH	2,024	2,133	2,428	2,187	2,114
TOWN OF GUEYDAN	1,984	1,695	1,611	1,598	1,398
CITY OF KAPLAN	5,540	5,016	4,535	5,177	4,600
VILLAGE OF MAURICE	476	478	432	642	964
<b>TOTAL INCORPORATED AREAS</b>	<b>22,220</b>	<b>23,251</b>	<b>21,631</b>	<b>23,030</b>	<b>23,199</b>
<b>TOTAL UNINCORPORATED AREAS</b>	<b>20,851</b>	<b>25,207</b>	<b>28,424</b>	<b>30,777</b>	<b>34,800</b>
<b>TOTAL ALL AREAS</b>	<b>43,071</b>	<b>48,458</b>	<b>50,055</b>	<b>53,807</b>	<b>57,999</b>

[SOURCE: U.S. CENSUS DATA]

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## LAND USE (LU)



As mentioned in the introduction to this section, land use management can be a **powerful tool** in increasing a community's resiliency. While the Parish does not employ some of the more typical land use controls (e.g., zoning ordinance) it does have other land management controls including a **land subdivision ordinance** and the administration of coastal use **permits**.

### Land use tools in place:

- 2012-06-01 Capital Improvements Program
- 2012-01-01 Road Maintenance Manual
- 2011-0-13 Comprehensive Building Regulations
- 2010-0-30 Flood Damage Prevention
- 2009-0-02 Sewer Systems on Parish Rights-of-way
- 2008-0-21 Borrow Pits
  - :: 2013-0-10 AMENDMENT
- 2006-0-15 Blighted Properties
- 2008-0-15 Communication Towers
  - :: 2007-0-10 AMENDMENT
- 2005-0-21 Shooting Ranges
- 2004-0-33 Groundwater Protection
- 1998-0-13 Individual Sewer Systems
- 1980-03-10 Subdivision
- 1976-12-06 Pipeline and Drilling Permits

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# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## 2.3

## CAPITAL IMPROVEMENTS PLAN (CIP)



Vermilion Parish maintains a *Capital Improvements Plan* (CIP) that is updated every five (5) years. It sets the Parish's **spending priorities** for improvements to roads, public works and public buildings. A vast number of Parish expenditures, particularly those on infrastructure projects, have an impact on Parish resiliency. While all the projects presented in the CIP are necessary to maintain and upgrade the Parish's roads, public works and buildings, some projects have a **direct linkage to Parish-wide resiliency**. Those projects with a direct linkage to resiliency should receive **priority** when the Parish makes funding and sequencing decisions. Additionally, future updates of the CIP should consider the recommendations of this *Plan* and aim for consistency to the extent that funding allows.

It should be noted that what is proposed in this *Plan* does not amend or revise the current Vermilion Parish CIP.

### Challenge

The Parish **lacks sufficient funding** to execute all projects within the CIP. As noted in the CIP, the Parish's taxing system presents some challenges to implementing projects. Some sub-Parish tax districts do not collect sufficient funds to execute the capital improvement

projects that are necessary within their district. Further, taxes collected from each sub-Parish road district **must** be spent on projects in the respective taxing district from which the funds are collected. For additional discussion see the section *Tax Structure: Challenge In Funding Parish-Wide Projects* later in this section.

### Existing Conditions + Trends

- Revenues
- Funding Needs

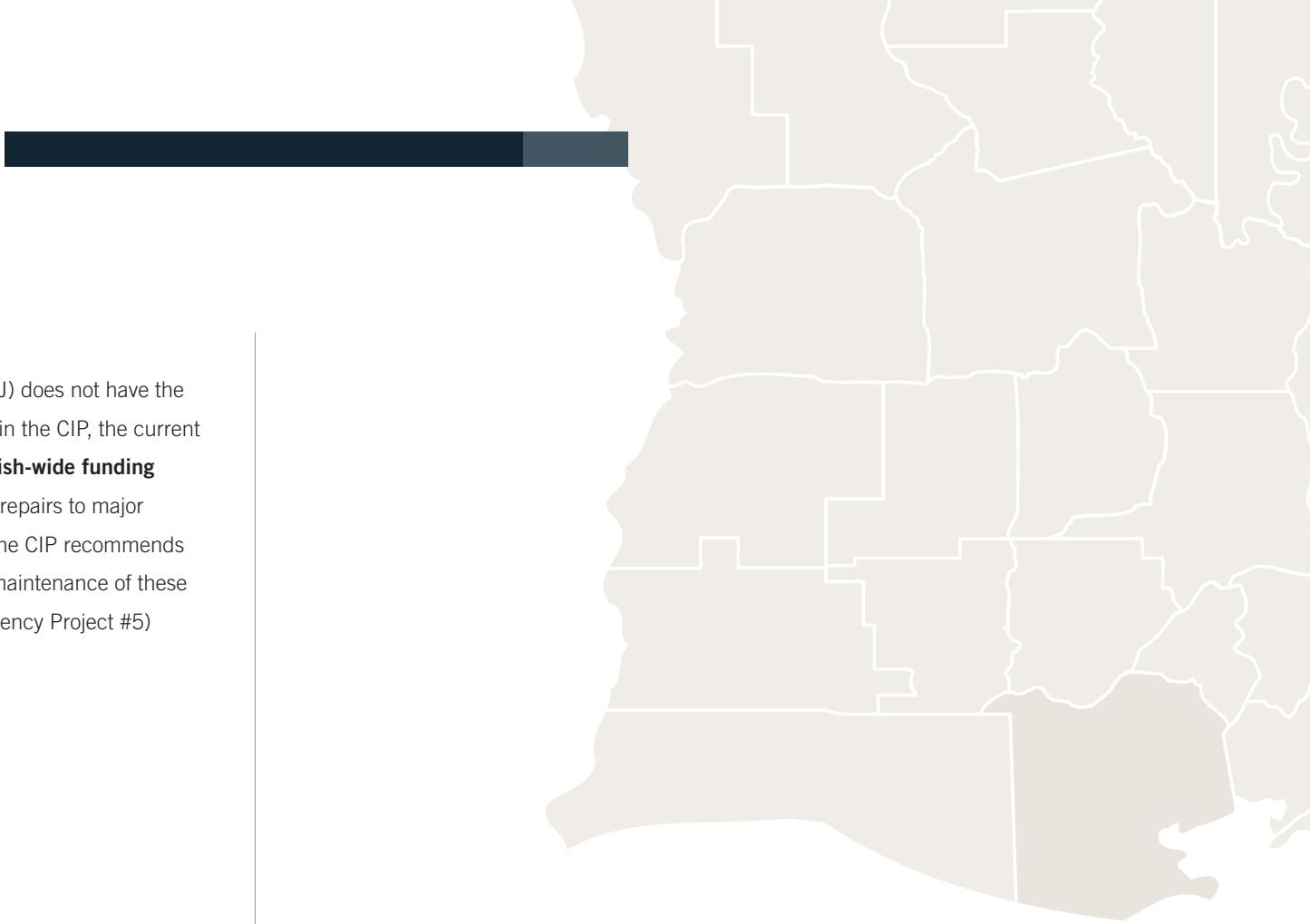
#### REVENUES

The current CIP covers 2012 – 2016 capital improvements, with total projected spending of **\$69.1 million**. **Outside funding** is necessary to execute all projects. Current available funding sources to implement the CIP include:

- Police Jury's Royalty Road Funds
- Sales Tax Fund
- Sub-parish Road Districts (as noted above)

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## FUNDING NEEDS

Because the Vermilion Parish Police Jury (VPPJ) does not have the financial capacity to execute all of the projects in the CIP, the current CIP proposes the creation of an **additional Parish-wide funding program** to cover the cost of maintenance and repairs to major thoroughfares, or “off-system” arterial roads. The CIP recommends that Parish funds be set aside for repairs and maintenance of these roads. (Also see Section 3 Transportation Resiliency Project #5)

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## 2.4

### ECONOMIC RESILIENCY (ER)

Throughout Parish-wide outreach efforts, stakeholder engagement and visioning sessions with the Vermilion Parish Police Jury (VPPJ), Parish residents and elected officials highlighted the need for a **strong, diverse Parish economy** that **attracts new businesses and residents** while **retaining** those already in the Parish. A strong and diverse economy is critical to Parish long-term resiliency.

In addition to economic diversity, communities that are prepared in advance to **assist local businesses** in **staying, recovering** and **dealing** with the host of issues they will confront in the event of a disaster or major disruption are more resilient.<sup>5</sup> Minimizing business disruption can be achieved via **community-wide initiatives** as well as **individual business measures** such as contingency plans, mitigation and other strategies to lessen future damages.

To this end, this *Plan* focuses on those measures the Parish can take to **strengthen** and **diversify** its economy in addition to supporting businesses in their **preparation** for disaster events.

<sup>5</sup> Beatley, p62



**Community resilience expert Thomas Campanella makes the point that places with a “robust, diversified economy rebound much more quickly” than places with a “narrowly specialized or weak economy.”<sup>6</sup>**

<sup>6</sup> Campanella (2006), p. 143

#### Challenge

Economic resiliency inevitably must account for the ability of a jurisdiction to prevail during the temporary disruption, disabling or **loss of one or more employment sectors** as a result of a disaster.

Beyond the clearing of roads and repairs to structures, even a thriving and diverse economic section that has strengthened and hardened its facilities and done what it can to mitigate and minimize the likelihood of environmental impacts faces a host of challenges to resuming operations. While greatly needed, training on and the availability of funding to construct individual business contingency plans have been limited.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## Existing Conditions + Trends

- Economic Diversity
- Environmental Impacts
- Business Continuity of Operations Planning (COOP)
- Tax Structure

### ECONOMIC DIVERSITY

Two (2) fundamental aspects of a community's economic diversity are the **types of industries** in which local residents **are employed** and **what industries are operating** within the Parish. A first consideration in evaluating the existing economic conditions and trends for Vermilion Parish is to analyze the work force composition, both in its relation to the State as a whole and changes over the last decade. The following tables depict the **business patterns** and **employment** by industry.

Most economic data suggests that Vermilion Parish is **already** on the path of economic resiliency: it is not overly dependent on one industry (the largest sector still only comprising **17 percent** of the labor pool).

As of 2011 nearly **49 percent** of employed Parish residents were employed in three (3) industries: **agriculture, retail and educational** and **health care and social assistance services**. High concentrations of Vermilion Parish residents work in the educational and health care and social services industry and

INDUSTRY	VERMILION PARISH BUSINESS PATTERNS + EMPLOYMENT BY INDUSTRY					
	2000		2012		CHANGE	
	NUMBER	%	NUMBER	%	NUMBER	%
AGRICULTURE, FORESTRY, FISHING AND HUNTING, AND MINING	3,435	16.2%	4,122	16.6%	687	20.0%
ARTS, ENTERTAINMENT, AND RECREATION, AND ACCOMMODATION, AND FOOD SERVICES	1,212	5.7%	1,031	4.1%	-181	-14.9%
CONSTRUCTION	1,660	7.9%	1,783	7.2%	123	7.4%
EDUCATIONAL SERVICES, AND HEALTH CARE AND SOCIAL ASSISTANCE	3,793	17.9%	4,724	19.0%	931	24.5%
FINANCE AND INSURANCE, AND REAL ESTATE AND RENTAL AND LEASING	1,190	5.6%	1,246	5.0%	56	4.7%
INFORMATION	398	1.9%	270	1.1%	-128	-32.2%
MANUFACTURING	1,410	6.7%	1,656	6.7%	246	17.4%
OTHER SERVICES, EXCEPT PUBLIC ADMINISTRATION	1,032	4.9%	1,499	6.0%	467	45.3%
PROFESSIONAL, SCIENTIFIC, AND MANAGEMENT, AND ADMINISTRATIVE AND WASTE MANAGEMENT SERVICES	1,169	5.5%	1,848	7.4%	679	58.1%
PUBLIC ADMINISTRATION	995	4.7%	1,079	4.3%	84	8.4%
RETAIL TRADE	2,785	13.2%	3,274	13.2%	489	17.6%
TRANSPORTATION AND WAREHOUSING, AND UTILITIES	1,291	6.1%	1,430	5.7%	139	10.8%
WHOLESALE TRADE	773	3.7%	935	3.8%	162	21.0%
<b>TOTAL:</b>	<b>21,143</b>		<b>24,897</b>		<b>3,754</b>	<b>17.8%</b>

[SOURCE: U.S. CENSUS 2000, AMERICAN COMMUNITY SURVEY 2011]

## ECONOMIC RESILIENCY (ER)



retail, which is similar to statewide patterns, but Vermilion has a higher concentration in the agricultural industry. Overall, Vermilion Parish employed workforce is **more diverse** than the State's.

An analysis of the *U.S. Census's County Business Patterns* reveals that of the businesses located within the Parish the **top three (3) industries** by number employed are **retail, health care and social assistance services** and **accommodation and food services**. These three (3) industries combine to employ **47 percent** of the 10,165 reported paid employees working within the Parish. The total number of employees in the Parish has increased **nine (9) percent** from 2000 to 2010.

The screenshot shows the homepage of the United States Census Bureau's County Business Patterns (CBP) section. The main navigation bar includes links for Topics, Population, Economy, Geography, Library, Data, About the Bureau, and Newsroom. Below the navigation is a search bar. The main content area features a large image of a map and the title "County Business Patterns". A sub-menu below the title includes Main, About the Data, Historical Data, How the Data are Collected, Definitions, and FAQs. To the left, there are sections for Release Schedule, News, and Data Visualizations. The Release Schedule section notes the release of CBP data on May 29, 2014, and ZBP data on June 12, 2014. The News section links to online shopping and mail order business statistics. The Data Visualizations section links to the Census Explorer. The bottom of the page says "U.S. CENSUSES COUNTY BUSINESS PATTERNS MAIN PAGE".

The major employers in Vermilion Parish, as identified by the Acadiana Economic Development Council, are listed in the table on the next two (2) pages. The data presented in the table represents the **top 20 employers** in the Parish (whereas the previous table represents in what industry Parish residents work regardless of the place of employment).

The single largest employer in the Parish is the **school board** with **1,185** more employees than the runner up, **Wal-Mart**. After this, the difference in number of employees between the top employers diminishes – another indicator that the Parish has a diverse economy.

While the data suggests a relatively diverse economy, feedback received during the public outreach efforts indicated a strong **desire to grow** the Parish's economic base. One historical shift in the Parish economy often noted during discussions with Parish residents – and directly related to its culture and way of life – is the **loss of agricultural lands** and the shifting types of agriculture.

## ENVIRONMENTAL IMPACTS

Historically Vermilion Parish has been one of Louisiana's top agricultural producers. For example, nearly 10 years ago the Parish was the State's top **cattle producer**. While Vermilion Parish remains a **top producer** in many agricultural categories, its production is **at risk** due to **changing environmental conditions**.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## VERMILION PARISH MAJOR EMPLOYERS

COMPANY NAME	DESCRIPTION	# EMPLOYEES	SALES VOLUME RANGE	SALES ACTUAL VOLUME
VERMILION PARISH SCHOOL BOARD	Elementary & Secondary Schools	1537	N/A	N/A
WALMART SUPERCENTER	Department Stores (Except Discount Dept Stores)	352	\$50-100 Million	\$75,292,000
ABBEVILLE GENERAL HOSPITAL	General Medical & Surgical Hospitals	300	\$20-50 Million	\$42,173,000
OMEGA PROTEIN INC	Fats & Oils Refining & Blending	300	\$500m - \$1 Billion	\$597,348,000
SCHLUMBERGER	Site Preparation Contractors	300	\$50-100 Million	\$53,459,000
ACADIAN CONTRACTORS INC	Commercial & Institutional Building Construction	200	\$100-500 Million	\$105,964,000
OFF SHORE CLEANING SYSTEMS	Other Commercial & Service Industry Machinery Mfg	150	\$100-500 Million	\$156,398,000
LOWE'S HOME IMPROVEMENT	Home Centers	140	\$20-50 Million	\$42,818,000
STALLION ACCMMDTNS & RENTALS	Construction, Mining/Forestry Mach/Equip Rntl/Lsng	130	\$20-50 Million	\$33,548,000

[SOURCE: ACADIANA ECONOMIC DEVELOPMENT COUNCIL LIST OF TOP 20 VERMILION BUSINESSES BY EMPLOYEES 2013]

## ECONOMIC RESILIENCY (ER)



VERMILION PARISH MAJOR EMPLOYERS				
COMPANY NAME	DESCRIPTION	# EMPLOYEES	SALES VOLUME RANGE	SALES ACTUAL VOLUME
HERITAGE MANOR OF ABBEVILLE	Nursing Care Facilities	120	\$2.5-5 Million	\$2,560,000
MC DONALD'S	Full-Service Restaurants	120	\$5-10 Million	\$6,487,000
KAPLAN HOME CARE	Nursing Care Facilities	115	\$5-10 Million	\$6,959,000
PMB OPERATORS INC	Site Preparation Contractors	114	\$20-50 Million	\$20,314,000
BROUSSARD BROTHERS INC	Site Preparation Contractors	110	\$10-20 Million	\$19,601,000
GOLF CROWN SEAFOOD CO INC	Seafood Product Preparation & Packaging	109	\$100-500 Million	\$123,532,000
GRAND ISLE SHIPYARD	Ship Building & Repairing	100	\$20-50 Million	\$25,941,000
MAISON DU MONDE	Nursing Care Facilities	100	\$5-10 Million	\$5,865,000
VERMILION PARISH SHERIFF	Police Protection	100	N/A	N/A
ABROM KAPLAN MEMORIAL HOSPITAL	General Medical & Surgical Hospitals	99	\$10-20 Million	\$13,917,000
VERMILION HEALTH CARE CTR	Vocational Rehabilitation Services	99	N/A	N/A

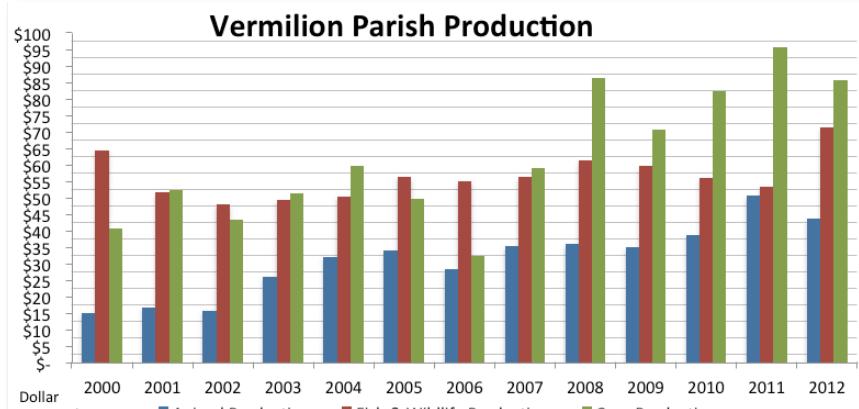
[SOURCE: ACADIANA ECONOMIC DEVELOPMENT COUNCIL LIST OF TOP 20 VERMILION BUSINESSES BY EMPLOYEES 2013]

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

A primary cause for concern is **saltwater intrusion**. Other parts of this *Plan* discuss proposals for addressing this issue. It is critically important to the Parish's economy. Increased saltwater levels make lands less viable for cattle production, reduce rice yields and make some lands altogether unproductive. Adopting measures to limit saltwater intrusion is critical.

The following chart shows how agricultural production in Vermilion Parish has changed over the years.



[SOURCE: LSU AG CENTER]

## BUSINESS CONTINUITY OF OPERATIONS PLANNING (COOP)

Equally important to creating economic resilience is improving agricultural – and all sector – **business preparedness** in the event of a disaster or major interruption. Discussion with agricultural producers revealed a number of difficulties presented immediately after a disaster event. These include:

- Displaced **customers**.
- Displaced **workforce**.
- Continued availability of **supply chains**.
- Unusable **transportation systems**.
- Cost of repairing **damaged infrastructure** – It may be too expensive to start from scratch; the investments of previous generations are critical to the economic viability of the current generation.
- A slow **permitting process** – For repairing or rebuilding.
- System for **distributing donations** – Often donations that are made to support impacted businesses are not distributed to the businesses in most need.
- **Clean-up**.
- System for coordinating **volunteers**.
- And more.

COOP planning for high concentration businesses such as agriculture can increase the resiliency of an important industry in the Parish.

## TAX STRUCTURE

Along with tax revenue being used to help fund the projects discussed in the *Plan*, the way taxes are structured also has an impact on resiliency. Lower taxes on necessary items like food and water can help the public recover more efficiently and tax breaks for business may help them attract customers after an event. In turn, tax breaks for industries that the Parish needs to achieve economic diversity may increase resiliency.

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# Vermilion Parish

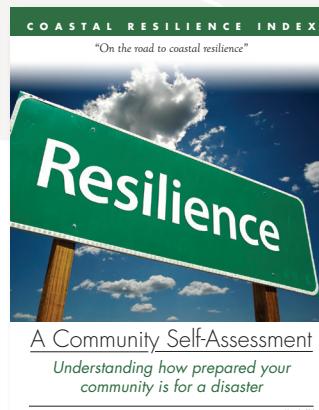
COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## 2.5

## TRANSPORTATION RESILIENCY (TR)



The role of transportation in creating a resilient Vermilion Parish is multi-dimensional. The National Academy of Sciences recognizes transportation networks as **high-value** assets “*for which continued operation is essential and urgent for the entire community.*” The *Coastal Resilience Index* measures resiliency, in part, by how **quickly transportation** networks are back online after major disruptive events. These studies point to what Parish residents and key stakeholders voiced during outreach efforts: The effective **maintenance** and **operation** of Parish roads, waterways and ports are **essential** to Vermilion’s resiliency.



COASTAL RESILIENCE INDEX

The Parish’s transportation network is responsible for the safe and efficient movement of people and goods throughout the Parish. In regards to safety, the Parish’s road system is the primary means through which Parish residents evacuate in the event of a disaster or disruptive event. To that end this section includes the Parish’s

**evacuation route map.** The transportation network also contributes to the Parish’s resiliency through the efficient movement of **goods** – a contribution to the Parish’s economic vitality.

### Existing Conditions + Trends

The Vermilion Parish transportation network includes the following components:

- Roads
- Ports and Navigable Waterways

### ROADS

The Vermilion Parish road network consists of **local roads**, **State highways** and **one U.S. Highway**. The condition of roads throughout the Parish is a consistent theme within outreach efforts. The Parish Police Jury voted it amongst the **top three (3)** things needing **improvement**. Also, of the votes cast during public meetings, the need to improve Parish roads received 63 votes, placing **fourth** on the list behind the critical needs of coastal restoration, flood protection and reducing the cost of property insurance.

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As the primary means for evacuating is privately **owned** automobiles, it is critical that the Parish's road system – particularly evacuation routes – be well maintained. The Vermilion Parish Public Works department is responsible for the upkeep and further development of Parish-wide rights-of-ways. The presence of a *Road Maintenance Manual*, adopted by the Parish Police Jury in 1981 (with subsequent updates), recognizes a minimum standard necessary for keeping the network of roads within the Parish in suitable condition. The presence of these standards demonstrates a level of engineering scrutiny that is necessary in ensuring that right-of-way design does not impede the passage of vehicles or, most critically in terms of resiliency, the possible need for sudden evacuation in the event of a storm or other emergency.

## PORTS + NAVIGABLE WATERWAYS

Vermilion Parish is home to **two (2)** of the five (5)

ports within Acadiana that provide

access to navigable waterways,

including the Gulf of Mexico: **Port**

**of Vermilion** and **Twin Parish Port**

**District** (which services Vermilion and Iberia Parishes and includes the **Port of Delcambre**).

Both are important elements of the Parish's economy, as they play a key role in the **regional supply chain** and any disruption can lead to significant impacts to the Parish's economy. The Port of Vermilion



**Roads placed fourth (4th) alongside other priorities with those who participated in outreach efforts:**

- Coastal Restoration
- Flood Protection
- Reduced Insurance Costs
- Roads

is a shallow draft port eight (8) miles south of Abbeville along the Vermilion River and it mainly serves the offshore oil industries.

Primary cargoes include:

- Oilfield decks
- Jacket and piping
- Offshore living quarters
- Salvage and refurbishment of offshore decks and jackets<sup>7</sup>

The Port of Delcambre, administered by the Twin Parish Port District, is the hub of the **shrimp industry** in Louisiana and also a shallow draft port. The Port "seeks to revitalize the seafood industry devastated by two (2) hurricanes, redevelop the Delcambre waterfront, and expand its industrial park."<sup>8</sup> To this end the Twin

<sup>7</sup> [http://portsoflouisiana.org/documents/port\\_profiles/Abbeville.pdf](http://portsoflouisiana.org/documents/port_profiles/Abbeville.pdf)

<sup>8</sup> [http://www.portofdelcambre.com/\\_blog/Our\\_Blog/post/What\\_the\\_Port\\_of\\_Delcambre\\_is\\_All\\_About/](http://www.portofdelcambre.com/_blog/Our_Blog/post/What_the_Port_of_Delcambre_is_All_About/)



## TRANSPORTATION RESILIENCY (TR)

Parish Port District has a series of projects planned to revitalize the Port for **commercial** and **recreational fisherman**. For example, the Port, in partnership with Louisiana State University Agricultural Center (LSU AgCenter) and National Sea Grant College Program (Sea Grant), created *Delcambre Direct Seafood* which allows **consumers** to purchase fresh shrimp and other seafood directly from shrimpers when they arrive at the Port. This successful innovation has strengthened the local shrimp industry. The Port of Delcambre is one of the **nation's largest shrimp processing centers**, with annual transactions of more than **\$20 million**.<sup>9</sup>

The Ports are dependent upon **navigable waterways**. The navigable waterways that are important to the Ports and regional commerce are the **Vermilion River, U.S. Gulf Intracoastal Waterway, Delcambre Canal** and **Freshwater Bayou Canal**. Freshwater Bayou services the offshore oil industry through Intracoastal City and Freshwater City.

<sup>9</sup> [http://portsoflouisiana.org/documents/port\\_profiles/TwinParish.pdf](http://portsoflouisiana.org/documents/port_profiles/TwinParish.pdf)

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# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## 2.6

## HOUSING RESILIENCY (HR)



Vermilion Parish offers a range of housing types and opportunities for Parish residents. In assessing the resiliency of the Parish housing supply – and how it can be improved – it is important to consider:

- Housing supply's **resiliency** to disaster events.
- Its resiliency to **market changes**.

Understanding these aspects of housing resiliency necessitates a multi-faceted approach of building type appropriate to **site location**, **building code enforcement**, household **preparedness** for disaster or disruptive events and promoting a **diversified** and **affordable** housing supply. It is important that Vermilion Parish have a healthy, sustainable and diverse housing market, one that continues to offer housing choices to meet the needs of all Parish residents.

During the outreach meetings, residents and stakeholders elicited frequent discussion on the need for an **expansion of affordable housing**; however, when time arrived to vote on the most critical improvements, housing consistently received considerably fewer votes than coastal restoration, flood protection, flood insurance rates and roads. Most community meetings revealed that, while many

perceive housing to be an important element on the path toward resiliency, it may not be as high a priority as other flood/hurricane mitigation capital improvements. That is, resilient housing is broadly dependent on **first protecting the coastline** and reducing the likelihood of **severe flooding**.

The information gathered during outreach did provide some specifics as to how the citizens of the Parish define housing resiliency and what they think is necessary to achieve it. Participants want to see:

- A broader variety of **affordable** housing options.
- The Parish focus on opportunities and challenges based on its **geographic location**, in particular the relationship of the northern portion of the Parish to Lafayette.
- How **manufactured homes** integrate with middle-income neighborhoods, noting that an increasing number of manufactured homes are phasing out.

### Challenges

Residents note that there is a **lower demand** for rental units but availability of moderate and **middle income owner-occupied** housing is **insufficient** to meet growth.

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As always, a key component to achieving and maintaining resilience is the ability to engage as many constituents as possible, so they are both **informed** and **impelled to participate** in further Parish-wide discussions. It is crucial that the community is aware of local, State and Federal programs aimed to promote resiliency in housing.

## Existing Conditions + Trends

Some indicators of housing resilience are:

- Rates of **home ownership**.
- Percentage of **income spent** on housing.
- Amount of housing located within **hazard prone areas**.
- Percentage of homes **elevated** above predicted flood heights.

By and large, the Louisiana housing market has weathered the recent real estate downturn better than the Nation as a whole, with a lower-than-average rate of foreclosure, partly buffered by above-average housing affordability. At **67.9 percent**, the homeownership rate is **above** the National rate of **66.1 percent**, while the median value of homes, at **\$135,400**, is significantly below the National average \$186,200. In Vermilion Parish, the percentage of owner-occupied homes, at **76.8 percent**, exceeds the State and National averages.<sup>10</sup>

The following table compares Vermilion Parish to neighboring Parishes and Louisiana.

PERCENT OF INCOME SPENT ON HOUSING			
	RENTERS SPENDING 30% OR MORE ON HOUSING (2008 – 2012)	OWNERS SPENDING 30% OR MORE ON HOUSING (2008 – 2012)	OWNER-OCCUPIED HOUSING UNITS (2008 – 2012)
NATION <sup>10</sup>	52.1%	34%	65.5%
LOUISIANA	53.1%	29.2%	67.4%
VERMILION PARISH	<b>40.4%</b>	<b>27.6%</b>	<b>76.5%</b>
ACADIA PARISH	41.8%	25.3%	69.3%
CAMERON PARISH	14.4%	22.9%	91.1%
IBERIA PARISH	45.7%	25.7%	71.5%
JEFFERSON DAVIS PARISH	44.8%	24.9%	76.5%
LAFAYETTE PARISH	48.1%	26.6%	64.8%

[SOURCE: AMERICAN COMMUNITY SURVEY (ACS) 2012 ]

The National standard for **housing affordability** is measured as the percentage of household income spent on housing. Spending **below 30 percent** of household income on housing is considered to be affordable. The percentage of households in Vermilion Parish spending more than 30 percent of their income on housing is **38.8 percent** for renters, which is lower than the State and neighboring

<sup>10</sup> 2010 Census

## HOUSING RESILIENCY (HR)

Parishes. Though a higher percentage of renters exceed the 30 percent affordability mark than homeowners — which is typical — the owner percentage in Vermilion that is spending more than 30 percent on housing is **24.0 percent**. Overall homeownership rates in the Parish are at **76.8 percent**, which is **well above** the State average.<sup>11</sup>

These fundamental housing statistics indicate that the Parish has a more stable and more affordable housing market, which contribute positively to the Parish's overall resiliency.

The following table shows the change in Vermilion Parish housing characteristics from 2000 to 2010.

NUMBER OF HOUSING UNITS IN VERMILION PARISH					
HOUSING UNITS	2000		2010		PERCENT CHANGE
	VERMILION PARISH	# OF UNITS	% OF TOTAL	# OF UNITS	% OF TOTAL
<b>TOTAL</b>	22,461	100.00%	25,235	100.00%	12.35%
<b>OCCUPIED</b>	19,832	88.30%	21,889	86.74%	10.37%
OWNER-OCCUPIED	15,283	77.06%	16,639	76.02%	8.87%
RENTER-OCCUPIED	4,549	22.94%	5,250	23.98%	15.41%
<b>VACANT</b>	2,629	11.70%	3,346	13.26%	27.27%
FOR RENT	428	16.28%	461	13.78%	7.71%
FOR SALE	205	7.80%	215	6.43%	4.88%
SEASONAL USE	938	35.68%	1,044	31.20%	11.30%

[SOURCE: U.S. CENSUS]

As indicated in this table, Vermilion Parish homeownership rates as a whole are quite **high**. The vacancy statistics for the Parish could show **cause for concern**. From 2000 to 2010, vacancy levels rose **27.27 percent** — much higher than the **10.37 percent** increase in occupancy levels. However, the proportion of these vacant properties that are for **"seasonal use"** is quite high, at approximately one-third of the total

<sup>11</sup> 2010 Census

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vacant housing stock. Vacant housing for seasonal use suggests that it is still in commerce and undergoes a basic level of maintenance.

For context, this *Plan* also considers how the six (6) individual municipalities compare in terms of the conditions of their housing stock. **Abbeville**, the Parish seat and largest municipality, has a **lower homeownership rate** than the Parish average, though this is common among more dense areas. Abbeville showed an overall decrease in owner-occupied units over the past decade. Not only has the share of homeownership in Abbeville **declined**, but the raw number of owner occupied units **contracted by 8.75 percent**, even as the total housing stock grew **2.58 percent** from 2000 to 2010. Incidentally, however, the number of vacant properties in Abbeville also contracted by **10.7 percent** over the two (2) decades, suggesting that the tenancy shift in Abbeville has **overwhelmingly favored filling the vacant residential units with renting households**.

The five (5) smaller communities in Vermilion Parish show mixed results in terms of the growth in demand and supply of housing. **Delcambre, Gueydan and Kaplan** have all experienced a **net loss** in their housing stock, while **Maurice** experienced a **50 percent** growth. Several of the municipalities also experienced a **50 percent** or greater growth in the number of vacant units — only Kaplan's growth in vacant units was **below 50 percent**, though its rate of **31.63**

**percent** is still considerable over just 10 years. With the exception of Delcambre, the share of owner-occupied properties in each of the other municipalities **contracted** over the last decade.

One aspect of housing affordability that the Census data does not reveal is the impact of **property insurance**, particularly flood insurance. Community outreach efforts and stakeholder engagement repeatedly highlighted the impact of property insurance rates – namely flood insurance – on affordability.

The *Vermilion Parish Hazard Mitigation Plan* (most recently updated in July 2010) provides a number of models that estimate the susceptibility of the Parish's housing stock toward various disasters, emergencies or disruptive events. According to the Parish's **Hazard Mitigation Plan**, **39 percent** of residential structures in the Parish rest within a **flood hazard area**. Of the six (6) municipalities within the Parish, some are more vulnerable than others. Twenty-one percent of residential structures in Abbeville are in a hazard area. In Gueydan, Maurice and Kaplan **39 percent** residential structures are within a hazard area and **100 percent** of Erath and Delcambre residential structures are in hazard areas.

Meanwhile, **70 percent** of residential structures in the **unincorporated** parts of the Parish rest within **flood hazard areas**.

The Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) and FEMA<sup>12</sup> identify **148 repetitive loss structures** in the Parish. A breakdown by municipality is as follows:

- **Abbeville, City of – 3**
- **Erath, Town of – 36**
- **Delcambre, Town of – 16**
- **Unincorporated Vermilion Parish – 93**

The Parish's **housing stock is vulnerable to hurricane damage**, particularly in the southern portion of the Parish, both through **high winds** and **flooding** induced by storm surge.

<sup>12</sup> Vermilion Parish Office of Homeland Security and Emergency Preparedness.

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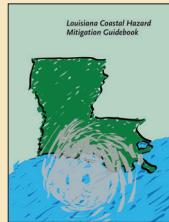
## 2.7

## PARKS + OPEN SPACES (P+OS)



Parks and **open spaces** – including **dedicated recreational** areas, preserves and wildlife habitats – are critical components of the Parish's **identity**. While parks and open space issues were not identified by Parish stakeholders and residents in the outreach efforts as the most important components of Vermilion's resiliency, the desire to **strengthen existing** parks and open spaces and to **create** "more parks, large or small" was voiced. The natural areas of the Parish, especially those dedicated park and open space areas, add to the quality of life of Parish residents and can play an increasing role in **economic diversification** as tourism and eco-tourism expand, each designated area a potential attraction for visitors.

Louisiana Coastal Hazard Mitigation Guidebook



These valued assets play a role in increasing the Parish's resiliency. The *Louisiana Coastal Hazard Mitigation Guidebook* recommends the acquisition of "parcels for parks, natural areas (wetlands), storm water retention ponds, grassy swales and riparian (the interface between bodies of water and land, e.g., beaches) buffer strips."<sup>13</sup> In measuring the resilience of coastal communities, the *Coastal Resilience Index* looks for the presence of "undeveloped public lands, such as parks, forests or preserves in the coastal high hazards areas (V-zone on FIRM map)."

Acquiring land for parks and open space within hazard prone areas can **permanently reduce** the exposure of Parish residents, businesses and critical infrastructure from flood inundation.

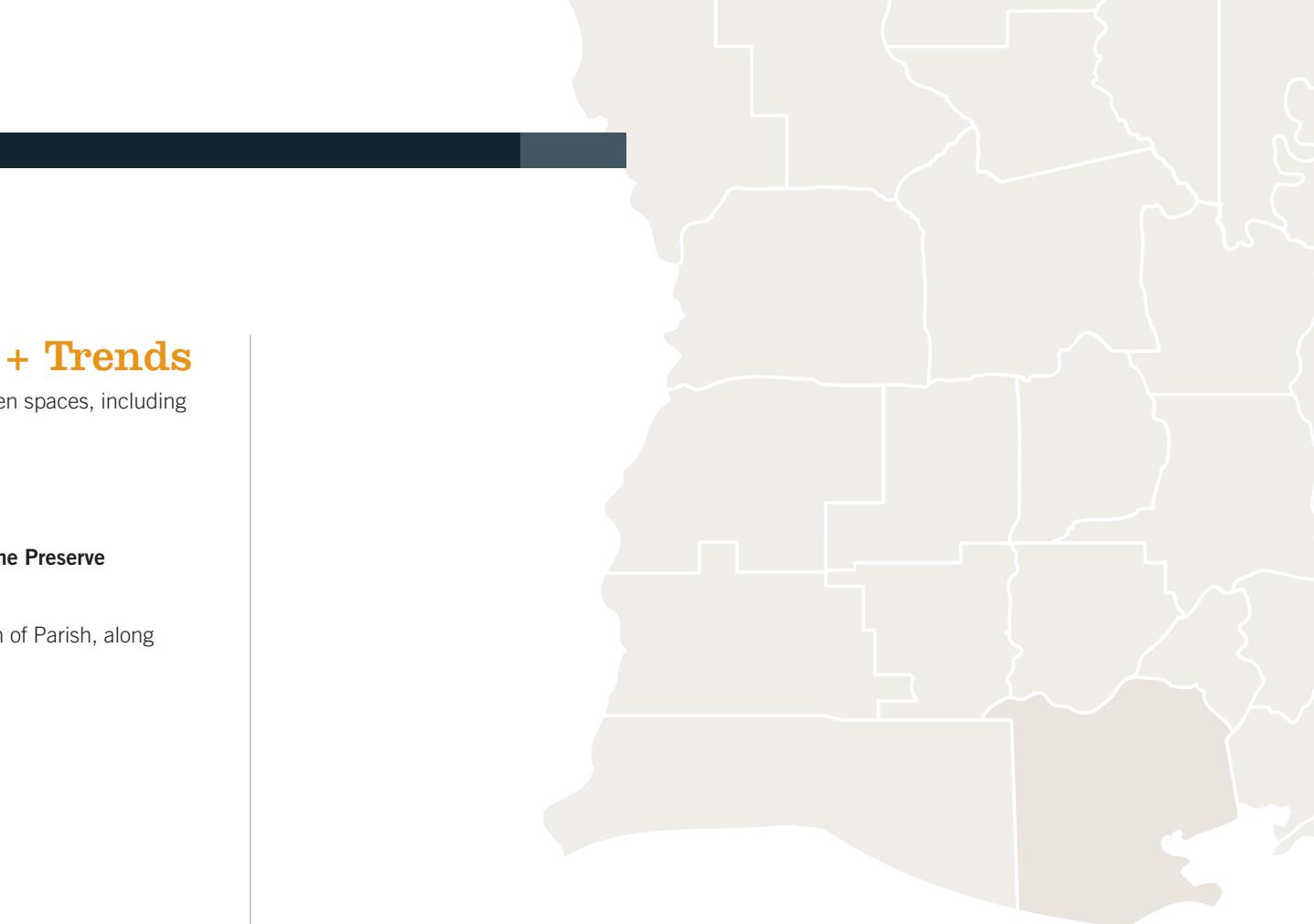
### Challenges

Over-riding challenges to ensuring dedicated recreational areas, preserves and wildlife habitats are **acquiring land** and designating acreage as natural areas in perpetuity, and funding **operational** and **maintenance** needs. Hazard Mitigation (HM) funds can be used for land acquisitions in certain circumstances; donations and other gifts can also be used for land acquisitions. However, operational and maintenance expenses for existing and new areas is another issue altogether. As evidenced by the opening of Palmetto Island State Park (PISP), it is not enough to have the land and build a facility, ongoing operations and maintenance must be addressed. In the early days of PISP, the funding of those obligations was questionable. Today, funding is often **uncertain** as competitive projects and programs are considered by funding authorities that have **shrinking discretionary** resources.

<sup>13</sup> Louisiana Coastal Hazard Mitigation Guidebook, page 66-67

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## Existing Conditions + Trends

The Parish has a wealth of public parks and open spaces, including the following:

- **White Lake Wetlands Conservation Area**
- **Palmetto Island State Park (PISP)**
- **Rockefeller State Wildlife Refuge and Game Preserve**
- **Paul J. Rainey Sanctuary**
- **State Wildlife Refuge** (southeastern portion of Parish, along Vermilion Bay)
- **Various Scenic Byways and Birding Trails**

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## 2.8

## HEALTH + HUMAN SERVICES (H+HS)



Health and human services within the Parish are not frequently cited as the resiliency topics most important to residents and stakeholders. This is in part due to the great importance of other issues, such as coastal protection, but also a reflection of the **existing strength** of this sector within the Parish. The National Academy of Sciences recognizes the importance of the health and human services sector to resilience when it states that a “*capable and comprehensive public health emergency preparedness system*” helps “*mitigate the potential medical consequences of a disaster.*” Strong health agencies at the local level, in coordination with and with the support of State and Federal partners, serve as the “*coordinating backbone*” for a comprehensive **public health emergency preparedness system.<sup>14</sup>**



NATIONAL ACADEMY OF SCIENCES

### Challenges

While the Parish has a strong health services sector and is on the forefront of providing services (note Medical Emergency Operations Center [EOC]), the availability and access to social and health services is critical to response and recovery in the event of a disaster,

and therefore to a community's resiliency. The degree to which a community can **restore** social and health services **quickly** after disaster, is an important measure of its resiliency.

In the past, **inventorying** of **social service, physical and mental health** assets and **coordinating** and **planning** how to work together in the event of an incident has been a challenge, as each organization has typically worked within individual spheres of influence with **little joint planning, exercising or training.** More recently, through the initiatives of **211**, the **Louisiana Association of Information and Referral** (LA AIRs) agencies, **United Way** and **local healthcare leadership** (including that of the Medical EOC), there has been a greater emphasis on developing a coordinated structure for response and recovery. Those efforts need to continue in their importance with **greater frequency** of exercising to ensure community social services and physical and mental health needs are met for every individual within the Parish, including those with special access needs.

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ABBEVILLE GENERAL HOSPITAL

## Existing Conditions + Trends

As previously mentioned, the health and human services sector within the Parish is strong and contributes greatly to the Parish's resiliency. One example is the Medical EOC housed within Abbeville General Hospital. The Medical EOC is believed to be the **only one of its kind in the country**. In addition to this unique attribute, the Parish has a robust **network of healthcare facilities** throughout the Parish, including:

- Abbeville General Hospital
- Heritage Manor Nursing Home
- Gueydan Memorial Guest Home

- Abrom Kaplan Memorial Hospital
- Kaplan Health Care
- Maurice Community Care Clinic
- Vermilion Health Unit
- Vermilion Health Care Center

There are also plans to build a new healthcare clinic in Erath.

## WATER MANAGEMENT

The Parish consists of **11 community water systems**. Most residents are connected to public water systems or are in the process of connecting to public water. A significant portion of the Parish's residential structures are on **individual sewer systems**. The northern portions of the Parish are experiencing growth in the number of new residences and businesses increasing the load on water systems. Saltwater intrusion is a major concern of residents and a threat to rice/crawfish/cattle and the local economy. According to USGS<sup>15</sup> Vermilion Parish has **14 ground water well sites**. Ground water trends from 1966 indicate a drop in the depth of water level for three (3) monitored wells.

<sup>15</sup> <http://groundwaterwatch.usgs.gov/AWLSites.asp?S=295345092100703&ncd=>

# Vermilion Parish

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## 2.9

### HISTORIC + CULTURAL PRESERVATION (H+CP)

The history and culture of Vermilion Parish is one of its most treasured assets. This was made clear during the extensive outreach process with Parish residents and stakeholders that led to the writing of this *Plan*. Of the 518 votes that were cast in response to *What Do You Most Treasure about Vermilion Parish?* during the public meetings, *Cajun Culture* tied with *Natural Resources* for the **highest number** of votes. It is clear that Parish residents value their unique culture. The public outreach effort also made it clear that the Vermilion Parish culture is one of its **strongest** and most **self-sustaining** characteristics. Of the 524 votes that were cast in response to *What Vermilion Parish Resources, if Any, Do You Feel Need Protecting?, Culture* received the least votes of all the **non-write-in categories**. Parish residents **most treasure** their culture but feel it needs the **least “protecting”** when considering resiliency, in relation to other key Parish resources.

Historic and cultural preservation is also recognized amongst resiliency experts as a critical component of community resiliency. The National Academy of Sciences recognizes cultural assets as of “high value” to a community’s resiliency stating, “These [cultural]

assets are held dear and are highly valued as distinguishing attributes by the community. Although it is difficult to measure their value in purely monetary terms, their loss may significantly degrade the total ambiance or quality of life of a community.”<sup>16</sup>

The *Louisiana Coastal Hazards Mitigation Guidebook* recognizes that non-structural measures to increase resiliency may have a detrimental impact on a community’s cultural identity: “Cultural enclaves may lose their identity if individuals are dispersed to sites outside the floodplain. Once they leave, they may no longer associate with traditional symbols of the community, such as churches, fraternal/social halls, cemeteries, etc.”<sup>17</sup>

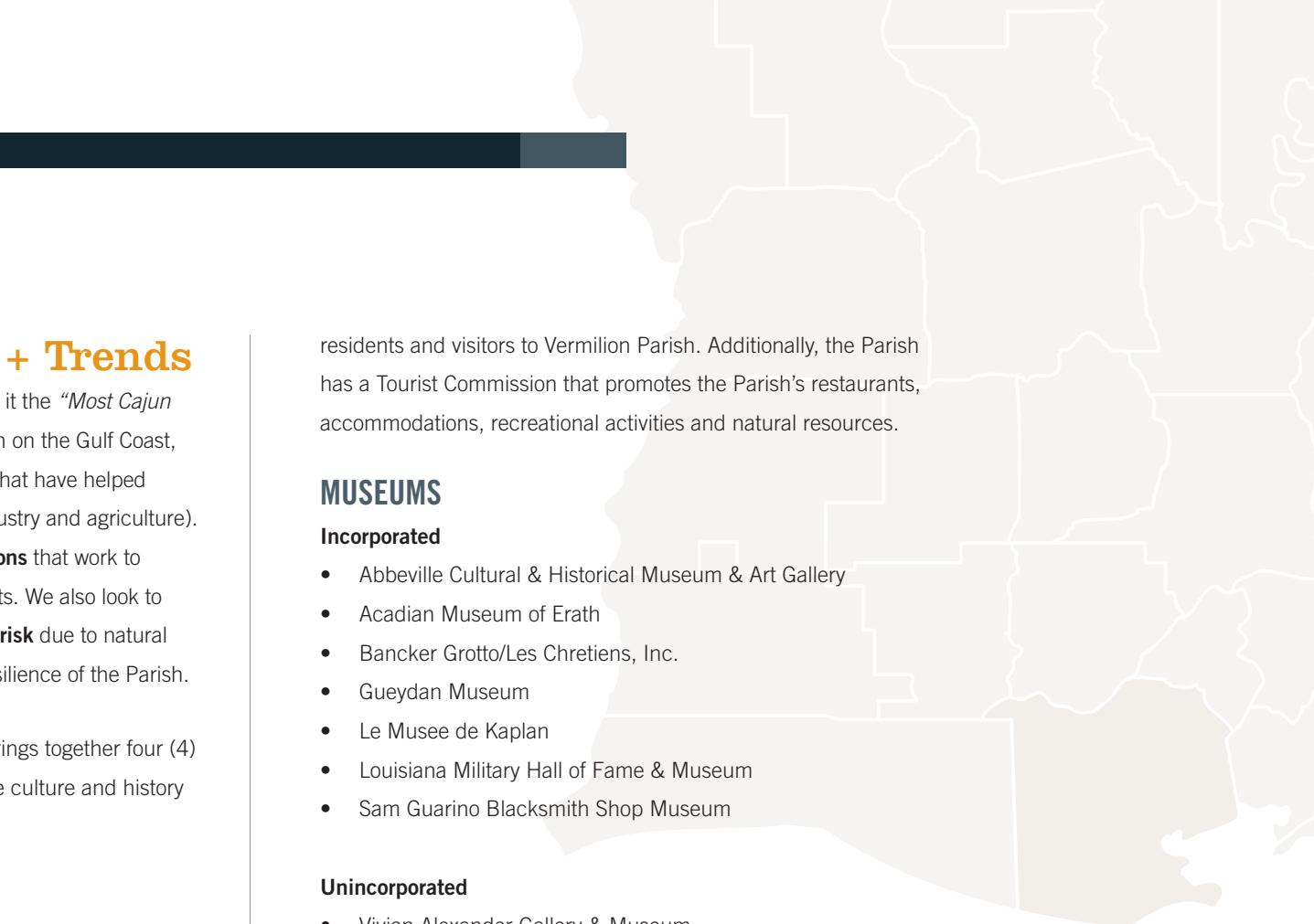
While Parish residents clearly see the culture and history of Vermilion Parish as one of its most valued assets and one that can sustain itself successfully (at least in relation to other key resources), the Parish must consider the **unintended impacts** of other resiliency actions on the Parish’s historic and cultural assets.

<sup>16</sup> *Disaster Resilience: A National Imperative*, National Academy of Sciences, page 69-70

<sup>17</sup> *Louisiana Coastal Hazards Mitigation Guidebook*, page 208

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## Existing Conditions + Trends

The history and culture of the Parish that makes it the “*Most Cajun Place on Earth*” is inherently linked to its location on the Gulf Coast, its other natural resources, and local industries that have helped define it over the years (e.g., fishing, shrimp industry and agriculture). In this section we focus on the **existing institutions** that work to preserve and enhance the Parish’s cultural assets. We also look to identify some key cultural assets that may be **at risk** due to natural hazards and their protection will increase the resilience of the Parish.

The Abbeville Cultural and Historical Alliance brings together four (4) community service organizations focused on the culture and history of Vermilion Parish:

- Vermilion Arts Council
- Acadian Center
- Vermilion Historical Society
- Giant Omelet Celebration

These organizations, through the Alliance share expenses to maintain a Museum and Art Gallery for displaying works of art, genealogy of the Acadians, historical documents, photographs, artifacts and exhibits.<sup>18</sup> Their activities include the sharing of exhibits by museums across the Parish to facilitate access by Parish

residents and visitors to Vermilion Parish. Additionally, the Parish has a Tourist Commission that promotes the Parish’s restaurants, accommodations, recreational activities and natural resources.

### MUSEUMS

#### Incorporated

- Abbeville Cultural & Historical Museum & Art Gallery
- Acadian Museum of Erath
- Bancker Grotto/Les Chretiens, Inc.
- Gueydan Museum
- Le Musee de Kaplan
- Louisiana Military Hall of Fame & Museum
- Sam Guarino Blacksmith Shop Museum

#### Unincorporated

- Vivian Alexander Gallery & Museum

<sup>18</sup> <http://abbevilluemuseum.org/index.htm>

## 2.10

# TAX STRUCTURE: CHALLENGE IN FUNDING PARISH-WIDE PROJECTS



The **challenge** in funding resiliency projects, capital improvement projects, transportation initiatives and other needed services is the Parish's system for **collecting** and **spending** tax revenue – a topic touched on in previous sections of this *Plan*. Outreach participants asked if the current tax structure is working to the advantage of the Parish.

Vermilion Parish employs a **multi-layered taxing structure** to fund public projects. The Parish has **five (5) different tax districts** in addition to a Parish-wide **property tax** that supports **schools, roads, hospital district, fire protection and drainage**.

The Vermilion Parish Police Jury (VPPJ) also has **sales tax revenues** to run **rural fire departments, law enforcement, the policy jury, school board, health units, solid waste facility and animal control**. Some tax districts, such as the school, can spend their funds **throughout the system**. However, in the case of road, drainage and hospital districts, funds collected **must be spent in the district from which they are collected**. This creates an **uneven tax structure** that is further exacerbated by the **concentration of residential and commercial industry** across the Parish. Most industry is located in the southern portion of the Parish while population and

## Is the current tax structure working to the advantage of the Parish?

residential development is more concentrated in the northern part of the Parish. Because industry provides **more tax revenue** than residential development, northern districts where there are higher concentrations of residential development must tax at a **higher rate** to fund improvements.

The uneven tax structure may also have the **unintended result** of providing an incentive for developers seeking lower tax rates to locate in the southern, **more vulnerable** portions of the Parish.

Passing Parish-wide taxes for the construction of **flood protection measures** has been difficult in the past. In 2010 the VPPJ proposed a tax that would fund the construction of an **upland interface**

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levee but the proposition never made it to a public ballot on the grounds that the VPPJ – per its charter – cannot levy a tax on a municipality (in this case Abbeville) – which also stood to benefit from the protection offered by the levee. These are issues that must be **overcome** if the Parish is to contribute to the construction of Parish-wide **transportation systems, flood protection and coastal restoration** projects.



# Land Use (LU)

**NEW INITIATIVES: SMALL-SCALE INTERVENTION STRATEGIES**

LU Project #1: Public Outreach + Education

LU Project #2: Adopt a Land Use Map for the  
Unincorporated Areas of the Parish



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## Achieving Resilience: Goals + Projects

### GOAL

The goal of this section is to increase community resiliency through appropriate land use.

### STRATEGY + PROJECT RECOMMENDATIONS

Below are recommended strategies, specific projects and action steps to **expedite implementation** and, where possible, comments that address funding needs.

### STRATEGY 1

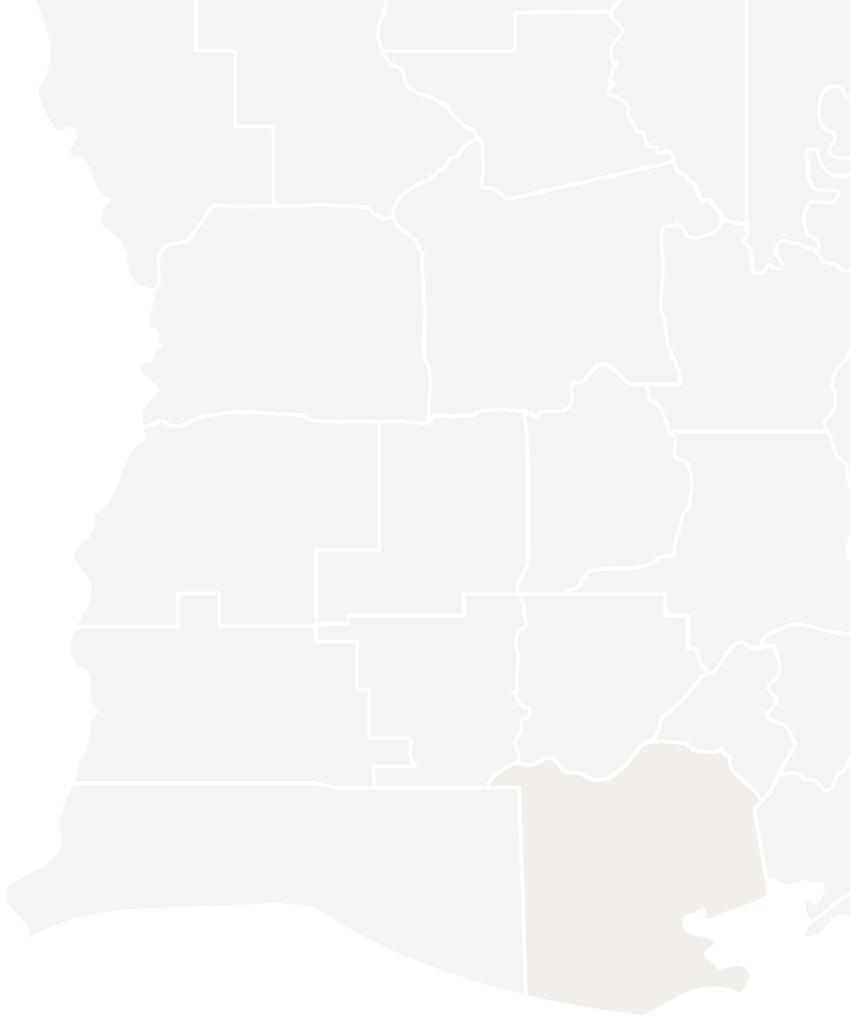
Resiliency literature and practice suggest that land use management is a **critical component** of increasing community resiliency. The population growth trends suggest that the Parish is increasing its resiliency without a strong set of land use management tools in place. Even so, it is important that these trends be **reinforced** by future Parish actions. As such, this *Plan* puts forth the following future land use map. It simply proposes looking at the land within the Parish through the lens of whether land is in a **critical** and/or **sensitive area** OR it is within an area **recommended** for human settlement, industry or agriculture.

### STRATEGY 2

**Critical** and **sensitive areas** (floodplains, wetlands, marshlands, cheniers, etc.) are recommended for **preservation** as critical and sensitive areas. Parish leadership should encourage, through education and outreach, development within these areas be limited and when development exists or occurs, it should be **mitigated** where possible to withstand expected storms and floods. Public investments within these areas should only **maintain** or **mitigate** **existing infrastructure** (i.e., new public infrastructure should not be located within these areas) or be used to construct infrastructure intended to **protect** the human settlement areas. When possible and funding is available, **public infrastructure should be removed** from these areas when that can be done without risk to lives and property.

### STRATEGY 3

Areas recommended for **human habitat** are the recommended locations for **future public investments**. Agricultural and industrial uses should be located in areas where infrastructure supports them.



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## New Initiatives

### SMALL-SCALE INTERVENTION STRATEGIES

#### LU Project #1: Public Outreach + Education

Existing ordinances, such as the *Vermilion Parish Ordinance 1980-03-10 Subdivision*, are currently fully enforced, ensuring the compatibility of land uses. Absent zoning ordinances, the Parish needs to rely on common sense and **aggressive public education** to ensure its population continues to make **appropriate** decisions regarding growth and locations where people live along with the protection of critical and sensitive areas.

The challenge is to **raise awareness** among land owners so that development decisions **protect assets** and enhance resiliency. A **land use map** (see LU Project #2) is a tool to help encourage appropriate decision making. Building to certain **elevations**, at certain **densities**, using certain **construction methods** and **materials** are an important consideration as is the protection of **natural areas** and habits on **privately owned** property. Digital Flood Insurance Rate Maps (DFIRMs) are also a tool to encourage **appropriate land use**. Building to DFIRM elevations makes it cost prohibitive to build in sensitive areas. Other **outreach** and **education** measures are needed to ensure balance, **protection** of historic use of private lands and the appropriate use of **existing tools**.

A Presentation Team is also a key strategy for not only furthering community education and outreach, but also to **mobilize** local support when requesting State and Federal assistance.

#### ESTIMATED COST

\$200,000

#### KEY STEPS

- Identify potential **private-sector partners, civic groups** who may have an interest, schools that need community service projects.
- Create a **Presentation Team**.
  - :: Equip with PowerPoints and handouts that educate **citizens** and **businesses** on the soundness of appropriate land use and what they can do to make Best Practices and informed decisions.
  - :: Schedule presentations.
- Meet with area **media** providers and enlist their **editorial support** and exposure to maintain ongoing top-of-mind awareness of resiliency issues.

#### RECOMMENDED PROJECT CHAMPION

**To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group**

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## PROSPECTIVE FUNDING RESOURCES

### Environmental

- Beach Erosion Control Projects
- Conservation Activities by Youth Service Organizations
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Emergency Watershed Protection Program
- Environmental Research and Education Foundation (EREF)
- Extension Service Post-Crisis Education and Assistance
- Flood Mitigation Assistance Program
- Gap Analysis Program (GAP)
- Habitat Conservation
- Land and Water Conservation Fund State Grant Program
- National Cooperative Soil Survey
- National Fish and Wildlife Foundation
- National Geospatial Program: Building the National Map
- National Urban and Community Forestry Advisory Council Challenge Cost-Share Program
- Office of Research and Development Consolidated Research Training/ Fellowships
- Office of Natural Resources Revenue (ONRR): GoMESA
- Partners for Fish and Wildlife
- Partnership for Sustainable Communities
- Quiksilver Foundation
- Smart Growth: Building Blocks for Sustainable Communities
- Specialty Crop Block Grant Program

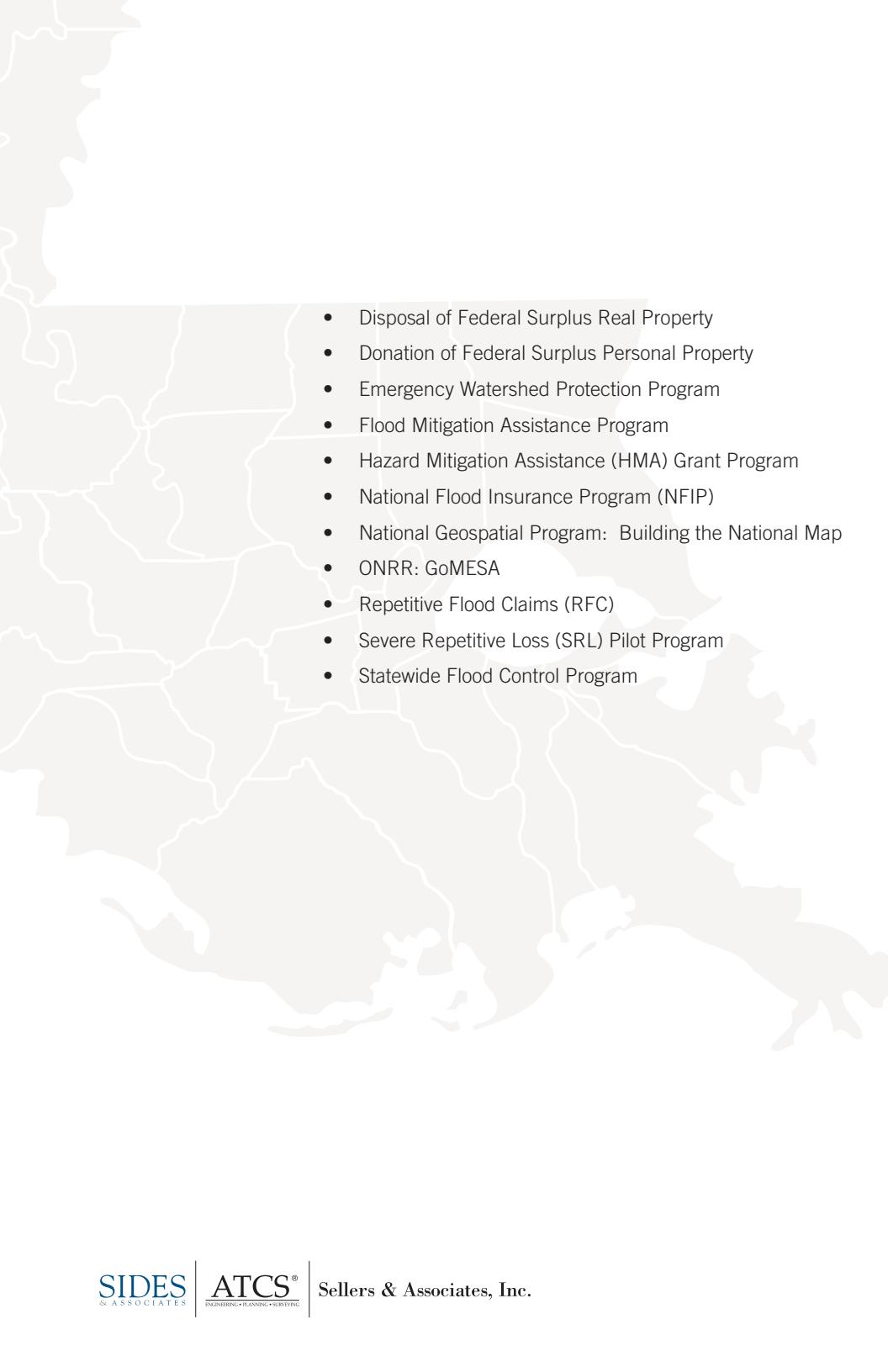


OUR PLAN PRESENTATION

- U.S. Geological Survey – Research and Data Collection
- Urban & Community Forestry Grant Program
- Visitor Facility Enhancements – Refuges and Wildlife
- Vulcan Materials Company Foundation
- Water Pollution Control Program Grants (Section 106)

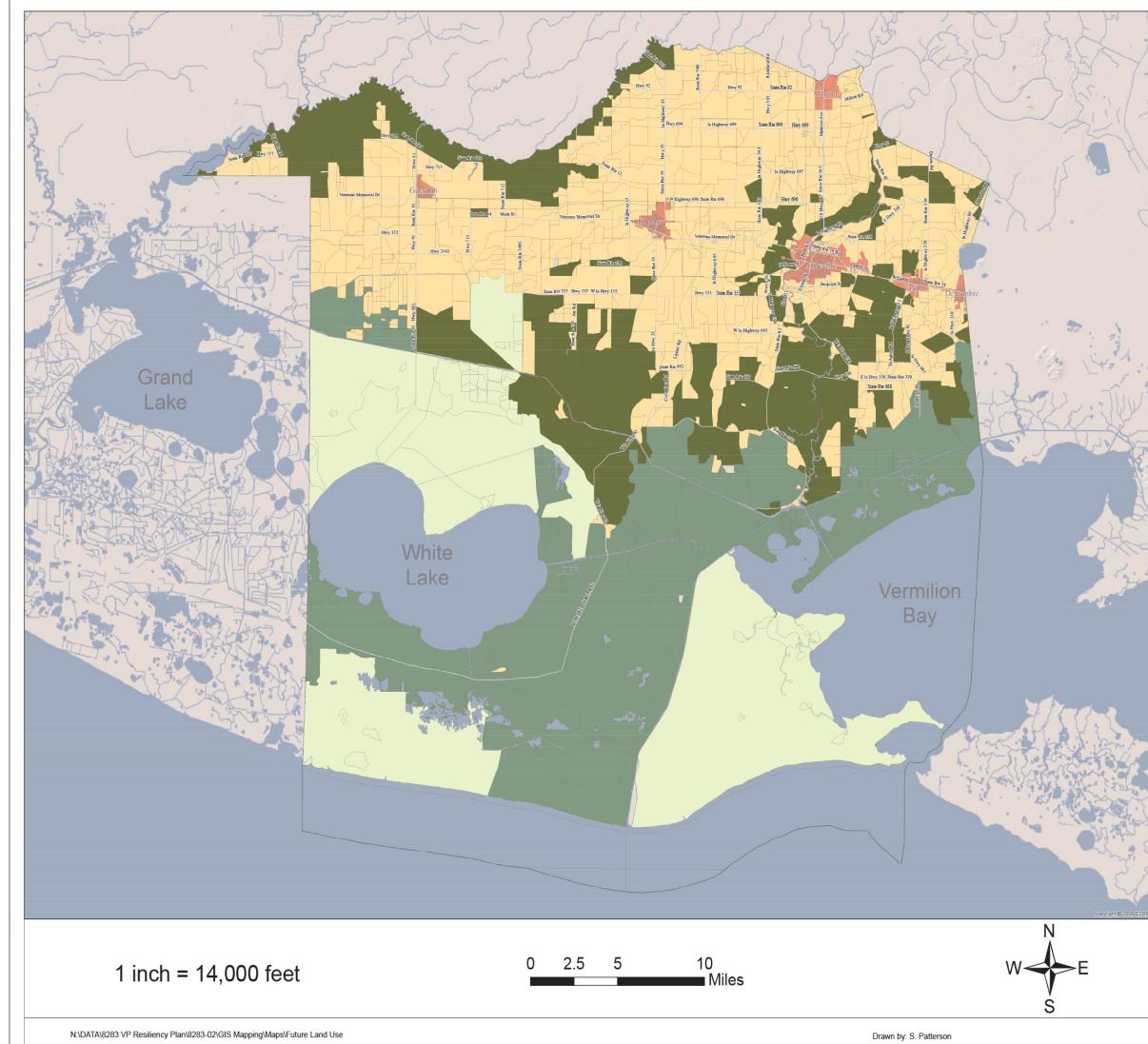
### Floodplain Management

- Beach Erosion Control Projects
- Community Development Block Grants / Entitlement Grants
- Community Development Block Grants / States Program
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program

- 
- Disposal of Federal Surplus Real Property
  - Donation of Federal Surplus Personal Property
  - Emergency Watershed Protection Program
  - Flood Mitigation Assistance Program
  - Hazard Mitigation Assistance (HMA) Grant Program
  - National Flood Insurance Program (NFIP)
  - National Geospatial Program: Building the National Map
  - ONRR: GoMESA
  - Repetitive Flood Claims (RFC)
  - Severe Repetitive Loss (SRL) Pilot Program
  - Statewide Flood Control Program

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## Future Land Use

by Census Blocks

02/26/2013

### Legend

- Residential/Commercial
- Agriculture/Uplands
- Forested Wetlands
- Wetlands
- Parks/Open Spaces



**Vermilion Parish**  
COMPREHENSIVE RESILIENCY PLAN

## LAND USE (LU)



### LU Project #2: Adopt a Land Use Map for the Unincorporated Areas of the Parish

Land use ordinances can **reduce vulnerability** and **impacts** of disaster in a community by encouraging development of neighborhoods and placement of businesses in places that are less likely to be exposed to hazards. The National Academy of Sciences (NAS) states “. . . Clearly, effective community **land-use planning** and **zoning** are fundamental to **building resilience**.” The adoption of a map that recognizes vulnerabilities (e.g., hurricanes, sea-level rise) faced by the Parish and seeks to encourage growth away from those vulnerabilities increases the long-term resilience of the Parish. A land use map can work to preserve the **character** of the Parish, encourage **business development** and help to **preserve property values**.

Recognizing this is a controversial subject, it is important to point out adoption of land use **maps** and **education about what they contain** **does not** have to be restrictive or complicated. Land use strategies can be **user-friendly** and are often introduced to communities in stages.

This *Plan* recommends the Vermilion Parish Police Jury (VPPJ) establish a **professionally facilitated** subcommittee or Working Group to continue the land use discussion and how best to implement a land use map for unincorporated areas. The Working Group should include **Police Jury** representation as well as representation from the **business community, realtors,**

**homebuilders, large property owners** and other **stakeholders** and to ensure a balanced discussion, should also include **opponents** of land use concepts. Discussing should include value of appropriate land use to the Parish and **barriers** to implementation of land-use guidance. The Working Group should then make a recommendation to the Police Jury as to whether to go forward with adopting and implementing a land use mapping plan.

#### ESTIMATED COST

\$100,000

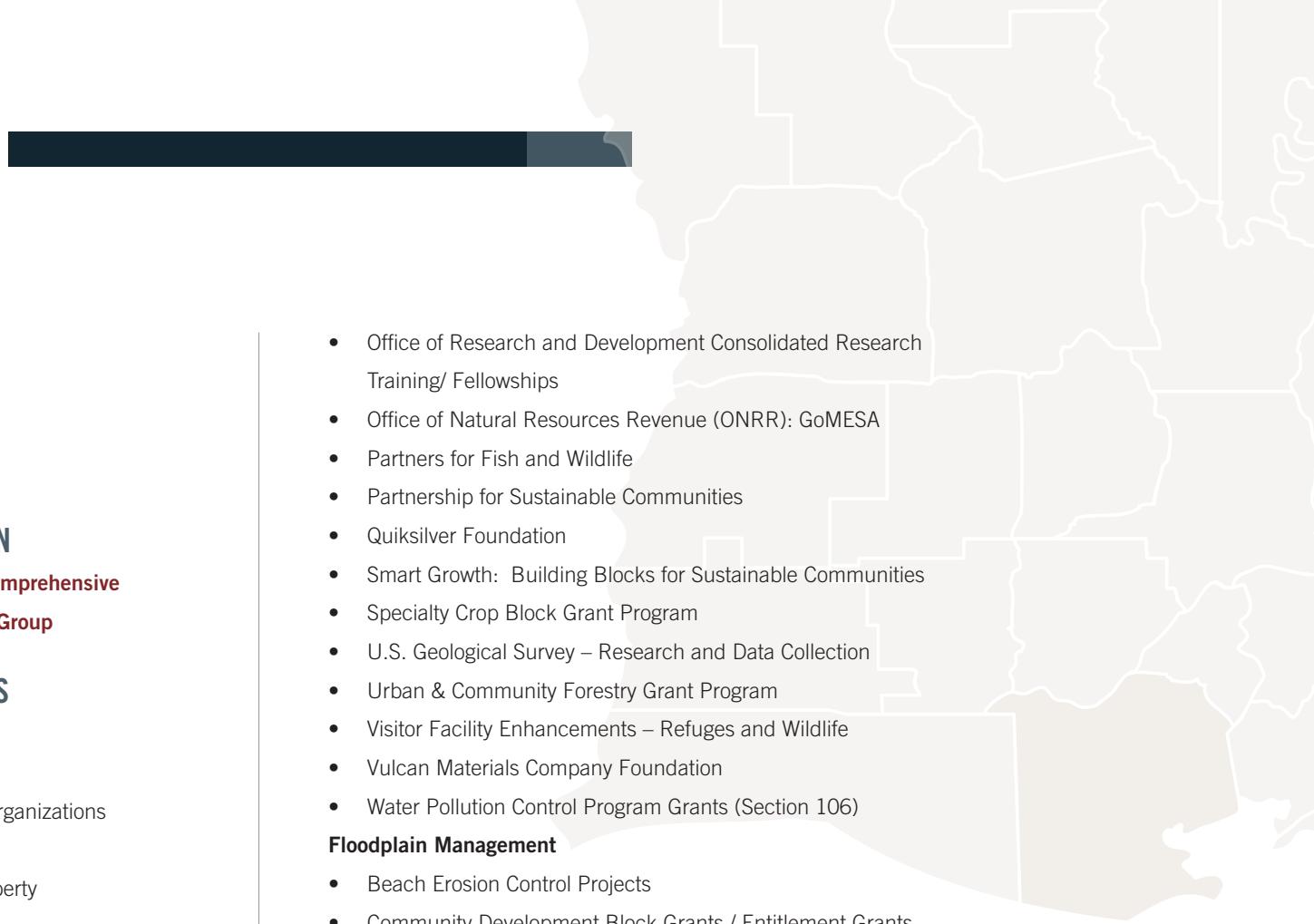
A **deliverable** of this grant is a land use map and that is **provided** on the facing page and in the attached “book of maps” under separate cover. To go **further** and **develop** a preliminary detailed map so the VPPJ can discuss whether it wants to consider other future ordinances to support land use, we suggest a budget of \$100,000. That amount includes setting aside funding for **map design** and **development** and **planning** and **engineering** should the Parish decide to take this next step.

#### STRATEGIES TO EXPEDITE IMPLEMENTATION

**Package** construction needs with other plans and seek State and congressional legislative support.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## KEY STEPS

- Design
- Identify **funding** sources
- Plan/engineer **now**

## RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group

## PROSPECTIVE FUNDING RESOURCES

### Environmental

- Beach Erosion Control Projects
- Conservation Activities by Youth Service Organizations
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Emergency Watershed Protection Program
- Environmental Research and Education Foundation (EREF)
- Extension Service Post-Crisis Education and Assistance
- Flood Mitigation Assistance Program
- Gap Analysis Program (GAP)
- Habitat Conservation
- Land and Water Conservation Fund State Grant Program
- National Cooperative Soil Survey
- National Fish and Wildlife Foundation
- National Geospatial Program: Building the National Map
- National Urban and Community Forestry Advisory Council Challenge Cost-Share Program

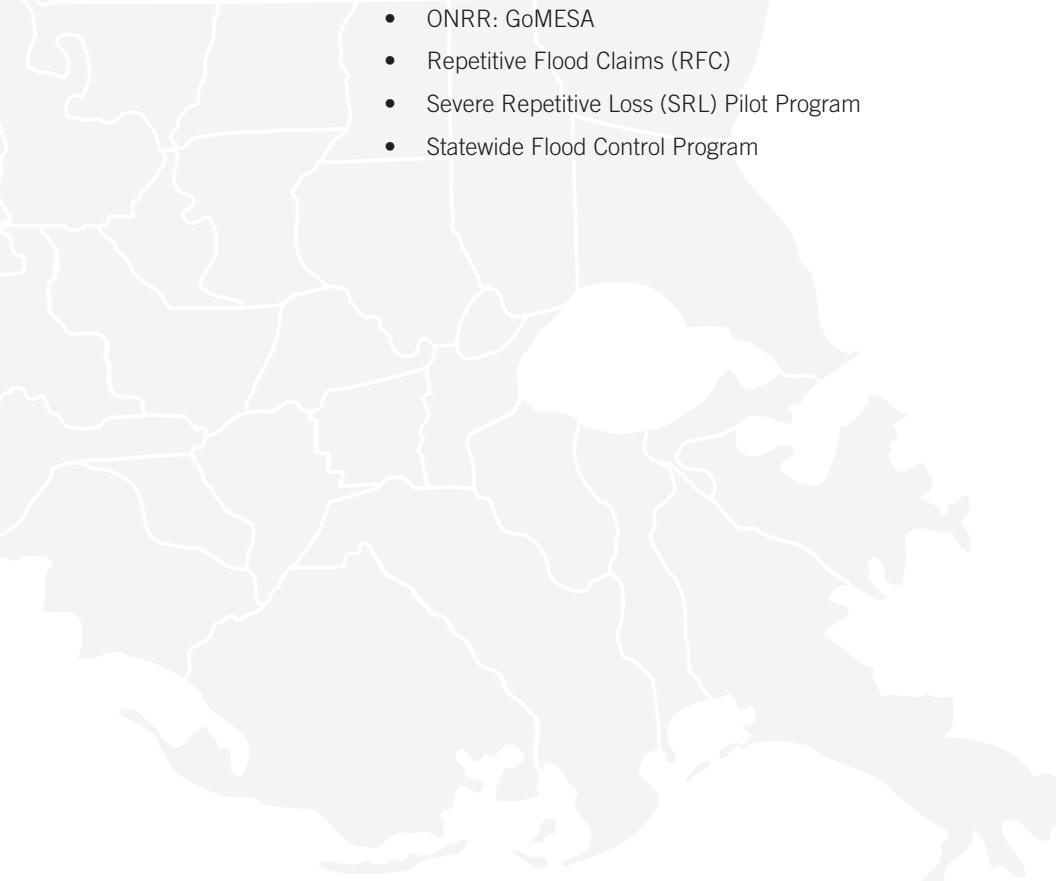
- Office of Research and Development Consolidated Research Training/ Fellowships
- Office of Natural Resources Revenue (ONRR): GoMESA
- Partners for Fish and Wildlife
- Partnership for Sustainable Communities
- Quiksilver Foundation
- Smart Growth: Building Blocks for Sustainable Communities
- Specialty Crop Block Grant Program
- U.S. Geological Survey – Research and Data Collection
- Urban & Community Forestry Grant Program
- Visitor Facility Enhancements – Refuges and Wildlife
- Vulcan Materials Company Foundation
- Water Pollution Control Program Grants (Section 106)

### Floodplain Management

- Beach Erosion Control Projects
- Community Development Block Grants / Entitlement Grants
- Community Development Block Grants / States Program
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Emergency Watershed Protection Program
- Flood Mitigation Assistance Program
- Hazard Mitigation Assistance (HMA) Grant Program
- National Flood Insurance Program (NFIP)
- National Geospatial Program: Building the National Map



## LAND USE (LU)

- 
- ONRR: GoMESA
  - Repetitive Flood Claims (RFC)
  - Severe Repetitive Loss (SRL) Pilot Program
  - Statewide Flood Control Program

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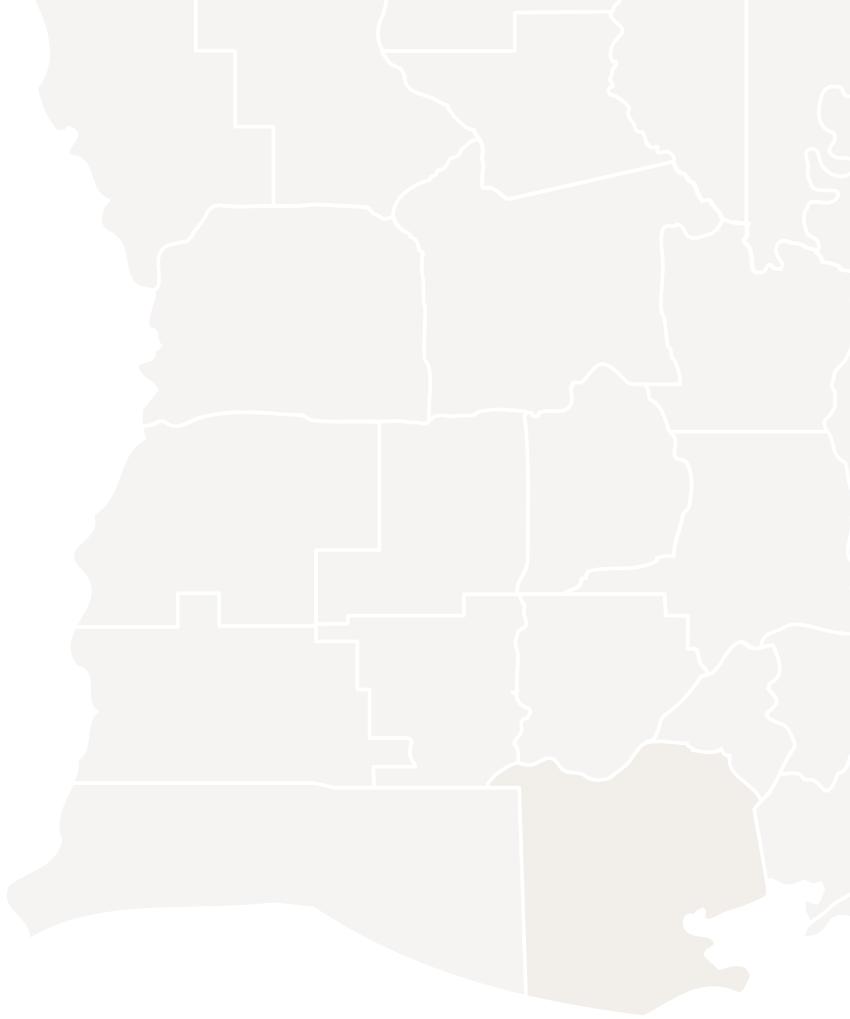


# Capital Improvements Plan (CIP)

EXISTING PROJECT OF IMPORTANCE

CIP Project #1: Prioritize Capital Improvements Plan  
(CIP) Projects

Vermilion Parish  
COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



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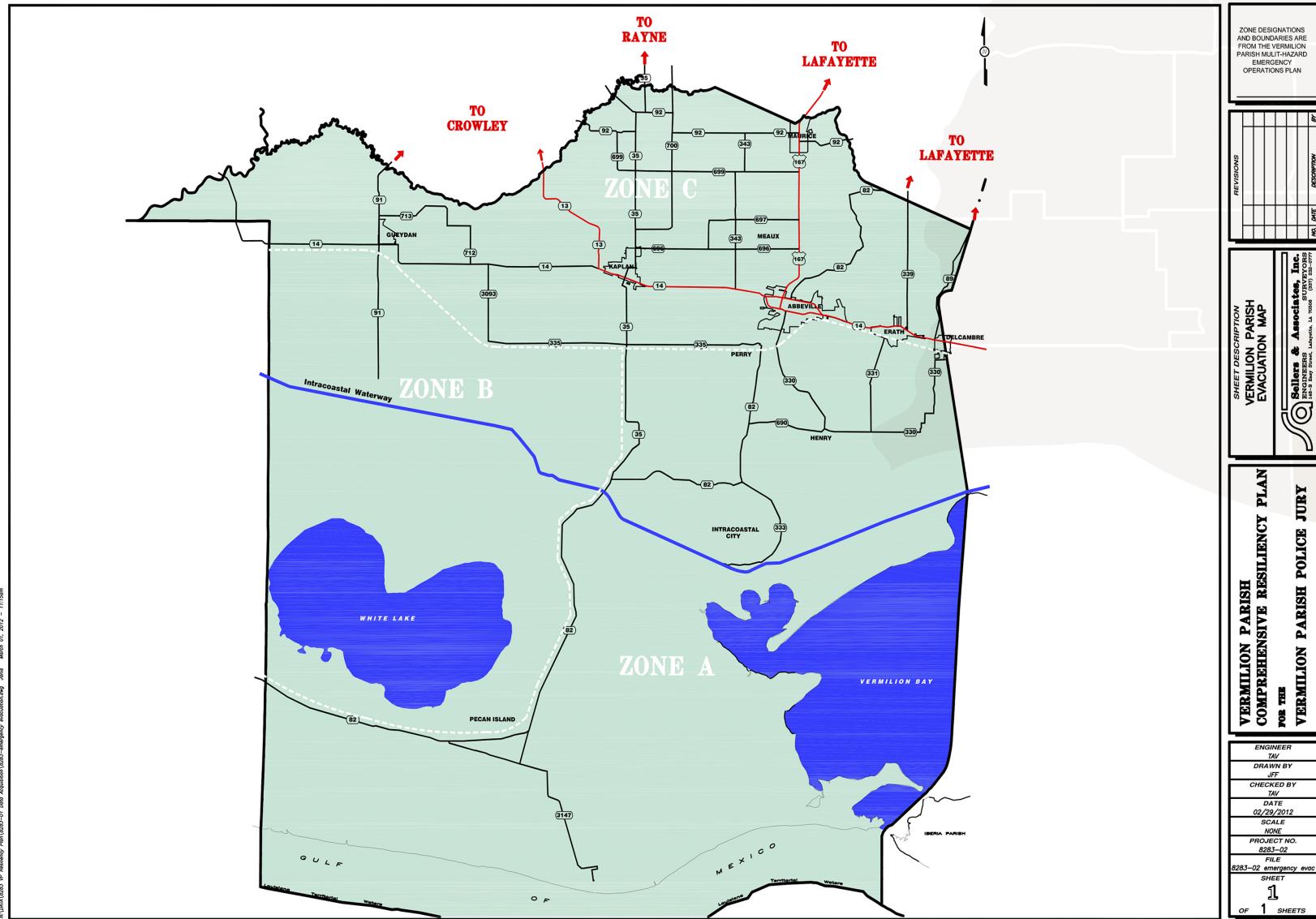
## Achieving Resilience: Goals + Projects

### GOAL

The goal is to achieve and enhance resiliency by prioritizing and funding projects from the Capital Improvements Plan (CIP) that **reduce vulnerabilities and harden critical infrastructure.**

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



EMERGENCY EVACUATION MAP



## Existing Project of Importance

### CIP Project #1: Prioritize Capital Improvements Plan (CIP) Projects

Capital improvements are not only necessary for maintaining a strong infrastructure, they are **critical** to economic development. Road projects support economic development and ensure the **safety** of Parish residents pre- and post-storms as well as **providing evacuation routes** when needed.

This project proposes the **prioritization** of the CIP, recommending the following priority projects from the CIP:

- **Proposed Road System Improvements** that overlap the Parish evacuation routes (identified on map on the facing page). Placing a priority on these improvements will ensure that routes are suitable for **evacuation** traffic when necessary.
  - :: Hwy 14 :: Hwy 35
  - :: Hwy 167 :: Hwy 13
  - :: Hwy 339 :: Hwy 82
  - :: Hwy 89 :: Hwy 91
- **Fire trucks**
- **Local and Coastal Impact Assistance Program (CIAP) – Oyster Reef Parallel to coastline at Cheniere au Tigre**

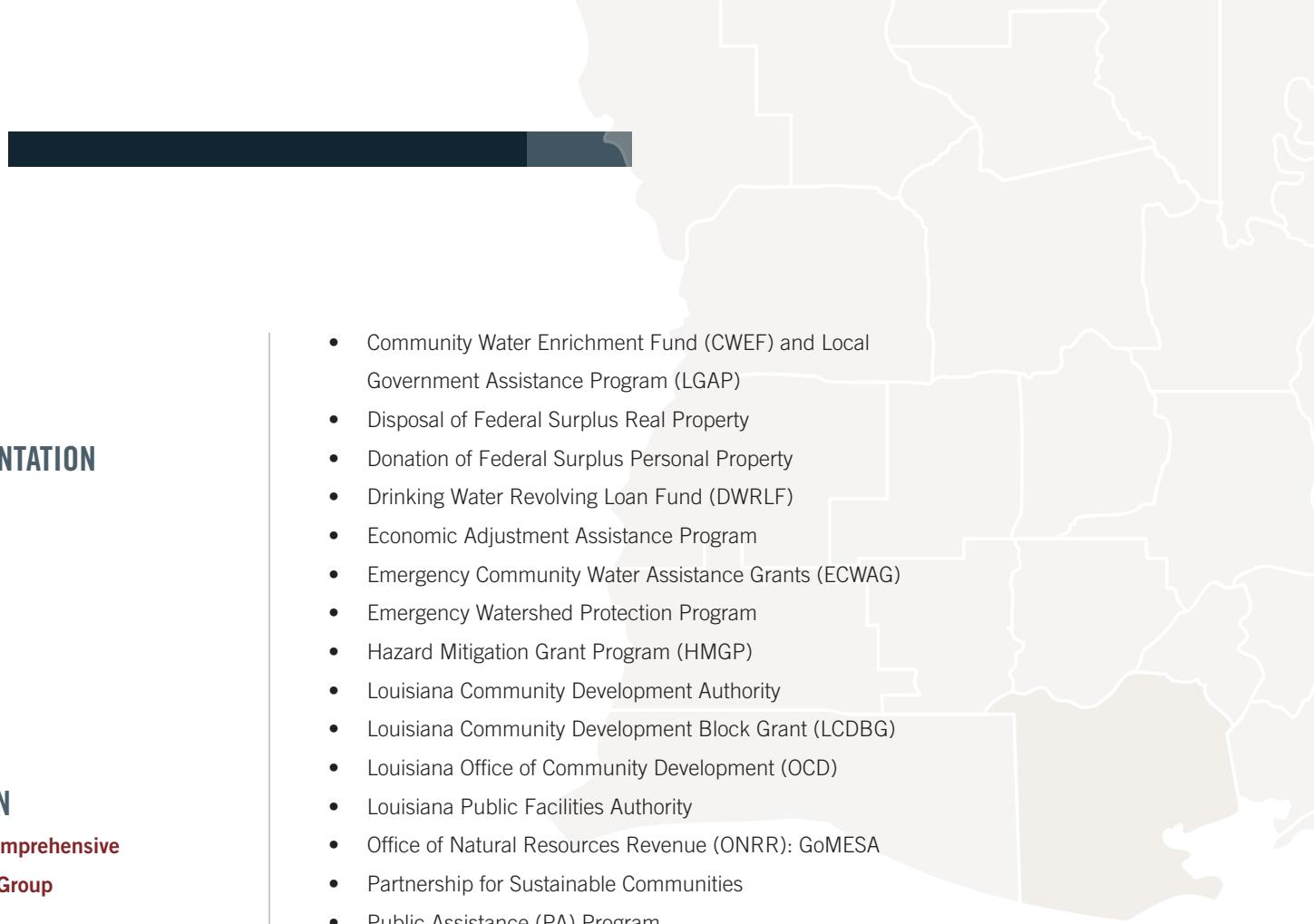
- CIAP – Shoreline Protection at Southwest point at Southwest Pass
- CIAP – Shoreline Protection and Marsh Creation at Tiger Point
- Improvements to Jail: Flood Proofing the Site and Elevating Access Road
- Office of Homeland Security and Emergency Preparedness (OHSEP) and 911 Complex
- Hazard Mitigation Grant Program (HMGP) – Retrofit of the Vermilion Parish Courthouse
- HMGP – Retrofit of Abrom Kaplan Hospital
- HMGP – Wind Retrofitting of Public Facilities
- HMGP – Safe Room for Abbeville General Hospital
- HMGP – Vermilion Parish Emergency Operations Center

Forward actions are in progress. Hwy 35 bridges are being replaced and overlaying is in progress. The extension of Hwy 167 and connecting Hwy 82 West to Hwy 35 will help evacuations as well as support economic development. CIAP Chenier Tigre Reef is approximately 50 percent permitted. The South West Point at South West Pass engineering and design are being done and the project is approaching “shovel ready.” Tiger Point bids have been awarded to construct three (3) 1,000-foot sections.

For future versions of the CIP, the Parish should consider the **resiliency goals** of this *Plan* (and any future updates) in the project identification and prioritization process. This will align Parish expenditures, to the extent that funding allows, with the goals of the *Plan*.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## ESTIMATED COST

\$12,000,000

## STRATEGIES TO EXPEDITE IMPLEMENTATION

To be Determined.

## KEY STEPS

- Design
- Secure land **rights**
- Identify **funding** sources
- Plan/engineer **now**

## RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group

## PROSPECTIVE FUNDING RESOURCES

### Infrastructure

- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Block Grants / Entitlement Grants
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / States Program
- Community Disaster Loan Program
- Community Services Block Grant Discretionary Awards

- Community Water Enrichment Fund (CWEF) and Local Government Assistance Program (LGAP)
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Drinking Water Revolving Loan Fund (DWRLF)
- Economic Adjustment Assistance Program
- Emergency Community Water Assistance Grants (ECWAG)
- Emergency Watershed Protection Program
- Hazard Mitigation Grant Program (HMGP)
- Louisiana Community Development Authority
- Louisiana Community Development Block Grant (LCDBG)
- Louisiana Office of Community Development (OCD)
- Louisiana Public Facilities Authority
- Office of Natural Resources Revenue (ONRR): GoMESA
- Partnership for Sustainable Communities
- Public Assistance (PA) Program
- Rural Business Enterprise Grant
- Smart Growth America
- Sustainable Communities Community Challenge Planning Grant Program
- Use of Surplus Property for Public Health and Homeless Purposes
- Water and Waste Disposal Loans and Grants



# Capital Improvements Plan (CIP)

**NEW INITIATIVE: LARGER-SCALE INTERVENTION STRATEGY**

CIP Project #2: Dedicate a Parish-wide Funding Stream for Resiliency Measures

**Vermilion Parish**  
COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



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## New Initiatives

### LARGER-SCALE INTERVENTION STRATEGY

#### CIP Project #2: Dedicate a Parish-wide Funding Stream for Resiliency Measures

The costs for resiliency projects are often **beyond the means** of any single local government to support. This is clearly evidenced when reviewing the cost estimates included in *Louisiana's 2012 Comprehensive Master Plan for a Sustainable Coast (2012 Coastal Master Plan)*. However, there are smaller-scale projects (discussed elsewhere) that contribute to local resiliency. The Parish should seek to create a **dedicated funding stream** – either from **existing** or **new** revenue sources – for the implementation of **resiliency projects**. These projects could be included in the Capital Improvements Plan (CIP) and given priority. Public investments in infrastructure have the potential to encourage growth in particular locations. The Parish can promote resiliency by identifying specific investments and expending these funds in areas **less vulnerable** to known risks.

This fund could also be used as **local matching funds** when applying for resiliency grants and used to support the **Chenier Plan Coastal Protection and Restoration Authority** (CPCP & RA) (including Cameron, Calcasieu and Vermilion Parishes) which has a legislative requirement that a tax be passed by **all three (3) Parishes** to fund the Authority.

#### ESTIMATED COST

To be Determined.

#### STRATEGIES TO EXPEDITE IMPLEMENTATION

To be Determined.

#### KEY STEPS

- Design.
- Secure land **rights**.
- Identify **funding** sources.
- Plan/engineer **now**.

#### RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group.

#### PROSPECTIVE FUNDING RESOURCES

##### Infrastructure

- Coastal Resilience Networks ("CRest") Grant Program
- Community Development Block Grant / Public Facilities Program
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Block Grants / Entitlement Grants
- Community Development Block Grants / Section 108 Loan Guarantee Program

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

- Community Development Block Grants / States Program
- Community Disaster Loan Program
- Community Services Block Grant Discretionary Awards
- Community Water Enrichment Fund (CWEF) and Local Government Assistance Program (LGAP)
- Delta Regional Authority
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Drinking Water Revolving Loan Fund (DWRLF)
- Economic Adjustment Assistance
- Economic Adjustment Assistance Program
- Economic Development Assistance Program (SEDAP)
- Emergency Community Water Assistance Grants (ECWAG)
- Emergency Watershed Protection Program
- Hazard Mitigation Grant Program (HMGP)
- Louisiana Community Development Authority
- Louisiana Community Development Block Grant (LCDG)
- Louisiana Office of Community Development (OCD)
- Louisiana Public Facilities Authority
- Office of Natural Resources Revenue (ONRR): GoMESA
- Partnership for Sustainable Communities
- Post-Flood Response
- Public Assistance (PA) Program
- Reconnecting America
- Rural Business Enterprise Grant
- Silver Jackets Interagency Pilot Program
- Smart Growth America
- Smart Growth Implementation Assistance Program
- Statewide Flood Control Program
- Sustainable Communities Community Challenge Planning Grant Program
- Sustainable Communities Regional Planning Grant Program
- Tax exempt, low interest bonds.
- Transportation Enhancement Program (TEP)
- USACE Protection, Clearing, and Straightening Channels
- Use of Surplus Property for Public Health and Homeless Purposes
- Water and Waste Disposal Loans and Grants



# Economic Resiliency (ER)

## EXISTING PROJECTS OF IMPORTANCE

ER Project #1: Launch a Dedicated Economic Development Effort

ER Project #2: Launch an Existing Industry Effort

ER Project #3: Feasibility Study for Biofuel Crops

ER Project #4: Restore Natural Drainage from Freshwater Basin

ER Project #5: Revitalization of Intracoastal City



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## Achieving Resilience: Goals + Projects

### GOALS

To address resiliency issues identified during the public outreach efforts and research efforts, this *Plan* proposes the following goals:

- **Increase diversity** of the Parish economy so that the Parish can better absorb disruption to any single sector.
- Build **local capacity** to support **existing** businesses and attract **new** business.
- **Increase business preparedness** through **continuity of operations planning** (COOP) and other strategies, to minimize downtime of Parish businesses after disaster events.



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## Existing Projects of Importance

### SMALL-SCALE INTERVENTION STRATEGIES

#### ER Project #1: Launch a Dedicated Economic Development Effort

Vermilion Parish has recently created a **dedicated** economic development effort and organization. While its primary purpose is economic **diversification** and **growth**, we suggest economic resiliency should also be one of its **top priorities**. Economic resiliency **goals** can be achieved by:

- Increasing the Parish's **capacity to absorb business disruption** by further diversifying the Parish economy.
- Increasing Parish capacity to **support existing businesses**, including their **preparedness activities**.
- Providing **formal linkage** to the Louisiana Business Emergency Operations Center (LA BEOC).
- Working to **retain existing businesses** and **attract new ones**.

Further, this initiative adds an important "**voice**," ensuring that the **economic resiliency impacts** of community challenges are understood and accounted for when solutions are developed or new policy considered.

The Work Plan for the newly created and dedicated economic development effort should have a special emphasis on targeting **specific industry sectors**, working with **existing businesses** on retention and expansion efforts and disaster preparedness, seeking **alternative agricultural enterprises** and **workforce development**. Balancing the pursuit of large businesses with the growth needs of local smaller businesses, this effort needs to ensure that it addresses the **reluctance** of new businesses to come to a high-hazard area. Ensuring prospects that the Parish has a **protection plan** and is serious about **improving its resiliency** can go a long way to mitigating those concerns.

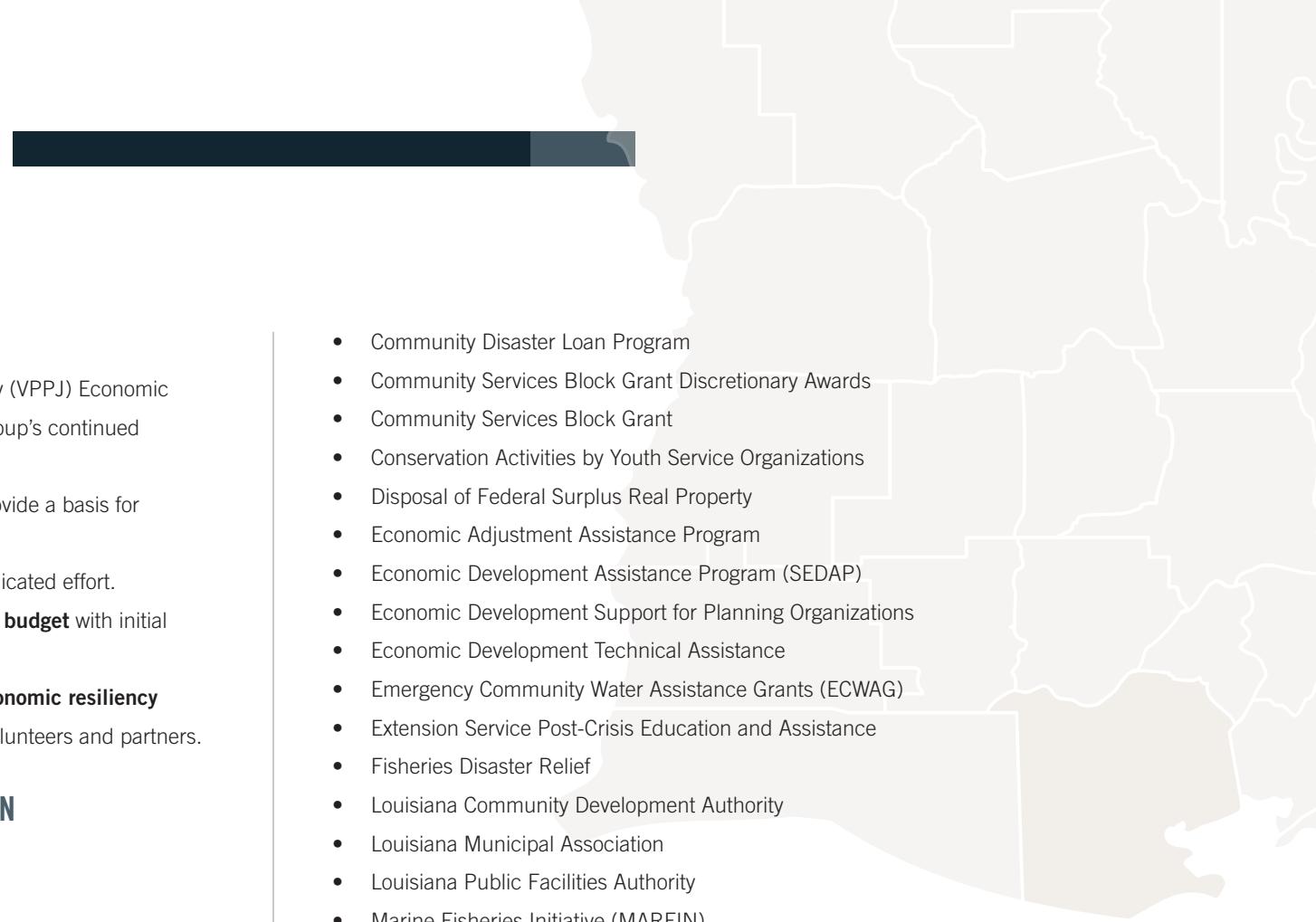
The organization will work closely with the Louisiana Economic Development (LED) office and other development partners in the Parish and **region** to achieve its goals.

#### ESTIMATED COST

It is estimated that a newly-created economic development organization will require an **annual budget of \$250,000**. To ensure its success, commitments that provide three- (3-) years of funding have been secured. Absent that level of support, much of the organization's initial efforts would be to secure the additional necessary funding to keep the organization alive rather than focusing on economic development and economic resiliency issues.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## KEY STEPS

- Work with the Vermilion Parish Police Jury (VPPJ) Economic Development Committee to ensure the group's continued operation past its initial three (3) years.
- **Benchmark** other successful efforts to provide a basis for operational success.
- Build broad **community support** for a dedicated effort.
- Prepare a justifiable **program of work** and **budget** with initial metrics.
- Identify **priority economic growth** and **economic resiliency issues** and implement actions, utilizing volunteers and partners.

## RECOMMENDED PROJECT CHAMPION

VPPJ Economic Development Committee

## PROSPECTIVE FUNDING SOURCE

### Economic

- Alex C. Walker Foundation
- Allstate Foundation
- Angel Investor Tax Credit Program
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / Entitlement Grants
- Community Development Block Grants / States Program

- Community Disaster Loan Program
- Community Services Block Grant Discretionary Awards
- Community Services Block Grant
- Conservation Activities by Youth Service Organizations
- Disposal of Federal Surplus Real Property
- Economic Adjustment Assistance Program
- Economic Development Assistance Program (SEDAP)
- Economic Development Support for Planning Organizations
- Economic Development Technical Assistance
- Emergency Community Water Assistance Grants (ECWAG)
- Extension Service Post-Crisis Education and Assistance
- Fisheries Disaster Relief
- Louisiana Community Development Authority
- Louisiana Municipal Association
- Louisiana Public Facilities Authority
- Marine Fisheries Initiative (MARFIN)
- Minority Business Enterprise Centers
- Minority Business Opportunity Center (MBOC)
- National Flood Insurance Program
- Native American Business Enterprise Centers (NABEC)
- Smart Growth: Building Blocks for Sustainable Communities
- Sustainable Communities Community Challenge Planning Grant Program



## **ER Project #2: Launch an Existing Industry Effort**

One of the first tasks the newly-created economic development organization should consider a project to **strengthen** and **retain existing** Parish businesses. Often, retaining and expanding existing businesses are a surer economic development bet than trying to attract or recruit new business.

### **ESTIMATED COST**

**\$150,000**

Cost for this initiative is minimal with most covered in the annual operating budget noted above for the newly-created economic development organization. The most significant additional anticipated cost is in the **identification, development and delivery** of menu of services the Parish can offer existing businesses to help them **expand** and **grow**. A grant of **\$10,000** should cover and expedite that work.

### **KEY STEPS**

- Work with Louisiana Economic Development (LED) to **leverage** their business expansion and retention program.
- Work closely with **local** and **regional chambers of commerce** to explore business expansion and retention efforts that are strengthened through a regional approach.

- **Benchmark** successful small-Parish business expansion and retention programs.
- Build an industry **calls committee** to reach out to business and industry on a regular basis to identify **issues** or needs that they may have. This should be conducted in partnership with area chambers of commerce and their members. The calls can help the economic development organization take action to retain existing businesses.
- **Develop a menu of services** based on needs and resources.
- Include **resiliency** education and **Continuity of Operation (COOP) development** (See ER Project #5) in the menu of services.

### **RECOMMENDED PROJECT CHAMPION**

**Vermilion Parish Police Jury (VPPJ) Economic Development Committee**

### **PROSPECTIVE FUNDING RESOURCES**

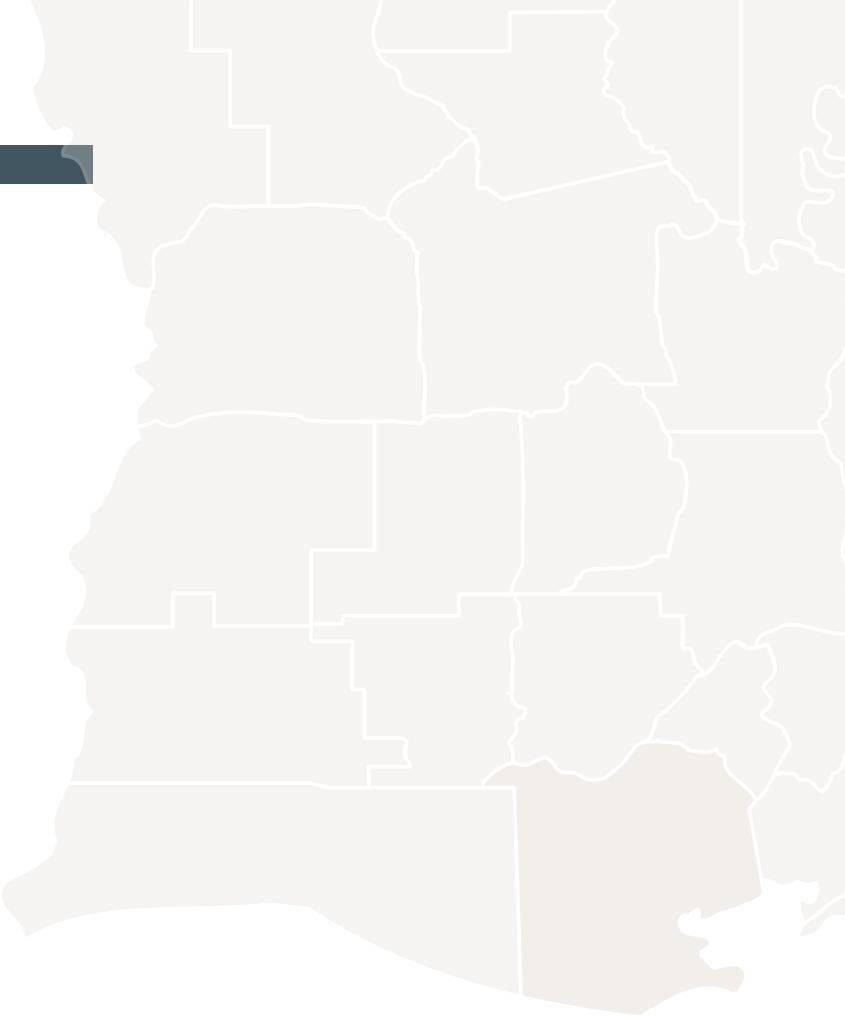
#### **Economic**

- Alex C. Walker Foundation
- Allstate Foundation
- Angel Investor Tax Credit Program
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / Entitlement Grants

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

- Community Development Block Grants / States Program
- Community Disaster Loan Program
- Community Services Block Grant Discretionary Awards
- Community Services Block Grant
- Conservation Activities by Youth Service Organizations
- Disposal of Federal Surplus Real Property
- Economic Adjustment Assistance Program
- Economic Development Assistance Program (SEDAP)
- Economic Development Support for Planning Organizations
- Economic Development Technical Assistance
- Emergency Community Water Assistance Grants (ECWAG)
- Extension Service Post-Crisis Education and Assistance
- Fisheries Disaster Relief
- Louisiana Community Development Authority
- Louisiana Municipal Association
- Louisiana Public Facilities Authority
- Marine Fisheries Initiative (MARFIN)
- Minority Business Enterprise Centers
- Minority Business Opportunity Center (MBOC)
- National Flood Insurance Program
- Native American Business Enterprise Centers (NABEC)
- Smart Growth: Building Blocks for Sustainable Communities
- Sustainable Communities Community Challenge Planning Grant Program





### ER Project #3 Feasibility Study for Biofuel Crops

This project would require **conversion** or **construction** of a mill to **process biofuel crops**. Proposed crops to be introduced into the area could include Kenaf, Switchgrass and numerous other that may be used as **feedstock**. Feasibility studies need to be done to assess the **viability** and **cost effectiveness** of a **biofuel processing plant**. Funding should address the **feasibility study**, **infrastructure development**, **cooperation formation costs** and other costs needed to **promote** the industry.

In addition to determining viability, a feasibility study is needed to determine the costs of **locating** and **build out** of the project. The feasibility study should also consider the **price per ton** and the **amount of acreage** needed (estimated by some at **5,000** acres).

This project will stimulate an agricultural community that is in need of diversity in production options. Jobs lost in the past due to the closure of rice and sugar mills could be **reclaimed**. Farmers would have **market options** to **increase cash flow** in their yearly farm plan. Increased biofuel production will **decrease dependency** on the petroleum industry.

Other products that can be produced by some of these crops include **livestock feed**, **bio-remediation products**, animal **bedding** material, **carpet backing** and **landscape matting**.

Identified by the LOUISIANA SPEAKS Planning Team, this initiative should also include the development of **marketing strategies** to **promote** by-products of the biofuel process.

#### ESTIMATED COSTS

\$100,000

#### STRATEGIES TO EXPEDITE IMPLEMENTATION

Present this project as both an economic opportunity and environmentally friendly one and combine this study with others.

#### KEY STEPS

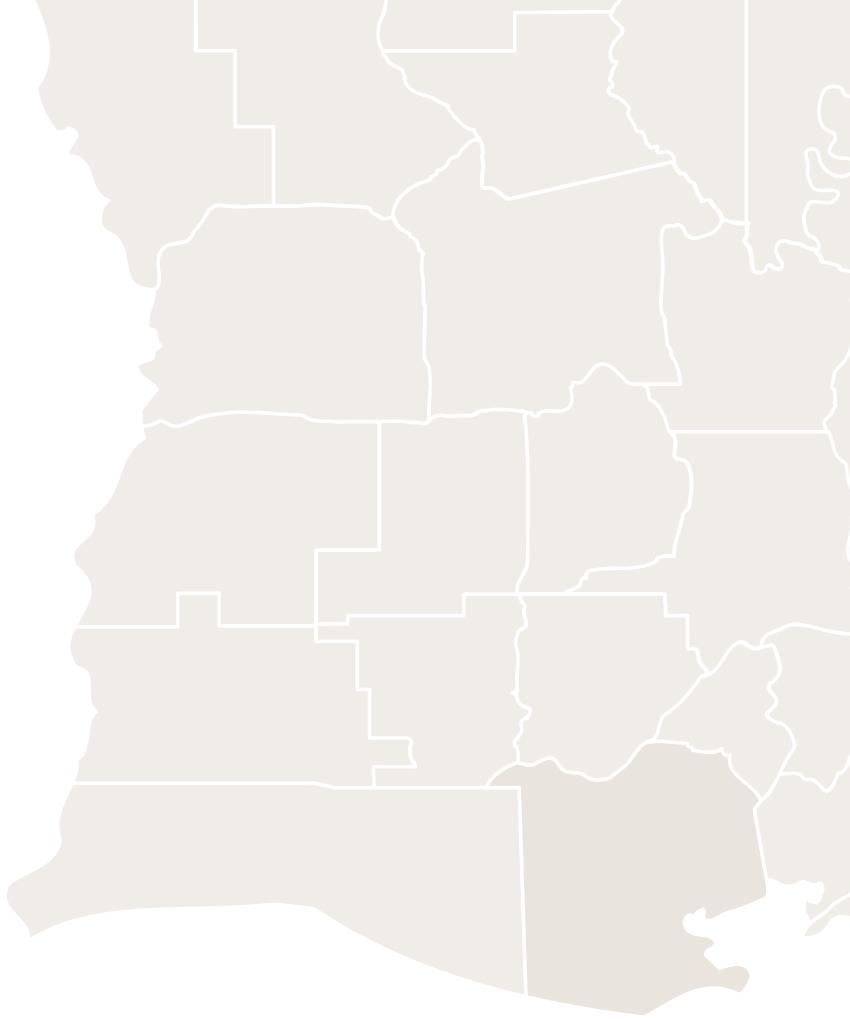
- Development and implementation of a **funding strategy**.
- Assignment of **organization** to conduct the study.

#### RECOMMENDED PROJECT CHAMPION

**Chambers of commerce**

#### PROSPECTIVE FUNDING RESOURCES

- U.S. Department of Agriculture (USDA)



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## ER Project #4: Restore Natural Drainage from Freshwater Basin

While nothing short of building **20-foot levees** around the Mermentau Basin can stop storm surge from getting into the Basin, there are other steps that can be taken to protect the Parish.

This project, identified by the LOUISIANA SPEAKS Planning Team after Hurricanes Katrina and Rita, provides for drainage of “**excess**” freshwater from the Mermentau Basin Lake sub-basin across LA Hwy 82 near Pecan Island, Rollover Bayou and under LA Hwy 82 to the Chenier Sub-basin. This will involve the **replacement** or **modification** of culverts under LA Hwy 82. **Engineering** and **design** will be required for specific areas in southern Vermilion Parish for **modifications** to culverts or **construction** of drainage control structures that will facilitate freshwater flow from the Lakes sub-basin to the Chenier sub-basin. The objective is to **relieve elevated water stages** in the northern area and **provide freshwater input** to the brackish and intermediate marshes in the south.

During Hurricane Rita, the storm surge inundated the Lakes sub-basin and the saltwater **was unable to naturally drain** because it was impounded by man-made structures. **Saltwater retention** accelerated marsh loss, negatively affected fish and wildlife and negatively affected agriculture in the area. This project will **help reduce** the impact of future storms.

The project has Statewide and National impact because **loss of marshes** in southern Vermilion Parish affects **fisheries** and **critical wildlife habitat** that provides **refuge** for migratory birds in addition to **relieving** elevated water stages in the northern part of Vermilion Parish.

Another proposal to **remove excess waters** (fresh) from the Basin across LA Hwy 82 to nourish wetlands (PPL 24) made the 20 percent project cut. However, the project was **discontinued** due to landowner objections.

### ESTIMATED COST

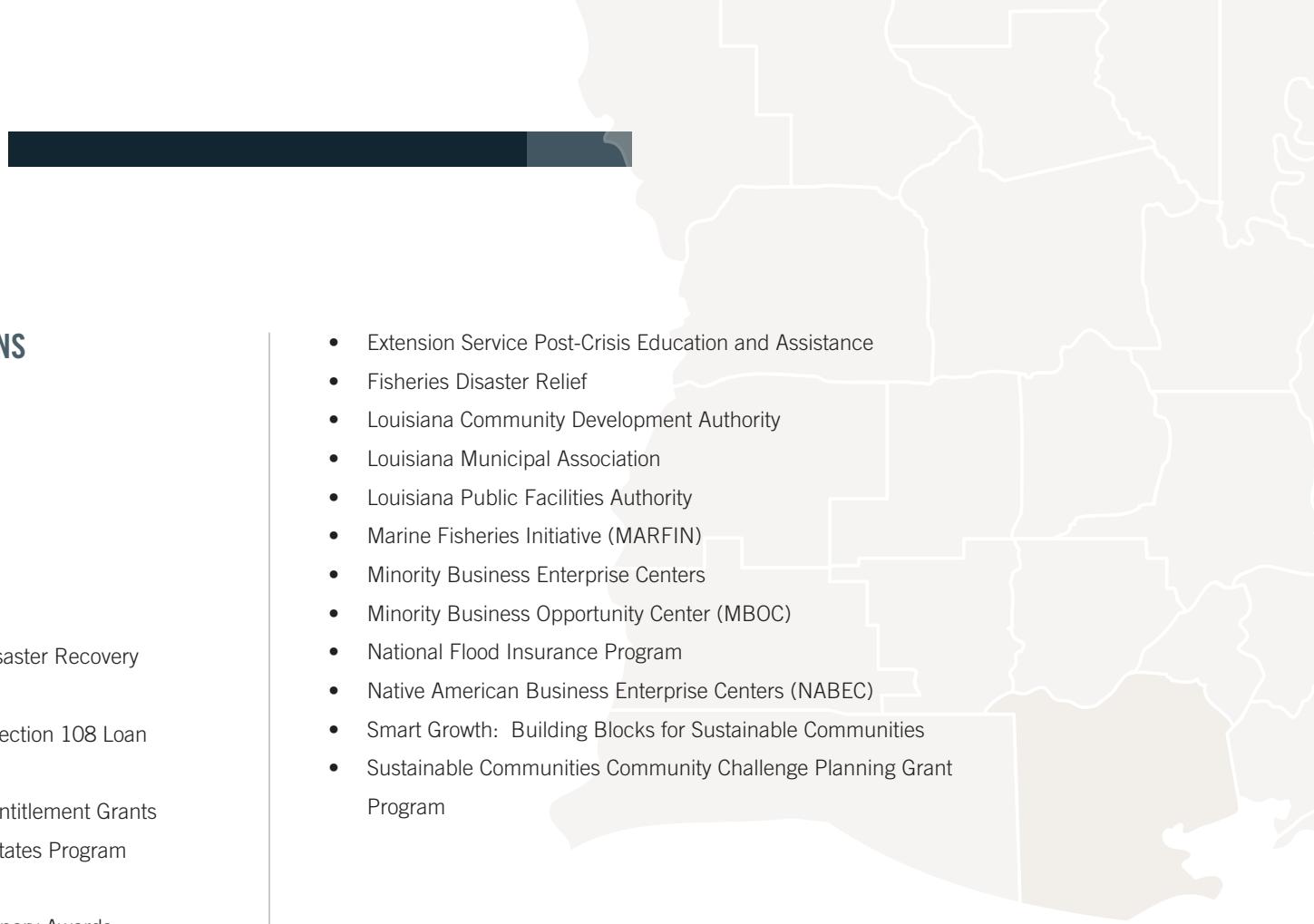
**\$6,000,000**

### KEY STEPS

- Develop strategies to get **landowner support** and to overcome **potential objections**.
- Development and implementation of a **funding strategy**.
- Assign/select organization to develop **engineering and design**.
- Select **contractors** to carry out projects
- **Excess water** (fresh or salt) from the basin hinges on outside tides. Lock operations are controlled by U.S. Army Corps of Engineers (USACE). It is important that the Parish comment when USACE requests comments on operations of structures. **Changes to operation need to be coordinated with USACE**.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## RECOMMENDED PROJECT CHAMPIONS

**USACE + Federal Partners**

## PROSPECTIVE FUNDING SOURCES

### Economic

- Alex C. Walker Foundation
- Allstate Foundation
- Angel Investor Tax Credit Program
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / Entitlement Grants
- Community Development Block Grants / States Program
- Community Disaster Loan Program
- Community Services Block Grant Discretionary Awards
- Community Services Block Grant
- Conservation Activities by Youth Service Organizations
- Disposal of Federal Surplus Real Property
- Economic Adjustment Assistance Program
- Economic Development Assistance Program (SEDAP)
- Economic Development Support for Planning Organizations
- Economic Development Technical Assistance
- Emergency Community Water Assistance Grants (ECWAG)
- Extension Service Post-Crisis Education and Assistance
- Fisheries Disaster Relief
- Louisiana Community Development Authority
- Louisiana Municipal Association
- Louisiana Public Facilities Authority
- Marine Fisheries Initiative (MARFIN)
- Minority Business Enterprise Centers
- Minority Business Opportunity Center (MBOC)
- National Flood Insurance Program
- Native American Business Enterprise Centers (NABEC)
- Smart Growth: Building Blocks for Sustainable Communities
- Sustainable Communities Community Challenge Planning Grant Program



### ER Project #5:

## Revitalization of Intracoastal City

A successful economic development effort should include the **economic revitalization** of Intracoastal City. The nearest access to Vermilion Bay and the Gulf of Mexico in this region, it ranks **second** (2nd) in the Nation for **seafood landing** (e.g., shrimp, menhaden and crabs). It includes the **Leland Bowman Lock**, a system of keeping salt water out of the fresh water supply that serves the farming communities further north. The city provides a lot of support to the **offshore oil and gas industry**. It has great potential of bringing money to the Parish in the form of not only fishing and oil and gas, but **tourism** as well. As such, a plan to revitalize the economy of the area should be considered.

### ESTIMATED COSTS

To be Determined

### STRATEGIES TO EXPEDITE IMPLEMENTATION

Reach out to **local officials** and combine with **other** plans

### KEY STEPS

Create a plan to **revitalize** the **economy** of Intracoastal City

### RECOMMENDED PROJECT CHAMPION

To be Determined

## PROSPECTIVE FUNDING RESOURCES

To be Determined



SHIPS GROUNDED IN INTRACOASTAL CITY

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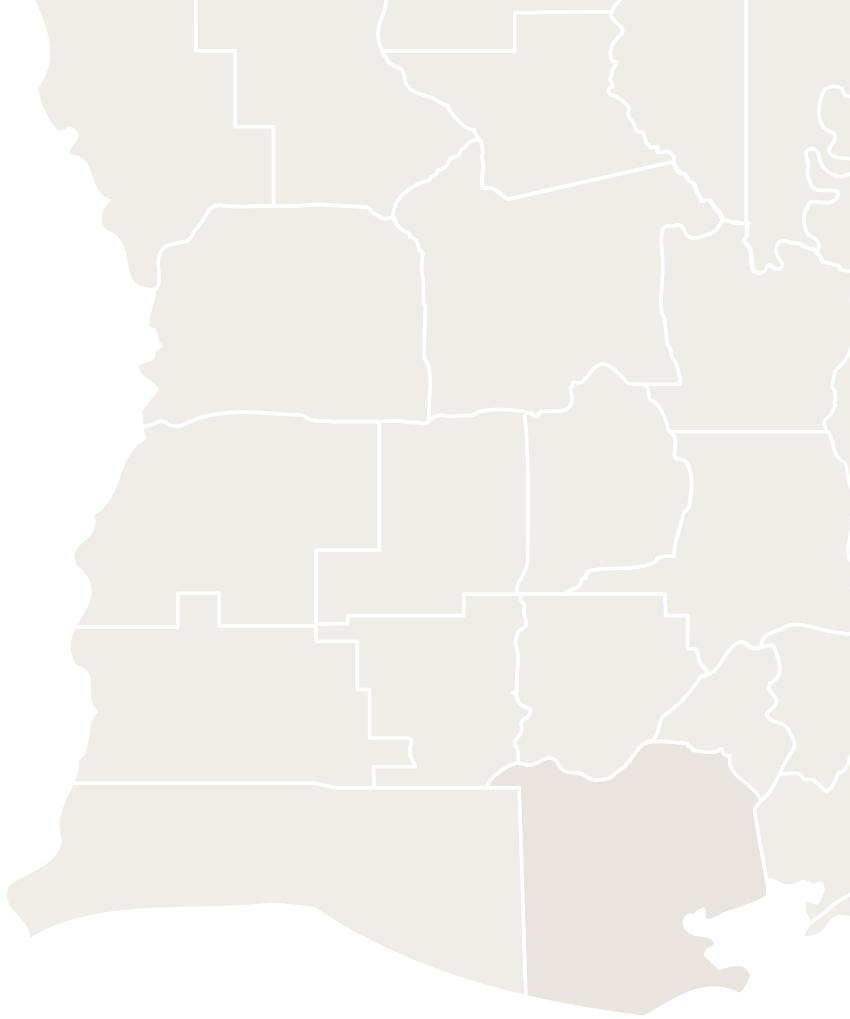
# Economic Resiliency (ER)

**NEW INITIATIVES: SMALL-SCALE INTERVENTION STRATEGIES**

**ER Project #6:** Develop + Deliver a Continuity of Operation (COOP) Outreach + Education Training Initiative

**ER Project #7:** Develop + Maintain + Exercise Port COOP Plans

**ER Project #8:** Enhance Education Opportunities in the Parish



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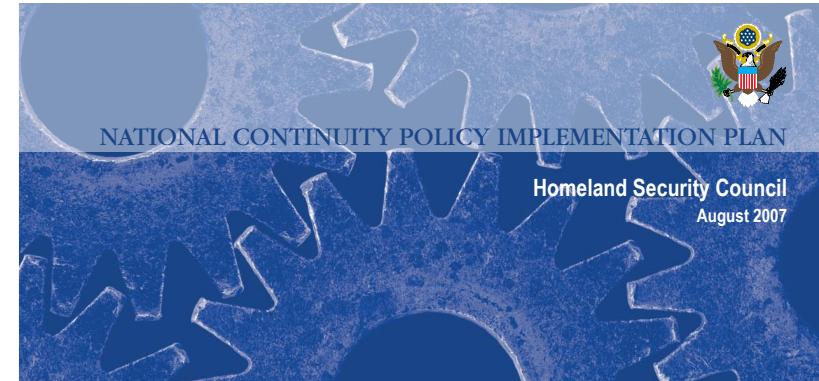
## New Initiatives

### SMALL-SCALE INTERVENTION STRATEGIES

#### ER Project #6: Develop + Deliver a Continuity of Operation (COOP) Outreach + Education Training Initiative

COOP is **critical** to a business's ability to successfully and quickly **bounce back** from a disaster or emergency — business interruption of any kind — economic, environmental or other impacts to its normal day-to-day operations. To survive a threat, a business must know:

- How it will **staff** should employees not be able to get to work.
- What will the **management structure** look like if critical managers and leaders are sick, hurt or otherwise not available.
- How the **chain of command** will be ensured.
- How it will ensure its **supply chain** so that needed goods, services and materials are available from secondary sources if primary sources are knocked out or disabled.
- How it will service its **customers** in the event of disabled operations.
- How it will maintain **sales** and keep its doors open.



NATIONAL CONTINUITY POLICY IMPLEMENTATION PLAN, AUGUST 2007

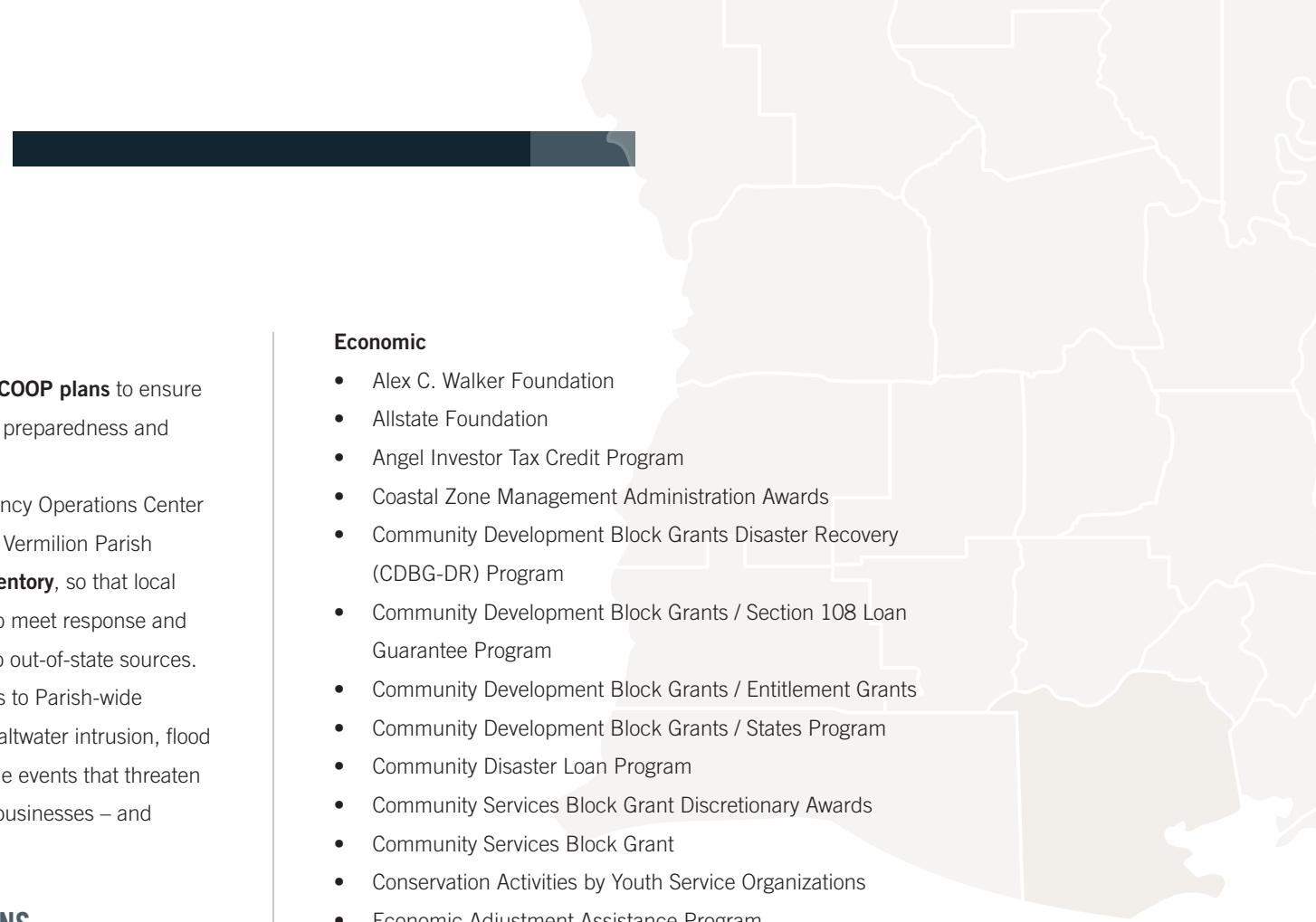
**Data storage** and protection must also be considered. The business must have a **place of operations** should the place of business be underwater, inaccessible, damaged or some other way not serviceable. And more.

#### ESTIMATED COST

Because there is a wealth of COOP planning guidance in the market place and on the web, the investment to **research, develop** and **deliver** a training program specific to Vermilion Parish should be minimal. We suggest a budget of **\$75,000** to develop a COOP training package and to fund outreach and education efforts to local businesses.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## KEY STEPS

- Train local businesses on how to develop **COOP plans** to ensure Best Practices in emergency and disaster preparedness and business resiliency.
- Work with the Louisiana Business Emergency Operations Center (LA BEOC) to **ensure inclusion** of existing Vermilion Parish businesses in the LA BEOC **resources inventory**, so that local businesses are considered as resources to meet response and recovery needs BEFORE the State looks to out-of-state sources.
- Work with businesses to promote solutions to Parish-wide **challenges** and **shared threats**, such as saltwater intrusion, flood protection and other natural and manmade events that threaten local businesses – especially agricultural businesses – and continuity of operations.

## RECOMMENDED PROJECT CHAMPIONS

- Area chambers of commerce
- VPPJ Economic Development Committee

## PROSPECTIVE FUNDING SOURCES

- Major private-sector employers.
- Grant from United Way.
- Partnership funding from the chambers of commerce within the region.

### Economic

- Alex C. Walker Foundation
- Allstate Foundation
- Angel Investor Tax Credit Program
- Coastal Zone Management Administration Awards
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / Entitlement Grants
- Community Development Block Grants / States Program
- Community Disaster Loan Program
- Community Services Block Grant Discretionary Awards
- Community Services Block Grant
- Conservation Activities by Youth Service Organizations
- Economic Adjustment Assistance Program
- Economic Development Assistance Program (SEDAP)
- Economic Development Support for Planning Organizations
- Economic Development Technical Assistance
- Emergency Community Water Assistance Grants (ECWAG)
- Extension Service Post-Crisis Education and Assistance
- Fisheries Disaster Relief
- Louisiana Community Development Authority
- Louisiana Municipal Association
- Louisiana Public Facilities Authority
- Marine Fisheries Initiative (MARFIN)



## ECONOMIC RESILIENCY (ER)

- Minority Business Enterprise Centers
- Minority Business Opportunity Center (MBOC)
- National Flood Insurance Program
- Native American Business Enterprise Centers (NABEC)
- Smart Growth: Building Blocks for Sustainable Communities
- Sustainable Communities Community Challenge Planning Grant Program



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## ER Project #7: Develop + Maintain + Exercise Port COOP Plans

Large amounts of vessels were **grounded** during Hurricane Rita. Some boat owners acted quickly and removed some boats from the land before waters receded, but some remained.

This project recommends the Parish identify **funding resources** for the development and/or maintenance of a *Continuity of Operations Plan* (COOP) for the Port of Vermilion and Port of Delcambre. It should include consideration for a safe harbor area. Currently there is no **safe harbor area** for fishing fleets to go to when a hurricane is detected in the Gulf. Providing for the safe harbor of fishing and shrimping fleets during a storm will drastically **reduce** the amount of time it takes for the fishing and shrimping industry to get back to “business as normal” after a disaster event.

Vermilion Parish began an initiative to create a **safe harbor** for vessels. Another initiative by LSU (National Sea Grant College Program) SeaGrant is ongoing. LSU Sea Grant has a grant in place and is currently working to put a plan together. Several meetings between Vermilion Parish, Iberia Parish and the fishing community have already occurred. This should be a **priority project** for the Parish and included in COOP initiatives.

### ESTIMATED COST

\$250,000

### STRATEGIES TO EXPEDITE IMPLEMENTATION

Reach out to potential funding resources.

### KEY STEPS

- Identify **funding sources** for the development and/or maintenance of a COOP.
- Include a **safe harbor** area in the plan.

### RECOMMENDED PROJECT CHAMPION

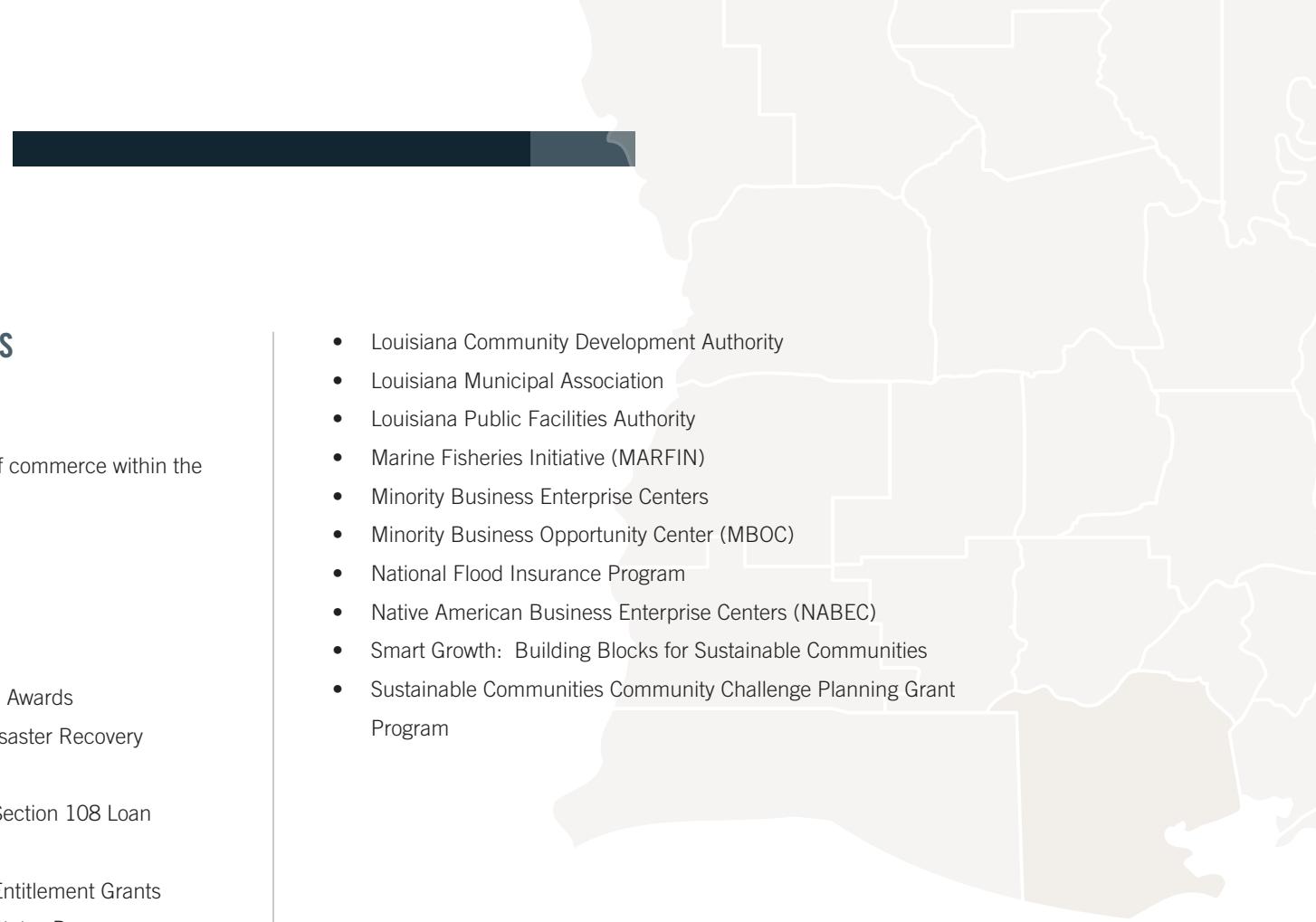
- **VPPJ Economic Development Committee**
- **Vermilion Parish Port Authority**



SHIPS GROUNDED DURING HURRICANE RITA

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## PROSPECTIVE FUNDING RESOURCES

- Major private-sector employers.
- Grant from United Way.
- Partnership funding from the chambers of commerce within the region.

### Economic

- Alex C. Walker Foundation
- Allstate Foundation
- Angel Investor Tax Credit Program
- Coastal Zone Management Administration Awards
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Block Grants / Section 108 Loan Guarantee Program
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- Sustainable Communities Community Challenge Planning Grant Program



## ER Project #8: Enhance Education Opportunities in the Parish

Resiliency planning and project implementation are **legacy** initiatives. Storm protection, appropriate land use and efforts that mitigate risk ensure the Parish is resilient for **future generations**. However, young people are not and should not be passive bystanders in the process. They should engage in community discussions, participate in outreach initiatives and develop and implement **service projects** that further the Parish's resiliency. Education is key and its importance cannot be overstated. We would like to see Vermilion Parish create and deliver an **academic course** in resiliency required of all Vermilion Parish elementary, middle and high school students. The course could include teaching the *Mitigation Nation* game and the *It's Your Turn* game and this *Plan* and be supported with annual **student awards for innovation** in resiliency.

We would also like to see Vermilion Parish advocate for the creation of a **resiliency degree** program at the University of Louisiana at Lafayette (ULL), capturing Lessons Learned from south Louisiana, archiving and exporting that expertise. Working with the University, Plan developers would like to see a **Working Group** comprised of educators and those stakeholders on the front lines of coastal erosion, saltwater intrusion and other threats to a resilient Parish appointed and tasked with developing this program.

WOODVALE ELEMENTARY SCHOOL STUDENTS TESTING *IT'S YOUR TURN!*ERATH HIGH SCHOOL STUDENTS TESTING *MITIGATION NATION*

# Vermilion Parish

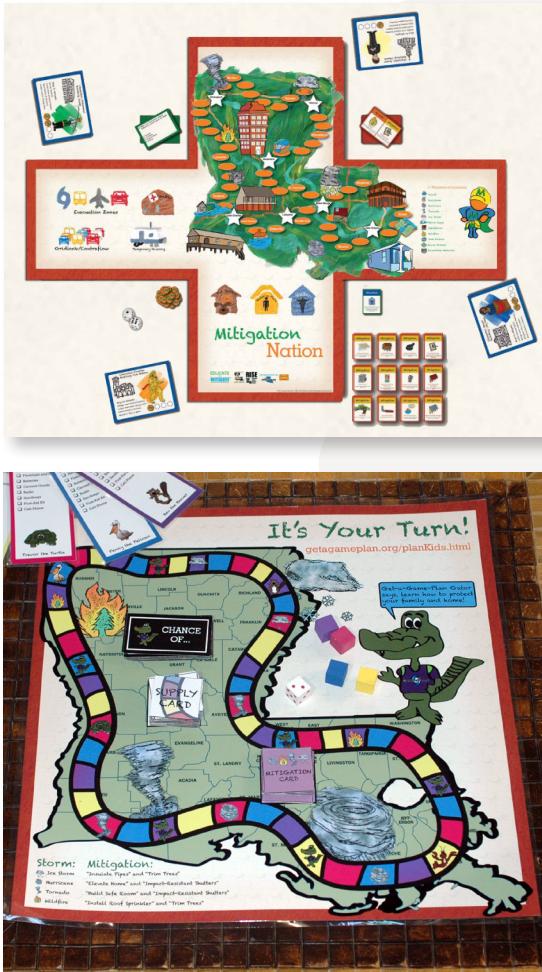
COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## FACILITIES

Fully resilient communities have a **strong economic base**, **thriving businesses** and an **educated** workforce. Community stakeholders who commented during the outreach sessions told us how important **quality education** is to their view of a resilient community. Additionally, it is in the Parish's interest to encourage and support where possible the **hardening of structures** and implementing other initiatives that make **school** (and other) **facilities** more resilient to future disasters. To that end, this *Plan* recommends that the Parish **coordinate** closely with local school leadership so that planning efforts maximize **opportunities** to harden, elevate and implement other hazard mitigation strategies, to provide the best protection possible for school facilities. If not already, facilities need to be **inventoried** so that those that need hardening or elevating are identified and included in the Parish's *Hazard Mitigation Plan* (HMP).

## EDUCATIONAL OPPORTUNITIES IN RESILIENCY

School curriculums offer an exceptional opportunity to **teach resiliency** and its importance to future generations of Parish leaders. Using the school system as a distribution channel for the hazard **mitigation board** game *Mitigation Nation* and *It's Your Turn!* created by the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) Hazard Mitigation (HM) Section and calling for school project competitions that award **innovation in resiliency** at the school-level are excellent examples of teaching opportunities.



MITIGATION NATION AND IT'S YOUR TURN! GAME BOARDS AND GAME PIECES USED TO TEACH ELEMENTARY, MIDDLE AND HIGH SCHOOL STUDENTS MITIGATION TECHNIQUES.

As the Parish where the GOHSEP games were tested in middle and high schools, Vermilion is the logical choice to be the **first Parish** in the State to roll out this educational resiliency tool in both public and parochial schools.

Additional opportunities include the creation of age-appropriate **resiliency curriculums** that would be taught at pre-K through 5th, middle and upper schools. Because of Louisiana's unique position as recovering from the largest natural disaster this country has yet faced, we have the opportunity to share what we know and what we have learned with others. **Curriculum development, implementation** in Vermilion Parish classrooms and **exporting** that expertise to other State school systems is an important step in building a more resilient Nation. Vermilion Parish can be a leader in that effort.

### ESTIMATED COST

**\$50,000** annually to fund professional **facilitation** and **materials** development.

### STRATEGIES TO EXPEDITE IMPLEMENTATION

- Contact GOHSEP to **secure the rights** to use both *Mitigation Nation* and *It's Your Turn!* instructional games.
- Combine with other education initiatives to present to local officials.

### KEY STEPS

- Work with the school board to **launch** *Mitigation Nation* game in Vermilion Parish schools.
- Apply for a **grant** to develop, print and distribute curriculum materials and hire a dedicated staff person for this initiative.
- Educate young people on the importance of resiliency through lower-, middle- and upper-school curriculum.
- Create a resiliency degree program at ULL.

### RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group

### PROSPECTIVE FUNDING RESOURCES

#### Education

- Citi Foundation
- Community Facilities Direct and Guaranteed Loan and Grant Programs
- Community Services Block Grant
- Corporation for National and Community Service (CNCS)
- Disposal of Federal Surplus Real Property
- Distance Learning and Telemedicine Program
- Donation of Federal Surplus Personal Property
- Economic Adjustment Assistance
- Economic Development Technical Assistance
- Entergy Corporation

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

- Environmental Research and Education Foundation (EREF)
- Intercultural Center for Research in Education
- Louisiana Community Development Authority
- Louisiana Community Development Block Grant (LCDBG)
- Louisiana Public Facilities Authority
- Plum Creek Foundation
- USDA Food Distribution Programs
- Verizon Foundation
- Vulcan Materials Company Foundation
- Wal-Mart Foundation



# Transportation Resiliency (TR)

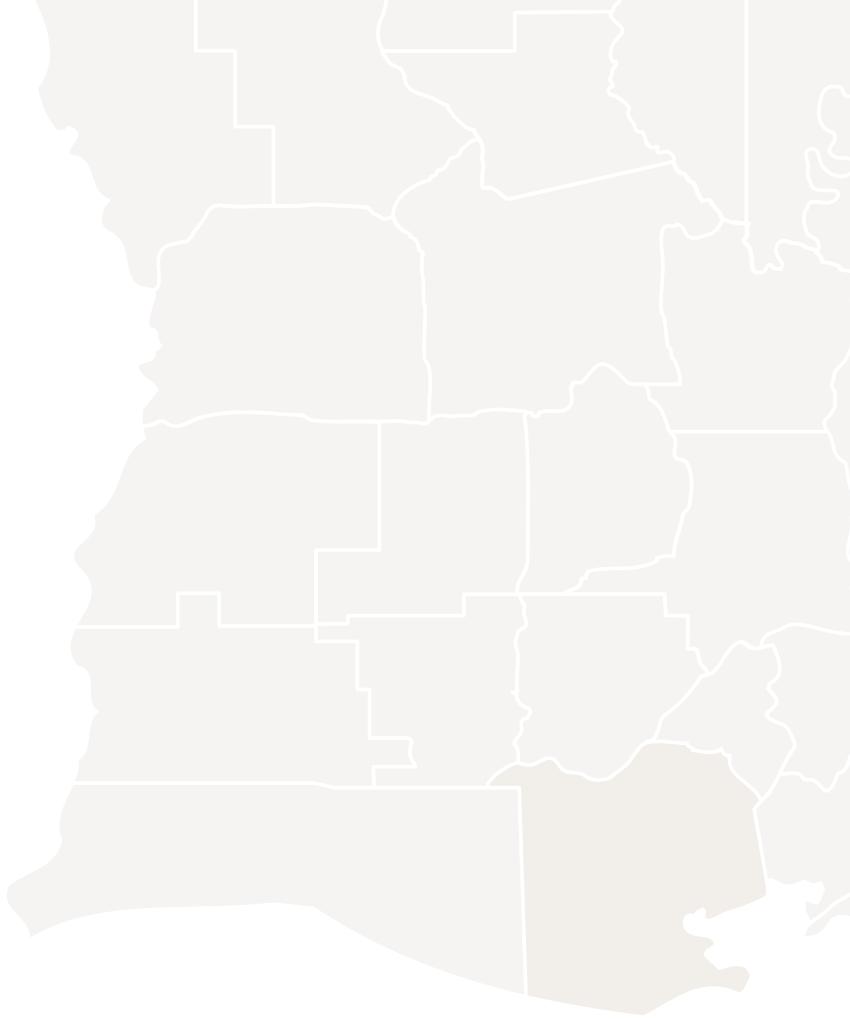
**NEW INITIATIVES: LARGER-SCALE INTERVENTION STRATEGIES**

**TR Project #1: Expand Major Thoroughfares to  
Support Economic Development +  
Evacuations**

**TR Project #2: Promote Evacuation Routes +  
Evacuation Planning**

**TR Project #3: Implement Parish-wide Off-system  
Arterial Road System**

**Vermilion Parish**  
COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



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## Achieving Resilience: Goals + Projects

### GOALS

The most important overarching resiliency goal for Vermilion Parish's transportation network is offering a **variety of well-maintained means of ingress and egress** within the Parish.

- The network should promote **diversification**, allowing for multiple routes and means of transportation.
- A large, moderately populated Parish such as Vermilion will always **depend first** on its system of roads, so they must serve the jurisdiction well, particularly in terms of providing ample means of **evacuation** in the event of a major disaster such as a hurricane or the consequent storm surge.

Secondly, the Parish's transportation network is critical to its **economy**. A quick recovery of transportation resources after a disaster event facilitates a **quick recovery** of the Parish's economy.

The following initiatives and associated projects will advance the Parish's efforts to achieve its **transportation resiliency** goals.



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## New Initiatives

### LARGER-SCALE INTERVENTION STRATEGIES

#### TR Project #1: Expand Major Thoroughfares to Support Economic Development + Evacuations

There are two (2) proposed road expansion projects that will aid in **hurricane evacuations** and **promote economic development** in the **less vulnerable** portions of the Parish.

The first of these is expansion of **US Hwy 167** from Abbeville to Intracoastal City. U.S. Hwy 167 currently terminates in Abbeville at its intersection with **LA Hwy 14**. Considerable quantities of **freight** are delivered or picked up further south in Vermilion Parish (Intracoastal City, Freshwater City and other coastal locations) particularly for use in the **offshore oil** and **gas** industry. For many years, Vermilion Parish has requested the extension of U.S. Hwy 167 to the south to provide a **safe route** for the transport of these goods and services. Extension of this route will enhance the **economic development** potential for the **ports** located south of Abbeville as well as provide **improved evacuation routes** for the inhabitants of southern Vermilion Parish. Both of these factors provide substantial improvements to Vermilion Parish's resiliency.

The **second** proposal is the **expansion of LA Hwy 14** to four (4) lanes from Abbeville to Jennings, primarily to ease **evacuation** routes alternative to I-10. Additionally, the expansion of LA Hwy 14 will open thousands of acres to **industrial development** outside the floodplain.

#### ESTIMATED COST

To be Determined

#### STRATEGIES TO EXPEDITE IMPLEMENTATION

**Secure support** of State and congressional legislative delegations.

#### KEY STEPS

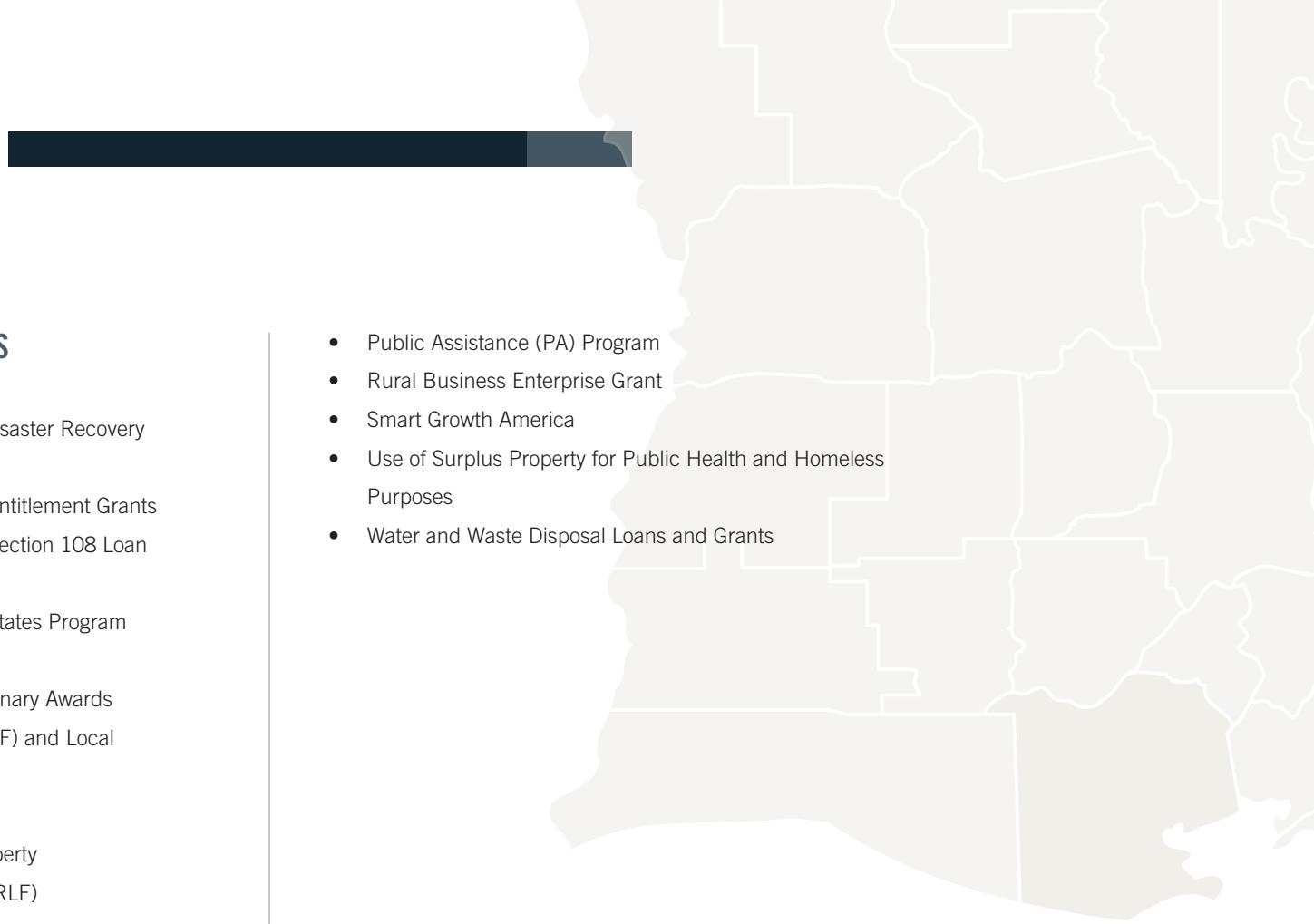
- **Expand U.S. Hwy 167** from Abbeville to Intracoastal City.
- **Expand LA 14** to four (4) lanes from Abbeville to Jennings.

#### RECOMMENDED PROJECT CHAMPION

- **Area chambers of commerce**
- **Vermilion Parish Police Jury (VPPJ) Economic Development Committee**

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## PROSPECTIVE FUNDING RESOURCES

### Infrastructure

- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Block Grants / Entitlement Grants
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / States Program
- Community Disaster Loan Program
- Community Services Block Grant Discretionary Awards
- Community Water Enrichment Fund (CWEF) and Local Government Assistance Program (LGAP)
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Drinking Water Revolving Loan Fund (DWRLF)
- Economic Adjustment Assistance Program
- Emergency Community Water Assistance Grants (ECWAG)
- Emergency Watershed Protection Program
- Hazard Mitigation Grant Program (HMGP)
- Louisiana Community Development Authority
- Louisiana Community Development Block Grant (LCDBG)
- Louisiana Office of Community Development
- Louisiana Public Facilities Authority
- Office of Natural Resources Revenue (ONRR): GoMESA
- Partnership for Sustainable Communities

- Public Assistance (PA) Program
- Rural Business Enterprise Grant
- Smart Growth America
- Use of Surplus Property for Public Health and Homeless Purposes
- Water and Waste Disposal Loans and Grants



## TR Project #2: Promote Evacuation Routes + Evacuation Planning

Evacuation **planning** is an important component of resiliency, ensuring that residents are able to **escape danger** in an orderly and timely fashion. A critical component of evacuation planning is the creation and broad distribution of **evacuation maps** so that households know the location of safe routes for exiting the Parish. The Parish's evacuation map is currently up to date. This project recommends the promotion of **evacuation planning** and the **distribution** of maps detailing evacuation routes.

### ESTIMATED COST

\$150,000

### STRATEGIES TO EXPEDITE IMPLEMENTATION

Combine with other **plans**.

### KEY STEPS

- Contract with a communications firm to:
  - :: Produce a **map-based print product**.
  - :: Develop and implement a **distribution plan**.

### RECOMMENDED PROJECT CHAMPIONS

- Area chambers of commerce
- Vermilion Parish Police Jury (VPPJ) Economic Development Committee
- Vermilion Parish Tourist Commission

### PROSPECTIVE FUNDING RESOURCES

#### Infrastructure

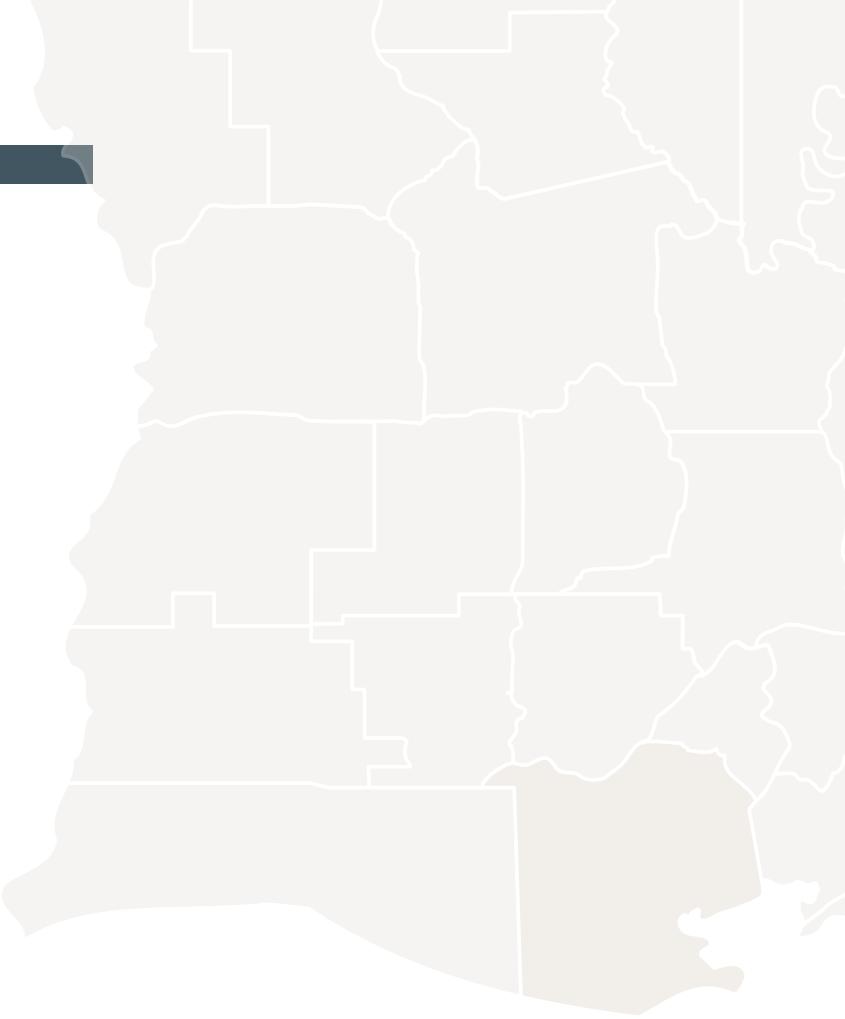
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- Community Disaster Loan Program
- Community Services Block Grant Discretionary Awards



# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

- Community Water Enrichment Fund (CWEF) and Local Government Assistance Program (LGAP)
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
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- Economic Adjustment Assistance Program
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- Partnership for Sustainable Communities
- Public Assistance (PA) Program
- Rural Business Enterprise Grant
- Smart Growth America
- Use of Surplus Property for Public Health and Homeless Purposes
- Water and Waste Disposal Loans and Grants





### TR Project #3: Implement Parish-wide Off-system Arterial Road System

Funding for improvements to roads within Vermilion Parish that are not a part of the State highway system is currently allocated on the basis of **road districts**. Taxes collected in each road district are allocated to that road district and funds received from other sources (e.g., Royalty Road Funds, etc.) are allocated to each of the road districts based on their pro-rata share of road miles. These funds are used within **each district** to repair and improve Parish roads within that district.

In the most recent *Vermilion Parish Capital Improvements Plan* (CIP), which covered the period from 2012 - 2016, several roadways within the Parish were designated as **arterial roads**. The roads designated as such are **major thoroughfares** that are essential to the movement of people and goods throughout Vermilion Parish.

The recommendation in the CIP is that a Parish-wide funding program be established for these off-system arterial roads. The establishment of a **Parish-wide funding program** will enhance the resiliency of Vermilion Parish by ensuring that these major Parish roads are **properly maintained** to provide local access routes, which are vital for **evacuation** and **economic development**.

#### ESTIMATED COST

To be Determined

#### STRATEGIES TO EXPEDITE IMPLEMENTATION

Combine with other **plans**.

#### KEY STEPS:

- Design.
- Secure land rights if needed.
- Plan/engineer **now**.

#### RECOMMENDED PROJECT CHAMPION:

**To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group.**

#### PROSPECTIVE FUNDING RESOURCES

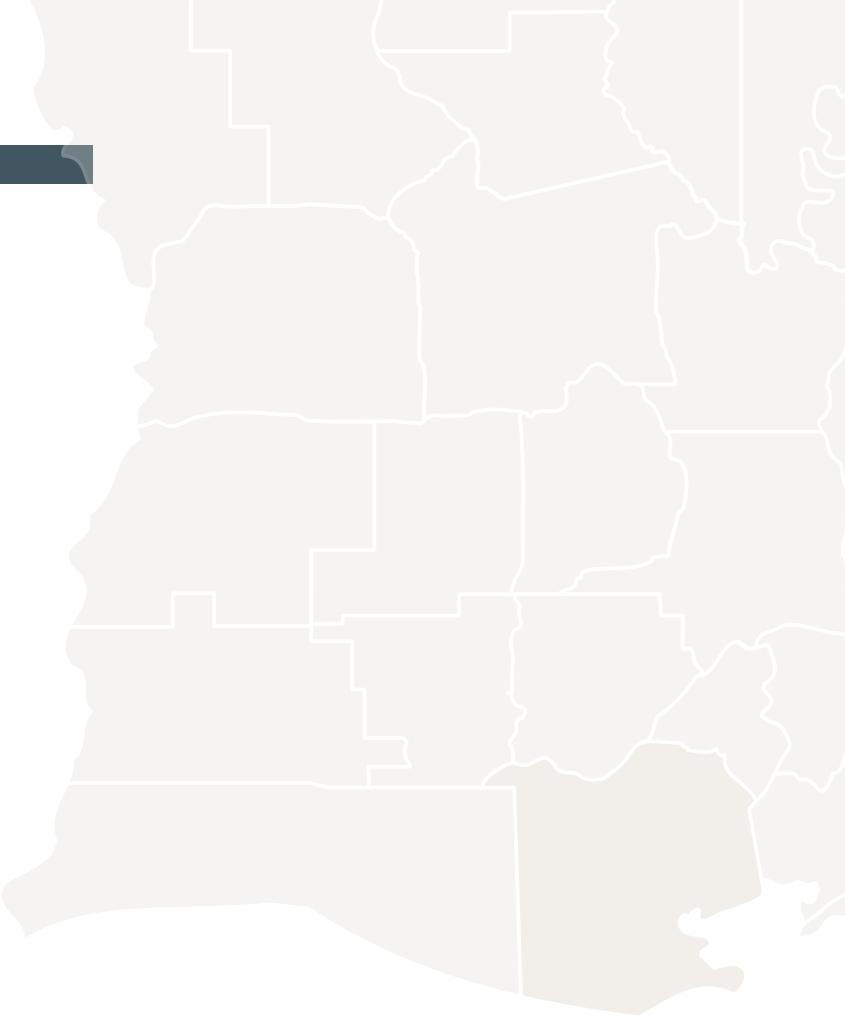
##### Infrastructure

- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Block Grants / Entitlement Grants
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / States Program
- Community Disaster Loan Program
- Community Services Block Grant Discretionary Awards

# Vermilion Parish

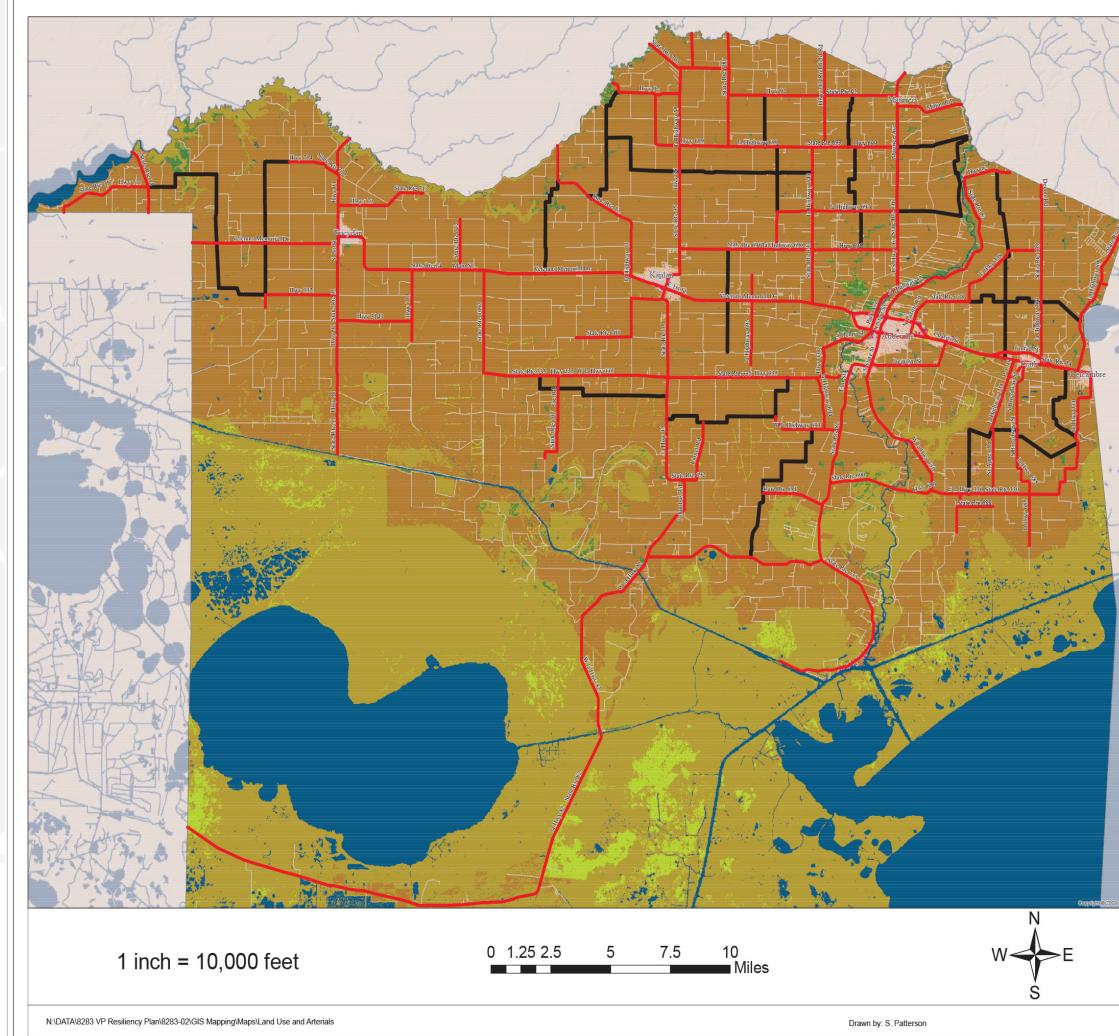
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- Office of Natural Resources Revenue (ONRR): GoMESA
- Partnership for Sustainable Communities
- Public Assistance (PA) Program
- Rural Business Enterprise Grant
- Smart Growth America
- Use of Surplus Property for Public Health and Homeless Purposes
- Water and Waste Disposal Loans and Grants



# VERMILION PARISH COMPREHENSIVE RESILIENCY PLAN

## TRANSPORTATION RESILIENCY (TR)



### Land Use

Present

12/10/2012

#### Legend

Non-Arterial Public Road District
Arterial District
<b>Land Types</b>
Grasses
Commercial/Industrial
Forest
Critical/Sensitive
Residential
No Data
Open Water
Agriculture



**Vermilion Parish**  
COMPREHENSIVE RESILIENCY PLAN

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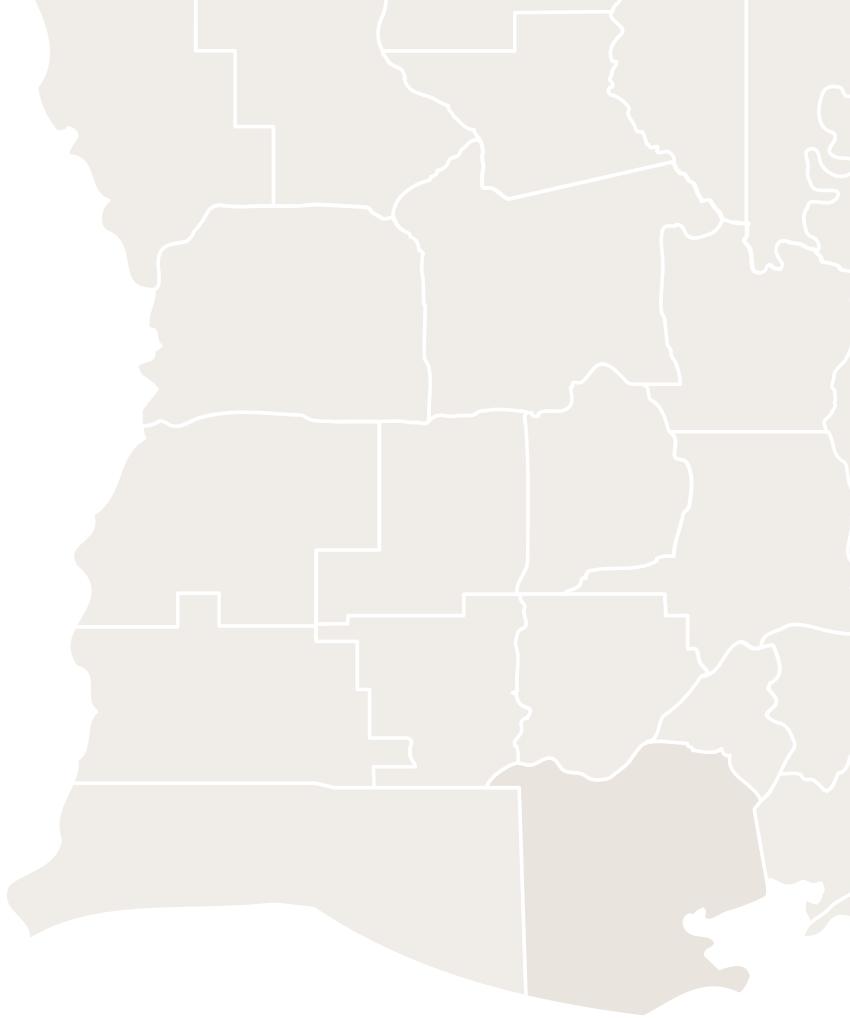


# Housing Resiliency (HR)

EXISTING PROJECT OF IMPORTANCE

HR Project #1: Elevation or Flood Proofing  
of Structures

Vermilion Parish  
COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



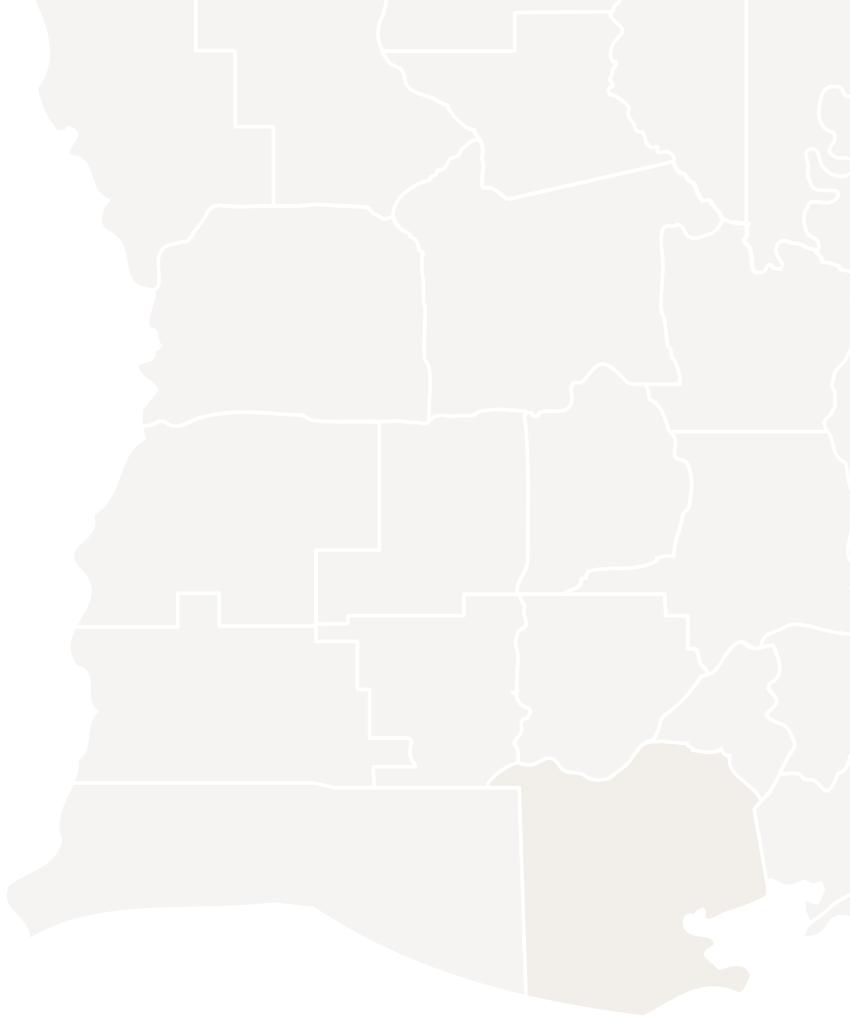
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## Achieving Resilience: Goals + Projects

### GOALS

Among the best ways to achieve and maintain housing resilience is to incorporate some of the improvements and strategies articulated in the many **relevant plans** completed since 2005, the most devastating year for storms in Louisiana's recent history. What follows are projects/actions that help the Parish achieve and maintain increased **housing resilience** if implemented.



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## HOUSING RESILIENCY (HR)



# Existing Project of Importance

## HR Project #1: Elevation or Flood Proofing of Structures

After Hurricane Rita, through the **Road Home** and **FEMA's Hazard Mitigation Assistance (HMA)** program, most Vermilion Parish homes have been elevated. Remaining residential, commercial structures and public facilities located **outside of the hurricane protection systems** should be **elevated, acquired** (through voluntary acquisitions) or **flood-proofed** to provide protection from storm surge events. A **public funding source** needs to be identified to assist in the elevation or flood proofing of structures located outside of the hurricane protection systems. Many of these projects may meet the requirements for HMA funding, either through the annual **Pre-Disaster Mitigation (PDM)** program, **Flood Mitigation Assistance** (FMA) programs or in **406 mitigation project** funding available immediately after a Presidentially declared event for **FEMA Public Assistance (PA)** projects and/or **Hazard Mitigation Grant Program (HMGP)** funds also available after a declared event and not limited to FEMA PA projects.



VERMILION PARISH HAZARD MITIGATION PLAN UPDATE

If not already, these projects and structures should be **identified** and **included** in the Parish's *Hazard Mitigation Plan*. PDM and FMA are competitive grants; 406/HMGP funding is available based on a percentage of the total of disaster-related FEMA PA grants.

Elevation is a project included in *Louisiana's 2012 Comprehensive Master Plan for a Sustainable Coast* (2012 Coastal Master Plan) (Project VER.050.2, VER.050.3 & VER.050.4). This project is also one of the primary recommendations in the draft Southwest Coastal Study released recently by the U.S. Army Corps of Engineers (USACE).

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

While **elevation** or **flood proofing** increases the resiliency of the coastal portion of Vermilion Parish, it also comes with some **challenges**. The USACE does not consider the improved resiliency afforded through elevations in its **cost benefit ratio** when evaluating **future** hurricane protection measures. This is an issue that warrants **Congressional review** and **intervention**. Additionally, post-Rita homeowners were required to elevate to a posted elevation and all did so. However, new Digital Flood Insurance Rate Maps (DFIRMs) require **higher elevations**, raising the question as to whether homes that followed the required elevation in place at the time, will be “grandfathered” in to flood insurance requirements. Further, **continuing escalations** in **flood insurance rates** are in danger of making flood insurance out of reach for many homeowners.

For example, the implementation of the recently enacted *Biggert-Waters Flood Insurance Reform Act*, which results in substantial **flood insurance premium increases** for many homes in Vermilion Parish – and similarly to previous National Flood Insurance Program/Community Rating System (NFIP/CRS) discussions in this Plan. **Rising rates** increases the **urgency** to provide flood proofing, elevation or protection to Vermilion Parish homeowners.

## ESTIMATED COST

To be determined

## STRATEGIES TO EXPEDITE IMPLEMENTATION

Work through and with the Parish *Hazard Mitigation Plan* and local **Office of Homeland Security and Emergency Preparedness (OHSEP) Director**.

## KEY STEPS

- Identify **projects**.
- Include in **local Hazard Mitigation Plan**.
- Ensure **eligibility**.
- **Cost estimate** projects.
- Apply for funding **assistance**.
- Secure land **rights**.
- Identify **funding** sources.
- Plan/engineer **now**.

## RECOMMENDED PROJECT CHAMPION

**Local OHSEP Director**

## PROSPECTIVE FUNDING RESOURCES

### Housing

- Coastal Zone Management Administration Awards
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / States Program
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program

- Community Development Capital
- Community Disaster Loan Program
- Community Facilities Direct and Guaranteed Loan and Grant Programs
- Community Services Block Grant
- Corporation for National and Community Service (CNCS)
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Flood Mitigation Assistance Program
- Hazard Mitigation Grant Program (HMGP)
- Home Investment Partnerships Program (HOME)
- Louisiana Housing Corporation
- National Association of State Agencies for Surplus Property (NASASP)
- Open Society Foundations
- Partnership for Sustainable Communities
- Pre-Disaster Mitigation (PDM) Program Competitive Grants
- Public Assistance (PA) Program
- Repetitive Flood Claims (RFC)
- Severe Repetitive Loss Pilot Program
- Smart Growth America
- Smart Growth: Building Blocks for Sustainable Communities
- Transportation Enhancement Program (TEP)
- Use of Surplus Property for Public Health and Homeless Purposes
- Water and Waste Disposal Loans and Grants

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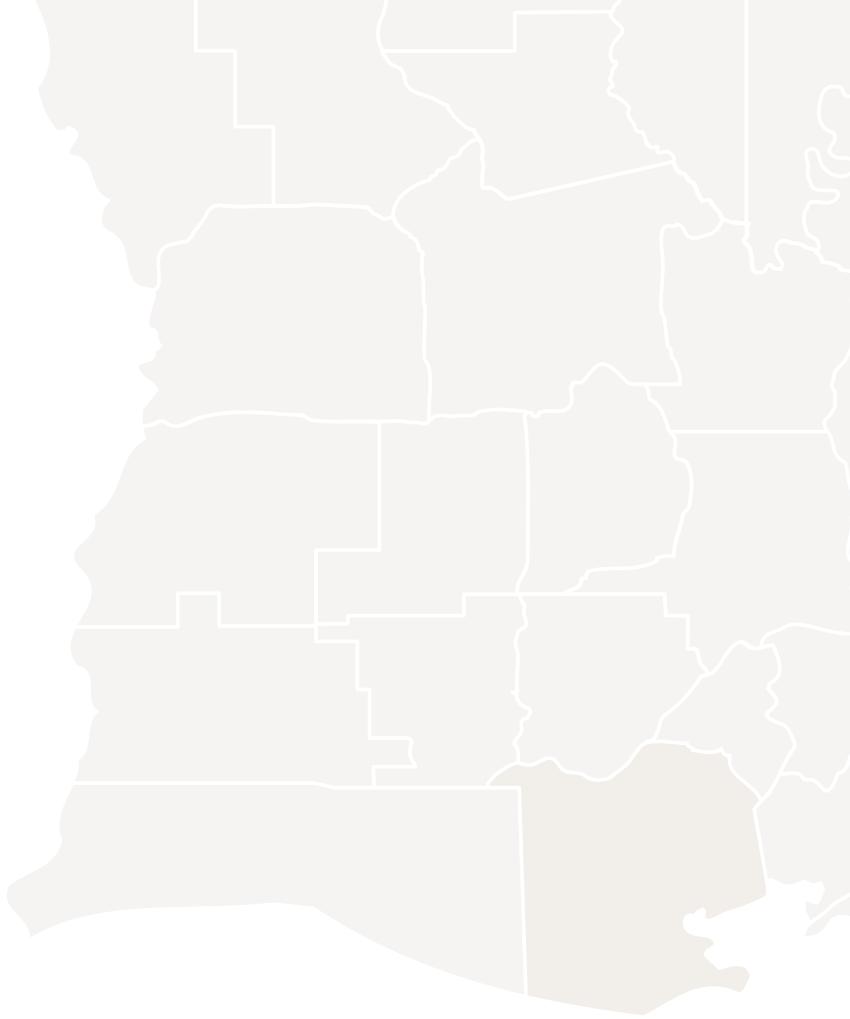


# Housing Resiliency (HR)

**NEW INITIATIVES: LARGER-SCALE INTERVENTION STRATEGIES**

- HR Project #2: Home + Business Owner Hazard Mitigation Assistance (HMA) Outreach + Education Initiative
- HR Project #3: Create a Home + Business Owner Resiliency Education Program

- HR Project #4: Encourage Urban Renewal in Downtown Areas



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## HOUSING RESILIENCY (HR)



# New Initiatives

## LARGER-SCALE INTERVENTION STRATEGIES

### HR Project #2: Home + Business Owner Hazard Mitigation Assistance (HMA) Outreach + Education Initiative

It is essential to disseminate information on the availability of the **Hazard Mitigation Assistance** (HMA) grant funds to help offset the cost of making structures that are more **resilient** to disasters. Homeowners (and businesses) need to know how they can **take advantage** of these programs, funding opportunities and match requirements (25 percent, 10 percent or 0 percent of **total eligible work** within the scope of work depending on grant type).

It is also essential that the community is informed about the availability of insurance under the **National Flood Insurance Program** (NFIP) and program requirements, particularly as they pertain to Severe Repetitive Loss (SRL) properties which may be **unsuitable** for further reconstruction after a future storm event.



### ESTIMATED COST

\$5,000 Annually for printed materials and presentation materials

### STRATEGIES TO EXPEDITE IMPLEMENTATION

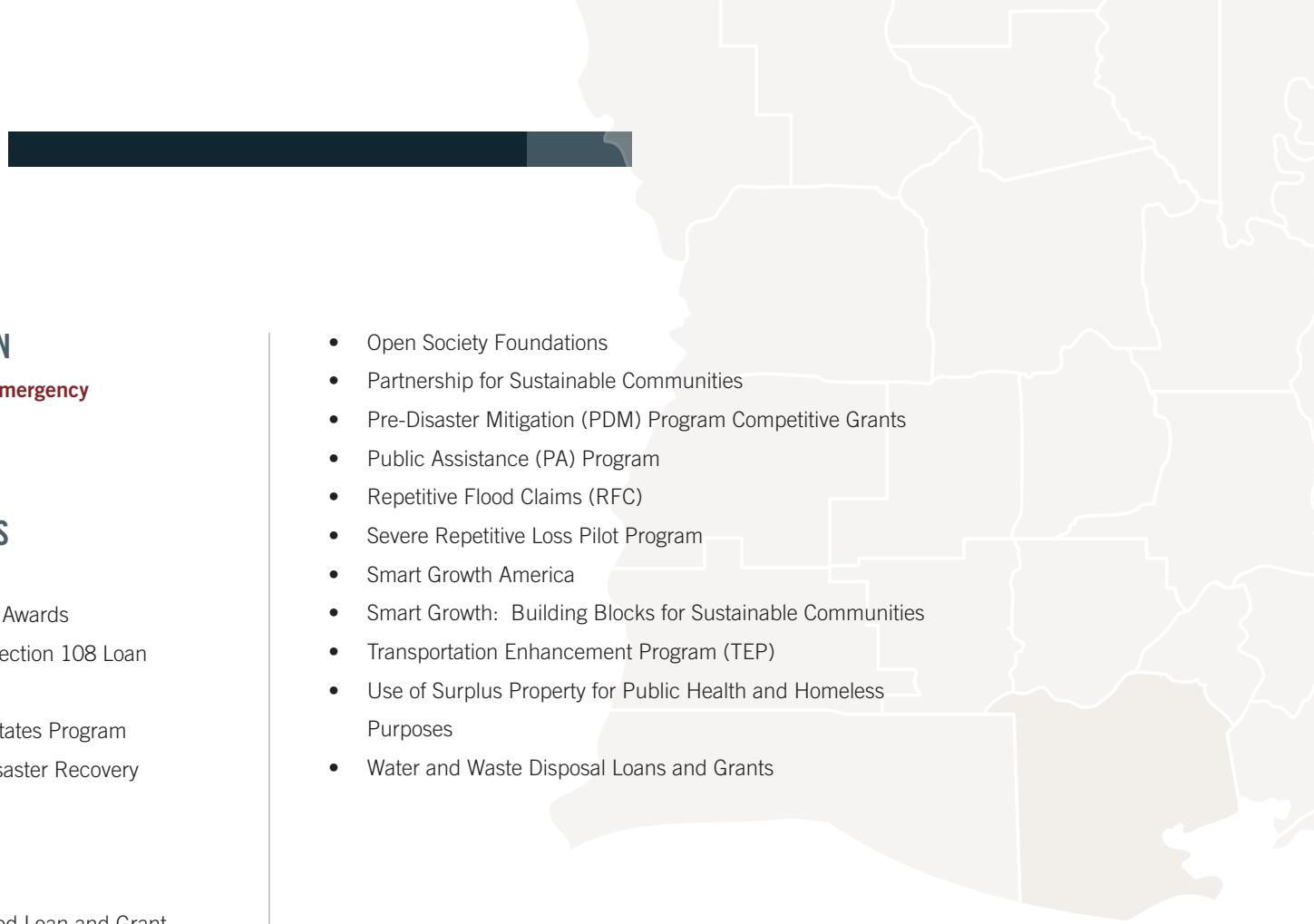
- Work with Governor's Office of Homeland Security and Emergency Preparedness (**GOHSEP**) to learn about NFIP and HMA through **stakeholder workshops** and seminars ensuring Parish stakeholders attend.
- Ensure local stakeholders understand **funding availability** and **grant application cycles**.

### KEY STEPS

- Learn about grants, eligible activities and funding cycles.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## RECOMMENDED PROJECT CHAMPION

- Local Office of Homeland Security and Emergency Preparedness (OHSEP)
- Vermilion Parish Police Jury (VPPJ)

## PROSPECTIVE FUNDING RESOURCES

### Housing

- Coastal Zone Management Administration Awards
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / States Program
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Capital
- Community Disaster Loan Program
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- Hazard Mitigation Grant Program (HMGP)
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- National Association of State Agencies for Surplus Property (NASASP)

- Open Society Foundations
- Partnership for Sustainable Communities
- Pre-Disaster Mitigation (PDM) Program Competitive Grants
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- Severe Repetitive Loss Pilot Program
- Smart Growth America
- Smart Growth: Building Blocks for Sustainable Communities
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- Water and Waste Disposal Loans and Grants

## HOUSING RESILIENCY (HR)

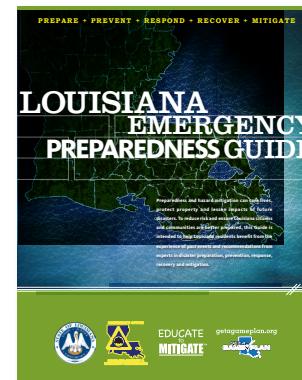


### HR Project #3: Create a Home + Business Owner Resiliency Education Program

Resiliency happens at multiple scales: **national, regional, Parish, community, household** and **individual**. The Parish's greatest influence is within the Parish and community. However there are things that can be done to promote greater resiliency at the household and individual levels. This project proposes a program that would focus on increasing resiliency at the home and business level through **outreach** and **education**. Using various means of communication – **printed materials** available when applying for permits, **websites, social media, TV** and **radio** when feasible – the Parish can empower citizens with information and promote what Parish residents can do to increase individual resiliency. This information can include **site design measures** (e.g. landscaping measures such as trees that do well in the face of high winds), **home orientation** (to reduce the energy use during times when the power is out), **wet flood-proofing**, and more that increase a structure's ability to weather a storm and the speed at which residents can get back into their homes.

Through a partnership with the **Building Code Officials of Louisiana** (BOAL), the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) has produced a **library** of materials available to **local authorities** to educate and promote individual, construction professional and business **resiliency** efforts.

Additionally, GOHSEP prints and distributes a *Louisiana Preparedness Guide* each year that speaks to **resiliency** as well as preparedness.



2013 LOUISIANA PREPAREDNESS GUIDE

To the extent that hard copies are available, the Parish should request and develop a distribution strategy to get those materials into the hands of the public, construction-industry professionals and the local business community. When printed resources are exhausted, the Parish can **reprint** at its cost and/or post materials to its website and, through a **media partnership**, point users to the website for downloading materials.

The Parish can and should also promote **business disaster plans** as a measure to foster a business' ability to protect staff and resources and quickly recover after disasters. Again, printed resources already exists. Through GOHSEP's partnership with the Stevenson Disaster Management Institute (SDMI) on the campus of Louisiana State University (LSU), the State has produced a **business resiliency guide**, for resiliency planning.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## ESTIMATED COST

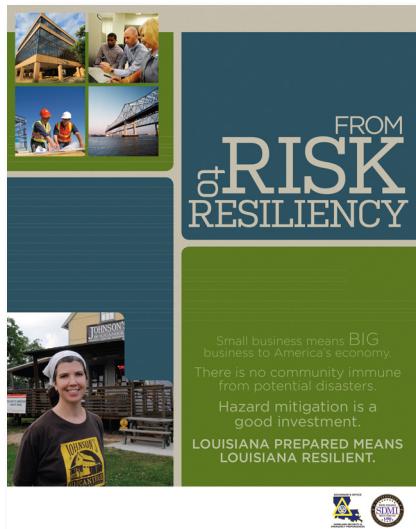
\$25,000 – \$75,000 annually to meet printing needs

## STRATEGIES TO EXPEDITE IMPLEMENTATION

Secure permission from GOHSEP and SDMI to use **existing materials** and reprint.

## KEY STEPS

- **Review** materials distribution and inventories available through GOHSEP.
- **Reproduce** if needed.
- Develop a **distribution plan**.



2012 FROM RISK TO RESILIENCY

## RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group.

## PROSPECTIVE FUNDING RESOURCES

### Housing

- Coastal Zone Management Administration Awards
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / States Program
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
- Community Development Capital
- Community Disaster Loan Program
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- Home Investment Partnerships Program (HOME)
- Louisiana Housing Corporation
- National Association of State Agencies for Surplus Property (NASASP)



## HOUSING RESILIENCY (HR)

Vermilion  
Parish

- Open Society Foundations
- Partnership for Sustainable Communities
- Pre-Disaster Mitigation (PDM) Program Competitive Grants
- Public Assistance (PA) Program
- Repetitive Flood Claims (RFC)
- Severe Repetitive Loss Pilot Program
- Smart Growth America
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## HR Project #4: Encourage Urban Renewal in Downtown Areas

While this Plan is intended to focus on the **unincorporated** areas of the Parish, to achieve its overall goals it should look at the renewal efforts in the incorporated areas as well as unincorporated areas as each impacts the quality of life for all citizens in the Parish. This Plan therefore recommends that **preserving** and **enhancing** the quality of **historic buildings** in both unincorporated areas where they exist and in downtown areas of each municipality within the Parish; **demolition** and **redevelopment** for blighted properties, structural and **façade improvements** to **non-historic sites**, and a focus on **urban renewal** and **reinvestment** is an appropriate. To do so the Parish should consider:

- Establishing **urban development standards** that facilitate the upkeep and redesign of historic buildings updated to **current codes** and **standards** while maintaining and protecting the integrity of original designs and construction methods.
- Establishing **economic** and/or **location incentives** to encourage residential and business uses.
- Evaluating existing **signage** and **landscape** to ensure downtown areas are compatible with adjacent areas.

### ESTIMATED COST

To be Determined

### STRATEGIES TO EXPEDITE IMPLEMENTATION

- In partnership with municipalities, inventory and locate all **historical structures** within the Parish.
- Inventory **blighted properties** that should be considered for **demolition**.
- Inventory **properties** most likely to benefit from **façade improvements**.
- Develop **strategies** to deal with each.

### KEY STEPS

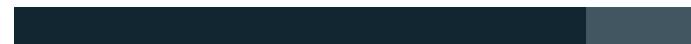
- **Design.**
- Secure land **rights**.
- Identify **funding** sources.
- Plan/engineer **now**.

### RECOMMENDED PROJECT CHAMPION

**To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group.**

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## PROSPECTIVE FUNDING RESOURCES

### Housing

- Coastal Zone Management Administration Awards
- Community Development Block Grants / Section 108 Loan Guarantee Program
- Community Development Block Grants / States Program
- Community Development Block Grants Disaster Recovery (CDBG-DR) Program
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- Partnership for Sustainable Communities

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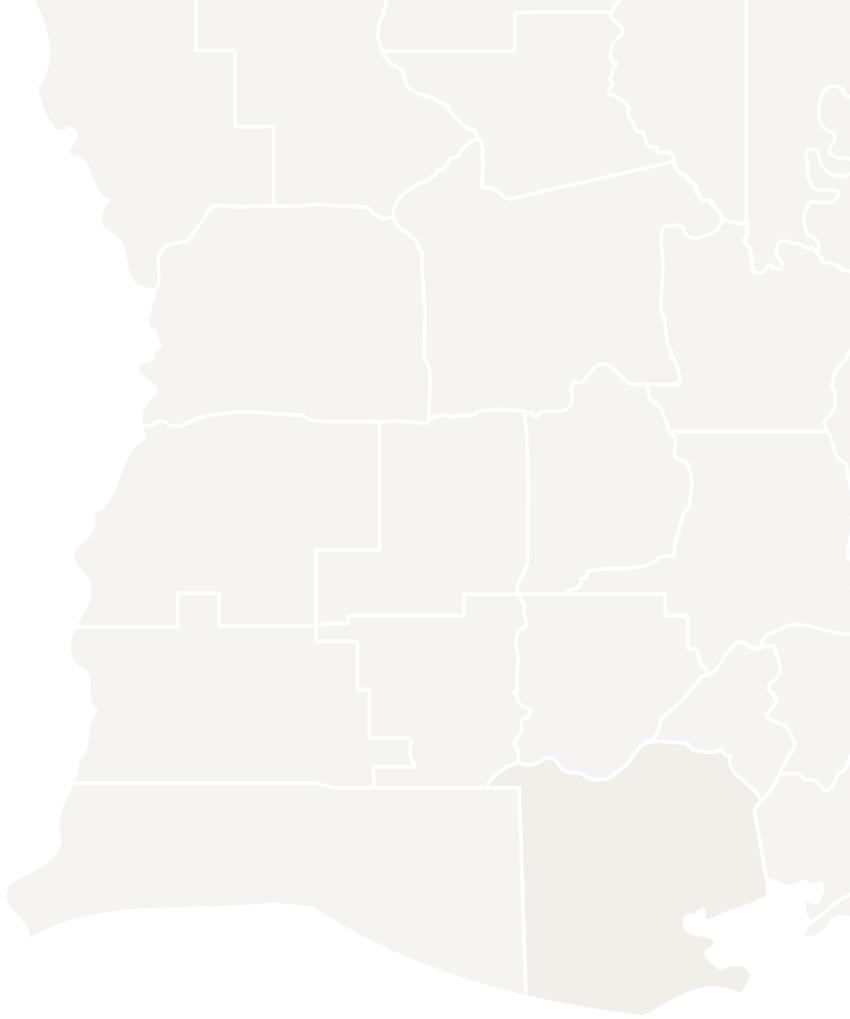
# Parks + Open Spaces (P+OS)

**EXISTING PROJECT OF IMPORTANCE**

P+OS Project #1: Preservation of Marshland: Dredging + Filling Abandoned Canals

P+OS Project #2: Preservation of Marshland: Creation of Emergent Terraces

P+OS Project #3: Stabilize Rockefeller Refuge Gulf Shoreline



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## Achieving Resilience: Goals + Projects

### GOALS

The economy and culture of Vermilion Parish is closely linked to the **health** of the Louisiana coast. Residents of Vermilion Parish are dependent on activities that are directly tied to the coast such as **fishing, shrimping, ship building, oil and gas exploration** and **extraction**, and other supporting industries. **Preservation** and **creation** of wetlands is critical to the well-being of the Parish. Wetlands dampen surge impacts, create fisheries, protect wildlife and waterfowl habitat.

Residents of Vermilion Parish **treasure the wildlife** and **open spaces** provided by a healthy coastline and protection of the coast. Preservation of existing wetlands is a **high priority** for the participants in the outreach efforts and for people of the Parish.

Hurricane Rita exploited vulnerabilities created by developmental activities along the Vermilion coast that resulted in a **reduction** of the **natural buffer, increasing inland damage**. Just as many independent actions over time contributed to the vulnerability, no one action will repair the damage and reduce vulnerability. However, a **package of projects** like the following can help the Parish achieve greater resiliency, reducing future storm related losses throughout the Parish.

**Seven (7) interrelated projects** (Coastal Restoration projects and Parks + Open Space projects) together, if implemented, can help acquire, restore and preserve more than **60,000 acres** of Vermilion Parish **wetlands, marsh and coastline**.

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## Existing Project of Importance

### P+OS Project #1: Preservation of Marshland: Dredging + Filling Abandoned Canals

During Hurricane Rita, abandoned canals allowed **saltwater intrusion** into interior portions of the coastal area. Killing freshwater habitats, this led to **permanent destruction** of wetlands. This project provides a line of defense in flood protection by **reducing storm surge propagation** and provides **protection** for **future levee construction**. First suggested by the LOUISIANA SPEAKS FEMA long-term community recovery (LTCR) Planning Team in 2006, this project represents a **regional** approach. It proposes to **dredge material** from the Gulf Intracoastal Waterway (GIWW) and other locations in **Iberia, Vermilion and Cameron Parishes** and use to fill existing **abandoned canals**.

The beneficial use of dredge material should not be **underestimated**. However, **balance** is an important consideration. Back filling must be considered carefully. Oilfield canal banks are the **perimeter** of private landowner marsh management plans. Removing these spoil banks could create **more wetland loss** and allow more saltwater to **intrude** into protected area.

Canals will be **restored to marshland**, protecting existing estuary and wildlife habitat from **saltwater intrusion**.

#### ESTIMATED COSTS

\$400,000

#### STRATEGIES TO EXPEDITE IMPLEMENTATION

Combine with other **preservation** plans.

#### KEY STEPS

- Identify **location** for dredging + filling
- **Design** + engineering

#### RECOMMENDED PROJECT CHAMPION

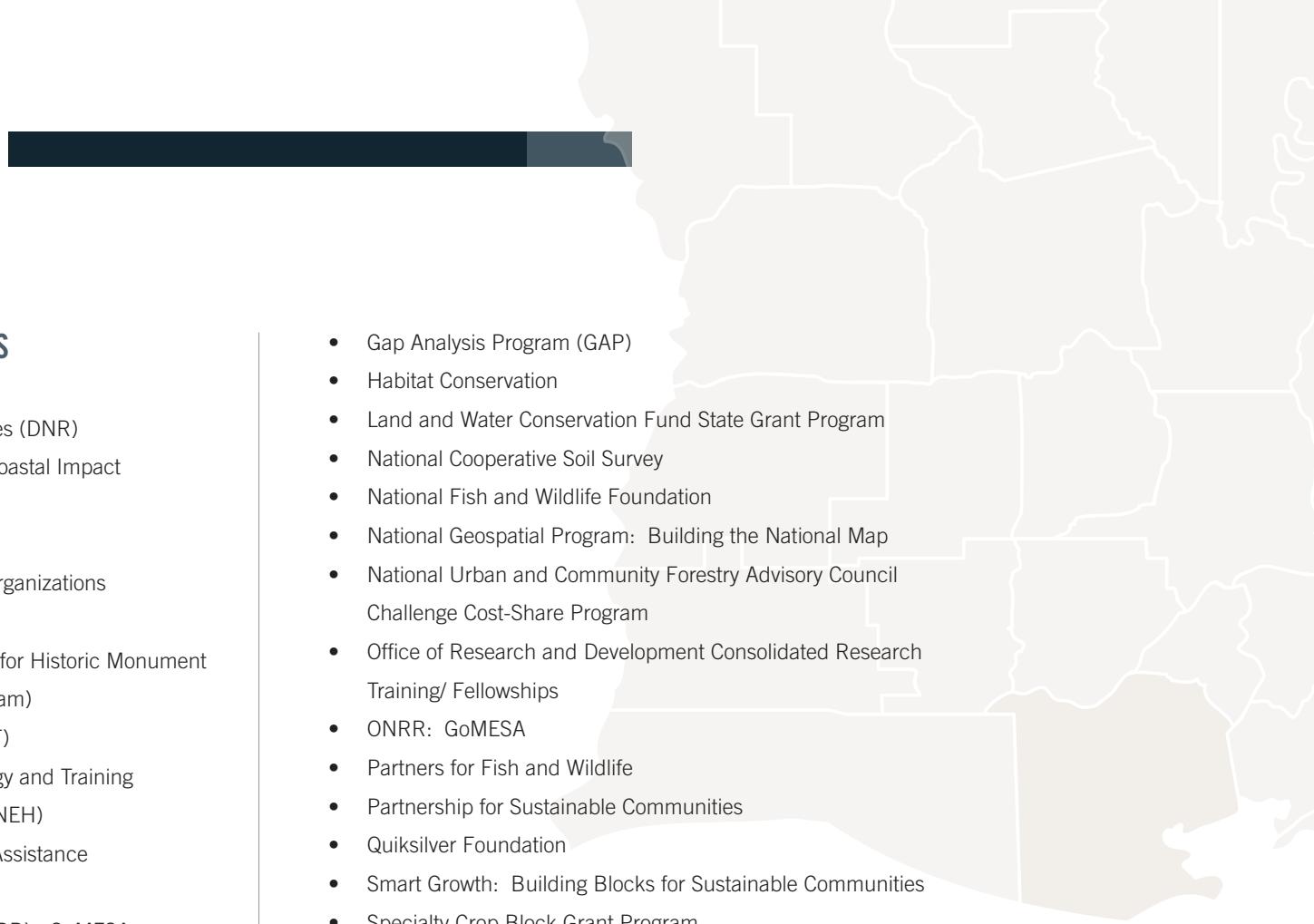
**To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group**



RAINEY DREDGE

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## PROSPECTIVE FUNDING RESOURCES

### General

- Louisiana Department of Natural Resources (DNR)
- U.S. Army Corps of Engineers (USACE), Coastal Impact Assistance Program (CIAP)

### Historic + Cultural Resources

- Conservation Activities by Youth Service Organizations
- Conservation Technical Assistance
- Disposal of Federal Surplus Real Property for Historic Monument Purposes (Historic Surplus Property Program)
- Land and Water Conservation Fund (LWCF)
- National Center for Preservation Technology and Training
- National Endowment for the Humanities (NEH)
- National Heritage Area Federal Financial Assistance
- National Trails System Projects
- Office of Natural Resources Revenue (ONRR): GoMESA
- Visitor Facility Enhancements – Refuges and Wildlife

### Environmental

- Beach Erosion Control Projects
- Conservation Activities by Youth Service Organizations
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Emergency Watershed Protection Program
- Environmental Research and Education Foundation (EREF)
- Extension Service Post-Crisis Education and Assistance
- Flood Mitigation Assistance Program

- Gap Analysis Program (GAP)
- Habitat Conservation
- Land and Water Conservation Fund State Grant Program
- National Cooperative Soil Survey
- National Fish and Wildlife Foundation
- National Geospatial Program: Building the National Map
- National Urban and Community Forestry Advisory Council Challenge Cost-Share Program
- Office of Research and Development Consolidated Research Training/ Fellowships
- ONRR: GoMESA
- Partners for Fish and Wildlife
- Partnership for Sustainable Communities
- Quiksilver Foundation
- Smart Growth: Building Blocks for Sustainable Communities
- Specialty Crop Block Grant Program
- U.S. Geological Survey – Research and Data Collection
- Urban & Community Forestry Grant Program
- Visitor Facility Enhancements – Refuges and Wildlife
- Vulcan Materials Company Foundation
- Water Pollution Control Program Grants (Section 106)



## P+OS Project #2: Preservation of Marshland: Creation of Emergent Terraces

In the mid-1950s continuous dikes were constructed and water was pumped off the marsh, transforming it into **dry pasture land**. As a result of oxidation, the soil elevation has **subsided** one (1) to two (2) feet. Deterioration and loss of the **perimeter levees** in recent years has converted these areas into **shallow, open water lakes** with a **few small marsh islands**, resulting in a **net loss of fisheries habitat**. Hurricane Rita and other storms have **accelerated** this process.

This restoration project, first proposed by the LOUISIANA SPEAKS long-term community recovery (LTCR) Planning Team, proposes to create **earthen, shallow-water emergent terraces**. While the *Louisiana's 2012 Comprehensive Master Plan for a Sustainable Coast* (2012 Coastal Master Plan) does not support **terraces** in the plan, terraces constructed in Little Vermilion Bay along Four-Mile Canal on Vermilion Corporation, Rainey Marsh, Christian Marsh and Coles Bayou marsh have been **successful**.

Terraces will **convert** open water back to vegetated marsh, reduce **marsh erosion, minimize wave fetch** across open water and **create linear** marsh features. Future marsh loss will be **prevented** and **brackish marsh** will be restored, creating more habitat for **fish** and **shellfish** and **areas of open water**, including both private and public lands, will be identified and converted back to natural marsh.

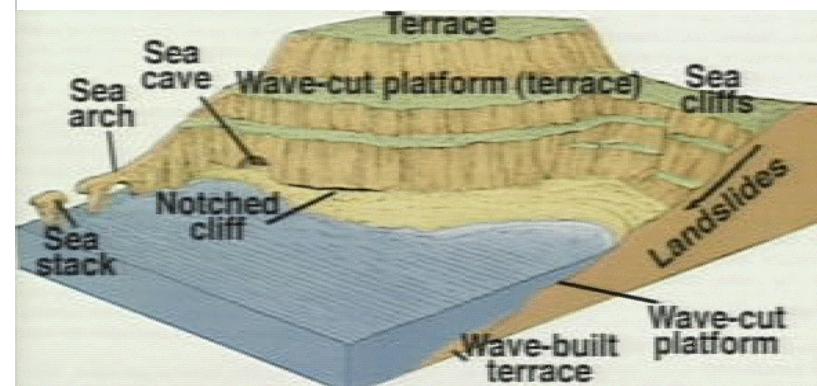
The project calls for constructing **adjacent** terrace cells in a **staggered** gap formation, each bordered by terraces made from dredged material. Terraces would be built and planted with smooth cordgrass (*Spartina alterniflora*), and California bulrush (*Scirpus californicus*). Plantings may also occur on the north side of the terracing area.

This project is included in the *Coastal Wetlands Planning Protection and Restoration Act* Project ME-14. The project will result in **4,000 acres** [**six (6)** square miles] of terraces.

**Engineering** and **design** will be required for specific areas in southern Vermilion Parish. Construction of engineered terraces will be required.

### ESTIMATED COSTS

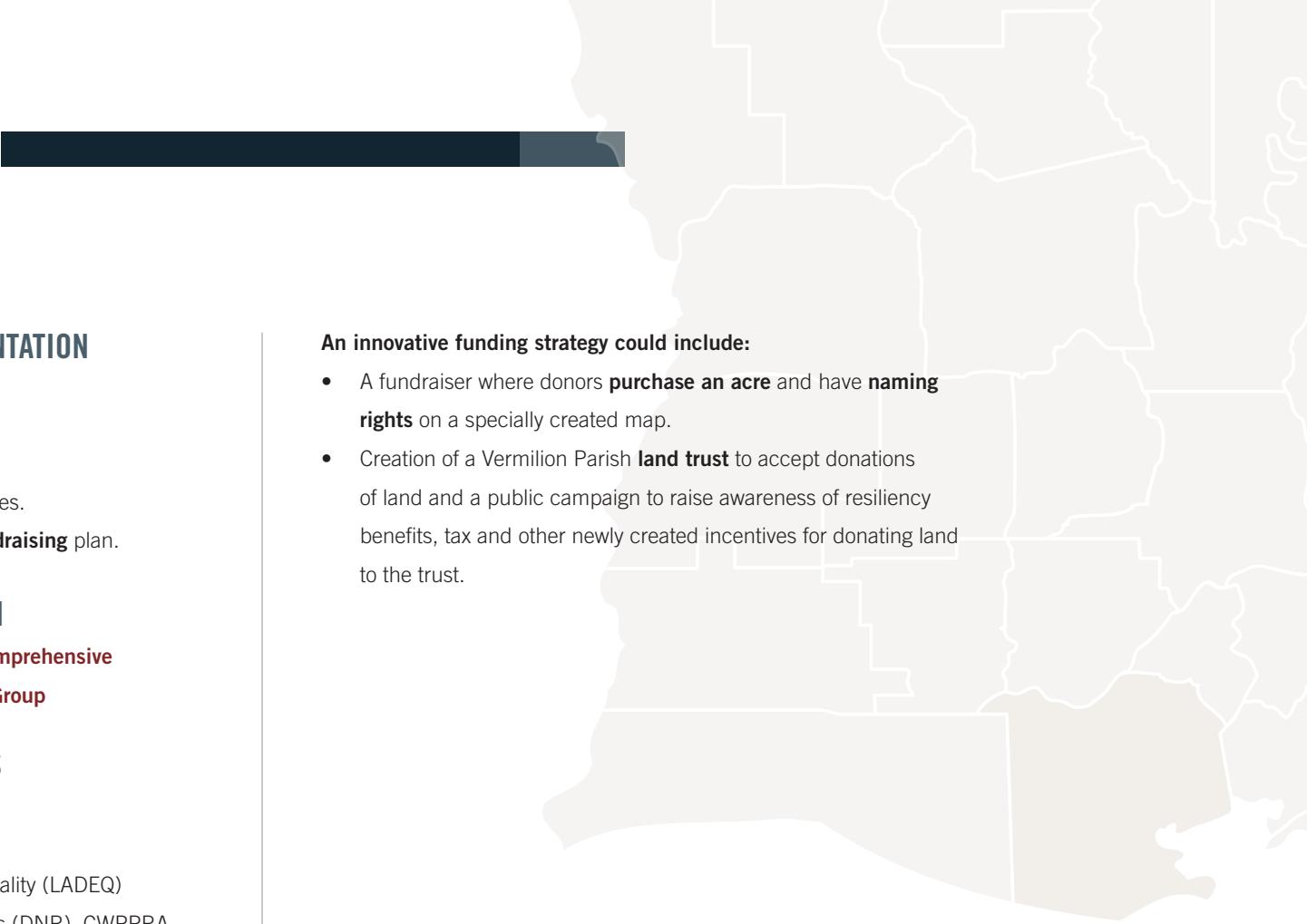
\$4,000,000 – approximately \$1,000 per acre



TERRACE DIAGRAM

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## STRATEGIES TO EXPEDITE IMPLEMENTATION

Combine with other **preservation** plans.

## KEY STEPS

- **Location, design** and **engineering** of terraces.
- Development and implementation of a **fundraising** plan.

## RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group

## PROSPECTIVE FUNDING RESOURCES

- American Wetlands (private nonprofit)
- Ducks Unlimited
- Louisiana Department of Environmental Quality (LADEQ)
- Louisiana Department of Natural Resources (DNR), CWPPRA
- Louisiana Department of Wildlife and Fisheries
- National Oceanic and Atmospheric Administration (NOAA)
- Other nonprofits and private-sector donors
- U.S. Army Corps of Engineers (USAC), CWPPRA, CIAP
- U.S. Fish and Wildlife Service (USFWS)

## An innovative funding strategy could include:

- A fundraiser where donors **purchase an acre** and have **naming rights** on a specially created map.
- Creation of a Vermilion Parish **land trust** to accept donations of land and a public campaign to raise awareness of resiliency benefits, tax and other newly created incentives for donating land to the trust.



### P+OS Project #3: Stabilize Rockefeller Refuge Gulf Shoreline

The **economy** and **culture** of Vermilion Parish depend on the **health** of the Louisiana coast, including vast stretches of land that are owned by and are the **responsibility** of the Federal government. The Rockefeller Refuge is a **prime example**. The residents of coastal Louisiana are **dependent** on activities that tie directly to the coast, such as **fishing, shrimping, ship building, oil and gas exploration and extraction** and other supporting industries. The residents of Vermilion Parish treasure the **wildlife** and **open spaces** provided by a **healthy** coastline. For all these reasons, protection of the coast and preservation of existing wetlands is a **high priority** for the people of the Parish.

Several projects have been constructed on the Rockefeller shoreline where shoreline erosion is critical. The challenging part is **instable soils**. This project, identified by the LOUISIANA SPEAKS long-term community recovery (LTCR) Planning Team in the aftermath of Hurricanes Katrina and Rita, would **entail construction** of a continuous near-shore rock breakwater along the Gulf of Mexico shoreline (approximately **36 miles**). The proposed structure would be tied into the west bank of **Joseph Harbor**, and the east bank of **Beach Prong**. It would be designed to **attenuate** shoreline retreat

along this stretch of Gulf shoreline, as well as promote **shallowing, settling out** and **natural vegetative colonization** of over-wash material landward of the proposed structure. The project would create approximately **920 acres of wetlands** after 20 years. Gaps within the shoreline protection feature are proposed to facilitate **material** and **organism** linkages.

Storm surge and wave action associated with storms such as Hurricane Rita **dramatically accelerate** shoreline retreat in this area, and **destroyed natural ridges** that have historically prevented saltwater intrusion. The project will address **Rockefeller Refuge Gulf shoreline retreat** which averages approximately **39 feet per year** with subsequent direct loss of saline marsh.

This project has **direct impacts** to the deteriorating shoreline of the Rockefeller State Wildlife Refuge and the entire Vermilion Parish shoreline. **Stabilization** of this shore will **protect** the Parish from future storms and **maintain** the traditional fisheries in the region.

#### ESTIMATED COSTS

**\$96,000,000**

#### STRATEGIES TO EXPEDITE IMPLEMENTATION

**Promote** project to Federal representatives who control funding resources.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## KEY STEPS

- Secure Federal **funding**.
- Assignment of **organization** to conduct the study.

## RECOMMENDED PROJECT CHAMPION

- **Rockefeller Wildlife Refuge Staff**
- **Louisiana Department of Natural Resources (DNR)**
- **Louisiana Department of Wildlife and Fisheries**

## PROSPECTIVE FUNDING RESOURCES

### General

- Louisiana Department of Natural Resources (DNR)
- U.S. Department of Agriculture (USDA)



# Parks + Open Spaces (P+OS)

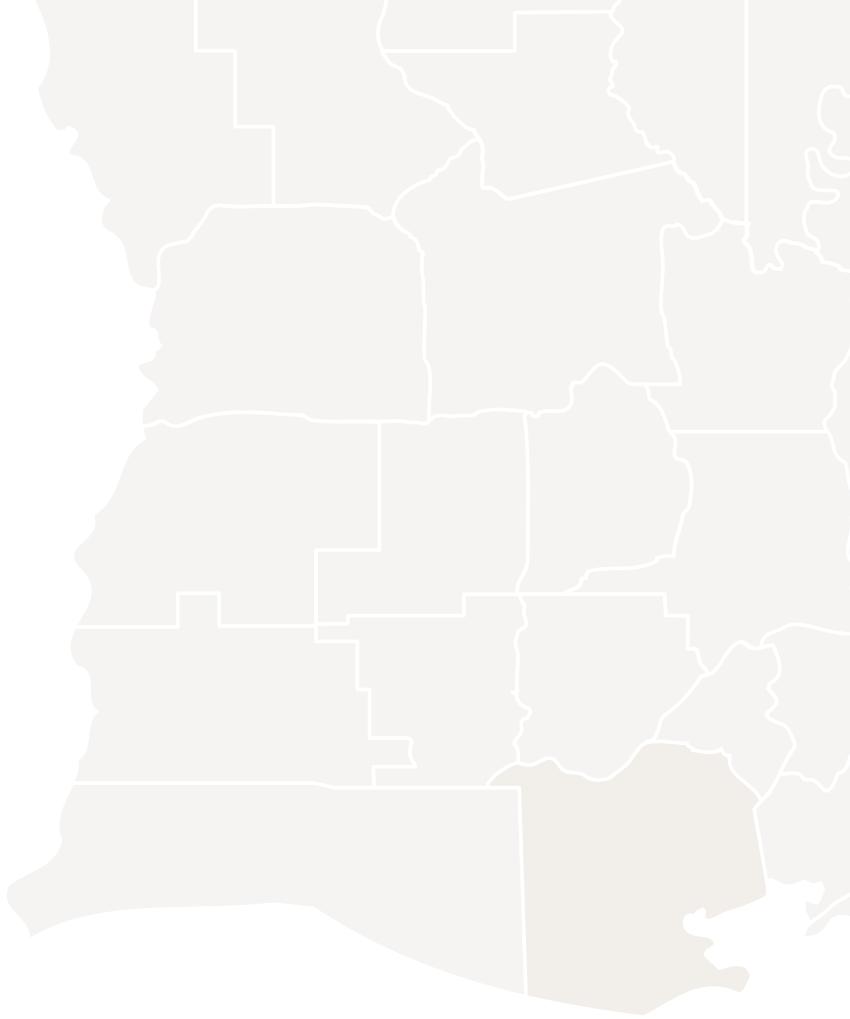
**NEW INITIATIVES: LARGER-SCALE INTERVENTION STRATEGIES**

P+OS Project #4: White Lake Wetlands Conservation Area (WCA) – Birding + Nature Trail

P+OS Project #5: Create an Open-Space Conservation Program

P+OS Project #6: Palmetto Island State Park (PISP) Continued Success + Expansion

P+OS Project #7: Brand the Parish as the Premier Parks + Trails + Fishing Location in the Region



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## New Initiatives

### LARGER-SCALE INTERVENTION STRATEGIES

#### P+OS Project #4: White Lake Wetlands Conservation Area (WCA) – Birding + Nature Trail

The White Lake Wetlands Conservation Area (WCA) Birding and Nature trail allows visitors to view native and migratory birds in their habitat. This project proposes the **acquisition of additional lands** to increase the size of the bird sanctuary. The White Lake shoreline has eroded and shoreline protection is needed.

The White Lake WCA is a **fish and game habitat** and an important eco-tourism attraction, offering individual visits and/or group activities including **nature photography, bird watching, educational field trips and business retreats**. Located **south of Gueydan**, it includes **71,000 acres of wetlands and marsh land**. Boat transportation to and from lodge facilities, accessible **only by water**, is provided. Louisiana Department of Wildlife and Fisheries (LDWF) **biologists** are available upon request for lectures on the **ecosystem** within the conservation area.

Accessed at the south end of Hwy. 91, White Lake WCA includes a **32-acre two- (2-) mile birding and nature trail** on the north side of the property, **south of Gueydan**. The trail is open daily from sunrise to sunset, and there is no fee or permit required for visitors.

White Lake WCA and the surrounding Mermantau River Basin provide abundant habitats for a variety of avian and aquatic species. The property will seasonally have **migrant passerine birds, shorebirds, wading birds, rails, gallinules** and the **common moorhen**. Hawks and owls are also common. Coastal terns and gulls use habitat contained on White Lake at times. Several large **breeding rookeries** are present on the property. Several species were documented for the **first time** on the White Lake WCA during the *2011 Audubon National Christmas Bird Count* survey. Highlights from the 2011 survey included:

- A pair of nesting Great Kiskadees, representing **one (1) of only two (2) or three (3) known breeding pairs** in the State.
- The **second** State record of a Gray Flycatcher.
- The **first** State record of a Prairie Falcon.



BIRDS ON WHITE LAKE

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

Based upon this survey and other sightings, White Lake's list of bird species includes **300 species**. Introducing the **endangered whooping crane** is a boost to the birding enthusiasts.

## ESTIMATED COSTS

\$400,000 (Based on a Rockefeller Pilot Project Design estimate)

## STRATEGY TO EXPEDITE IMPLEMENTATION

- Identify a project **champion**.

## KEY STEPS

- Identify **lands** to acquire.
- Build a **funding pool**.
- Solicit **private-sector** sponsors.
- Seek State and Federal **appropriations**.

## RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group

## PROSPECTIVE FUNDING SOURCES

### General

- Louisiana Department of Natural Resources (DNR)
- U.S. Army Corps of Engineers (USACE), Coastal Impact Assistance Program (CIAP)

### Historic + Cultural Resources

- Conservation Activities by Youth Service Organizations
- Conservation Technical Assistance
- Disposal of Federal Surplus Real Property for Historic Monument Purposes (Historic Surplus Property Program)
- Land and Water Conservation Fund (LWCF)
- National Center for Preservation Technology and Training
- National Endowment for the Humanities (NEH)
- National Heritage Area Federal Financial Assistance
- National Trails System Projects
- Office of Natural Resources Revenue (ONRR): GoMESA
- Visitor Facility Enhancements – Refuges and Wildlife

### Environmental

- Beach Erosion Control Projects
- Conservation Activities by Youth Service Organizations
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Emergency Watershed Protection Program
- Environmental Research and Education Foundation (EREF)
- Extension Service Post-Crisis Education and Assistance
- Flood Mitigation Assistance Program
- Gap Analysis Program (GAP)
- Habitat Conservation
- Land and Water Conservation Fund State Grant Program
- National Cooperative Soil Survey
- National Fish and Wildlife Foundation

- National Geospatial Program: Building the National Map
- National Urban and Community Forestry Advisory Council Challenge Cost-Share Program
- Office of Research and Development Consolidated Research Training/ Fellowships
- ONRR: GoMESA
- Partners for Fish and Wildlife
- Partnership for Sustainable Communities
- Quiksilver Foundation
- Smart Growth: Building Blocks for Sustainable Communities
- Specialty Crop Block Grant Program
- U.S. Geological Survey – Research and Data Collection
- Urban & Community Forestry Grant Program
- Visitor Facility Enhancements – Refuges and Wildlife
- Vulcan Materials Company Foundation
- Water Pollution Control Program Grants (Section 106)



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## P+OS Project #5: Create an Open-Space Conservation Program

Working with local and Statewide stakeholders, the Parish can create an **open-space preservation program** that will enhance existing resources (e.g., White Lake Wetlands Conservation Area) while working to **identify** and **preserve other tracts** of land with a focus on risk-prone areas. An **open-space preservation program** works towards multiple goals, including the preservation of the Parish's **rural character**, maintaining **game** and **fish** habitat, protecting **natural ecosystems**, and **limiting growth** in vulnerable areas. The program could set goals for the **number acres** it hopes to acquire over a specific period of time. The Parish should work to **leverage** their efforts with those of State agencies such as the Louisiana Department of Wildlife and Fisheries (LDWF) and consider working through the Nature Conservancy and/or the Land Trust Alliance to encourage the setting aside of specific land tracks for preservation.

According to the *National Land Trust Census Report*, while significantly behind other southern states, Louisiana shows **strong growth** in land conservation. A recent report by the Land Trust Alliance shows Louisiana has protected **29,773 acres** — a **192%** increase in acres conserved between 2005 – 2010 (most recent data available). Currently there are four (4) land trusts operating in Louisiana.<sup>1</sup>

<sup>1</sup> <http://www.landtrustalliance.org/land-trusts/land-trust-census/state-factsheets/louisiana-fact-sheet>

The Nature Conservancy has protected more than **285,000 acres** in Louisiana, including four (4) public preserves, 11 limited access preserves, and six (6) freshwater, terrestrial and estuarine project areas. Land can be donated to the trust for multiple purposes and donors often receive **tax deductions** for their gift.

### ESTIMATED COST

\$75,000

### STRATEGIES TO EXPEDITE IMPLEMENTATION

Combine with other **conservation** efforts.

### KEY STEPS

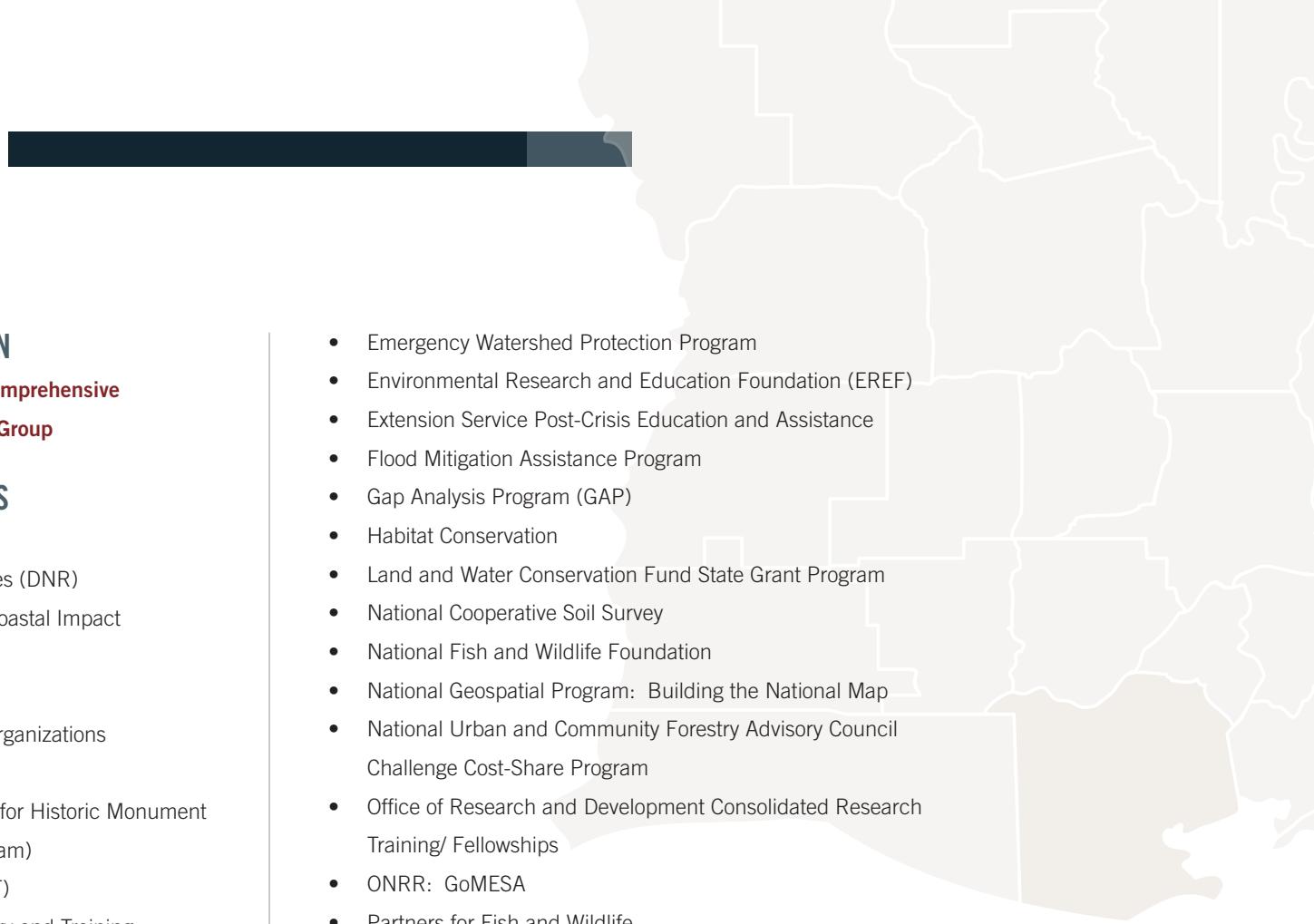
- Design
- Secure land **rights**
- Identify **funding** sources
- Plan/engineer **now**



WHITE LAKE WETLANDS CONSERVATION AREA TRAIL

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group

## PROSPECTIVE FUNDING RESOURCES

### General

- Louisiana Department of Natural Resources (DNR)
- U.S. Army Corps of Engineers (USACE), Coastal Impact Assistance Program (CIAP)

### Historic + Cultural Resources

- Conservation Activities by Youth Service Organizations
- Conservation Technical Assistance
- Disposal of Federal Surplus Real Property for Historic Monument Purposes (Historic Surplus Property Program)
- Land and Water Conservation Fund (LWCF)
- National Center for Preservation Technology and Training
- National Endowment for the Humanities (NEH)
- National Heritage Area Federal Financial Assistance
- National Trails System Projects
- Office of Natural Resources Revenue (ONRR): GoMESA
- Visitor Facility Enhancements – Refuges and Wildlife

### Environmental

- Beach Erosion Control Projects
- Conservation Activities by Youth Service Organizations
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property

- Emergency Watershed Protection Program
- Environmental Research and Education Foundation (EREF)
- Extension Service Post-Crisis Education and Assistance
- Flood Mitigation Assistance Program
- Gap Analysis Program (GAP)
- Habitat Conservation
- Land and Water Conservation Fund State Grant Program
- National Cooperative Soil Survey
- National Fish and Wildlife Foundation
- National Geospatial Program: Building the National Map
- National Urban and Community Forestry Advisory Council Challenge Cost-Share Program
- Office of Research and Development Consolidated Research Training/ Fellowships
- ONRR: GoMESA
- Partners for Fish and Wildlife
- Partnership for Sustainable Communities
- Quiksilver Foundation
- Smart Growth: Building Blocks for Sustainable Communities
- Specialty Crop Block Grant Program
- U.S. Geological Survey – Research and Data Collection
- Urban & Community Forestry Grant Program
- Visitor Facility Enhancements – Refuges and Wildlife
- Vulcan Materials Company Foundation
- Water Pollution Control Program Grants (Section 106)

## PUBLIC PRESERVES

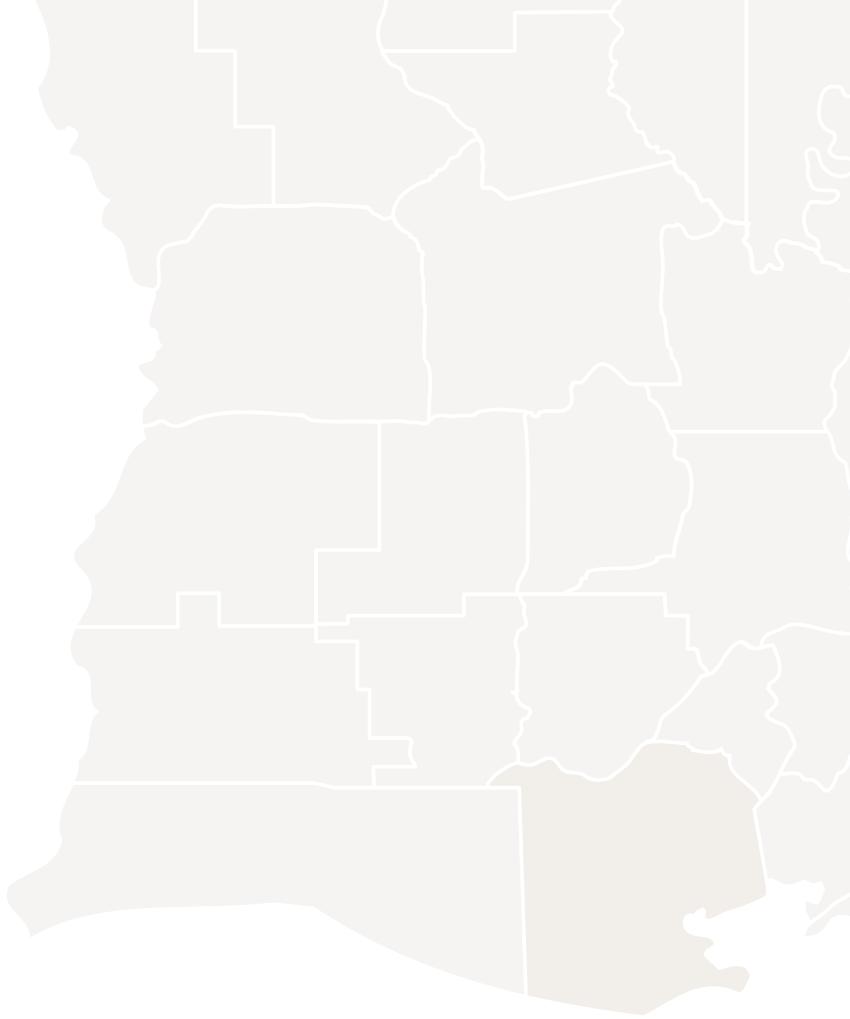
- Abita Creek Flatwoods Preserve
- Cypress Island Preserve
- Grand Isle Preserve
- Lake Ramsay Preserve
- Mary Ann Brown Preserve

## LIMITED ACCESS PRESERVES

- Caddo Black Bayou Preserve
- Bayou Dorcheat Preserve
- CC Road Savanna Preserve
- Copenhagen Hills Preserve
- Persimmon Gully Preserve
- Summerfield Springs Preserve
- Talisheek Pine Wetlands Preserve
- Charter Oak Preserve
- Frederick's Swamp Preserve
- Lake Cocodrie Pushepatapa Preserve
- Schoolhouse Springs Preserve

## FRESHWATER, TERRESTRIAL + ESTUARINE PROJECT AREAS

- Atchafalaya Basin
- **Coastal Prairies**
- Mississippi Delta
- Mollicy Farms
- **Oyster Reef Restoration**
- Pearl River
- Red River



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<sup>8</sup><http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/louisiana/>



## P+OS Project #6: Palmetto Island State Park (PISP) Continued Success + Expansion

Palmetto Island State Park (PISP) is a significant tourist attraction for Vermilion Parish. PISP consists of more than **1,200 acres of cypress swamp and bottomland hardwood forests**. Within its borders it has developed nine (9) **campsites**, 19 **tent sites**, four (4) **primitive backpack sites**, one (1) primitive **group campsite**, six (6) **cabins**, four (4) **picnic pavilions**, a **Nature Center, meeting room facility, splashpad and playground** for children, over two (2) miles of **hiking trails** (with open space for more), **canoes and canoe launch**, and three (3) **interior ponds** connected by water trails leading to the **public boat launch** located on the Vermilion River providing access to the Vermilion Bay and Gulf of Mexico.

The Park is home to **Latanier Cookers**, a local chapter of the **Louisiana Dutch-Oven Society**. Latanier Cookers conduct Dutch-oven gatherings, attracting **130-200 visitors** from throughout Louisiana to the Park and the Parish each month.

The Park is also an important **critical bird habitat** within the North American Flyway. Bird bandings are conducted at PISP **monthly** by the Audubon of Louisiana and its Louisiana Bird Observatory. These bandings provide an opportunity to **collect research data** and **migratory information**. They are educational, interesting and attract **bird watchers** and **photographers** from all parts of Louisiana and beyond.

Additionally, regular **surveys** and **species cataloging** are conducted by the Louisiana Amphibian and Reptile Enthusiasts at the Park. These surveys are open to the public and offer an **up-close, hands-on view** of the creatures that inhabit PISP, encouraging **interest** and **education**.

The Park is the **only public property** where people can view the **Abbeville Red Iris (*iris neslonii*)** in its **native habitat**. The Abbeville Red Iris is the only plant which is **endemic** to Louisiana.



ABBEVILLE RED IRIS



PALMETTO ISLAND STATE PARK TRAIL

Visitor counts have consistently ranked the park in the **top six (6) to eight (8) parks in the State**. The Park consistently attracts **schools** from across Acadiana and regularly **hosts field trips** by both Louisiana State University's (LSU's) AgCenter's Youth Wetland Program and Coastal Roots program.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

Palmetto Island Visitation FY 2013

July	August	September	October	November	December	January	February	March	April	May	June	Grand
9,782	6,100	5,015	5,128	5,072	3,426	3,087	3,564	4,073	6,239	9,822	12,397	73,705
Palmetto Island Revenue FY 2013												
\$35,390	\$24,246	\$28,903	\$20,963	\$22,628	\$20,114	\$30,992	\$107,066	\$20,479	\$26,585	\$28,842	\$39,894	\$406,102

Supporting the **diverse groups** and **organizations** that are directly involved with PISP benefits the Park and contributes to **economic development** and **eco-tourism** of the Parish.

Opening in October of 2010, PISP has had a **positive economic benefit** on the surrounding communities heavily impacted by Hurricanes Rita and Ike. For example, a **local grocery store** has **added a small diner**. Two (2) **small campgrounds** have opened within approximately a **mile** of the park's entrance and often accommodate the **overflow of visitors** to the park or **extended stay patrons**.

Visitation to the Park attracts **funds** that originate from **outside** of the Parish. To reach PISP, visitors must travel through **communities, towns** and **cities** located on the edges of the Parish, providing opportunities for visitors to **purchase goods** along the way to the Park.

State budget constraints allowed for only a small portion of the PISP's **1,200 acres** to be developed in 2010. Funding for currently planned amenity development is in place. A few future facilities included in the Park's *Master Plan* are **additional cabins**, trails and **group facilities**.

To create **consistent, visible community support** and to **protect** the Park from **potential closure**, in 2011 local volunteers formed a **non-profit group** called Friends of Palmetto Island State Park, Inc. (FPISP or Friends). The mission of this group is to **support, enhance** and **promote** the Park. Through **fundraising** and **charitable donations** this group has successfully achieved many enhancements to the park. A few of the top projects include:

- **Expanding** existing trails.
- **Adding** new trails.
- Vegetation **clearing** for four (4) primitive backpack campsites and one (1) primitive group campsite.

Friends of  
Palmetto Island State Park, Inc.

Friends also consistently create and contribute free programs for the Park's patrons in an effort to **educate, entertain** and **encourage** repeat attendance. This group co-hosts the Park's annual Stir the Pot Seafood Cook-off and Festival with the Vermilion Parish Tourist Commission. Friends provides **in-kind donations** to PISP when State budget constraints do not allow for the purchase of necessary items. Their **dedication** and **interest** in the Park is a positive example of how private/public partnerships can **benefit** Vermilion Parish.

Opening access to other portions of Vermilion Parish could provide a further boost to the economy from eco-tourism. The constraint is **access** and **liability**. There is **limited access** to large portions of the Parish and landowners fear **liability claims**.

PISP is an initiative that touches every aspect of resiliency planning and action. The community and its organizations have demonstrated a passion for and treasure the **Park's wildlife** and **open space**. Vermilion Parish citizens have a positive interest in the Park and the diversity, natural resources and cultural connections it offers. As an area of protected land set aside for conservation, it will continue to act as a **natural buffer**. It contributes **jobs**; demonstrates appropriate **land use** practices; represents a **capital improvement**; contributes **economic development** and **diversity**; promotes **eco-tourism**; protects the **natural environment**; continues to be an economic opportunity; and, important for this Plan, lies in an **unincorporated area of the Parish**.

The continued success of the Park is vital to Vermilion Parish resiliency efforts. To ensure the Park's ongoing success, the Friends and Parish must continue to **pursue funding** for its **sustainability** and purchase **fixtures** and **materials** needed for operations. Many **private, public** and **nonprofit funding organizations** would be a good fit for the Park. Elsewhere in this Plan we have suggested the Parish consider a **full time grant writing position**. Seeking funds for the Park would be a **good addition** to those duties.

## ESTIMATED COST

\$75,000 annually

## STRATEGIES TO EXPEDITE IMPLEMENTATION

Reach out to the project **champion**.

## KEY STEPS

- **Expand** upon and **build** new **trails**.
- **Clear** vegetation for **campsites**.

## RECOMMENDED PROJECT CHAMPION

**Friends of Palmetto Island State Park, Inc.**

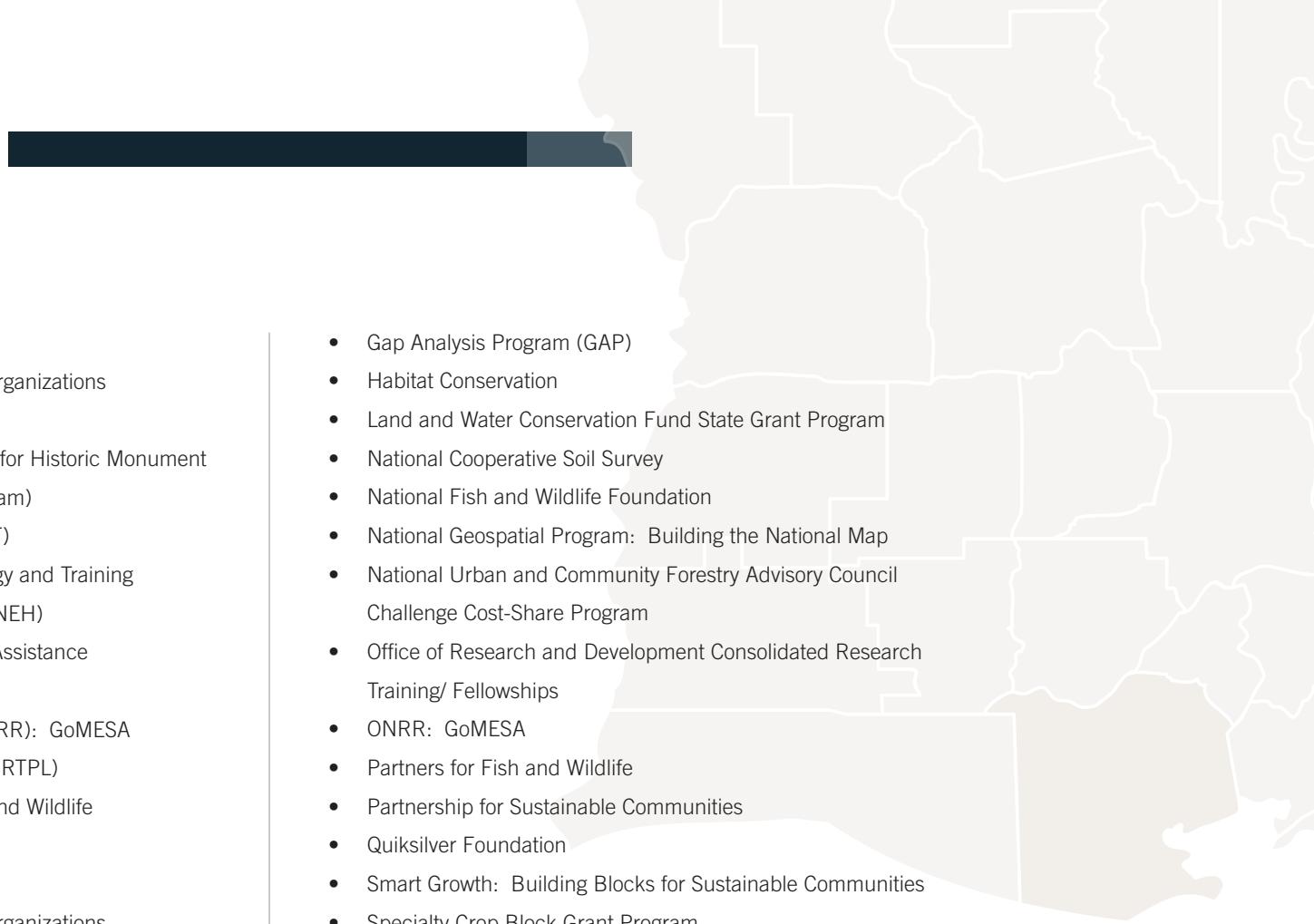
## PROSPECTIVE FUNDING SOURCES

### General

- Louisiana Department of Natural Resources (DNR)
- U.S. Army Corps of Engineers (USACE), Coastal Impact Assistance Program (CIAP)

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## Historic + Cultural Resources

- Conservation Activities by Youth Service Organizations
- Conservation Technical Assistance
- Disposal of Federal Surplus Real Property for Historic Monument Purposes (Historic Surplus Property Program)
- Land and Water Conservation Fund (LWCF)
- National Center for Preservation Technology and Training
- National Endowment for the Humanities (NEH)
- National Heritage Area Federal Financial Assistance
- National Trails System Projects
- Office of Natural Resources Revenue (ONRR): GoMESA
- Recreational Trails Program for Louisiana (RTPL)
- Visitor Facility Enhancements – Refuges and Wildlife

## Environmental

- Beach Erosion Control Projects
- Conservation Activities by Youth Service Organizations
- Conservation Innovation Grants (CIG)
- Conservation Partners: Promoting Farm Bill Conservation Programs to Private Landowners
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Emergency Watershed Protection Program
- Environmental Research and Education Foundation (EREF)
- Extension Service Post-Crisis Education and Assistance
- Flood Mitigation Assistance Program

- Gap Analysis Program (GAP)
- Habitat Conservation
- Land and Water Conservation Fund State Grant Program
- National Cooperative Soil Survey
- National Fish and Wildlife Foundation
- National Geospatial Program: Building the National Map
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- Quiksilver Foundation
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- U.S. Geological Survey – Research and Data Collection
- Urban & Community Forestry Grant Program
- Visitor Facility Enhancements – Refuges and Wildlife
- Vulcan Materials Company Foundation
- Water Pollution Control Program Grants (Section 106)



## P+OS Project #7: Brand the Parish as the Premier Parks + Trails + Fishing Location in the Region

One of the Parish's strongest assets is its **natural beauty**. The Vermilion Parish Tourist Commission uses the motto "*the Most Cajun place on earth!*" Vermilion Parish is home to **Palmetto Island State Park** (PISP) and **White Lake Wetlands Conservation Area**, as well as many fishing, hunting and bird watching locations. Developing **economic opportunities** that are tied to preserving vast areas of the Parish (rather than developing them) serves to provide a natural form of **resiliency**.

This project proposes to work with the Vermilion Parish Tourist Commission to **brand** Vermilion Parish as the premier parks, trails, and fishing location in the State. A **branding strategy** would be created and implemented so that all Parish materials from governing authorities, quasi-governing authorities, nonprofits and local businesses carry and support the brand.

### ESTIMATED COST

\$75,000

## STRATEGIES TO EXPEDITE IMPLEMENTATION

Seek out **champions** to help with the **promotion** efforts, get **residents** involved with the **branding** efforts, as the residents of the Parish are **part** of its brand.

### KEY STEPS

- Design.
- Secure land **rights**.
- Identify **funding** sources.
- Plan/engineer **now**.

## RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group



PALMETTO ISLAND TRAIL

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## PROSPECTIVE FUNDING RESOURCES

### General

- Louisiana Department of Natural Resources (DNR)
- U.S. Army Corps of Engineers (USACE), Coastal Impact Assistance Program (CIAP)

### Historic + Cultural Resources

- Conservation Activities by Youth Service Organizations
- Conservation Technical Assistance
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- Office of Research and Development Consolidated Research Training/ Fellowships
- ONRR: GoMESA
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- Partnership for Sustainable Communities
- Quiksilver Foundation
- Smart Growth: Building Blocks for Sustainable Communities
- Specialty Crop Block Grant Program
- U.S. Geological Survey – Research and Data Collection
- Urban & Community Forestry Grant Program

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- Visitor Facility Enhancements – Refuges and Wildlife
  - Vulcan Materials Company Foundation
  - Water Pollution Control Program Grants (Section 106)

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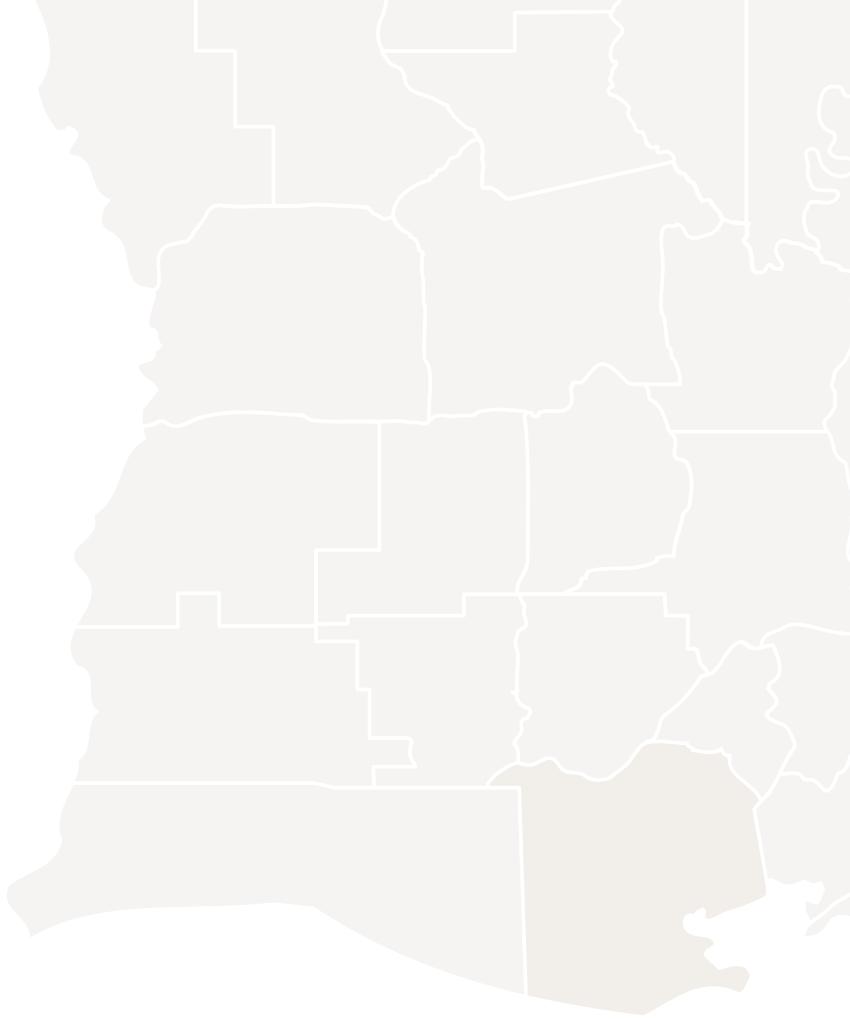


# Health + Human Services (H+HS)

EXISTING PROJECT OF IMPORTANCE

H+HS Project #1: Safe Room for Abbeville General Hospital

Vermilion Parish  
COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



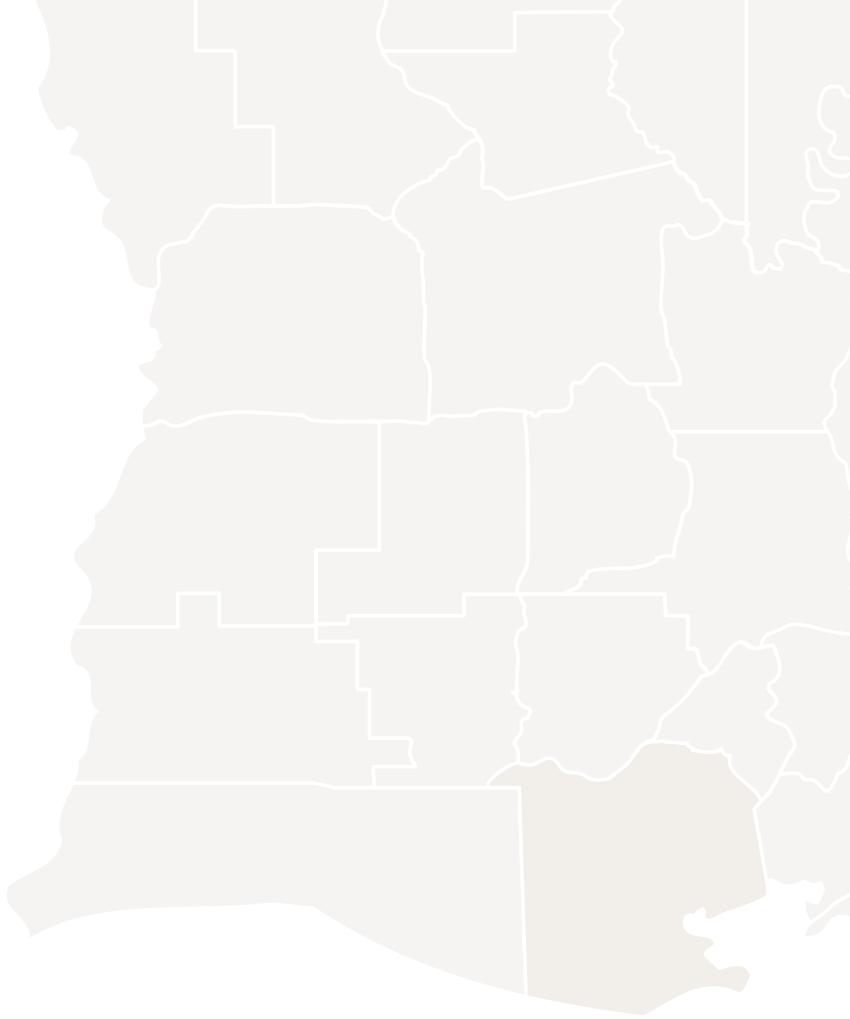
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## Achieving Resilience: Goals + Projects

### GOALS

The health and human services sector is one of the stronger elements of the Parish's resiliency. The goal of this Plan is to **enhance** and **maintain** the sector's contribution to the Parish's overall resiliency. Projects have been identified in support of this goal.



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## Existing Project of Importance

### H+HS Project #1: Safe Room for Abbeville General Hospital

A safe room is a must for **service providers** and **critical patients** during storm events. A safe room will serve Abbeville General Hospital patients. Construction of the safe room **reduces** the need for the often strenuous evacuation of patients during disaster events. While ensuring the continued care of patients in most need, the safe room will also help the hospital provide a full range of services in the immediate aftermath of disaster events.

### ESTIMATED COSTS

To be Determined

### STRATEGIES TO EXPEDITE IMPLEMENTATION

Reach out to **public officials** and project **champions**.

### KEY STEPS

- Design.
- Secure **land rights**.
- Identify **funding** sources.
- Plan/engineer **now**.

### RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group

### PROSPECTIVE FUNDING RESOURCES

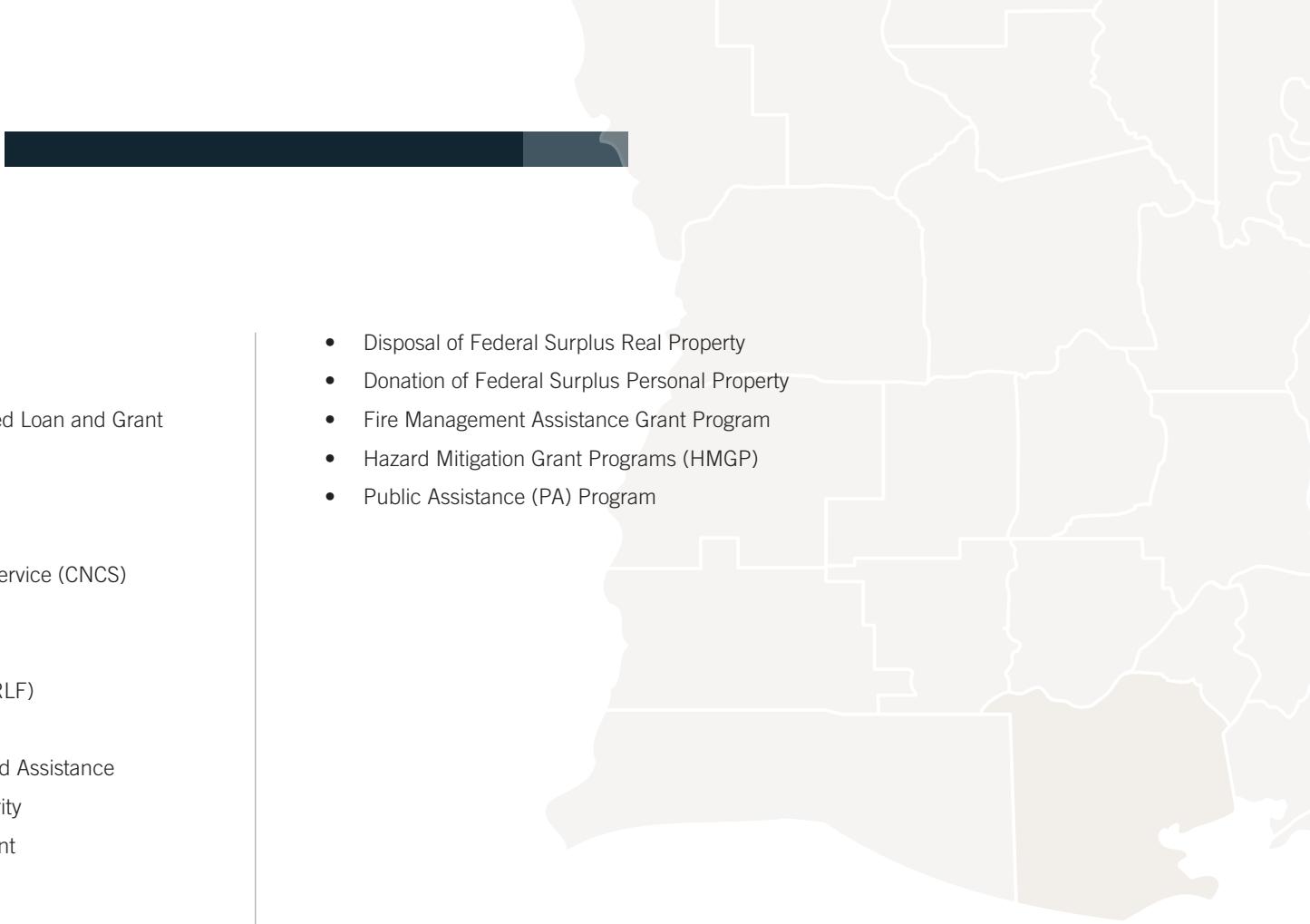
Funding for the construction of the safe room is **in place** through **FEMA's Hazard Mitigation Assistance (HMA)** program. Funding for the **contents** of the safe room – a **critical component** to the success of this project – is not available through the mitigation program so funds will need to be secured.



ABBEVILLE GENERAL HOSPITAL

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## Health

- Allstate Foundation
- Community Facilities Direct and Guaranteed Loan and Grant Programs
- Community Relations Service
- Community Services Block Grant
- Corporation for National and Community Service (CNCS)
- Disease Control and Prevention
- Disposal of Federal Surplus Real Property
- Drinking Water Revolving Loan Fund (DWRLF)
- Economic Adjustment Assistance Program
- Extension Service Post-Crisis Education and Assistance
- Louisiana Community Development Authority
- Louisiana Office of Community Development
- Louisiana Public Facilities Authority
- National Flood Insurance Program
- Quiksilver Foundation
- USDA Food Distribution Programs
- Use of Surplus Property for Public Health and Homeless Purposes

## Public Safety

- Allstate Foundation
- Community Disaster Loan Program
- Community Facilities Direct and Guaranteed Loan and Grant Programs



# Health + Human Services (H+HS)

**NEW INITIATIVES: LARGER-SCALE INTERVENTION STRATEGIES**

**H+HS Project #2:** Form a Vermilion Parish Public-Private Infrastructure Alliance

**H+HS Project #3:** Monitoring of Local Sewage Treatment Facilities

**H+HS Project #4:** Parish Curbside Recycling Program

**H+HS Project #5:** Strengthen Ties to 211/232-HELP Information + Referral Social Service Networks



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## New Initiatives

### LARGER-SCALE INTERVENTION STRATEGIES

#### H+HS Project #2: Form a Vermilion Parish Public- Private Infrastructure Alliance

This project brings together representatives from **public** and **private** entities that control key infrastructure within the Parish to form a *Vermilion Parish Public-Private Infrastructure Alliance*. Members of the Alliance will represent the **utilities** critical to the Parish's ability to function. These members should include representatives from **water** and **wastewater systems**, **industrial waste systems**, **power systems**, **fuel systems**, **telecommunications systems** and **transportation systems**. Key Parish departments – such as **Public Works** and **Emergency Management** – should also participate in the Alliance. The systematic **protection of infrastructure** before a disaster event and the **quick resumption of services** after a disaster are critical to Parish resiliency. Businesses, governments and Parish residents are dependent on the resumption of these services in order to minimize the impact of disaster events.

While forming an Alliance is not without challenges due to the difference in how City and Parish operations are funded, an Alliance nevertheless can be a **key strategy** to building a more resilient Vermilion Parish. The Alliance will work together to develop

coordinated post-event **recovery plans**, identify **interdependencies** between its members and amongst the different systems, assess the **quality** and **condition** of systems, identify **vulnerabilities**, **prioritize** system upgrades and improvements, set goals, and organize **exercises**. Planning, exercising and prioritizing will help local governments and private utility providers quickly restore services vital to the quick recovery of the Parish after an event.

#### ESTIMATED COSTS

To be Determined

#### STRATEGIES TO EXPEDITE IMPLEMENTATION

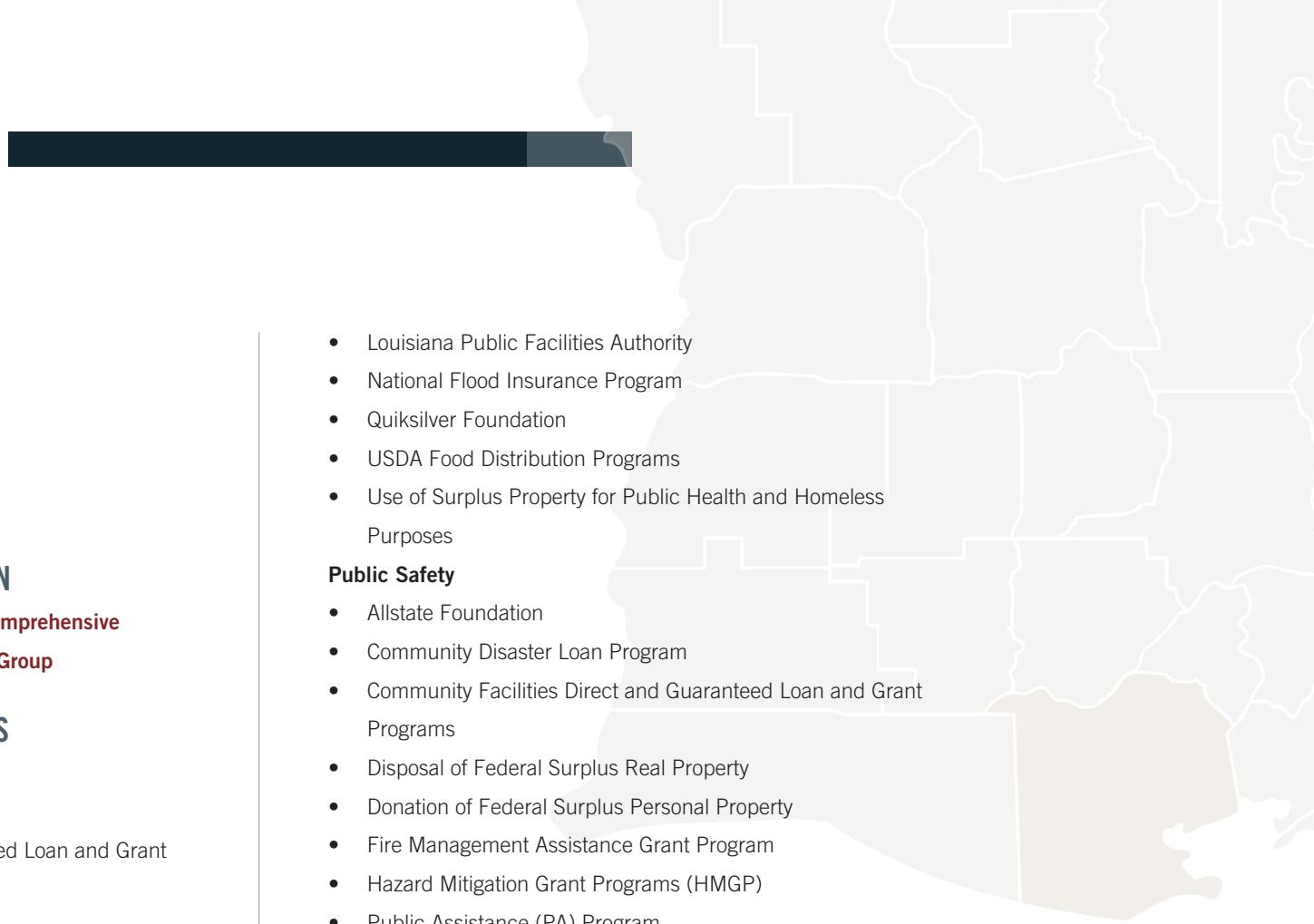
Reach out to **private** companies and **public** agencies to ensure **communication** between the two is **open** and **beneficial** to both parties.



VERMILION PARISH COMPREHENSIVE RESILIENCY PLANNING STAKEHOLDER LEADERSHIP GROUP

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## KEY STEPS

- Design.
- Secure land **rights**.
- Identify **funding** sources.
- Plan/engineer **now**.

## RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group

## PROSPECTIVE FUNDING RESOURCES

### Health

- Allstate Foundation
- Community Facilities Direct and Guaranteed Loan and Grant Programs
- Community Relations Service
- Community Services Block Grant
- Corporation for National and Community Service (CNCS)
- Disease Control and Prevention
- Disposal of Federal Surplus Real Property
- Drinking Water Revolving Loan Fund (DWRLF)
- Economic Adjustment Assistance Program
- Extension Service Post-Crisis Education and Assistance
- Louisiana Community Development Authority
- Louisiana Office of Community Development

- Louisiana Public Facilities Authority
- National Flood Insurance Program
- Quiksilver Foundation
- USDA Food Distribution Programs
- Use of Surplus Property for Public Health and Homeless Purposes

### Public Safety

- Allstate Foundation
- Community Disaster Loan Program
- Community Facilities Direct and Guaranteed Loan and Grant Programs
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Fire Management Assistance Grant Program
- Hazard Mitigation Grant Programs (HMGP)
- Public Assistance (PA) Program



### HHS Project #3: Monitoring of Local Sewage Treatment Facilities

The major portion of the Parish is currently comprised of **individual sewerage systems** (septic tanks). These systems are not always **maintained** and do not always have **follow-up inspections**. Long-term flooding can cause these tanks to **fail** and **leak** polluted water. The Parish needs to work with the Louisiana Department of Health and Hospitals (DHH) Office of Public Health (OPH) to create, maintain and follow a **stronger sewage ordinance**. The growth of new residential developments in the northern part of Vermilion Parish, with **independent sewage treatment facilities** serving an increasing amount of development, may **decrease resilience** in the event of widespread flooding or other disasters.

#### ESTIMATED COSTS

**To be Determined**

#### STRATEGIES TO EXPEDITE IMPLEMENTATION

Combine with **other** plans and seek out **approval** from **public officials**.

#### KEY STEPS

- Design.
- Secure land **rights**.
- Identify **funding** sources.
- Plan/engineer **now**.

#### RECOMMENDED PROJECT CHAMPION

**To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group**

#### PROSPECTIVE FUNDING RESOURCES

##### Health

- Allstate Foundation
- Community Facilities Direct and Guaranteed Loan and Grant Programs
- Community Relations Service



SEWERAGE TREATMENT FACILITY

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
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- Community Services Block Grant
- Corporation for National and Community Service (CNCS)
- Disease Control and Prevention
- Disposal of Federal Surplus Real Property
- Drinking Water Revolving Loan Fund (DWRLF)
- Economic Adjustment Assistance Program
- Extension Service Post-Crisis Education and Assistance
- Louisiana Community Development Authority
- Louisiana Office of Community Development
- Louisiana Public Facilities Authority
- National Flood Insurance Program
- Quiksilver Foundation
- USDA Food Distribution Programs
- Use of Surplus Property for Public Health and Homeless Purposes

## **Public Safety**

- Allstate Foundation
- Community Disaster Loan Program
- Community Facilities Direct and Guaranteed Loan and Grant Programs
- Disposal of Federal Surplus Real Property
- Donation of Federal Surplus Personal Property
- Fire Management Assistance Grant Program
- Hazard Mitigation Grant Programs (HMGP)
- Public Assistance (PA) Program



## H+HS Project #4: Parish Curbside Recycling Program

A Parish recycling program reduces **residential, commercial** and **institutional** waste. Recycling is a benefit to the environment and solid waste facilities. Many communities mandate recycling as a way to **reduce pressures** on landfills and to **reduce impacts** when land fills are overrun by high storm waters. A critical challenge is increasing public interest. A significant opportunity lies in finding ways to develop products from solid waste that recycle back into the environment and the community. For example, solid waste may be turned into fertilizers or used to **generate electrical power**.

The Parish currently has a **recycling drop-off program**.

This project proposes to:

- Develop an **awareness-building campaign** on the benefits of recycling to individuals and businesses, to encourage **increased voluntary participation**.
- Work with the current **garbage disposal program** to determine the **feasibility** of Parish-purchased or private-property-owner-purchased recycling **containers** that accept plastic/paper recycling materials, picked up on **regularly scheduled** days by those currently picking up household garbage.

### ESTIMATED COSTS

**To be Determined**

### STRATEGIES TO EXPEDITE IMPLEMENTATION

Working with other Parishes who have implemented similar programs could expedite program development.

### KEY STEPS

Vermilion Parish Police Jury (VPPJ) create a Working Group to study the issue and hire a contractor to conduct a feasibility study.

### RECOMMENDED PROJECT CHAMPION

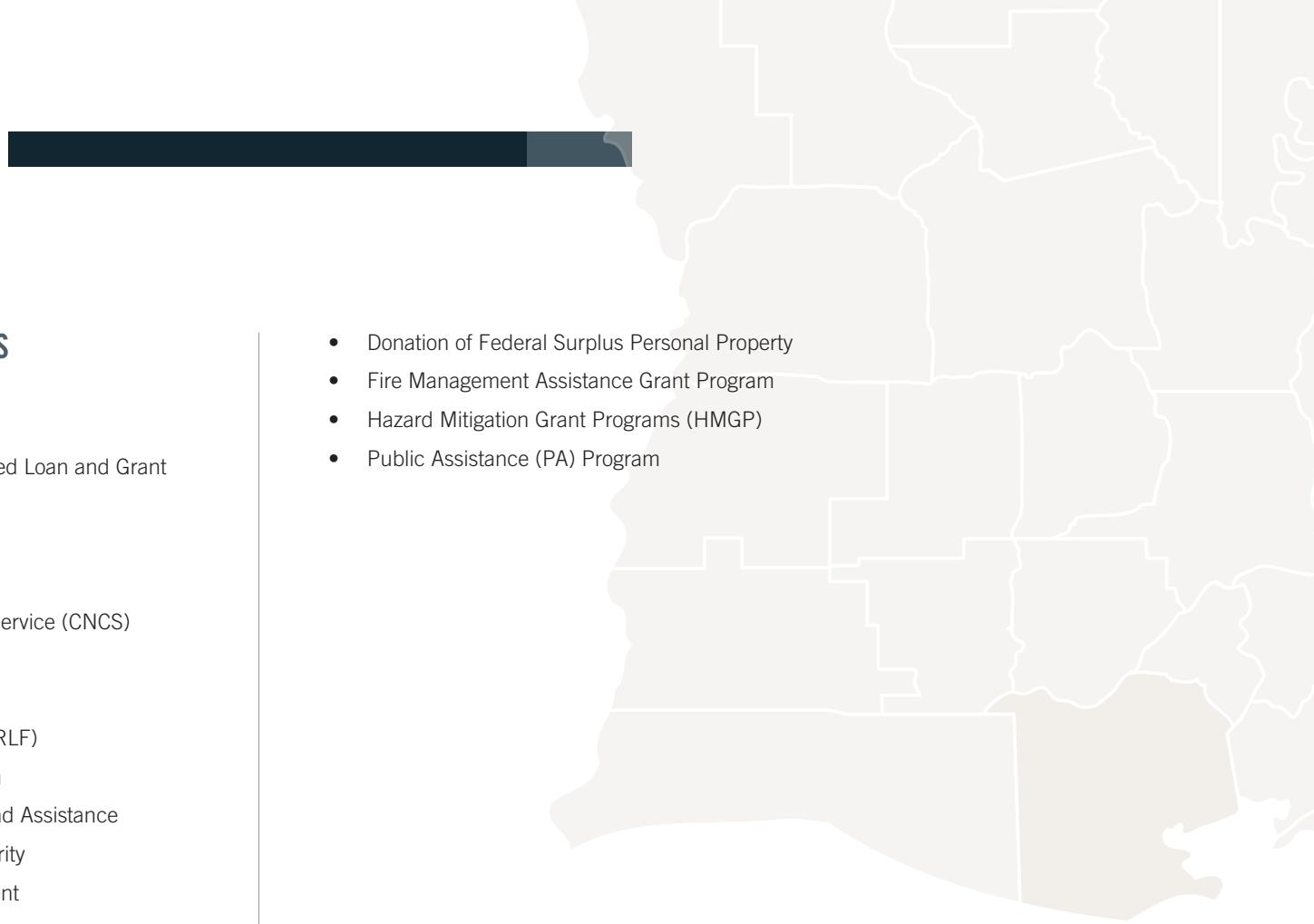
**To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group**



CURBSIDE RECYCLING RECEPTACLES

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish



## PROSPECTIVE FUNDING RESOURCES

### Health

- Allstate Foundation
- Community Facilities Direct and Guaranteed Loan and Grant Programs
- Community Relations Service
- Community Services Block Grant
- Corporation for National and Community Service (CNCS)
- Disease Control and Prevention
- Disposal of Federal Surplus Real Property
- Drinking Water Revolving Loan Fund (DWRLF)
- Economic Adjustment Assistance Program
- Extension Service Post-Crisis Education and Assistance
- Louisiana Community Development Authority
- Louisiana Office of Community Development
- Louisiana Public Facilities Authority
- National Flood Insurance Program
- Quiksilver Foundation
- USDA Food Distribution Programs
- Use of Surplus Property for Public Health and Homeless Purposes

### Public Safety

- Allstate Foundation
- Community Disaster Loan Program
- Community Facilities Direct and Guaranteed Loan and Grant Programs
- Disposal of Federal Surplus Real Property

- Donation of Federal Surplus Personal Property
- Fire Management Assistance Grant Program
- Hazard Mitigation Grant Programs (HMGP)
- Public Assistance (PA) Program



## H+HS Project #5: Strengthen Ties to 211/232-HELP Information + Referral Social Service Networks



Vermilion Parish is a part of the 10-Parish area supported by 211/232-HELP. Much like 911 is the Nation's three- (3-) digit calling code for emergencies and 411 is the Nation's three- (3-) digit code for locating residential and business phone numbers and addresses, 211 is the Nation's **dedicated information and referral network calling number** connecting people in need with **local support** and **social services**. The 211 calling designation license is held by 232-HELP out of Lafayette and is one of four (4) 211 calling centers in the State.

Working in partnership with **United Way**, 211/232-HELP is operational in a **disaster or emergency**, handling donations, volunteers and mobilizing a **coordinated social service response** to a disaster or emergency. 211/232-HELP plays a unique and significant role in returning community residents and families back to normal functioning after a disaster, enhancing the Parish's resiliency.

Funding for 211/232-HELP comes through a variety of sources – **grants** from United Way of Acadiana, a portion of which is Federal funding that flows through Louisiana Association of United Ways (LAUW); funding from some of the various governing authorities within the seven- (7-) Parish service area; and **donations**.

To ensure a **robust presence** in Vermilion Parish during “peace” time and during times of disaster or emergency, this Plan suggests that Vermilion Parish become more active in 211/232-HELP, its fundraising efforts and ensure it has a revenue and volunteer stream from Vermilion Parish. The **stronger** the 211/232-HELP **social service network** is, the **faster** the community **bounces back** after disaster.

### ESTIMATED COSTS

A way to determine an **appropriate level** of financial participation in 211/232-HELP is to develop a **percentage formula** based on population comparisons of each Parish in the service area.

### STRATEGIES TO EXPEDITE IMPLEMENTATION

- Visit with 211/232-HELP executive leadership to discuss participation.

### RECOMMENDED PROJECT CHAMPION

**To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group**

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
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## PROSPECTIVE FUNDING SOURCES

- Civic group donations.
- Line item appropriation in the Vermilion Parish Police Jury (VPPJ) budget and that of each municipality in the Parish.
- Private donations.



# Historic + Cultural Preservation (H+CP)

NEW INITIATIVES: **LARGER-SCALE INTERVENTION STRATEGIES**

H+CP Project #1: Create a Community Coalition to  
Foster Resiliency

Vermilion Parish  
COMPREHENSIVE RESILIENCY PLAN  
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## Achieving Resilience: Goals + Projects

### GOALS

As described elsewhere in this *Plan*, historic and cultural preservation is a **critical component** of community resiliency. Culture and history are **defining characteristics** of Vermilion Parish. They are important parts of the Parish's way of life and local economy.

Projects have been identified for this section; several strategies have also emerged.

### STRATEGY #1

The Parish should consider **adopting a policy** that encourages and supports the preservation of local history and cultural institutions, seeking to **avoid investments** that negatively impact those institutions. Developing a **checklist to permit applications** to indicate project impacts on historical and cultural assets could be a first step in ensuring that cultural and historical issues are **front and center** during project design and before permits are issued. If a zoning ordinance becomes a reality, **allowable** and **disallowed activities** with regard to historical and cultural assets could be included in ordinance content.

### STRATEGY #2

Inventory all historic and cultural assets in the Parish, both in the unincorporated areas and municipalities, identifying those that are most vulnerable. Those that qualify for placement on the **Historic Register** should be placed. Those that do not should be identified as a **local cultural asset** that needs protection. This ensures top-of-mind awareness for protection and preservation, especially during rebuilding and reconstruction efforts after a disaster.

These structures should also be examined for **hardening** and **mitigation initiatives** that can make them **more resilient** to future disasters, and ensure protective measures are available (e.g., sand bags) when a disaster is pending. Where possible, Hazard Mitigation Assistance (HMA) grants should be secured to implement those initiatives.

Properties should also be evaluated with regard to **insurance coverage**. Is appropriate insurance in place? Are amounts sufficient?

### STRATEGY #3

The Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group, working with the Vermilion Parish Tourist Commission should develop **promotional strategies** for recreational sites, also key resiliency properties, to provide robust revenue streams to ensure their **operating capacity** and ongoing maintenance with a priority for maintenance activities that **increase resiliency**.

# Vermilion Parish

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## STRATEGY #4

Historic structures should be **prioritized** for **elevation** and **other intervention** and **mitigation** measures to make them stronger and more resilient.

## STRATEGY #5

Identify **unique cultural assets** that are of interest to tourists (families, eco-tourists and other specialty interest groups). Promote eco-tourism attractions throughout the Parish as well as those that offer sitings of **critical habitat areas, species** and unique **wildlife** to the area (where are the alligators?), etc.

## STRATEGY #6

Working with the Louisiana Office of Culture Recreation and Tourism (CRT) and local businesses, help local assets with **promotion opportunities**.

The following projects are also recommended to improve resiliency of historic and cultural assets.



HISTORICAL PERRY



## New Initiatives

### LARGER-SCALE INTERVENTION STRATEGY

#### H+CP Project #1: Create a Community Coalition to Foster Resiliency

This project proposes the creation of a **local coalition** focused on the resiliency of Vermilion Parish. The coalition would **continue the efforts of this planning effort** through the ongoing engagement of the entire Parish and could be an ongoing initiative of the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group.

Work of the coalition is envisioned to include participation from local **media outlets** to heighten awareness of and advocate for parish-wide resiliency measures, focusing on **continued communication** and **public education** regarding Parish resiliency.

Communication, education and public awareness are key measures to promote resilient communities because they help to create communities that **know the hazards they face**, how to **protect themselves** and their **property**, and foster the **social connections** that help the community recover when disaster strikes. The National Academy of Sciences finds that “*communication and public education may be most crucial at the local level, where*

*they strengthen social ties and capabilities, and where **local knowledge** and **trusted relationships** can amplify the power of communications.”<sup>1</sup>*

The coalition activities could include:

- **Quarterly updates** through the media of key resiliency projects in development or currently being implemented throughout the Parish.
- Use of **social media** to increase awareness.
- Maintaining and ongoing **promotion of the website** so that the most **current** and **relevant** information is available to Parish residents and businesses.
- Build **awareness** of available resiliency grants and how to pursue them.
- And more.

Similar to community beautification efforts, an **annual award** could be made to recognize individuals, businesses, construction professionals and others for innovation in resiliency. An awards banquet could feature a speaker on resiliency. Hosted in partnership with the University of Louisiana at Lafayette (ULL) design and architectural school, an award for **innovation in resiliency design** could be a part of the program. Similar to science fairs, the coalition could promote **student competitions** for resiliency projects. A

<sup>1</sup> The National Academy of Sciences.

# Vermilion Parish

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project we like is taking the GOHSEP-produced hazard mitigation **board game** mentioned earlier in this *Plan*, printing board sets and distributing through the Vermilion Parish school system.

## ESTIMATED COSTS

\$25,000 Annually

## STRATEGIES TO EXPEDITE IMPLEMENTATION

Raise public **awareness** and gain **approval** of this project.

## KEY STEPS

- Convene the **coalition**.

## RECOMMENDED PROJECT CHAMPION

To Be Determined by the Vermilion Parish Comprehensive Resiliency Planning Stakeholder Leadership Group

## PROSPECTIVE FUNDING RESOURCES

### General

- Coastal Resilience Networks Department of Commerce

### Historic + Cultural Resources

- Conservation Activities by Youth Service Organizations
- Conservation Technical Assistance
- Disposal of Federal Surplus Real Property
- Disposal of Federal Surplus Real Property for Historic Monument Purposes (Historic Surplus Property Program)

- Land and Water Conservation Fund (LWCF)
- National Center for Preservation Technology and Training
- National Endowment for the Humanities (NEH)
- National Heritage Area Federal Financial Assistance
- National Trails System Projects
- ONRR: GoMESA
- Visitor Facility Enhancements – Refuges and Wildlife



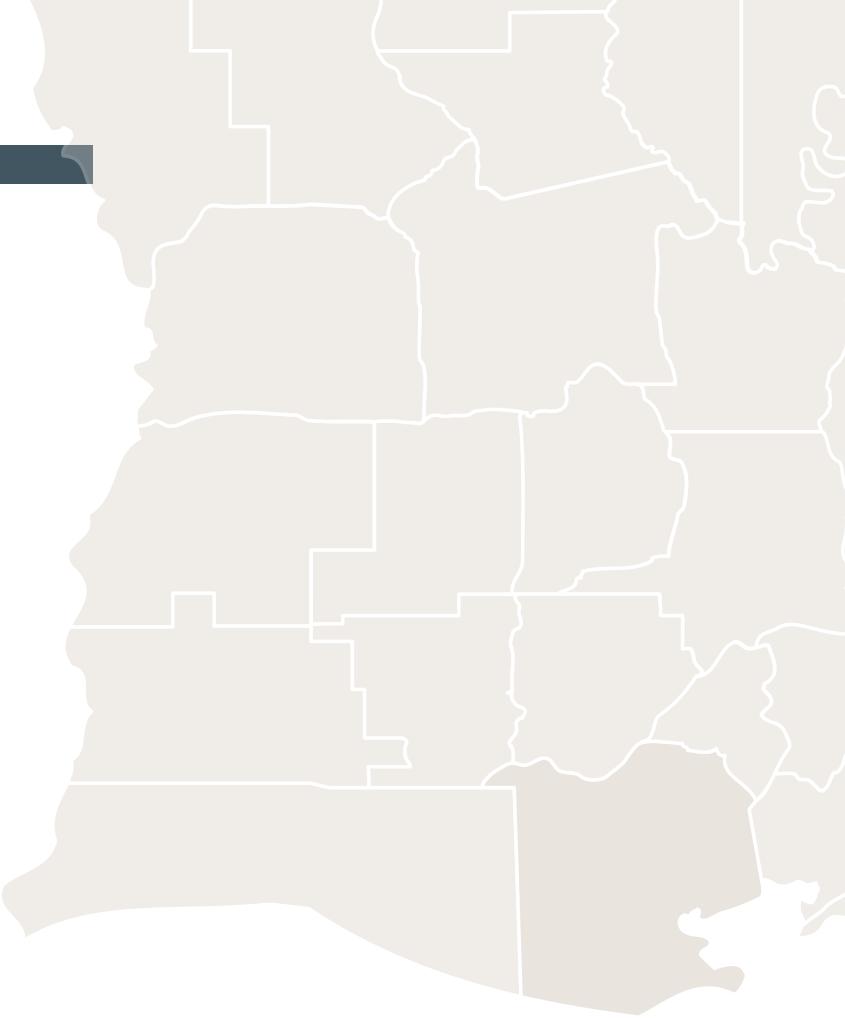
# 4 | Achieving Resiliency

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COMPREHENSIVE RESILIENCY PLAN

# Vermilion Parish

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# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
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## 4.1

## INTRODUCTION

Vermilion Parish can do many things to become more resilient, and it has completed many projects to increase its resiliency, including **shoreline protection measures, marsh creation, levee repair, elevated homes, improved roads** and **improved drainage** to name just a few.

### Setting Priorities

Every strategy and project in this Plan is important, valid and should be considered. However, the challenge is setting **priorities**. As one of the Leadership Stakeholder Committee member said,

*"We must consider the **ultimate source** of the problem – the Gulf of Mexico. As much as it contributes to our economy, it is a contributor to our ongoing risks. The loss of wetlands and coastal erosion creates loss of protection. To minimize the need for other resiliency measures we must focus on this **cause and effect relationship**."*

– Sherrill Sagrera

Priorities are translated into funding streams. Consensus is achieved when **self-interests** and often times **political concerns** are set aside in the interest of the **greater good**. Vermilion Parish has a rich history in being on the **cutting edge**, doing the **innovative**, the **right thing** and **balancing** the needs of a few against the needs of many.

For the past 23 years, Vermilion Parish has championed for coastal restoration and protection and have had some success in getting **\$60 million** in Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) funding, **\$8 to \$10 million** in Local and Coastal Impact Assistance Program (CIAP) funds, National Oceanic and Atmospheric Administration (NOAA) community-based funds, vegetative planting funds and nongovernmental organization (NGO) funds. That is an impressive track record. This has been achieved by the support of a modest number of "**champions**". Today, it is time to amp up support for the champions that have brought previous success and **expand the base of champions** to more fully represent the Parish as a whole.

# Vermilion Parish

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## Implementing Strategies + Projects

Implementation requires **four (4)** things:

- **Political will + community support.**
- **A project champion.**
- **Funding resources.**
- **Full-time grant writer.**

A plan is of little value without a means of putting that plan into place. **Change is hard.** People are often unsure. Comfort is in the known, rather than the unknown. However, change is **necessary** and in the case of improving resiliency is **absolutely essential** for the Parish's long-term survival. Changes sometimes are **controversial**. Because this is a plan that requires Police Jury support, it will not succeed without the support of those elected to a) **accept it** (by ordinance) and b) **implement it**. Further, it will take **political consensus** – speaking with a single voice – and a **relentless advocacy** to elected State and Federal leadership to become funding partners in those projects that are beyond the means of the Parish to implement on its own.

Champions are the project's **parent, custodian, coach** and **critic**. They help elected leadership **focus on priorities** – the “**squeaky wheel**”, demanding attention and action on projects that improve the Parish. Champions are charged with understanding that resiliency planning and projects are **legacy activities** – the payoff comes years later, to be

enjoyed by our children and grandchildren, and **entrusted** with their care, recognizing the value to the community and stakeholders the project **serves**. Champions personify the **will of the people**.

When it comes to the scope, many projects necessary to **build resiliency** in areas as large as Vermilion Parish have **price tags** that go well beyond any local resources. However, the good news is there are multiple prospective funding sources – public, private and nonprofit – that if **aggressively pursued** can help your projects come to life. Today, the planning team has combed through more than 1,100 resources, identifying possible funding resources who have a stated interest in the types of projects recommended in this Plan.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
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## 4.2

## PROJECT TABLE

FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Coastal Restoration + Flood Protection (CR+FP)</b>	<b>IBERIA/VERMILION UPLAND LEVEE</b>	<ul style="list-style-type: none"> <li>Offer flood protection for the northern parts of the Parish</li> <li>Construct a levee to an elevation of <b>21.5 feet</b> NAVD88 along the marsh/upland interface in <b>Iberia</b> and <b>Vermilion</b> Parishes between Bayou Carlin and the Warren Canal.</li> <li>Include: <ul style="list-style-type: none"> <li>Approximately <b>218,000 feet</b> of <b>earthen</b> levee.</li> <li><b>8,000 feet</b> of <b>concrete</b> T-wall.</li> <li>Three <b>110-foot barge gates</b>.</li> <li>Two <b>220-foot barge gates</b>.</li> </ul> </li> </ul>	<b>\$1,375,580,000</b>	To Be Determined
	<b>INTRODUCTION OF FRESHWATER TO THE MERMENTAU BASIN FROM THE NORTH + EAST</b>	<ul style="list-style-type: none"> <li>Institute <b>additional</b> measures to supply freshwater from the <b>north</b> and <b>east</b> of the Basin.</li> <li><b>Support</b> continuing and increasing freshwater <b>flow</b> into the Vermilion River from the Atchafalaya.</li> <li><b>Retain</b> freshwater and <b>prevent</b> brackish/salty water from entering from the north by <ul style="list-style-type: none"> <li>Restoring the integrity of the freshwater basin will be required to repair gaps.</li> </ul> </li> <li><b>Develop</b> a method of conveying freshwater from the Atchafalaya to the west through the Intracoastal Canal.</li> <li>The Weeks Bay area in Iberia Parish has several connections to the <b>Intracoastal Canal</b> that provide a direct path for the freshwater from the Atchafalaya to exit the Intracoastal and enter the Bay. <ul style="list-style-type: none"> <li>If these gaps can be plugged, the transfer of additional freshwater to the west will <b>naturally</b> occur in the Intracoastal Canal, when the Atchafalaya is at higher stages.</li> </ul> </li> </ul>	<b>\$250,000 for feasibility study</b>	To Be Determined

# Vermilion Parish

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FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Coastal Restoration + Flood Protection (CR+FP)</b>	GULF SHORELINE PROTECTION	<ul style="list-style-type: none"> <li>Protect the approximately <b>90,000 feet</b> of Gulf shoreline from <b>Freshwater Bayou</b> to <b>Southwest Pass</b> (near Marsh Island) through <b>wave energy dissipation</b> techniques.</li> <li>Preserve shoreline integrity and reduce wetland degradation from wave erosion.</li> </ul>	\$98,759,000	To Be Determined
	STABILIZE FRESHWATER BAYOU BANK	<ul style="list-style-type: none"> <li><b>Restore interior marshes</b> along Freshwater Bayou, a key element in the <b>resiliency</b> of the Parish and <b>critical</b> to preserving the marshes along the bayou.</li> <li><b>Stabilize</b> the remaining 40 percent of the channel banks, critical to preserving the marshes along the bayou.</li> </ul>		To Be Determined
	OYSTER REEFS IN VERMILION BAY	<ul style="list-style-type: none"> <li><b>Restore/establish</b> oyster reefs along the perimeter of <b>Vermilion Bay</b> to:           <ul style="list-style-type: none"> <li><b>Provide</b> shoreline <b>protection</b>.</li> <li><b>Improve</b> the <b>habitat</b> in the area.</li> <li>Help <b>reduce</b> wave <b>energy</b> thereby reducing wave erosion of the delicate and diminishing <b>shoreline</b>.</li> </ul> </li> <li>Provide substantial <b>benefit</b> to the <b>shoreline</b> as well as the interior <b>marshes protected</b> by this shoreline.</li> </ul>	\$20,000,000	To Be Determined
	LOW SILL/ROCK DIKE STRUCTURE IN SOUTHWEST PASS	<ul style="list-style-type: none"> <li><b>Construct</b> a low sill rock <b>structure</b> at the <b>bottom</b> of Southwest Pass</li> <li><b>Construct</b> rock <b>dikes</b> on each <b>side</b> of the pass to <b>reduce</b> the cross section of this <b>deep</b> and <b>wide</b> pass.</li> <li><b>Decrease</b> the <b>tidal</b> and <b>salinity</b> exchange in <b>Vermilion Bay</b> resulting in <b>lower</b> salinity levels and less marsh <b>degradation</b> around the Bay perimeter.</li> </ul>	\$20,000,000	To Be Determined
	TREE + MARSH GRASS PLANTINGS	<ul style="list-style-type: none"> <li>Perform small-scale interventions:           <ul style="list-style-type: none"> <li><b>Plant</b> <b>oak trees</b> on cheniers</li> <li><b>Plant</b> <b>marsh grass</b> through LSU Ag Center.</li> </ul> </li> <li>Have an <b>increasing public-private partnership</b> in which businesses join with volunteer groups to affect change which lends to:           <ul style="list-style-type: none"> <li><b>Youth participation</b>.</li> <li>A community education tool on the importance of marsh and wetlands.</li> <li>Teaching individuals that their <b>actions</b> matter.</li> </ul> </li> </ul>		To Be Determined

## ACHIEVING RESILIENCY



FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
Coastal Restoration + Flood Protection (CR+FP)	EXECUTE NOW SMALL-SCALE MEASURES TO CONSERVE + RESTORE WETLANDS	<ul style="list-style-type: none"> <li>Repair and restore <b>Coastal wetlands</b> to advance resilience.           <ul style="list-style-type: none"> <li>They are important to the region's economy and culture</li> <li>They provide an important line of defense against hurricanes.</li> <li>They <b>minimize land loss</b> and <b>soil erosion</b>, which is of great concern to the Parish.</li> </ul> </li> <li><b>Support smaller-scale measures</b> that promote the conservation and restoration of coastal wetlands.</li> <li>Implement measures with the help of local volunteers, thereby helping to <b>educate</b> and <b>create awareness</b> of coastal wetland issues and their link to Parish resiliency.</li> <li>Replicate existing small-scale programs like:           <ul style="list-style-type: none"> <li><b>Floating islands.</b></li> <li><b>Man-made oyster reefs.</b></li> <li>Wave-energy dissipation techniques.</li> <li>The planting of <b>cypress trees</b> and <b>other vegetation</b>.</li> </ul> </li> </ul>	\$100,000 annual cost estimate	To Be Determined
	PARTICIPATE IN THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) COMMUNITY RATING SYSTEM (CRS)	<ul style="list-style-type: none"> <li>Help <b>reduce flood insurance rates</b> by Participating in the Community Rating System (CRS).           <ul style="list-style-type: none"> <li>According to its website, the CRS is "a <b>voluntary</b> incentive program that recognizes and encourages community floodplain management activities that <b>exceed</b> the minimum NFIP requirements," resulting in <b>discounted</b> flood insurance premium rates.</li> </ul> </li> <li><b>Score points</b> for a wide array of measures, including:           <ul style="list-style-type: none"> <li>Enhanced <b>mapping</b> and <b>regulatory standards</b>.</li> <li>Access to <b>public information</b>.</li> <li><b>Flood damage reduction</b>.</li> <li><b>Flood preparedness</b>.</li> </ul> </li> <li>Engage in <b>additional mitigation activities</b>, so residents can become eligible for <b>increased NFIP policy premium discounts</b>.           <ul style="list-style-type: none"> <li>Communities need to score <b>more than 500</b> points to get the smallest discount of five (5) percent.</li> </ul> </li> </ul>	\$0 for submittal of application	To Be Determined

# Vermilion Parish

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FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
	FLOOD CONTROL STRUCTURE + LEVEE SEGMENT IN BAYOU TIGRE	<ul style="list-style-type: none"> <li>Develop a means of <b>reducing storm surges</b> to low-lying areas in eastern Vermilion Parish.</li> <li>Have both Iberia Parish and Vermilion Parish work together to provide <b>systems that function together</b> to protect their residents from flooding.</li> <li>The flood-control structure in Bayou Tigre, along with levee segments which tie this structure to the <b>levee proposed</b> on the east side of the Parish line on the west side of the structure is an important step in flood protection for the portion of Vermilion Parish most vulnerable to hurricane surge inundation.</li> </ul>	\$12,000,000	To Be Determined
	EAST VERNILION HURRICANE PROTECTION SYSTEM	<ul style="list-style-type: none"> <li>Construct a <b>hurricane protection system</b> from the <b>Bayou Tigre Structure</b> and levee segment to the <b>Vermilion River</b>.</li> <li>This system consists of: <ul style="list-style-type: none"> <li>A levee with <b>channel closure structures</b> from the levee segment to be constructed in conjunction with the Bayou Tigre closure structure to the Vermilion River.</li> <li>A levee with <b>barge type closure structures</b> installed in all major waterways, which would be <b>closed</b> when impending surge events are anticipated.</li> </ul> </li> <li>Construct <b>Flap-gate structures</b> on all drainage structures to provide proper drainage during <b>normal rain events</b> and to prevent surge waters from inundating upland areas.</li> <li>Select the levee alignment, which will require careful considerations of the <b>costs</b> and <b>benefits</b> associated with the various alignments under consideration.</li> <li>Conduct a detailed study to ensure that no adverse impacts are created in other parts of the Parish with the implementation of a particular phase.</li> <li><b>Model</b> each proposed phase to ensure that the negative impacts are not created in other areas.</li> </ul>	\$12,000,000	To Be Determined
	WEST VERNILION HURRICANE PROTECTION SYSTEM	<ul style="list-style-type: none"> <li>Provide a <b>closure structure</b> in the <b>Vermilion River</b>.</li> <li><b>Extend the levee system</b> to the west side of the Parish.</li> <li>Provide a minimum of a <b>100-year</b> level of protection for the residents of <b>west Abbeville, Kaplan, Gueydan and surrounding areas</b>.</li> <li>Construct a <b>levee</b> along with channel closure structures to provide protection from storm surge events.</li> </ul>	\$5,000,000	To Be Determined

## ACHIEVING RESILIENCY



FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Coastal Restoration + Flood Protection (CR+FP)</b>	SHORELINE PROTECTION + MARSH CREATION IN VERMILION BAY	<ul style="list-style-type: none"> <li>Protect the entire shoreline of Vermilion Bay along with Marsh Creation as an initial line of defense against storm surges</li> <li>Construct <b>breakwaters</b> or other wave-energy dissipation devices along the shoreline to help <b>preserve shoreline integrity</b> and <b>reduce wetland degradation</b> from wave erosion.</li> <li><b>Restore</b> the Weeks Bay area of Iberia Parish to prevent further degradation of the freshwater marshes in the area.</li> </ul>	\$89,673,000	To Be Determined
	GULF INTRACOASTAL WATERWAY SHORELINE PROTECTION	<ul style="list-style-type: none"> <li>Protect the shoreline of the <b>Gulf Intracoastal Water Way</b> (GIWW) with <b>rock breakwaters</b> to reduce wetland degradation and <b>prevent further deterioration</b> of the marshes adjacent to the channel.</li> <li>Dredge hydraulically in order to make the project cost effective.</li> <li>Use the spoil to <b>create marsh</b> (beneficial use of dredged material) and landowners are being contacted for spoil placement.</li> <li>Close the gap between the GIWW and Vermilion Bay in the Weeks Bay area once the spoil locations are selected for the AGMAC project.</li> </ul>	\$64,263,000	To Be Determined
	CHENIER PLAIN FRESHWATER RETENTION MANAGEMENT	<ul style="list-style-type: none"> <li>Introduce <b>additional freshwater</b> into the system to maintain the freshwater head necessary to prevent further intrusion of saltwater.</li> <li>Maintain eastern edges of the freshwater basin to prevent saltwater intrusion :: The banks of Freshwater Bayou are <b>key lines of defense</b> in the effort to maintain the freshwater basin.</li> <li>Shore up the entire system to limit opportunities for intrusion while increasing freshwater into the system.</li> </ul>		

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
	PUBLIC OUTREACH + EDUCATION	<ul style="list-style-type: none"> <li>• Raise awareness among landowners so that development decisions <b>protect assets</b> and enhance resiliency.             <ul style="list-style-type: none"> <li>:: Building to certain <b>elevations</b>, at certain <b>densities</b>, using certain <b>construction methods</b> and <b>materials</b> are an important consideration as is the protection of <b>natural areas</b> and habits on <b>privately owned</b> property.</li> </ul> </li> <li>• Use Digital Flood Insurance Rate Maps (DFIRMs) to encourage <b>appropriate land use</b>.             <ul style="list-style-type: none"> <li>:: Building to DFIRM elevations makes it cost prohibitive to build in sensitive areas.</li> </ul> </li> <li>• Take other <b>outreach</b> and <b>education</b> measures to ensure balance, <b>protection</b> of historic use of private lands and the appropriate use of <b>existing tools</b>.</li> <li>• Form a Presentation Team to further community education and outreach and also to <b>mobilize</b> local support when requesting State and Federal assistance.</li> </ul>	\$200,000	To Be Determined
Land Use (LU)	ADOPT A LAND USE MAP FOR THE UNINCORPORATED AREAS OF THE PARISH	<ul style="list-style-type: none"> <li>• Adopt a map that recognizes vulnerabilities faced by the Parish and seek to encourage growth away from those vulnerabilities to increase the long-term resilience of the Parish.             <ul style="list-style-type: none"> <li>:: A land use map can work to preserve the <b>character</b> of the Parish, encourage <b>business development</b> and help to <b>preserve property values</b>.</li> </ul> </li> <li>• Point out that land use strategies can be <b>user-friendly</b> and are often introduced to communities in stages.</li> <li>• Have the VPPJ establish a <b>professionally facilitated</b> subcommittee or Working Group to continue the land use discussion and how best to implement a land use map for unincorporated areas.             <ul style="list-style-type: none"> <li>:: Include <b>Jury</b> representation in the Working Group as well as representation from the <b>business community, realtors, homebuilders, large property owners</b> and other <b>stakeholders</b>.</li> <li>:: Include <b>opponents</b> of land use concepts to ensure a balanced discussion.</li> </ul> </li> </ul>	\$750,000	To Be Determined

## ACHIEVING RESILIENCY



FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 Capital Improvements Plan (CIP)	PRIORITIZE CAPITAL IMPROVEMENTS PLAN (CIP) PROJECTS	<ul style="list-style-type: none"> <li>• Prioritize the <i>Capital Improvements Plan (CIP)</i> by recommending the following priority projects from the CIP:               <ul style="list-style-type: none"> <li>:: Road System Improvements</li> <li>:: Fire trucks</li> <li>:: CIAP – Oyster Reef Parallel to coastline at Cheniere au Tigre</li> <li>:: CIAP – Shoreline Protection at SW point at SW Pass</li> <li>:: CIAP – Shoreline Protection and Marsh Creation at Tiger Point</li> <li>:: Improvements to Jail: Flood Proofing the Site + Elevating Access Road</li> <li>:: Office of Homeland Security and Emergency Preparedness (OHSEP) + 911 Complex</li> <li>:: HMGP – Retrofit of the Vermilion Parish Courthouse</li> <li>:: HMGP – Retrofit of Abrom Kaplan Hospital</li> <li>:: HMGP – Wind Retrofitting of Public Facilities</li> <li>:: HMGP – Safe Room for Abbeville General Hospital</li> <li>:: HMGP – Vermilion Parish Emergency Operations Center</li> </ul> </li> </ul>	\$12,000,000	To Be Determined
	DEDICATE A PARISH-WIDE FUNDING STREAM FOR RESILIENCY MEASURES	<ul style="list-style-type: none"> <li>• Create a <b>dedicated</b> funding stream – either from existing or new revenue sources – for the implementation of resiliency projects.</li> <li>• Include these projects in the Capital Improvements Plan (CIP) and give them <b>priority</b>.</li> <li>• Promote resiliency by identifying specific investments and expending these funds in areas <b>less vulnerable</b> to known risks.</li> <li>• Use this fund as <b>local matching funds</b> when applying for resiliency grants and used to support the <b>Chenier Plain Protection/Restoration Authority</b>.</li> </ul>	To Be Determined	To Be Determined

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
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FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Economic Resiliency (ER)</b>	LAUNCH A DEDICATED ECONOMIC DEVELOPMENT EFFORT	<ul style="list-style-type: none"> <li>Achieve economic resiliency <b>goals</b>: <ul style="list-style-type: none"> <li>Increase the Parish's <b>capacity to absorb business disruption</b> by further diversifying the Parish economy.</li> <li>Increase Parish capacity to <b>support existing businesses</b>, including their <b>preparedness activities</b>.</li> <li>Provide <b>formal linkage</b> to the LA BEOC.</li> <li>Work to <b>retain existing businesses</b> and <b>attract new ones</b>.</li> </ul> </li> <li>Have the Work Plan for the newly created and dedicated economic development effort emphasize on: <ul style="list-style-type: none"> <li>Target <b>specific industry sectors</b>.</li> <li>Work with <b>existing businesses</b> on retention and expansion efforts and disaster preparedness.</li> <li>Seeking <b>alternative agricultural enterprises</b>.</li> <li><b>Develop a workforce</b>.</li> </ul> </li> </ul>	\$250,000 annually	To Be Determined
	LAUNCH AN EXISTING INDUSTRY EFFORT	<ul style="list-style-type: none"> <li>Consider a project to <b>strengthen and retain existing</b> Parish businesses. <ul style="list-style-type: none"> <li>Often, <b>retaining</b> and <b>expanding</b> existing businesses are a surer economic development bet than trying to attract or recruit new business.</li> </ul> </li> </ul>	\$150,000	To Be Determined
	STUDY FEASIBILITY FOR BIOFUEL CROPS	<ul style="list-style-type: none"> <li><b>Construct</b> a mill to <b>process biofuel crops</b>. Proposed crops to be introduced into the area could include: <ul style="list-style-type: none"> <li>Kenaf</li> <li>Switchgrass</li> <li>Numerous others that may be used as <b>feedstock</b>.</li> </ul> </li> <li>Perform feasibility studies to assess the <b>viability</b> and <b>cost effectiveness</b> of a <b>biofuel processing plant</b>.</li> <li>Include the development of <b>marketing strategies</b> to <b>promote</b> by-products of the bio-fuel process.</li> </ul>	\$100,000	To Be Determined

## ACHIEVING RESILIENCY



FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Economic Resiliency (ER)</b>	RESTORE NATURAL DRAINAGE FROM FRESHWATER BASIN	<ul style="list-style-type: none"> <li>Provide for drainage of “<b>excess</b>” freshwater from the Mermentau Basin Lake sub-basin across LA 82 near Pecan Island, Rollover Bayou and under LA 82 to the Chenier Sub-basin.</li> <li><b>Replace or modify</b> culverts under LA 82.</li> <li><b>Relieve elevated water stages</b> in the northern area and <b>provide freshwater input</b> to the brackish and intermediate marshes in the south.</li> <li><b>Help reduce</b> the impact of future storms.</li> </ul>	\$6,000,000	To Be Determined
	REVITALIZATION OF INTRACOASTAL CITY	<ul style="list-style-type: none"> <li>Put a plan in place to <b>revitalize</b> the economy of Intracoastal City.</li> <li>Promote the unincorporated area as a tourist destination.</li> </ul>	To Be Determined	To Be Determined
	DEVELOP + DELIVER A CONTINUITY OF OPERATIONS PLANS (COOP) OUTREACH + EDUCATION TRAINING INITIATIVE	<ul style="list-style-type: none"> <li>Educate businesses on Continuity of Operations Planning (COOP) and what a business must know to survive a threat: <ul style="list-style-type: none"> <li>How it will <b>staff</b> should employees not be able to get to work.</li> <li>What will the <b>management structure</b> look like if critical managers and leaders are sick, hurt or otherwise not available.</li> <li>How the <b>chain of command</b> will be ensured.</li> <li>How it will ensure its <b>supply chain</b> so that needed goods, services and materials are available from secondary sources if primary sources are knocked out or disabled.</li> <li>How it will service its <b>customers</b> in the event of disabled operations.</li> <li>How it will maintain <b>sales</b>, keeping its doors open.</li> <li>Consider <b>data storage</b> and protection. The business must have a <b>place of operations</b> should the place of business be underwater, inaccessible, damaged or some other way not serviceable. And more.</li> </ul> </li> </ul>	\$75,000	To Be Determined
	DEVELOP + MAINTAIN + EXERCISE PORT COOP PLANS	<ul style="list-style-type: none"> <li>Identify <b>funding resources</b> for the development and/or maintenance of a <i>Continuity of Operations Plan</i> (COOP) for the Port of Vermilion and Port of Delcambre.</li> <li>Include consideration for a <b>safe harbor</b> area.</li> </ul>	\$250,000	To Be Determined

# Vermilion Parish

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FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
Economic Resiliency (ER)	ENHANCE EDUCATION OPPORTUNITIES IN THE PARISH	<ul style="list-style-type: none"> <li>• This is a two- (2-) part project, focusing first on <b>facilities</b> and secondly on <b>educational opportunities</b> in resilience.</li> <li>• <b>Facilities</b> <ul style="list-style-type: none"> <li>:: Encourage and support where possible the <b>hardening of structures</b> and implementing other initiatives that make <b>school</b> (and other) <b>facilities</b> more resilient to future disasters.</li> <li>:: <b>Coordinate</b> closely with local school leadership so that planning efforts maximize <b>opportunities</b> to harden, elevate and implement other hazard mitigation strategies, to provide the best protection possible for school facilities.</li> <li>:: <b>Inventory</b> facilities so that those that need hardening or elevating are identified and included in the Parish's <i>Hazard Mitigation Plan</i> (HMP).</li> </ul> </li> <li>• <b>Educational Opportunities in Resiliency</b> <ul style="list-style-type: none"> <li>:: Use the school system as a distribution channel for the hazard <b>mitigation board</b> games <i>Mitigation Nation</i> and <i>It's Your Turn!</i> created by the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) Hazard Mitigation (HM) Section.</li> <li>:: Create age-appropriate <b>resiliency curriculums</b> that would be taught at pre-k through 5th, middle and upper schools.</li> </ul> </li> </ul>	\$150,000	To Be Determined
Transportation Resiliency (TR)	EXPAND MAJOR THOROUGHFARES TO SUPPORT ECONOMIC DEVELOPMENT + EVACUATIONS	<ul style="list-style-type: none"> <li>• Expand <b>Route 167</b> from Abbeville to Intracoastal City.           <ul style="list-style-type: none"> <li>:: Provide a <b>safe route</b> for the transport of goods and services.</li> <li>:: Enhance the <b>economic development</b> potential for the <b>ports</b> located south of Abbeville as well as provide <b>improved evacuation routes</b> for the inhabitants of southern Vermilion Parish.</li> </ul> </li> <li>• Expand <b>Highway 14</b> to four (4) lanes from Abbeville to Jennings,           <ul style="list-style-type: none"> <li>:: Ease <b>evacuation</b> routes alternative to I-10.</li> <li>:: Open thousands of acres to <b>industrial development</b> outside of the floodplain.</li> </ul> </li> </ul>	To Be Determined	To Be Determined

## ACHIEVING RESILIENCY



FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Transportation Resiliency (TR)</b>	PROMOTE EVACUATION ROUTES + EVACUATION PLANNING	<ul style="list-style-type: none"> <li>Create and broadly distribute <b>evacuation maps</b> so that households know the location of safe routes for</li> <li>Promote <b>evacuation planning</b> and the <b>distribution</b> of maps detailing evacuation routes.</li> </ul>	\$150,000	To Be Determined
	IMPLEMENT PARISH-WIDE OFF-SYSTEM ARTERIAL ROAD SYSTEM	<ul style="list-style-type: none"> <li>Establish a Parish-wide funding program for off-system arterial roads.           <ul style="list-style-type: none"> <li>Enhance the resiliency of Vermilion Parish by ensuring that these major Parish roads are <b>properly maintained</b> to provide local access routes.</li> </ul> </li> </ul>	To Be Determined	To Be Determined
 <b>Housing Resiliency (HR)</b>	ELEVATION OR FLOOD PROOFING OF STRUCTURES	<ul style="list-style-type: none"> <li><b>Elevate, acquire or flood proof</b> remaining, residential, commercial structures and public facilities located <b>outside of the hurricane protection systems</b>.</li> <li>Identify a <b>public funding source</b> to assist in the elevation or flood proofing of structures located outside of the hurricane protection systems.</li> <li>Identify and include these projects and structures in the Parish's <i>Hazard Mitigation Plan</i>.</li> </ul>	To Be Determined	To Be Determined
	HOME + BUSINESS OWNER HAZARD MITIGATION ASSISTANCE (HMA) OUTREACH + EDUCATION INITIATIVE	<ul style="list-style-type: none"> <li>Disseminate information on the availability of the <b>Hazard Mitigation Assistance</b> (HMA) grant funds to help offset the cost of making structures that are more <b>resilient</b> to disasters.</li> <li>Make homeowners (and businesses) aware of how they can <b>take advantage</b> of these programs, funding opportunities and match requirements.</li> <li>Inform the community about the availability of insurance under the <b>National Flood Insurance Program</b> (NFIP) and program requirements.</li> </ul>	\$5,000 annually	To Be Determined

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FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Housing Resiliency (HR)</b>	CREATE A HOME + BUSINESS OWNER RESILIENCY EDUCATION PROGRAM	<ul style="list-style-type: none"> <li>• Focus on increasing resiliency at the home and business level through <b>outreach</b> and <b>education</b>.           <ul style="list-style-type: none"> <li>:: Use various means of communication – <b>printed materials</b> available when applying for permits, <b>websites</b>, <b>social media</b>, <b>TV</b> and <b>radio</b> when feasible – to empower citizens with information and promote what Parish residents can do to increase individual resiliency.</li> <li>:: Include information about <b>site design measures</b>, <b>home orientation</b>, <b>wet flood proofing</b>, etc.</li> </ul> </li> <li>• Request and develop a distribution strategy to get materials into the hands of the public, construction-industry professionals and the local business community</li> <li>• Promote <b>business disaster plans</b> as a measure to foster a business' ability to protect staff and resources and quickly recover after disasters.</li> </ul>	\$25,000-\$75,000 annually	To Be Determined
	ENCOURAGE URBAN RENEWAL IN DOWNTOWN AREAS	<ul style="list-style-type: none"> <li>• <b>Preserve</b> and <b>enhance</b> the quality of <b>historic buildings</b> in both unincorporated areas where they exist and in downtown areas of each municipality within the Parish. To do so the Parish should:           <ul style="list-style-type: none"> <li>:: Establish <b>urban development standards</b> that facilitate the upkeep and redesign of historic buildings updated to <b>current codes</b> and <b>standards</b> while maintaining and protecting the integrity of original designs and construction methods.</li> <li>:: Establish <b>economic</b> and/or <b>location incentives</b> to encourage residential and business uses.</li> <li>:: Evaluate existing <b>signage</b> and <b>landscape</b> to ensure downtown areas are compatible with adjacent areas.</li> </ul> </li> </ul>	To Be Determined	To Be Determined

## ACHIEVING RESILIENCY



FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Parks + Open Spaces (P+OS)</b>	PRESERVATION OF MARSHLAND: DREDGING + FILLING ABANDONED CANALS	<ul style="list-style-type: none"> <li>Provide a line of defense in flood protection by <b>reducing storm surge propagation</b></li> <li>Provide <b>protection for future levee construction</b></li> <li><b>Dredge material</b> from the Gulf Intracoastal Waterway (GIWW) and other locations in <b>Iberia, Vermilion and Cameron Parishes</b> and use it to fill existing <b>abandoned canals</b>.</li> <li>Restore Canals to <b>marshland</b>, <b>protecting</b> existing estuary and wildlife habitat from <b>saltwater intrusion</b>.</li> </ul>	\$400,000	To Be Determined
	PRESERVATION OF MARSHLAND: CREATION OF EMERGENT TERRACES	<ul style="list-style-type: none"> <li>Create <b>earthen, shallow-water emergent terraces</b> to <ul style="list-style-type: none"> <li>Open water back to vegetated marsh,</li> <li>Reduce <b>marsh erosion</b>.</li> <li>Minimize <b>wave fetch</b> across open water.</li> <li>Create <b>linear</b> marsh features.</li> <li>Prevent future marsh loss</li> <li>Restore <b>brackish marsh</b>, creating more habitat for <b>fish</b> and <b>shellfish</b> and <b>areas of open water</b></li> </ul> </li> <li>Construct <b>adjacent</b> terrace cells in a <b>staggered</b> gap formation, each bordered by terraces made from dredged material. Terraces would be built and planted with smooth cordgrass (<i>Spartina alterniflora</i>), and California bulrush (<i>Scirpus californicus</i>).</li> <li>Construct of engineered <b>terraces</b> will be required.</li> </ul>	\$4,000,000 – approximately \$1,000 per acre	To Be Determined
	STABILIZE ROCKEFELLER GULF SHORELINE	<ul style="list-style-type: none"> <li><b>Construct</b> a continuous near-shore rock breakwater along the Gulf of Mexico shoreline (approximately <b>36 miles</b>).</li> <li>Tie the structure into the west bank of <b>Joseph Harbor</b>, and the east bank of <b>Beach Prong</b>.</li> <li><b>Attenuate</b> shoreline retreat along this stretch of Gulf shoreline, as well as promote <b>shallowing, settling out</b>, and <b>natural vegetative colonization</b> of overwash material landward of the proposed structure.</li> <li>Address <b>Rockefeller Refuge Gulf shoreline retreat</b> that averages approximately <b>39 feet per year</b> with subsequent direct loss of saline marsh.</li> <li><b>Stabilize</b> this shore to <b>protect</b> the Parish from future storms and <b>maintain</b> the traditional fisheries in the region.</li> </ul>	To Be Determined	To Be Determined

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FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Parks + Open Spaces (P+OS)</b>	WHITE LAKE WETLANDS CONSERVATION AREA (WCA) – BIRDING + NATURE TRAIL	<ul style="list-style-type: none"> <li>Acquire additional lands to increase the size of the bird sanctuary.</li> <li>Protect the White Lake shoreline that has eroded.</li> </ul>	\$400,000	To Be Determined
	CREATE AN OPEN-SPACE CONSERVATION PROGRAM	<ul style="list-style-type: none"> <li>Create an <b>open-space preservation program</b> that will enhance existing resources (e.g., White Lake Wetlands Conservation Area) while working to <b>identify and preserve other tracts</b> of land with a focus on risk-prone areas. This will work toward multiple goals:               <ul style="list-style-type: none"> <li>Preserve the Parish's <b>rural character</b></li> <li>Maintain <b>game</b> and <b>fish</b> habitat</li> <li>Protect <b>natural ecosystems</b></li> <li><b>Limit growth</b> in vulnerable areas</li> </ul> </li> </ul>	\$75,000	To Be Determined
	PALMETTO ISLAND STATE PARK (PISP) CONTINUED SUCCESS + EXPANSION	<ul style="list-style-type: none"> <li>Support the <b>diverse groups</b> and <b>organizations</b> that are directly involved with PISP to benefit the Park and contribute to <b>economic development</b> and <b>eco-tourism</b> of the Parish.</li> <li><b>Expand</b> existing trails.</li> <li><b>Add</b> new trials.</li> <li><b>Clear</b> vegetation for four (4) primitive backpack campsites and one (1) primitive group campsite.</li> <li>Purchase a <b>playground</b> that will be installed this spring (2014).</li> <li>Open access to other portions of Vermilion Parish to provide a further boost to the economy from eco-tourism.</li> </ul>	\$75,000 annually	To Be Determined
	BRAND THE PARISH AS THE PREMIER PARKS + TRAILS + FISHING LOCATIONS IN THE REGION	<ul style="list-style-type: none"> <li>Work with the Vermilion Parish Tourist Commission to <b>brand</b> Vermilion Parish as the premier parks, trails, and fishing location in the State.</li> <li>Create and implement a <b>branding strategy</b> so that all Parish materials from governing authorities, quasi-governing authorities, nonprofits and local businesses carry and support the brand.</li> </ul>	To Be Determined	To Be Determined

## ACHIEVING RESILIENCY



FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Health + Human Services (H+HS)</b>	SAFE ROOM FOR ABBEVILLE GENERAL HOSPITAL	<ul style="list-style-type: none"> <li>Construct a safe room to serve Abbeville General Hospital patient to <b>reduce</b> the need for the evacuation of patients during disaster events.</li> <li>Ensure the <b>continued</b> care of patients in most need</li> <li>Help the hospital provide a <b>full range</b> of services in the immediate aftermath of disaster events.</li> </ul>	To Be Determined	To Be Determined
	FORM A VERNILION PARISH PUBLIC-PRIVATE INFRASTRUCTURE ALLIANCE	<ul style="list-style-type: none"> <li>Bring together representatives from <b>public</b> and <b>private</b> entities that control key infrastructure within the Parish to form a <i>Vernilion Parish Public-Private Infrastructure Alliance</i>.</li> <li>Have members of the Alliance represent the <b>utilities</b> critical to the Parish's ability to function. These members should include representatives from: <ul style="list-style-type: none"> <li><b>Water and wastewater systems</b></li> <li><b>Industrial waste systems</b></li> <li><b>Power systems</b></li> <li><b>Fuel systems</b></li> <li><b>Telecommunications systems</b></li> <li><b>Transportation systems</b></li> </ul> </li> <li>Gain participation from key Parish departments such as <b>Public Works</b> and <b>Emergency Management</b>.</li> <li>Have the Alliance work together to <ul style="list-style-type: none"> <li><b>Develop coordinated post-event recovery plans.</b></li> <li><b>Identify interdependencies</b> between its members and amongst the different systems.</li> <li><b>Assess the quality and condition</b> of systems,</li> <li><b>Identify vulnerabilities.</b></li> <li><b>Prioritize</b> system upgrades and improvements.</li> <li>Set goals.</li> <li>Organize <b>exercises</b>.</li> </ul> </li> </ul>	To Be Determined	To Be Determined
	MONITORING OF LOCAL SEWAGE TREATMENT FACILITIES	<ul style="list-style-type: none"> <li>Work with the Louisiana Department of Health and Hospitals Office of Public Health (DHH/OPH)</li> <li>Create, maintain and follow a <b>stronger sewage ordinance</b>.</li> </ul>	To Be Determined	To Be Determined

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

FOCUS AREA	PROJECT TITLE	DETAIL	COST ESTIMATE	PROSPECTIVE PROJECT CHAMPION
 <b>Health + Human Services (H+HS)</b>	PARISH CURBSIDE RECYCLING PROGRAM	<ul style="list-style-type: none"> <li>Develop an <b>awareness-building campaign</b> on the benefits of recycling to individuals and businesses, to encourage <b>increased voluntary participation</b>.</li> <li>Work with the current <b>garbage disposal program</b> to determine the <b>feasibility</b> of Parish-purchased or private-property-owner-purchased recycling <b>containers</b> that accept plastic/paper recycling materials, picked up on <b>regularly scheduled</b> days by those currently picking up household garbage.</li> </ul>	To Be Determined	To Be Determined
	STRENGTHEN TIES TO 211/322-HELP INFORMATION + REFERRAL SOCIAL SERVICE NETWORKS	<ul style="list-style-type: none"> <li>Become more active in 211/322-HELP, which plays a unique and significant role in returning community residents and families back to normal after a disaster, enhancing the Parish's resiliency.</li> <li>Ensure it has a revenue and volunteer stream from Vermilion Parish to ensure a <b>robust presence</b> in Vermilion Parish during "peace" time and during times of disaster or emergency</li> </ul>	To Be Determined	To Be Determined
 <b>Historic + Cultural Preservation (H+CP)</b>	CREATE A COMMUNITY COALITION TO FOSTER RESILIENCY	<ul style="list-style-type: none"> <li>Create a <b>local coalition</b> focused on Vermilion Parish resiliency.</li> <li>Engage the entire Parish and continue efforts of resiliency planning stakeholder leadership group.</li> <li>Partner with local media outlets, Parish website and social media resources to: <ul style="list-style-type: none"> <li>Heighten resiliency awareness.</li> <li>Promote resiliency through community outreach and education.</li> <li>Advocate for individual and Parish-wide resiliency measures.</li> <li>Build knowledge of available resiliency grants and how to pursue them.</li> </ul> </li> <li>Provide quarterly <b>updates</b> of key resiliency projects in development or being implemented throughout the Parish.</li> <li>Develop and implement an <b>annual awards</b> program – perhaps in partnership with the University of Louisiana at Lafayette (ULL) – to recognize individuals, businesses, construction professional and others for innovations in resiliency. <ul style="list-style-type: none"> <li>Include <b>student</b> competitions.</li> </ul> </li> <li>Identify staff support for all of the above.</li> </ul>	\$25,000 annually	To Be Determined



# 5 | How to Use This Plan

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# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## 5.1

## HOW TO USE THIS PLAN

The Vermilion Parish Comprehensive Resiliency Plan (*Plan*) is intended to capture the **desires** and **goals** of the Parish's citizens and provide tools to **guide** future development. The *Plan* also **identifies areas of improvement** needed so that the Parish is prepared to deal with **future growth** and to **protect the community** as well as helping it rebound **quickly** and **effectively** in the event of an emergency or disaster.

The *Plan* describes the citizens' **vision for its future** and provides **short-** and **long-term strategies** needed to implement it. These recommended strategies are ways to **improve resiliency during** and **after a disaster, emergency or major disruptive event**. It also stresses the need for someone or some organization to **champion** the *Plan* and the individual projects within it to **increase and maintain awareness of the project** throughout the Parish and create and agency for project implementation.

### KEY STEPS

To ensure that this *Plan* is **fully implemented**, we recommend the following:

- Vermilion Parish Police Jury **adopts** the *Plan* as its "roadmap" to a more resilient future for the Parish.
- **Appoint** the *Vermilion Parish Comprehensive Resiliency Plan* (VPCRP) Stakeholder Leadership Group as an **ongoing standing committee** of the Police Jury and task it with oversight of *Plan* implementation.
- With VPCRP, **identify a champion for each project** in the *Plan* and solicit their **commitment** to seeing that their project is implemented.
- **Publicize** the final *Plan* document through a **partnership** with local media.
- **Present** the *Plan* to **local chambers of commerce, economic development groups and civic organizations** to ensure the highest visibility possible.
- **Require a report** to the Policy Jury, **twice a year**, to maintain visibility and urgency in ongoing *Plan* implementation.

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

- **Dedicate** staff support to *Plan implementation* and **grant solicitation** for the implementation of each project.
- **Ensure** Vermilion Parish **involvement** with other similar groups involved in **coastal restoration** and **other resiliency measures** so that funding opportunities are identified, and partnerships and synergies realized. For example, Vermilion Parish needs to be involved in the newly formed **Coalition for Coastal Resilience and Economy (CCRE)**. The CCRE includes **business executives** from the greater New Orleans region, Baton Rouge and the Terrebonne-Lafourche regions. Its mission is to promote the **business case for coastal restoration** in Louisiana; maximize RESTORE Act **funding** and other Federal funds that are allocated to Louisiana. This could be an important group for Vermilion Parish.
- **Solicit** a **grant** to fund the **hiring of contract support** to create and support ongoing community education and outreach.





# 6 Appendix

## Acronyms

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# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

## 6.1

## ACRONYMS

**2012 Coastal Master Plan**

Louisiana's 2012 Comprehensive Master Plan

**AGMAC**

Acadiana to the Gulf of Mexico Access Channel

**BCA**

Benefit Cost Analysis

**BOAL**

Building Code Officials of Louisiana

**B-WET**

Bay-Watershed Educational and Training

**CDBG-DR**

Community Development Block Grants Disaster Recovery

**CIAP**

Local and Coastal Impact Assistance Program

**CIG**

Conservation Innovation Grants

**CIP**

Capital Improvements Plan

**CNCS**

Corporation for National and Community Service

**COOP**

Continuity of Operation

**CPCP & RA**

Chenier Plan Coastal Protection and Restoration Authority

**CPEX**

Center for Planning Excellence

**CPRA**

Coastal Protection and Restoration Authority

**CPRA**

Louisiana Coastal Protection and Restoration Authority

**CR+FP**

Coastal Restoration and Flood Protection

**CRest**

Coastal Resilience Networks

**CRP**

Community-Based Restoration Program

**CRS**

Community Rating System

**CRT**

Culture Recreation and Tourism

**CWEF**

Community Water Enrichment Fund

**CWPPRA**

Coastal Wetlands Planning, Protection, and Restoration Act

**DFIRMs**

Digital Flood Insurance Rate Maps

**DHH**

Department of Health and Hospitals

**DNR**

Department of Natural Resources

**DRU**

Disaster Recovery Unit

**DWRLF**

Drinking Water Revolving Loan Fund

**ECF**

Energy Charitable Foundation

**ECWAG**

Emergency Community Water Assistance Grants

**EOC**

Emergency Operations Center

# Vermilion Parish

COMPREHENSIVE RESILIENCY PLAN  
for unincorporated areas of the parish

<b>ER</b>	Economic Resiliency
<b>EREF</b>	Environmental Research and Education Foundation
<b>FEMA</b>	Federal Emergency Management Agency
<b>FMA</b>	Flood Mitigation Assistance
<b>FPISP</b>	Friends of Palmetto Island State Park, Inc
<b>FRPP</b>	Farm and Ranch Lands Protection Program
<b>GAP</b>	Gap Analysis Program
<b>GIWW</b>	Gulf Intracoastal Waterway
<b>GOHSEP</b>	Governor's Office of Homeland Security and Emergency Preparedness
<b>GoMESA</b>	Gulf of Mexico Energy Security Act
<b>H+CP</b>	Historic and Cultural Preservation
<b>H+HS</b>	Health and Human Services
<b>HM</b>	Hazard Mitigation
<b>HMA</b>	Hazard Mitigation Assistance
<b>HMGP</b>	Hazard Mitigation Grant Program
<b>HOME</b>	Home Investment Partnerships Program
<b>HR</b>	Housing Resiliency
<b>HUD</b>	U.S. Department of Housing and Urban Development

<b>LA Air</b>	Louisiana Association of Information and Referral
<b>LA BEOC</b>	Louisiana Business Emergency Operations Center
<b>LA DNR</b>	Louisiana Department of Natural Resources
<b>LA DOTD</b>	Louisiana Department of Transportation and Development
<b>LCDBG</b>	Louisiana Community Development Block Grant
<b>LCP</b>	Local Coastal Programs
<b>LDWF</b>	Louisiana Department of Wildlife and Fisheries
<b>LED</b>	Louisiana Economic Development
<b>LGAP</b>	Local Government Assistance Program
<b>LSU</b>	Louisiana State University
<b>LSU Ag Center</b>	Louisiana State University Agricultural Center
<b>LTCR</b>	Long-Term Community Recovery
<b>LU</b>	Land Use
<b>LWCF</b>	Land and Water Conservation Fund
<b>MARFIN</b>	Marine Fisheries Initiative
<b>MBOC</b>	Minority Business Opportunity Center
<b>NABEC</b>	Native American Business Enterprise Centers
<b>NAS</b>	National Academy of Sciences
<b>NASASP</b>	National Association of State Agencies for Surplus Property

## ACHIEVING RESILIENCY

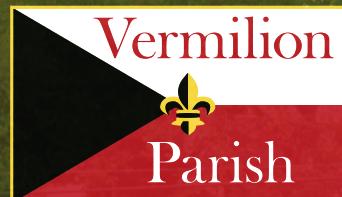


<b>NEH</b>	National Endowment for the Humanities
<b>NFIP</b>	National Flood Insurance Program
<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>NRCS</b>	Natural Resources Conservation Service
<b>OCD</b>	Office of Community Development
<b>OCS</b>	Outer Continental Shelf
<b>OHSEP</b>	Office of Homeland Security and Emergency Preparedness
<b>ONRR</b>	Office of Natural Resources Revenue
<b>OPH</b>	Office of Public Health
<b>P+OS</b>	Parks and Open Spaces
<b>PA</b>	Public Assistance
<b>PDM</b>	Pre-Disaster Mitigation
<b>PISP</b>	Palmetto Island State Park
<b>RFC</b>	Repetitive Flood Claims
<b>RTPL</b>	Recreational Trails Program for Louisiana
<b>SDMI</b>	Stevenson Disaster Management Institute
<b>Sea Grant</b>	National Sea Grant College Program
<b>SEDAP</b>	States' Economic Development Assistance Program
<b>SFHA</b>	Special Flood Hazard Area

<b>SRL</b>	Severe Repetitive Loss
<b>TEP</b>	Transportation Enhancement Program
<b>TR</b>	Transportation Resiliency
<b>TVFWD</b>	Teche-Vermilion Freshwater District
<b>ULL</b>	University of Louisiana at Lafayette
<b>USACE</b>	U.S. Army Corps of Engineers
<b>USDA</b>	U.S. Department of Agriculture
<b>VPCRP</b>	Vermilion Parish Comprehensive Resiliency Plan
<b>VPPJ</b>	Vermilion Parish Police Jury
<b>VPPRC</b>	Vermilion Parish Protection and Restoration Committee
<b>VSWCD</b>	Vermilion Soil and Water Conservation District
<b>WCA</b>	Wetlands Conservation Area

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# Our Plan!



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The *Vermilion Parish Comprehensive Resiliency Plan* is made possible through a grant provided through the State of Louisiana Office of Community Development (OCD) — Disaster Recovery Unit (DRU) from the U.S. Department of Housing and Urban Development (HUD).