Port Manchac Development Plan
Presentation information provided by the Port Manchac Board of Directors

Cost and other presentation information pulled from the Port Manchac Development Plan Created by:
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Environmental Management, GBIO 620
Under the guidance of Dr. Robert Moreau

Updated presentation prepared by Dana Brown & Associates
OBJECTIVES

INTRODUCTION
- History of the Port
- Historical Ecology
- Louisiana Culture
- Goals

IDEAS FOR DEVELOPMENT
- Port Manchac Wetlands Center
- Eco-tourism Plans
- Industrial Fishing Storage Center
- Park Area
- Other Partnerships

ENVIRONMENTAL COMMUNICATION

CONCLUSION

RECOMMENDATIONS
PORT MANCHAC SITE

Located on North Pass
  • Difficult to navigate

Located on I-55, near I-12 and I-10 interchange

Canadian National Railway’s main north-south tracks run adjacent to the property

Purus Industries leases one of the warehouses
  • Concerns about their environmental impact
HISTORICAL OF THE PORT

Built in 1962 when I-55 was built
• Used to handle materials from small barges
• Designated as a state port after construction was complete

Only recently updated
• Two 30,000 sq ft warehouses
• Plumbing recently installed with fresh water sources
• Two barge docks
• Access to railroad
HISTORICAL ECOLOGY

Port is located on the Manchac Land Bridge Area (MLBA)
- Connects Lake Maurepas with Lake Pontchartrain
- Manchac means "rear entrance"
- MLBA - 99,517 acre area of former bottomland hardwood swamp

Used to be dominated by large cypress trees
- Extensive logging and development
- Invasive species
- Canals
- MRGO
  - Salt water intrusion and higher storm surge
HISTORICAL ECOLOGY

- MLBA is experiencing wetland loss/degradation at an alarming rate
- 8,340 acres of marsh (25%) lost between 1932 and 1990
- Another 50% is expected to be lost in the next 31 years

- Subsidence occurs at a rate of 1 to 2 feet per century
- MLBA is now labeled as a degraded swamp habitat

Bottom line: needs to be protected!
LOUISIANA CULTURE

Culture rich area
- Festivals like Mardi Gras, Alligator Festival, Louisiana Catfish/Crawfish Festival, Jazz Festival

One of Louisiana’s most unique features is its wetlands
- 40% of all coastal wetlands in the United States are located in Louisiana
- Wetlands contribute to 28% of the total volume of U.S. Fisheries
LOUISIANA CULTURE

Wetlands have several benefits

- Biodiversity conservation
- Storm surge buffer
- Nursery for many species
- Shoreline erosion control
- Improved water quality
- Critical Habitat

- U.S. Fish and Wildlife Service
- Marcus de la Houssaye
- nhpbs.org
GOALS

Provide the Port Commission with several different directions the Port could be taken

Ideas can be used alone or in conjunction with each other

We hope these ideas will:

- Preserving Louisiana’s critical wetlands
- Provide venue for environmental education
- Provide a suitable area for future wetland research and environmental monitoring
- Provide revenue for the Port
- Bring in more jobs to the community
IDEAS FOR DEVELOPMENT #1 - PORT MANCHAC WETLAND CENTER

Location provides an ideal gateway to see Louisiana’s wetland ecosystems

Multipurpose center could be:
- Environmental monitoring station
- Wetlands Museum
- Conference center for academic and governmental agencies

Environmental monitoring station
- Monitor potential pollutants coming from the Port industrial area
- Would be used by researchers from academia and government as a sampling and monitoring location

Could allow the Port to get ahead of environmental issues before they become a big problem
IDEAS FOR DEVELOPMENT #1
PORT MANCHAC WETLAND CENTER

Wetlands Museum
• Highlight the diversity and uniqueness of southeastern Louisiana’s wetlands
• 40% of all coastal wetlands in the US are in Louisiana
• Interactive exhibits could educate the public

Conference center
• Regional conferences
• Many disciplines could use it
  » Environmental management
  » Wildlife conservation
  » Geosciences
  » Wetland management
  » Biological sciences
IDEAS FOR DEVELOPMENT #2
Ecotourism

Ecotourism blends environmentalism with capitalism

Ecotourism is one of the fastest growing markets in the tourism industry

• Global annual revenue of $77 billion

Suggestion: 8-10 eco-friendly tiny houses built on the 100 acres of swamp land behind the port, and 8 - 10 pontoon homes along I-55 waterway

Boardwalk area for nature observations
IDEAS FOR DEVELOPMENT #2

Ecotourism

Tiny houses would be built “Cajun style”

$225/ sq ft* - each house is 200-250 sq ft
  • Total cost: ~$50,000* per house

Two solar panels per house
  • $3.36/watt*
    • Could tie solar panels to the electricity grid
    • Potential for energy credits

Tiny houses would be built according to LEED standards
  • Lower operating costs and increase asset value
  • Reduce waste sent to landfills
  • Conserve energy and water
  • Be healthier and safer for occupants
  • Reduce harmful greenhouse gas emissions
  • Qualify for tax rebates, zoning allowances and other incentives in hundreds of cities
**IDEAS FOR DEVELOPMENT #2**

**Ecotourism**

Other things needed for tiny houses & pontoon houses:
- Self-check in service and keys
- Security
  - Either a nighttime guard or security cameras
  - Guard salary: $20k-$38k*
  - Security cameras: $700-$2.1k*
- Maid service
  - Clean after every guest
  - $70-$120* per space, could be less with tiny houses

Use local services as much as possible

*Cost information provided by the Port Manchac Commission*
IDEAS FOR DEVELOPMENT #2
Ecotourism

Swamp boardwalk
• $100* per linear foot
• “Adopt a Boardwalk”
• Marsh restoration
• Educational outpost areas
• Bird watch tower
• Signage coordinated with Turtle Cove

*Cost information provided by the Port Manchac Commission
IDEAS FOR DEVELOPMENT #3
SEAFOOD STORAGE AREA

Louisiana fisheries are a vital component of state’s economy
• 2nd largest seafood supplier in nation

Manchac popular area for commercial and recreational fishing

Suggestion: use 2nd warehouse as a fish storage area for fishermen

Benefits: additional revenue for the port without additional building costs

Cost Breakdown:*  

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PRICE</th>
<th>TARGET AUDIENCE</th>
<th>RENTAL PRICING</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOCK</td>
<td>$20,000</td>
<td>RECREATIONAL &amp; COMMERCIAL FISHING</td>
<td>N/A</td>
</tr>
<tr>
<td>SPLIT DOOR FREEZER LOCKER</td>
<td>$10,000/UNIT</td>
<td>SMALLER SCALE PERSONAL USE</td>
<td>DAILY: $10 WEEKLY: $50 MONTHLY: $150</td>
</tr>
<tr>
<td>SINGLE SECTION FREEZER</td>
<td>$2,000/UNIT</td>
<td>MID-SIZE OPTION FOR COMMERCIAL OR PERSONAL USE</td>
<td>DAILY: $30 WEEKLY: $100 MONTHLY: $250</td>
</tr>
<tr>
<td>WALK-IN COOLER</td>
<td>$13,000/UNIT</td>
<td>COMMERCIAL</td>
<td>WEEKLY: $500 MONTHLY: $1,200</td>
</tr>
<tr>
<td>REFRIGERATED TRUCK</td>
<td>$50,000</td>
<td>COMMERCIAL</td>
<td>DAILY: $172 WEEKLY: $860 PER MILE: $0.22</td>
</tr>
</tbody>
</table>

*Cost information provided by the Port Manchac Commission.
IDEAS FOR DEVELOPMENT #4
WEEKEND SEAFOOD MARKET

At warehouse

Fishermen could sell catches
  • Revenue for the port - charge fishermen to rent table

Fairly inexpensive
  • Eight foot folding tables ~$69*

Benefits to community:
  • Promote local shopping
  • Access to fresh, nutritious food

*Cost information provided by the Port Manchac Commission
Parks provide many benefits:
- Environmental, aesthetic, recreational benefits, and economic

Suggestion: develop park under interstate
- Add benches, picnic tables, street lights, water fountains, and restrooms

Estimated cost: $43,000*

*Cost information provided by the Port Manchac Commission
IDEAS FOR DEVELOPMENT #5
PARK AREA - PHASE 2

Recreational activities: biking, hiking, bird watching
  • Building a bike shop including gear for hiking and birding
  • Bike rental
  • Repair machine
  • Over 47.5 million cyclists/casual bicycle riders in the U.S. (Statista.com)
  • 6.2 billion dollars
    » Estimated size of the U.S. bike market

Additional revenue could be generated
### IDEAS FOR DEVELOPMENT #5
PARK AREA - PHASE 2

#### Plan Costs For Bike Shop And Rental*

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>BICYCLE SHOP BUILDING</td>
<td>$35,000</td>
</tr>
<tr>
<td>CONCRETE SLAB</td>
<td>$5,000</td>
</tr>
<tr>
<td>INITIAL BIKE INVENTORY + CASH REGISTER</td>
<td>$10,000</td>
</tr>
<tr>
<td>BICYCLE (FOR RENTAL) + STARTUP BICYCLES</td>
<td>$148 x 10 BIKES =$1,480</td>
</tr>
<tr>
<td>BINOCULARS</td>
<td>$50 x 10 =$500</td>
</tr>
<tr>
<td>HIKING GEAR INVENTORY (BACKPACKS, SHOES, WATER BOTTLES)</td>
<td>$6,100</td>
</tr>
<tr>
<td>TOTAL STARTUP COSTS FOR SHOP + RENTAL</td>
<td>$58,080</td>
</tr>
</tbody>
</table>

*Cost information provided by the Port Manchac Commission.*
**IDEAS FOR DEVELOPMENT #5**

**PARK AREA - PHASE 2**

$1,480* for bike rental startup

If just four customers rented a bike for two hours per day, the money could be made back in under a month

<table>
<thead>
<tr>
<th>BICYCLE RENTAL HOURS</th>
<th>PRICE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 HOURS</td>
<td>$15</td>
</tr>
<tr>
<td>4 HOURS</td>
<td>$25</td>
</tr>
<tr>
<td>8 HOURS</td>
<td>$35</td>
</tr>
<tr>
<td>24 HOURS</td>
<td>$45</td>
</tr>
</tbody>
</table>

**Bike Repair**

- Vending Machine and amenities such as bike dock, air pump, and tool box

- Benefits:
  - Convenient: bikers can fix bike at any time of the day or night
  - Cost effective: save on costs of hiring a worker, charging for amenities provides more revenue

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>COST*</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULLY-STOCKED VENDING MACHINE</td>
<td>$8k</td>
</tr>
<tr>
<td>PUBLIC BIKE PUMP</td>
<td>$1.2k</td>
</tr>
<tr>
<td>BICYCLE DOCK</td>
<td>$800</td>
</tr>
<tr>
<td>PUBLIC TOOLBOX</td>
<td>$500</td>
</tr>
<tr>
<td>VENDING MACHINE + AMENITIES</td>
<td>$10k</td>
</tr>
</tbody>
</table>

*Cost information provided by the Port Manchac Commission.
OTHER PARTNERSHIPS

Partner with other ecotourism industries/environmental groups
- Canoe/kayaking companies
- Birdwatching
- Friends of Manchac Greenway

Instill public trust
PORT MANCHAC MASTERPLAN

1. **Observation Tower**
2. **Parking Area**
3. **Ground Trail**
4. **Improved Shoreline Protection**
5. **Wayfinding Elements**
   - Lighthouse Wayfinding
   - Seen from Highway
   - Arrival Enhancements
6. **Public Areas**
   - Manchac Greenway
   - Weekend Farmer’s Market & Pavilion
7. **Rentable Structure**
   - Recreational Boat Storage Area
   - Rentable Cajun Cottages
8. **Public Facilities**
   - Bike/Kayak Shop
   - Recreational Boat Storage Area
   - Kiosk Launch
   - Pavillon
9. **Hike/Bike Boardwalk Trail**
10. **Hike/Bike Ground Trail**
11. **Parking**
    - Area not to be disturbed
12. **Traffic Flow**
13. **Shoreline Protection**
14. **Bird Watching Tower**
15. **Boardwalk Lookout Points**
16. **Rentable Cajun Cottages**

**Wayfinding Elements (continued)**
- Manchac Greenway
- Hike/Bike Boardwalk Trail
- Rentable Cottages
- Building Structure
- Public Areas
- Public Facilities
- Parking
- Area not to be disturbed
- Traffic Flow
- Shoreline Protection
PORT MANCHAC MASTERPLAN

- OBSERVATION TOWER
- ICONIC WAYFINDING
- NEW SIGNAGE
- MANCHAC GREENWAY
ENVIRONMENTAL COMMUNICATION

Honesty and transparency critical to gain public support

Many avenues
• Email newsletter
• Public meetings
• Ad campaign
• Website

Environmental Impact Statements

Triple Bottom Line Reporting
CONCLUSION

Port Manchac is not being used to its full potential

• NGOs and the public want a change

Ideas expressed here would:

• Enhance wetland research and protect the area’s environment
• Enhance the public’s perception of the Port
• Opportunities for engagement and environmental education
• Potentially turn a profit
RECOMMENDATIONS

1. Report presented at next Port Commission meeting
2. Meetings held to gauge public’s interest
3. Survey ecotourism groups and Friends of the Manchac Greenway to gauge their interest
4. Conduct surveys on the 100 acres of acquirable land
ACKNOWLEDGMENTS

- The Port Manchac Commission
- Mr. Bill Joubert
- Mr. Pat Dufresne
- Tyler Stevens