Benefit Cost Analysis Executive Summary

The Benefit Cost Analysis looks at the project from the standpoint of society as a whole, and it accounts for the net benefits and net costs based on the criteria described in the FY 2017 TIGER Discretionary Grant Notice of Funding. Analysis of the project seeks to answer the question, "Is the region, the state and the nation enhanced by the completion of this project?" The Benefit Cost Analysis addresses the issues of reduction of freight travel time, fuel costs, operating and maintenance costs, emissions and crash reductions.

Current Status and Problem to be addressed	Change to Baseline/ Alternatives	Types of Impacts	Population Affected by Impact	Economic Benefit	Summary of Results	Page Reference in BCA
25-year old Dock is not large enough to meet future demands and to expand export/import opportunities	450' foot extension, and additional laydown area of @ 64,000 sf	Increased export/import capacity; time and fuel cost savings; State of Good Repair through the reduction of long-term maintenance and repair costs	Shipping carriers; Exporters and Importers	Monetized value of reduced travel times, fuel consumption, emissions and safety benefits	The benefits to cost analysis indicates a benefit of 21.25 to 1 (at a 3.0% NPV) and 11.71 to 1 (at a 7.0% NPV)	Pages 6-20

The Morgan City Harbor and Terminal District is requesting FY 2017 TIGER Discretionary Grant funds in the amount of $12,000,000. These FY 2017 TIGER Discretionary Grant funds requested for this project comprise 80% of the total "Wharf Extension and Enhancement" project construction costs with the remaining 20% of funds ($3,000,000) provided from local support (the port).

Total construction project costs are estimated at $15 million, which includes an estimated $1.5 million in pre-construction costs (i.e., planning, designing, & engineering).

Planning, Designing, and Engineering (including permitting) for this project have NOT been completed; but, this will not affect the obligation of funds (if awarded) past September 30, 2020.

TOTAL PROJECT COSTS

Wharf Extension and Enhancement

Item	% of Project Cost	Total
MCHTD Funds	20%	$3,000,000
FY 2017 TIGER Discretionary Grant Funds	80%	$12,000.000
Total Project Costs		$15,000,000

BUDGET

Port of Morgan City Dock Extension and Enhancement			TOTAL COST	
Item Description	**Unit**	**Quantity**	**Unit Price**	**Amount**
Wharf				
Bulkhead	Linear Feet	900	$4,000	$3,600,000
Backfill	CY	16,500	$30.00	$495,000
Demo Bullrail	LS	1	$20,000	$20,000
Demo Boat Ramp	LS	1	$50,000	$50,000
Steel Pipe Piles (24”)	EA	700	$2,000	$1,400,000
Pile Cap (2’X2’)	CY	400	$1,000	$400,000
Wharf Deck (12 inch)	CY	2,230	$1,000	$2,230,000
Fendering	LS	1	$250,000	$250,000
Mooring Hardware	LS	1	$150,000	$150,000
Subtotal				**$8,595,000**
Backlands				
Base Course	CY	3,500	$55.00	$192,500
PCC Paving	SY	10,700	$55.00	$588,500
Storm Sewer Drainage	LS	1	$500,000	$500,000
Lighting	LS	1	$300,000	$300,000
Subtotal				**$1,581,000**
			Subtotal	**$10,176,000**
	Contingency – 15%			**$1,526,400**
			Subtotal	**$11,702,400**
	Prime Contractor Profit and Central Office Overhead (15%)			**$1,755,360**
			Subtotal	**$13,457,760**
	Engineering – 10%			**$1,345,776**
	TOTAL			**$14,803,536**
	FINAL ESTIMATED TOTAL			**$15,000,000**

The life-cycle of the dock expansion is expected to be 50+ years; and, the Benefit Costs Analysis uses a 20-year forecast period, as per the FY 2017 TIGER Discretionary Grant Notice of Funding. Typical maintenance and operation costs of a dock is minimal; and, annual maintenance cost per year will provide funds for future replacement of items, such as light

fixtures, electrical wiring, drainage, water line and cover annual maintenance repairs such as cleaning, painting and security cameras.

There were other alternatives to this project: No Build; Build Another Dock; and, Rent of Another Dock. There are not any identifiable methods to increase dock capacity that do not include construction of additional berthing areas or cargo lay-down areas at the present location.

BENEFITS - Long Term Outcomes

Long-Term Outcome	Types of Societal Benefits
Livability	Time Travel Savings Increase freight transportation options Accessibility to Port
Economic Competiveness	Fuel Cost Savings Time Savings Increase export/import capacity Increase export/import opportunities
Safety	Safer working environment Reduced collisions
State of Good Repair	Support regional transportation and land use plans Preservation of national investment in maritime infrastructure
Environmental Sustainability	Reduced emissions Reduced highway surface damage

Selection Criteria	Description	Inputs	Non-Discounted Value	Net Present Value 7.0%	Net Present Value 3.0%
State of Good Repair	Consistent with regional plans	Maintenance, Preservation and Upgrade			
Quality of Life	Increased Mobility	Time Travel Savings	$106,924,583	$51,598,472	$76,510,103
Economic Competiveness	Fuel Cost Savings	Fuel Cost Savings	$180,173,928	$86,946,323	$128,923,820
Environmental Sustainability	Reduced Pollution	CO2 Cost Savings	$13,424,038	$6,263,879	$9,467,021
Safety	Reduced Collisions	Collision Cost Savings	$20,922,778	$10,096,681	$14,971,336
Total Costs 7.0% NPV	(Construction Costs $15,000,000 + NPV Annual Maintenance $549,130 - Remaining Capital Value $2,325,771)			$13,223,359	
Total Costs 3.0% NPV	(Construction Costs $15,000,000 + NPV Annual Maintenance $798,533 - Remaining Capital Value $4,983,082)				$10,815,451
Total Benefits				$154,905,355	$229,872,280
Net Present Value				$141,681,996	$219,056,829
Benefit to Cost Ratio 7.0% NPV				$11.71	
Benefit to Cost Ratio 3.0% NPV					$21.25