

# Community Development Block Grant - Mitigation Application



Texas General Land Office  
Community Development and Revitalization

Texas General Land Office, P.O. Box 12873, Austin, Texas 78711-2873  
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**NECHES LIFT PUMP STATIONS**

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**PROJECT TITLE**

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**LOWER NECHES VALLEY AUTHORITY**

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**APPLICANT NAME**

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**JEFFERSON  
COUNTY**

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**SETRPC  
COG/Regional Planning Commission**

Application for funding through:

**HURRICANE HARVEY STATEWIDE COMPETITION**

**LOWER NECHES VALLEY AUTHORITY  
CDBG-MIT APPLICATION  
NECHES LIFT PUMP STATIONS**

**Project Description:**

LNVA serves municipal, agricultural and industrial customers in Jefferson County through their Neches and BI Canal Systems. These canal systems are fed by intake pump stations. During Hurricane Harvey and other significant storm events, the Neches First Lift Pump Stations and the BI First Lift Pump Station become flooded, requiring staff to take drastic measures to deliver and start-up temporary pumps and motors to continue to serve their customers. The purpose of this project is to raise one of the pump stations above the flood of record to improve resiliency and mitigate the risk to public health and safety. This will result in a dependable water supply during disaster events for the Cities of Port Arthur, Groves, Nederland, Port Neches, West Jefferson County MUD and Beaumont and other agricultural and industrial customers throughout Jefferson County.

The Neches 1<sup>st</sup> Lift Pump Station has a pumping capacity of 200,000 gpm from their 1930's pump station and a 330,000 gpm capacity from their 1960's pump station. These pumps are driven by 6 natural gas engines. The 1930's pump station is housed in a building that is cannot be adequately flood-proofed to withstand significant flood events. LNVA intends to replace the pumping capacity with a new pump station located in an area less susceptible to inundation by flood waters.

LNVA would like to replace the pumping capacity at the 1930's pump station with new pumps driven by electric motors with back-up diesel generators. In addition to floodproofing the pump station, this will diversify their fuel needs at the pump station and provide back-up pumping capacity in case there was a loss of natural gas to the facility. The new pump(s) should also be located above the flood of record. Scope for this project includes the following:

- Replacement of the 1930 pumping facility with a new pump station on the eastside of the canal. The new pump station would include six pump slots for vertical turbine pumps, each with a capacity of 40,000 gpm. It is assumed that 4 pumps would be installed initially with 2 diesel generators, each generator capable of operating two pumps.
- A new 100,000 gpm pump and electric motor will also be installed in an open slot at the Neches 2<sup>nd</sup> Lift Pump Station that can pump in the event of a disruption of the natural gas supply. A single diesel generator will be installed at this station for back-up power.

The project will provide a benefit to all residents of Jefferson County.

<b>Total Project Costs</b>	<b>\$40,176,075.00</b>
<b>CDBG-MIT Request</b>	<b>\$39,774,314.00</b>
<b>Local Matching Funds</b>	<b>\$ 401,761.00</b>
<b>Construction</b>	<b>\$32,935,725.00</b>
<b>Engineering</b>	<b>\$ 4,940,350.00</b>
<b>Administration</b>	<b>\$ 2,300,000.00</b>



## CDBG-MIT: Budget Justification of Retail Costs (Former Table 2)

Cost Verification Controls must be in place to assure that construction costs are reasonable and consistent with market costs at the time and place of construction.

<b>Applicant/Subrecipient:</b>	Lower Neches Valley Authority -					
<b>Site/Activity Title:</b>	Neches 1st Pumping Station Replacement & 2nd Lift Pump Addition					
<b>Eligible:</b>						
<b>Materials/Facilities/Services</b>	<b>\$/Unit</b>	<b>Unit</b>	<b>Quantity</b>	<b>Construction</b>	<b>Acquisition</b>	<b>Total</b>
Mobilization	\$ 2,438,000.00	LS	1	\$ 2,438,000.00	\$ -	\$ 2,438,000.00
<b>SITE WORK LIFT NO 1</b>						
Clearing	\$ 14,000.00	LS	1	\$ 14,000.00	\$ -	\$ 14,000.00
Care of Water (cofferdam, dewatering during excavation)	\$ 1,120,000.00	LS	1	\$ 1,120,000.00	\$ -	\$ 1,120,000.00
Permanent Sheet Piling	\$ 731.00	SY	2000	\$ 1,462,000.00	\$ -	\$ 1,462,000.00
Temporary Sheet Piling	\$ 605.00	SY	4000	\$ 2,420,000.00	\$ -	\$ 2,420,000.00
Trench Safety	\$ 14,000.00	LS	1	\$ 14,000.00	\$ -	\$ 14,000.00
Earthwork	\$ 42.00	CY	30000	\$ 1,260,000.00	\$ -	\$ 1,260,000.00
Canal Armoring	\$ 42,000.00	LS	1	\$ 42,000.00	\$ -	\$ 42,000.00
Access Road and Site Paving (Flexible Base)	\$ 3,200.00	SY	28	\$ 89,600.00	\$ -	\$ 89,600.00
SWPPP	\$ 28,000.00	LS	1	\$ 28,000.00	\$ -	\$ 28,000.00
Final Grading	\$ 42,000.00	LS	1	\$ 42,000.00	\$ -	\$ 42,000.00
Hyromulch and Irrigation	\$ 21,000.00	LS	1	\$ 21,000.00	\$ -	\$ 21,000.00
Demolition	\$ 30,000.00	LS	1	\$ 30,000.00	\$ -	\$ 30,000.00
<b>INTAKE STRUCTURE LIFT NO 1</b>						
Concrete Intake Struture	\$ 1,449.00	CY	1500	\$ 2,173,500.00	\$ -	\$ 2,173,500.00
Excavation	\$ 49.00	CY	9500	\$ 465,500.00	\$ -	\$ 465,500.00
Backfill	\$ 56.00	CY	2500	\$ 140,000.00	\$ -	\$ 140,000.00
Intake Screen	\$ 84,000.00	EA	5	\$ 420,000.00	\$ -	\$ 420,000.00
18" Riprap	\$ 560.00	SY	460	\$ 257,600.00	\$ -	\$ 257,600.00
<b>PROCESS MECHANICAL LIFT NO 1</b>						
Pump Purchase (4@40K GPM)	\$ 840,000.00	EA	4	\$ 3,360,000.00	\$ -	\$ 3,360,000.00
Pump Installation and Startup	\$ 42,000.00	EA	4	\$ 168,000.00	\$ -	\$ 168,000.00
42" Pump Discharge Piping	\$ 1,365.00	LF	525	\$ 716,625.00	\$ -	\$ 716,625.00
66" Pump Discharge Piping (includes excavation and backfill)	\$ 1,960.00	LF	850	\$ 1,666,000.00	\$ -	\$ 1,666,000.00
42" Electromagnetic Flow Meter	\$ 70,000.00	EA	4	\$ 280,000.00	\$ -	\$ 280,000.00
Flow Meter Vault	\$ 280,000.00	LS	1	\$ 280,000.00	\$ -	\$ 280,000.00
42" Butterfly Valve	\$ 35,000.00	EA	4	\$ 140,000.00	\$ -	\$ 140,000.00
42" Dismantling Joint	\$ 9,800.00	EA	4	\$ 39,200.00	\$ -	\$ 39,200.00
42" Dresser Coupling	\$ 2,800.00	EA	4	\$ 11,200.00	\$ -	\$ 11,200.00
Adjustable Pipe Supports	\$ 3,500.00	EA	4	\$ 14,000.00	\$ -	\$ 14,000.00
42" Flap Gates	\$ 28,000.00	EA	4	\$ 112,000.00	\$ -	\$ 112,000.00
Discharge Structure	\$ 1,365.00	CY	250	\$ 341,250.00	\$ -	\$ 341,250.00
<b>ELECTRICAL LIFT NO 1</b>						
Pre-Fab Electrical Building (4500 SF)	\$ 210,000.00	LS	1	\$ 210,000.00	\$ -	\$ 210,000.00
Electrical, Instrumentation and Controls	\$ 6,904,800.00	LS	1	\$ 6,904,800.00	\$ -	\$ 6,904,800.00
2 Diesel Generator and Concrete Pad	\$ 700,000.00	LS	1	\$ 700,000.00	\$ -	\$ 700,000.00
Electrical Service Fee	\$ 750,400.00	LS	1	\$ 750,400.00	\$ -	\$ 750,400.00
<b>PROCESS MECHANICAL LIFT NO 2</b>						
Pump Purchase	\$ 1,200,000.00	EA	1	\$ 1,200,000.00	\$ -	\$ 1,200,000.00

Pump Installation and Startup	\$ 84,000.00	EA	1	\$ 84,000.00	\$ -	\$ 84,000.00
72" Pump Discharge Piping	\$ 2,450.00	LF	165	\$ 404,250.00	\$ -	\$ 404,250.00
72" Electromagnetic Flow Meter	\$ 140,000.00	EA	1	\$ 140,000.00	\$ -	\$ 140,000.00
72" Butterfly Valve	\$ 1,050,000.00	EA	1	\$ 1,050,000.00	\$ -	\$ 1,050,000.00
72" x 60" Eccentric Reducer	\$ 16,800.00	EA	1	\$ 16,800.00	\$ -	\$ 16,800.00
72" Dresser Coupling	\$ 10,500.00	EA	1	\$ 10,500.00	\$ -	\$ 10,500.00
Adjustable Pipe Supports	\$ 7,000.00	EA	3	\$ 21,000.00	\$ -	\$ 21,000.00
72" Flap Gates	\$ 49,000.00	EA	1	\$ 49,000.00	\$ -	\$ 49,000.00
Discharge Structure	\$ 1,330.00	CY	150	\$ 199,500.00	\$ -	\$ 199,500.00
<b>ELECTRICAL LIFT NO 2</b>						
Pre-Fab Electrical Building	\$ 210,000.00	LS	1	\$ 210,000.00	\$ -	\$ 210,000.00
Electrical, Instrumentation and Controls	\$ 1,070,000.00	LS	1	\$ 1,070,000.00	\$ -	\$ 1,070,000.00
Diesel Generator, Tanks and Concrete Pad	\$ 350,000.00	LS	1	\$ 350,000.00	\$ -	\$ 350,000.00
<b>TOTAL</b>	<b>\$ 15,473,762.00</b>			<b>\$ 32,935,725.00</b>	<b>\$ -</b>	<b>\$ 32,935,725.00</b>

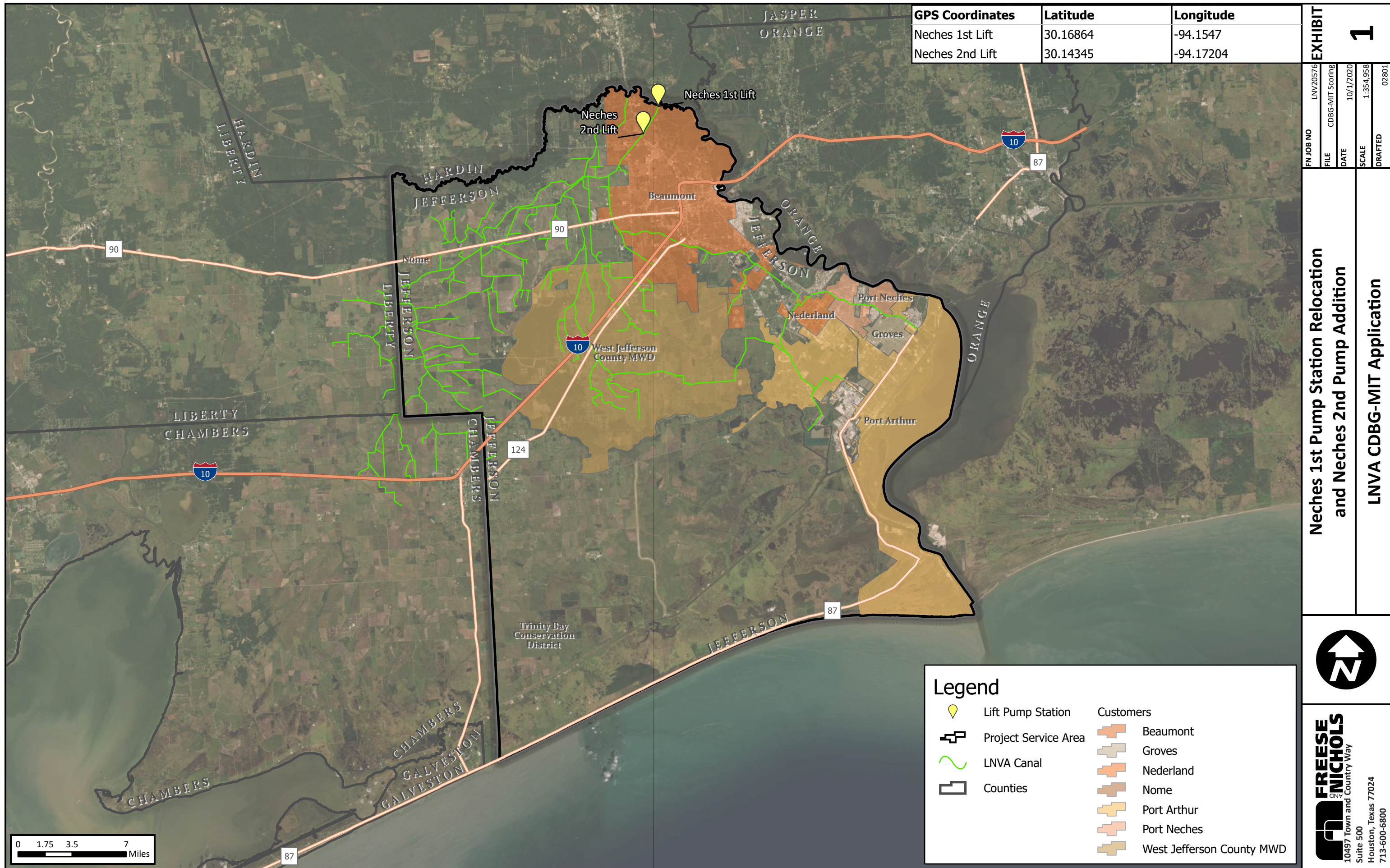
**1. Identify and explain the annual projected operation and maintenance costs associated with the proposed activities.**

**2. Identify and explain any special engineering activities.**

Seal

Date:		
Phone Number:		
Signature of Registered Engineer/Architect Responsible For Budget Justification:		
















GPS Coordinates	Latitude	Longitude
Neches 1st Lift	30.16864	-94.1547
Neches 2nd Lift	30.14345	-94.17204

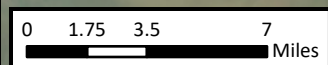
EXHIBIT	<b>1</b>			
FN JOB NO	LNVA20576	CDBG-MIT Scoring	DATE	10/1/2020
FILE	CDBG-MIT Scoring	SCALE	1:354,958	DRAFTED
				02801

**Neches 1st Pump Station Relocation  
and Neches 2nd Pump Addition**

**LNVA CDBG-MIT Application**

**Legend**

-  Lift Pump Station
  -  Project Service Area
  -  LNVA Canal
  -  Counties
- Customers**
  -  Beaumont
  -  Groves
  -  Nederland
  -  Nome
  -  Port Arthur
  -  Port Neches
  -  West Jefferson County MWD



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