

ADEM Coastal Zone Consultation



FEMA

September 17, 2007

Mr. Scott Brown
Alabama Department of Environmental Management
Coastal Program
4171 Commanders Drive
Mobile, AL 36615-1421

Re: Request for Project Review – City of Bayou La Batre Relocation of Wastewater Treatment Plant, Effluent and Influent Lines, Outfall Structure and Lift Station, and Alternative Housing Pilot Program Safe Harbor Landing and Safe Harbor Estates

The City of Bayou La Batre (City) has applied to the Federal Emergency Management (FEMA) for assistance under the Alternative Housing Pilot Program (AHPP) and Hazard Mitigation Grant Program (HMGP) to assist in the redevelopment of the City's housing and domestic and industrial wastewater infrastructure following extensive damages incurred by Hurricane Katrina. The City proposes to utilize FEMA funding to supplement the City's applications for assistance under the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG).

On August 29, 2005, Hurricane Katrina's storm surge impacted the City of Bayou La Batre, severely damaging the City's existing municipal wastewater treatment plant (WWTP) and infrastructure and residential community. Damages incurred by Katrina left the WWTP running at a reduced capacity and hundreds of residents requiring FEMA temporary trailers. In efforts to promote redevelopment, the City has applied to HUD for assistance under CDBG for:

- The demolition and relocation of the existing WWTP, located at 285 State Docks Road, out of the coastal high hazard area (Flood Zone VE) to a site located at 14575 Railroad Street; and,
- The land acquisition and installation of infrastructure to a 39-acre site (Safe Harbor Estates) located at the intersection of Shine Road and State Highway 188 in Bayou La Batre for the development of affordable housing.

In order for the new WWTP to be a functional system, new influent lines and a new effluent pipe that would discharge into Portersville Bay would be constructed. Figure 1 shows the location of the proposed project components.

The City proposes to utilize FEMA's HMGP funding for the installation of flood mitigation measures at the proposed new WWTP. Mitigation measures include the elevation of the facility to the 500-year floodplain requirements, minor flood control measures to protect the new WWTP, and construction of a new sewer pumping station (lift station) in the location of the existing WWTP.

The City has also requested assistance from FEMA's AHPP for the acquisition and development of a 13-acre parcel (Safe Harbor Landing) located adjacent to the Safe Harbor Estates site. FEMA AHPP funds would also be utilized for the placement of AHPP housing units on both housing sites. As the

components funded by HUD are connected to the proposed actions that would be funded by FEMA, the environmental impacts of all related project components are being evaluated in a comprehensive Environmental Assessment that is being prepared by FEMA.

Consultation with your agency has occurred on the two AIHP community development components of this project in a letter from Janey C. Galbraith dated June 11, 2007, regarding a Request for Project Review-Construction of 120 single family modular housing units in Bayou La Batre, Mobile County, Alabama. This letter and your agency's response letter dated June 28, 2007, are enclosed (Attachments 1 and 2). Your agency responded with a determination that the 120 family single family housing developments (Safe Harbor Estates and Safe Harbor Landing) are located outside of the coastal area of Alabama and therefore are not subject to further coastal zone management coordination or permitting requirements of the Alabama Coastal Area Management Program.

Information regarding the new WWTP, lift station, effluent and influent lines, and outfall pipeline is provided below.

New Wastewater Treatment Plant

The new WWTP would have greater volume capacity for collection and processing of waste, increasing to 3 million gallons per day (MGD) treatment capacity from the current 1 MGD. The new WWTP would also generate a higher quality effluent through tertiary treatment, exceeding the current capability of secondary treatment and standards of permitted discharge limits. The new WWTP would ensure that future treated discharge meets or exceeds water quality criteria pursuant to National Pollutant Discharge Elimination System permit requirements, as regulated by ADEM.

The new WWTP would use Aeration Basin and Secondary Clarification as the biological treatment to reduce organic material in collected wastewater. Ultraviolet radiation would be used to disinfect the effluent wastewater prior to disposal.

ADEM's proposed effluent limits for Portersville Bay will be in the range of treated effluent limits of 5 parts per million (ppm) carbonaceous biochemical oxygen demand; 2 ppm ammonia nitrogen; 25 milligram per liter (mg/l) total suspended solids; and 1 mg/l total phosphorus. A Post-Aeration pond would increase the concentration of dissolved oxygen in the effluent stream, prior to discharge in receiving waters of Portersville Bay. Wastewater would be disinfected with ozone prior to being moved into the effluent discharge line. Ozone increases dissolved oxygen levels, disinfects, and leaves no residual toxins in effluent.

The existing waste water treatment facility will be cleaned in place, demolished in place, and materials disposed of at a permitted landfill. The site proposed for the new WWTP was previously used for disposal of dredged material, and is at a higher elevation than the existing municipal WWTP.

Lift Station

The proposed new lift station would be constructed on the site of the existing municipal WWTP and would pump raw sewage which currently arrives at the location of the old WWTP through the existing collection system and on to the new WWTP for treatment. The new lift station would incorporate flood mitigation measures and flood proofing.

Influent and Effluent Pipelines

Approximately 7,000 linear feet of influent line would be installed. The effluent and outfall lines would total approximately 12,000 linear feet; approximately 2,500 linear feet of the outfall line would be constructed within Portersville Bay. Influent and effluent lines would be constructed within existing right-of-ways.

Combining City and Industrial Outfalls into One Pipeline

The City would consolidate all domestic and industrial waste effluent into a single outfall in Portersville Bay. Combining the existing domestic and industrial effluent waste streams into one outfall will reduce loading to the bay from current levels. The City would move the outfall discharge location farther offshore to provide more rapid mixing with surface waters. The outfall diffuser (see Figure 2) proposed for the offshore discharge location consists of ten 8-inch Tideflex diffusers that significantly enlarge the dilution zone compared to the current outfall. The diffuser also mixes effluent more rapidly with the receiving water body. ADEM has requested that the new effluent outfall site be located within the existing ADEM Fish and Wildlife Reserve, offshore of Bayou La Batre.

Pipeline Construction Methods

Conventional construction equipment and methods would be employed to install the proposed inflow and outflow pipelines along existing rights-of-way. For terrestrial lines, trenching would be accomplished by using mechanical equipment such as trenchers or backhoes. The treated effluent (outflow) pipeline would be installed by conventional methods until reaching the northern edge of Portersville Bay. A horizontal drilling method would be used to bore beneath the marsh to avoid disturbance of marsh soil and vegetation. Once the pipeline reaches the borehole exit in open waters of Portersville Bay, pipeline installation would be carried out with a conventional pipe laying jet barge (see Figure 3).

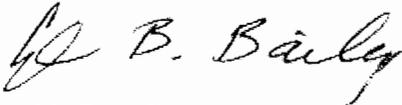
The enclosed Table 1 contains sediment quality data for sediment texture and heavy metals collected in 2007 along the proposed pipeline route. At the outfall location (Station 1), sediments are mostly silt and clay, with elevated levels of total organic carbon. Heavy metal concentrations along the proposed route are a reflection of the percentage of fine sediments. Sediment quality along the pipeline route is typical of clean estuarine sediments. Levels of arsenic, lead and mercury were below reporting limits.

To achieve the appropriate burial depth, the constructed pipeline would be post-jetted using high-pressure water jets. During operations, a jetting sled moves slowly above the pipeline and uses high-pressure water streams to cut a trench beneath it. The pipeline then settles into the created trench

and displaced sediment eventually backfills the trench, covering the pipeline. Pipeline installation utilizing the jetting method will require temporary disturbance of sediments along the route as the trench is created. Installation of the pipeline utilizing the jetting method will require temporary disturbance of sediments along the route as the trench is created. An as-built survey would be conducted after completion of pipeline construction to assure pipeline location and depth is a minimum of 4 feet below ambient bottom elevation, per State of Alabama regulations.

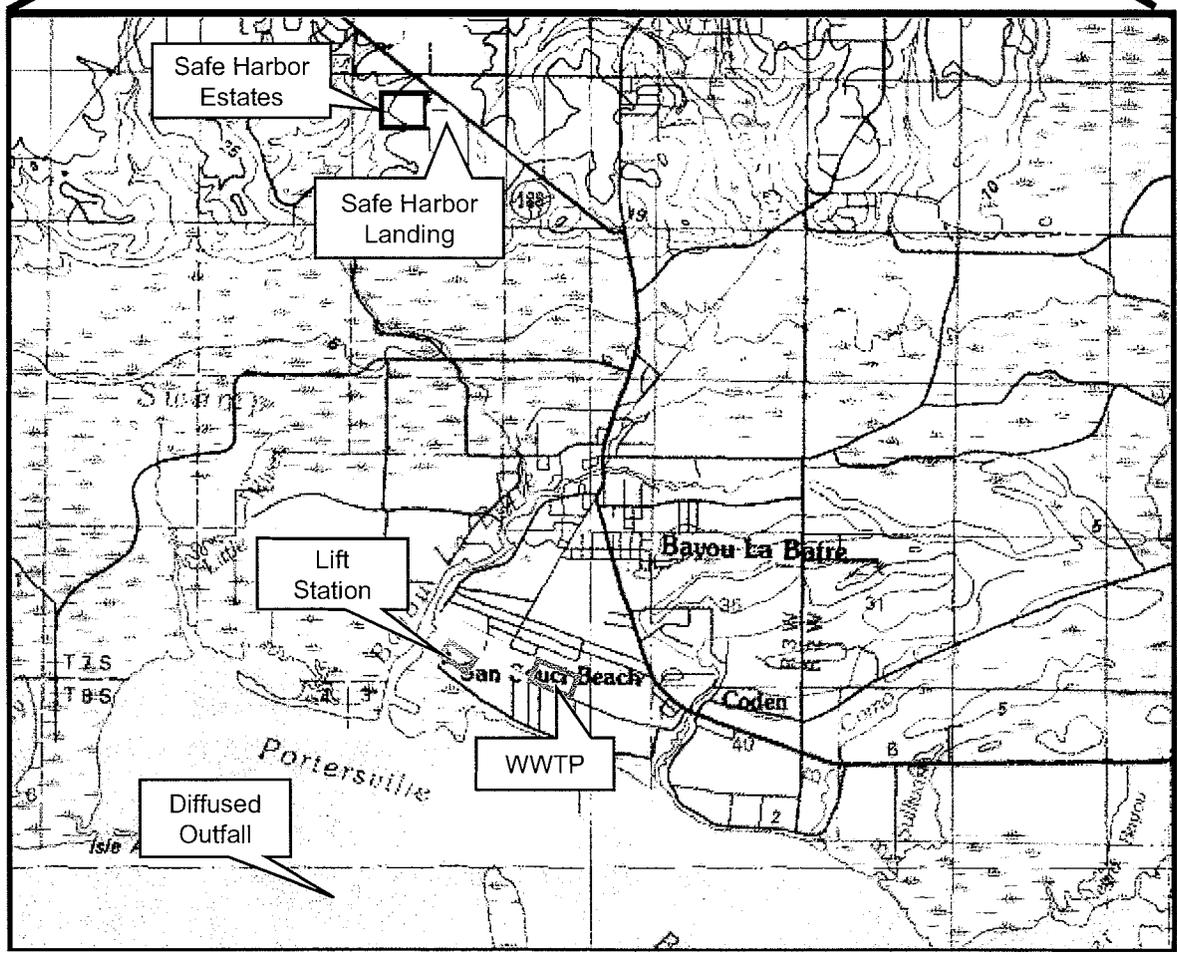
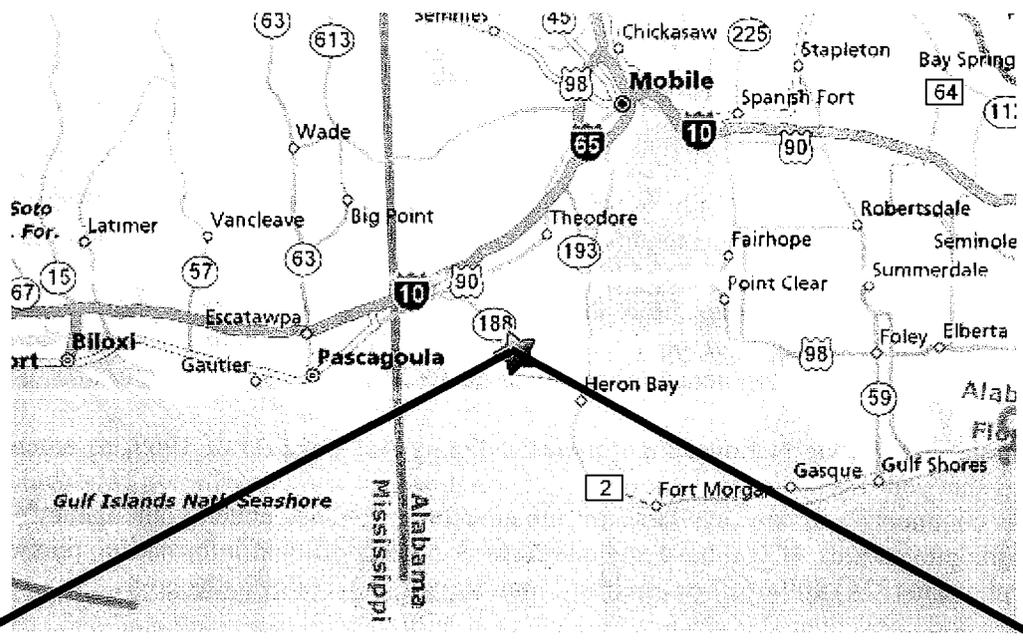
In compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, FEMA requests that your agency review the entire proposed project and consultation conducted to date and provide comments and any available information on resources under your agency's jurisdiction within the project area. If you have any questions or need additional information, please contact me by telephone at (334) 409-4627 or electronic mail at cynthia.b.bailey@dhs.gov.

Sincerely,

A handwritten signature in cursive script that reads "C. B. Bailey".

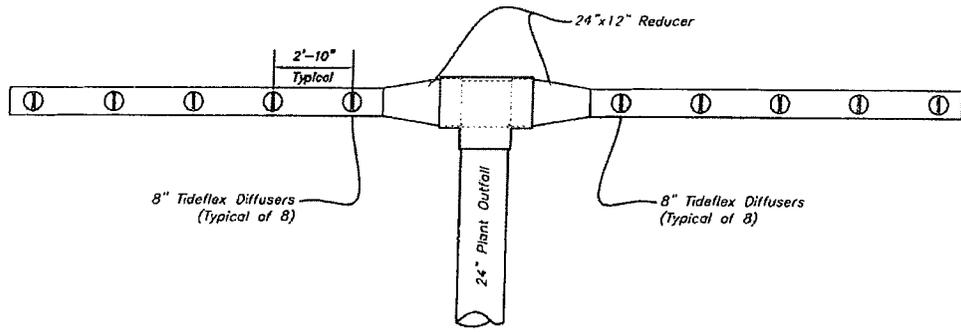
Cynthia B. Bailey
Environmental Liaison Officer
FEMA-1605-DR-AL

Enclosures as noted

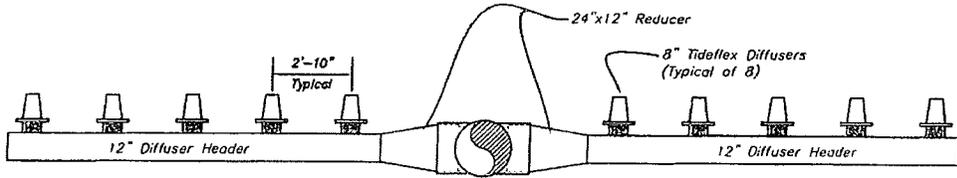


CLIENT City of Bayou La Batre			
PROJ WWTP Relocation and Housing Project, Mobile County, AL			
REVISION NO	DES BY	DR BY	8/11/07
SCALE	NTS	KRS	X
FILE	CHK BY	X	X

TITLE	PROJECT AREA
URS	PROJ NO 15707017
	FIGURE 1



PLAN VIEW



SECTION VIEW

Bayou La Batre WWTP City of Bayou La Batre, Alabama	Outfall Diffuser Plan & Section	DESIGNED	DRAWN
		CHECKED	FN
		SCALE	5-6-073
		DATE	1/31/2007
		PROJECT	X-X-XX
		SHT 1 OF 1	



GOODWIN, MILLS AND CATWOOD, INC.
 ENGINEERING ARCHITECTURE LANDSCAPE ARCHITECTURE PLANNING SURVEYING
 1000 East-Chance Lane Montgomery, Alabama 36117 ALABAMA
 Phone: (205) 874-2200 Fax: (205) 870-1000



Figure 2. Plan and section views of the outfall diffuser.

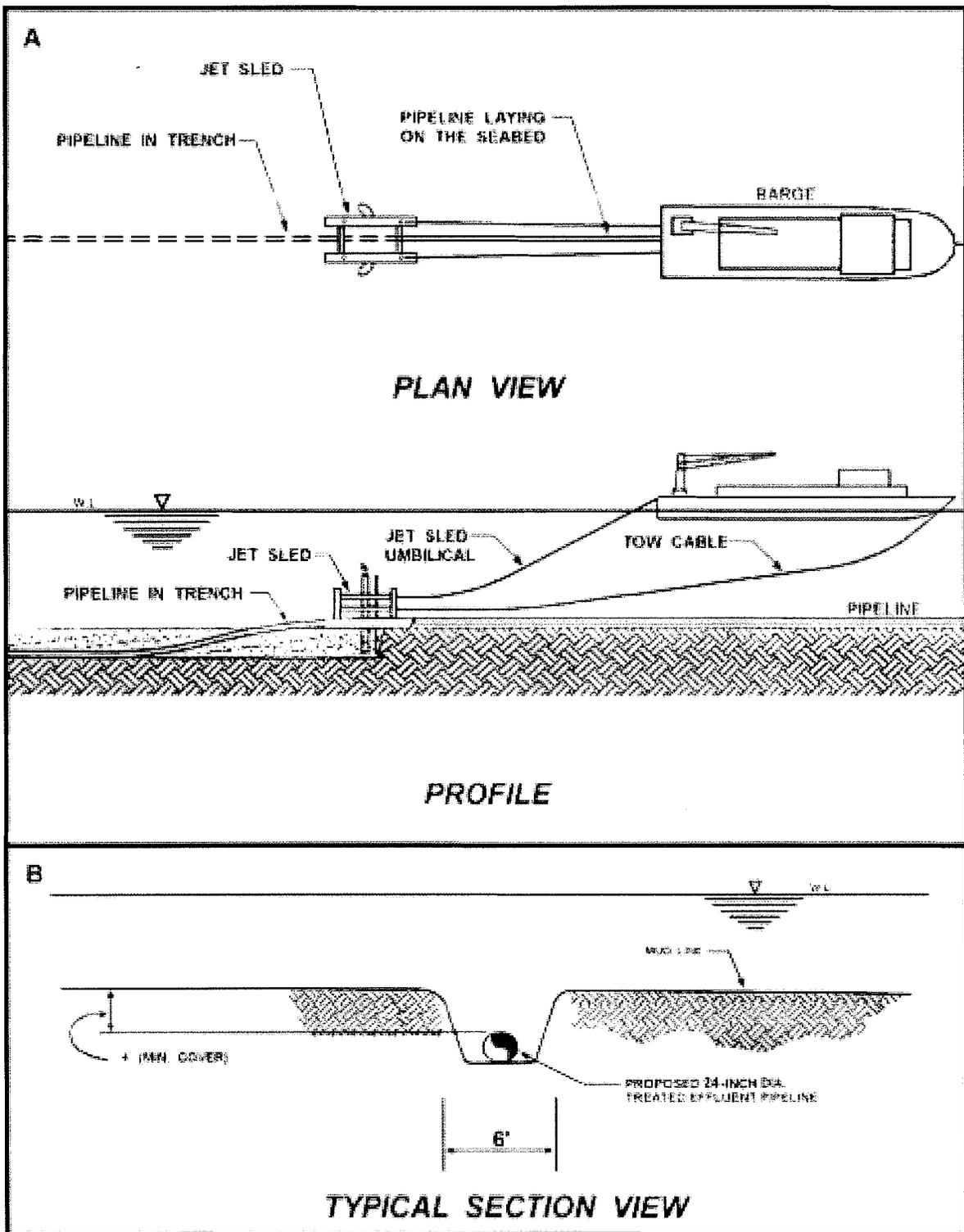


Figure 3. A) Typical pipe-laying barge operation and B) typical trench section configuration.

Table 1. Summary of heavy metals and sediment texture in samples collected January and March 2007 along the route of the proposed combined treated discharge pipeline, in Portersville Bay, AL.

PARAMETER	LOCATION				
	Station 1	Station 2	Station 3	Station 4	Station 5
Aluminum (mg/kg)	8,890	5,700	8,870	967	335
Arsenic (mg/kg)	BRL ¹	BRL	BRL	BRL	BRL
Cadmium (mg/kg)	BRL	BRL	BRL	BRL	BRL
Chromium (mg/kg)	15.4	9.91	14.8	2.23	BRL
Copper (mg/kg)	6.6	4.41	7.5	BRL	BRL
Iron (mg/kg)	21,700	12,400	17,800	1,900	1100
Lead (mg/kg)	BRL	BRL	BRL	BRL	BRL
Mercury (mg/kg)	BRL	BRL	BRL	BRL	BRL
Zinc (mg/kg)	42.4	29.6	45.4	7.94	9.7
Sand (%)	22.9	57.4	48.2	92.5	95.8
Silt (%)	40.5	25.1	25.3	2.2	1.4
Clay (%)	36.6	17.5	26.5	5.3	2.8
TOC (%)	12.70	4.72	9.96	1.43	1.45
¹ BRL = below reporting limits					

Attachment 1

ONIS "TREY" GLENN, III
DIRECTOR



BOB RILEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2059 • Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-1700
FAX (334) 271-7950

June 28, 2007

Ms. Janey C. Galbraith
Galbraith & Associates, L.L.C.
7770 Country Square Drive
Mobile, AL 36695

RE: City of Bayou La Batre funding from the Federal Emergency Management Agency (FEMA)
under the Alternative Housing Pilot Program (AHPP)
City of Bayou La Batre 120 single family modular home site

Dear Ms. Galbraith:

The Department of Environmental Management (ADEM) has received your request for coastal zone management review of the above-referenced City of Bayou La Batre project to be undertaken on the east and west sides of Shine Road in Mobile County, Alabama.

It is our understanding the project includes the construction of a 120 single-family modular home site in Bayou La Batre, Mobile County, Alabama. The proposed site will accommodate 60 units located on 39 acres on the east side of Shine Road and 60 units located on 13 acres on the west side of Shine Road. The proposed project will include the development of buffers to adjoining properties, common areas, a divided median entrance, and sidewalks on both sides of all streets, street trees and street lighting.

On the basis of a review of all materials submitted and associated with the proposals, it appears the project is located outside the coastal area of Alabama and therefore is not subject to further coastal zone management coordination or permitting requirements of the Alabama Coastal Area Management Program.

Please be advised that although the Department has determined this activity is not subject to further permitting procedures of the coastal area management program, this does not relieve the operator of the responsibility to comply with other Federal, State and/or local rules or ordinances nor to obtain any other licenses or permits which may be required thereby.

Also, pursuant to ADEM Admin. Code Ch. 335-6-12 regarding discharges of stormwater, the operator/owner is required to submit a complete and correct Notice Of Registration (NOR - ADEM Form 498), including the appropriate fee, requesting NPDES permit coverage prior to conducting any construction or land disturbance that equals or exceeds one (1) acre, or if less than one (1) acre in size and is part of, adjacent to, or associated with a common plan for development or sale which might eventually equal or exceed one (1) acre in size, or if less than one (1) acre in size if stormwater discharges have reasonable potential to be a significant contributor of pollutants to a water of the State or have reasonable potential to cause or contribute to a violation of applicable Alabama water quality standards as determined by the Department, and/or conducting any noncoal, nonmetallic mining and mineral dry processing activity less than five (5) acres in size.

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4762
(205) 942-6168
(205) 941-1603 (Fax)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (Fax)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (Fax)

Mobile - Coastal
4171 Communitas Drive
Mobile, AL 36615-1421
(251) 432-6533
(251) 437-6598 (Fax)

City of Bayou La Batre
Page 2 of 2
June 28, 2007

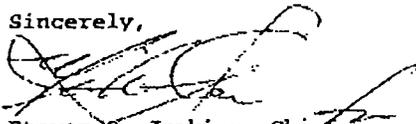
Information regarding regulated construction activities (ADEM Admin. Code Ch. 335-6-12, forms, and other helpful information) is available for download in WORD or PDF format on the ADEM webpage at:

www.adem.state.al.us/FieldOps/Permitting/Construction/Construction.htm

Completed NORs can be mailed or delivered to: ADEM Coastal Office, Attn: Tim Connole, 4171 Commanders Drive, Mobile, AL 36615.

Call or write anytime with questions. Jennifer Robinson is the Department contact for this project. She may be reached by phone at [251] 432-6533 or e-mail: jrobinson@adem.state.al.us.

Sincerely,



Steven O. Jenkins, Chief
Field Operations Division

Attachment 2



Galbraith & Associates, L.L.C.

Development Consultants

7770 Country Squire Dr., Mobile, Alabama 36695

Telephone: 251/633-6727 Fax: 251/633-2099
e-mail: grantslady@msn.com

June 11, 2007

Attn: Scott Brown, Chief, Coastal Unit
Alabama Department of Environmental Management (ADEM)
4171 Commanders Drive
Mobile, AL 36615-1421

Re: Request for Project Review- Construction of 120 single-family modular housing units in Bayou La Batre, Mobile County, Alabama

Dear Mr. Brown:

The City of Bayou La Batre has applied for federal funding from the Federal Emergency Management Agency (FEMA) under the Alternative Housing Pilot Program (AHPP) for the proposed construction of a 120 single-family modular home site. The proposed site will accommodate 60 units located on 39 acres on the east side of Shine Road and 60 units located on 13 acres on the west side of Shine Road. The proposed project will include the development of buffers to adjoining properties, common areas, a divided median entrance, and sidewalks on both sides of all streets, street trees, and street lighting. The following items are attached:

- 1) Preliminary Site Plan (Including Latitudes/Longitudes)
- 2) USGS Topographic Map of the project area (All proposed activities are located in Section 15, Township 7 South and Range 3 West, as shown on the Grand Bay USGS Quadrangle map)

On August 29, 2005, Hurricane Katrina damaged 65% of the City's housing stock, leaving nearly 1,000 of the city's 2,310 citizens homeless. FEMA assessments report that approximately 500 of the 1,674 single-family dwelling units damaged in the state of Alabama were located in the City of Bayou La Batre. Recent FEMA reports indicate that there are nearly 50 families in Bayou La Batre and several hundred in Mobile County still living in FEMA trailers.

The property consisting of 39 acres (Safe Harbor Estates) is located inside the corporate limits of Bayou La Batre. The property consisting of 13 acres (Safe Harbor Landing) is located outside the corporate limits of Bayou La Batre but will be annexed into the City prior to start of development. Bayou La Batre will provide sanitary sewer and potable water to the site by extending its existing lines. Zoning to accommodate the site plan

water to the site by extending its existing lines. Zoning to accommodate the site plan presented will be granted by the City. Safe Harbor, upon completion, will be located approximately 2.5 miles from the service center of Bayou La Batre and approximately 26 miles from Downtown Mobile. Interstate highway I-10 will be located approximately 12 miles to the north. The Gulf Coast waters edge will be located approximately 4 miles to the south.

All homes will be built using third party inspections in conformance with International Residential Code and Modular Construction requirements. All wind load construction requirements for the area will be strictly enforced. The property does not lie within a flood hazard area. Each home will be constructed in a modular housing factory by a qualified company. Site work will include utility and road construction to accommodate the 120 lots. This activity will be followed by foundation construction followed by the setting of homes. Sixty of the units (Safe Harbor Estates) will be placed on concrete slab foundations and will be permanent. The remaining 60 homes (Safe Harbor Landing) will be built on pier foundations, elevated 18 inches above grade for proper ventilation. Final trim-outs and hook-ups will be followed by driveways and landscaping. The proposed homes will have cement fiber siding and a vapor barrier wrap to protect against rot, water and mold. Homes will be Lead Compliant and Energy Star Certified.

Phase I Cultural Resource Assessments have been conducted on each site which found no significant artifacts, sites, or structures. Endangered Species Surveys found no evidence of threatened or endangered species on the proposed sites. All activities will take place on previously disturbed land.

In compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, FEMA has requested that your agency review the proposed project and provide comments and any available information or resources under your agency's jurisdiction within the project area. If you have any questions or need additional information, please contact me by telephone at (251) 633-6727, electronic mail at grantslady@msn.com, or by mail at 7770 Country Squire Road, Mobile, Alabama 36695.

Sincerely,



Janey C. Galbraith

CC: Cindy Bailey, FEMA Transitional Recovery Office - Montgomery, AL
Brian Mehok, FEMA Transitional Recovery Office - Biloxi, MS

ONIS "TREY" GLENN, III
DIRECTOR



BOB RILEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2059 • Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700
FAX (334) 271-7950

December 11, 2007

Ms. Cynthia B. Bailey
Environmental Liaison Officer
U.S. Department of Homeland Security
Federal Emergency Management Agency
Alabama Transitional Recovery Office
1555 Eastern Boulevard
Montgomery, AL 36117

RE: City of Bayou La Batre
1. Relocation of Wastewater Treatment Plant, Effluent and Influent Lines, Outfall Structure and Lift Station
2. Alternative Housing Pilot Program Safe Harbor Landing and Safe Harbor Estates
Mobile County
ADEM Tracking Number: FEMA-08-001-JCR

Dear Ms. Bailey:

The Alabama Department of Environmental Management (ADEM) has received your request for a determination of consistency with the State's Coastal Zone Management Program (CZMP) relative to the above-referenced City of Bayou La Batre proposal to be undertaken in Bayou La Batre, Alabama. We understand this proposal is considering: 1) the acquisition and installation of infrastructure to a 39-acre site (Safe Harbor Estates) located at the intersection of Shine Road and State Highway 188 and 2) the demolition (285 State Docks Road) and relocation of the existing the City of Bayou La Batre's municipal wastewater treatment plant to 14575 Railroad Street, Bayou La Batre, Alabama.

On the basis of a review of all materials submitted and associated with the proposal, it has been determined that activities associated with Safe Harbor Landing and Safe Harbor Estates are located outside the coastal area of Alabama and are therefore not subject to further coastal zone management coordination or permitting requirements of the Alabama CZMP. Please be advised that although the Department has determined the activities are not subject to further permitting procedures of the State's CZMP, this does not relieve the operator of the responsibility to comply with other Federal, State and/or local rules or ordinances nor to obtain any other licenses or permits which may be required thereby.

However, pursuant to ADEM Admin. Code Ch. 335-6-12 regarding discharges of stormwater, the operator/owner is required to submit a complete and correct Notice Of Registration (NOR - ADEM Form 498), ADEM Form 498), including the appropriate fee, requesting NPDES permit coverage prior to conducting any construction or land disturbance that equals or exceeds one (1) acre.

Information regarding regulated construction activities (ADEM Admin. Code Ch. 335-6-12, forms, and other helpful information) is available for download in WORD or PDF format on the ADEM webpage at:

www.adem.state.al.us/FieldOps/Permitting/Construction/Construction.htm

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (Fax)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (Fax)



Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (Fax)

Mobile - Coastal
4171 Commanders Drive
Mobile, AL 36615-1421
(251) 432-6533
(251) 432-6598 (Fax)

Completed NORs can be mailed or delivered to: ADEM Coastal Office, Attn: Tim Connole, 4171 Commanders Drive, Mobile, AL 36615.

The Department has determined that activities associated with the referenced new municipal wastewater treatment plant at 14575 Railroad Street are located within the coastal area of Alabama as defined by ADEM Admin. Code R. 335-8-1-.02(k) and are subject to the permitting requirements of ADEM Admin. Code R. 335-8-2-.11.

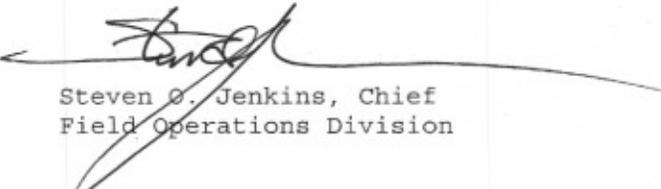
Information regarding commercial and residential developments greater than 5 acres (ADEM Admin. Code R. 335-8-2-.11) is available on the ADEM webpage at:
<http://www.adem.state.al.us/FieldOps/Permitting/Coastal/coastal.htm#Commercial>

The rules regarding discharges of stormwater, as mentioned above are also applicable to the referenced new municipal wastewater treatment plant.

In addition, the applicant must apply for and obtain a valid NPDES permit pursuant to the requirements of ADEM Admin. Code R. 335-6-6 prior to discharging pollutants into waters of the state. This includes, but not limited to, those pollutants discharged in association with operations of a waste water treatment facility. Information regarding NPDES permitting is available at: <http://www.adem.state.al.us>.

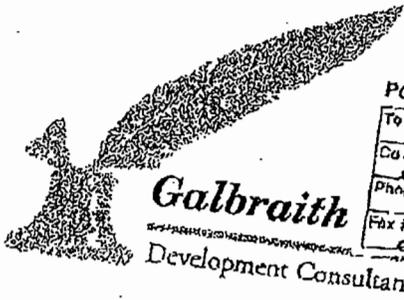
Call or write anytime with questions. Jennifer Robinson is the Department contact for this project. She may be reached by phone at [251] 432-6533 or e-mail: jrobinson@adem.state.al.us.

Sincerely,



Steven O. Jenkins, Chief
Field Operations Division

USFWS Consultation



2007-TA-0608 Log TAYPH

Post-it® Fax Note 7871		Date: 6/22/07	# of pages: 2
To: Q. C. Galbraith	FROM: SJW		
Co. Address: Galbraith + Assoc	Co.: USFWS		
Phone #	Phone #: 251-441-5184		
Fax #: 251-633-2099	Fax #: 251-441-6222		



June 11, 2007



Telephone: 251/633-6727 Fax: 251/633-2099

U.S. Fish and Wildlife Service
1208-B Main Street - Daphne, Alabama 36526
Phone: 251-441-5181 Fax: 251-441-6222

No endangered or threatened species or critical habitat are known to occur in the project area. As described, the project will have no significant impact on fish and wildlife resources. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT NEW PLANS FOR REVIEW.

William J. Robinson
William J. Robinson, Field Supervisor

6/22/07
Date #2

Ms. Elaine Snyder-Conn
Acting Field Supervisor
Daphne Ecological Services Field Office
1208-B Main Street
Daphne, AL 36526

Re: City of Bayou La Batre, Mobile County, A
Proposed development of a 20 acre parcel on Shine Road
FEMA Alternative Housing Pilot Program

Dear Ms. Snyder-Conn:

The City of Bayou La Batre has applied for federal funding from the Federal Emergency Management Agency (FEMA) under the Alternative Housing Pilot Program (AHP) to provide housing for families who were displaced by Hurricane Katrina. The City of Bayou La Batre proposes to develop a 20 acre parcel located south of State Road (SR) 188 and east of Shine Road north of Bayou La Batre, Alabama. The site is currently being used as a trailer park. The proposed project will include the development of 60 single-family modular housing units, buffers to adjoining properties, common areas, a divided median entrance, and sidewalks on both sides of all streets, street trees, and street lighting. The following items are attached:

- 1) Threatened and Endangered Species Surveys conducted by Angela Rangel, M.S. Biologist
- 2) Preliminary Site Plan (Including Latitudes/Longitudes)
- 3) USGS Topographic Map of the project area (All proposed activities are located in Section 15, Township 8 South and Range 4 West, as shown on the Grand Bay USGS Quadrangle map)

All take place on previously disturbed areas. This project does not involve grubbing or the destruction of any forest property. The attached species survey found no evidence of threatened or endangered species on

ded before we may proceed with the project. We request your determine the potential impact upon threatened and or 'd be appreciated if you would check the appropriate space

S. I.
IS.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
1208-B Main Street
Daphne, Alabama 36526

IN REPLY REFER TO

2006-I-1085b

May 3, 2007

Mr. Howard E. Horne, Natural Communities Biologist
Barry A. Vittor & Associates, Inc.
8060 Cottage Hill Road
Mobile, Alabama 36695

Dear Mr. Horne:

Thank you for your letter of March 28, 2007, providing survey results for the proposed wastewater treatment plant in Bayou La Batre, Portersville Bay watershed, Mobile County, Alabama. We have reviewed the information and are providing the following comments in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the Migratory Bird Treaty Act (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), and the Marine Mammal Protection Act (86 Stat. 1027, as amended; 16 U.S.C. 1361 et seq.).

Federally Listed Terrestrial Species

Based upon the information provided in your letter, we agree that suitable habitat does not occur for the gopher tortoise (*Gopherus polyphemus*), eastern indigo snake (*Drymarchon corais couperi*), piping plover (*Charadrius melodus*), least tern (*Sterna antillarum*), or red-cockaded woodpecker (*Picoides borealis*), and that no bald eagles (*Haliaeetus leucocephalus*) or wood storks (*Mycteria americana*) were found in the project area. However, should bald eagles or wood storks move into the area prior to project completion, we recommend that you contact our office for further discussions. At present, no further endangered species consultation for federally listed terrestrial species will be required for this portion of the project unless: 1) the identified action is subsequently modified in a manner that causes an effect on a listed species or on proposed or designated critical habitat; 2) new information reveals the identified action may affect federally protected species or designated critical habitat in a manner or to an extent not previously considered; or 3) a new species is listed or a critical habitat is designated under the Endangered Species Act that may be affected by the identified action.

Federally Listed Aquatic Species

We have determined that the following federally listed aquatic species may occur in the project area:

www.fws.gov

PHONE: 251-441-5181

TAKE PRIDE
IN AMERICA 

FAX: 251-441-6222

Gulf sturgeon (*Acipenser oxyrinchus desotoi*) – Threatened
West Indian manatee (*Trichechus manatus*) – Endangered
Alabama red-bellied turtle (*Pseudemys alabamensis*) – Endangered
Green sea turtle (*Chelonia mydas*) – Threatened
Kemp's ridley sea turtle (*Lepidochelys kempii*) – Endangered
Loggerhead sea turtle (*Caretta caretta*) – Threatened

Please see the enclosed Fact Sheet for brief descriptions of these species and their habitats.

Your letter indicates that directional drilling will be used to install the effluent pipeline beneath the salt marsh in Portersville Bay, which will avoid disturbing salt marsh soil and vegetation. We believe these measures will protect Alabama red-bellied turtles that may be present in or near the project area. However, should plans change and directional drilling not be used to install the pipeline, additional consultation regarding the red-bellied turtle will be necessary.

We are concerned that installation of the pipeline in Portersville Bay and subsequent degraded water quality may negatively impact Gulf sturgeon, West Indian manatees, and sea turtles. Additional information regarding installation methods, effluent standards, and water quality impacts (i.e., oxygen depletion, contamination) will be needed before consultation can be concluded for these listed aquatic species. Please note that consultation with the National Marine Fisheries Service (NMFS) regarding Gulf sturgeon and sea turtles may be necessary. Please contact Mr. Eric Hawk (of NMFS) in St. Petersburg, Florida, at 727-824-5312 for further information.

If you have any questions or need additional information, please contact Ms. Jodie Smithem, of my staff, at (251) 441-5842. Please refer to the reference number located at the top of this letter in future phone calls or written correspondence.

Sincerely,



William J. Pearson
Field Supervisor

Enclosure

cc: David Bernhart, National Marine Fisheries Service, St. Petersburg, Florida
Hassey Brooks, Goodwyn Mills and Cawood, Montgomery, Alabama



United States Department of the Interior

FISH AND WILDLIFE SERVICE
1208-B Main Street
Daphne, Alabama 36526

IN REPLY REFER TO:

06-FA-1140/1141/1142

September 21, 2006

Ms. Janey C. Galbraith
Galbraith and Associates, L.L.C.
7770 Country Squire Drive
Mobile, AL 36695

Dear Ms. Galbraith:

Reference is made to your letters, dated September 5, 2006, in which you requested our review of three 2006 Community Development Block Grants, one each for the Town of Mount Vernon, City of Bayou La Batre, and Baldwin County, Alabama, to determine whether or not the projects would result in a violation of the Endangered Species Act of 1973 (ESA). Our comments and recommendations are provided in accordance with the provisions of the ESA, (87 Stat. 884, as amended; 16 U.S.C. 1531, et seq.).

Based on the survey's submitted, we concur that the projects as proposed will not have an impact on federally listed species. Therefore, no further endangered species consultation will be required for this portion of the projects unless: 1) the identified action is subsequently modified in a manner that causes an effect on listed species or designated Critical Habitat; 2) new information reveals the identified action may affect Federally protected species or designated Critical Habitat in a manner or to an extent not previously considered; or 3) a new species is listed or Critical Habitat is designated under the Endangered Species Act that may be affected by the identified action.

We appreciate the opportunity to comment on the projects. If you have any questions or comments, please contact Mr. Bruce Porter, of my staff, at (251) 441-5864.

Sincerely,

William J. Pearson
Field Supervisor

www.fws.gov

PHONE: 251-441-5181



FAX: 251-441-6222



United States Department of the Interior

FISH AND WILDLIFE SERVICE
1208-B Main Street
Daphne, Alabama 36526

IN REPLY REFER TO:

2006-I-1085c

July 9, 2007

Mr. Tim D. Thibaut, Senior Program Manager
Barry A. Vittor & Associates, Inc.
8060 Cottage Hill Road
Mobile, Alabama 36695

Dear Mr. Thibaut:

Thank you for your letter of June 7, 2007, providing additional information on the proposed wastewater treatment plant in Bayou La Batre, Portersville Bay watershed, Mobile County, Alabama. We have reviewed the information and are providing the following comments in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), and the Marine Mammal Protection Act (86 Stat. 1027, as amended; 16 U.S.C. 1361 et seq.).

As stated in our previous letter, we were concerned that installation of the pipeline in Portersville Bay and subsequent degraded water quality may negatively impact the following federally listed aquatic species:

Gulf sturgeon (*Acipenser oxyrinchus desotoi*) – Threatened
West Indian manatee (*Trichechus manatus*) – Endangered
Alabama red-bellied turtle (*Pseudemys alabamensis*) – Endangered
Green sea turtle (*Chelonia mydas*) – Threatened
Kemp's ridley sea turtle (*Lepidochelys kempii*) – Endangered
Loggerhead sea turtle (*Caretta caretta*) – Threatened

However, we understand that directional drilling will be used to install the effluent pipeline beneath the marsh in Portersville Bay. If directional drilling is used, we believe the procedure will protect Alabama red-bellied turtles that may be present in or near the project area. However, if project plans change and directional drilling is not used to install the pipeline, additional consultation regarding the red-bellied turtle will be necessary.

Based upon information provided in your June 7, 2007, letter, we believe measures to reduce impacts to listed aquatic species have been incorporated into the project design. These measures include, but are not limited to, utilizing a conventional jet barge to install the pipeline, employing tertiary treatment of wastewater, and disinfecting the wastewater with ozone prior to discharge. We also request that the enclosed "Construction Conditions to Avoid Harming Manatees" be

www.fws.gov

PHONE: 251-441-5181



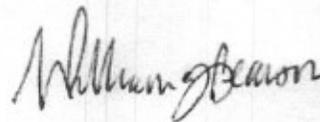
FAX: 251-441-6222

implemented to further reduce impacts to manatees. Operations should also halt, and not resume until the species has left the area, if Gulf sturgeon or sea turtles are observed within 50 feet of a vessel.

At present, no further endangered species consultation for the Alabama red-bellied turtle or West Indian manatee will be required for this portion of the project unless: 1) the identified action is subsequently modified in a manner that causes an effect on a listed species or on proposed or designated critical habitat; 2) new information reveals the identified action may affect federally protected species or designated critical habitat in a manner or to an extent not previously considered; or 3) a new species is listed or a critical habitat is designated under the Endangered Species Act that may be affected by the identified action. Please note that the National Marine Fisheries Service (NMFS) has jurisdiction for Gulf sturgeon and sea turtles in marine habitats. If you believe this project may affect Gulf sturgeon or sea turtles, consultation with NMFS is required. Please contact Mr. Eric Hawk (of NMFS) in St. Petersburg, Florida, at 727-824-5312 for further information regarding these species.

We continue to recommend that you contact our office should bald eagles or wood storks move into the area prior to project completion. If you have any questions or need additional information, please contact Ms. Jodie Smithem, of my staff, at (251) 441-5842. Please refer to the reference number located at the top of this letter in future phone calls or written correspondence.

Sincerely,



William J. Pearson
Field Supervisor

Enclosure

cc: David Bernhart, National Marine Fisheries Service, St. Petersburg, Florida
Hassey Brooks, Goodwyn Mills and Cawood, Montgomery, Alabama

CONSTRUCTION CONDITIONS TO AVOID HARMING MANATEES

- a. The lessee/grantee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatees.
- b. The lessee/grantee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.
- c. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- d. If manatees are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure their protection. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.
- e. Any collision with and/or injury to a manatee shall be reported immediately to the U.S. Fish and Wildlife Service in Daphne (251-441-5181). Enter as much information on the Manatee Sighting Report Form, as possible.

U.S. Fish and Wildlife Service

Manatee Sighting Report Form

Date/Time of Report	
Person Filing Report	
Affiliation	
Field ID # or Case # (if applicable)	
Person Reporting the Sighting	
Phone Number	
Manatee Seen By	
Phone Number	
Address	
Date/Time of Sighting	
Location of Sighting	
State	
County	
Nearest City/Town	
Waterway Name	
Description of Location	
Latitude	
Longitude	
Location Map Attached	Yes <input type="checkbox"/> No <input type="checkbox"/>
Description of Manatee	
Were Photographs Taken?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Dead/Injured/Sighting/Tagged	
Body Scars/Tail Scars/Tag/Belt	
If Tagged, describe Tag, including colors and numbers	
Size	Adult <input type="checkbox"/> Calf <input type="checkbox"/>
Estimated Total Length	
Comments	

Please forward form to:

U.S. Fish and Wildlife Service
Daphne Ecological Services Field Office
1208-B Main Street
Daphne, AL 36526

You may also fax the form to: (251) 441-6222

For more information, please call (251) 441-5181

NMFS Consultation



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701
(727) 824-5317; FAX 824-5300
<http://sero.nmfs.noaa.gov>

September 25, 2007 F/SER46:MI/mt

Ms. Cynthia B. Bailey
Environmental Liaison Officer
FEMA-1605-DR-AL
1555 Eastern Blvd.
Montgomery, Alabama 36117

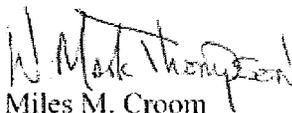
Dear Ms. Bailey:

NOAA's National Marine Fisheries Service (NMFS), Habitat Conservation Division, has received your letter dated September 18, 2007, initiating essential fish habitat (EFH) consultation and providing an EFH Assessment for the proposed City of Bayou La Batre relocation of the wastewater treatment plant and offshore pipeline construction and discharge in Portersville Bay, Mobile County, Alabama. This request was initiated pursuant to the consultation provisions of the Magnuson-Stevens Conservation and Management Act (Magnuson-Stevens Act).

You state that implementation of the new outfall would meet or exceed State of Alabama water quality criteria, would likely improve water quality from the current condition offshore, and that open-water construction would not adversely affect EFH for any species managed under the Magnuson-Stevens Act. We have reviewed the EFH Assessment and determined the NMFS does not have any EFH conservation recommendations to offer.

Thank you for your effort to comply with the EFH provisions of the Magnuson-Stevens Act. If you have any questions, please contact Mark Thompson at our Panama City, Florida office. His telephone number is 850-234-5061.

Sincerely,


for Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

cc:
F/SER4
F/SER3





FEMA

September 18, 2007

Mr. Mark Thompson
National Marine Fisheries Service
Habitat Conservation Division
3500 Delwood Beach Road
Panama City, Florida 32408

Re: Request for Project Review – City of Bayou La Batre Relocation of Wastewater Treatment Plant and Offshore Pipeline Construction

The City of Bayou La Batre (City) has applied to the Federal Emergency Management (FEMA) for assistance under the Alternative Housing Pilot Program (AHPP) and Hazard Mitigation Grant Program (HMGP) to assist in the redevelopment of the City's housing and domestic and industrial wastewater infrastructure following extensive damages incurred by Hurricane Katrina. The City proposes to utilize FEMA funding to supplement the City's applications for assistance under the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG).

On August 29, 2005, Hurricane Katrina's storm surge impacted the City of Bayou La Batre, severely damaging the City's existing municipal wastewater treatment plant (WWTP) and infrastructure and residential community. Damages incurred by Katrina left the WWTP running at a reduced capacity and hundreds of residents requiring FEMA temporary trailers. In efforts to promote redevelopment, the City has applied to HUD for assistance under CDBG for:

- The demolition and relocation of the existing WWTP, located at 285 State Docks Road, out of the coastal high hazard area (Flood Zone VE) to a site located at 14575 Railroad Street; and,
- The land acquisition and installation of infrastructure to a 39-acre site (Safe Harbor Estates) located at the intersection of Shine Road and State Highway 188 in Bayou La Batre for the development of affordable housing.

In order for the new WWTP to be a functional system, new influent lines and a new effluent pipe that would discharge into Portersville Bay would be constructed. Figure 1 shows the location of the proposed project components.

The City proposes to utilize FEMA's HMGP funding for the installation of flood mitigation measures at the proposed new WWTP. Mitigation measures include the elevation of the facility to the 500-year floodplain requirements, minor flood control measures to protect the new WWTP, and construction of a new sewer pumping station (lift station) in the location of the existing WWTP.

The City has also requested assistance from FEMA's AHPP for the acquisition and development of a 13-acre parcel (Safe Harbor Landing) located adjacent to the Safe Harbor Estates site. FEMA AHPP funds would also be utilized for the placement of AHPP housing units on both housing sites. As the components funded by HUD are connected to the proposed actions that would be funded by FEMA,

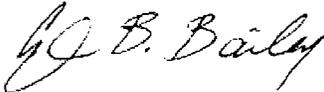
the environmental impacts of all related project components are being evaluated in a comprehensive Environmental Assessment that is being prepared by FEMA.

Consultation with your agency regarding the WWTP relocation and pipeline into Portersville Bay for this project was initiated by Barry A. Vittor and Associates on behalf of the City in a letter dated July 8, 2007 (attached). The letter includes a more detailed description of the project components, location, and environmental consequences related to Essential Fish Habitat.

FEMA agrees with the conclusions in the letter that implementation of the new outfall would meet or exceed State of Alabama water quality criteria, would likely improve water quality from the current condition offshore, and that open-water construction would not adversely affect Essential Fish Habitat for any species managed under the Magnuson-Stevens Fishery Conservation and Management Act.

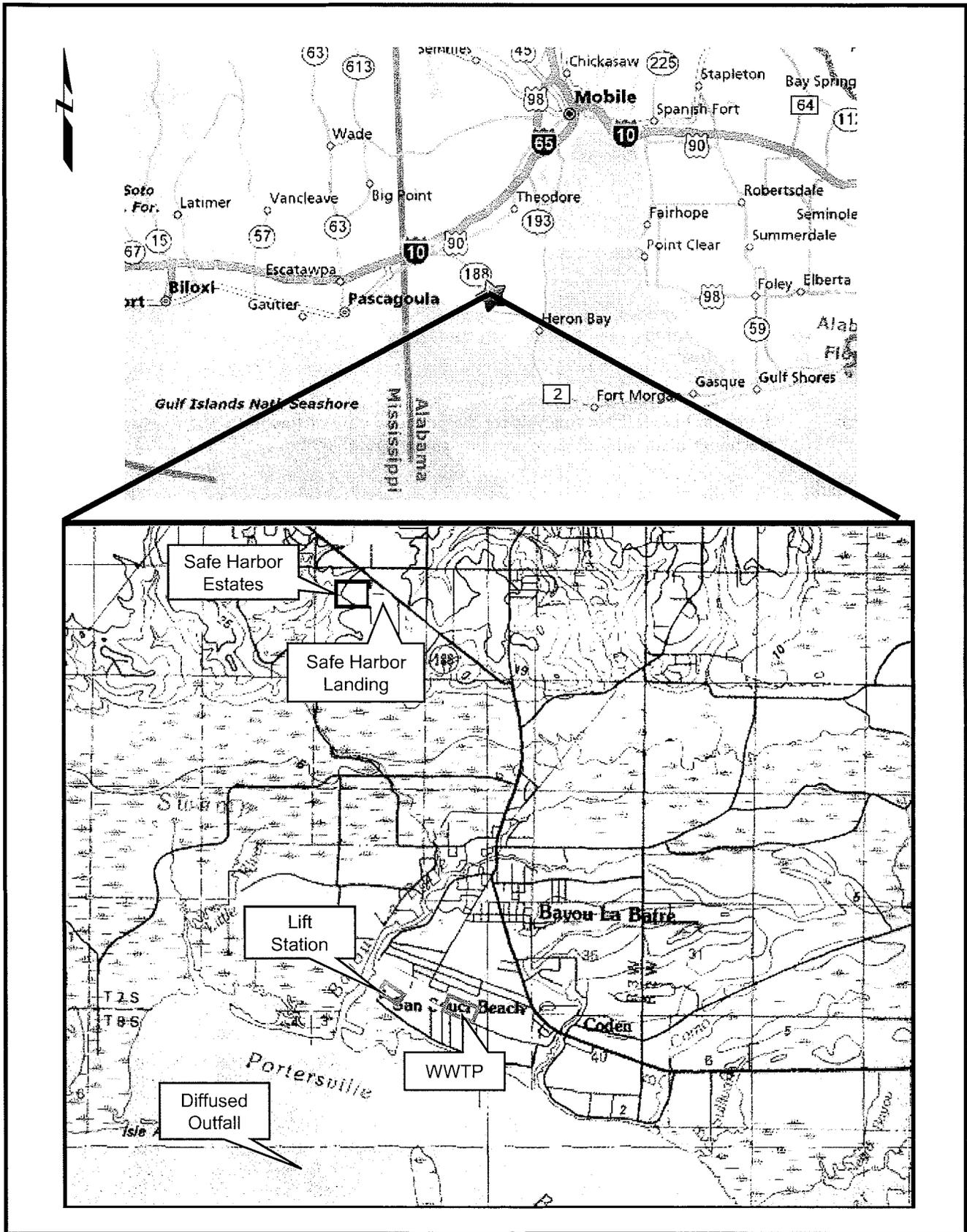
In compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, FEMA requests that your agency review the entire proposed project and consultation conducted to date and provide comments and any available information on resources under your agency's jurisdiction within the project area. If you have any questions or need additional information, please contact me by telephone at (334) 409-4627 or electronic mail at cynthia.b.bailey@dhs.gov.

Sincerely,



Cynthia B. Bailey
Environmental Liaison Officer
FEMA-1605-DR-AL

Enclosures as noted



CLIENT City of Bayou La Batre				TITLE PROJECT AREA		
PROJ WWTP Relocation and Housing Project, Mobile County, AL						
REVISION NO	DES BY		PROJ NO			15707017
SCALE	NTS	DR BY	KRS			8/11/07
FILE		CHK BY	X			X
				FIGURE	1	



BARRY A. VITTOR & ASSOCIATES, INC.

ENVIRONMENTAL RESEARCH & CONSULTING

8080 Cottage Hill Road

Mobile, Alabama 36695

Phone (251) 633-6100

Fax (251) 633-6738

July 8, 2007

Mark Thompson
National Marine Fisheries Service
Habitat Conservation Division
3500 Delwood Beach Road
Panama City, FL 32408

Subject: Essential Fish Habitat Analysis for the proposed City of Bayou La Batre wastewater treatment plant and offshore pipeline construction

Dear Mark:

The City of Bayou la Batre is proposing infrastructure improvements in the aftermath of Hurricane Katrina. The subject site falls in Township 7 South, Range 3 West, Section 38 and is depicted on the Grand Bay, Alabama, USGS 7.5-minute topographic quadrangle. Latitude/Longitude coordinates for the approximate center of the project site are N 30° 23' 07.99" and W 88° 15' 08.45". In conjunction with construction of a new municipal wastewater treatment plant (WWTP), the City is proposing consolidation of all treated domestic and industrial (seafood) waste streams into a single pipeline and outfall in Portersville Bay (**Figure 1**). There are three existing outfalls in the Bay. The municipal WWTP has a discharge permit (ADEM Permit No. AL0022632) through the Alabama Department of Environmental Management (ADEM). There are two permits in place for seafood industry treatment systems, including the Bayou La Batre Industrial facility (ADEM Permit No. AL0055379) and Deep Sea Foods, Inc. (ADEM Permit No. AL0027979). These separate existing outfalls are approximately 500 ft offshore, and the City is proposing a new offshore pipeline and placement of the new consolidated outfall farther offshore (approximately 5000 ft) to provide more rapid mixing with deeper surface waters.

The new WWTP would generate a higher quality effluent through tertiary treatment, exceeding current capability of secondary treatment and standards of permitted discharge limits. Tertiary treatment will greatly improve effluent quality compared to current secondary treatment capabilities. Combining the City's domestic and industrial treated waste streams into a single outfall further offshore will promote better water quality in Portersville Bay. The outfall diffuser (**Figure 2**) proposed for the offshore discharge location consists of ten 8-inch Tideflex diffusers that significantly enlarge the dilution zone compared to the current outfall.

A bottom survey of the offshore treated effluent pipeline route conducted by Barry A. Vittor & Associates, Inc in March 2007 did not find oysters or oyster reef. Vittor & Associates also surveyed for, but did not find, submerged aquatic vegetation. The route is characterized by bare sediment habitat.

Table 1 has sediment quality data for sediment texture and heavy metals collected in 2007 along the proposed pipeline route. At the Stations 1 (outfall location), 2, and 3 and sediments are mostly silt and clay, with elevated levels of total organic carbon (TOC). Nearer the borehole exit (Stations 4 and 5), sediments are mostly sand, with relatively small amounts of TOC. Heavy metal concentrations along the proposed route (**Table 1**) are a reflection of the percentage of fine

sediments (silt, clay). Heavy metal composition of sediments is correlated with sediment texture characteristics (e.g., Wong and Moy, 1984), and higher amounts of aluminum, chromium, iron, and zinc are at least partly associated with the greater percentages of silt and clay at Stations 1, 2, and 3.

Sediment quality along the pipeline route is good, with levels of heavy metal concentrations typical of clean estuarine sediments. Levels of metals such as arsenic, lead, and mercury were below reporting limits (Table 1).

The 24"-diameter combined treated effluent pipeline would be installed by a horizontal drilling method to bore beneath the salt marsh near Portersville Bay, to avoid disturbance of marsh soil and vegetation. Once the pipeline reaches the borehole exit in Portersville Bay, pipeline installation would be carried out with a conventional jet barge (Figure 1), until reaching the new offshore outfall location approximately 5000 ft offshore (Figure 1). The jetting method of pipeline installation has been successfully employed for several pipeline construction projects in Mississippi Sound and Mobile Bay, mostly for natural gas pipelines. The first use of the jetting method in Mississippi Sound occurred in 1991 with construction of the ARCO pipeline. The ARCO project was so successful at minimizing resuspension of sediments and turbidity that the Mobile District Corps of Engineers stipulated in subsequent pipeline construction projects that jetting be used in all sensitive areas. Other Alabama pipeline jetting projects since 1991 have included Shell, Exxon, Mobil, BP, Gulfstream, Transco, Legacy, and DIGP pipelines.

To achieve the appropriate burial depth, the constructed pipeline would be post-jetted using high-pressure water jets. During operations, a jetting sled (Figure 3-A) moves slowly above the pipeline and uses high-pressure water streams to cut a trench beneath it. The pipeline settles into the created trench. Pipeline installation utilizing the jetting method will require temporary disturbance of sediments along the route as the trench is created. Displaced sediment eventually backfills the trench due to currents and meteorological forcing, covering the pipeline. A typical trench configuration is shown in Figure 3-B. An as-built survey would be conducted after completion of pipeline construction to assure pipeline location and depth is a minimum of 4 feet below ambient bottom elevation, per State regulations.

Table 2 lists EFH species in the project area. All life stages of white, brown, and pink shrimps are seasonally abundant in Mississippi Sound and adjacent waters, with brown shrimp highly abundant during spring and fall. Juvenile stages of red drum and Spanish mackerel are common during all or most of the year. Juvenile Gulf stone crab and gray snapper are common to rare, depending on season.

Environmental Consequences

Jetting in shallow waters causes suspension of sediments, which increases suspended solids and turbidity. This turbidity may undergo dispersion in a plume that drifts with water currents, until suspended sediments from dredging settle. The extent of suspension and dispersion depends on sediment composition, the type of jetting equipment, techniques for operating the equipment, and local sediment transport processes. Turbidity plumes associated with jetting often are short-lived and affect relatively small areas. Jetting operations would adhere to State water quality standards. During construction, increases in turbidity and suspended sediments are expected to be brief and minor. The jetting method of pipeline construction generates less suspended solids and turbidity than bucket dredging, and is preferred by the Corps of Engineers for pipeline installation in sensitive coastal areas.

Wind- and wave-generated turbulence would through time act to fill the pipeline trench and level the surrounding substratum. The rate of reestablishment of natural benthic conditions along the pipeline route may depend especially on the extent of storm-induced sediment transport, which can be substantial at the relatively shallow depth of the project area. Currents and waves associated with normal tidal activity and annual recurrent storms have been found to act slowly to refill depressions

and flatten elevated sediment features (Schroeder *et al.*, 1998). In contrast, the direct impact of major hurricanes serves as an effective agent to return local bathymetry to a natural state (Schroeder *et al.*, 1998). Even before complete reversion to pre-project bathymetry, ecological function is likely to be re-established, due to the resilient nature of the estuarine benthic community (e.g., Van Dolah *et al.*, 1984; Holland, 1985). In nearby Mobile Bay, alteration of bay bottom due to placement of dredged material has been shown to result in only temporary loss of biological production, as the deposited sediments quickly become populated by a variety of benthic organisms (Clarke and Miller-Way, 1992). Bottom feeding fauna are expected to forage in non-affected areas until benthic community recovery.

During operation, discharged effluent would meet or exceed State water quality criteria. It is anticipated that along with tertiary treatment, abandoning the existing outfalls and consolidating them into a single effluent stream will reduce pollutant loadings to Portersville Bay. Placing a new outfall diffuser farther offshore, in deeper water, is expected to improve water quality from the current condition offshore Bayou La Batre.

Given the results of our survey, it is our professional opinion that open-water construction would not adversely affect Essential Fish Habitat for any species managed under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801-1882). We request NMFS concurrence with our findings at your earliest convenience. And don't hesitate to call if you have any questions or need additional information regarding this project.

Sincerely,

A handwritten signature in cursive script, appearing to read "Tim Thibaut".

Tim D. Thibaut
Senior Program Manager

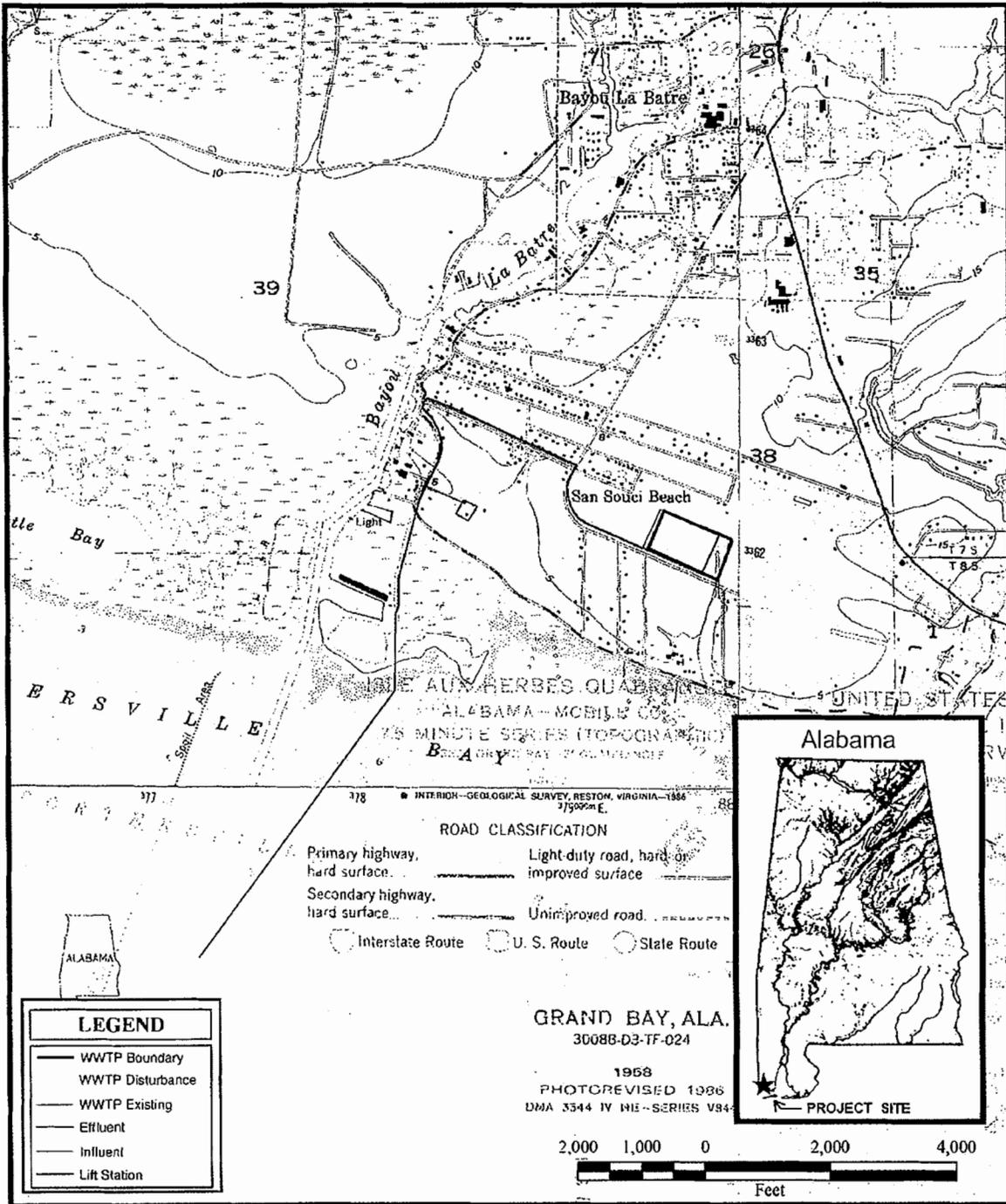


Figure 1. Location of the proposed wastewater treatment system improvements in Bayou La Batre, Alabama.

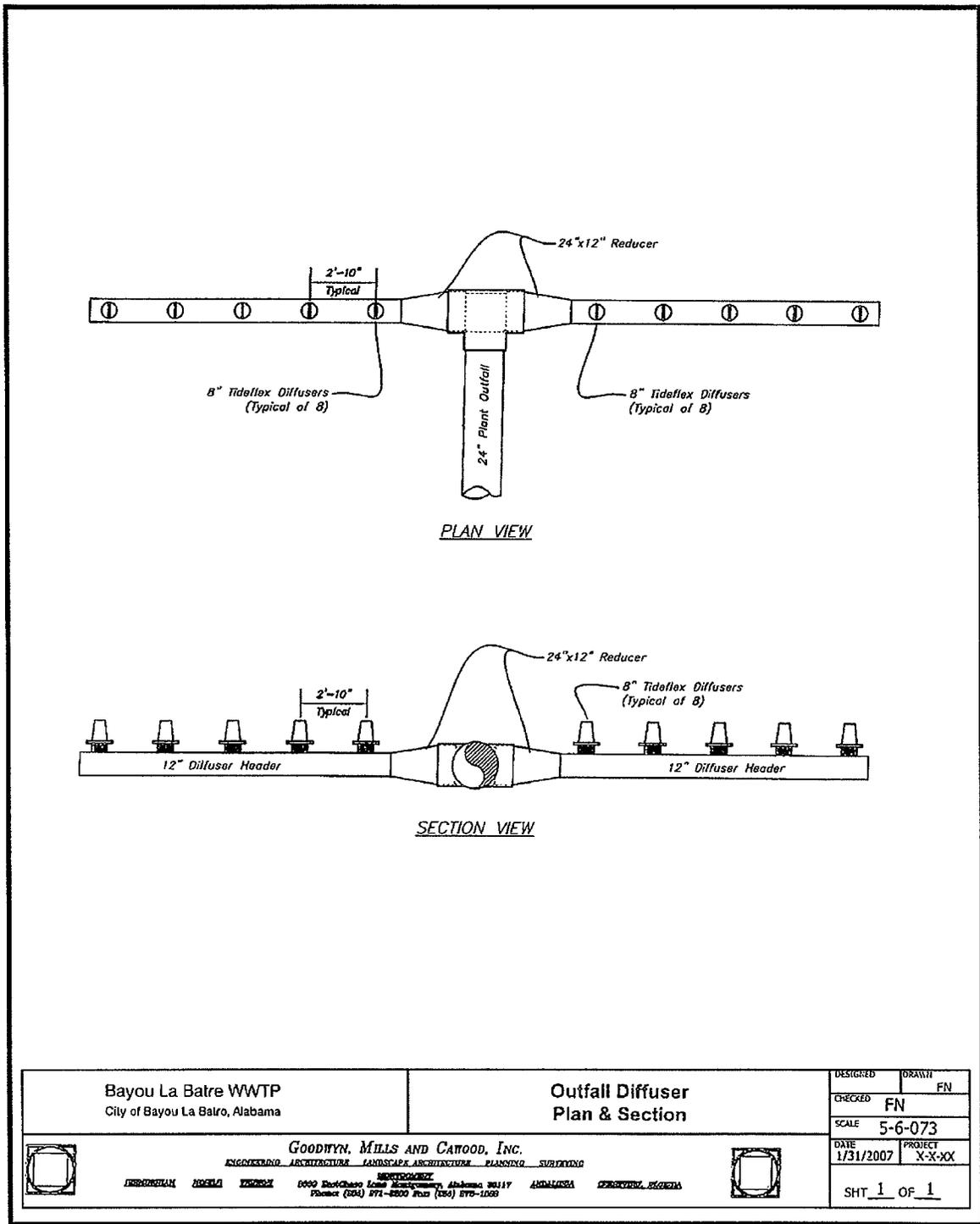


Figure 2. Plan and section views of the outfall diffuser.

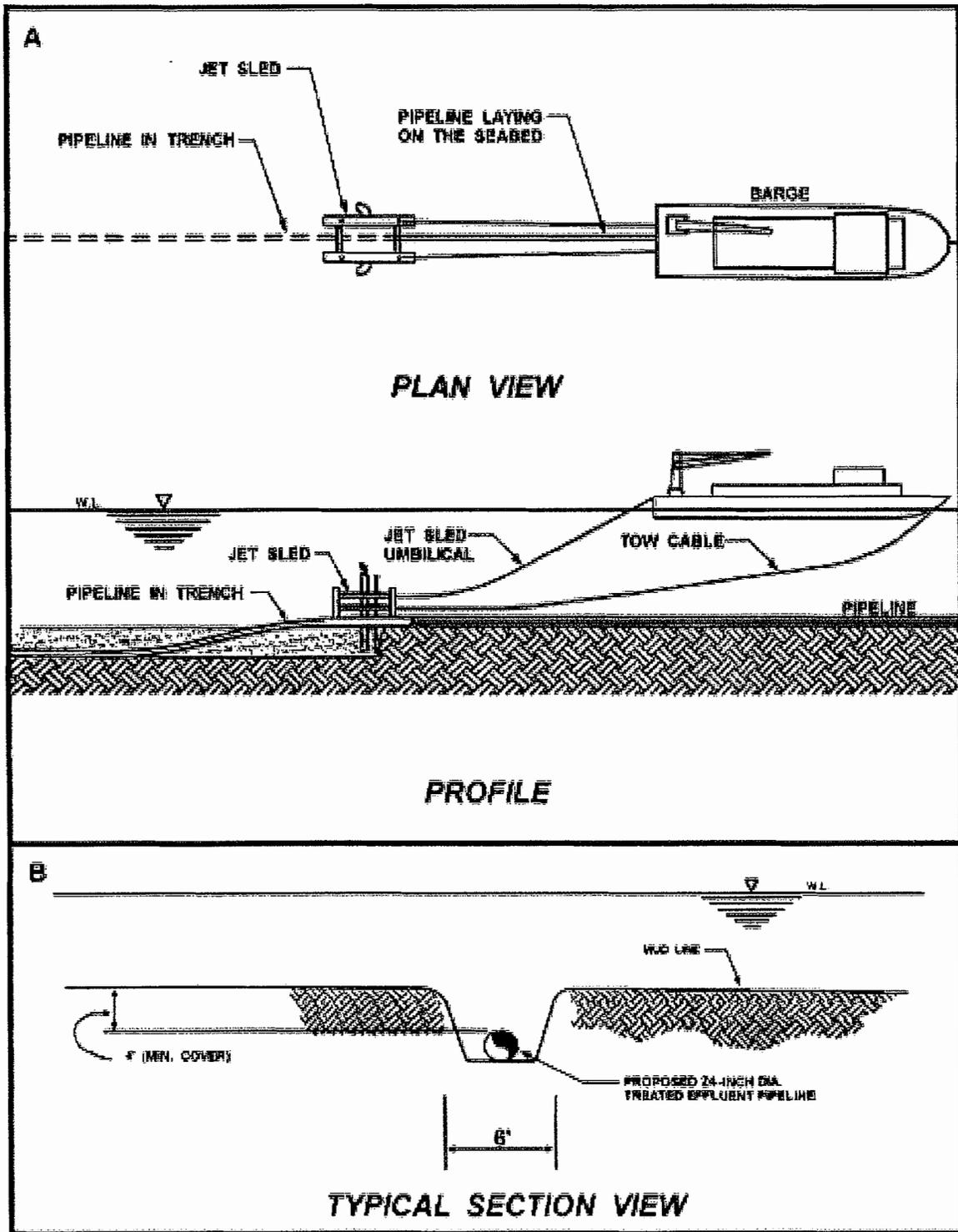


Figure 3. A) Typical pipe-laying barge operation and B) typical trench section configuration.

Table 1. Summary of heavy metals and sediment texture in samples collected January and March 2007 along the route of the proposed combined treated discharge pipeline, in Portersville Bay, AL.

PARAMETER	LOCATION				
	Station 1	Station 2	Station 3	Station 4	Station 5
Aluminum (mg/kg)	8,890	5,700	8,870	967	335
Arsenic (mg/kg)	BRL ¹	BRL	BRL	BRL	BRL
Cadmium (mg/kg)	BRL	BRL	BRL	BRL	BRL
Chromium (mg/kg)	15.4	9.91	14.8	2.23	BRL
Copper (mg/kg)	6.6	4.41	7.5	BRL	BRL
Iron (mg/kg)	21,700	12,400	17,800	1,900	1100
Lead (mg/kg)	BRL	BRL	BRL	BRL	BRL
Mercury (mg/kg)	BRL	BRL	BRL	BRL	BRL
Zinc (mg/kg)	42.4	29.6	45.4	7.94	9.7
Sand (%)	22.9	57.4	48.2	92.5	95.8
Silt (%)	40.5	25.1	25.3	2.2	1.4
Clay (%)	36.6	17.5	26.5	5.3	2.8
TOC (%)	12.70	4.72	9.96	1.43	1.45
¹ BRL = below reporting limits					

Table 2. EFH species occurrence in Mississippi Sound (Source: NOAA Biogeography Program).				
Alabama Estuarine EFH Species	Seasonal Occurrence			
	Spring (Mar.-May)	Summer (June-Aug.)	Fall (Sept.-Nov.)	Winter (Dec.-Feb.)
White shrimp (<i>Litopenaeus setiferus</i>)	C ¹	A	A	A/C
Brown shrimp (<i>Farfantepenaeus aztecus</i>)	HA	HA	A	C
Pink shrimp (<i>Farfantepenaeus duorarum</i>)	A/C	A/C	C	C
Juvenile Gulf stone crab (<i>Menippe adina</i>)	C/R	C/R	C	C/R
Gray snapper (<i>Lutjanus griseus</i>)	R	C/R	C	R
Juvenile red drum (<i>Sciaenops ocellatus</i>)	C	C	C	C
Juvenile Spanish mackerel (<i>Scomberomorus maculatus</i>)	C	C	C	R

¹Key: HA = highly abundant; A = abundant; C = common; R = rare

References Cited

- Clarkc, D. and T. Miller-Way, 1992. An environmental assessment of the dredged effects of openwater disposal of maintenance dredged material on benthic resources in Mobile Bay, Alabama. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. Misc. Paper D-9201.
- Holland, A.F., 1985. Long-term variation of macrobenthos in a mesohaline region of Chesapeake Bay. *Estuaries*, 8(2A):93-113.
- Schroeder, W.W., J.L.W. Cowan, J.R. Pennock, S.A. Luker, and W.J. Wiseman Jr., 1998. Response of Resource Excavations in Mobile Bay, Alabama, to Extreme Forcing. *Estuaries*, 21(4): 652-657.
- Van Dolah, R.F., D.R. Calder, and D.M. Knott, 1984. Effects of dredging and open-water disposal on benthic macroinvertebrates in a South Carolina estuary. *Estuaries*, 7:28-37.
- Wong, G.F.T. and C.S. Moy, 1984. Cesium-137, metals and organic carbon in the sediments of the James River Estuary, Virginia. *Estuarine, Coastal and Shelf Science*, 18:37-49.