Draft Environmental Assessment

Diamondhead Water and Sewer District – Lift Station 13

Hancock County, Mississippi
April 2013

FEMA

U.S. Department of Homeland Security
FEMA-1604-DR-MS
Mississippi Recovery Office – Biloxi, MS

ftn Associates Ltd.
water resources / environmental consultants

FINAL DRAFT
Environmental Assessment
Diamondhead Water and Sewer District
Lift Station 13
Diamondhead, Hancock County, MS

April 3, 2013

Draft Environmental Assessment for Diamondhead Water and Sewer District Diamondhead, Hancock County, MS

Prepared for

Diamondhead Water and Sewer District
4425 Park Ten
Diamondhead, MS 39525

Prepared by

FTN Associates, Ltd.
PO Box 9424
Jackson, MS 39206-9424

FTN Project No. R05110-0008-002

April 3, 2013

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF TABLES

ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	decibel
DNL	Day-Night Average Sound Level
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FTN	FTN Associates, Ltd.
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
HDD	Horizontal Directional Drilling
I-10	Interstate 10
LS 13	Lift Station 13
MDAH	Mississippi Department of Archives and History
MDEQ	Mississippi Department of Environmental Quality
MDMR	Mississippi Department of Marine Resources
MDOT	Mississippi Department of Transportation
MGD	million gallons per day
NAAQS	National Ambient Air Quality Standards
NCA	Noise Control Act
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
O_3	ozone
OSHA	Occupational Safety and Health Administration
PA	Public assistance
Pb	lead
$PM_{2.5}$	Particulate matter less than 2.5 microns
PM_{10}	particulate matter less than 10 microns

ACRONYMS AND ABBREVIATIONS (CONTINUED)

SO_2	sulfur dioxide
SEA	Supplemental Environmental Assessment
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USCB	United States Census Bureau
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WWTP	Wastewater Treatment Plant

1.0 INTRODUCTION

The Diamondhead Water and Sewer District (DWSD) in Hancock County, Mississippi has applied to the Federal Emergency Management Agency (FEMA) for assistance with the relocation/replacement of Lift Station 13 (LS 13). The Lift Station is located within the city limits of Diamondhead, Mississippi. The exact location is at the north end of a cul-de-sac on Apua Court.

DWSD has 33 lift stations serving the Diamondhead wastewater collection system. Fifteen of these are being repaired or replaced with FEMA assistance. One of the remaining 18 stations, LS 13, is at the end of its useful life and requires replacement. This lift station receives flow from four other lift stations making it critical to provide dependable service. The LS 13 pumps and controls are difficult to keep in continuous service and are not reliable. Most of the collection system overflows and related problems experienced by the District occur at LS 13. Replacing LS 13 will result in a more dependable system and alleviate the unreliable conditions.

This project is part of an overall plan to improve the District's services. FEMA proposes to provide assistance for this project through the Public Assistance Program under Presidential Disaster Declaration FEMA-1604-DR-MS.

In accordance with 44 Code of Federal Regulations (CFR) for FEMA, Subpart B, Agency Implementing Procedures, Part 10.9, this EA has been prepared pursuant to Section 102 of the National Environmental Policy Act (NEPA) of 1969, as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ; 40 CFR Parts 1500-1508).

The purpose of this EA is to analyze the potential environmental impacts of the proposed Lift Station and determine if it is necessary to prepare an Environmental Impact Statement (EIS) or a FONSI (Finding of No Significant Impact).

2.0 PURPOSE AND NEED

On August 29, 2005, Hurricane Katrina struck the Mississippi Gulf Coast, causing a storm surge that reached nearly 25 ft and devastated large portions of the District's service area, which includes approximately 4,300 customers. District facilities, including the Diamondhead WWTP, were severely damaged by the storm's wind and floodwaters. The WWTP will be relocated to higher elevations, outside of the floodplain, to increase reliability and minimize future damages and service disruptions.

The proposed Lift Station would be a component of the District's wastewater system which services approximately 4,300 residents and commercial customers within Diamondhead, Mississippi.

3.0 ALTERNATIVES CONSIDERED

The following alternatives were considered for the construction of the proposed lift station:

3.1 Alternative 1: No Action

Under the No-Action Alternative, the proposed Lift Station would not be replaced. The proposed Lift Station would not connect to the existing wastewater system.

3.2 Alternative 2: Construction of Lift Station 13 (Proposed Action)

Under the Proposed Action Alternative, the existing LS 13 would be demolished, removed and disposed of in a nearby landfill. The existing LS 13 would be replaced by relocating LS 13 at the end of Apua Court. The proposed LS 13 would be placed on two lots owned by DWSD. The proposed LS 13 would be constructed in the center of the lots near an existing cul-de-sac. LS 13 would then connect to existing underground utilities to provide dependable and reliable service to the 4,300 residents of Diamondhead. Preliminary plans have illustrated that construction would occur within upland areas of the lots. A construction pad 30 ft wide by 30 ft wide, an access driveway and an access buffer will be required for LS 13. A trench would be required to connect the lift station to the existing underground utilities. The trench to connect the lift station would be dug approximately 7 ft deep from LS 13 to a location of a manhole cover within the existing road, owned by the City of Diamondhead.

Preparation of construction plans and specifications for the proposed LS 13 have been initiated and are anticipated to be completed by June 2013. Construction for LS13 is scheduled for completion in February 2014.

3.3 Alternative Considered But Rejected

The applicant has considered repairing the existing LS 13. The existing LS 13 receives flow from four other lift stations making it critical to provide dependable service. LS 13 is at the end of its useful life and requires replacement. The LS 13 pumps and controls are difficult to keep in continuous service and are not reliable. Most of the collection system overflows and

related problems experienced by the District occur at LS 13. In order to alleviate the problems that the District is experiencing, relocating LS 13 to the end of Apua Court is the most effective remedy.

4.0 AFFECTED ENVIRONMENT AND IMPACTS

Table 4.1 summarizes the potential impacts of the Proposed Action Alternative and conditions or mitigation measures to offset those impacts. Following the summary table, any areas where potential impacts were identified are discussed in greater detail.

Table 4.1. Potential impacts of the Proposed Action Alternative and conditions or mitigation measures to offset those impacts

Affected Environment	Impacts	Mitigation
Geology, Topography, and Soils	No impacts to geology or topography are anticipated; short-term impacts to previously impacted soils within the lots and in the existing roadbed are anticipated.	Appropriate Best Management Practices (BMPs), such as installing silt fences and revegetating bare soils immediately upon completion of construction would be used to stabilize soils. The applicant is not required to submit a SWPPP.
Groundwater	Potential impacts to shallow groundwater are not anticipated.	None
Surface Water	Impacts to surface waters are not anticipated	None
Floodplains	No impacts to the floodplain are anticipated because construction of LS 13 would not result in modifications to the floodplain. No Indirect impacts will occur with future developments.	None
Transportation	There would be a minor temporary increase in the volume of construction traffic on roads in the immediate vicinity of the proposed project site. No road closures are anticipated.	Construction vehicles and equipment would be stored on-site during project construction and appropriate signage would be posted on affected roadways.
Public Health and Safety	No impacts to public health and safety are anticipated.	All construction activities would be performed using qualified personnel and in accordance with the standards specified in Occupational Safety and Health Administration (OSHA) regulations. Appropriate signage and barriers would be in place prior to construction activities to alert pedestrians and motorists of project activities.
Hazardous Materials	No impacts to hazardous materials or wastes are anticipated.	Any hazardous materials discovered, generated, or used during construction would be disposed of and handled in accordance with applicable local, state, and federal regulations.

Table 4.1. (Continued).

Affected Environment	Impacts	Mitigation
Socioeconomic Resources	No adverse impacts to socioeconomic resources are anticipated.	None
Environmental Justice	No disproportionately high or adverse effect to minority or low-income populations is anticipated.	None
Air Quality	Short-term impacts to air quality are anticipated to occur during the construction period; no adverse long-term impacts are anticipated.	Construction contractors would be required to water down construction areas when necessary and fuel-burning equipment running times would be kept to a minimum and engines would be properly maintained.
Noise	Temporary short-term increases in noise levels are anticipated during construction.	Construction would take place during normal business hours. Equipment and machinery used for the project would meet all local, state, and federal noise regulations.
Biological Resources	Limited vegetation removal would occur at the proposed location of LS 13. No impacts to federally listed species are anticipated.	None
Cultural Resources	No impacts to archeological resources or historic structures are anticipated.	If during the course of work, archaeological artifacts or human remains are discovered, the applicant shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The applicant shall inform their Public Assistance (PA) contacts in FEMA, who will in turn contact FEMA Historic Preservation staff. Work will not proceed until FEMA Historic Preservation staff has completed consultation with SHPO and MBCI.

4.1 Geology, Topography, and Soils

Upper elevations of the proposed project area consist of red sand and gravel and white clay terrace deposits of the Citronelle Formation deposited during the Early Pleistocene (or possibly Pliocene) Epoch (Bicker, 1969). Coastward, lower elevations consist of fluvial

deposits of the Late Pleistocene Prairie Formation, which are overlain by mostly sandy fine-grained silt and clay alluvial deposits of the Holocene Epoch (Otvos, 1985).

The topography at the proposed project site is generally level (typically less than 2% slope). Elevations within the proposed project site range from 10 ft above mean sea level (amsl) to 20 ft amsl.

The *Soil Survey of Hancock County, Mississippi* (Smith et al. 1981) lists one soil type within the survey area. Saucier fine sandy loam (8 to 12 percent slopes) is a moderately well-drained soil found on side slopes. The surface layer is a dark grayish-brown fine sandy loam about 5 inches thick. Below this is a pale brown fine sandy loam subsoil layer.

The Farmland Protection Policy Act (FPPA) states that Federal agencies must "minimize the extent to which Federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses.…"

The National Pollutant Discharge Elimination System (NPDES) is a U.S. Environmental Protection Agency (EPA) stormwater program that requires operators of construction sites one acre or larger (including smaller sites that are part of a larger common plan of development) to obtain authorization to discharge stormwater under an NPDES construction stormwater permit.

NPDES permit requirements include submittal of a Stormwater Pollution Prevention Plan (SWPPP) that outlines the temporary and permanent Best Management Practices (BMPs) that will be used to prevent erosion and the transport of sediment off-site during and after construction activities (i.e., mulching, planting bare soils, silt fence, etc.). The NPDES program is administered by MDEQ.

No-Action Alternative

Under the No-Action Alternative, the proposed LS 13 would not be constructed; therefore, no impacts to geology, topography, or soils would occur.

Proposed Action Alternative

Under the Proposed Action Alternative, impacts to geology or topography are not anticipated. Temporary impacts to soils would occur during construction due to the potential for erosion during trenching and construction activities.

A letter requesting project review was sent to the NRCS and MDEQ on December 11, 2012. Stormwater management during construction of LS 13 will be managed with properly designed best management practices to insure the water quality is not adversely affected. Construction stormwater on sites disturbing 1 to less than 5 acres are covered under the Small Construction General Permit (MSR15) issued by MDEQ. Since this site is less than 1 acre, coverage under the MDEQ general permit is not needed. Since its incorporation in 2012, the City of Diamondhead is not subject to the Municipal Separate Storm Sewer System (MS4) General Permit issued to Hancock County.

No response was received from the NRCS within the comment period.

4.2 Groundwater

Groundwater beneath the proposed project site is located within the Coastal Lowlands Aquifer System, which is divided into several permeability zones. Groundwater in Holocene alluvium and Late Pleistocene Prairie Formation sediments comprises the shallowest permeability zone. Groundwater in Early Pleistocene Citronelle Formation deposits is the next deeper groundwater zone, freshwater parts of which are typically located about 500 ft below sea level. The two permeability zones are not separated by a confining unit; rather, they are distinguished by differences in vertical hydraulic gradient and hydraulic conductivity. Both zones yield large quantities of water for agricultural, public supply, domestic and commercial, and industrial uses. Recharge of the aquifer system in the vicinity of the proposed project site occurs at outcrops at higher elevations, and groundwater flows under the influence of gravity coastward to the Gulf of Mexico. Dissolved solids concentrations in groundwater increase along flow paths to the coastline as minerals from aquifer materials are dissolved and mixing with salt water increases (USGS, 1998).

No-Action Alternative

Under the No-Action Alternative, the proposed LS 13 would not be constructed; therefore, no impacts to groundwater would occur.

Proposed Action Alternative

Under the Proposed Action Alternative, construction activities would result in digging a trench approximately 50 ft long and filling of an area approximately 30 ft by 30 ft with uncontaminated soil and gravel. Since this site is less than 1 acre, coverage under the MDEQ general permit is not needed. Since its incorporation in 2012, the City of Diamondhead is not subject to the MS4 General Permit issued to Hancock County. MDEQ has responded in a letter dated January 2, 2013 regarding the location of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Uncontrolled Sites. Stormwater management during construction of LS 13 will be managed with properly designed best management practices to insure the water quality is not adversely affected.

4.3 Surface Water

The proposed project site is located between two small streams. Elevations within the proposed project site range from 10-20 ft amsl. Elevations are highest at the center of the project site and in the areas adjacent to Apua Court. Stormwater flows to the north to Coon Branch to Rotten Bayou and into the Jourdan River.

No-Action Alternative

Under the No-Action Alternative, the proposed LS 13 would not be constructed; therefore, no impacts to groundwater would occur.

Proposed Action Alternative

Under the Proposed Action Alternative, temporary impacts to offsite surface waters may occur due to the transport of sediment from disturbed soils in storm water runoff during construction.

The project, as proposed, is not anticipated to impede or modify the existing drainage ditches located along the project corridor by returning ditches to existing grades and using properly designed best management practices.

MDEQ has responded in a letter dated January 2, 2013 regarding the location of CERCLA/Uncontrolled Sites. Since this site is less than 1 acre, coverage under the MDEQ

general permit is not needed. Since its incorporation in 2012, the City of Diamondhead is not subject to the MS4 General Permit issued to Hancock County. To minimize impacts to surface water, construction will use properly designed best management practices to insure surface water is not adversely affected.

4.4 Floodplains

EO 11988 (Floodplain Management) requires that a Federal agency avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. FEMA uses Flood Insurance Rate Maps (FIRMs) to identify the regulatory 100-year floodplain for the National Flood Insurance Program (NFIP). Diamondhead is a participant in the NFIP.

Consistent with EO 11988, FIRMs were examined during the preparation of this EA. The FIRMs for Mississippi have been updated since Hurricane Katrina to more accurately delineate flood zones. The project area is located on the Hancock County, Mississippi FIRM with Community Panel Number 28045CO261D (FEMA, 2012); the proposed project is located within Zone X. Zone X has been determined to be outside the 0.2-percent annual floodplain.

No-Action Alternative

Under the No-Action Alternative, the proposed outfall line and outfall structure would not be constructed; therefore, no impacts to floodplains would occur. The proposed WWTP would not connect to the existing sewer system and outfall structure.

Proposed Action Alternative

Under the Proposed Action Alternative, no direct impacts to the floodplain would occur. Installation of the proposed outfall line and outfall structure would not result in modifications to the floodplain because the outfall line and outfall structures will be buried and left at the current elevation. The proposed plan was designed to service the Diamondhead community and the existing WWTP. Indirect impacts are not anticipated since the project will not provide service to areas outside of the previous service area. Individual projects would be required to adhere to current regulations of the appropriate agency.

4.5 Waters of the U.S. including Wetlands

The Clean Water Act (CWA), as amended in 1977, established the basic framework for regulating discharges of pollutants into the waters of the United States. The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or filled material into waters of the United States, including wetlands, pursuant to Section 404 of the Clean Water Act. Additionally, EO 11990 (Protection of Wetlands) requires federal agencies to avoid, to the extent possible, adverse impact of wetlands.

A review of the National Wetlands Inventory (NWI) Map indicates no wetlands were identified within the project site (USFWS, 2012 b). A wetland delineation was conducted by FTN Associates, Ltd. (FTN) biologists on December 13, 2012, in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual*. The Corps manual requires the presence of all three parameters (dominance of hydrophytic vegetation, evidence of hydric soils, and presence of hydrologic indicators) for an area to be considered a wetland.

The FTN delineation identified two jurisdictional areas within the project site. The wetland communities contain two, forested, bottomland hardwood wetlands. The forested, bottomland hardwood wetlands include the following species: sweetbay magnolia (*Magnolia virginiana*) water oak (*Quercus nigra*), large gallberry (*Ilex coriacea*) greenbriar (*Smilax laurifolia*) and netted chainfern (*Woodwardia areolata*). The remaining areas within the project lack hydrology, hydrophytic vegetation or hydric soils.

According to NRCS data, soils within the wetland areas consist of Saucier fine sandy loam (USDA/NRCS, 2012 a). Smithton, a hydric soil can be found within the Saucier mapunit (USDA/NRCS, 2012b).

Soil test pits were dug to verify the presence of positive indicators of hydric soils. Soils had a high organic content in the surface layer and chroma values of 2 with a depleted matrix, a hydric soil characteristic. Hydrology indicators consisted of areas with a high water table, saturation and oxidized rhizospheres along living roots.

The Coastal Zone Management Act (CZMA) enables coastal states, including Mississippi, to designate state coastal zone boundaries and develop coastal management programs to improve protection of sensitive shoreline resources and guide sustainable use of

coastal areas. According to the National Oceanic and Atmospheric Administration (NOAA), the proposed project site is located within the Mississippi Coastal Zone (NOAA, 2012).

No-Action Alternative

Under the No-Action Alternative, the proposed LS 13 would not be constructed; therefore, no impacts to waters of the U.S., including wetlands would occur.

Proposed Action Alternative

Under the Proposed Action Alternative, the project will avoid all wetlands and waters of the U.S.

The applicant is required to coordinate with the USACE and MDMR for impacts to wetlands in the coastal zone. The MDMR responded in a letter dated January 22, 2013. The MDMR requested an application if wetland impacts are anticipated. A proposed site plan and a request for project review were submitted to the USACE on January 17, 2013. The USACE notified the applicant on February 21, 2013 that a permit would not be required for the proposed project. A copy of the February 21, 2013 email to the USACE and the proposed site plan was sent to Willa Brantley, of the MDMR, on March 5, 2013. The MDMR responded that a permit would not be necessary for the proposed project as designed on March 5, 2013.

4.6 Transportation

LS 13 is located on Apua Court. Apua Court provides the only access to the proposed project site. There is minimal traffic activity from nearby houses near the proposed project area.

The City of Diamondhead oversees permitting for any activities that occur within the right-of-way of city streets.

No-Action Alternative

Under the No-Action Alternative, the proposed LS 13 would not be constructed; therefore, no impacts to transportation would occur.

Proposed Action Alternative

Under the Proposed Action Alternative, no significant adverse impacts to transportation are anticipated. Much of the construction would be limited to areas outside of the right-of-way.

A minor temporary increase in the volume of construction traffic on roads in the immediate vicinity of the proposed project site, which could potentially result in a slower traffic flow for the duration of the construction phase, is anticipated for the nearby residents. To mitigate potential delays, construction vehicles and equipment would not be stored on site during project construction and appropriate signage would be posted on affected roadways. No road closures are anticipated during the construction on Apua court. The areas within the right-of-way that will be impacted will not interfere with the nearby resident driveway entrances.

The applicant would be required to coordinate with the City of Diamondhead to obtain any necessary permits for installing a connector pipe to the existing utilities prior to the start of construction.

A letter requesting project review was sent to the City of Diamondhead on December 11, 2012; no response has been received to date.

4.7 Environmental Justice

Executive Order (EO) 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) requires federal agencies to make achieving environmental justice part of their mission. Agencies are required to identify and correct programs, policies, and activities that have disproportionately high and adverse human health or environmental effects on minority and low-income populations.

Socioeconomic and demographic data for the project area were analyzed to determine if a disproportionate number (greater than 50%) of minority or low-income persons have the potential to be adversely affected by the proposed project. According to the 2010 Census of Population, in 2009 the median household income reported in the State of Mississippi was $36,919 with 22.6% of individuals living below the poverty level. Within Hancock County the median annual household income was $45,956, with 15.9% of the population living below the poverty level. In 2010, the annual median household income reported within Diamondhead was

$63,914, with 6.1% of the population living below the poverty level. In addition, minorities represented 40.9%, 11.7%, and 6.1%, respectively, of the population of the State of Mississippi, Hancock County, and Diamondhead (USCB, 2012).

No-Action Alternative

Under the No-Action Alternative, the proposed LS 13 would not be constructed; therefore, no impacts to minority and low-income populations would occur.

Proposed Action Alternative

Under the Proposed Action Alternative, no adverse impacts on minority or low-income populations are anticipated. Implementation of the Proposed Action Alternative would benefit all populations equally within the WWTP service area. Without the proposed construction of the outfall and wastewater treatment facility, future projects that could potentially benefit low-income populations or minority populations may not proceed.

4.8 Air Quality

Under the Clean Air Act, EPA establishes primary and secondary air quality standards. Primary air quality standards protect the public health, including the health of "sensitive populations, such as people with asthma, children, and older adults." Secondary air quality standards protect public welfare by promoting ecosystems health, preventing decreased visibility, and damage to crops and buildings. The EPA has set national ambient air quality standards (NAAQS) for six of the following criteria pollutants; ozone (O_3), particulate matter ($PM_{2.5 \text{ and } 10}$), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), and lead (Pb). According to MDEQ, the entire state of Mississippi is classified as in attainment, meaning criteria air pollutants do not exceed the NAAQS (MDEQ, 2012).

No-Action Alternative

Under the No-Action Alternative, the proposed LS 13 would not be constructed; therefore, no impacts to air quality would occur.

Proposed Action Alternative

Under the Proposed Action Alternative, no impacts to air quality are anticipated to occur during construction. To reduce temporary impacts to air quality, the construction contractors would be required to water down construction areas when necessary in order to minimize dust. Emissions from fuel-burning internal combustion engines (e.g., heavy equipment and earthmoving machinery) could temporarily increase the levels of some of the criteria pollutants, including CO, NO2, O3, and PM10. To reduce the emission of criteria pollutants, fuel-burning equipment running times would be kept to a minimum and engines would be properly maintained.

4.9 Noise

Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day-Night Average Sound Level (DNL) is an average measure of sound. The DNL descriptor is accepted by federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses.

Noise, defined herein as undesirable sound, is federally regulated by the Noise Control Act of 1972 (NCA). Although NCA gives the EPA authority to prepare guidelines for acceptable ambient noise levels, it only charges those federal agencies that operate noise-producing facilities or equipment to implement noise standards. EPA guidelines, and those of many other federal agencies, state that outdoor sound levels in excess of 55 dB DNL are “normally unacceptable” for noise-sensitive land uses such as residences, schools, or hospitals. The proposed project site consists mainly of public roads. The closest noise-sensitive receptors to the proposed LS13 site are located adjacent to the project site and include residences. The City of Diamondhead has recently passed Noise Ordinance 2012-014.

No-Action Alternative

Under the No-Action Alternative, the proposed LS 13 would not be constructed; therefore, no impacts to noise levels would occur.

Proposed Action Alternative

Under the Proposed Action Alternative, no long-term impacts to noise are anticipated. During the construction period, temporary short-term increases in noise levels are anticipated. To prevent potential noise disturbances to the community, construction activities would be limited to normal business hours when possible. The City of Diamondhead recently passed Ordinance 2012-014. In the event activities require additional work to be performed outside of normal business hours, exempts the installation and maintenance of public utilities.

4.10 Biological Resources

The proposed project area consists of upland pine forests and bottomland hardwoods of the coastal plain. The proposed project site supports wildlife common to undeveloped, suburban areas in coastal Mississippi including songbirds, reptiles, amphibians, small mammals, and white-tailed deer.

United Stated Fish and Wildlife Service (USFWS) lists the following federally endangered (E) and threatened (T) animal species for Hancock County (USFWS, 2012 b) as shown in Table 4.2:

Table 4.2. Federally endangered and threatened animal species in Hancock County.

Common Name	Scientific Name	Status
Louisiana black bear	*Ursus americanus luteolus*	T
West Indian manatee	*Trichechus manatus*	E
Bald eagle	*Haliaeetus leucocephalus*	Bald and Golden Eagle Act
Piping plover	*Charadrius melodus*	T (CH)
Gopher tortoise	*Gopherus polyphemus*	T
Green turtle	*Chelonia mydas*	T
Loggerhead turtle	*Caretta caretta*	T
Gulf sturgeon	*Acipenser oxyrhynchus desotoi*	T (CH)
Inflated heelsplitter	*Potamilus inflatus*	T
Louisiana quillwort	*Isoetes louisianensis*	E
Kemp's Ridley turtle	*Lepidochelys kempii*	E
Ringed map turtle	*Graptemys oculifera*	T
Leatherback sea turtle	*Dermochelys comacea*	E

A letter requesting project review was sent to the USFWS on December 11, 2012; a letter dated January 11, 2013, states "the Service has determined that the proposed project will have "No Effect" on federally listed species or their habitat."

No-Action Alternative

Under the No-Action Alternative, the proposed LS 13 would not be constructed; therefore, no impacts to biological resources would occur.

Proposed Action Alternative

Under the Proposed Action Alternative, LS 13 would be constructed within two lots at the end of Apua Court. The email dated January 11, 2013 from USFWS confirms the project will have no effect on federally listed species or their habitats.

4.11 Cultural Resources

Section 106 of the National Historic Preservation Act, as amended, and implemented by 36 CFR Part 800, requires federal agencies to consider the effects of their actions on historic properties and provide the Advisory Council on Historic Preservation an opportunity to comment on federal projects prior to implementation. Historic properties are defined as archeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places.

No-Action Alternative

Under the No-Action Alternative, the proposed LS 13 would not be constructed; therefore, no impacts to cultural resources would occur.

Proposed Action Alternative

A consultation letter dated December 11, 2013 was submitted to MDAH State Historic Preservation Office and to the Mississippi Band of Choctaw Indians (MBCI) requesting review and comments regarding the proposed project. A Phase I Cultural-Resource Survey for LS 13 was also sent to both agencies. A letter was received from MDAH that stated no significant

cultural resources would be affected by the project on January 7, 2013. No response has been received to date from the MBCI.

If during the course of work, archaeological artifacts (prehistoric or historic) or human remains are discovered, the applicant shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The applicant shall inform their Public Assistance (PA) contacts in FEMA, who will in turn contact FEMA Historic Preservation staff. Work will not proceed until FEMA Historic Preservation staff has completed consultation with the SHPO and the MBCI. Non-compliance with this requirement may jeopardize the receipt of federal funding.

5.0 CUMULATIVE IMPACTS

According to the Council on Environmental Quality (CEQ) regulations, cumulative impacts represent the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7)." In accordance with NEPA and to the extent reasonable and practical, this EA considered the combined effect of the Proposed Action Alternative and other actions occurring or proposed in the vicinity of the proposed project site.

Diamondhead and the entire Mississippi Gulf coast are undergoing recovery efforts after Hurricane Katrina caused extensive damages. The recovery efforts in Diamondhead include demolition, reconstruction, and new construction. Recovery efforts including the relocated WWTP project and the proposed project may have a cumulative temporary impact on soils, transportation, air quality and noise pollution during construction activities. No other cumulative effects are anticipated.

6.0 PUBLIC INVOLVEMENT

FEMA is the lead federal agency for conducting the NEPA compliance process for this lift station construction project in Diamondhead, Mississippi. It is the goal of the lead agency to expedite the preparation and review of NEPA documents and to be responsive to the needs of the community and the purpose and need of the proposed action while meeting the intent of NEPA and complying with all NEPA provisions.

The District notified the public of the availability of the draft SEA through publication of a public notice in a local newspaper. The public notice was published on <date> and <date>, in *The Sea Coast Echo* (Appendix C). FEMA conducted an expedited public comment period commencing on the initial date of publication of the public notice and ending on <date>. <Number> comments were received from the public.

Once the district notifies the public of the document, the above dates will be entered.

7.0 AGENCY COORDINATION AND PERMITS

The following agencies and organizations were contacted by a letter requesting project review during the preparation of this EA. Letters sent to the agencies and received to date are included in Appendix B.

- U.S. Army Corps of Engineers, Mobile District
- U.S. Department of Agriculture, Natural Resources Conservation Service
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- Mississippi Department of Agriculture and Commerce
- Mississippi Department of Archives and History
- Mississippi Band of Choctaw Indians
- Mississippi Department of Environmental Quality
- Mississippi Department of Marine Resources
- City of Diamondhead
- Mississippi Soil and Water Conservation Commission

In accordance with applicable local, state, and federal regulations, the applicant would be responsible for acquiring any necessary permits prior to commencing construction at the proposed project site.

8.0 CONCLUSIONS

No impacts to geology, topography, floodplains, public health and safety, hazardous materials, socioeconomics, environmental justice, threatened/endangered species, surface water, groundwater, wetlands and cultural resources are anticipated with the Proposed Action Alternative. During the construction period, short-term impacts to soils, transportation, air quality, and noise are anticipated. All short-term impacts require conditions to minimize and mitigate impacts to the proposed project site and surrounding areas. Since the impacts are less than 1 acre, potential impacts to soils, would not require permits from MDEQ. The installation to connect the proposed LS 13 to the existing utilities would require coordination with the City of Diamondhead for construction activities and to connect to existing utilities under the street. Although no mitigation is required for temporary impacts to air quality or noise, measures to reduce the amount of air pollution and noise will be taken during construction.

9.0 REFERENCES

Bicker, A.R., Jr., compiler, 1969, Geologic map of Mississippi: Mississippi Geological Society Map.

FEMA (Federal Emergency Management Agency). 2012. Flood Insurance Rate Map Hancock County, Mississippi (Unincorporated Areas). DFIRM MAP 28045C0261D. https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1 . Accessed December 7, 2012.

MDEQ (Mississippi Department of Environmental Quality). 2012. National Ambient Air Quality Standards. http://www.deq.state.ms.us/Mdeq.nsf/page/Air_NewAirQualityStandardsandAttainment?OpenDocument. Accessed December 7, 2012.

NOAA (National Oceanic and Atmospheric Administration). 2012. State Coastal Zone Boundaries.http://coastalmanagement.noaa.gov/mystate/docs/StateCZBoundaries.pdf#search . Accessed December 7, 2012.

Otvos, E. G.1985. Guidebook, Coastal Evolution - Louisiana to Northwest Florida. American Association of Petroleum Geologists Annual Meeting, New Orleans, The New Orleans Geological Society.

Schmid, K., and Otvos, E. (no date). Geology and Geomorphology of the Coastal Counties in Mississippi – Alabama. http://geology.about.com/gi/o.htm?zi=1/XJ&zTi=1&sdn=geology&cdn=education&tm=32&f=00&tt=14&bt=0&bts=1&zu=http%3A//geology.deq.state.ms.us/coastal/NOAA_DATA/Publications/Publications/Coastwide/Geology%2520and%2520Geomorphology%2520of%2520the%2520Coastal%2520Counties.pdf. Accessed December 15, 2012.

Smith, William I., Paul Nichols, Jr., Lloyd B. Walton, and Lloyd B. Hale. 1981. *Soil Survey of Hancock County, Mississippi.* United States Department of Agriculture, Soil Conservation Service and Forest Service, Washington, D.C.

USCB (United States Census Bureau). 2012. Census 2010 State and County Quick Facts. http://quickfacts.census.gov/qfd/states/28/2819100.html. Accessed December 7, 2012.

USDA/NRCS (United States Department of Agriculture , Natural Resources Conservation Service). 2012 a. Official Soil Series Description. https://soilseries.sc.egov.usda.gov/OSD_Docs/S/SAUCIER.html . Accessed December 7, 2012.

USDA/NRCS (United States Department of Agriculture, Natural Resources Conservation Service). 2012 b. National Hydric Soils List by State. http://soils.usda.gov/use/hydric/lists/state.html . Accessed December 7, 2012.

USFWS (United States Fish and Wildlife Service). 2012a. National Wetlands Inventory Mapper. http://wetlandsfws.er.usgs.gov/wtlnds/launch.html . December 7, 2012.

USFWS (United States Fish and Wildlife Service). 2012 b. Mississippi: List of Threatened and Endangered Species by County. (convert web link to blue font) http://www.fws.gov/mississippiES/pdf/SpeciesbyCounty.pdf. December 7, 2012.

Renken, Robert A., 1998. Groundwater Atlas of the United States: Arkansas, Louisiana and Mississippi, HA 730-F. The United States Geological Society. http://pubs.usgs.gov/ha/ha730/ch_f/index.html . Accessed March 1, 2013.

APPENDIX A

FIGURES

Figure 1. Vicinity Map.

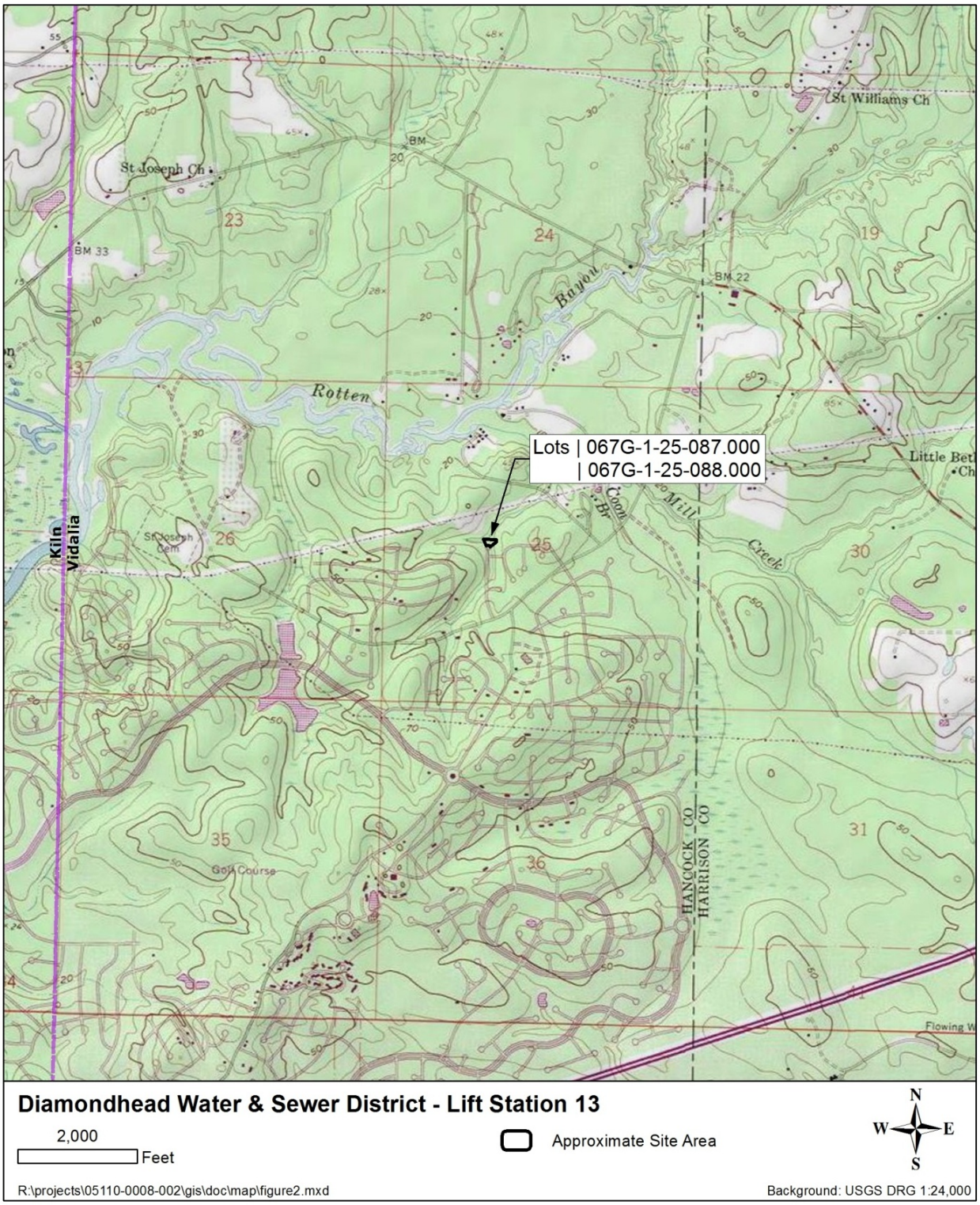
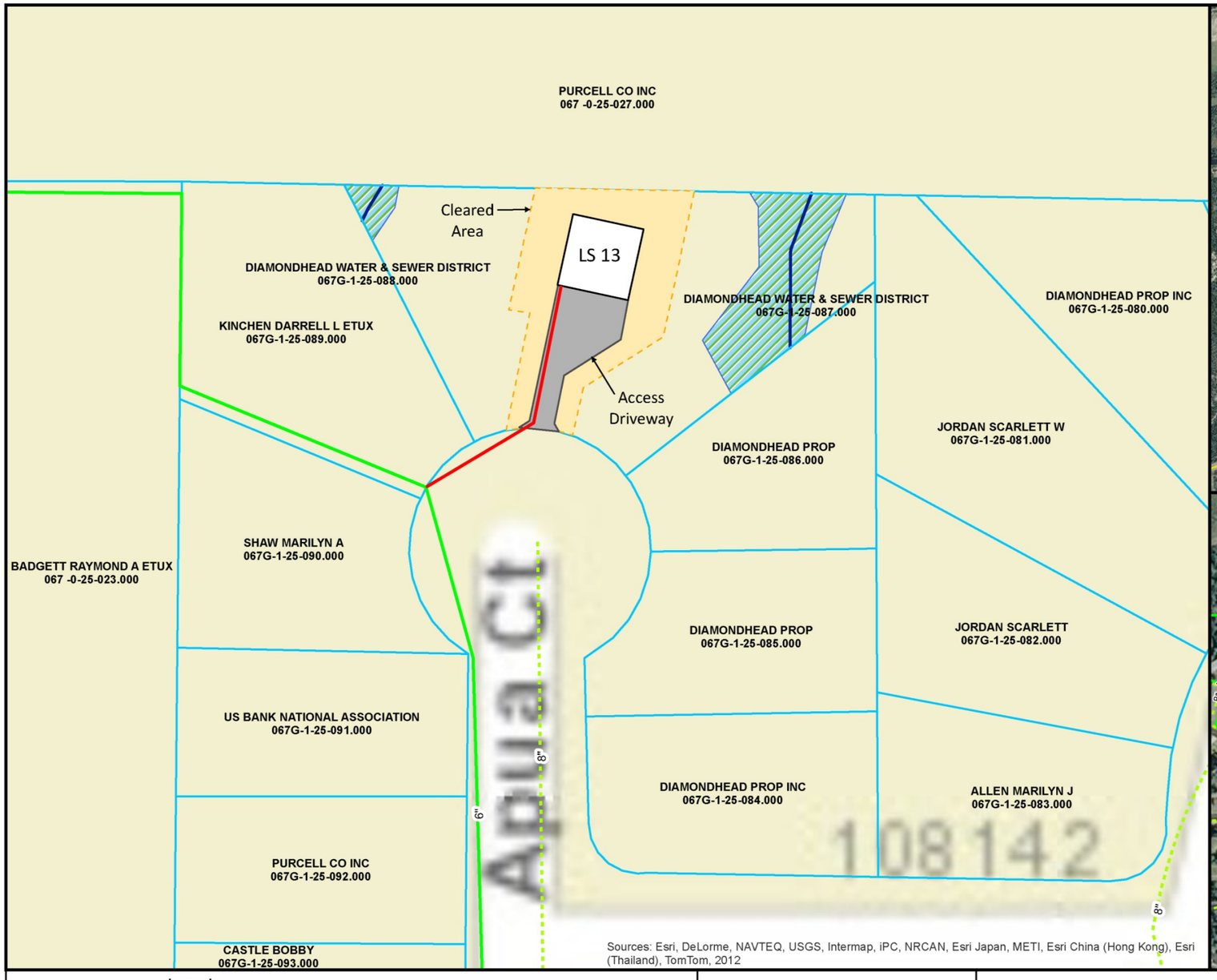
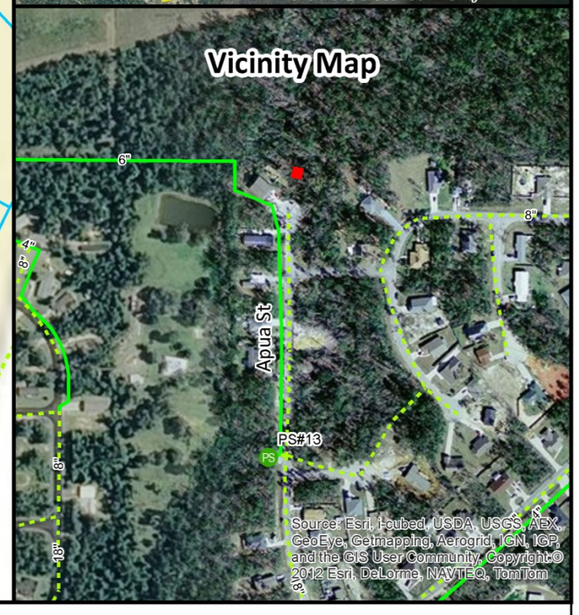


Figure 2. Map showing overview of project on USGS topographic quadrangles Kiln, MS and Vidalia, MS (7.5-minuste series)





N

Legend

- Existing Pump Stations
- Existing Sewer Lines
- Existing Sewer Force Mains
- Proposed Sewer Force Main
- Intermittent Channel with OHWM
- Site Wetlands - Hardwood Sweetbay
- Parcels

Diamondhead Wastewater Facilities

1 inch = 50 feet

0 25 50 100 Feet

Note: Proposed system location and dimensions are approximate.

Prosposed Pump Station #13

CDM Smith

APPENDIX B

AGENCY COORDINATION

APPENDIX C

PUBLIC NOTICE

Once the district notifies the public of the document, the Public Notice will be entered.