



Environmental Services, Inc.

Draft Supplemental Environmental Assessment

Tyrrell Park Detention Project

HMGP-DR-1780-TX, Project #40
Beaumont, Jefferson County, Texas

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LIST OF ACRONYMS

ALERT – Automated Local Evaluation in Real Time
APE – Area of Potential Effect
ASTM – American Society for Testing and Materials
B/C – Benefit/Cost
BMP – Best Management Practices
BRNFD – Brownfields
CAA – Clean Air Act
CEQ – Council on Environmental Quality
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System
CESQGs – Conditionally Exempt, Small-Quantity Generators
CFR – Code of Federal Regulations
CORRACT – Corrective Action
DRYC – Dry Cleaning
EA – Environmental Assessment
EPA – US Environmental Protection Agency
ERNS – Emergency Response Notification System
ESA – Endangered Species Act
FEMA – Federal Emergency Management Agency
FIRM – Flood Insurance Rate Map
FONSI – Finding of No Significant Impact
FPPA – Farmland Protection Policy Act
GLO – General Land Office
H&H Study – Hydrology and Hydraulics Study
HB – House Bill
HEC-1 – Hydrologic Engineering Center – 1 Model
HMGP – Hazard Mitigation Grant Program
IH – Interstate Highway
IRUST – Indian Reservation Underground Storage Tanks
JCAD – Jefferson County Appraisal District
JCDD6 – Jefferson County Drainage District No. 6
LFUN – TCEQ Solid Waste Facilities and Unauthorized and Unpermitted Landfill
LQGs – Large-Quantity Generators
MSL – Mean Sea Level
NAAQS – National Ambient Air Quality Standards
NDD – Natural Diversity Database
NEPA – National Environmental Policy Act
NFRAP – No Further Remedial Action Planned
NHPA – National Historic Preservation Act
NOI – Notice of Intent
NO_x – Nitrogen Oxides
NPL – National Priority List
NRCS – Natural Resources Conservation Service
NRHP – National Register of Historic Places
NWI – National Wetland Inventory
NWS – National Weather Service

PRPs – Potentially Responsible Parties
RCRA – Resource Conservation and Recovery Act
RCRA-G – RCRA Generators
RCRA-TSD – RCRA Treatment, Storage, or Disposal
RCRIS – Resource Conservation and Recovery Information System
RCT – Railroad Commission of Texas
SALs – State Archeological Landmarks
SARA – Superfund Amendments and Reauthorization Act
SEA – Supplemental Environmental Assessment
SH – State Highway
SHPO – State Historic Preservation Office
SQGs – Small-Quantity Generators
SWPPP – Storm Water Pollution Prevention Plan
TAC – Texas Administrative Code
TCEQ – Texas Commission on Environmental Quality
THC – Texas Historical Commission
TMDL – Total Maximum Daily Load
TPDES – Texas Pollutant Discharge Elimination System
TPWD – Texas Parks and Wildlife Department
TSMASS – Texas State Minimum Archeological Survey Standards
TSS – Total Suspended Solids
TWDB – Texas Water Development Board
TXAST – Texas Above Ground Storage Tank
TXIOP – Texas Innocent Owner/Operator Program
TXLF – Texas landfill
TXLUSTs – Texas Leaking Underground Storage Tanks
TXSPILL – Hazardous or Potentially Hazardous Substances Spills
TXSSF – Texas State Super Fund
TXUSTs – Texas Underground Storage Tanks
TXVCP – Texas Voluntary Cleanup Program
USACE – US Army Corps of Engineers
USDA – US Department of Agriculture
USFWS – US Fish and Wildlife Service
UT-BEG – University of Texas Bureau of Economic Geology
VOC – Volatile Organic Compounds

1.0 INTRODUCTION

1.1 PROJECT AUTHORITY

The Federal Emergency Management Agency (FEMA) previously prepared an Environmental Assessment (EA) in January 2012 addressing Jefferson County Drainage District No. 6's (JCDD6) Tyrrell Park detention basin project. That EA resulted in a Finding of No Significant Impact (FONSI), which was signed in February 2012. This Supplemental Environmental Assessment (SEA) documents revisions made to the project, including partial modification to the configuration of the largest basin, repair and repaving of an additional 1650 linear feet of Phelps Road (400 linear feet of repair were addressed in the original EA) due to deterioration from construction equipment, additional culverts under Downs Road, and minor clean-out of approximately 3800 linear feet of ditch downstream of the detention basins. Portions of the previously approved project were recently constructed including the smaller basin, new culverts under Phelps Road, and minor stabilization at culverts.

In accordance with 44 Code of Federal Regulations (CFR) for FEMA, Subpart B, Agency Implementing Procedures, Part 10.9, this SEA 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). This SEA hereby incorporates the original February 2012 EA and FONSI by reference, in accordance with 40 CFR Part 1508.28 (see <https://www.fema.gov/media-library/assets/documents/24211>). The purpose of the SEA is to analyze the potential environmental impacts of the new proposed action (project modifications) and to determine whether to prepare an Environmental Impact Statement or issue a FONSI.

This project will comply with FEMA's responsibilities under NEPA, Section 7 of the Endangered Species Act (ESA), and Section 106 of the National Historic Preservation Act (NHPA). This SEA is required for purposes of evaluating the environmental impacts of a project grant application submitted to FEMA by JCDD6 (the Applicant). The environmental reviews are required under FEMA regulations 44 CFR Part 10 and the Council on Environmental Quality guidelines 40 CFR Parts 1500 to 1508.

1.2 PROJECT LOCATION

The proposed Tyrrell Park Detention Project is located southeast of the intersection of Seale Road and State Highway (SH) 124 southwest of Beaumont, Jefferson County, Texas (Figure 1). Figure 2 shows a color aerial view of the project area. Figure 3 provides a topographic and physical features map of the project area.

FIGURE 1 Location Map

FIGURE 2 Project Layout

FIGURE 3 Soils Map

The project location is a large lot residential area. Major transportation arteries in the area include SH 124, Walden Road, and Interstate Highway (IH) 10. Topography is generally flat with elevations ranging from 15 to 25 feet (ft) above mean seal level (msl). Vegetation in the area is generally modified due to residential development and introduction of ornamentals. Most drainage is via man-made or man-modified ditches that flow eastward to Willow Marsh Bayou and Hillebrandt Bayou. There are no historically natural waterways in the immediate vicinity of the project site.

1.3 PURPOSE AND NEED OF PROJECT

1.3.1 Purpose

As stated in Section 1.31 of the February 2012 Final EA and FONSI, the purpose of this Hazard Mitigation Grant Program (HMGP) project is to provide an adequate amount of detention volume to detain floodwaters below natural grade elevation, thus significantly reducing flooding to structures in the Benefit Area within the Tyrrell Park subdivision of Beaumont, Texas (that area within the subdivision that would benefit from flood reduction caused by the project; see Figure 1).

Through HMGP, FEMA provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. Although HMGP funds are made available statewide under the Presidential Disaster Declaration DR-1780-TX for Hurricane Dolly, the state gave priority to applications from the sixteen (16) declared counties, including Jefferson County. HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

1.3.2 Need

Changes to the footprint of the larger basin have been dictated by an unwilling seller within the original footprint. The District, while having condemnation powers as a subdivision of the State, has chosen not to condemn the original property for this project. The basin has been redesigned to include only properties of willing sellers. The additional 1650 linear feet of street repairs to Phelps Road was brought about by excessive road wear following construction equipment use. Placement of larger culverts under Downs Road and clean-out of the discharge ditch downstream of the basins was determined to be beneficial after the original approval.

2.0 ALTERNATIVES ANALYSIS

Two alternatives have been considered in this SEA: (1) no action; and (2) change to the footprint of the large basin, additional road repairs, and downstream conveyance

improvements (proposed project); and two alternatives considered in the original project that remain as possible alternatives.

2.1 ALTERNATIVE 1: NO-ACTION ALTERNATIVE

The no-action alternative would not result in a change to the large basin footprint, additional road repairs, or improved conveyance downstream. The previously approved project scope would be utilized against the desires of an unwilling landowner, likely resulting in the need for condemnation proceedings.

2.2 ALTERNATIVE 2: BASIN RECONFIGURATION, ADDITIONAL ROAD REPAIRS, AND DOWNSTREAM CONVEYANCE IMPROVEMENTS (REVISED PROJECT)

The revised project includes the following items as illustrated on Figure 2:

1. Reconfiguration of large detention basin, which will be approximately 7.2 acres, with purchase of additional property;
2. 70 linear feet (lf) of 18-inch diameter culvert directionally drilled under Downs Road;
3. Two 35-foot x 25-foot concrete aprons for erosion control at culvert ends at Downs Road;
4. An additional 1650 lf x 18 ft City street repairs for a total of 2050 lf (400 lf were originally included in the project EA);
5. 3,785 lf of ditch bottom clean-out downstream of detention basins. Excavated material will be placed and spread on existing ditch berms.

2.3 COST COMPARISON OF ALTERNATIVES

The cost comparison provided in the original EA will not materially change with the revised project design as no additional grant funding is being sought to implement the changes.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 PHYSICAL ENVIRONMENT

3.1.1 Geology, Seismicity, and Soils

The February 2012 Final EA (Section 3.1) includes a thorough discussion of the geology seismicity, and soils within the project area. The revised project footprint does not incorporate geologic or soils resources that are different from the previous descriptions.

3.1.1.1 No-Action Alternative

The no-action alternative (original project design) would not materially affect geological resources. No structures or dams would be constructed that would pose a hazard in the unlikely event of any seismic activity.

Approximately 16 acres of surface and near-surface soils would be displaced by excavation of the detention basins and construction of the proposed project. The US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) has evaluated the proposed project for impacts to prime farmland soils under requirements of the Farmland Protection Policy Act (FPPA). The League soils are classified as prime farmland soils. However, since the project area has already been converted to urban uses, it is exempt from the provisions of the FPPA. The response from NRCS was included in Attachment 2 of the original EA.

3.1.1.2 Proposed Project Modification Alternative

The revised project only slightly alters the footprint of disturbance (Figure 3). The revised configuration of the larger detention pond increases the proposed footprint from 7.1 acres to 7.2 acres. No material changes to effects of the original project would result with the proposed modifications. As the entire Tyrrell Park subdivision would be exempt from the requirements of the FPPA due to urban conversion, no additional coordination with the NRCS was undertaken for this modification.

3.1.2 Water Resources and Water Quality

The February 2012 Final EA (Section 3.1) includes a thorough discussion of the water resources and water quality within the project area. The revised project footprint does not incorporate project features that would adversely affect water resources or water quality.

3.1.2.1 No-Action Alternative

As discussed in the February 2012 Final EA, the original project would not materially affect the flow or water quality in Hillebrandt Bayou. The detention basins would allow for temporary detention of storm runoff that would facilitate settling and assimilation of entrained pollutants in vegetation in the detention basins. The project would not adversely affect freshwater supply canals, sources, or water conservation projects in the region.

The project was carefully designed so that it would not aggravate any downstream flooding situations and also would provide the greatest benefit to the most severely flooded areas. The lowering of the water surfaces in these flood-prone areas would allow the outfalls

that drain the area to function much more efficiently because they would have increased energy slopes, which would move the floodwaters at much greater velocities.

3.1.2.2 Proposed Project Modification Alternative

The revised project only slightly alters the footprint of disturbance. No material changes to effects of the original project would result with the proposed modifications.

3.1.3 Floodplain Management (Executive Order 11988)

Executive Order 11988 mandates that all federal agencies shall provide leadership and take action to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains in carrying out their responsibilities for (1) acquiring, managing, and disposing of federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting federal activities and programs affecting land use, including, but not limited to, water and related land resources planning, regulating, and licensing activities.

Before taking an action, each agency shall determine whether the proposed action will occur in a floodplain. For major federal actions significantly affecting the quality of the human environment, the evaluation would be included in any statement prepared under Section 102(2)(C) of the NEPA. The agency shall make a determination of the location of the floodplain based on the best available information.

There are many flood mitigation activities within areas of the City of Beaumont. The City of Beaumont has land use, building code, and permit authority over the land within its corporate boundaries, including the authority to regulate development proposed within the special flood hazard areas designated on the City's Flood Insurance Rate Map (FIRM). The Applicant seeks to obtain a FEMA grant that would help reduce the flooding of existing homes in the Tyrrell Park subdivision.

FIGURE 4: FEMA MAP

3.1.3.1 No-Action Alternative

The original project is not located in and would not result in any negative impacts to the 100- and 500-year floodplains; rather, construction of the detention ponds would decrease the floodplain within the Tyrrell Park subdivision.

3.1.3.2 Proposed Project Modification Alternative

Figure 4 shows the revised project and the project benefit area in relation to the FEMA flood hazard zones based on FIRM panel 4854570040D, dated 8/06/2002. The majority of the revised project is not within the 100-year floodplain. Only a portion of the channel clean-out downstream of the basins is within the floodplain. However, the ditch previously existed and the clean-out activity is not anticipated to affect the floodplain.

The revised project would not have adverse effects on flooding characteristics; therefore, it was not analyzed using the FEMA Eight-Step Planning Process. JCDD6 will coordinate with the local floodplain administrator and obtain any required permits prior to initiating work.

3.1.4 Air Resources and Air Quality

The February 2012 Final EA (Section 3.1) includes a thorough discussion of the air quality within the project area.

3.1.4.1 No-Action Alternative

The Texas Commission on Environmental Quality (TCEQ) determined that the original project would not contribute to significant degradation of air quality in the project area (TCEQ response was provided in Attachment 4 of the original EA).

3.1.4.2 Proposed Project Modification Alternative

The revised project footprint does not incorporate project features that would adversely affect air quality.

3.2 BIOLOGICAL ENVIRONMENT

3.2.1 Terrestrial and Aquatic Environment

The Tyrrell Park subdivision is characterized as a developed, large-lot residential subdivision. The majority of the area is composed of open lawns and small pastures dominated by St. Augustine grass (*Stenotaphrum secundatum*), bermudagrass (*Cynodon dactylon*), and

various weeds and forbs. Scattered trees are present that include Chinese tallow (*Triadica sebifera*), hackberry (*Celtis laevigata*), water oak (*Quercus nigra*), live oak (*Quercus virginiana*), and pecan (*Carya illinoensis*). Additionally, many ornamental trees and shrubs have been introduced to the area.

No aquatic habitat is present on the detention basin sites. Outfall ditches in the vicinity are all maintained drainage facilities with little or no temporary aquatic habitat. Attachment 1 provides representative on-site photographs.

3.2.1.1 No-Action Alternative

The original EA determined that approximately 16 acres of residential lawn areas and small pastures would be disturbed by the construction of the two detention basins and channel improvements. The constructed areas would be revegetated with grass species similar to those that currently existed in those areas. Other than permanent removal of a number of scattered trees from the landscape, the area would generally be returned to a commensurate vegetative condition.

3.2.1.2 Proposed Project Modification Alternative

The revised project footprint would not materially increase the impact on terrestrial and aquatic areas. The revised basin area is similar in nature to the original basin configuration.

3.2.2 Wetlands (Executive Order 11990)

Executive Order 11990 provides that, in order to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative, all federal agencies shall provide leadership and shall take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting federal activities and programs affecting land use, including, but not limited to, water and related land resources planning, regulating, and licensing activities. This Order does not apply to the issuance by federal agencies of permits, licenses, or allocations to private parties for activities involving wetlands on non-federal property.

According to the Fannett East and Fannett West National Wetland Inventory (NWI) maps (USFWS, 2008), there were no potential areas of concern mapped within the Tyrrell Park subdivision.

A field determination of wetlands and other aquatic features was conducted by Horizon on the revised footprint of the project in accordance with the 2008 Clean Water Act Jurisdictional Determination Guidance (Rapanos Guidance), the 1987 US Army Corps of Engineers (USACE) *Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Regional Supplement (Version 2.0)*, and USACE Regulatory Guidance Letter No. 05-05 (7 December 2005). The field reconnaissance conducted by Horizon did not reveal the presence of any areas determined to be wetlands or waters of the US subject to USACE jurisdiction under Section 404 of the Clean Water Act.

3.2.2.1 No-Action Alternative

The original EA concluded that the project as originally designed would not adversely affect jurisdictional wetlands, waters of the US, or non-jurisdictional wetlands (*i.e.*, wetlands not within USACE's jurisdiction).

3.2.2.2 Proposed Project Modification Alternative

The revised project components would not adversely affect jurisdictional wetlands or waters of the US.

3.2.3 Threatened or Endangered Species and Critical Habitat

Federally listed threatened or endangered species known to occur in Jefferson County include the piping plover (*Charadrius melodus*), green sea turtle (*Chelonia mydas*), Atlantic hawksbill sea turtle (*Eretmochelys imbricata*), Kemp's ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), and loggerhead sea turtle (*Caretta caretta*) (USFWS, 2014) (Attachment 2).

Additionally, the US Fish and Wildlife Service (USFWS) lists the following migratory bird species as being of potential occurrence in many or all Texas counties: Eskimo curlew (*Numenius borealis*), interior least tern (*Sterna antillarum athalossos*), and whooping crane (*Grus americana*). Examination of the Texas Parks and Wildlife Department (TPWD) National Diversity Database (NDD) provided by the TPWD in Austin indicated no documented occurrences of listed species on or within the immediate vicinity of the subject site (TPWD, 2014) (Attachment 2). The TPWD also lists the brown pelican (*Pelecanus occidentalis*) as a potential inhabitant of Jefferson County. The brown pelican has been federally delisted in Texas. They also note the Louisiana black bear (*Ursus americanus*) as a possible transient and note that the red wolf (*Canis rufus*), considered extirpated, formerly occupied the area.

3.2.3.1 No-Action Alternative

As documented in the original project EA, FEMA determined that the original project would not affect listed species or critical habitat.

3.2.3.2 Proposed Project Modification Alternative

No listed species or their supporting habitats are present in the project area; therefore, the modified project design alternative would not affect listed species or critical habitat.

3.3 HAZARDOUS MATERIALS

Horizon commissioned TelALL Phase I Support Services, Inc. (TelALL) to provide an environmental database review of selected state and federal agency records. TelALL conducted the database search for the subject site using minimum search distances outlined in the American Society for Testing and Materials (ASTM) Standards E-1527-00 (ASTM, 2006). Table 1 shows the number of known occurrences for each category as of March 2014 for the proposed Tyrrell Park Detention Project and the minimum search distance for each category.

The details of the agency database search are provided in Attachment 3. Based on the findings, the Tyrrell Park Detention Project site has a low probability for the occurrence of any contamination or recognized environmental conditions. Any hazardous or potentially hazardous materials discovered, generated, or used during construction/excavation of the project would be disposed of and handled by the Applicant in accordance with applicable local, state, and federal regulations.

3.3.1 Underground or Aboveground Storage Tanks

TelALL reviewed the TCEQ database listings that contain information on permitted Texas Underground Storage Tanks (TXUSTs), permitted Texas Aboveground Storage Tanks (TXASTs), and known Texas Leaking Underground Storage Tanks (TXLUSTs). According to TCEQ records, no TXAST facilities were identified on or within a 0.25-mile radius of the Property. No TXUST or TXSAT facilities were identified on or within a 0.25-mile radius of the Property. According to TCEQ records, there is one (1) TXLUST within a 0.5-mile radius of the subject site.

**TABLE 1
TELALL AGENCY DATABASE REPORT FINDINGS
TYRRELL PARK DETENTION PROJECT**

DATABASE	ACRONYM	LAST UPDATED	MINIMUM SEARCH DISTANCE IN MILES	FINDINGS
National Priority List	NPL	03/2014	1.0	0
Comprehensive Environmental Response, Compensation, and Liability Information System	CERCLIS	03/2014	0.5	0
No Further Remedial Action Planned	NFRAP	03/2014	0.5	0
Resource Conservation and Recovery Act Information System – Treatment, Storage, or Disposal	RCRA-TSD	01/2014	1.0	0
Corrective Action	CORRACT	01/2014	1.0	0
Resource Conservation and Recovery Act Information System – Generators	RCRA-G	01/2014	0.25	0
Emergency Response Notification System	ERNS	02/2014	0.25	0
Texas Voluntary Cleanup Program	TXVCP	01/2014	0.5	0
Innocent Owner/Operator Program	TXIOP	01/2014	0.5	0
Texas State Superfund	TXSSF	02/2014	1.0	0
TCEQ Solid Waste Facilities	TXLF	03/2014	1.0	0
Unauthorized and Unpermitted Landfill Sites	LFUN	03/2014	0.5	0
Leaking Underground Storage Tanks	TXLUST	02/2014	0.5	1
Texas Underground Storage Tanks	TXUST	02/2014	0.25	0
Texas Aboveground Storage Tanks	TXAST	02/2014	0.25	0
Texas Spills List	TXSPILL	03/2014	0.25	0
Brownfield	BRNFD	01/2014	0.5	0
Dry Cleaner	DRYC	02/2014	0.5	0
Indian Reservation Underground Storage Tanks	IRUST	02/2014	0.25	0

The TXLUST is 0.5 miles NW of the subject site and located at 5705 Fannett Road, Beaumont Texas, 77704. The TXLUST was reported on 18 September 1989 and was leaking petroleum which caused soil contamination. A full site assessment and remedial action plan for the site was required by TCEQ. TCEQ issued a Final Concurrence indicating the contamination had been remediated and the case was closed (see Attachment 3 for details).

Based on the regulatory information and location, the TXLUST would not be expected to affect the subject site and does not appear to constitute a recognized environmental condition for the subject site.

3.3.2 No-Action Alternative

No hazardous materials or sources were identified for the original project boundary that would adversely affect the proposed project or be released into the environment as a result of implementation of the project. The reduction of flooding in the Tyrrell Park subdivision would reduce the possibilities of pollution releases from the subdivision to downstream waters during flood events. Under this alternative, the footprint of the large basin would not be altered. Any excavated soil, waste materials, and debris generated from constructing the original basin would be managed and disposed of in accordance with applicable local, state, and federal regulations in an approved manner and location. If contaminated materials were discovered during the construction activities, the work would cease until the appropriate procedures were implemented and permits obtained. JCDD6 would handle, manage, and dispose of petroleum products, hazardous materials, and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state, and federal agencies.

3.3.3 Proposed Project Modification Alternative

The updated data base search did not reveal any new sources of potential contamination in the project area. Under the modified project design, JCDD6 would continue to handle, manage, and dispose of petroleum products, hazardous materials, and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state, and federal agencies.

3.4 SOCIOECONOMICS

2012-2013 estimated US Census data indicate a population of 252,358 for Jefferson County. A demographic profile of the area shows that approximately 43.4% of the population is reported as white, 34.2% as black, 17.6% as Hispanic, and 4.8% as other. The project is not expected to affect the population of the area. The county population is the reference population for the Environmental Justice analysis below (Section 3.4.6).

Local employment is dominated by manufacturing jobs, with the service industry and agricultural-related occupations also being common. The median household income (2008-2012) is reported as \$43,750, and is approximately \$7,813 less than the US average. The project is not expected to significantly affect local employment or income, except for a temporary increase during construction. The project however, will benefit the local economy by reducing flooding impacts on homes, structures, and infrastructure in the Tyrrell Park subdivision.

3.4.1 Zoning and Land Use

The project area and surrounding areas are currently zoned single-family residential by the City of Beaumont. Drainage facilities are a permitted activity within single-family residential zoning areas.

3.4.2 Visual Resources

The area of the 2 proposed detention pond sites is currently large-lot residential with abundant open space and surrounded by additional large-lot residential development.

3.4.3 Noise

The project location is currently a large-lot residential area. Existing noise is generally low and generated by traffic on SH 124 and other major streets in the area.

3.4.4 Public Services and Utilities

The proposed project is not expected to impede the access of nearby residents to any public services. A review of the Railroad Commission of Texas (RCT) Well Location Database indicated that 2 pipelines traverse or pass in close proximity to the proposed detention basin areas in the Tyrrell Park subdivision. One pipeline passes through the northern part of the larger basin. No gas wells are present within the boundaries of the drainage improvement areas.

3.4.5 Traffic and Circulation

Major traffic arterials in the area include SH 124, Walden Road, and IH 10. Local residential streets and rural county roads also provide for traffic movements in the area. The proposed Tyrrell Park detention basins are located on the southeast side of SH 124 and southwest of Seale Road.

3.4.6 Environmental Justice (Executive Order 12898)

Executive Order 12898 directs federal agencies to identify and address disproportionately high adverse human health, environmental, economic and social effects of its actions on minority and low-income populations. By necessity, the proposed project is located in the vicinity of the subdivision for which it is designed to provide flood protection and all populations in the project area will benefit.

3.4.7 Safety and Security

Properties within the project area are currently privately owned, and public access is generally limited. Current safety issues in the area include traffic safety on Seale Road and property and health and welfare protection during flood events.

3.4.8 No-Action Alternative

The original project design would not affect or change current zoning. Visual resources (aesthetics) would not be expected to be substantially affected by the proposed detention basins in the Tyrrell Park subdivisions. Post-construction, the areas would have a generally similar visual appearance (open space) in all areas following development of the project. The only anticipated significant noises associated with the project would be due to heavy equipment operation during the construction phase. To reduce noise levels during construction, construction activities will take place during normal business hours. Equipment and machinery used at the proposed project site will meet all local, state, and federal noise regulations. Following construction activities, there would be no significant noise-generating activities at the site other than occasional mowing.

No significant safety or security issues would be expected with the original project design. The appropriate signage and barriers would be in place prior to construction activities to alert pedestrians and motorists of project activities.

No impacts or alterations to pipelines would occur.

Other than temporary interruptions of traffic flow on adjacent residential streets during construction, there would be no anticipated long-term impediments to traffic due to construction or operation of the proposed drainage improvements.

No low-income or minority populations would be adversely affected by the proposed project. The project is located within the subdivision it is designed to benefit. One property owner within the large detention basin has refused to sell their property. The District, while having condemnation powers as a subdivision of the State, has chosen not to condemn properties for this project. The basin has been redesigned to include only properties of willing sellers.

3.4.9 Proposed Project Modification Alternative

No aspect of the modified project design would be expected to result in impacts to zoning, visual resources, noise levels, safety or security, or local traffic. One pipeline traverses the northern portion of the large detention basin. JCDD6 has communicated with the pipeline

company regarding potential conflicts. A siphon will be installed under the pipeline to connect two portions of the basins. The pipeline company has indicated approval of the design (refer to Attachment 4).

3.5 CULTURAL RESOURCES

The February 2012 Final EA (Section 3.5) includes a thorough discussion of the potential for intact, significant cultural resources within the Area of Potential Effect (APE) for the project area. The determination was made that no areas of historical or pre-historical significance were present in the project APE. The State Historic Preservation Office (SHPO) reviewed that determination and concurred with the findings. The SHPO's concurrence was provided in Attachment 8 of the original EA.

Based on the results of the previous cultural resources investigations, the revised project footprint is not likely to contain significant cultural deposits. No structures were present on the revised basin configuration. Additional correspondence has been provided to the SHPO for their review and concurrence (Attachment 5). SHPO concurred with the determination of no historic properties affected on August 13, 2014.

3.5.1 No-Action Alternative

As noted above, the original project alternative would have no effects on cultural resources. On May 29, 2009, the SHPO concurred that the proposed project would have no effect on historic properties and cleared the project to proceed. Five residential structures were proposed for demolition as part of the proposed action. Three of the five structures were 45 years old or older. In compliance with the NHPA, a consultation letter was sent to the SHPO on November 23, 2011, regarding the demolition of these three structures. In a December 8, 2011 letter, SHPO concurred that the proposed demolitions would have no effect on historic properties. Copies of the consultation letters with the SHPO's concurrence stamp were provided in Attachment 8 of the original EA.

3.5.2 Proposed Project Modification Alternative

No additional cultural resources are expected in the revised APE. Additional correspondence has been submitted to the SHPO for review and concurrence (see Attachment 5).

In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and the applicant shall stop all work immediately in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured by JCDD6 and access to the sensitive area will be restricted by JCDD6. The applicant will inform

the Texas Division of Emergency Management (a division of the Texas Department of Public Safety) and FEMA immediately, and FEMA will consult with the SHPO. Work in sensitive areas shall not resume until consultation is completed and until FEMA determines that the appropriate measures have been taken to ensure complete project compliance with the NHPA and its implementing regulations.

Additionally, since the proposed improvements would be sponsored by a subdivision of the state, the project also falls under the jurisdiction of the Antiquities Code of Texas.

4.0 CUMULATIVE IMPACTS

An assessment of cumulative impacts takes into consideration the consequences that past, present, and reasonably foreseeable future projects have had, have, or will have on an ecosystem. Every project must be considered on its own merits. However, its impacts on the environment must be assessed in light of historical activity, along with anticipated future activities in the area. Although a particular project may constitute a minor impact in itself, the cumulative impacts that result from a large number of such projects could cause significant impairment of natural resources.

Cumulative impacts can result from many different activities, including the introduction of materials into the environment from multiple sources, repeated removal of materials or organisms from the environment, and repeated environmental changes over large areas and long periods. More complicated cumulative effects occur when stresses of different types combine to produce a single effect or accumulation of effects. Large, contiguous habitats can become fragmented, making it difficult for organisms to locate and maintain populations between disjunctive habitat fragments. Cumulative impacts may also occur when the timing of perturbations is so closely spaced that their effects overlap.

4.1 NO-ACTION ALTERNATIVE

The original project is not intended to provide for increased development potential in the area. Therefore, it is not expected that this project would lead to other significant secondary impacts.

4.2 PROPOSED PROJECT MODIFICATION ALTERNATIVE

Similarly, the revised project does not provide for increased development and does not materially increase impacts beyond those addressed in the original EA. Therefore, it is not expected that the revised project would lead to other significant secondary impacts.

5.0 PUBLIC PARTICIPATION

As discussed in the February 2012 Final EA and FONSI, a Notice of Availability of the original Draft Environmental Assessment was published in the *Beaumont Enterprise* and on FEMA's website requesting public comments. Additionally, the Draft EA was made available for review for a period of 30 days at a physical location in the project area. No comments were received on the original EA. The Draft EA received a Finding of No Significant Impact (FONSI) for the project.

This draft SEA will be made available for a 15-day public review and comment period. FEMA will consider and respond to all public comments in the Final SEA. If no substantive comments are received, the Draft SEA will become final and a FONSI will be issued for the entire revised project.

6.0 SUMMARY OF ANTICIPATED IMPACTS AND MITIGATION MEASURES FOR THE REVISED PROJECT DESIGN

TABLE 2

RESOURCE	ANTICIPATED IMPACTS	MITIGATION MEASURES
Geology, Seismicity, and Soils	Geology – no impacts Seismicity – no impacts Soils – no prime or unique farmland will be impacted. The NRCS has determined that this project is exempt from the FPPA.	No mitigation measures proposed
Water Resources and Water Quality	Groundwater – no impacts Surface water quality – no impacts Developed water resources – no impacts	Project will be subject to requirements of the Texas Pollutant Discharge Elimination System (TPDES), Construction Storm Water General Permit (TXR 150000). JCDD6 will prepare a Storm Water Pollution Prevention Plan (SWPPP) and will file a Notice of Intent (NOI) with the TCEQ at least 48 hours prior to start of construction. Monitoring and maintenance of emplaced Best Management Practices (BMPs) for storm water management will be conducted on a regular basis as prescribed by the TPDES General Permit.
Floodplains	No adverse impacts to 100-year floodplain	No mitigation measures proposed. JCDD6 will coordinate with the local floodplain administrator and obtain any required permits prior to initiating work.
Air Quality	Fugitive dust emissions – temporary increase during construction	Contractors will be required to water down construction areas as needed in order to mitigate excess dust. To reduce emissions, vehicle running times on site will be kept to a minimum and engines will be properly maintained.
Terrestrial and Aquatic Environment	Approximately 16 acres of rural residential lawns and scattered trees to be removed	No mitigation measures proposed
Wetlands	No wetlands to be impacted	No mitigation measures proposed

RESOURCE	ANTICIPATED IMPACTS	MITIGATION MEASURES
Threatened and Endangered Species and Critical Habitat	No effect to listed species or critical habitat	No mitigation measures proposed
Hazardous Materials	No hazardous materials concerns identified	Excavated soil, waste materials, and debris will be managed and disposed of in accordance with applicable local, state, and federal regulations in an approved manner and location. If contaminated materials are discovered during the construction activities, the work must cease until the appropriate procedures can be implemented and permits obtained. JCDD6 shall handle, manage, and dispose of petroleum products, hazardous materials, and toxic waste in accordance with the requirements and to the satisfaction of the governing local, state, and federal agencies.
Land Use	No significant changes. 4 single-family residences will be converted to open space.	No mitigation measures proposed
Visual Resources	No significant alterations – rural residential lawns and scattered trees will be converted to open grassy basins.	No mitigation measures proposed
Noise	Temporary construction equipment noise	Construction activities will take place during normal business hours. Equipment and machinery used at the proposed project site will meet all local, state, and federal noise regulations.
Public Services/Utilities	Public services – no impacts Utilities – no impacts Pipelines – no impacts	No mitigation measures proposed
Traffic	Short-duration traffic interruptions during construction on local streets	Implement traffic control procedures as needed
Environmental Justice	No impacts	No mitigation measures proposed
Safety/Security	No issues are expected	Appropriate signage and barriers must be in place prior to construction activities to alert pedestrians and motorists of project activities.

RESOURCE	ANTICIPATED IMPACTS	MITIGATION MEASURES
Cultural Resources	No significant cultural resources present – no impacts	<p>In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and the applicant shall stop all work immediately in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured by JCDD6 and access to the sensitive area will be restricted by JCDD6. The applicant will inform the Texas Division of Emergency Management and FEMA immediately, and FEMA will consult with the SHPO. Work in sensitive areas shall not resume until consultation is completed and until FEMA determines that the appropriate measures have been taken to ensure complete project compliance with the NHPA and its implementing regulations.</p>

7.0 CORRESPONDENCE AND CONSULTATIONS

Correspondence with the pipeline company operating the pipeline within the larger basin is included in Attachment 4. Updated SHPO correspondence is provided in Attachment 5.

8.0 LIST OF PREPARERS

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9.0 REFERENCES

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- DeLorme. *DeLorme Street Atlas USA 2009*. DeLorme, Yarmouth, Maine. 2009.
- (TPWD) Texas Parks and Wildlife Department. Annotated County Lists of Rare Species: Jefferson County, available at http://www.tpwd.state.tx.us/gis/ris/es/ES_Reports.aspx?county=Jefferson. Last revised 28 April 2014; accessed 14 May 2014.
- (USDA) US Department of Agriculture. National Agriculture Imagery Program, Farm Service Agency, Aerial Photography Field Office. Jefferson County, Texas. 2012.
- (USFWS) US Department of the Interior, Fish and Wildlife Service. National Wetlands Inventory Maps; Beaumont West, Texas, quadrangle. 2008.
- USFWS. List of Species By County for Texas: Jefferson County, available at http://www.fws.gov/southwest/es/ES_listspecies.cfm. Last revised January 21, 2014; accessed 14 May 2014.

ATTACHMENT 1
ON-SITE PHOTOS

ATTACHMENT 2

THREATENED OR ENDANGERED SPECIES INFORMATION

ATTACHMENT 3
HAZARDOUS MATERIALS DATABASE SEARCH

ATTACHMENT 4
PIPELINE COMMUNICATIONS

ATTACHMENT 5
ADDITIONAL SHPO CORRESPONDENCE

ATTACHMENT 6
DRAFT PUBLIC NOTICE

Federal Emergency Management Agency (FEMA)
PUBLIC NOTICE
Notice of Availability of the **Draft Supplemental Environmental Assessment** for the
Tyrrell Park Detention Project
HMGP-DR-1780-TX, Project #40
Jefferson County, Texas

Jefferson County Drainage District No. 6 has applied to FEMA for assistance with the construction of two detention basins totaling approximately 14 acre feet to relieve flooding conditions in portions of the Tyrrell Park subdivision. Total ground disturbance in the entire project area will be approximately 16 acres. The improvements aim to reduce future flood risk to 33 existing structures in the Tyrrell Park subdivision near Beaumont, Jefferson County, Texas.

The Federal Emergency Management Agency (FEMA) previously prepared an Environmental Assessment (EA) in January 2012 in accordance with the National Environmental Policy Act of 1969 (NEPA), the Council for Environmental Quality (CEQ) regulations implementing NEPA (40 CFR Parts 1500 – 1508), the National Historic Preservation Act, Executive Order 11988, Executive Order 11990, and the implementing regulations of FEMA (44 CFR Parts 9 and 10). That EA resulted in a Finding of No Significant Impact (FONSI), which was signed in February 2012.

This draft Supplemental Environmental Assessment (SEA) documents revisions made to the project, including partial modification to the configuration of the largest basin, repair and repaving of an additional 1650 linear feet of Phelps Road (400 linear feet of repair were addressed in the original EA) due to deterioration from construction equipment, additional culverts under Downs Road, and minor clean- out of 3800 linear feet of ditch downstream of the detention basins. Portions of the previously approved project were recently constructed including the smaller basin, new culverts under Phelps Road, and minor stabilization at culverts.

This draft SEA evaluates alternatives that provide for compliance with applicable environmental laws. The alternatives evaluated include (1) no action; (2) the revised action described above; (3) buy-out of 33 flood prone properties; and (4) channelization. This project is not located within the 100-year flood plain and an assessment has not been made on the effects of the proposed action on the flood plain.

The draft SEA is available for review and comment between _____, 2014, and _____, 2014, at the Beaumont Public Library located at 801 Pearl Street; at the Jefferson County Drainage District No. 6 Offices located at 6550 Walden Road in Beaumont, Texas; and at the offices of Horizon Environmental Services, Inc., located at 1507 South IH 35, Austin, Texas. Electronic copies can be accessed on the FEMA website at <http://www.fema.gov/media-library/assets/documents> or by request from Dorothy Weir, Environmental Specialist, FEMA Region 6 at dorothy.weir@fema.dhs.gov.

Written comments regarding this proposed project can be mailed to Dorothy Weir, Environmental Specialist, FEMA Region 6, 909 N. Loop 288, Denton, TX 76209. Electronic comments can also be submitted to dorothy.weir@fema.dhs.gov. Comments should be received no later than 5 p.m. on _____, 2014. If no substantive comments are received, the draft EA will become final and a Finding of No Significant Impact (FONSI) will be issued for the project. Substantive comments will be addressed as appropriate in the final

documents.

Betty Holman, Asst. Gen. Manager – Adm.
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