



# Public Notice

U.S. Army Corps Of Engineers Galveston District	Permit Application	
	No:	SWG-2007-00119
	Date Issued:	12 July 2016
	Comments Due:	11 August 2016

**U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT  
AND  
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

**PURPOSE OF PUBLIC NOTICE:** To inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. The U.S. Army Corps of Engineers (Corps) is not the entity proposing or performing the proposed work, nor has the Corps taken a position, in favor or against the proposed work.

**AUTHORITY:** This application will be reviewed pursuant to Section 404 of the Clean Water Act (CWA).

**APPLICANT:** Harris County Water Control & Improvement District 96  
1980 Post Oak Boulevard, Suite 1380  
Houston, Texas 77056  
Attention: Amber Hurd, President

**AGENT:** Brown & Gay Engineers  
10777 Westheimer, Suite 400  
Houston, Texas 77042  
Attention: Logan Smart  
Telephone: 281-558-8700

**LOCATION:** The project site is located within a non-tidal stream, adjacent to the Falls Creek Master Planned Community, in Humble, Harris County, Texas. The site can be located on the U.S.G.S. quadrangle map titled: HUMBLE, Texas.

**LATITUDE & LONGITUDE (NAD 83):**

Latitude: 29.922925° North;

Longitude: 95.276554° West

**PROJECT DESCRIPTION:** The applicant proposes to construct a self-mitigating stream stabilization project along approximately 1,026 linear feet of stream (identified by Harris County as perennial stream 133 (P133)) by the replacement of riprap beneath clean fill to repair an eroding stream. Approximately 3,000 cubic yards will be placed within approximately 0.5 acre of channel before the designed stream channel is cut. The design will relocate and repair the top of bank by placing 18 inches of riprap in portions of the high bank requiring protection to a minimum of 1 foot below the designed stream bed. The riprap will then be covered by at least 6 inches of fill material on side slopes and up to 12 feet of clean fill material along the stream banks to create bankfull benches and a more stable stream bed. Planting, riffle and toe wood areas are included as stream enhancement features.

**CURRENT SITE CONDITIONS:** The existing waterway is bounded by a subdivision to the east and a detention pond to the west. The channel is deeply-incised, and has eroded through the sand to a clay layer, where the erosion is now expanding laterally.

**MITIGATION:** The proposed low impact alternative was developed from comments received from the Corps during a preliminary project meeting. A hydrogeomorphic study was completed. The resulting design will require relocation of high banks, stream benches, and the restoration of 963 linear feet of stream channel to repair and prevent erosional damage to both banks of P133. Under this alternative, 63 linear feet of stream channel will be permanently impacted.

The goal of this strategy is to result in a project that incorporates design elements to insure that there is no loss of stream function. Stream design incorporated to result in no loss of stream function is typically not considered compensatory mitigation. For the purposes of this notice, we thought it may be helpful to detail these design elements as stream mitigation. Restoration efforts will take place within and outside of the proposed Ordinary High Water Mark (OHWM) of P133 but entirely within the existing high banks of P133. The results are highlighted in Table 1.

**Table 1. Avoidance, Minimization & Mitigation Summary.**

	Stream Length (LF)	Reach Condition Index	Impact Factor	Calculated Debits
Existing Stream	1,026	2.55	1	2,616.3
Permanent Stream Loss	63	2.55	4	642.6
<b>Total Debits</b>				<b>3,258.9</b>
Designed Stream	963	3.59	<b>Total Credits</b>	3,457.2
<b>Total Balance</b>				<b>198.3</b>

Outside of the proposed OHWM this design will relocate and repair the top of bank (TOB) and protect the streambed and adjacent property from further erosion. In areas requiring additional erosion protection, 18 inches of riprap will be installed beginning at the high bank to a minimum of 1 foot below the designed stream bed. This riprap will then be covered by at least 6 inches of clean fill material on side slopes and up to 12 feet of clean fill material along the stream banks in order to create bankfull benches and a natural stream bed. The design will include a 2:1 side slope from the designed stream bed to bankfull benches approximately 12-foot-wide, and 3:1 side slopes from bankfull benches to TOB. Bank full benches and side slopes will then be planted with live transplant trees, shrubs, and grasses in order to provide stabilization of the shelves and slopes and create a riparian buffer.

Toe wood will be incorporated into the upper third of the stream channel along the cutting banks at two locations within the restoration area. Toe logs will be 16-foot-long and approximately 12-18 inches in diameter with root mass still attached. These toe wood structures are designed to add additional protection along cutting banks and aid sediment deposition along point bars on the parallel bank (**Harris County Exhibits 2A-2B and 2D**). Rock veins will be placed at five locations within the designed stream channel. These rock veins are designed to only slow water during high flow events. These rock veins will be placed along the cutting bank of P133 at a 20-30 degree angle running upstream of flow. These veins will be constructed using 3-foot-diameter boulders placed to minimize gaps and anchored below the designed bankfull benches. The terminus of these rock veins will be even with the OHWM of the proposed P133, and be constructed in association with a pool located 5 feet downstream of each rock vein to serve as an energy dissipation pool (**Harris County Exhibits 2A-2B and 2E**).

Riffle and pool complexes will be used to slow water and add stream geometry throughout the 963 LF of restored stream channel. This design calls for riffles to be placed at three locations along the length of the project; one at the upstream terminus of the designed stream channel, one just downstream of the stormwater outfall located near the center of the project, and one at the downstream terminus of the project. This design will allow for natural riffles over Grade 2 riprap and large moss rock as well as runs and pools located downstream of riffle locations (**Harris County Exhibits 2A-2B and 2F**).

In order to dissipate energy generated by the approximately 15-foot elevation drop of stormwater through the stormwater outfall located near the center of the 963 LF of designed stream channel, a riprap lined plunge pool is planned at the outfall location. This plunge pool is located in conjunction with a designed pool within the stream channel. A riffle will be located directly upstream of the outfall pipe (**Harris County Exhibits 2A-2B**). The details of the mitigation plan are attached, in 18 sheets

**NOTES:** This public notice is being issued based on information furnished by the applicant. This project information has not been verified by the Corps. The applicant's plans are enclosed in 10 sheets. The Mitigation plan is attached, in 18 sheets. Jurisdiction will be verified by a preliminary jurisdictional determination.

A preliminary review of this application indicates that an Environmental Impact Statement (EIS) is not required. Since permit assessment is a continuing process, this preliminary determination of EIS requirement will be changed if data or information brought forth in the coordination process is of a significant nature.

Our evaluation will also follow the guidelines published by the U.S. Environmental Protection Agency pursuant to Section 404 (b) (1) of the CWA.

**OTHER AGENCY AUTHORIZATIONS:** This project incorporates the requirements necessary to comply with the Texas Commission on Environmental Quality's (TCEQ) Tier I project criteria. Tier I projects are those which result in a direct impact of three acres or less of waters of the state or 1,500 linear feet of streams (or a combination of the two is below the threshold) for which the applicant has incorporated best management practices and other provisions designed to safeguard water quality. The Corps has received a completed checklist and signed statement fulfilling Tier I criteria for the project. Accordingly, a request for 401 certification is not necessary and there will be no additional TCEQ review.

**NATIONAL REGISTER OF HISTORIC PLACES:** The staff archaeologist has reviewed the latest published version of the National Register of Historic Places, lists of properties determined eligible, and other sources of information. The following is current knowledge of the presence or absence of historic properties and the effects of the undertaking upon these properties:

The permit area has been so extensively modified that little likelihood exists for the proposed project to impinge upon a historic property, even if present within the affected area.

**THREATENED AND ENDANGERED SPECIES:** Preliminary indications are that no known threatened and/or endangered species or their critical habitat will be affected by the proposed work.

**PUBLIC INTEREST REVIEW FACTORS:** This application will be reviewed in accordance with 33 CFR 320-332, the Regulatory Programs of the Corps, and other pertinent laws, regulations and executive orders. The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal, will be considered: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and, in general, the needs and welfare of the people.

**SOLICITATION OF COMMENTS:** The Corps is soliciting comments from the public, Federal, State, and local agencies and officials, Indian tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Impact Assessment and/or an EIS pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

This public notice is being distributed to all known interested persons in order to assist in developing facts upon which a decision by the Corps may be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

**PUBLIC HEARING:** The purpose of a public hearing is to solicit additional information to assist in the evaluation of the proposed project. Prior to the close of the comment period, any person may make a written request for a public hearing, setting forth the particular reasons for the request. The District Engineer will determine if the reasons identified for holding a public hearing are sufficient to warrant that a public hearing be held. If a public hearing is warranted, all known interested persons will be notified of the time, date, and location.

**CLOSE OF COMMENT PERIOD:** All comments pertaining to this public notice must reach this office on or before **11 August 2016**. Extensions of the comment period may be granted for valid reasons provided a written request is received by the limiting date. **If no comments are received by that date, it will be considered that there are no objections.** Comments and requests for additional information should reference our file number, **SWG-2007-00119**, and should be submitted to:

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U.S. Army Corps of Engineers  
P.O. Box 1229  
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