



**DEPARTMENT OF THE ARMY**  
**GALVESTON DISTRICT, CORPS OF ENGINEERS**  
**P. O. BOX 1229**  
**GALVESTON, TEXAS 77553-1229**

June 2, 2009

## **NOTICE OF AVAILABILITY**

### **U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT ENVIRONMENTAL ASSESSMENT FOR EMERGENCY REPAIRS TO**

### **CLEAR CREEK SECOND OUTLET STRUCTURE, HARRIS COUNTY, TEXAS AND WHITE OAK BAYOU FEDERAL FLOOD CONTROL PROJECT, HARRIS COUNTY, TEXAS**

#### **PURPOSE**

This notice is being distributed to interested State, Federal, and local agencies, private organizations, news media, and individuals in order to assist in collecting facts and recommendations concerning proposed rehabilitation and repair work that will restore the Clear Creek Second Outlet Structure and the White Oak Bayou Federal Flood Control Projects to pre-storm conditions following damages sustained from Hurricane Ike, which made landfall in northern Galveston County on September 13, 2008. The proposed rehabilitation and repair work is necessary to restore the projects to their pre-storm levels of protection and safety consistent with current designs and sound engineering principles. The proposed work will not result in an expansion of the existing projects.

#### **NEED FOR WORK**

Hurricane Ike made landfall in northern Galveston County on September 13, 2008. Before making landfall the hurricane was a Category 4 storm, as measured on the Saffir-Simpson Scale. Wind speeds decreased as it approached land, and the storm was classified as a Category 2 storm when it reached land. The magnitude of the storm surge was more characteristic of a Category 3 or 4 storm than a Category 2 storm. According to the National Hurricane Center, Ike was a very large hurricane with hurricane force winds extending 120 miles from the center and tropical storm force winds extending 275 miles. Hurricane Ike's unprecedented size, which at one point was the largest Atlantic hurricane ever recorded, caused extensive damage. Ike ranks as the third costliest storm in U.S. history, causing approximately \$27 billion

in property damage. The proposed work would be conducted under authority of Public Law 84-99 for Flood Control and Coastal Emergencies. Engineer Regulation (ER) 500-1-1 eligibility requirements for the work are met under the criteria for extraordinary storm and significant amount of damage.

The combined storm surge and wave action from Hurricane Ike caused extensive damage to the Clear Creek Second Outlet Structure and the White Oak Federal Flood Control Project. The proposed rehabilitation work will include repairs that will restore these projects to pre-storm conditions. If these projects are left in their current condition, the risk of structural failure and potential damages the projects may sustain during future significant storm events could threaten the communities and properties they protect.

## **PROJECT DESCRIPTION AND LOCATION**

### **Clear Creek Flood Control Project Second Outlet Structure, Harris County, Texas**

The Clear Creek FCP is located along Clear Creek, in Galveston, Harris, and Brazoria Counties. The 31 mile earthen channel begins at the mouth of Clear Lake on Galveston Bay. Included in the project was the construction of a gated Second Outlet Structure located immediately upstream of State Highway 146 in Seabrook, in Harris County, Texas. The Second Outlet, which normally remains closed, was built to accommodate the rise in water levels within Clear Lake caused from the increased flood flows from Clear Creek as a result of upstream channel modifications.

### **White Oak Bayou Federal Flood Control Project, Harris County, Texas**

The White Oak Bayou FCP is located along White Oak Bayou, in northwest Houston, Harris County, Texas. The project was designed to provide protection to the project area from flooding events. The project consisted of clearing, straightening, enlarging, and partial concrete lining of the trapezoidal, earthen channel along 10.7 miles between the confluence of Buffalo and White Oak Bayous to Cole Creek.

## **DESCRIPTION OF REHABILITATION AND REPAIR WORK**

### **Clear Creek Flood Control Project Second Outlet Structure**

Following Hurricane Ike's landfall, the Second Outlet Structure was found to have significant damage at various locations as a result of the combined storm surge, wave action, storm debris and persistent high winds. Damage to the project included damage to the outlet structure access roadway, facility building, structure catwalks, handrails, and gate stem covers. Repairs will restore the Second Outlet Structure to its pre-storm condition. Repair to pre-storm conditions would include: repair of the roadway base and surface to current engineering design standards; replacement of the foundation material under the facility

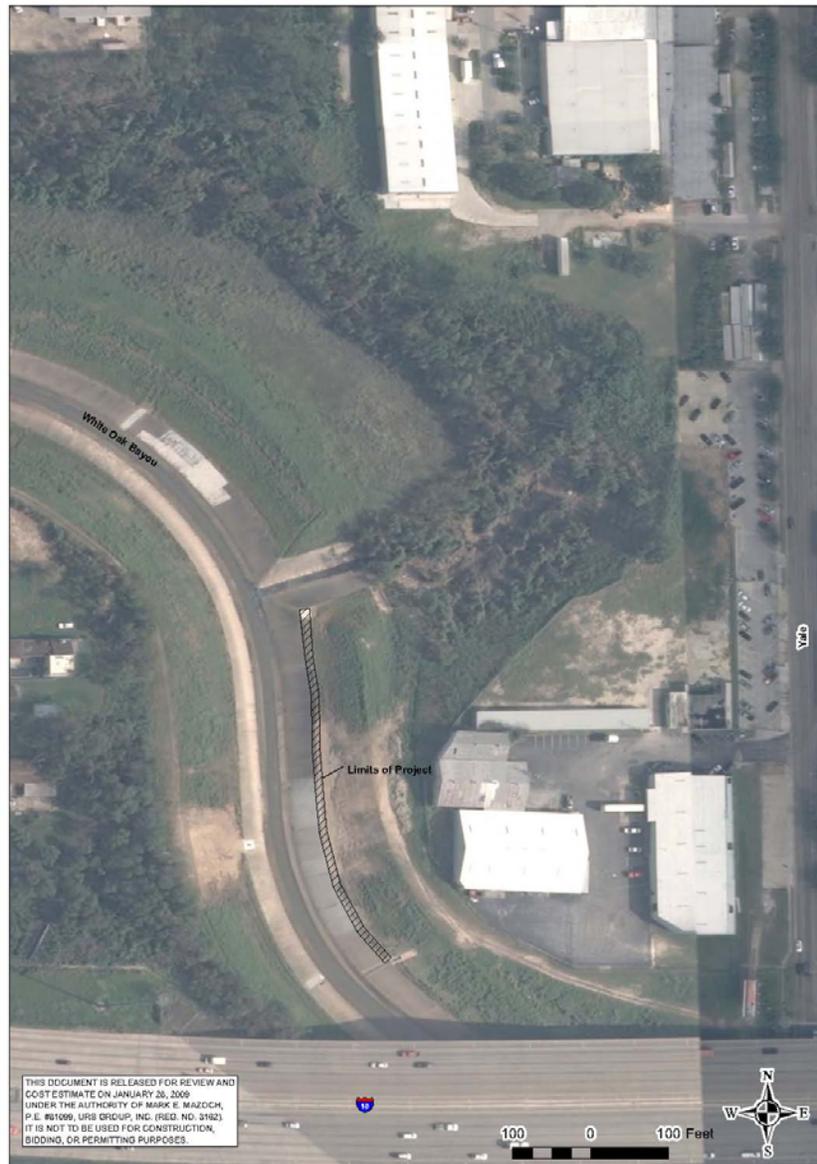
building; replacement of the 350-gallon solid waste container; repair and replacement of the electrical weatherhead, conduit and wires on the side of the building; replacement and repair of the damaged handrails and catwalk supports and anchors on the structure; and cleaning and re-greasing of the gate stems and replacement of the gate stem covers. The Second Outlet Structure, channel and facilities are shown in Figure 1.



**Figure 1. Clear Creek Flood Control Project Second Outlet Structure.**

### **White Oak Bayou Flood Control Project**

The White Oak Bayou FCP area received 16.09 inches of rain between September 13 and 15, 2008 from Hurricane Ike. This rain event resulted in severe damage to the concrete lining in the area near Yale and Interstate 10; there is now a substantial risk of slope failure to both the concrete-lined slope and the uphill earthen slope (Figure 2). The U.S. Army Corps of Engineers is proposing to repair these damages, returning the project to pre-storm conditions.



**Figure 2. White Oak Bayou Flood Control Project**

## **COMPLIANCE WITH LAWS AND REGULATIONS**

Draft Environmental Assessments (EAs) are being coordinated with the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and other Federal, state, and local agencies. Consultation has been initiated with the USFWS and NMFS in compliance with the Endangered Species Act. The Biological Assessments (Appendix B of the Draft EAs) conclude that the projects are not likely to adversely affect the threatened or endangered species in the project areas.

The EAs also initiate Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The initial determination is that the proposed actions will not have adverse impacts on EFH or federally-managed fisheries in the Gulf of Mexico. The final determinations relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

The proposed rehabilitation and repair work will also be evaluated, as appropriate, with regard to the requirements of Section 404(b)(1) of the Clean Water Act (CWA). The Texas Council on Environmental Quality (TCEQ) has waived Clean Water Act Section 401 Certification for these projects in recognition that impacts from the proposed work are minor and temporary in nature, and to expedite Hurricane Ike recovery efforts. It should be noted that this project would qualify under Corps of Engineers Nation Wide Permit 3, and as such, would require no further CWA coordination.

It is also our preliminary determination that the proposed actions are consistent with the Texas Coastal Management Program (TCMP) to the maximum extent practicable.

A record of non-applicability has been issued for general conformity under the Clean Air Act (CAA), Section 176 according to the requirements of 40 CFR 93, Subpart B. The requirements of this rule are not applicable to these projects because the projects are exempt actions under 40 CFR 93.153(e)(1), 30 TAC 101.30(c)(5)(A), 40 CFR 93.153(e)(2), and 30 TAC 101.30 (c)(5)(B).

The proposed activities will be coordinated with the State Historic Preservation Officer (SHPO). Our initial determination is that the proposed actions do not have the potential to effect historic properties.

The following is a partial list of Federal, State, and local agencies with which this activity is being coordinated:

U.S. Environmental Protection Agency, Region 6  
U.S. Department of Commerce  
U.S. Department of the Interior  
Texas Historical Commission  
Texas Parks and Wildlife Department  
Texas Commission on Environmental Quality  
Texas General Land Office  
Coastal Coordination Council  
Texas Department of Transportation  
Texas Water Development Board

## **EVALUATION FACTORS**

The decision whether to proceed with these repair projects will be based on an evaluation of the probable impact of the proposed activities on the public interest. That decision will reflect the national concern for

protection and utilization of important resources as well as public and environmental safety and economic concerns. The benefit, which reasonably may be expected to accrue from the proposals, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal, will be considered. The proposed repair projects will proceed unless found contrary to the overall public interest.

#### **ENVIRONMENTAL DOCUMENTATION**

It is anticipated that Environmental Assessments and Findings of No Significant Impact will fulfill the requirements of the National Environmental Policy Act. Single copies of these documents will be available by written request to the address below. The draft EAs are also available online for review in the "Hot Topics" section at: <http://www.swg.usace.army.mil/>.

#### **PUBLIC COMMENT**

Persons desiring to express their views or provide information to be considered in evaluating the impact of these repair projects are requested to mail their comments within 10 days of the date of this notice to:

District Engineer  
U.S. Army Engineer District, Galveston  
ATTN: CESWG-PE-PR, Ms. Carolyn Murphy  
P.O. Box 1229  
Galveston, Texas 77553-1229

or email at: [carolyn.e.murphy@usace.army.mil](mailto:carolyn.e.murphy@usace.army.mil); or phone 409-766-3044.

The comments should make specific reference to the individual projects to which they pertain. Any person who has an interest which may be affected by this action may request a public hearing. The request must be submitted in writing within 10 days of the date of this notice and must clearly set forth the interest which may be affected and the manner in which the interest may be affected by this activity. Any questions concerning the proposed action may be directed to Ms. Carolyn Murphy at (409) 766-3044, or the email address above.



Richard Medina  
Chief, Planning Branch