

# flow

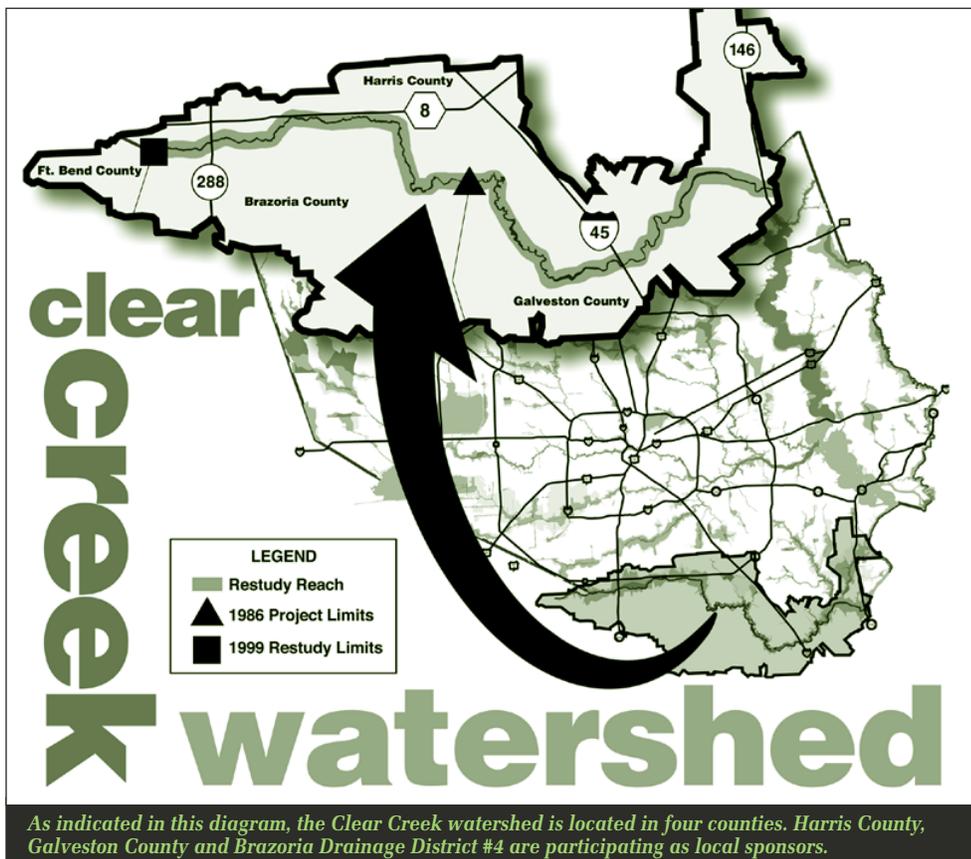
A CLEAR CREEK NEWS SOURCE

## Federal Flood Control Project Will Be Reevaluated

This newsletter provides an update on the status of the Clear Creek Federal Flood Control Project. During the second half of 1997, while the six-month sponsor review of that project was being undertaken, the Clear Creek Project Team received input from more than 3,000 citizens. These citizens are our stakeholders. From the beginning, you who are stakeholders have been a very important part of this project. We want you to know what is going on and to continue to stay involved.

In December 1997, the local sponsors of the Clear Creek Federal Flood Control Project (Harris and Galveston counties) identified proposed enhancements and updates to the authorized federal project in response to credible, responsible and qualified objections from concerned citizens, organizations and governmental entities. The commissioners courts of both counties asked the U.S. Army Corps of Engineers, Galveston District (the Corps) to adopt as many enhancements and updates as possible, without losing the federal funding or delaying the implementation. In response to this request, the Corps evaluated and compared the sponsor-proposed alternative to the congressionally-authorized project. In February 1999, the Corps informed the sponsors that a "general reevaluation study" was needed because the scope of the sponsor-proposed changes was beyond the discretionary authority of the Corps Division Commander to approve.

In April 1999, after consultation with watershed stakeholders, Harris County and Galveston County agreed to support the Corps' recommendation to conduct the general reevaluation study and encouraged completion in less than the Corps' estimated 3-year duration. The general reevaluation study will be comprehensive, considering among other things: site conditions, effects on Clear Lake, environmental effects, engineering design, economic justification, maintenance issues and public input.



As indicated in this diagram, the Clear Creek watershed is located in four counties. Harris County, Galveston County and Brazoria Drainage District #4 are participating as local sponsors.

The study will reconsider the currently authorized project, as well as the sponsor-proposed alternative, buyout and other alternatives that are deemed reasonable. Remember, the congressional authorization for this federal project only allows the consideration of reducing flood damage caused by rainfall runoff along the main channel of Clear Creek; coastal flooding caused by high tides from tropical storms or hurricanes cannot be considered. It is possible that the reevaluation could determine that there is no longer a federal interest in participating in any project.

While the study authorized by Congress in 1968 extended 31 miles from Clear Lake upstream to the Fort Bend County line, the project that was economically justified by the Corps in 1982 extended only 22 miles from Clear Lake upstream to Mykawa

Road within Brazoria County. In 1986, when the agreement between the Corps and local sponsors was being negotiated to build the project, Brazoria Drainage District #4, which represents Brazoria County interests, chose to defer its participation to a later date. Consequently, the current federal project that has been under construction since 1986 extends only to the Galveston County line on Clear Creek near Dixie Farm Road.

The Harris County Flood Control District (the District) and Galveston County are pleased to report that in June 1999, Brazoria Drainage District #4 decided to reactivate their local sponsorship of the project. Brazoria County and the City of Pearland are going to help represent the Brazoria interests as well. The general reevaluation study limits can now include the reach of Clear Creek through Brazoria County.

# Contaminant Assessment Study Comes Up Clean

Concerns were expressed during the local sponsor review in 1997 that project activities (excavation, dredging, etc.) might disturb possible contaminants in the channel bottom, which could result in a negative environmental impact on Clear Creek and Clear Lake.

An in-depth sediment sampling and testing study was conducted by the Corps, using an environmental consultant. To address the public's concern, the District invited a citizens panel to be included in the study process. The panel reviewed the scope of the study, interacted with the study team during the study and participated in the review of the findings. The District also hired an environmental consultant to perform an independent review of the study activities, testing results and final report. This was accomplished by careful review and coordination of the study's scope, observation of the field sampling, splitting

selected samples for independent lab analysis and review of the final results. The open and cooperative effort by the Corps, the District, Galveston County, the citizens panel and environmental consultants led to the successful completion of the study.

The study searched for more than 120 priority pollutants, including those that had been previously reported in the creek from the Brio Superfund Site and elsewhere. The final report, submitted November 1998, concludes that no contaminant problems are expected from dredging and excavating activities in the creek. As a side note, the study found conditions in Clear Creek have actually improved since earlier studies. If channel dredging is identified in the reevaluation study as a possible project element, further evaluation of a specific dredging plan may be necessary.



Environmental experts take samples from the bottom of Clear Creek for off-site lab analysis and review.



# Clear Lake Flood Level Impact Study Is Conducted



A state-of-the-art hydraulic analysis of the impacts of channel modifications was performed by the Corps.

Additional concerns were expressed by the downstream Clear Lake communities that any upstream modifications to Clear Creek would worsen Clear Lake's vulnerability to flooding. This concern was for any upstream modification, including the sponsor-proposed alternative, as well as the authorized federal project, both of which include the completed second outlet channel and gates.

As a result, a detailed, state-of-the-art hydraulic analysis and modeling of the potential impacts that the sponsor-proposed alternative might have on flood levels was completed by the Corps in April 1999. Over 4,500 event comparisons were made using eight rainfall frequency events with both constant and varying tide simulations. The report concluded that the probable impact of the sponsor-proposed alternative would be a reduction in damaging flood levels across Clear Lake. The authorized federal project showed less favorable performance

because of the larger flow capacity into the lake and because it assumes less run-off controls for future developments than predicated for the sponsor-proposed alternative.

Using the study results and estimated lowest house elevations in four cities around Clear Lake, only 3% of the simulations showed an impact larger than 1 inch in those houses that are flood prone. The largest estimated increase is 5 inches and the largest estimated decrease is 18 inches. The results of the analysis are consistent with hydrologic and hydraulic modeling of flood control elements.

FLOOD

## fact...

During intense rainfall in your neighborhood, the water waiting to get into the storm sewer inlet in your yard or street may back-up into your house. Virtually no one in this region is safe from flooding.

# Second Outlet Switches Hands

The transfer of the Second Outlet channel and gates from the Corps to the District took place in March 1998. The District is prepared to open the gates when it is appropriate to reduce lake levels due to storm runoff. (The gates do not provide tidal or hurricane protection for lake-side communities). However, please keep in mind that the upstream channel work, for which the second outlet channel was built, has not been constructed.



Each of the six, 20'x20' flood gates is driven by a 20 hp electric motor and provided with emergency power generation. The gates are opened when stormwater runoff causes the Clear Lake water level to exceed the Galveston Bay level.

## A Look at What's Ahead...

The Clear Creek Project Team (the Corps and local sponsors) has initiated the general reevaluation study. The Clear Creek Citizens Advisory Committee is still intact and will be an important part of the process. The committee members represent diverse interests, including local flood victims, landowners, local governments, environmental organizations, engineers and developers. Public meetings will also be held to ensure that stakeholders and the general public have an opportunity to participate. As a continuation of the work done in 1997, progress updates will be mailed to all citizens participating in this project.

In recognition of the existing flood problems on Clear Creek and the continued development in the watershed, the District, Galveston County and Brazoria Drainage District #4 intend to continue to work with other entities in the watershed to identify flood control elements for possible implementation during the general reevaluation study, while preserving federal eligibility. **Stay tuned and please give us your input.**

### Harris County Commissioner's Court

Robert Eckels  
County Judge

El Franco Lee  
Commissioner, Precinct One

Jim Fonteno  
Commissioner, Precinct Two

Steve Radack  
Commissioner, Precinct Three

Jerry Eversole  
Commissioner, Precinct Four

### Harris County Public Infrastructure Dept.

Arthur L. Storey, P.E.  
Executive Director

### Harris County Flood Control District

Michael D. Talbott, P.E.  
Director

community  
**input**

Please express your views at any time.  
You don't have to wait for a public meeting.

Please direct your comments and questions to:

ATTN: Clear Creek Project Team  
Harris County Flood Control District  
9900 Northwest Freeway  
Houston, TX 77092  
713-684-4040



Harris County  
Flood Control District

# Everyone Needs Flood Insurance!

Everyone living in a participating community of the National Flood Insurance Program (NFIP) can buy flood insurance. Harris County and the incorporated cities within the county are participants in the NFIP. Just because your home is not mapped within the 100-year flood plain does not mean that you are free from the potential to flood. Flood Insurance Rate Maps (FIRMs) show areas subject to flooding from a primary flooding source, typically major rivers, bayous and their tributaries, and are meant to help determine the risk of flooding for a property. However, flooding from sources that are not identified on the FIRMs is possible and occurs often in Harris County. Many homes flood because excess storm water cannot drain into a storm drainage system fast enough to prevent localized ponding from reaching the inside of a home. On a national basis, one-third of the flood loss claims

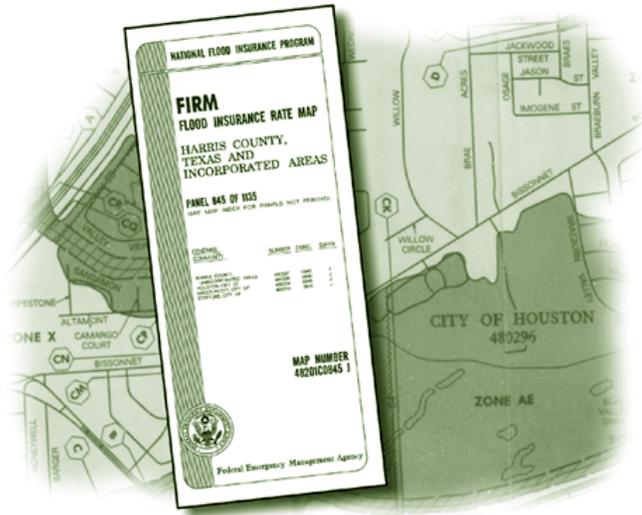
are from property located outside of the mapped 100-year flood plain. This does not mean the FIRMs are wrong, it simply means that not all flooding sources are mapped and that more severe storms can occur than the ones mapped.

The NFIP is administered by the Federal Emergency Management Agency (FEMA). FEMA produces the FIRMs, which are based on technical analyses, studies and historical flooding information. The FIRMs contain a variety of information, including flood risk information, special flood hazard areas, Base (or 100-year) Flood Elevations, areas subject to inundation by the 100-year and 500-year floods along primary channels, and common physical features like streams, highways, roads and railroads. FIRMs can usually be viewed at your local community map repository site – typically, your local planning or engineering office – or

you can view FIRMs by contacting your homeowners insurance agent or mortgage company. For a nominal charge, FIRMs can be ordered from FEMA by calling 1-800-358-9616.

Remember that flood insurance is not included on your standard homeowner's policy – you must provide for it separately – and the cost is relatively inexpensive (especially if your home is not located in the mapped flood plain). Flood insurance is sold through private insurance companies and is financially backed by the federal government. Contact your insurance agent for more information about purchasing flood insurance. Having flood insurance will not keep you from flooding, but it will help you recover. So remember, everyone lives in a flood zone, but most people don't know their degree of flood risk. The District recommends that all residents carry flood insurance. **Please do so.**

## It Doesn't Matter Where You Live...



**You Could Flood  
At Any Time!**



Harris County  
Flood Control District

9900 Northwest Freeway  
Houston, Texas 77092