

Hurricane Ike City Planning Case Study



Texas Engineering Extension Service

Knowledge Engineering

800-541-7149

KE@teexmail.tamu.edu



Hurricane Ike Impact Report

CITY PLANNING CASE STUDY - City Mobilizes Residents to Develop Recovery Plan

Storm History

1900 – Galveston Hurricane

1961 – Hurricane Carla

1983 – Hurricane Alicia

2008 – Hurricane Ike

At 32 miles wide and 2 ½ miles long, Galveston Island is the most heavily populated coastal barrier island in the United States. One of the major features of Galveston Island is a unique seventeen foot high seawall constructed more than a century ago following the Great 1900 Hurricane to protect the city from future storm surges. As such, there is no model for city officials and planners to follow—their experiences create the model for others, and this is no easy task in Galveston where the urban historic setting values must be balanced against the beach and ecological considerations and modern, commercial development as well.

Case Facts

Galveston Island slopes from seventeen feet above sea level just behind the seawall to only three feet above sea level on the bay side. The difference is so vast that the zone behind the seawall is actually outside of the flood plain. During Ike, the island was flooded by the storm surge from bay side.

As a result of Hurricane Ike, more than 75% of the structures on Galveston Island were damaged. Enrollment in Galveston Independent School district fell by more than 20% in the year following Ike, resulting in numerous teacher layoffs. Similar stories of downsizing were echoed across the seemingly crippled island. Galveston Island is still estimated to be 15,000 people below its pre-storm population of 58,000.



Key Decisions

A vital step in the process of recovery from Ike was for Galveston City Council to appoint the Galveston Community Recovery Committee (GCRC), a 330-person group of Galveston residents, whose responsibility it was to develop a vision, plan and projects that would guide Galveston from disaster to a state of being fully recovered. A major strength



The Galveston Community Recovery Committee is comprised of 330 Galveston residents. They were task with developing a vision, plan and projects to restore Galveston

of the GCRC was that it truly reflected the needs and desires of Galvestonians. Through open houses, public meetings, community surveys and their website, the GCRC collected more than 2,700 comments and suggestions from fellow Galvestonians about the shape and direction for reviving the island. Based on that input, the GCRC identified five main areas for recovery: environment, economic development, housing and character of the community, health and education, transportation and infrastructure and disaster planning. Based on these five focus areas, the committee then broke itself down further into thirteen work groups and eventually forty-two project teams. This structured organization would allow them the focus and cohesion necessary to develop a long-term recovery plan for Galveston on a tight time frame. From February through March 2009, committee members devoted more than 4,200 hours of work to crafting the recovery plan.

Finally, at the end of March 2009, the GCRC had a long-term recovery plan ready to present. The bulk of the plan was comprised of forty-two projects that, if completed, would lead to a fully recovered and stronger Galveston. The GCRC worked closely with FEMA to give each of the projects a recovery value of high, moderate, low or community interest. Projects with a high recovery value were deemed directly related to damages, had community support and community-wide benefits, were achievable in three to five years, were sustainable, had high visibility, would reduce future loss, used resources wisely and enhanced the quality of life for the community.

Given that the majority of homes on Galveston Island were damaged, many of the Housing and Community Character projects earned a high recovery value. One project is a Housing Market Study. Another is the Galveston Housing and Rehabilitation Infill, which aims to create partnerships between public and private entities so that rebuilding of homes on a large scale can begin immediately. Reestablishing secure homes in healthy neighborhoods is a necessary step in bringing the population back to Galveston Island, so a Master Neighborhood Plan was designed and is meant to address such issues as preservation, development, safety, public space and transportation.





A Master Neighborhood plan was developed to address preservation, development, safety, public space and transportation.

Sustainability is a priority issue in the development of a long-term recovery plan. The plan works to define what it means to be sustainable in Galveston and address equity, resource, and environmental issues in the area. The First round Community Development Block Grant funding was used to rewrite all of the city's development codes, and part of that rewrite included attempts to incorporate green building design into the rehabilitation process for the island. A hazard mitigation plan specific to the city is also one of the recovery projects—previously, the city was included in the county's hazard mitigation plan, but as a barrier island, Galveston faces unique challenges.

Conclusions

The housing rehabilitation program and the Master Neighborhood Plan have already taken root in Galveston. Neighborhood meetings are being held city wide so that citizens can continue to determine the future of Galveston's recovery. Applications are being accepted, and construction has begun for the Homeowner Program. In fact, Approximately 1800 homes were being rehabilitated or newly constructed in August of 2010.

Galveston was unprepared for the type of devastation brought on by Hurricane Ike. However, the painstaking process of recovery is leaving the community better equipped for future events. this plan includes upgrades to the flood ordinance, including the additional requirement

that new building be built a foot over the minimum elevation required.



Galveston's city planners have turned Hurricane Ike's devastation into a chance for opportunity and learning in the two years since the storm wreaked havoc on their home. Perhaps one of the most successful elements of Galveston's recovery so far has been keeping the input and participation of the citizens at the heart of the planning process.