

## Coastal Resiliency Seminar

Water Quality, Coastal Hazards, Climate Change and Critical Land Analysis for the Houston/Galveston Region

**Location:** Houston/Galveston, Texas

**Partners:** Texas Coastal Watershed Program; Placeways; Texas A&M – Agrilife Extension;

**Status:** Workshop Completed.



**Context:** The Houston-Galveston region of Texas is growing rapidly, with anticipated population growth over the next 25 years estimated as high as 2.9 million people. Much of that growth is planned for coastal or near coastal communities due to available land and attractive amenities. As these communities plan for their future, they are constantly reminded of the challenges of living in a southern coastal region; hurricanes, sea level rise, water pollution, drought, flooding and fire just to name a few. Additionally, long present resources and amenities, such as wetland areas, prime agricultural soils and species habitat, are facing pressure through actual development or its encroachment into new areas.

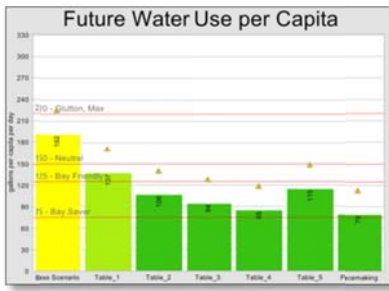
### *Project Description:*

Prof. John Jacob and Steve Mikulencak of Texas A&M University's Texas AgriLife Extension and the TCWP initiated the project, with cooperation from the Houston-Galveston Area Council (HGAC) and other organizations. They wanted to create a reusable workshop for public outreach and education aimed at, in their words, "enabling coastal communities in Texas to improve quality of life in cities and towns while preserving and enhancing the natural coastal environment." The workshop, dubbed Coastal CHARM (Community Health and Resources Model), was designed to engage local stakeholders (municipal planners, resource managers, community leaders) more deeply in the regional planning process for the Houston-Galveston area. The workshop had two purposes. First was to teach participants about pertinent topics like jobs and housing, climate change, hurricane risk, and water quality. Second was to gain insights, opinions and local knowledge from them, who as local residents had unmatched knowledge of life in their community.

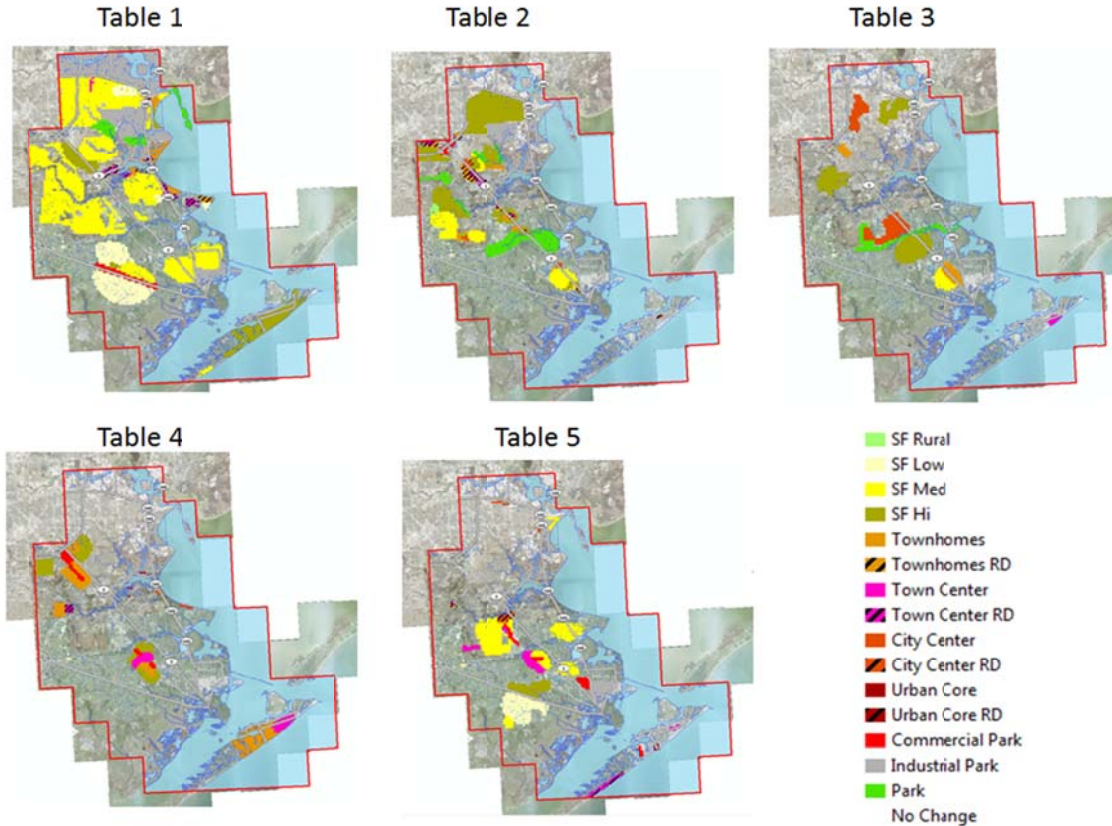
The centerpiece of the workshop was a hands-on tabletop sketching exercise using CommunityViz software. The interface was projected on a low-cost "light table" set up. Participants broke into small groups and gathered around tables displaying a live map of the region. Using marker-like infrared pens as cursors, they pointed, clicked, and drew on the map to sketch alternative growth scenarios.

As they sketched, charts and graphs tracked the likely implications of their plans using dozens of indicators covering a comprehensive range of topics including housing, economics, environment, hurricane risk, and water quality.





The pilot workshop was warmly received and garnered favorable media coverage, and future iterations are planned.



**Technology and Tools:** CommunityViz Scenario 360™ including Scenario Sketch Tools, custom pen system using Smoothboard 2, Wii™ remote controllers, infrared pens, and ArcGIS Desktop 10.

**Outcomes:** The workshop was held in May, 2011.

*“The table and model worked better than we hoped for. It was obvious that the participants were engaged and having a good time. The technology for the table was invisible and a non-factor for the participants, just like we wanted.”*

— Steven Mikulencak, Land Use Planner

#### KEY LINKS

CommunityViz  
<http://www.placeways.com/communityviz>  
 Placeways LLC  
[http:// placeways.com](http://placeways.com)  
 Texas Coastal Watershed Project  
<http://www.urban-nature.org/index.htm>