

Needs and Challenges in the City of Galveston

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The City of Galveston is unique in many ways. Galveston is the largest island community in the United States established on a coastal barrier island. Situated approximately 2 miles off the mainland of Texas on a naturally migrating “sand-bar”, it is perhaps not the most reasonable place to have established a city. Yet Galveston has gone from being the “Wall Street of the Southwest” to being almost completely destroyed, to rising from the floodwaters again (several times), to eventual economic and social stagnation, to redefining itself and experiencing unprecedented growth as a tourist destination and “second home” haven.

The Island has a permanent population of approximately 57,000—and shrinking if one measures size by census data. However, along with that official shrinking designation comes an enormous period of growth for the Island. In 1999, the City had approximately 19,000 water connections. Today, the number exceeds 23,000. A large development at the far western tip of the Island—expected to easily exceed 2,300 connections—has been very successful, and has led the charge for substantial additional development. Over the next few years, 4,000 to 6,000 additional connections are expected on the West End of the Island, and 7,400 additional connections are expected on the far eastern end of the Island. The bulk of all new connections since 1999 are seasonal in nature, represent “second homes” for the owners, and are not protected by the Galveston Seawall. The seasonal nature of those homes places a seasonal burden on the water and sewer system, the roadway system, the electrical system and other elements of public infrastructure. During these periods, the permanent population of 57,000 can easily swell to 150,000 or more. Galveston has also become the largest Cruise Ship port on the Gulf Coast.

To complicate matters, the Island’s existing infrastructure is ancient and inadequate. Galveston currently operates the oldest operational potable water pump station in the United States—the 30th Street Pump Station—constructed in 1888 and reconstructed in 1904. That pump station provides service to all east of 45th Street including the Strand, Central Business District, the Cruise Ship Docks and the University of Texas Medical Branch. Many elements of the water distribution system predate the construction of the Seawall. Up until recently, Galveston had in excess of a 40% water loss. Analysis of the sewage collection system indicates that approximately \$100 M (2005 \$) in sewer line and manhole rehab is needed to reduce inflow and infiltration, keeping in mind that over 99% of the City’s sewer system is below the groundwater table (of brackish water). Construction of the Seawall may have saved Galveston from countless hurricane disasters after 1900, but it also destroyed much of the City’s natural drainage system. The City literally covered up most of its “creeks” and replaced them with inadequately sized pipes

and culverts that have, over the years, filled almost completely with sand, which causes obvious drainage concerns. A 2003 study indicates the City must do over \$80 M in drainage work to protect to a 2-year storm level. Of course, periodic tidal flooding—thought by many Citizens to be drainage problems—cannot be “fixed” at all. Due to the City’s almost bankrupt financial condition in the 1970’s through the 1990’s (and self imposed, financially choking Charter constraints), almost no attempt at major (or even routine) maintenance was made until the beginning of the 21st Century.

Galveston also has very unique financial constraints. In 2000, approximately 50% of the taxable value of the community was exempt from property taxes. Of the remainder, 40% was on the West End and not protected by the Seawall. “Competition” for General Fund dollars is heightened due to strong Police and Fire Unions. The General Fund is essentially a “zero sum game”.

Also, there is the ever-present threat of substantial destruction by hurricane. Wind and tidal surge are always on the minds of Galvestonians. Evacuation of many poor or otherwise negatively encumbered Citizens is a pragmatic necessity in the face of severe storms. In addition, in severe tidal surges, breaching of the Island has become a concern. Preparing for a storm is a significant challenge in securing appropriate workers to be present during the storm, while encouraging their families to evacuate. Hardening of critical facilities is required. Finding appropriate shelter for those workers and their equipment is also quite a challenge. In the most recent hurricane—Rita—Public Works employees were called upon during the height of the storm to assist in the transportation of fire fighters to a fire in the Central Business District, and to assure that adequate flow was maintained from the 100 year old pump station, which at the time was under its own power due to an electrical system failure.

Finally, Galveston is closely studying and modeling how to recover from various levels of destruction. How do we continue to pay our employees? How do we continue to pay our bond payments? How do we raise enough capital to rebuild if we have issues with previous bond payments? How do we encourage the reconstruction of “second” homes in a timely manner? These and many other concerns will be an ongoing concern for as long as there is a Galveston, Texas.