**Avoiding Harvey**

***How Greater Houston Can Protect Its Infrastructure from Imminent Natural Disasters***

**Houston Strong**

Greater Houston is one of the nation’s most populous metropolitans, as it hosts a population of roughly seven million residents. Coupled with its large number of citizens, the metropolis holds claim to the most diverse metropolitan within the United States. According to a Rice University report, (2010) the demographic outlay consists of thirty-five percent Latino, seventeen percent African-American, in addition to a substantial Asian and multi-cultural ethnicities which notably is slightly more than that of Los Angles and Miami (Kinder Institute of Rice University, 2010). Similar to its vast diversity, Greater Houston is home to one the world’s most vibrant economies. In 2017 alone, the region was responsible for $162.8 billion in imports and exports. Accordingly, if Houston were a sovereign nation, globally, it would be the twenty-third largest economy; larger than oil rich Nigeria (Greater Houston Partnership, 2017).

**Understanding Houston**

Nonetheless, despite its plaudits, Houston has one principal issue, which is not human-made per se. Houston because of its coastal locale must be prepared for imminent threats of natural disasters such as Hurricanes, Tropical Storms, or heavy rains. Which in recent years have become more prevalent, with Hurricane Harvey arguably being the preeminent and most infamous example of the perilous effects of Mother Nature. Notwithstanding, the forces of nature themselves are not solely to blame for significant damages to the regions infrastructure. Human volition has augmented much of the loss. According to a (2017) CNN report, Houston has grown by twenty-three percent in almost a twenty year period. On balance, the area has the infrastructure to handle the prodigious population boom as its land index is larger than the states of New Jersey and Maryland (Greater Houston Partnership, 2017).

**Houston’s Greatest Challenge**

Conversely, despite its pervasive land mass, the area has seemingly prioritized profit over protection. Comparable to many metropolitans, Houston consist of inordinate urban sprawl and furthermore suburban communities have made a transition from quiet bed communities into urbanized municipalities. To that end, as the outer suburbs such as Katy, Pearland, and Spring continue to grow, the more susceptible the region is to severe flooding. This notion could be attributed to a business-friendly climate within the area as developments are built at a rapid pace without consideration of adequate storm run-off infrastructure. Thus it is the paucity of green space which poses the most significant threat to the area. Again, see hurricane Harvey, which according to many experts much of the flooding could have been avoided had preventive measures been implemented (Patterson, 2017). Those provisions could range from lifting the requirements of home levels to 2 feet, in addition to fulfilling zoning mandates for more parts of the region within Harris, Galveston, and Brazoria counties.

**Protocol and Prevention**

Moreover, Harris County is vital because it is the most populous of the region. Additionally, Galveston and Brazoria are imperative as they sit on the coast placing the province directly in harm’s way. Therefore it is paramount for the territory to have intergovernmental agreements and to act collaboratively in case of emergencies. Notably, the region does have a comprehensive plan, and contrary to the result of Hurricane Harvey, the strategy is efficient. However, in a region with seven million people, even the best of stratagems could prove arduous. Hence, the rationale behind Houston’s Mayor Sylvester Turner not issuing evacuation orders during Hurricane Harvey. A potential logjam would have undoubtedly put Houston area residents in even graver danger. Furthermore, how does one plan for sixty inches of rain in a week period? It is safe to assert that planning is highly implausible, albeit for an economically vibrant region, risk assessments are merited now more than ever.

**Modeling South Florida**

Perhaps Houston can learn from its counterparts of greater Miami as Miami-Dade county utilizes $600 million in tourism revenue to manage and input storm drains into its ocean and various water streams. Additionally, other notable services provided by Dade County are elevation certificates and storm water utility (Miami-Dade County, 2017). Currently Houston lacks such services, nevertheless, if adopted could mitigate the risk. Of which is a fractional cost for Greater Miami and would also be for the Houston region. Thus the risk prevention is cost-effective considering Hurricane Harvey’s expenditure was $100 billion in damages (Nelson & Lee, 2017). Laura Lightbody of the Pew Charitable Trust (2017) suggest for every one dollar spent, four dollars is attenuated to relief.

**Conclusion: Houston Strong**

Though learning from Miami is not a one size fits all apparatus, it will be an improvement for Houston’s current infrastructure. The precipitous of the learning curve should mandate that the exponential development be regulated. Houston cannot just continue to build without prudent regulation given the scarcity of green space within the region is striking. While certainly most would agree there isn’t much recourse leaders have to avoid a “100” year flood, there are policies which should be evaluated to alleviate damages.

Numerous planning professionals’ agree, Houston’s inadequate flood infrastructure served as a catalyst to its devastation. This is inexcusable considering the regions fiscal prudence, as the areas GDP stands at an impressive $478 billion (Statista, 2016). In sum, Houston is strong and will only learn from its past failures if it prioritizes protection over profit. Bayous will be elevated, dedicated storm run-offs will be built, and emergency management funds will hopefully see largesse investment.

**References**

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