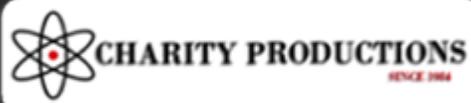


Living with Water Preliminary Report



Charles X White

The information contained in this preliminary report consists of, two city ordinances related to drainage and citizens comments at two public hearings, (1/12/13/2018), Post Hurricane Harvey. The intent of these public hearings is to inform, and collect testimonies, that would result in solutions. Our detour from completing the public hearings was due to the presence of two simple solutions that could be acted on immediately. We are implementing one solution and presenting the other findings to Mayor Turner and City Council. We offer our services to the planning and deliberation process, in search for long term solutions to living with water and improving drainage. Using the lessons learned concept combined with mitigation, we hope our submission adds to the volumes of possible flooding and drainage solutions in Houston for the 21st century.

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Introduction

On behalf of the zip codes listed as vulnerable by the city of Houston, we are submitting this information package related to possible corrective action plans for drainage related issues. On January 12, 2018, the Living with Water, public hearings began. There are four projected meetings for the north, south, east and west sections of the city. A chief concern is always on the table, how will the most vulnerable survive? *We recognize that any disaster can render anyone vulnerable.*

Charity Productions sought out the following subject matter experts to address the general public in a post-Harvey fact-finding and information tour:

- Michael Kubosh, City Councilman At – City Funding Methodology and Assurances to Victims of Harvey Equitable Distributions of Services and Funding.
- Jim Blackburn, Professor, Environmental Attorney and Researcher – New and Better Ways to Manage Water and Flow
- Tracy Stephens – Retired Public Works - Water Drainage Infrastructure, and City Ordinance Alignment
- Charles X White, Former FEMA Housing Inspector, Moderator and Mitigation and Community Resilience

Immediate Findings to Develop a Solution Network after two meetings:

1. Early findings indicated a significant number of underserved populations before and after Harvey, continue to be most

vulnerable and disconnected to service providers. Even those selected to distribute services or funding, post-Harvey.

2. A more robust vehicle to connect vendors with more people in need of service or funds.
3. Amend City Ordinances related to drainage that conflict with each other.

Focusing on city ordinances that govern drainage problems is a simple fix for government and citizens. Our collective intent is to offer solutions that are universal in application and cost-effective and applicable in any neighborhood in the city. *“Mitigation is the back door to recovery and recovery is the front door to mitigation.”*



A central point covered in this paper are routine maintenance and conflicting city ordinances. Beyond those critical elements are the methods that govern and control the equitable distribution of funding for residents. A full compilation of our findings will be published later this year, with the input of all participating subject matter experts and partners.

The City of Houston has two conflicting ordinances as it relates to addressing stormwater drainage system and its components.

1. City Ordinance Chapter 40, Article III. - Construction or Repair of Sidewalks, Driveways, Curbs, and Gutters.

This ordinance which is outdated and controversial, places all of its burden on the, “abutting property owners to repair, maintain and or improve, ditches, culverts, curbs, sidewalks, gutters, and driveways.” City representatives will more often than not refer to this ordinance against the public because it gives the message that “The City Has No Responsibility” in resolving your service request even when property owners pay taxes that make up the City’s budget to provide these services.

2. Chapter 47, Article XIV, Municipal Drainage Utility System Ordinance No. 2011-254

Approved by City Council, signed by the Mayor on April 6, 2011, *supersedes* the **outdated** Chapter 40 Ordinance in regards to who has the responsibility to repair, maintain, and improve ditches, culverts, curbs, sidewalks, gutters and other drainage system components within the City of Houston’s service area. *“This ordinance is NEVER conveyed to the public in response to a drainage issue or drainage component because it states that, “It Is the City of Houston’s Responsibility” to correct the issues.”*

This ordinance also defines drainage, “as streets, curbs, bridges, catch basins, channel, conduits, creeks, culverts, detention ponds,

ditches, draws, pipes, pumps, sloughs, treatment works, whether natural or artificial, or using force or gravity, that are used to draw off surface water from land, carry the water away, collect, store, or treat, or divert the water into natural or artificial watercourses; drainage shall also mean the water transported.”

It also says that Drainage System components, including but not limited to streets, sidewalks, other dedicated improvements, and supporting the right of way shall not be considered residential or nonresidential property as defined herein.

Under this same Drainage Utility Ordinance in **Division 2. Title FUNDING SEC.47-821. Management of Utility Funds** states that, **“ALL DRAINAGE CHARGES COLLECTED** by the city beginning July 1, 2011, and such monies as may be available to the city for the purpose of drainage shall be used **EXCLUSIVELY** for creation, operation, planning, engineering, inspection, construction, repair, maintenance, improvements, reconstruction, administration and other reasonable and customary expenses associated with cost of service to provide drainage services within service area, drainage service area means the corporate limits of the City of Houston, as those corporate limits are altered from time to time in accordance with state law and the charter and ordinance of the city.”

Recommendations - TS

The city has to correct the conflicting Ordinances issue and start implementation to the fullest of what the money for Drainage Utility Funds was initially intended. Capital Improvements Projects and Rebuild Houston are two separate items but often seen as one in the same. We have the Dedicated Drainage Fund, General Fund and Storm Water Fund at our disposal.

B. Provide routine, not dictated by 311, for cleaning of underground stormwater drainage systems within the communities and not limited to major thoroughfares. Many neighborhoods cannot recall when drainage systems, were last cleaned. We also have neighborhoods with “double drainage,” for example, systems such as open ditches, with storm systems under these ditches that require maintenance more frequently due to illegal dumping.

C. Provide routine maintenance for roadside ditches on a schedule not dictated by 311 (communities continuously complain that ditching within neighborhoods not done for decades). We have to get the water out of the communities and away from residents homes to the central systems usually located at our street major thoroughfares. The city needs to improve our neighborhood roadside, drainage ditch capacities by optimizing the ditch flow lines, culvert size upgrades and adjustments to meet new city infrastructure designs as per engineering surveys. The city needs to re-evaluate the present direction of water to outfalls downstream to improve the time that it takes for water to drain from within communities out to the central stormwater drainage systems.



D. Provide more street sweeping to remove trash and debris along gutters which are the standard pathway of stormwater on streets with curbs channeling water to the underground drainage systems.

Concerns - TS

E. Neighborhoods are seeing their green spaces and vacant lots disappear to newly built homes, so where there was a lot that absorbed rainwater is no more. The new rooftops add more water into the drainage system; causing these communities need system upgrades to handle the new water volumes due to loss of open lots.

F. How much money from the Harvey Disaster Fund will be used to clean out, repair drainage systems under and above ground, which flooded? Will there be a continuous funding source because this will take years to accomplish?

G. City nor taxpayers have any data or information that can verifiable as to how much “ Illegal Dumped Debris “ was washed into our underground stormwater drainage systems causing blockage or other potential problems from Hurricane Harvey flooding. The city needs an action plan from Public Works and Solid Waste Departments to first, repair ditches and components damaged from debris removal where no drainage corrections carried out unless there’s a 311 complaint. Abatement equipment often too many times destroys the drainage system and in the process causes standing water. Streets without ditches are also affected by the illegal dumping, debris dumped in streets

also gets washed into the underground stormwater systems. Water contamination is a “ Health “ issue as much as it is a drainage one. Under Chapter 47, Article XIV, Municipal Drainage Utility System Ordinance No. 2011-254, maintenance (cleaning up debris) is included so this fund can also be used to abate Illegal Dumping Debris which restricts, affects the drainage system.

H. To combat Illegal Dumping that affects our storm water drainage systems the city has the authority under Chapter 39-Solid Waste and Litter Control Code, Article V. Litter Control, Sec.39-95 Enforcement of state Solid Waste laws and regulations, to train, designate as many employees as the city wants, authorize them to issue citations charging the violations of any of the provisions of Chapter 39 - Solid Waste and Litter Control. This ordinance, the city needs to implement a plan of action to monitor, inspect both known and probable sites 24 / 7 for Illegal Dumping as a preventative component to deter or stop debris from entering the stormwater drainage systems above and underground. Monies from Rebuild Houston, Dedicated Drainage Fee, as well as Storm Water Fund, can be utilized because the funds are all supposed to address the city’s stormwater drainage systems.

Appendix

Planning and Mitigation:

- [Society Now Saves \\$6 for Every \\$1 Spent Preparing for Natural Disasters](#)
- [Federal Grant Hazard Mitigation Benefit-Cost Ratio is 6:1](#)
- [New Study Finds Society Now Saves \\$6 for Every \\$1 Spent Preparing for Natural Disasters](#)

City of Houston Rating

- https://edocs.publicworks.houstontx.gov/documents/flood_plain/coh_community_rating_system_ppi.pdf

