

City of Bellaire
Flood Hazard Mitigation Task Force
Meeting Notes
November 14, 2017

City Manager, Paul Hofmann began the meeting by reviewing the agenda. He stated that Ms. Sampson, Interim Director of Development Services, will spend a few minutes reviewing the City of Bellaire's approach to following the requirements of the Community Rating System (CRS). Mr. Hofmann added that a blank chart or template of what the Task Force's final report will look like will be shown during her presentation, and will include different elements that the Task Force will be charged with taking a look at. He stated that the purpose of this meeting is really to present information to the Task Force to aid in the preparation of the final report. Mr. Hofmann explained that once Ms. Sampson is done, Shawn Cox will be reviewing previous responses of the Task Force that have been compiled. He mentioned that the bulk of the meeting will be dedicated to a presentation from the City's Engineer, James Andrews.

Ms. Sampson then began her presentation on the City's involvement in the CRS. To view the entire presentation, please click [HERE](#).

The questions that were asked during the presentation include:

Millie Hast-Won't the premiums be going up due to Hurricane Harvey? Will the City still continue to get a discount of 15%?

-Ms. Sampson explained that she does not know what the future holds with regard to premiums. She added that those are decided on by the National Flood Insurance Program and would not be impacted by the actions of the City. She added that the 15% discount that the City currently benefits from will remain for as long as the City has a CRS rating of 7.

David Roylance-Was information given to the City explaining how it could get a lower classification, and/or where the gaps were?

-Ms. Sampson stated that at this time the City does not have that information, but more will be found out during the City's re-verification process.

Mr. Roylance added that it would also be beneficial to know what the neighboring cities' ratings were and how much of that can actually be controlled by the City versus how much is simply due to demographics.

Robyn Rosenblatt-How much of the 15% discount is reflecting the risks of the City's topography and geography versus the process and the activities that the City takes part in?

-Ms. Sampson explained that there are some areas of the rating system that are based upon things that the City cannot change, such as how much open land is present. However, there are other aspects, such as mapping, that the City's activities do impact.

Chris Canonico-Is there a cost matrix for the different CRS levels?

-Mr. Hofmann stated that the City should get a better sense of that as it moves forward and begins to assess the different aspects.

Win Frazier-How will the 2017 regulations differ from the previous regulations? Are there any significant changes that would make a difference?

Ms. Sampson stated that the point system is being split up differently than it was before. She added that there may be some areas that will require more work in order to get the credit.

Brian Sanford-Is there a breakdown of the points that the City has received?

-Ms. Sampson explained that she doesn't currently have that information, but will work on getting it.

Millie Hast-What it would it take for the City to become a Class 6?

-Mr. Hofmann stated that these are questions that staff will do their best to get the answers to. He added that he isn't sure that the goal is to go from a 7 to a 6 or a 7 to a 5, but more to determine what steps can be taken in order to make the City a safer place.

Ms. Hast mentioned that it would be beneficial to know if there are actions that can be taken that would accomplish both of those things.

Mr. Cox then presented a compilation of the responses that were received from members of the Task Force after the last meeting. The three questions and responses are below.

What are we trying to accomplish...

With the City of Bellaire drainage improvements?

- Lower the frequency of both structural flooding and road inundation
- Protect the safety, health, & general welfare of residents
- Ensure development are compliant, which will result in proper storm water drainage & sediment control
- Minimize & mitigate the impact of flooding events
- Prevent future flooding from a Memorial Day type of event
- Systematically modernize drainage to address/replace aging infrastructure
- Reflect the changing residential improvements and commercial development objectives of the City
- Mitigate the adverse impact to residents, businesses and City property from flooding
- Any and all flood prevention measures, within our control, must be considered for implementation to mitigate our ongoing risk

From a regulatory perspective?

- Review and define minimum level of service for drainage with Bellaire and what regulatory constraints would be borne by private property development as part of this level of service
- Identify FEMA and Hazard Mitigation Grant Program (HMGP) opportunities to bring federal dollars to Bellaire for hardening
- Clarify, either through law or regulation, how to implement flood mitigation
- Need to determine maximum impervious coverage allowed
- New & Redevelopment should have onsite detention
- Discourage or prohibit development in flood prone areas
- Assess current building code requirements with potential upcoming changes of the floodplain
- Reassess participation by the City of Bellaire in the national flood insurance program
- Develop and institutionalize a guideline for the City regarding infrastructure design, code, and investment criteria regarding flood control, e.g. City infrastructure, codes and involvement with regional solutions will be based on ensuring adequate response of XXX year events
- Assess building code requirements relevant to flood mitigation for adequacy
- Review NFIP CRS regulations and make any and all changes needed so that Bellaire's approach is consistent with surrounding jurisdictions

With other jurisdictions in the region?

- Identify partnership opportunities to improve drainage retention/detention and proposed cost share
- FEMA and HMGP opportunities to bring federal dollars to Bellaire for hardening
- Evaluate pros, cons, and funding streams of Innovative regional solutions with joint benefits, such as wastewater consolidation and hardening with cost effective development of a localized detention pond/amenity park.
- Evaluate Project Brays impact and determine relative regional versus local drainage requirements to improve level of service
- Coordination to would include consistency in flood plain studies and flood mitigation plans in the region
- Improved drainage to Cypress Ditch, Railroad & IH610
- Work together to prevent future flooding
- Develop guidelines as criteria for investments of time and capital in supporting regional solutions that yield favorable progress toward City's outcomes on flood response and mitigation
- Work with jurisdictions to ensure actions do not adversely impact the City of Bellaire

Additional responses included:

Millie Hast-We can prevent flooding; we just need a commitment to do so. Currently, Bellaire streets are considered as part of the drainage, and she's not sure that this is a good idea. Ms. Hast mentioned that maybe a different solution is needed. She also felt that the terminology of "100 year" and "500 year" flood event should not be used anymore, that it is not relevant today. Ms. Hast stated that the City needs to modernize its approach to flooding. She referred to a study that she had read stating that storms are expected to increase in frequency.

Michael Ling-Half of the homes that were flooded were on the south side of the City, what can the City do to mitigate the "wall of water" from the bayou? He added that Project Brays only protects from a 100 year event. Does the City need to install detention ponds?

Chris Canonico-Felt that the Task Force should take into consideration the level of service that residents are expecting the City to provide.

Win Frazier-Mr. Frazier mentioned the same study that Ms. Hast had referred to, stating that bigger storms should be expected in the future. He added that this reinforces the need for the Task Force.

City Engineer, James Andrews, then made a presentation on the recently completed drainage report and Hurricane Harvey study. His presentation begins on page 15 of the document available [HERE](#).

Comments and questions that came out of Mr. Andrews' presentation included:

Jonathan Reichel-Do we know what areas of the City are more susceptible to flooding?
-Mr. Andrews stated that a two dimensional model was prepared to reflect which areas were impacted the most.

Yana Kristal-Is Project Brays trying to mitigate for the 100 year flood?
-Mr. Andrews confirmed that it is.

Millie Hast-Does the City of Houston water from the Westpark area flow into the City of Bellaire's drainage system?
-Mr. Andrews confirmed that City of Houston water does flow into the City of Bellaire drainage pipes and vice versa. He added that all of the systems are interconnected.

Yana Kristal-Would a backflow prevention system have helped during Harvey?
-Mr. Andrews explained that due to the amount of water that the drainage systems were inundated with, the backflow prevention system would not have helped.

Millie Hast-Is there anything that would prevent the City of Bellaire from pumping the water out of our system?

-Mr. Andrews stated that during an event such as Harvey, there would be nowhere to pump the water to, as all of the systems were full.

Chris Canonico-How many homes would have flooded if Project Brays had been complete during Harvey?

-Mr. Andrews stated that there would have been a significant decrease in the amount of homes flooded.

Robyn Rosenblatt-Should be cautious about getting a false sense of security from a project that is focusing on the 100 year event.

Millie Hast-Hopes that the improvements to Brays Bayou help as much as they are proposing they will, but agreed that Bellaire should not be counting on this project to solved all of the problems.

Council Member Trisha Pollard-Will the proposed backflow preventers have any negative downstream impact?

-Mr. Andrews stated that they will not negatively impact anyone downstream.

Jonathan Reichel-If Bellaire had control over Cypress or Kilmarnock Ditch, is there anything that the City would do differently?

-Mr. Andrews stated that he would like for more water to be put into Kilmarnock Ditch and possibly even expand it into the CenterPoint Energy tract.

Robyn Rosenblatt-Can or has the City entered into any interlocal agreements with the surrounding jurisdictions to ensure that all of the drainage systems are well maintained?

-Mr. Andrews stated that the City would certainly be open to entering into agreements of that kind.

Michael Ling- What is the City of Bellaire's approach for flood mitigation? 100 year event, 200 year event?

-Mr. Andrews explained that typically the City builds roadways with underground drainage systems to accommodate a two year storm, and rain intensities above the two year will begin to store in the street. He added that the problem is that there are pockets of neighborhoods that were built with a lower elevation and therefore the City is selecting larger detention storage, underground systems to install in those areas to help lower the flood heights. Mr. Andrews stated that the larger detention storage is for a 100 year flood event.

Chris Canonico-What constitutes a 100 year flood event?

-Mr. Andrews stated that the rainfall intensity varies for what is considered a 100 year flood event. He added that he would get that information for the Task Force.

Council Member Montague-Mentioned that the 100 year detention design was just recently started. How long will it take to install throughout the City, assuming that future bond programs are passed to fund the project?

-Mr. Andrews stated that the City is probably looking at the 20 year bond program before this initiative will be complete. He added that there are 70 miles of streets and 30% of them have been reconstructed with drainage improvements.

Council Member Montague felt that a responsibility of the Task Force should be to decide the magnitude and the length of the project.

Mayor Friedberg pointed out that nothing in the Bonds for Better Bellaire 2016 funding is intended to achieve the 100 year underground detention in given spots, but rather represents the turning point in our approach to design for that standard.

Robyn Rosenblatt-Is part of the charge of the Task Force to determine if the City's bond capacity is adequate to address the drainage problems in Bellaire at the speed at which they should be addressed.

-Mr. Hofmann stated that ultimately the City Council will be faced with some difficult decisions with regard to funding. He admitted that he is not sure if it would be part of the Task Force's responsibility to prepare a cost benefit analysis, and suggested that the decision be made once they see where the conversations lead. Mr. Hofmann added that it is the goal of the Task Force to present a recommendation to City Council by the spring of 2018, but acknowledged that this report may not answer every question or fully evaluate every scenario. He mentioned that the Task Force should not be too constrained by affordability when trying to come up with creative ways to address the City's drainage issues.

Mr. Hofmann informed the Task Force that there were additional reports prepared, but due to time constraints would not be addressed during the meeting. He added that staff would be providing them to the Task Force for review. Mr. Hofmann then stated that what staff had hoped to accomplish during the meeting was to show the Task Force what the Risk Assessment and Mitigation Strategy will ultimately include. He added that the biggest job of the Task Force is to ensure that the thinking is complete and includes all of the information that has been shared. Mr. Hofmann stated that staff will take a shot at filling out the template for the November 28th meeting, based on the comments and concerns that have been voiced by the Task Force. He also mentioned that the blank template will be sent out to all of the members so that they can add their thoughts and get it back to staff. Mr. Hofmann stated that the goal is to hold a public hearing on Jan 29th. He reminded the Task Force to keep thinking about the three realms, local, regulatory, and regional, and to focus on what information they think is missing thus far. Mr. Hofmann asked that the Task Force get everything back to staff by Monday, November 27th to include in the meeting on the 28th.

Public Comments included:

- Jim Borrough – He stated that good planning brings good results, and that the City needs to quantify the risks and go with what make the most impact. Mr. Borrough added that the biggest risk is in the southeast quadrant of the City, which is where the task force needs to put the most emphasis on.
- David Blake – This is a county problem, and the county does not believe in rules. He added that the City needs to stand up to the county.
- Robert Riquelmy – Mr. Riquelmy felt that the money needs to go to other departments, not drainage. He added that no lives were lost due to Harvey, and that Project Brays and new homes being build will eventually solve the problem.
- Tim Reed – Mr. Reed questioned whether run-off from Westpark comes into the City of Bellaire, and whether there are backflow preventers in the City now. He also asked if the City addresses the water from the North (overland flow). Mr. Reed stated that “we want to avoid becoming a detention pond.” He also asked if Wal-Mart has detention, and if so, if it is designed to handle the 100yr. storm.
- Lynn McBee – Ms. McBee mentioned the lot coverage requirements throughout the City and stated that the Planning and Zoning Commission needs to be involved in this process. She also mentioned that her discount is at 5%, not 15%, and that Project Brays is using data from 2001.
- Kara Hersh – Ms. Hersh suggested the use of the Recycling Center in the drainage plan. She also asked if bonds can be issued in 2018 for further improvements, and/or more mitigation.
- Ronald Burns – Mr. Burns asked if the 50% rule is required to be cumulative by the CRS?
- Another individual stated that the City needs to look at the broad picture of flooding patterns, and that everyone needs to work together.