

MEMORANDUM



TO: The Honorable Mayor John Tecklenburg, Mark Wilbert, Amy Wharton, Chief Curia, Chief Reynolds, Keith Benjamin, Matt Fountain, Robert Hauck, Jason Kronsberg, Jacob Lindsey, Geona Shaw-Johnson

FROM: Tracy McKee, Chief Innovation Officer; Susan Poteat, Director of Process & Service Improvement

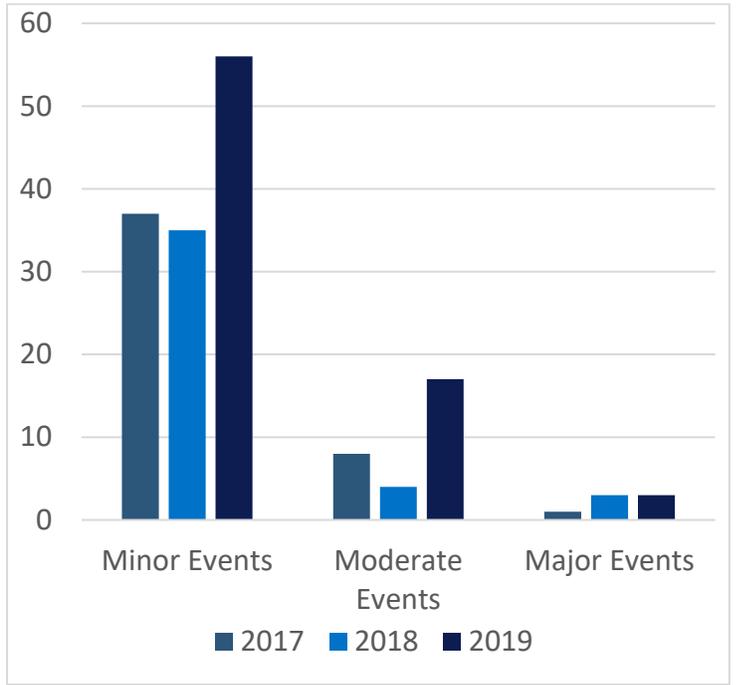
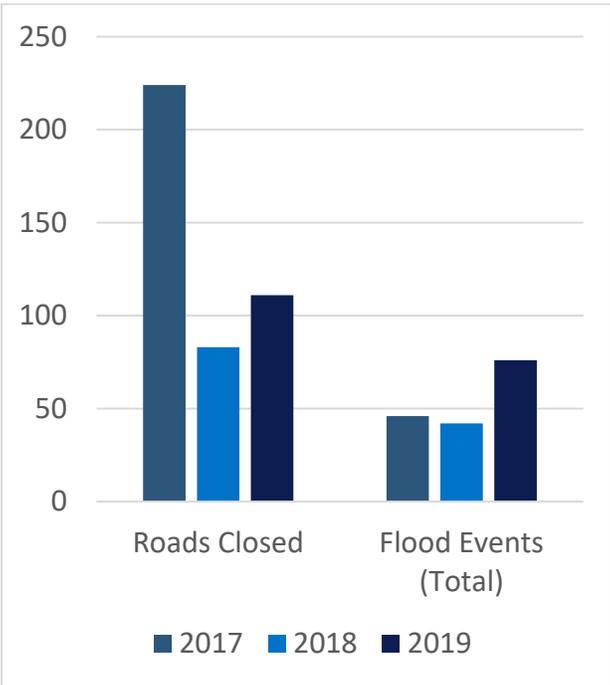
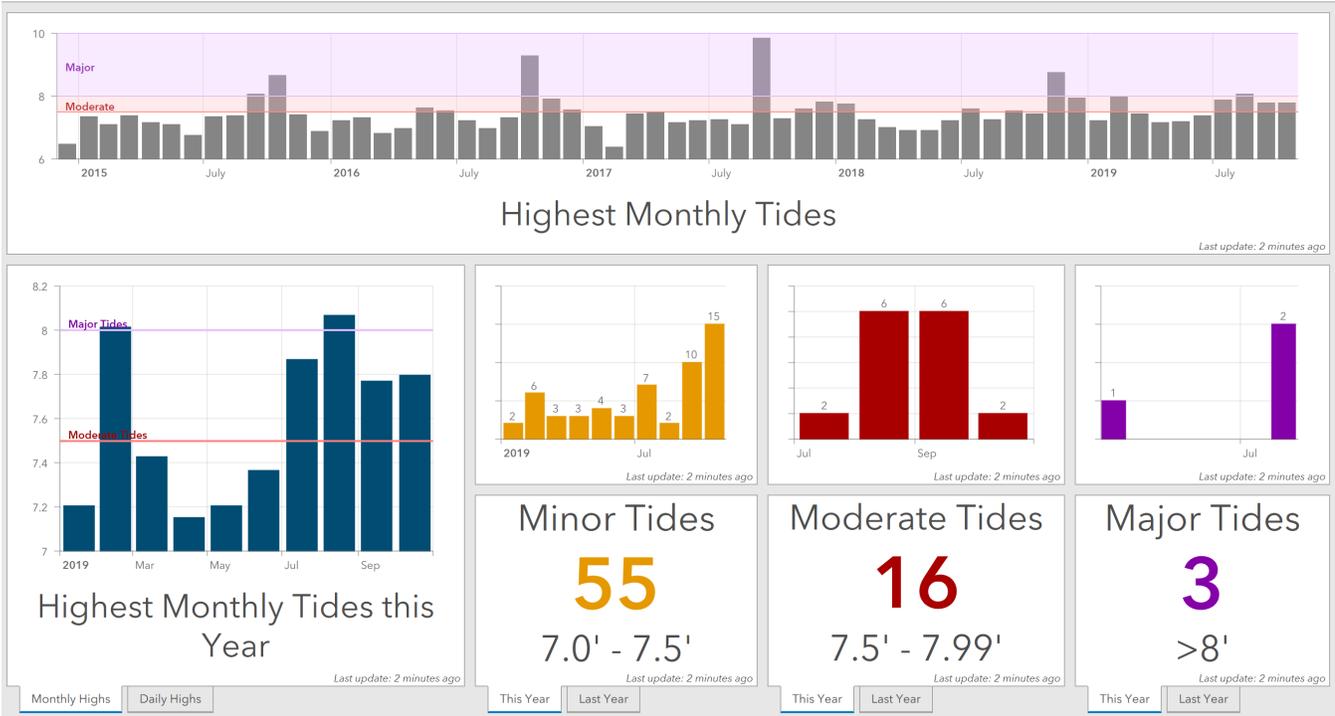
CC: Naomi Broughton, Dennis Dowd, Daniel Flessas, Matt Frohlich, Mandi Herring, Rick Jerue, Stephen Julka, Jason Krusen, Katie McKain, Christopher Morgan, Shannon Scaff, Chip Searson, Robbie Sommerville

SUBJECT: FloodStat Pre-Meeting Report

November 4, 2019

A FloodStat meeting will be held this Thursday, November 7th at 8:30 AM in the Municipal Emergency Operations Center (MEOC). The overall objective of the FloodStat program is to ***Increase the City's Resilience to Flooding, SLR, and Storm Surge.***

We will kick off the meeting reviewing some basic flood related statistics and highlight a new [Local Tide Trends Dashboard](#) created by the GIS team (screenshot below). Over the past three years, there has been an increase in the number of total flood events (tide greater than 7'). While we have held steady at the number of major events (greater than 8'), the number of minor and moderate events are on the rise. Interestingly, the perceived impact (road closures) may not be as significant perhaps due to the fact that more recent coastal events have not been coupled with rain events. Additionally, we have seen a decrease in rain events that produce 1" of rain or greater over the past three years (15 in 2017, 12 in 2018, 7 so far in 2019). This all suggests that coastal or sunny-day flooding events alone do not have nearly the impact that rainfall-induced events have on our transportation network and economy.



The primary focus of this meeting is for metric owners to report on their final accepted metrics and associated baselines and goals. Below are the current draft key performance indicators (KPI) and associated metrics.

KPI 1: No preventable loss of life or injuries during a flood event.			
Metric	Owner	Reporting Frequency	Data Source(s)
Develop the City's proactive traffic management and communications plan.	Emergency Manager	Quarterly until complete	TBD
100% implementation of the City's traffic management and communications plan. (Future)	Emergency Manager	Quarterly (plans); Post event	TBD
Increase the number visual flood depth markers on streets with known flooding. (establish the baseline, what's the goal number)	T&T (position TBD)	Quarterly	GIS; road closures, vehicle losses

KPI 2: Reduce flood damage to private property.			
Metric	Owner	Reporting Frequency	Data Source(s)
Improve the City's CRS Rating to #4 by 2023.	Floodplain Manager	Quarterly	CRS point audit
¹Decrease the number of high-risk acres that can be developed.	Planning Manager	Quarterly	Vulnerability Assessment, Comprehensive Plan
²Increase the % of historic properties in the BAR district that apply for, receive approval and elevate.	City Architect	Quarterly	Energov
Actively reduce the number of repetitive loss properties.	Floodplain Manager	Quarterly	NFIP

KPI 3: Reduce the economic impact of SLR and flooding events.

Metric	Owner	Reporting Frequency	Data Source(s)
Keep the major life corridors operational during a flood event.	Stormwater Director	Quarterly	Road closures, Waze
100% implementation of stormwater preventative maintenance plan.	SW Management Superintendent	Quarterly	WOMS
³ Zero affordable housing units vulnerable to SLR and flooding. (Establish current number and develop plan to reduce)	Community Development Coordinator / Community Outreach and Homelessness Coordinator	Quarterly	Vulnerability Assessment
Reduce traffic interruption due to flooding. (Response to restoring traffic signals; altering signal timing to better manage traffic flows during an event)	T&T (TBD)	Quarterly	WOMS
100% of streets with on-street parking in areas of known flooding have appropriate warning signage. (get base number and annual target)	T&T (TBD)	Quarterly	Vehicle losses, Drainage Master Plan

KPI 4: Reduce the flood risk to the City.

Metric	Owner	Reporting Frequency	Data Source(s)
100% of Capital Projects are prioritized through accepted, standardized stormwater and sustainability criteria	Capital Projects (TBD)	Quarterly	CIP

100% of Capital Projects using stormwater funds are prioritized through accepted, standardized stormwater and sustainability criteria.	Stormwater Director	Quarterly	Annual Capital Improvement Plan
100% of traffic control boxes resilient to SLR, flooding, and storm surge by 20##.	T&T (TBD)	Quarterly	

KPI 5: Reduce the flood risk to the City through Community Activism.

Metric	Owner	Reporting Frequency	Data Source(s)
Annually increase the percentage of properties in the City that carry flood insurance.	Floodplain Manager	Quarterly	NFIP
Increase the number of storm drains adopted in the City.	Sustainability Director	Quarterly	Storm drain adoption database
Reduce carbon emissions 80% by 2050	Sustainability Director	Annually	Greenhouse Gas Audits
Increase the number of businesses and homeowners that participate in voluntary stormwater detention programs.	Sustainability Director	Quarterly	Rainproof Pilot
Increase the number of gallons of stormwater diverted from the central stormwater system through voluntary detention efforts.	Sustainability Director	Quarterly	Rainproof Pilot
Increase the number of city residents that subscribe to the Charleston County Alert System.	Emergency Manager	Quarterly	Charleston County EM

¹This metric will likely not be measured until after the Comp Plan rewrite followed by zoning changes (i.e. down zoning) and possible TDR/PDR policies. To date, Christopher is unaware of any properties not being annexed due to high risk.

²Challenges: It is difficult to determine the % of historic properties being elevated. Need robust mapping exercise and field checks to determine how many historic properties are within flood zones, how many are below required flood elevation, how many are historic, etc. Need more follow-up on elevation construction completion too.

³HCD is making a determination related to the number of units vulnerable to SLR & will advise accordingly. It will be important to identify remedies relative to the reduction of units that are subject to SLR.