



2020 Charles County Flood Nuisance Plan



Michael Baker
INTERNATIONAL



CHARLES COUNTY
Maryland

Steering Committee Meeting - December 17

Agenda Items:

- Roles and Responsibilities
- Data Request
 - Planning Documents
 - 911 Call Center Flood Locations
- Flood Tour Planning - January 23
- Stakeholder Meeting I Planning - February 20
- Stakeholder Meeting II Workshop Planning
 - 2 hr Stakeholder Meeting 3-5PM
 - 2 hr Public Meeting Session 5-7PM

Advance Planning Concepts:

- ESRI Story Map Plan Platform
- Story Telling Media Shoot

Nuisance Flood Plan Kickoff Meeting – INTERNAL Checklist	
<input type="checkbox"/>	Present suggested work schedule and adjust as needed.
<input type="checkbox"/>	<p>Schedule Two workgroup events: The first will be a 2-hour meeting to introduce the project, discuss plan context, relevance, tools and resources that will be used to collect flooding information from key stakeholders and the public. The second will be a day long workshop to discuss plan findings, opportunities for implementing flood mitigation projects, and identify elements that should go into an implementation strategy <i>Date, time and venue are needed</i> - Take into consideration other local existing meeting dates and plan accordingly.</p>
<input type="checkbox"/>	Decide roles and responsibilities of the planning team. Two should interact and coordinate.
<input type="checkbox"/>	<p>Determine desired format for three outreach opportunities. The first public outreach effort should occur at the time of the plan and to inform community members about the plan and the potential for flooding hazards occur, their duration, characteristics, and impacts on businesses. A second public outreach effort should occur after the plan is identified, mapped and analyzed to identify potential flood mitigation projects and how the plan will be implemented. A final public outreach effort will be held at plan completion to discuss flood mitigation projects and how the plan will be implemented.</p>
<input type="checkbox"/>	Discuss items of contention relating to NFIP policy and ordinance regulations.
<input type="checkbox"/>	Discuss the option for a website created and administered by the planning process (<i>calendar, announcements, useful links</i>)
<input type="checkbox"/>	Obtain GIS POC information and request county office for advanced notice of upcoming information requests.
<input type="checkbox"/>	Request other important county planning documents (e.g., maps of flooding) and brainstorm potential stakeholders for outreach.
<input type="checkbox"/>	Send follow up email with list of action items after meeting.

NCEI DATA Charles County - Roadway Flood Events			
Event Type	Date	Location	Narrative/Road Name
Coastal	2/4-2/5/1998	Cobb Island	Inland flooding was less extensive in Charles and Calvert Cos, but a problem, nonetheless. In Charles Co, 25 roads were closed at the peak of the flooding. Coastal flooding forced evacuations of Cobb Island; the island was cut off from the mainland at around 0700EST on the 5th, with conditions returning to normal by 1600EST.
Flash	8/25/1999	Countywide	<ul style="list-style-type: none"> Several portions of Action Lane near the Mattawoman Creek were closed due to high water. The Lynnbrook subdivision in Waldorf had several homes surrounded and flooded by water, and some residents had to be rescued by firefighters. Hamilton Drive had water flowing over it like a waterfall. Near the intersection of Acton Lane and Highway 301 in Waldorf, water became so deep a hotel had to be evacuated.
Flood	2/2-2/23/2003	La Plata	In Charles County, urban and small stream flooding was reported in La Plata and Bryans Road. <ul style="list-style-type: none"> Newton Road, Hancock Road, and Bumpy Oak Road were closed by high water.
Flash Flood	6/7/2006	Countywide	<ul style="list-style-type: none"> Middletown Road, Billingsley Road, and Turkey Hill Road in Waldorf and White Plains. Bryans Road and Fenwick Road experienced flash flooding. Bumpy Oak Road and Pomfret Road in Pomfret reported flash flooding.
Flood	11/16/2006	La Plata and Waldorf	Numerous roads were closed across Charles County, especially near La Plata, Port Tobacco, Bryans Road and Waldorf. <ul style="list-style-type: none"> One roadway closed due to flooding include Billingsley Road between White Plains and Bryans Roads.
Flash Flood	8/22/2009	White Plains	Turkey Hill Road was closed due to water flowing over the roadway. Spotter in the area reported rainfall total of 3.74 inches.
Coastal Flood	11/13/2009	Cobb Island	Coastal flooding was responsible for road closures in Cobb Island.
Coastal Flood	9/30-10/1/2010		Several roads were closed due to tidal inundation. <ul style="list-style-type: none"> Shirley Blvd. was closed at Port Tobacco Lakes. Saunders Marine Place was closed in Charleston Creek. Cobb Island Road was closed on Cobb island.
Flash Flood	7/13/011	La Plata White Plains	<ul style="list-style-type: none"> Saint Mary's Avenue was closed due to high water. A nearby rain gage measured 1.75 inches. Washington Avenue was closed due to flash flooding. A nearby rain gage recorded 1.50 inches.

Field Visit – January 23

Attendees:

Planning and Growth Management

Emergency Management

Contractors: MES / Michael Baker / Smith Planning and Design



Nuisance and Urban Flooding Stakeholder Group Meeting – February 20

Charles
County
Nuisance
Flood Plan

Stakeholder
Workshop #1

DATE:
February 20, 2020

TIME:
9AM-3PM

LOCATION:
College of
Southern Maryland
8730 Mitchell Road
La Plata, MD

AGENDA

Morning Session

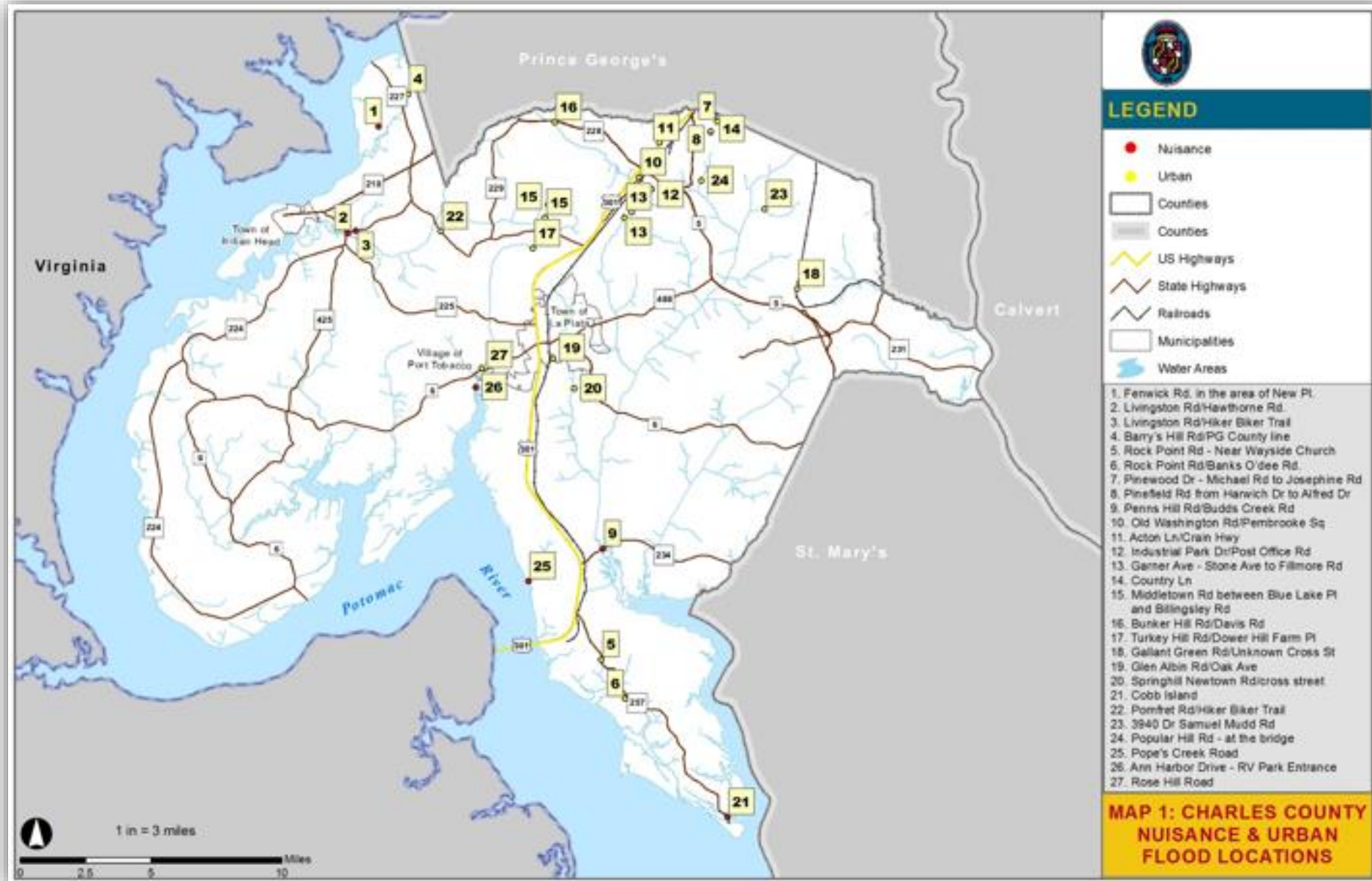
- 9:00 Welcome & Introductions
- 9:15 Project Scope, Schedule, & Expectations
- 9:45 Climate Change Literature Review & Context
- 10:00 Break
- 10:15 Work Session Coastal Flooding & Sea Level Rise Group Work & Report Out
- Site Specific Problem Statement & Description;
 - Preparedness;
 - Response;
 - Mitigation.
- Noon Lunch Provided

Afternoon Session

- 12:30 Work Session Urban Flooding Group Work & Report Out
- Site Specific Problem Statement & Description;
 - Preparedness;
 - Response;
 - Mitigation.
- 2:30 Next Steps



Results BEFORE Stakeholder Group Meeting



Nuisance & Urban Flooding Stakeholder Group Meeting – February 20

Work Session

Step 1 Instructions

- Select scribe and speaker.
- Review current listing.
- Provide additional flood areas/locations not identified on current listing, if any.
- Complete blank forms for newly identified locations to the extent possible.
- Using wall maps and stickers identify additional flood areas/locations.
- Add missing information to current listing, if known.

Work Session

Group Report

Question: Are pictures available of these flood areas/locations? Are flooding in-progress pictures available

Work Session

Step 2 Instructions

- Consider ideas, initiatives, and projects for each identified flood area/location.
- Lists ideas, initiatives, and projects on the form under the following phases of emergency management:
 - Preparedness;
 - Response; and,
 - Mitigation.
- Refer to reference materials to assist in the process.

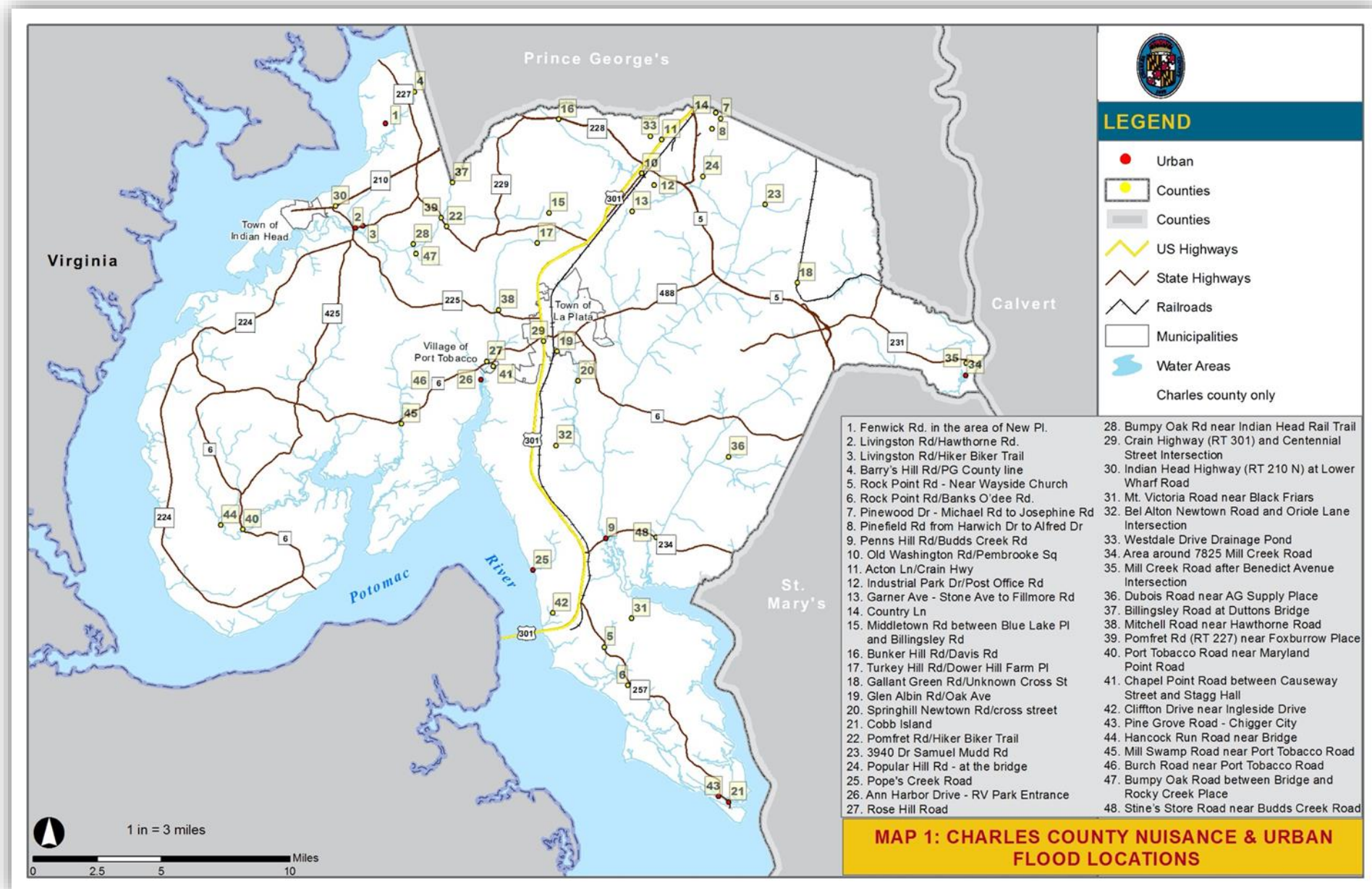
Work Session

Group Report

Highlight the locations that were considered as "high priority" by your group. In addition, discuss your most beneficial and/or creative ideas, initiatives, and projects



Results AFTER Stakeholder Group Meeting



Flood Hazard Assessment & Nuisance Flooding Tidal Results

- Location
- Description
- Source of Flooding
- Water Level Mark
- Jurisdiction

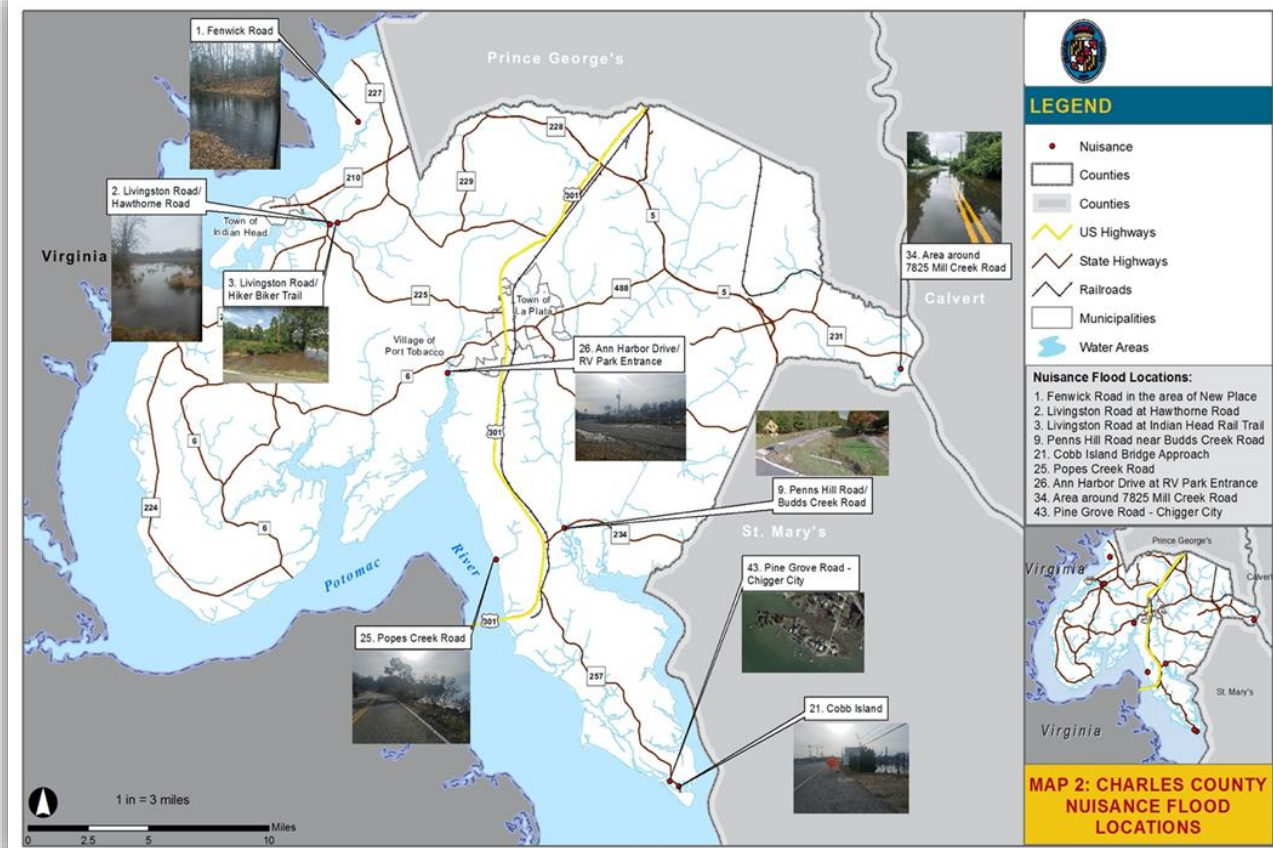


TABLE 1: NUISANCE AND URBAN FLOOD LOCATIONS				
Identifier	Location Name	Source of Flooding	Water Level Mark	State/County/Municipal
1	Fenwick Road in the area of New Place	Nuisance - Pomonkey Creek	2 feet	County
	Description: Located in the northwestern portion of the county, Fenwick Road is in close proximity to Pomonkey Creek. Swamp areas surround Fenwick Road. Several low points along the roadway allows water to overtop the roadway. Also, the road is at the same level as the creek. Flooding occurs along Fenwick Road between Blanchard Place and Ward Place.			
2	Livingston Road (RT 224) at Hawthorne Road (RT 225)	Nuisance - Tributary #1 to Mattawoman Creek; storm surge, high tide and heavy rain events	1-2 feet	State
	Description: Due to a very low spot on Livingston Road (RT 224), water overtops the roadway frequently. A tributary to the Mattawoman Creek intersects at this site. A wetland is located along the road. Also, a culvert is located at the intersection of Livingston and Hawthorne Roads, which may be blocked by overgrown vegetation. Beaver dam issues are also exacerbating the flood issue. In the past, flooding has caused the entire roadway to close for 2 days.			
3	Livingston Road (RT 224) at Indian Head Rail Trail	Nuisance - Tributary #2 to Mattawoman Creek	1-2 feet	State
	Description: The low area on Livingston Road floods during high tide. This low area is at the Indian Head Rail Trail. The trail floods causing water to flow across Livingston Road. A tributary to the Mattawoman Creek is near this area. Flooding in this area is also contributed to by the wetland that floods mentioned in Site #2.			
4	Barry's Hill Road near Old Marshall Hall Road	Urban - Mill Swamp	1-2 feet	County
	Description: Barry Hill Road is adjacent to Mill Swamp. The road elevation is nearly level with the water elevation on both sides of the road. Drainage north from Mill Swamp to the Potomac River may be limited by blocked culverts or poor conveyance. There are two access points into the area and signage indicating "Flood Area" is located along the side of the road. Flooding at this site is also contributed to by beavers located downstream on a private property.			
5	Rock Point Road (RT 257) in the area of Wayside Church	Nuisance & Urban - Flash Flood; Piccowaxen Creek & Wicomico Creek	Less than 1 foot	State
	Description: Low section of the road allows overtopping during a heavy rain event. Ditchley Prong in close proximity to the area. Route 257 is located within the floodplain. During severe weather events, all of the road and structures are underwater. Complete destruction after an event.			

Plan Integration

Hazard Mitigation Plan - Sea Level Rise / Erosion Rate

Assessment and Shoreline Management Plan

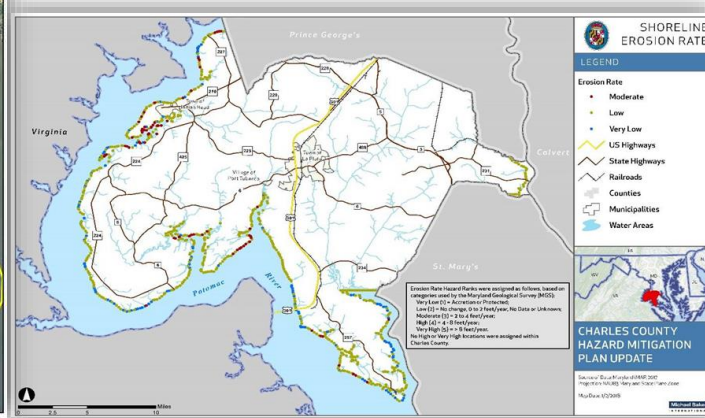
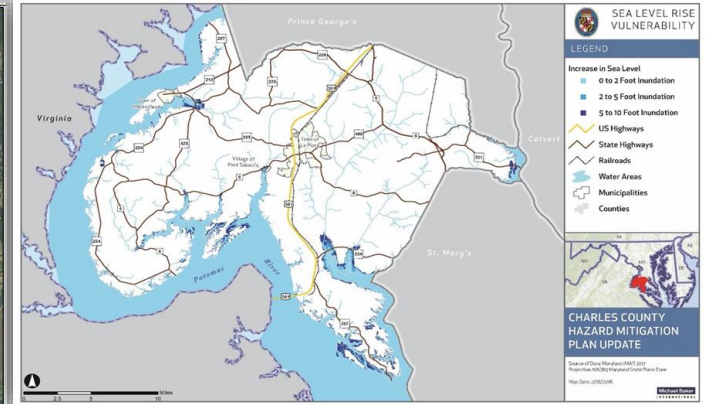
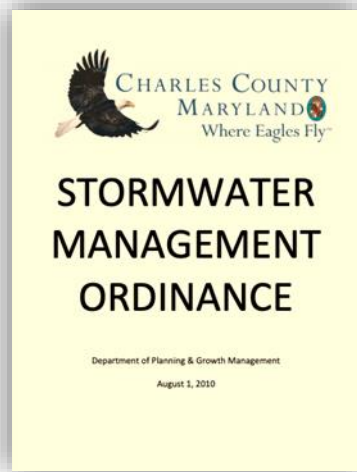
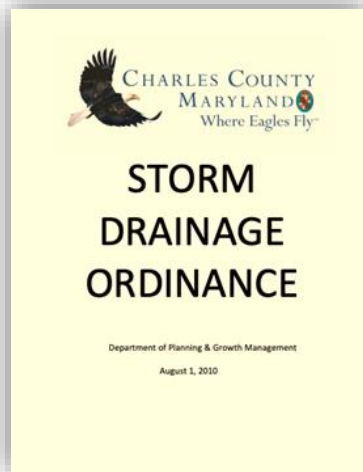
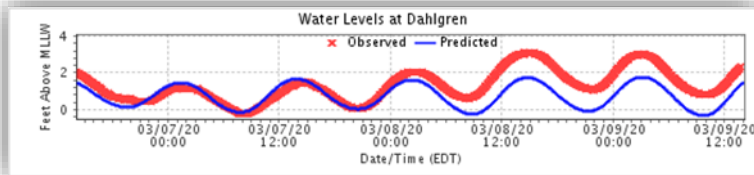
Critical Area Coastal Resilience Planning Guide

Sea-Level Rise Projections for Maryland 2018

NOAA Tidal Gauge Data - Naval Surface Warfare Center (NSWC) at Dahlgren, Virginia.

Storm Drainage Ordinance

Stormwater Management Ordinance



Nuisance and Urban Flooding - Emergency Management Context

Preparedness - Measures taken to prepare before an emergency occurs

Response - Prevent further property damage during an emergency situation.

Mitigation - Minimizing or eliminating the impact before and after emergencies.

Risk ranking criteria was based on the level of water observed and reported at each identified site:

LOW - Water Level reported as less than 1 foot of water or no information provided

MEDIUM - Water Level reported as 1-2 feet of water

HIGH - Water Level reported as 3 feet or more

		HI	MD	LO	PREPAREDNESS	RESPONSE	MITIGATION	
1	Ferwick Rd in the area of New Place Nuisance - Pomonkey Creek				ADD SIGNAGE SIGN TYPE: Warning and Mass Notification USE CAD and NOTIFICATION EAS and IPAWS USE DURING MAJOR INCIDENTS	CURRENT RESPONSE IS REACTIVE-BARRICADE FOLLOWING NOTIFICATION OF WATER ON ROADWAY Note: Evacuation Resistant Community	ASSESSMENT OF LOCATION EXISTING PROGRAMS PRIORITIZATION	
37	Billingsley Rd at Duttons Bridge URBAN - Mattawoman Creek				ADD SIGNAGE SIGN TYPE: FLOOD AREA SIGN	RESCUE AS NEEDED	CURRENTLY BEING EVALUATED ROAD AND DRAINAGE	
44	Hancock Run Rd near Bridge URBAN / BEAVER Beaverdam Creek					ROAD CLOSURE	BEAVER ISSUE ELEVATE LOW SPOTS IN ROADWAY	

Public Outreach - StoryTelling

Coordinated with Charles Co. Media Department
StoryTelling Booth set up for Residents during Public Workshop
Public Announcement and Interview Script

Post COVID 19

Virtual Alternatives to Interviews

Coordinate with County agencies
Identifying Key Public Figures to interview
Next Steps



Project Story Map

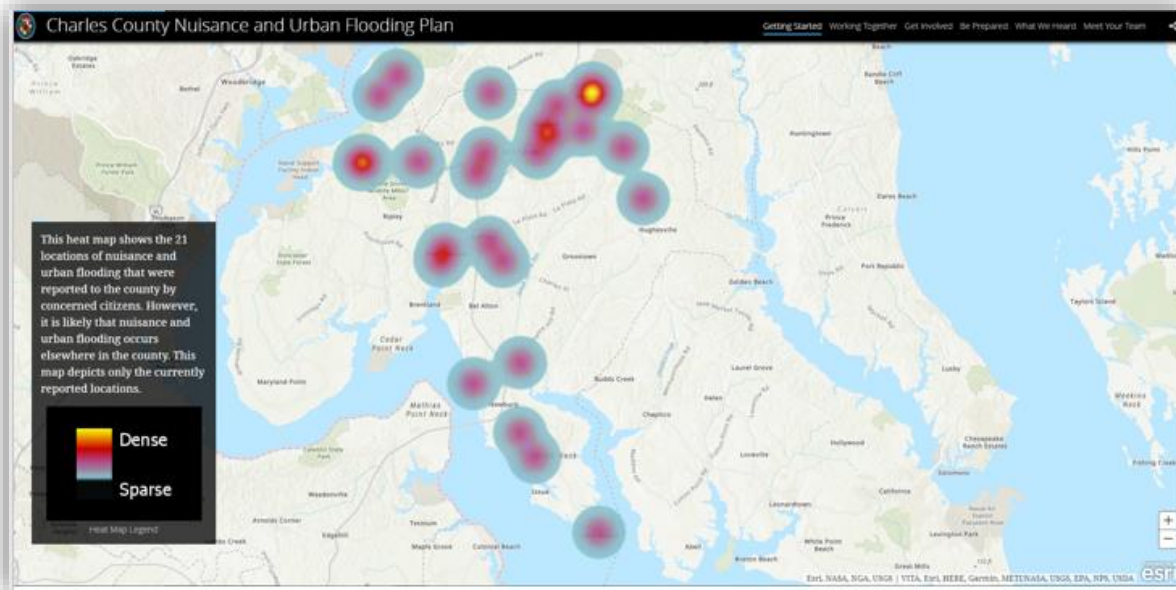
Information Sharing through all steps of the project

Updates and Key Dates are Posted

Project Results are Posted

User Interphase – “I have Flooding here”

Links to other Resources



The screenshot shows the 'Map Your Flooding' web form. The form is titled 'Map Your Flooding' and includes a description: 'Charles County public engagement flood mapping tool'. It contains several sections for user input:
1. A section titled 'Click the map to add the location of your flooding concern' with a map viewer and a tip: 'Tip: This question will try to use your location. Please to continue.'
2. A section titled 'Please describe in detail the location of your flooding?' with a text input field.
3. A section titled 'Would this flooding issue be considered Nuisance or Urban flooding?' with a text input field.
4. A section titled 'Please describe in detail the location of your flooding?' with a text input field.
5. A section titled 'Would this flooding issue be considered Nuisance or Urban flooding?' with a text input field.
The form also includes a 'Map Your Flooding' button and a link to the form: <https://arcg.is/0CvbiT>.



Contacts

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2020 Charles County Flood Nuisance Plan

