Please click the link below to join the webinar:
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CITY OF BEAUFORT
1911 BOUNDARY STREET
BEAUFORT MUNICIPAL COMPLEX
BEAUFORT, SOUTH CAROLINA 29902
(843) 525-7070

CITY COUNCIL SPECIAL WORKSESSION AGENDA
June 21, 2022

STATEMENT OF MEDIA NOTIFICATION

"In accordance with South Carolina Code of Laws, 1976, Section 30-4-80(d), as amended, all local media was duly notified of the time, date, place and agenda of this meeting."

SPECIAL WORKSESSION - City Hall, Planning Conference Room, 1st Floor - 5:00 PM

Please note, this meeting will be broadcasted via zoom and live streamed on Facebook. You can view the meeting at the City's page; City Beaufort SC

I. CALL TO ORDER

A. Stephen D. Murray III, Mayor

II. DISCUSSION ITEMS

A. The Point/Downtown Drainage Study update by Neal Pugliese and Ryne Phillips

III. EXECUTIVE SESSION

A. Pursuant to Title 30, Chapter 4, Section (70) (a) (1) of the South Carolina Code of Law: Discussion regarding Personnel - Boards and Commissions

B. Pursuant to Title 30, Chapter 4, Section (70) (a) (2) of the South Carolina Code of Law: Receipt of legal advise regarding pending contracts

C. Pursuant to Title 30, Chapter 4, Section (70) (a) (2) of the South Carolina Code of Law: Receipt of legal advice regarding proposed code changes

IV. ADJOURN

City of Beaufort

The Point/Downtown Drainage Study Council Briefing

June 21, 2022 | 5:00 PM

Agenda

- Project Study Area
- Field Survey and Data Collection
- Citizen Input and Flood Reporting
- Rainfall and Water Level Monitoring
- Climate Conditions Assessments
- Analysis of Results
- Recommendations

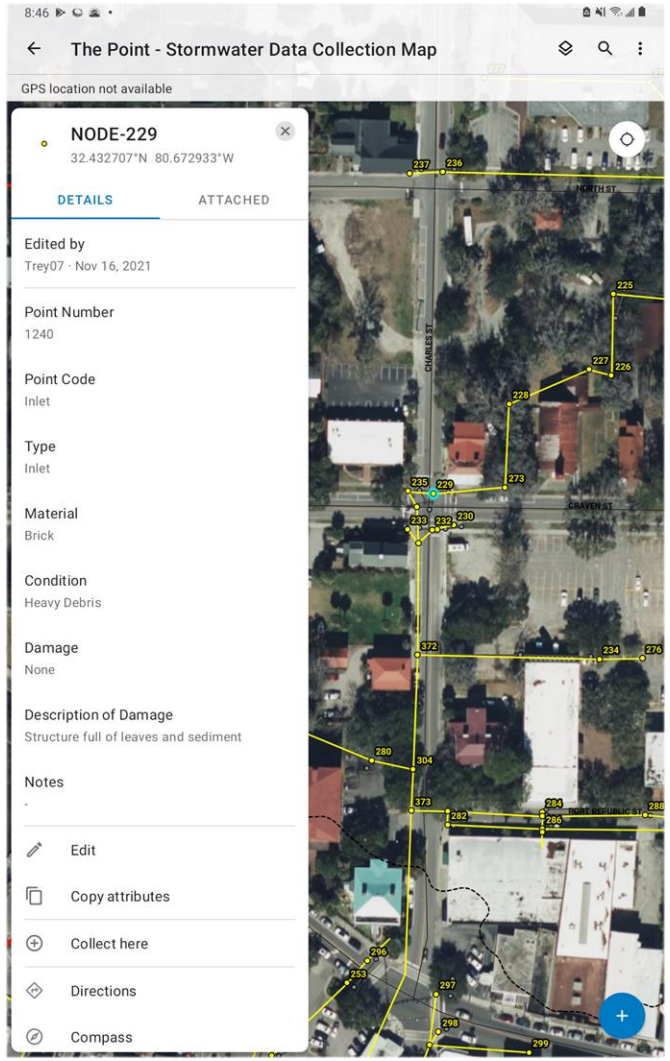
October 2015 King Tide flooding at Waterfront Park (Credit: Jeramie Stanley/SCDHEC).

Project Study Area

Field Survey and Data Collection

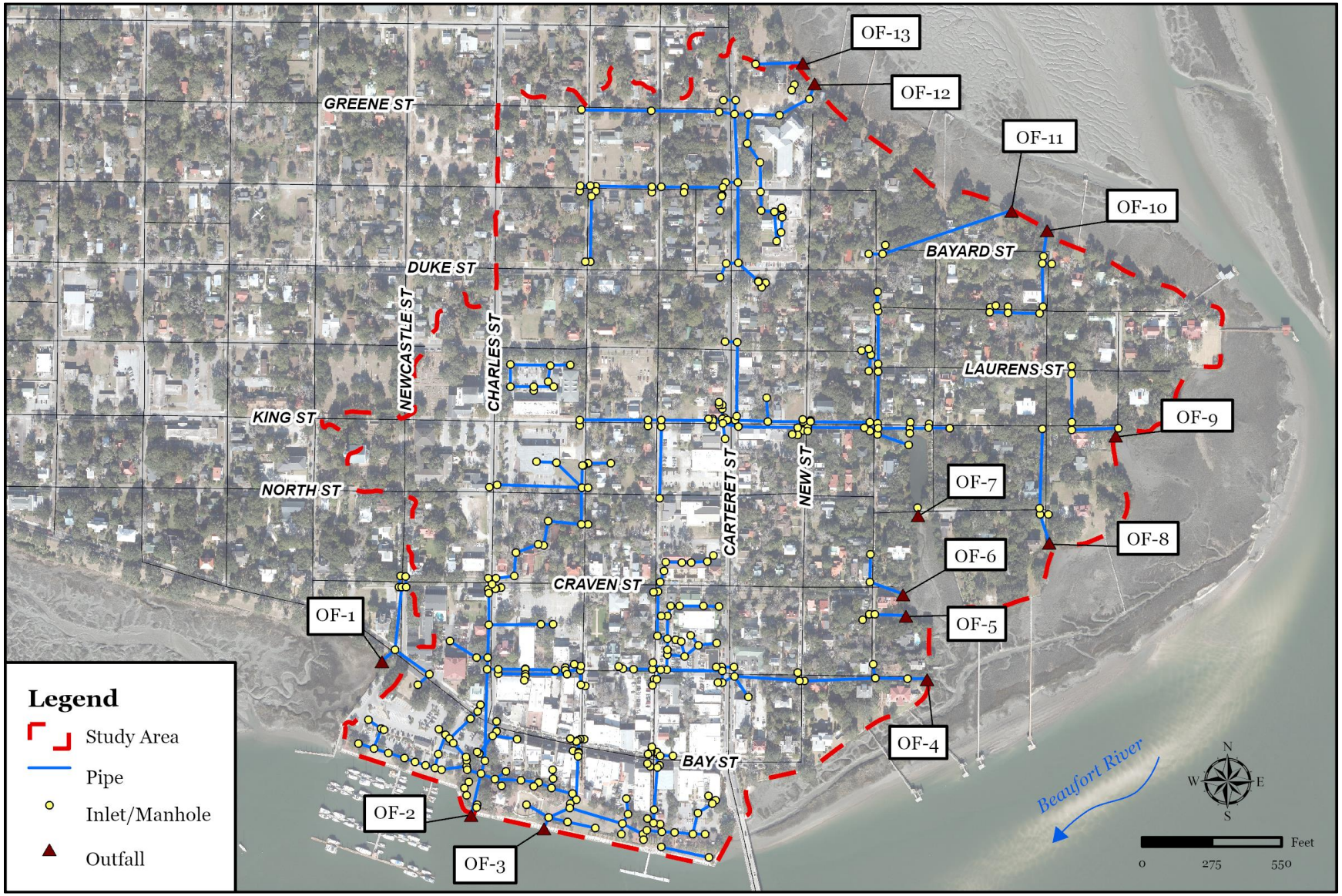
- Survey-grade GPS
  - +/- 0.1 foot accuracy
  - Inverts, rims, and location
- ESRI ArcGIS Field Maps
  - Cloud based data collection
  - Visual conditions
  - Level of clogging
  - Material and size
  - Photos

GPS survey at Pinckney Street/Bayard Street outfall.

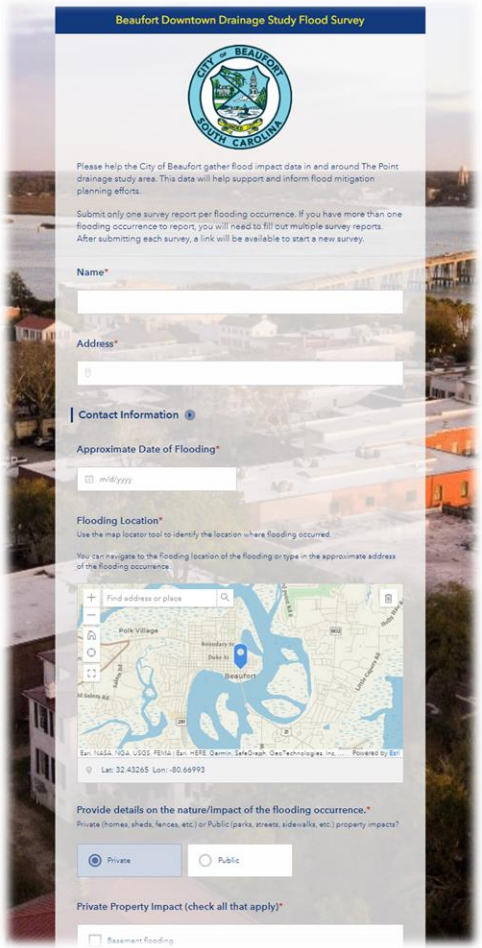


Field Maps data collection interface.

Surveyed Drainage Systems



Citizen Input and Flood Reporting



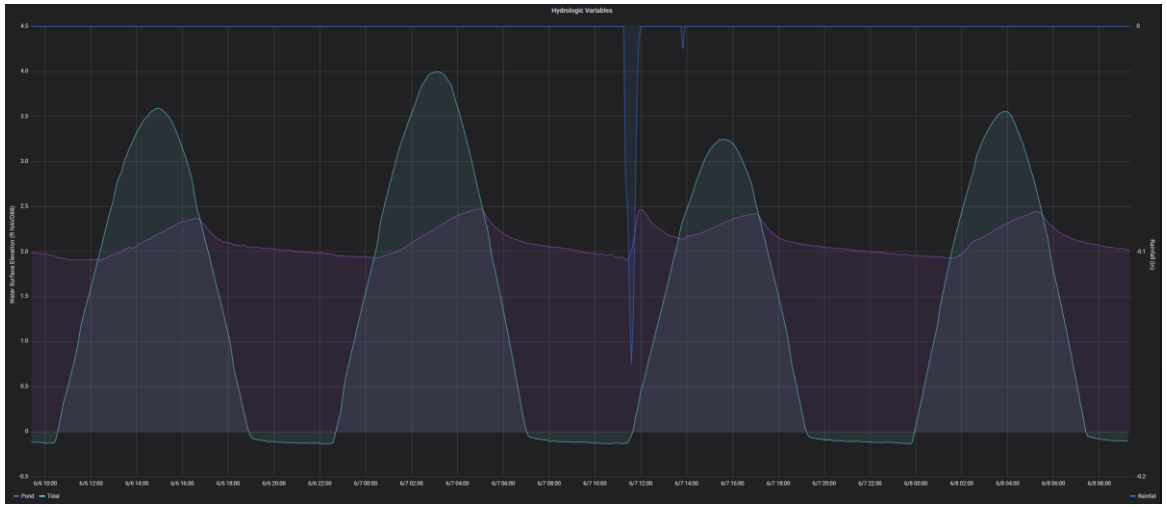
Interface for the online flood reporting tool used to collect information on flood occurrences around the study area.

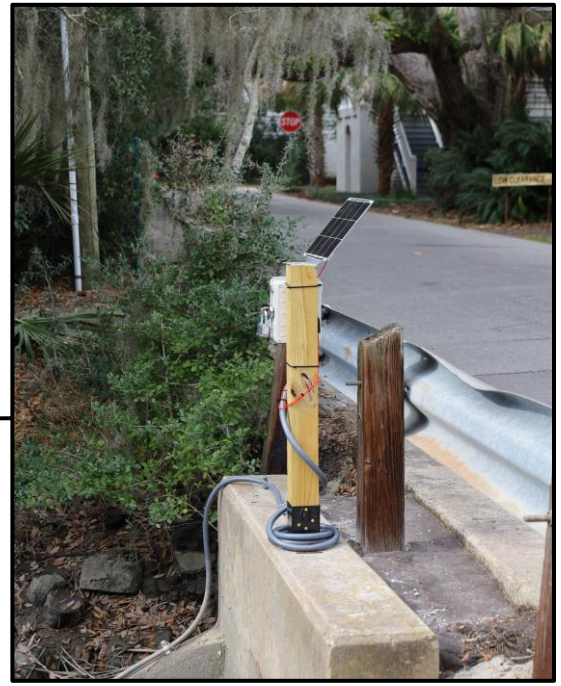
Reported flooding at the intersection of Hamilton Street and Laurens Street on September 12, 2017. Photo submitted by Suzanne Rainey.

Reported flooding at the intersection of Craven Street and Charles Street on June 30, 2017. Photo submitted by William Butters.

Rainfall and Water Level Monitoring

Tidal pond monitoring station equipped with water level and rainfall gauges.





Tidal creek monitoring station equipped with water level gauge only.

Climate Conditions Assessments

Historic | Current | Future

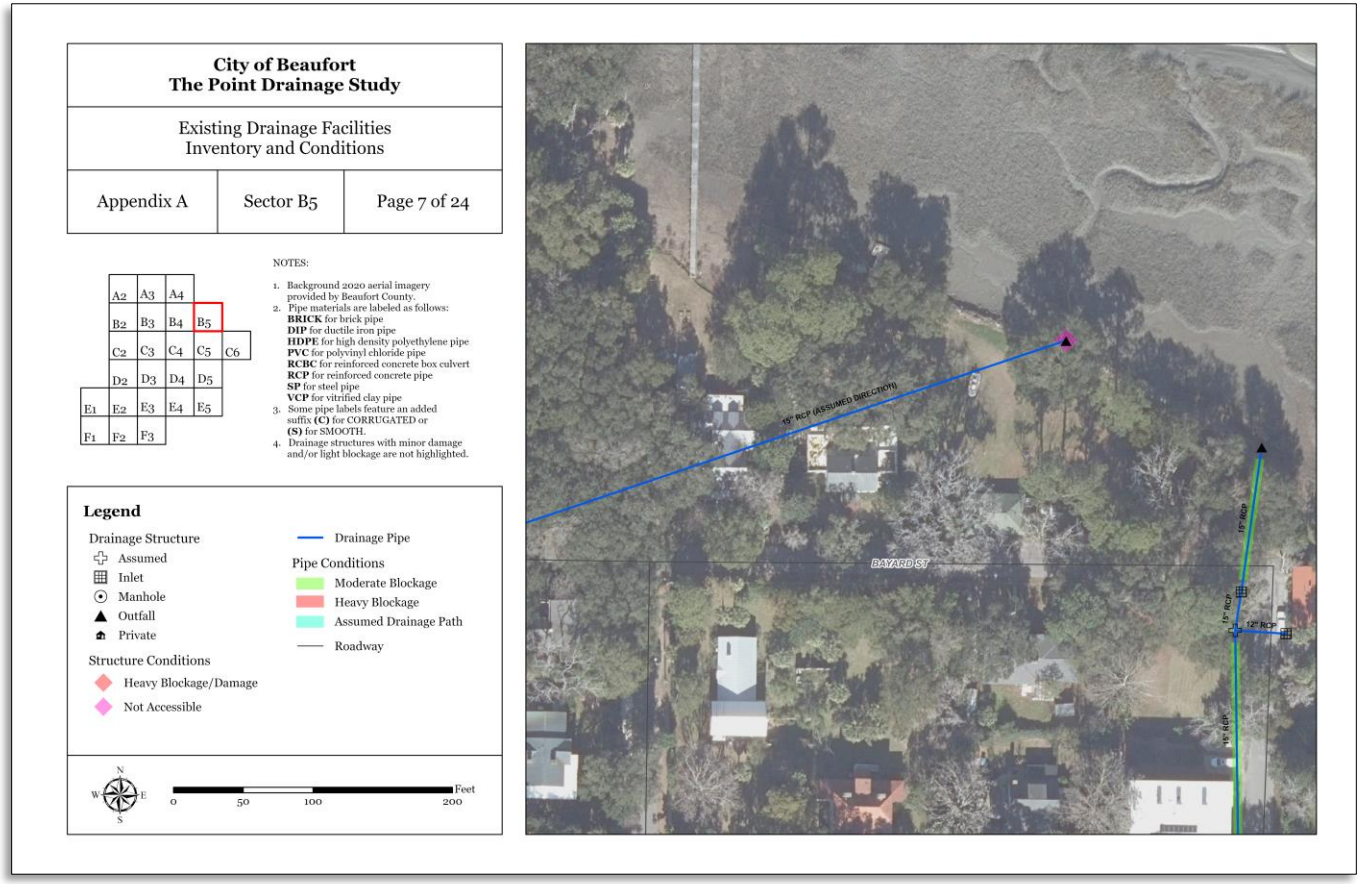
Climate Conditions Assessments

- Historic Conditions Analysis
  - Hurricane Matthew (October 2016)
  - Hurricane Irma (September 2017)
- Current Conditions Analysis
  - Present day design rainfall
  - Tide monitoring station data
- Future Conditions Analysis
  - 50-year (2072) climate change impacts
  - Increased rainfall
  - Sea level rise

Analysis of Results

Field Survey & Conditions Assessment | Historic Conditions | Current Conditions | Future Conditions

Field Survey and Visual Conditions Assessment

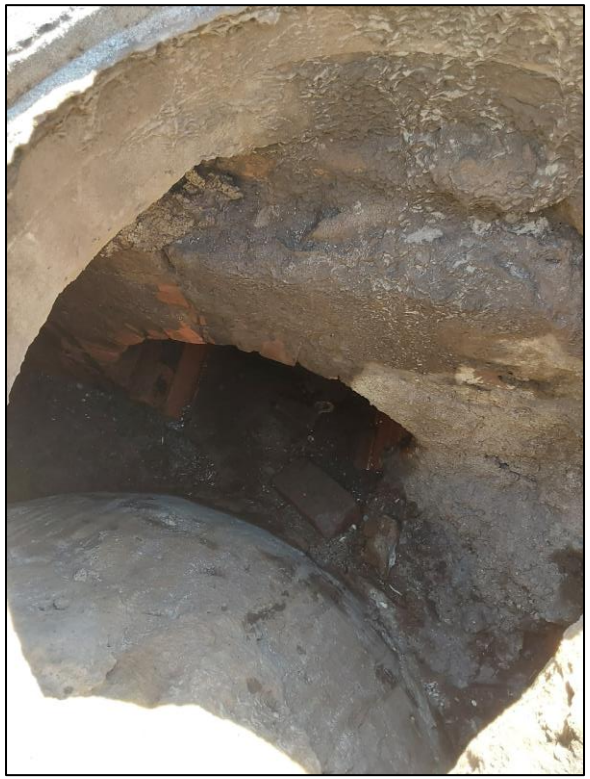


The Point and downtown Beaufort drainage systems conveyance summary.

Conveyance Summary (Total Length = 4.5 mi)		
Material	Length (ft)	Average Geometry
Circular Pipe		
Concrete	14,619	18-in
Ductile Iron	1,988	15-in
Corrugated HDPE	1,393	15-in
Vitrified Clay	1,288	8-in
PVC	1,202	8-in
Corrugated Steel	687	15-in
Smooth HDPE	270	18-in
Brick	36	24-in
Smooth Steel	17	12-in
Elliptical Pipe		
Corrugated Steel	337	18-in x 28.5-in
Concrete	121	15-in x 22-in
Concrete Box Culvert	28	3-ft x 4-ft
Inaccessible Closed Pipe	1,576	-

Field Survey and Visual Conditions Assessment

Silted type 1 grate inlet near Greene Street and West Street intersection.



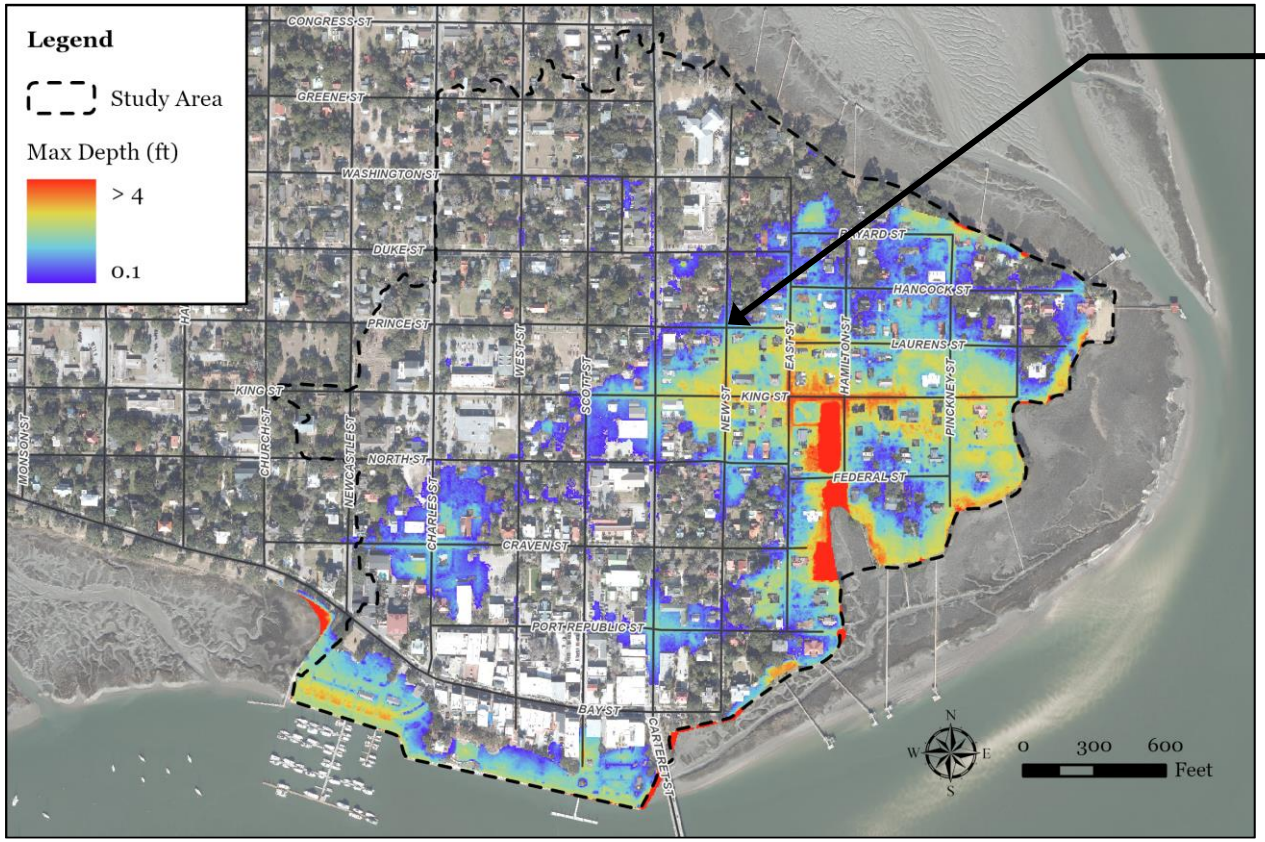
Ageing brick lined conveyance structure located in Craven Street and Charles Street intersection.

Degrading outfall pipe off East Street between Craven Street and Port Republic Street.

Manhole structure containing broken stormwater pipe and exposed water line near Port Republic Street and Carteret Street intersection.

Historic Conditions Results

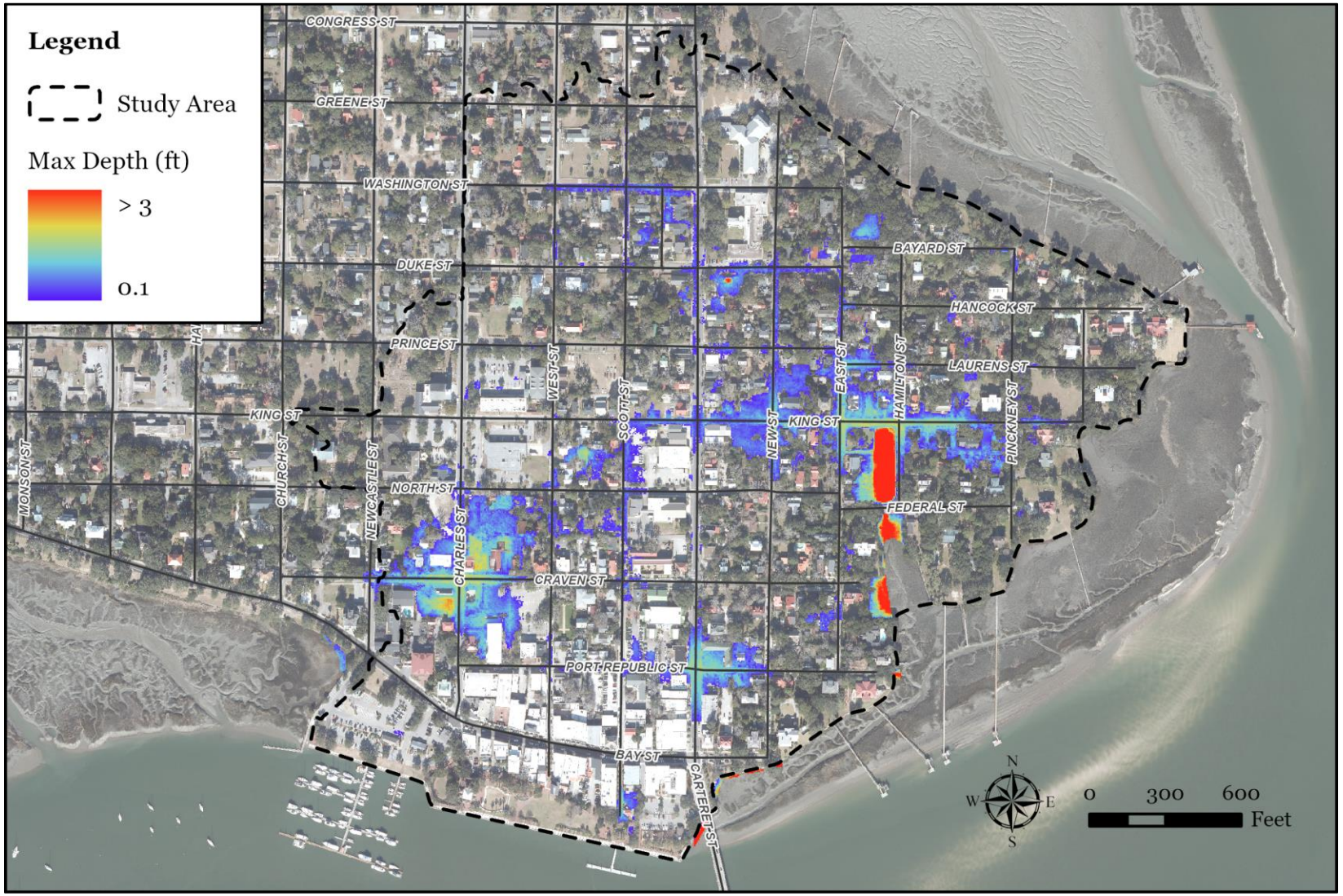
Hurricane Irma (September 2017)



Hurricane flooding experience near the intersection of Prince Street and New Street. Photo submitted by Erich Wilms.

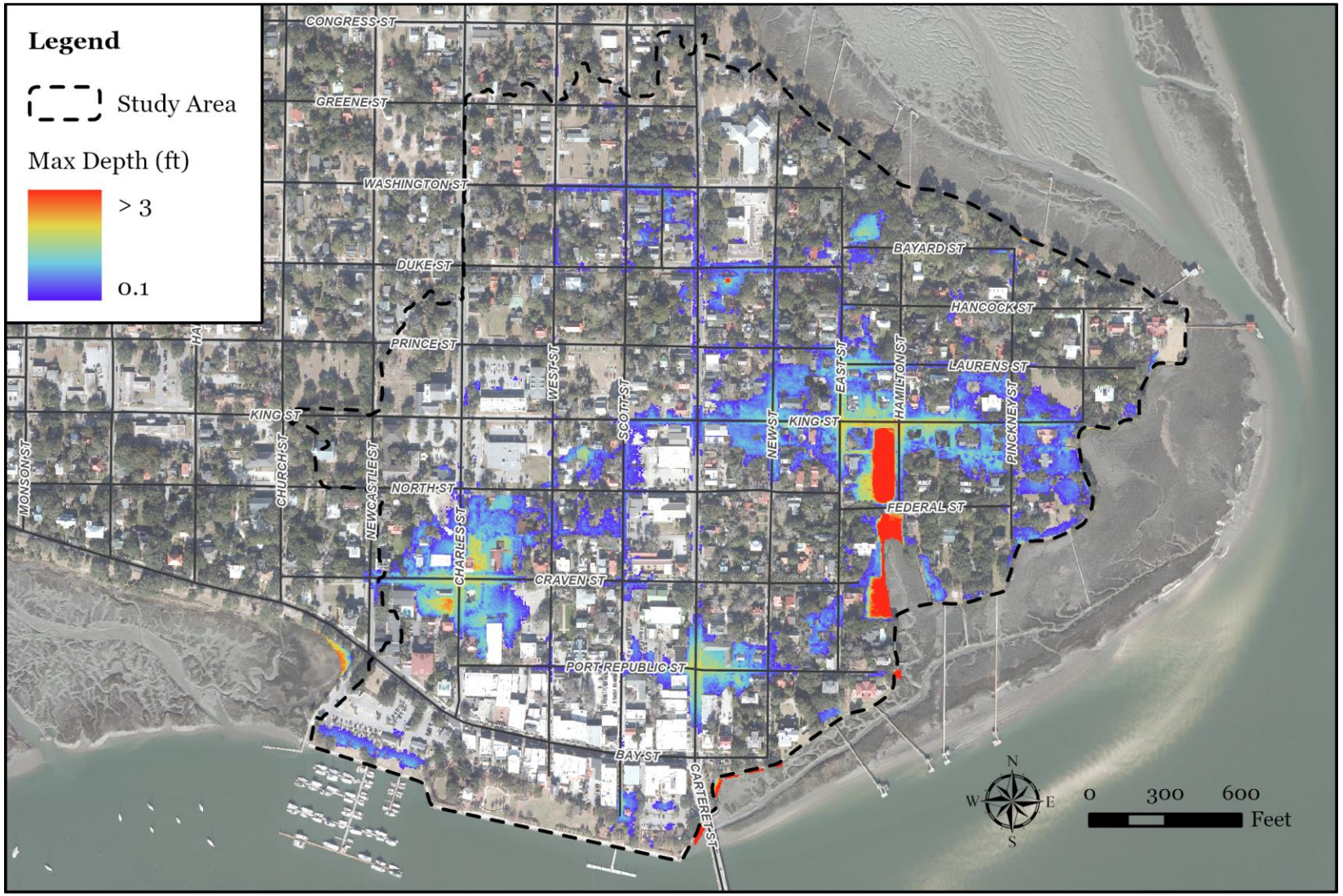
Current Conditions Results

Current conditions flood results for the 10-year design rainfall event.



Future Conditions Results

Future conditions flood results for the 10-year future conditions rainfall event.

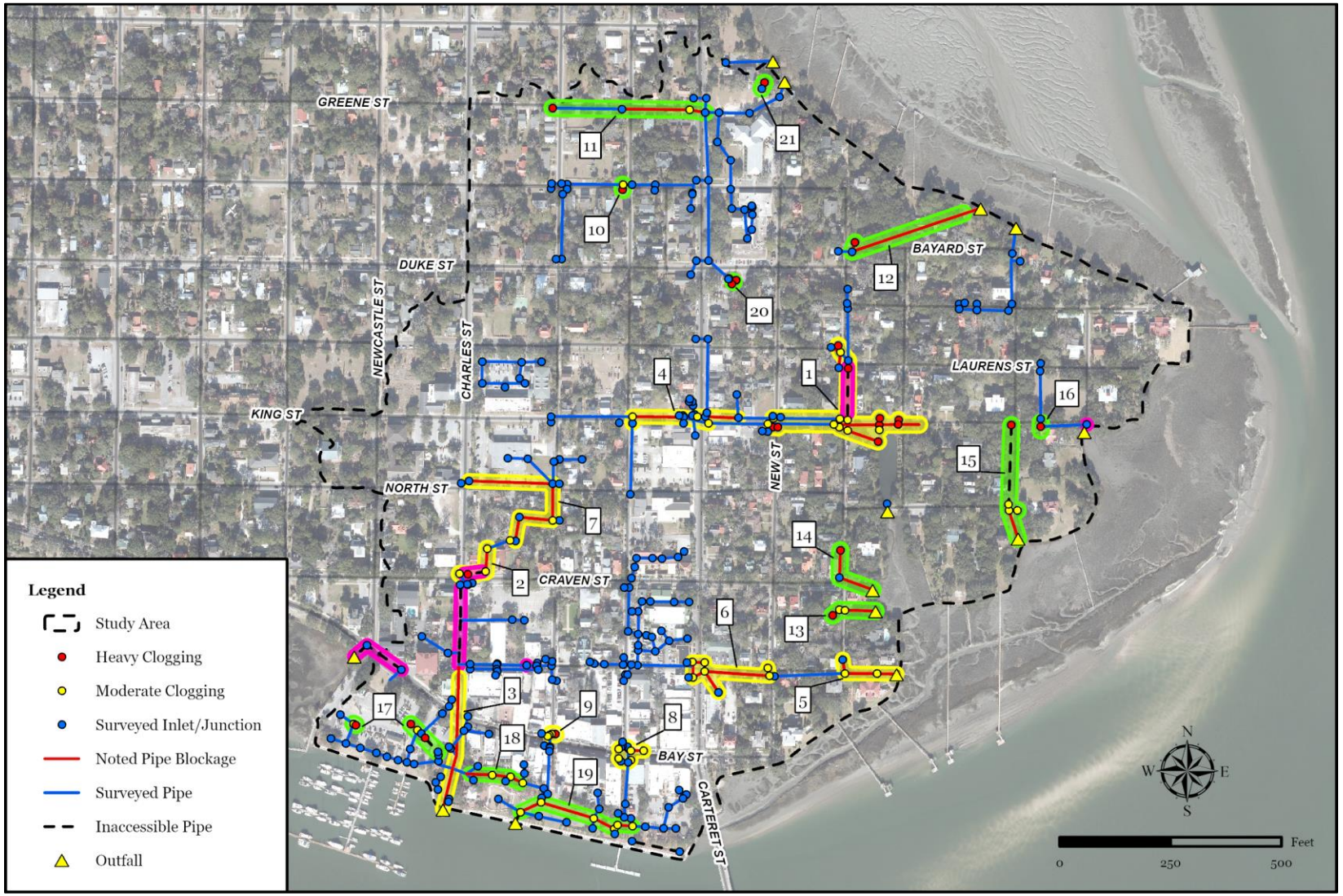


Recommendations for Improvements

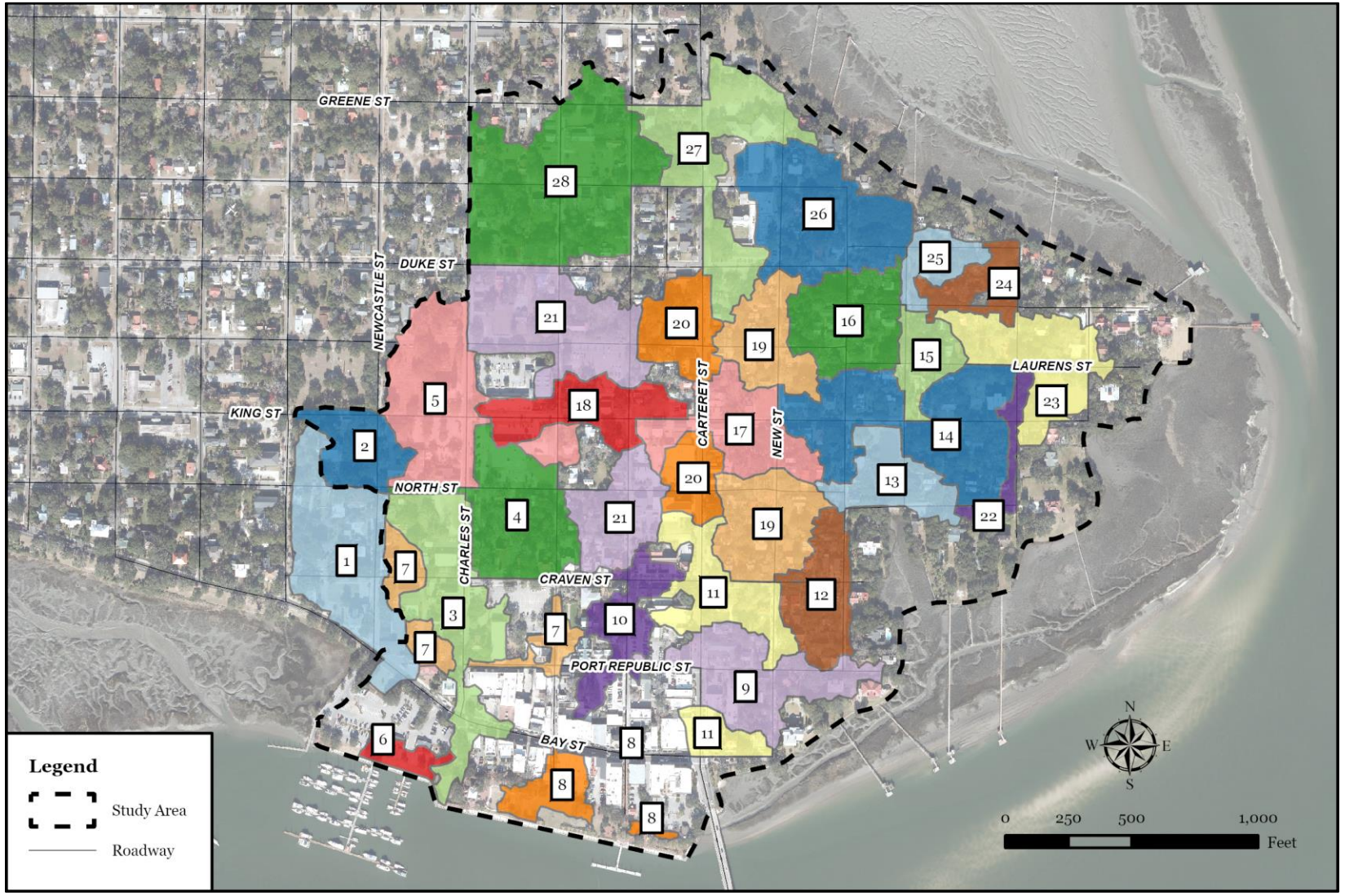
Maintenance Recommendations | Construction Recommendations | Cost Estimating | Prioritization

Maintenance Recommendations

Maintenance recommendations ranked on a per zone basis.



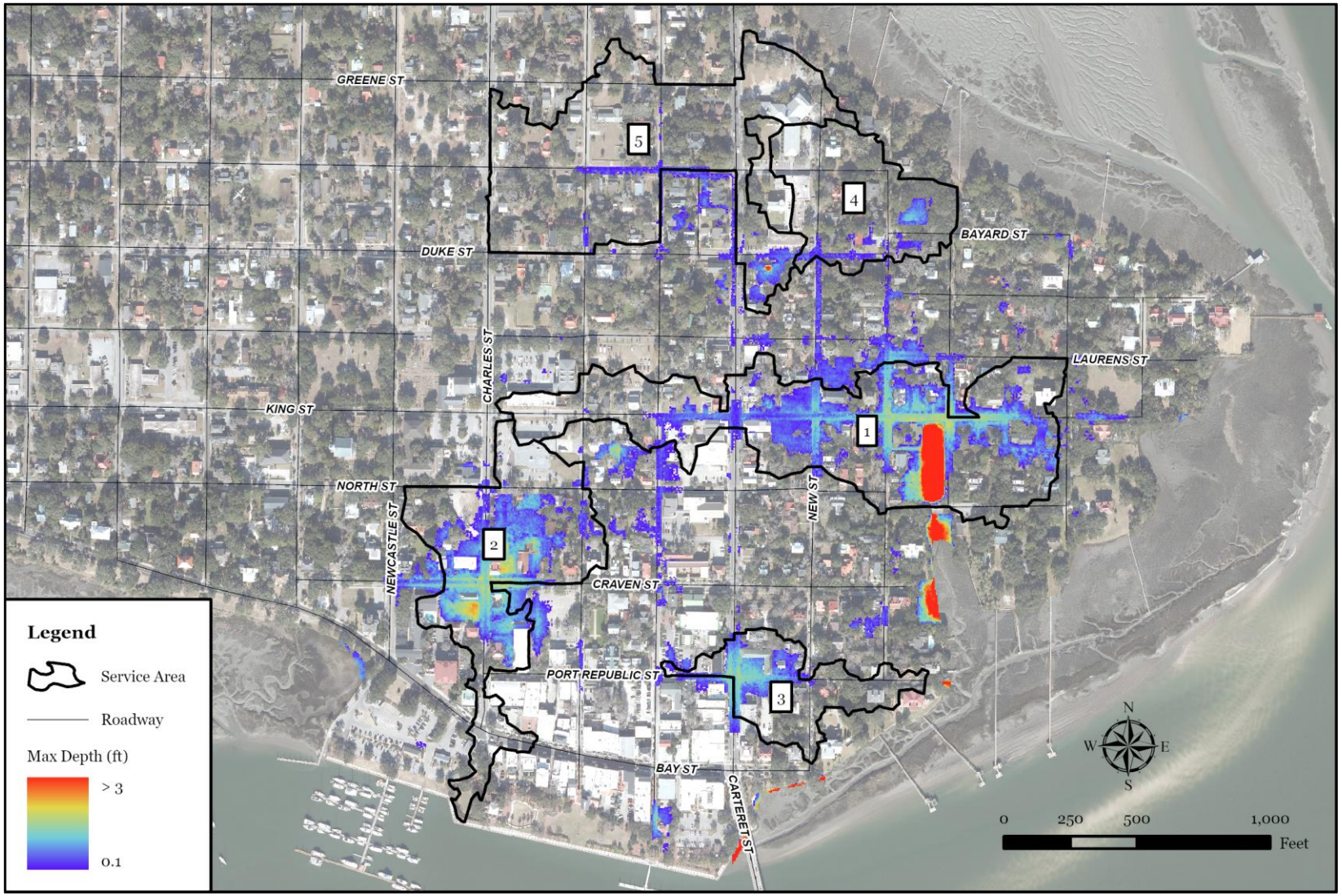
Overall Construction Recommendations



Estimated project construction costs.

Project		Cost
1	$	710,642
2	$	557,330
3	$	1,694,840
4	$	1,190,103
5	$	491,283
6	$	574,111
7	$	669,546
8	$	333,332
9	$	1,597,114
10	$	576,081
11	$	1,043,018
12	$	584,506
13	$	7,028,919
14	$	1,132,056
15	$	302,856
16	$	488,366
17	$	888,534
18	$	883,153
19	$	786,808
20	$	760,714
21	$	736,951
22	$	404,604
23	$	669,792
24	$	595,262
25	$	412,135
26	$	612,042
27	$	1,494,155
28	$	1,113,103
Total	**$**	**28,331,356**

High Priority Construction Recommendations



High priority project rankings, costs, and funding sources.

Rank	Included Projects		Cost	Funding Source
1	13, 14, 17, 18	$	9,932,662	RIA / SCIIP
2	3, 4	$	2,884,943	SCOR / ARPA
3	9	$	1,597,114	EDA
4	26	$	612,042	EPA / STAG
5	27, 28	$	2,607,258	CDBG
	Total	**$**	**17,634,019**	

High Priority Construction Recommendations

Questions?