

Crowd-Sourced SeeClickFix Apps in Pinellas

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Objectives

This study examines

- ▶ The efficacy and role of a crowd-sourced data collection and reporting application (SeeClickFix) in participatory decision making for flood related events.
- ▶ The role that socio-economic status plays in reporting of crowd-sourced data

St. Petersburg, FL

[Change location]

Follow this Place

Issues

Answers

Neighbors

Watch Areas

Report an Issue

Search Issues...

Search

ISSUES



PTO - Trouble Report > Closed

1st Avenue South Saint Petersburg, FL

16 minutes ago · Reported by St.Petersburg,FLCollaborativeNeighbor · Flag

0 thanks

SAY THANKS!

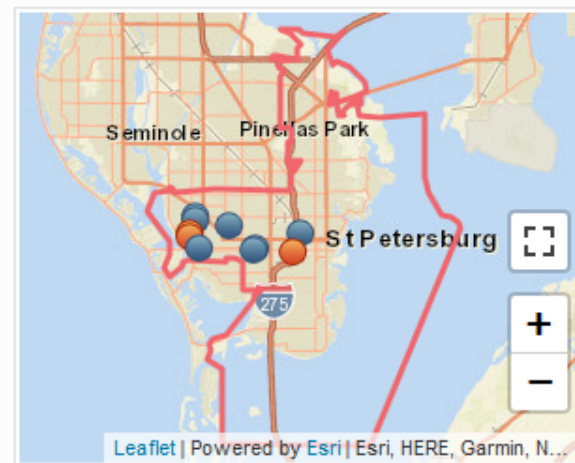


CLOSED TrafficE440 (Verified Official)

Replace and test monitor S/N 070604066 Tested Good-db
Check cabinet fan and adjust thermostat, vacuum cabinet. UPS-Failed
Replacement monitor S/N 110705105
Start 3:25am Finish 6:15am
14 minutes ago · Flag

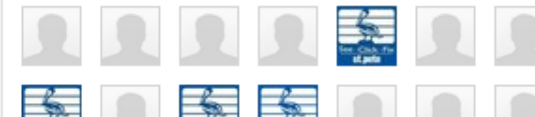
Write a comment...

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TOP USERS

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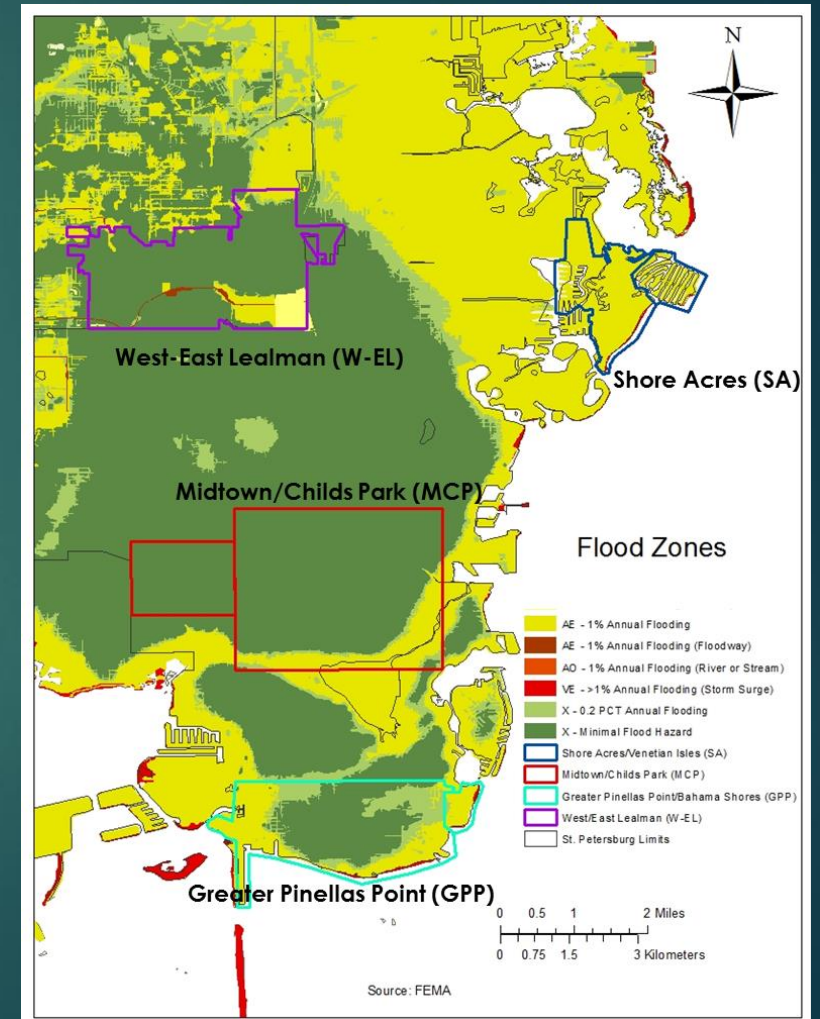
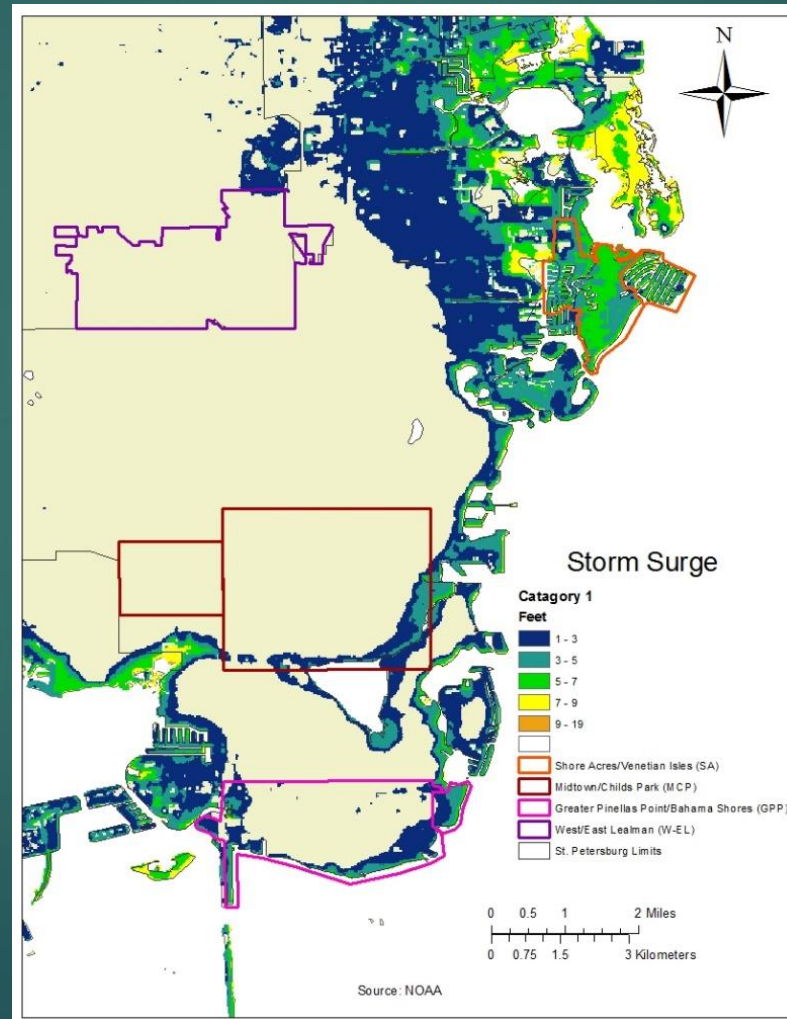
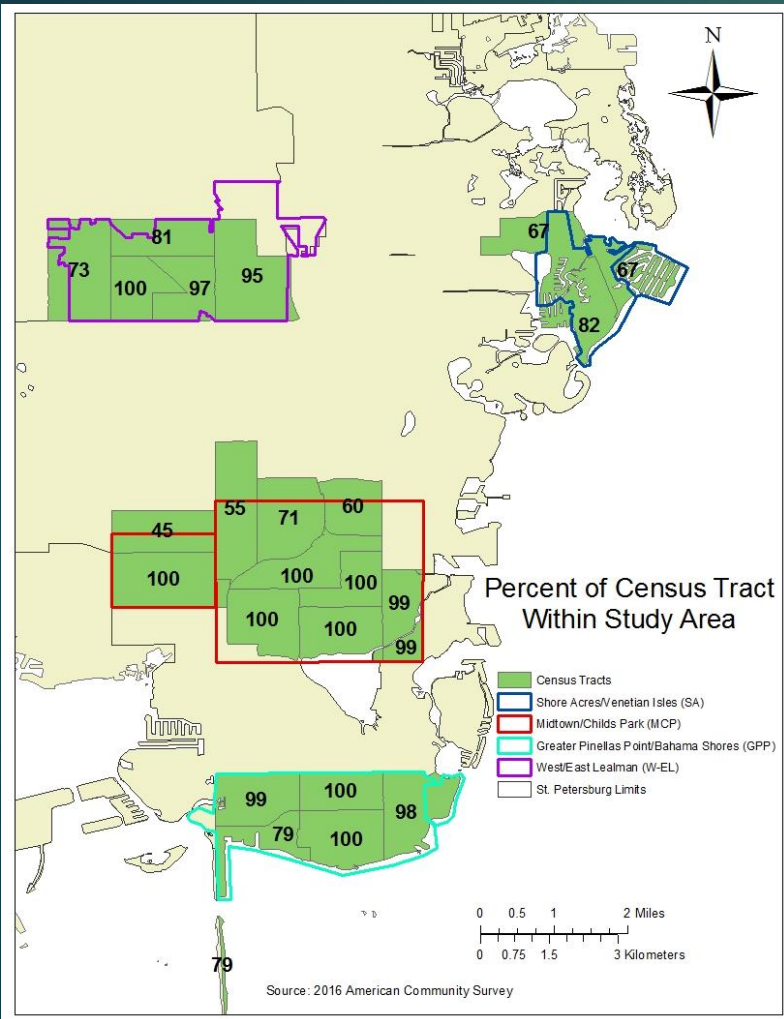
Methods

- ▶ Data reported through the crowd-sourced app, SeeClickFix, is analyzed to determine the spatial and social characteristics of flooding and water-related reporting trends in four neighborhoods in Pinellas County, FL within the study period (2013-2017).

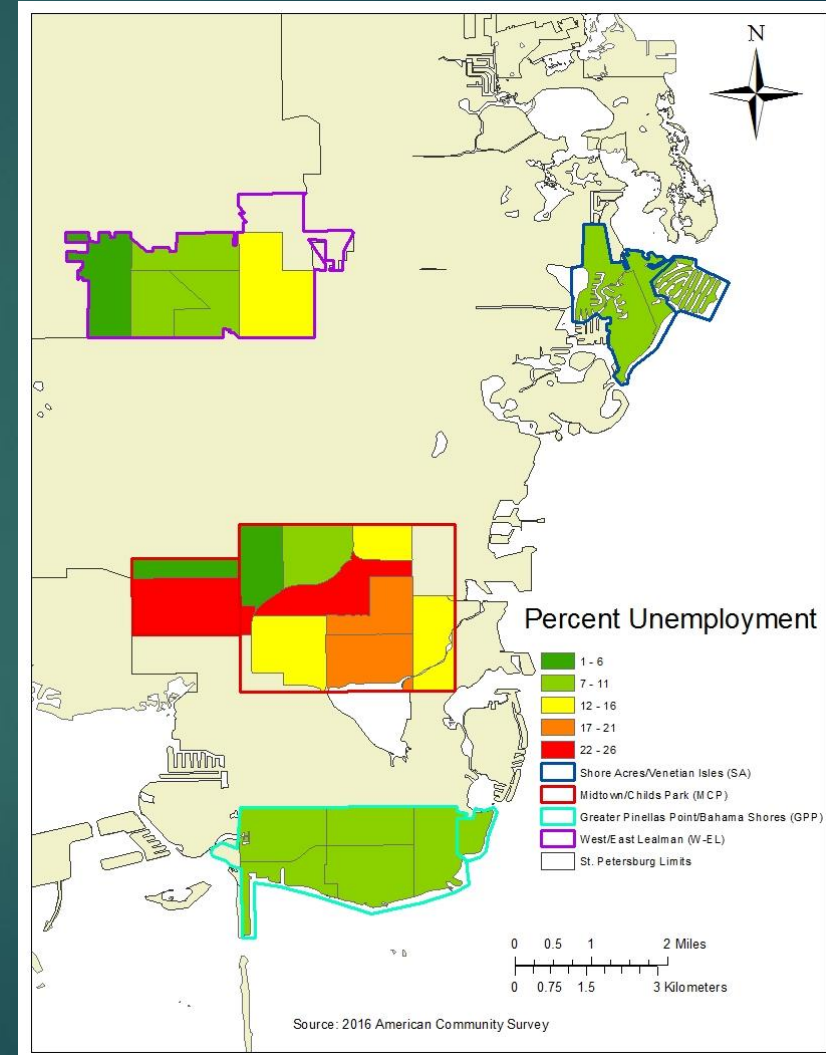
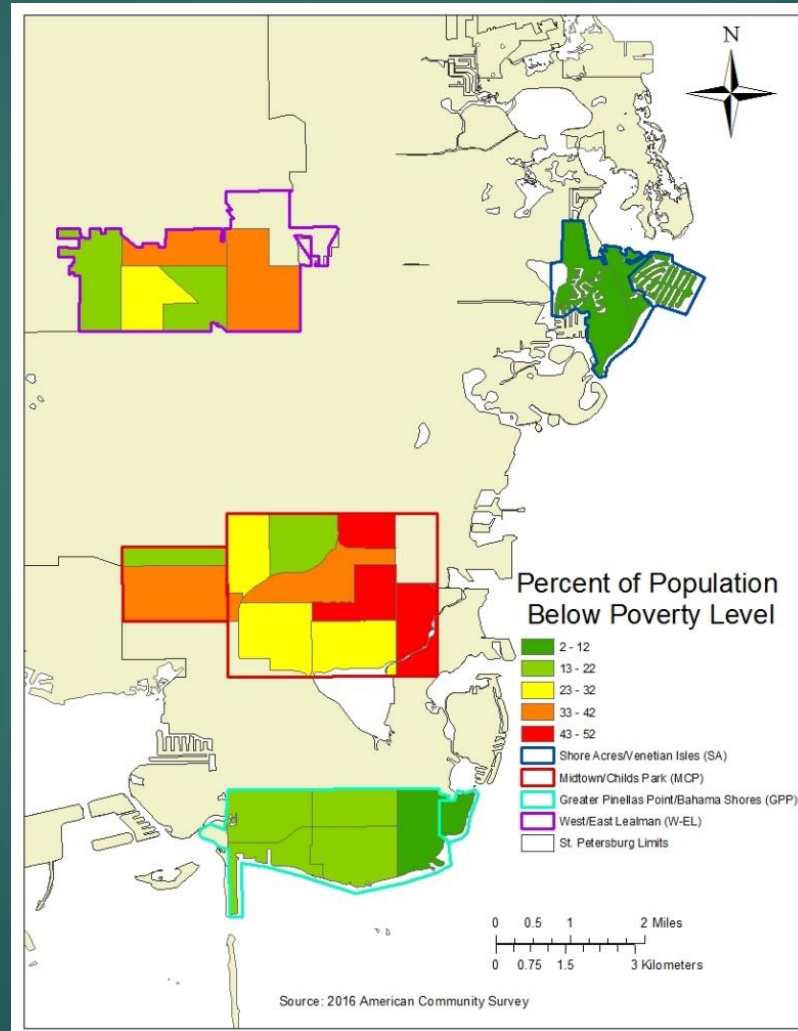
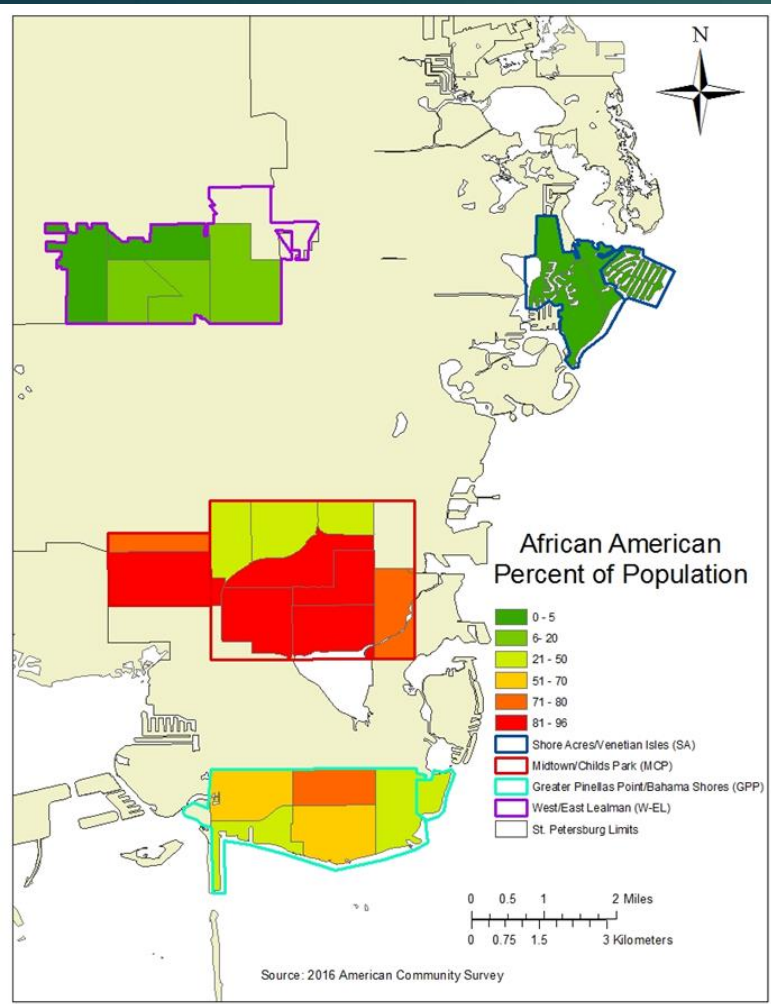
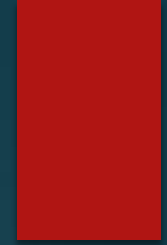
Targeted Reports

Reclass Code	Type of Complaint
A	Flooding Event
B	Stormwater Infrastructure Repair Request
C	Standing Water/Mosquito
D	Sewer and Sanitation

Biophysical Vulnerability



Socio Economic Vulnerability



Implementation Steps:

Step 1. Selecting Report Type

SeeClickFix interface showing report selection options. The 'Closed' status is circled in red. Below, a report titled 'Flooding - Archived' is highlighted with a red circle.

Step 2. Selecting Report Of Interest; flooding and selection of address and reading the description

DESCRIPTION
 Venetian Blvd and the corner of North Dakota have been flooding the last two days when other areas the neighborhood usually flood at the same rate. Usually the street floods when there is a very hard quick rain but constant rain the road usually drains fairly well even except for high hills. Other intersections in the neighborhood are not flooded. Is there a chance the flaps are down in the drains?

Step 4: Compile All Addresses along with lat/lon information in an xls

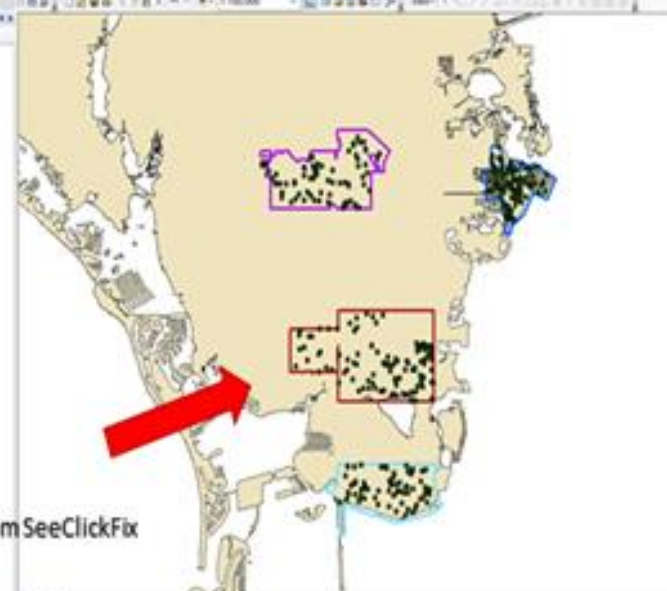
ID	Post Date	Resolution Date	Response Time	Issue Category	Business ID	Neighborhood	Address	Latitude	Longitude	Description	URL	year (based on address)
221	10/1/2014	10/1/2014	467	Other	A	843738	Shore Acres, 3600 18th Drive	27.811779	-82.404625	Drainage blocked https://clickfix.com/issue/221	2014	SA
222	9/25/2014	10/1/2014	383	Flooding	A	782945	Shore Acres, 5268 Venetian Bl	27.820295	-82.408930	Invention shed on https://clickfix.com/issue/222	2014	SA
223	7/12/2014	10/1/2014	426	Misquillo Control C	C	521040	Shore Acres, 4535 Astoria St	27.809940	-82.408476	Pool in backyard https://clickfix.com/issue/223	2014	SA
224	4/21/2014	11/7/2014	282	Stormwater Issue, B	B	1053646	Shore Acres, 4960 49th Shore	27.815873	-82.407717	Corner of shore https://clickfix.com/issue/224	2014	SA
225	6/14/2014	1/28/2015	107	Stormwater Issue, B	B	1282113	Shore Acres, 4642 Indiana St N	27.814402	-82.403023	Grass growing in https://clickfix.com/issue/225	2014	SA
226	10/1/2014	11/7/2014	33	Stormwater Issue, B	B	1305171	Shore Acres, 5725 Bayou Dr	27.820030	-82.406088	The storm drain https://clickfix.com/issue/226	2014	SA
227	10/1/2014	1/1/2015	204	Stormwater Issue, B	B	1305672	Shore Acres, 2195 Arizona Ave	27.807423	-82.405430	The sewer is not https://clickfix.com/issue/227	2014	SA
228	10/1/2014	11/7/2014	33	Stormwater Issue, B	B	1305985	Shore Acres, 3900 Harrington	27.807512	-82.405146	The storm drain https://clickfix.com/issue/228	2014	SA
229	11/7/2014	12/4/2014	27	Overgrowth	B	1353000	Shore Acres, 4000 Bay Shore I	27.812323	-82.399207	There is grass on https://clickfix.com/issue/229	2014	SA
230	6/14/2014	1/28/2015	307	Overgrowth	B	1282317	Invention shed	27.816813	-82.407102	The drain is c https://clickfix.com/issue/230	2014	SA
231	7/26/2014	11/1/2014	106	Misquillo Control C	C	1213687	Shore Acres, 4271 Indianapolis	27.813217	-82.403303	Green pool for gr https://clickfix.com/issue/231	2014	SA
232	5/12/2015	4/1/2017	371	Stormwater Issue, A	A	1419888	Shore Acres, 5820 Ast 5820 D	27.825483	-82.409840	backyard at 5820 https://clickfix.com/issue/232	2015	SA
233	3/13/2015	4/1/2017	670	Other	A	1419293	Shore Acres, 5820 Denver St	27.825268	-82.409616	Storm drainage https://clickfix.com/issue/233	2015	SA
234	3/2/2015	7/24/2016	562	Stormwater Issue, A	A	1304579	Shore Acres, 5820 Denver St N	27.825252	-82.409600	Due to the trees https://clickfix.com/issue/234	2015	SA
235	3/24/2015	7/24/2016	480	Stormwater Issue, A	A	1350549	Shore Acres, 5820 Denver St	27.825252	-82.409600	My property has https://clickfix.com/issue/235	2015	SA
236	3/15/2015	7/24/2016	475	Stormwater Issue, A	A	1343818	Shore Acres, 5820 Denver St	27.825252	-82.409600	In the recent 10 https://clickfix.com/issue/236	2015	SA
237	7/21/2015	10/1/2015	78	Stormwater Issue, A	A	1387550	Shore Acres, 3510 Shore Ave	27.804525	-82.407552	Person at this ad https://clickfix.com/issue/237	2015	SA

ArcMap interface showing the 'Add XY Data' dialog box. The 'X Field' is 'Longitude' and the 'Y Field' is 'Year (based on post date)'. The 'Export Data' menu is also visible, with 'Export to File' circled in red.

Step 5: Use Add XY data to add location info

Step 6: Export data as a .shp file

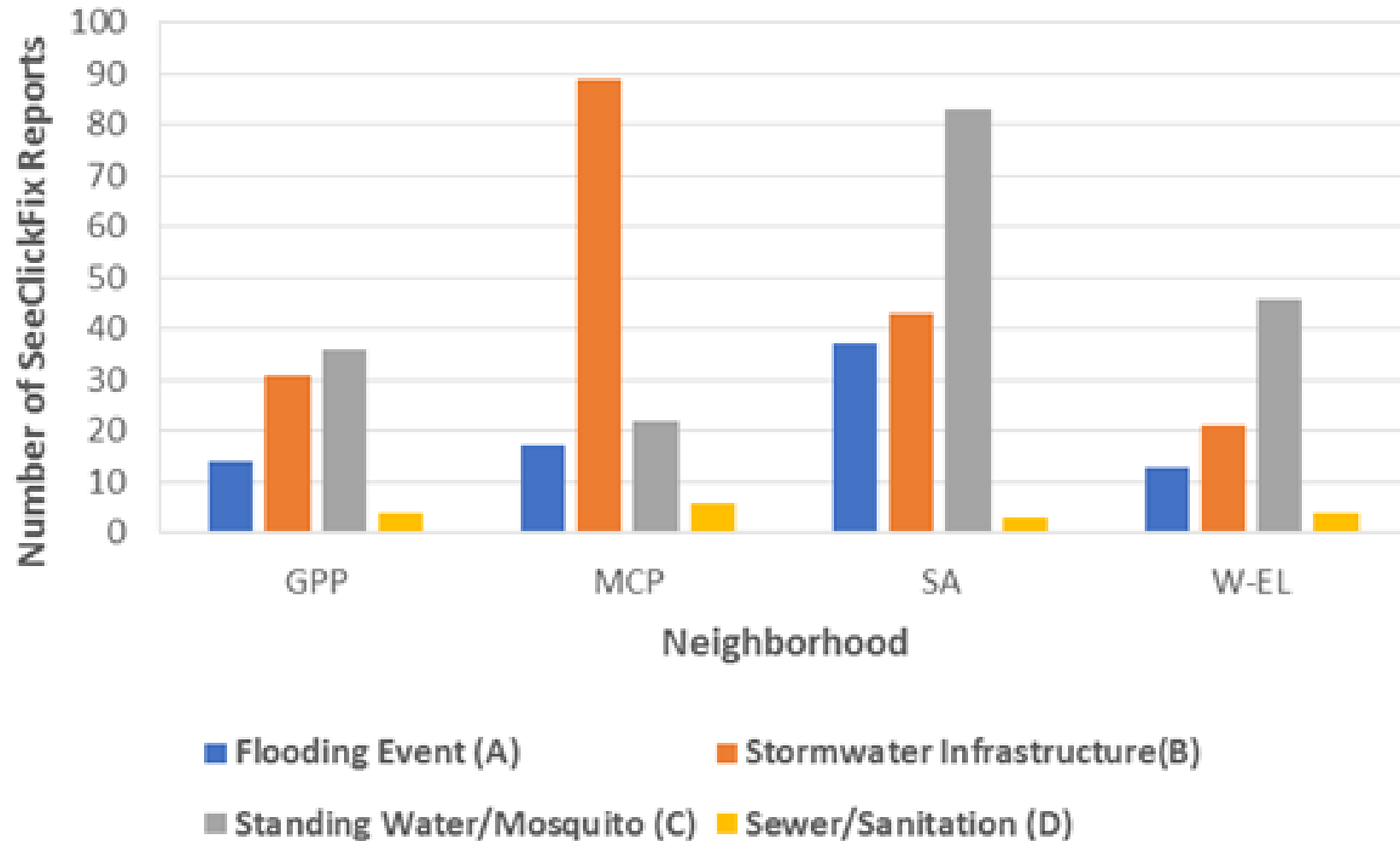
Step 7: Mapped Data from SeeClickFix



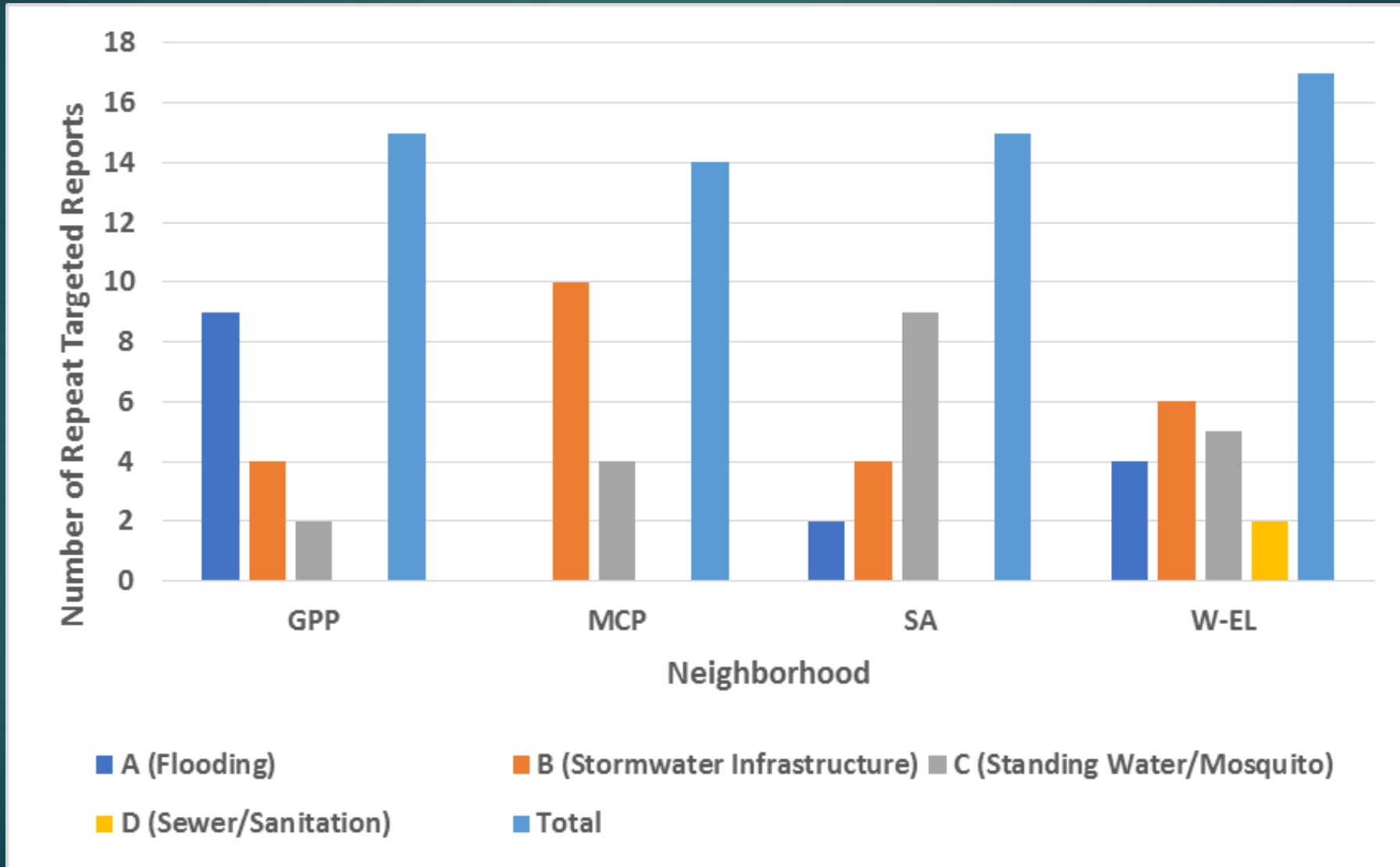
SeeClickFix Report Summary (2013 – 2017)

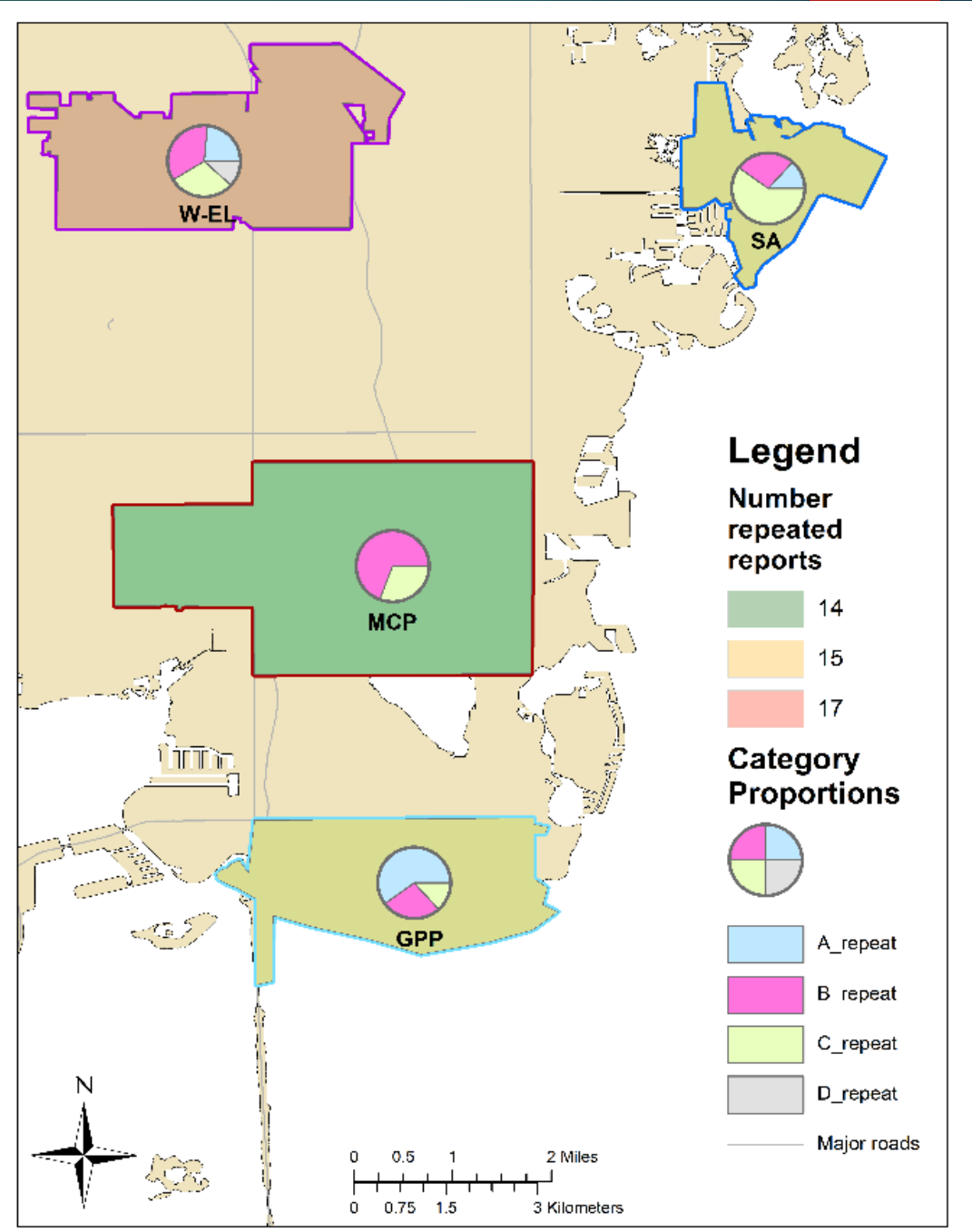
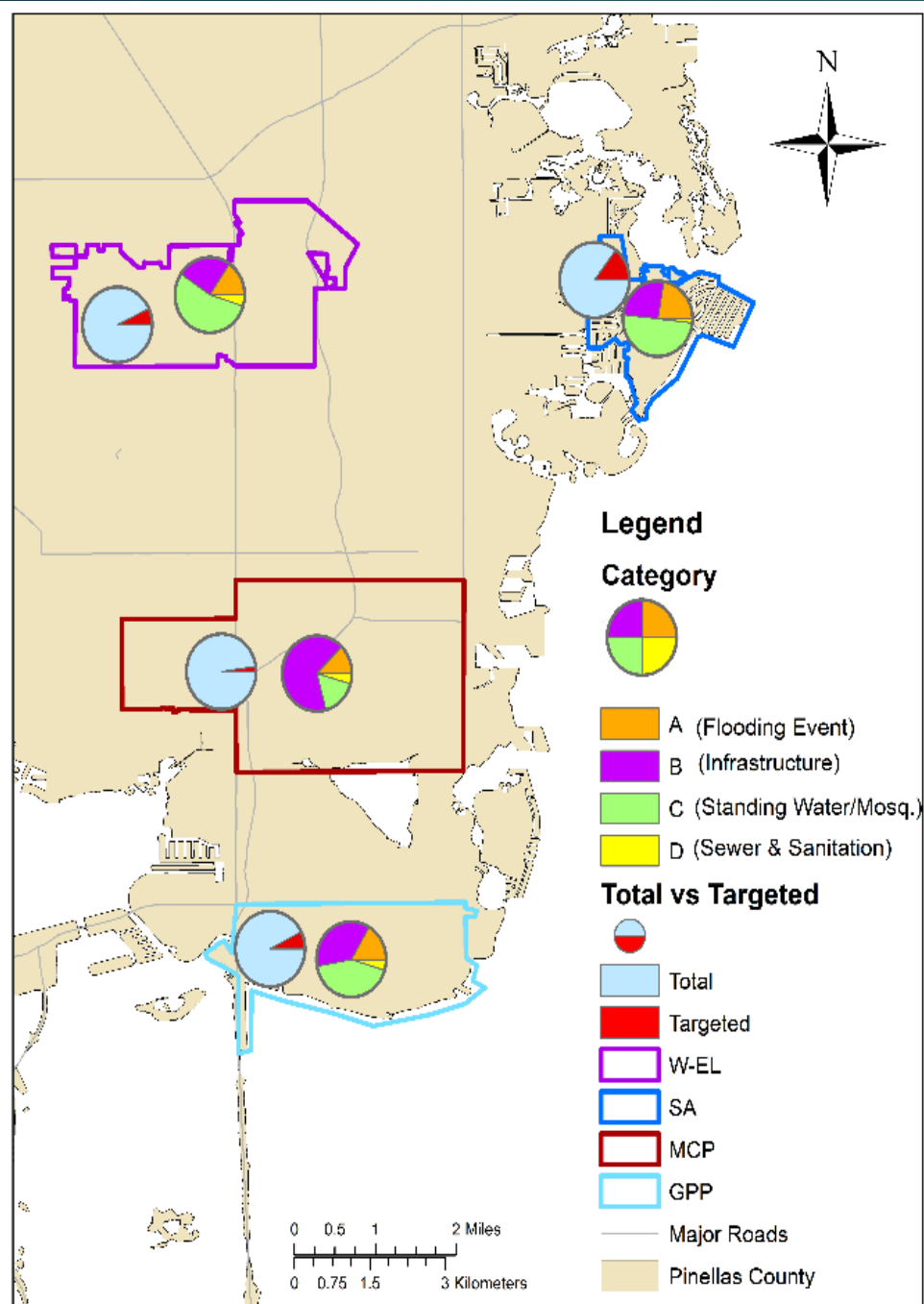
SeeClickFix Report Summary (2013 – 2017)							
Response Distribution				Response by Category			
Neighborhood	Total Population	Total # of Reports	Total # of Targeted Reports	A	B	C	D
GPP	16400	1051	85	14	31	36	4
MCP	29883	5635	134	17	89	22	6
SA	607	966	166	37	43	83	3
W-EL	16499	1106	84	13	21	46	4
Total	68855	8758	469	81	184	187	17

Targeted Reports By Neighborhoods

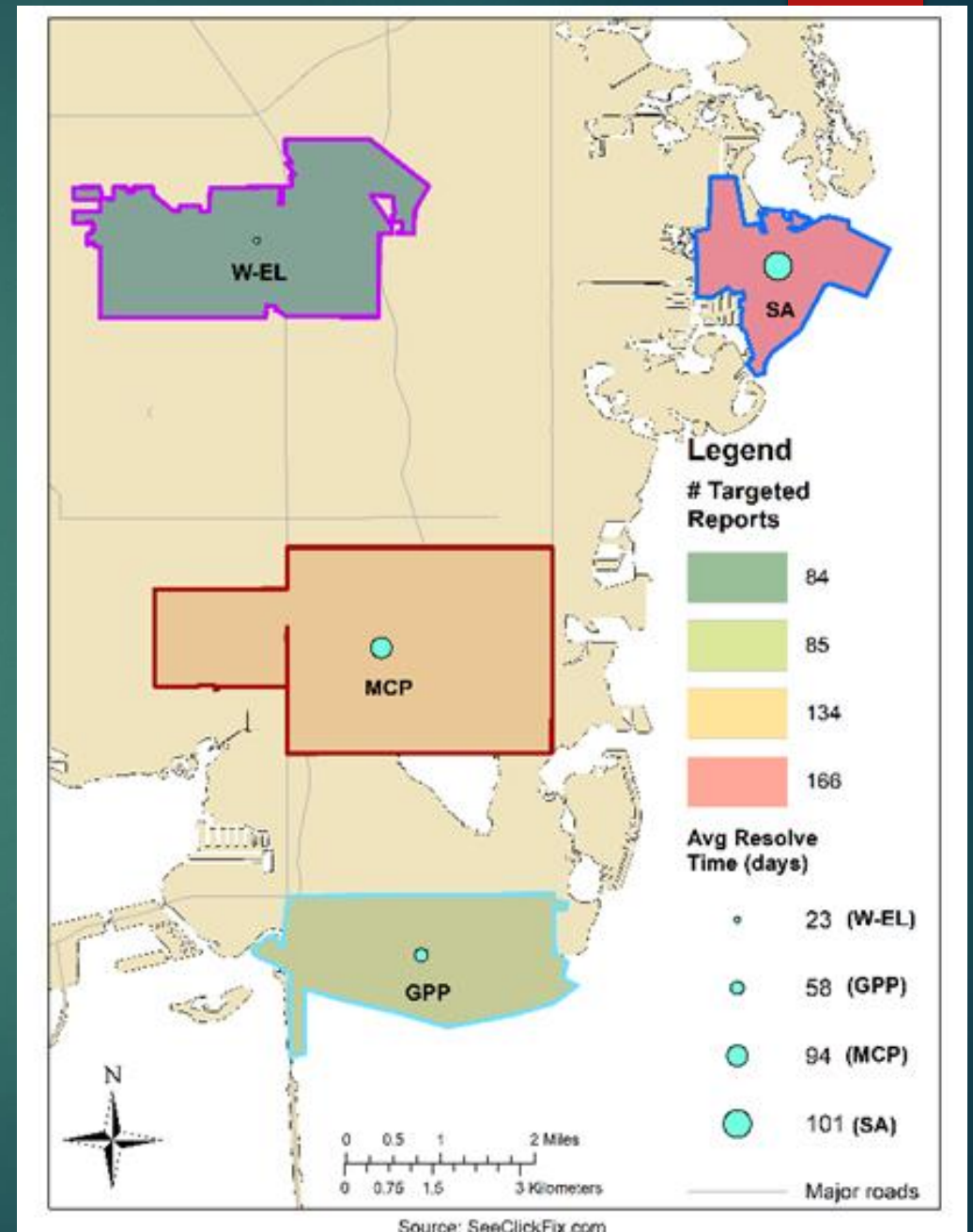
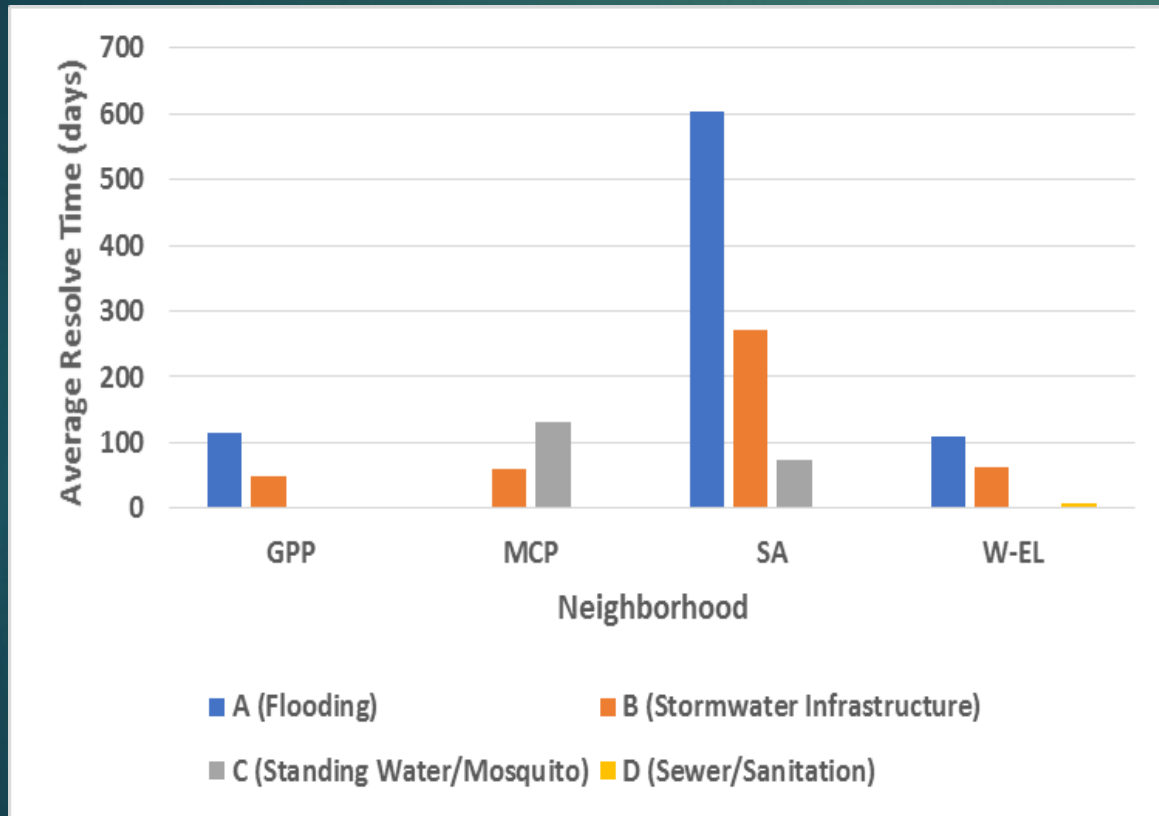


Repeated reports

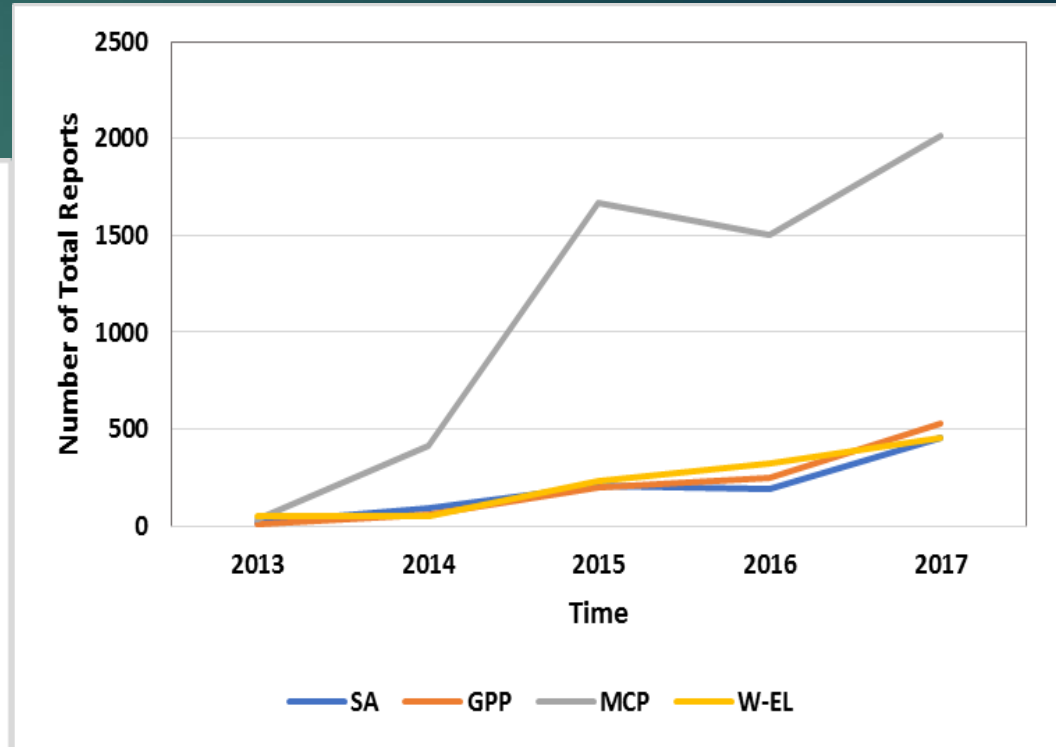
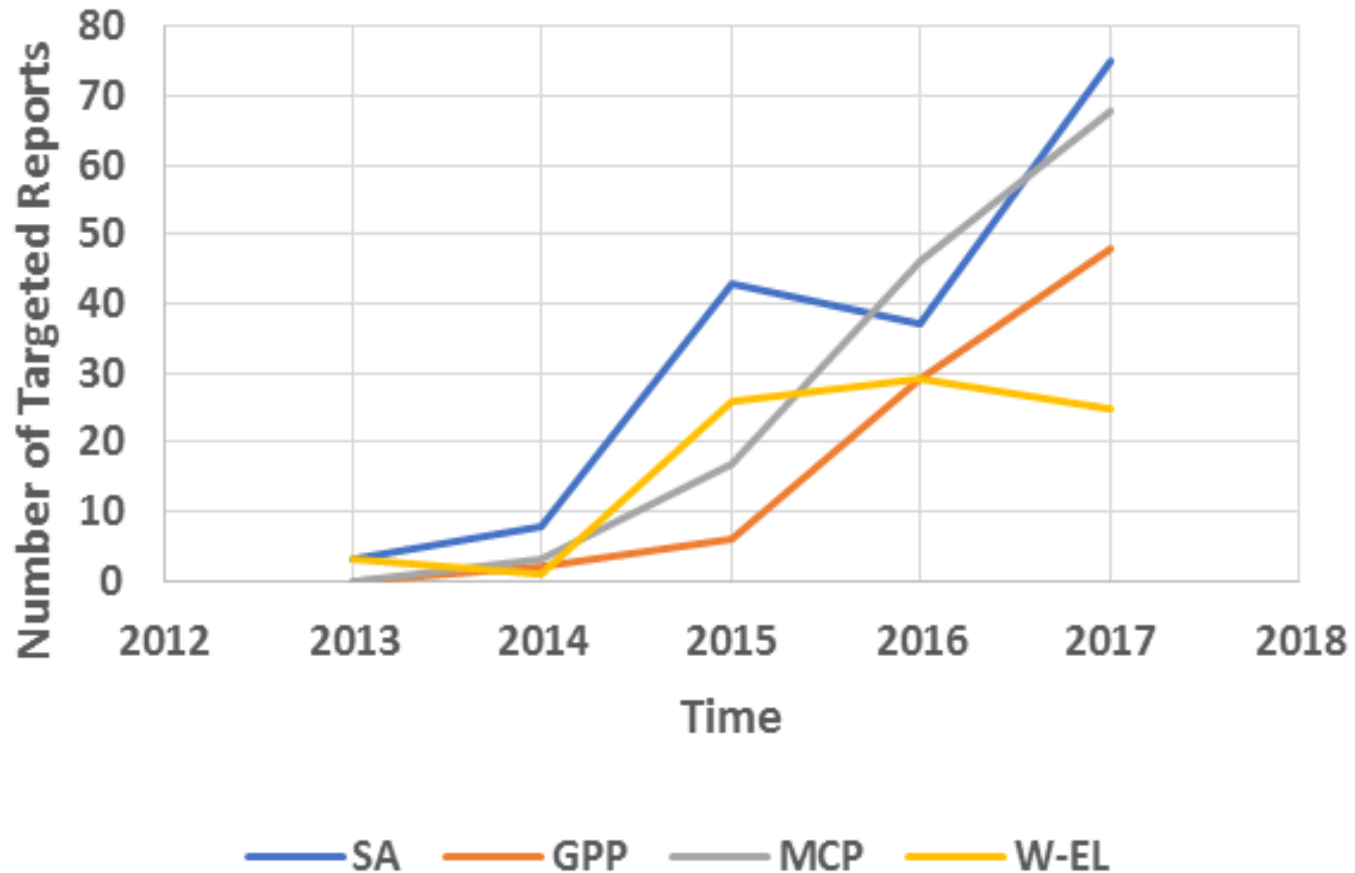




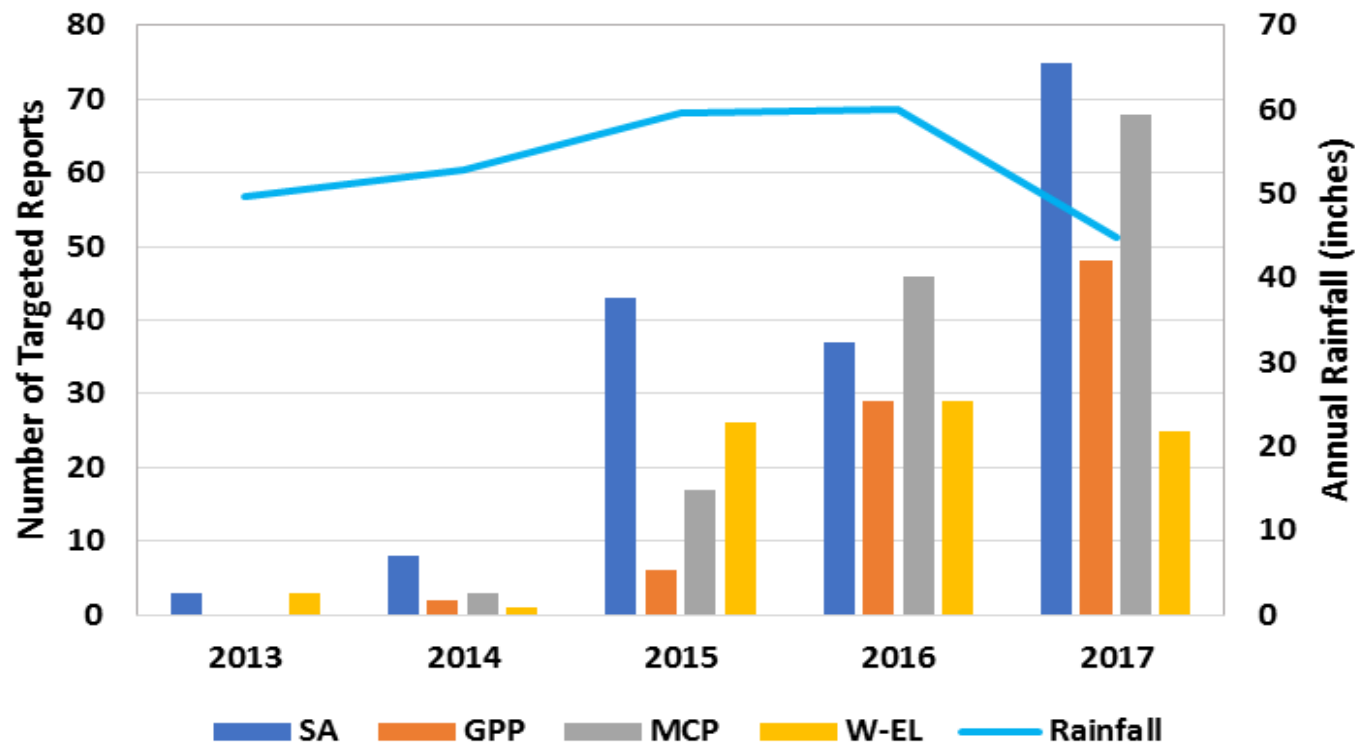
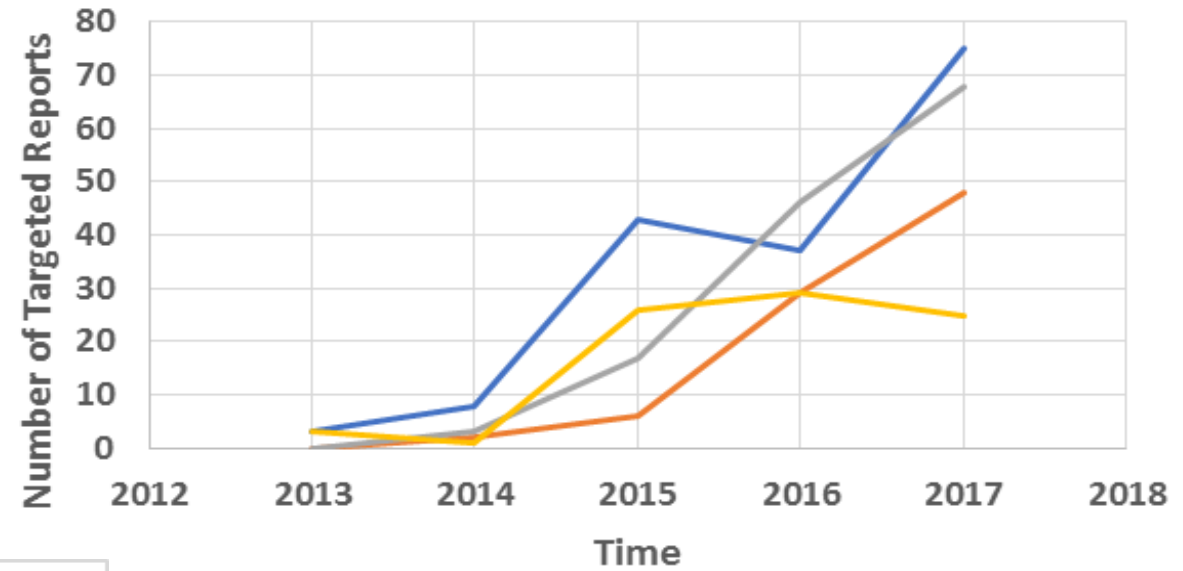
Resolved Time by Problem



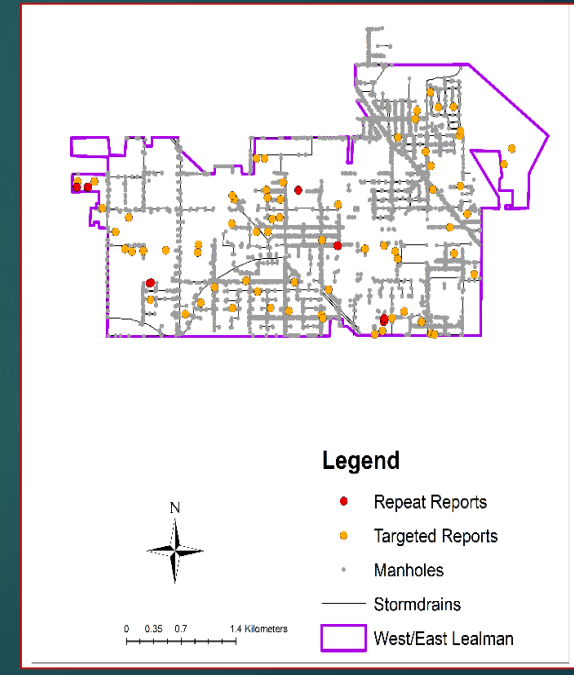
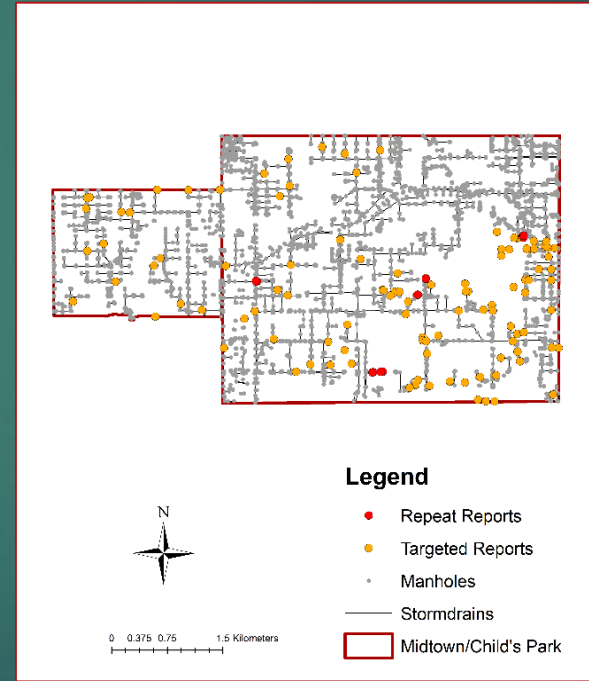
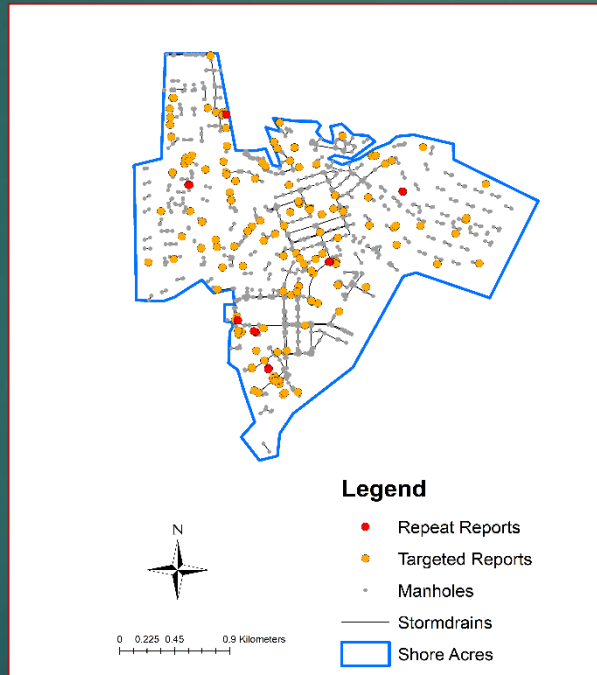
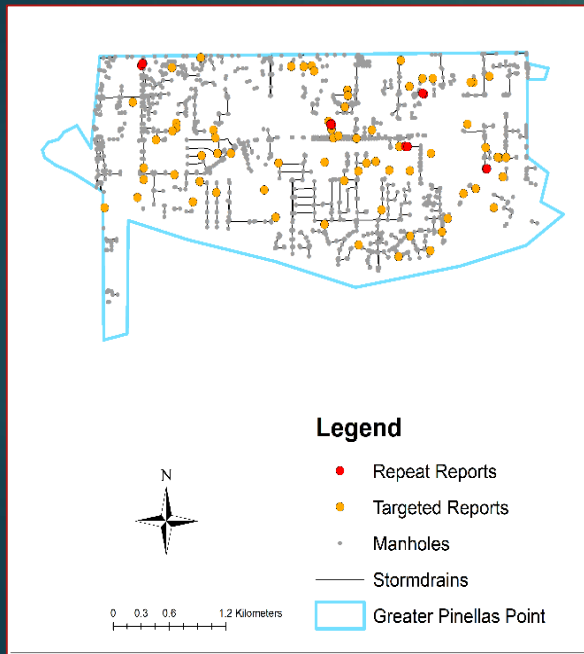
Reporting Trends Over Time (Targeted and All)



Cross Checking



Comparison of Storm Drains and Targeted and Repeated Complaints by Neighborhoods



Summary

The results of this study show that crowd-sourced data such as SeeClickFix, when mined and mapped

- ▶ Could be used by local officials to identify recurring problems,
- ▶ Make effective decisions about resource allocation,
- ▶ Foster Transparency

Implications

- ▶ Climate change is expected to lead to increase in frequency and intensity of extreme weather events such as hurricanes and flooding in Pinellas County, Florida and throughout the world.
- ▶ The steady increase of crowd-sourced reports over the study period suggests that crowdsourcing platforms such as SeeClickFix facilitate citizen participation in governance from marginalized communities, and has the potential to help local officials determine what type of vulnerabilities and resource allocation needs exist in diverse communities.

Acknowledgements



- ▶ Student Assistants:
 - ▶ Amada Fernandez
 - ▶ Jacob Hunt
 - ▶ Cassidy McGrane

- ▶ Funding: GISEBA 511224-07034