The Buzzards Bay Stormwater Collaborative Illicit Discharge Investigation Trailer



Town of Fairhaven Report

November 2022

MassDEP MS4 Municipal Assistance Grant Program 2020-2021

MassDEP MS4 Municipal Assistance Grant Program 2021-2022

Stormwater contract between the town of Fairhaven and Massachusetts Maritime
Academy FY22

Stormwater contract between the town of Fairhaven and Massachusetts Maritime Academy FY23

Collaborative Partners: Massachusetts Maritime Academy, Buzzards Bay National Estuary Program and the municipalities of Bourne, Wareham, Marion, Mattapoisett, Fairhaven, Acushnet, Dartmouth, and Westport.

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Fairhaven IDDE Report

Illicit Discharge Detection and Elimination Field Work during the weeks of 04/06/2021, 08/16/2021, 10/11/2021, 11/08/2021, 12/13/2021, 05/09/2022, 08/01/2022, 09/06/2022, and 10/03/2022.

This report summarizes the findings from the Buzzards Bay Stormwater Collaborative discharge investigation under the 2021 MassDEP Stormwater Investigation Trailer grant, the 2022 MassDEP Stormwater Investigation Trailer grant, a FY22 Stormwater contract between the town of Fairhaven and Massachusetts Maritime Academy, and a FY23 Stormwater contract between the town of Fairhaven and Massachusetts Maritime Academy. A total of 128 stormdrain networks were examined for illicit connections. Each storm drain network is made up of structures connected to one another that discharge to one point, the outfall pipe, and is referred to by a facility ID. Each network is a reflection of the stormwater catchment in which the structures collect stormwater and runoff. The purpose of an IDDE is to detect illicit connections that do not comply with the MS4 permit for stormwater discharges. There were two illicit connections detected in the observed storm drain networks. They have since been remediated. All other stormdrain issues found are minor and itemized in this report with recommendations of possible actions to address.

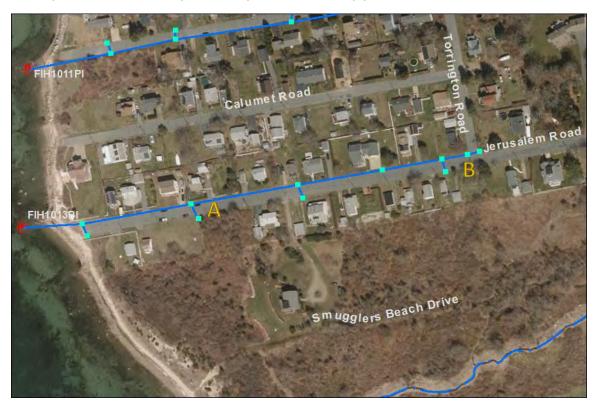
Within the networks surveyed, each structure was opened by the DPW and inspected for evidence of illicit connections. Any indications of odors, unusual colors, excessive trash or debris, sheens, suds, or structural issues were recorded. Each pipe entering the structure was recorded for size, type, and invert from the rim. Dry weather flow and standing water in the structure were also recorded. Direction to adjacent structures were verified and pipes with no apparent connection were checked with a camera or other method to best determine the situation. In areas with potential for a sewer cross connection the camera was used to inspect the pipe.

Some general observations for all the catchments visited: catchbasins are well maintained but a few had some composted debris accumulation; roadways and sidewalks were relatively clean in most areas; and there were some sump pump and yard drain connections to catchbasins. In one instance there was an interconnection between the sewer system and storm drain network.

Of these observations, the most significant was the interconnection between the town's sewer system and the stormwater system. The location of this interconnection was at the intersection of Union Street and William Street at the South East corner. The pipe connecting the stormwater catchbasin to the sewer system manhole was an eight-inch iron pipe located just under the lids of both structures. This required immediate attention. Since the first version of this report this interconnection has been remediated.

The data collected was used to update the Buzzards Bay National Estuary Program stormwater GIS. Despite the extensive mapping of the Fairhaven drain network that the team started with before the investigation, there were opportunities for many corrections and additions while going through the investigation process. Updated maps depicting the inspected networks are included below. Red stars indicate the outfall pipes, light blue squares for catchbasins, brown circles for drain manholes, and blue lines for connecting pipes. Issues found within the network are annotated. Issues and recommendations are included in the text below each map.

The area where the drain networks were inspected was located West of Alden Road, North and South of Huddleston Street. Below are the observations made for each of the 128 storm drain systems. Each drain system is referenced by the facility ID of the outfall pipe.



FIH1013PI – Jerusalem Road: at location A there was a broken drain pipe observed with ground water entering; water department determine it was not a waterline break; at location B a sheen that could be petroleum based was observed. Recommend pumping and cleaning catchbasin with the sheen.



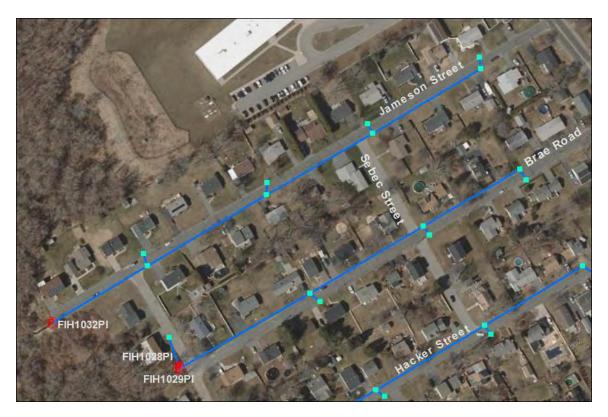
FIH1022PI – Manhattan Ave: no issues found but many of the catchbasins connect to the main drain line without a junction structure.



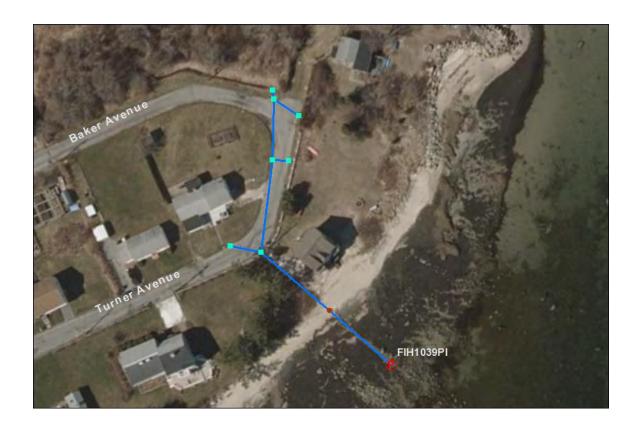
FIH1023PI, FIH1024PI, and FIH1025PI – Bay View Avenue: no issues found.



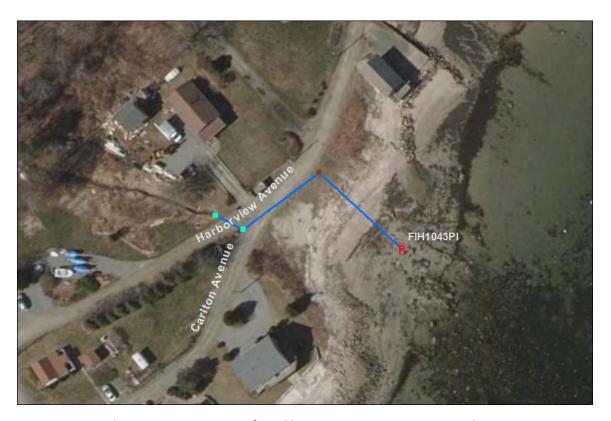
FIH1031PI – Hacker Street: no issues found. FIH1027PI – Highland Ave: last manhole in the network on Sconticut Neck Road (location A) has a blocked pipe directed towards a sewer manhole (15ft away). There was no odor but there appeared to be some composted material in the structure. Upon inspection, there was no indication of a connection in the sewer manhole but recommend pipe be capped and drain manhole cleaned.



FIH1028PI, FIH1029PI, and FIH1032PI – Brae Rd and Jameson St: no issues found.



FIH1039PI – Turner Ave: no issues found. Before inspection, this was mapped as two separate drain systems with one draining into the ditch; however the ditch pipe is an inlet and the entire system is connected and drains to the outfall pipe in the bay.



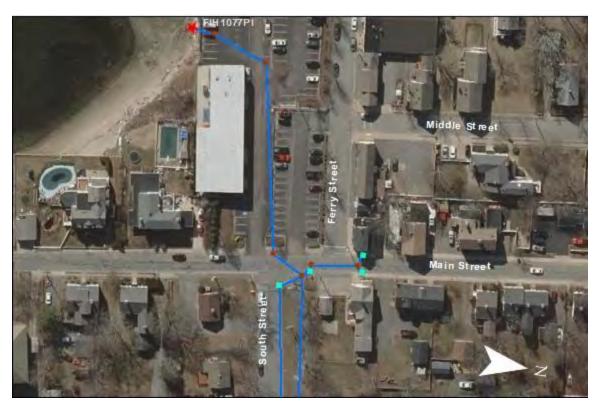
FIH1043PI – Harborview Ave: no issues found but structures are in poor condition.



FIH1072PI – Church St: no issues found; at location A the manhole structure is buried, a camera was used from the adjacent catchbasin to determine; at location B there is a collapsed 24-inch concrete pipe; and at location C there is a clay pipe that appears to be capped or blocked 2 feet from the structure.

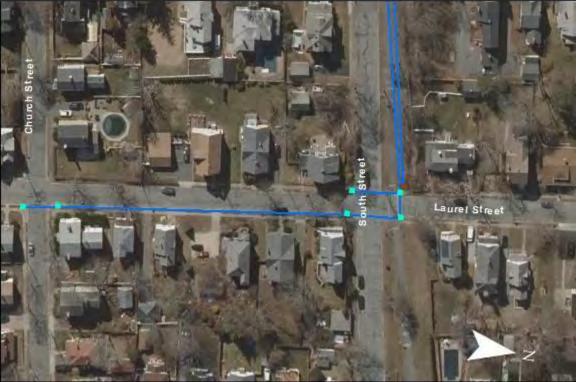


FIH1100PI – Pease Park on Middle St: suspected illicit connection; catchbasin at location A has a sump pump drain (6 in, PVC); connections from 75 and 77 Middle St were observed at basement level; the drain was flowing on 4/7/21 and tested off the scale for surfactants. Recommend a BOH or other appropriate authority inspection.

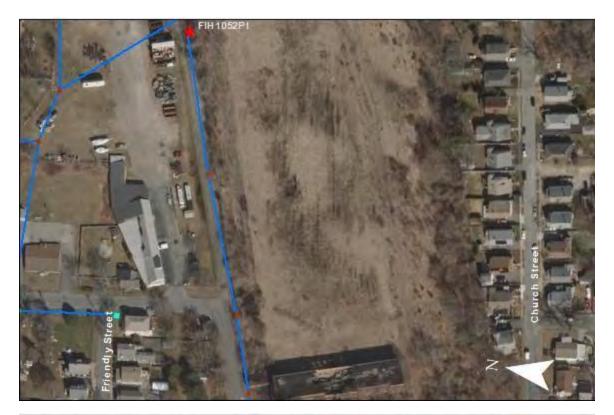








FIH1077PI- South Street: No issues found. At point A, a pipe exits the manhole. Its destination is unknown. Further investigation is recommended.





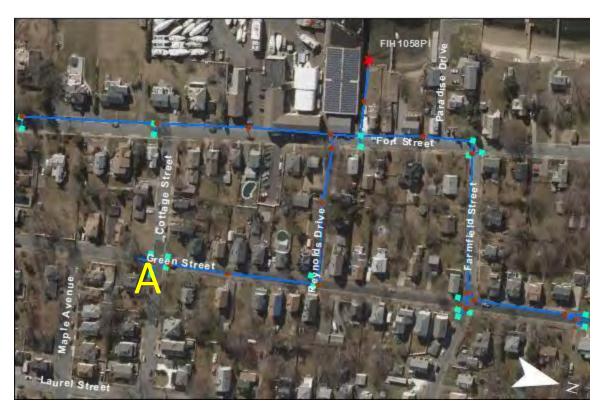
FIH1052PI- Adams Street, Pleasant Street, and Chestnut Street: No issues found.



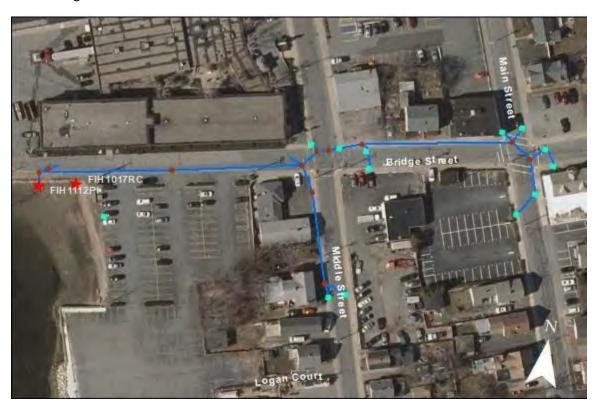
FIH1049PI and FIH1044PI- Vincent Street and Abbey Street: No issues found.



FIH1042PI- Cedar Street and Farmfield Court: No issues found. At point A, a pipe enters the catchbasin. Its origin is unknown, but it is likely it is remnant from a structure that is no longer in use.



FIH1058PI- Fort Street and Green Street: No issues found. At point A, a pipe enters the manhole. Its origin is unknown. Further investigation is suggested. Catchment needs an additional visit to complete the investigation further North on Green Street.



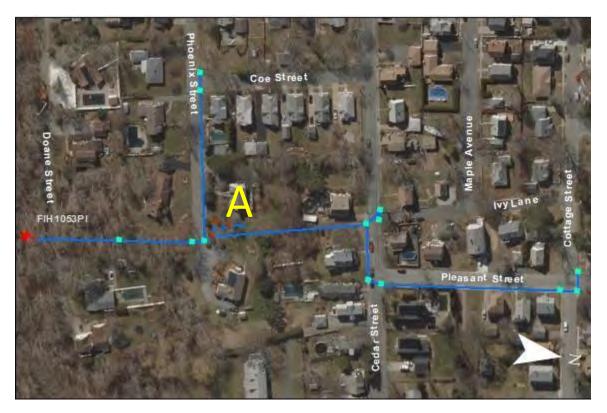
FIH1112PI and FIH1017RC- Middle Street, Bridge Street, Main Street: No issues found.



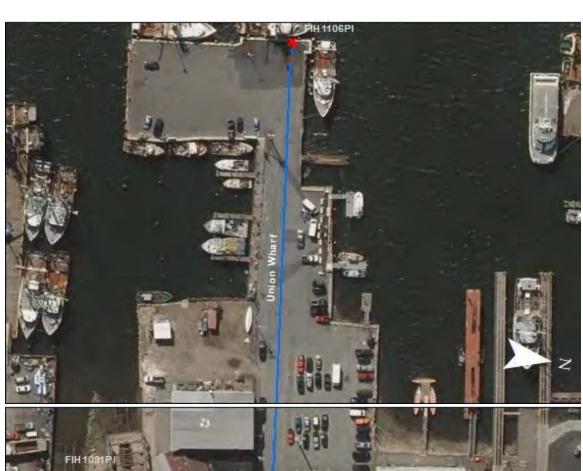
FIH1057PI, FIH1054PI, and FIH1012RC- Fort Phoenix: No issues found. A pipe enters the catchbasin at point A. Its origin is unknown. Further investigation is suggested. Also, multiple silt screens were found still deployed in several catchbasins in the parking lot of Fort Phoenix.



FIH1108PI- Middle Street and Cowen Street: No issues found.

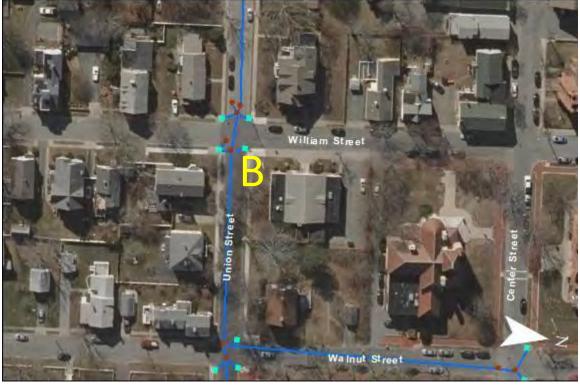


FIH1053PI- Phoenix Street, Cedar Street, and Pleasant Street: No issues found. At point A there is a very old manhole with a pipe entering and exiting. The origin and destination of these pipes is unknown.











FIH1106PI- Union Street: At point A, a pipe enters the catchbasin. The origin of the pipe is unknown. At the corner of William Street and Union Street, at point B, there is a connection between the stormwater system and the sewer system. This needs immediate attention. Since the first version of this report the connection has been blocked. Is now in good order.



FIH1091PI- Water Street: No issues found.



FIH1094PI- Washington Street: No significant issues found. The manhole at point A is cracked and needs to be replaced.



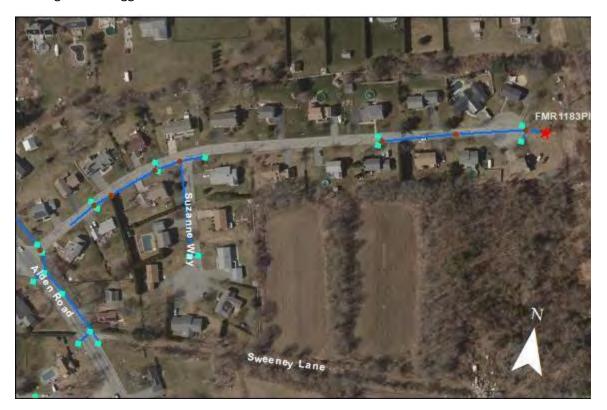
FIH1090PI (1/3)- Middle Street, Main Street, and Washington Street: No issues found.



FIH1090PI (2/3)- Cushman Park: No issues found.



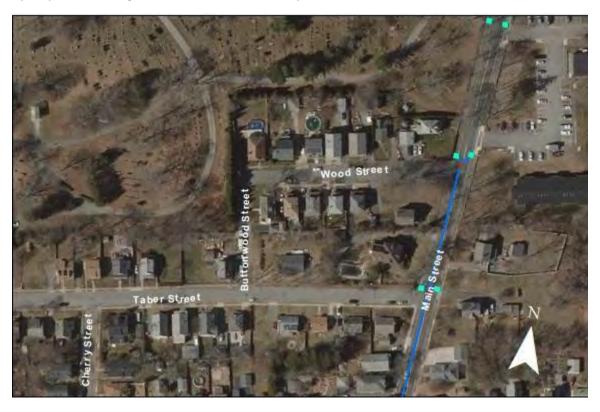
FIH1090PI (3/3)- Green Street, Spring Street, Christian Street, Rodman Street, and Laurel Street: No issues found. Pipe enters catchbasins at points A and B. The origin of these pipes is unknown. Further investigation is suggested.

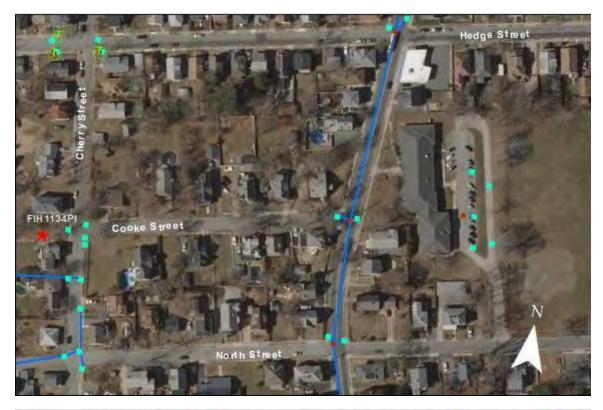


FMR1183PI- Laura Lane: No issues found. The connection between Laura Street and Alden Road has not been inventoried. Further investigation is recommended. No structures on Alden Road were investigated. A police detail will be needed for all structures located on Alden Road.



FIH1123PI- Main Street: No issues found. Note that this catchment is connected to catchment FIH114PI by way of an underground culvert illustrated at point A.







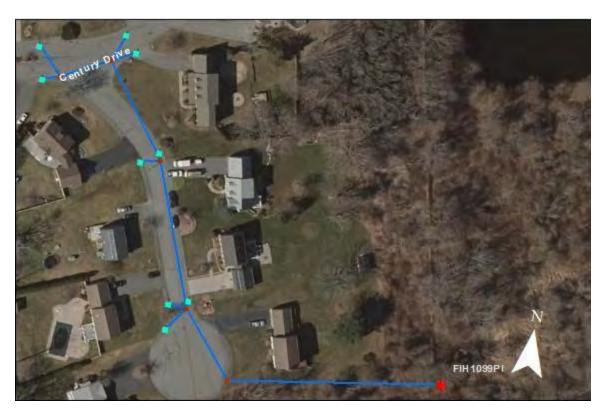
FIH1130PI, FIH1129PI, and FIH1128PI- Pilgrim Avenue, Cherry Street, and Main Street: No issues found. The catchbasin at point A has a silt screen on it. Removal of the silt screen is recommended.



FIH1180PI- Main Street: No issues found.



FIH1179PI- Main Street: No issues found. The manhole at point A has an incoming pipe with an unknow destination. Further investigation is suggested.



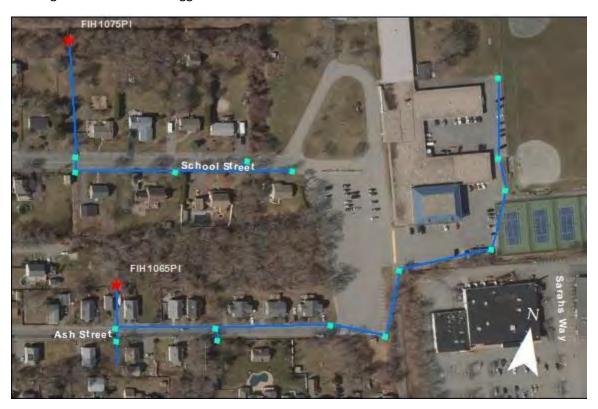
FIH1099PI- Kacy Lane and Century Drive: No issues found.



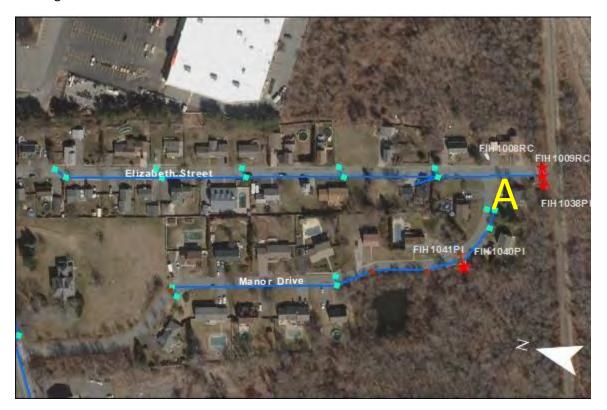
FIH1133PI- West Street: no issues found.



FIH1036PI and FIH1037PI- David A Drown Boulevard and Alden Road: No issues found. At points A and B there are pipes entering the manholes in the direction of the back lot of The Berdon Plaza. Further investigation of that lot is suggested.



FIH1075PI and IH1065PI- Ash Street and School Street: No issues found. Structures next to and behind the school were not investigated due to the parking lot being full during school hours. Further investigation when school is out of session is recommended.



FIH1008RC, FIH1009RC, FIH1038PI, FIH1040PI, and FIH1041PI- Elizabeth Street and Manor Drive: No issues found. Catchbasin at point A has an incoming pipe with an unknown origin. Further investigation is suggested.



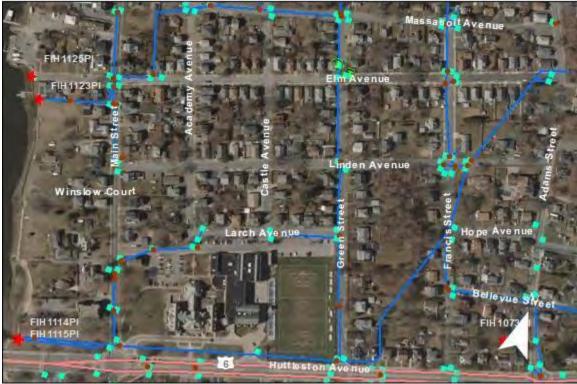
Spring Street: No issues found. Maps suggested that the West most catchbasin pictured above was connected to the basin at the corner of spring street and Green Street. There were no indications observed in the field to confirm this. Further investigation is suggested to determine its connection to a catchment.



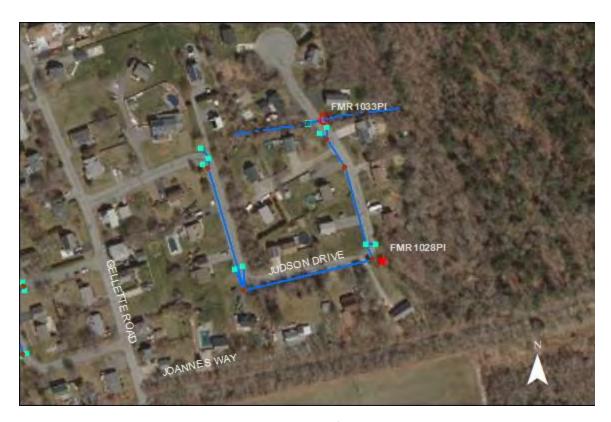


FMR1060PI and FMR1227PI- Evergreen Street and Babbitt Street: No issues found. Multiple structures have incoming pipes with unknow origins. Further investigation is recommended.





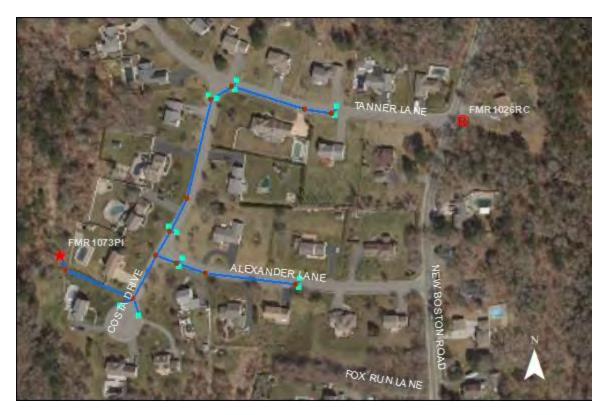
FIH1114PI- Green Street, Francis Street, Massasoit Avenue, Hedge Street, Castle Street, and North Street. No issues found.



FMR1028PI and FMR1033PI- Judson Drive: No issues found.



FMR1239PI- Suvenchy Drive: No issues found.



FMR1073PI- Costa Drive, Alexander Lane, and Tanner Lane: No issues found.



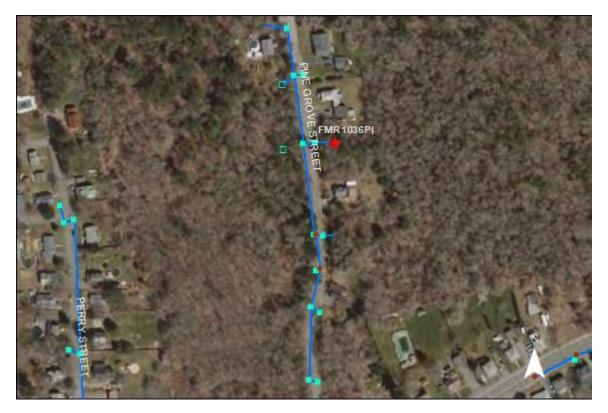
 ${\sf FMR1083PI} \ and \ {\sf FMR1240PI-Tanner\ Lane:} \ No\ issues\ found. \ Newly\ found\ outfall\ inventoried.$



Sylvia Street and Perry Street: At point A and B the catchbasins are sinking. The brick on the inside of the structures is crumbling. Further maintenance is strongly recommended. At point C a pipe exits the catchbasin towards the woods. This pipe is no longer in use. Both catchments drain onto Huttleston Avenue and interconnect to the state's stormwater system as shown by the yellow circles above.



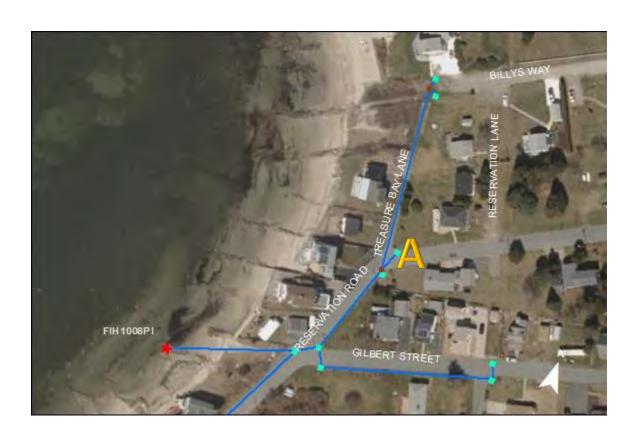
FMR1029PI- Kane Street: No issues found.



FMR1036PI- Pine Grove Street: No issues found.



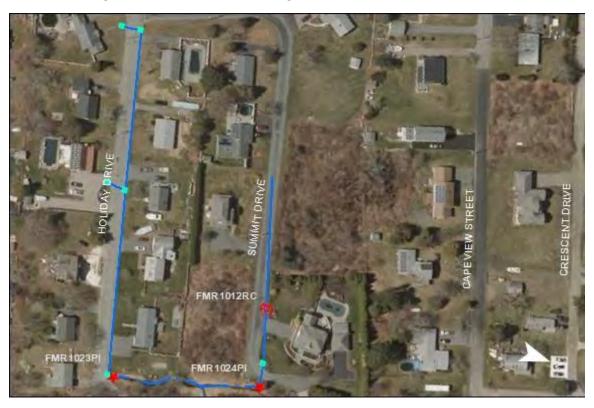
FIH1009PI- Bernese Street, Raymond Street, and Reservation Road: At point A the catchbasin is in need of repair.



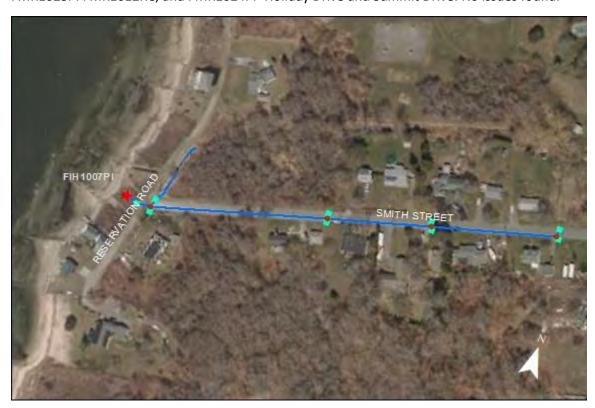
FIH1008PI- Reservation Road, Treasure Bay Lane, and Gilbert Street: At point A the catchbasin is in need of repair.



FMR1027PI- Raymond Street: No significant issues found. At point A, a 12" concrete pipe enters the manhole. Its origin is unknown. Further investigation is recommended.



FMR1023PI FMR1012RC, and FMR1024PI- Holiday Drive and Summit Drive: No issues found.



FIH1007PI- Smith Street: No issues found.

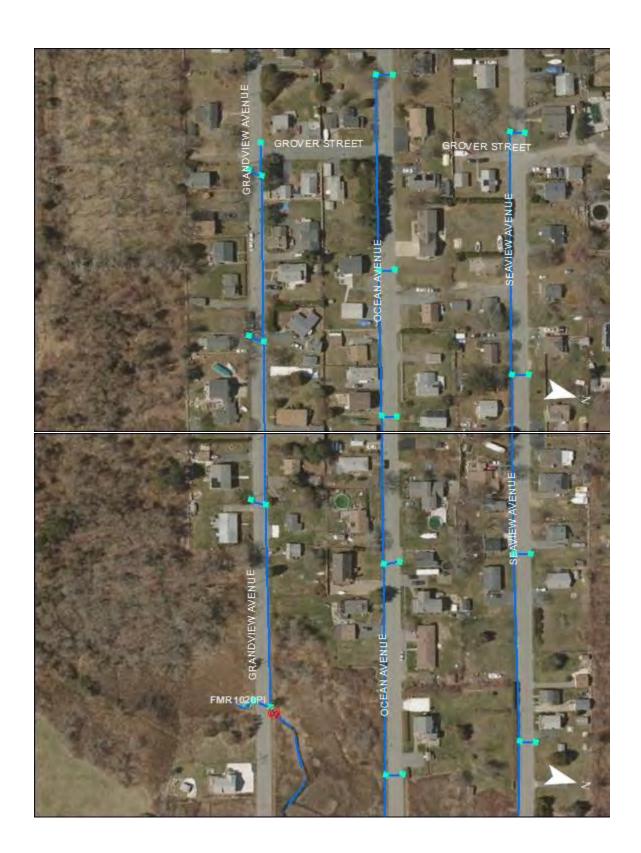


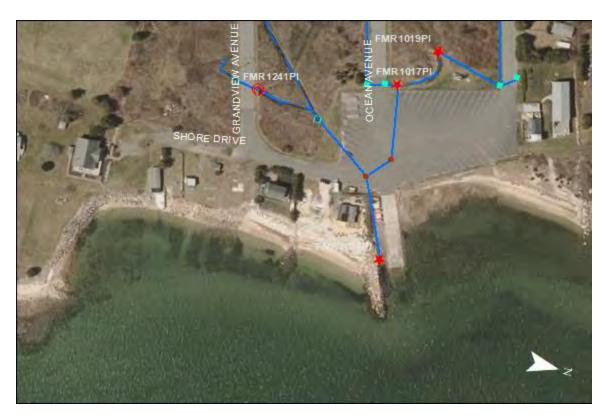
FIH1013PI, FIH1021RC- Jerusalem Road and Calumet Road: Unnatural color observed at points A and B. Further investigation is recommended.



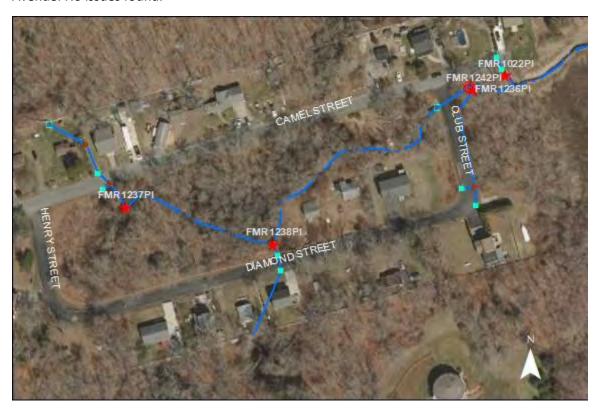


FIH1010PI and FIH1011PI- Briercliff Road and Sedgewood Road: At point A the bricks on the inside of the catchbasin are missing or starting to crumble. Preventative maintenance is recommended. The catchbasin had suds in the water of the sump of the basin. There was a sump pump coming from house #42. Could not confirm if the soap was from the pipe or from recent car washing. Further investigation is recommended. No issues found on Sedgewick Road.

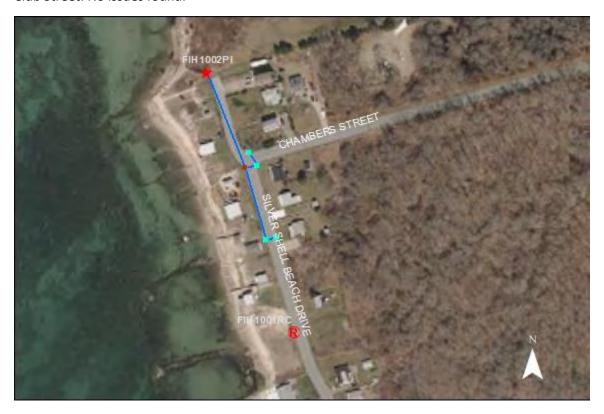




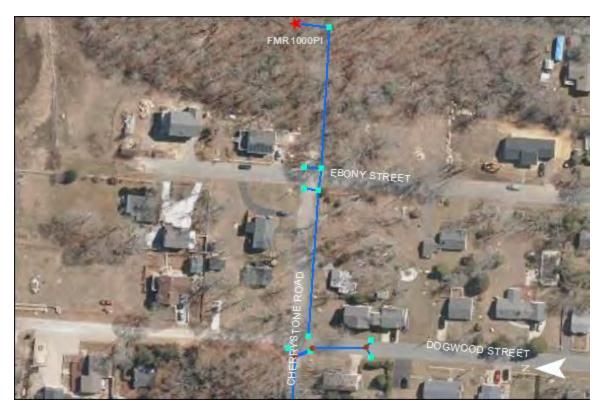
FIH1224PI, FMR1015PI, FMR1017PI, and FMR1019PI- Grandview Avenue, Ocean Avenue, and Seaview Avenue: No issues found.



FMR1237PI, FMR1238PI, FMR1236PI, FMR1242PI, and FMR1022PI- Camel Street, Diamond Street, and Club Street: No issues found.

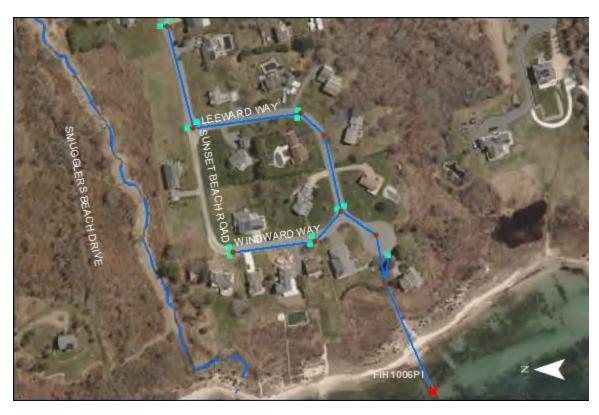


FIH1002PI and FIH1001RC- Silver Shell Beach Drive: No issues found.





FMR100PI and FMR1001PI- Cherry Stone Road: At point A the catchbasin is sinking. Further maintenance is recommended. Lots of fox excrement was observed in numerous basins and manholes.

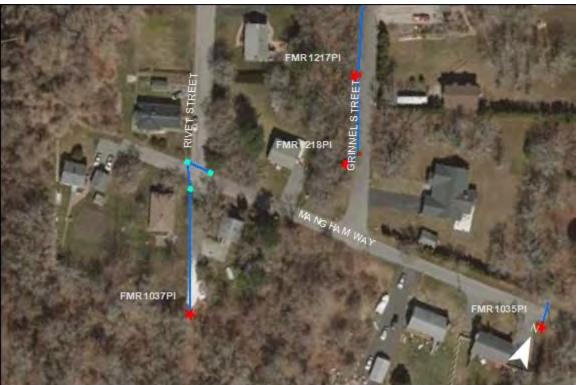


FIH1006PI- Windward Way and Leeward Way: No issues found.



FMR1025PI- Forestview Drive: No issues found.





FMR1050PI, FMR1049PI, FMR1217PI, FMR1218PI, FMR1037PI, and FMR1035PI- Mangham Way and Grinnel Street: No significant issues found. At point A, a pipe enters the catchbasin. Its origin is unknown. Further investigation is recommended.



FMR1065PI- Weeden Place: No issues found.



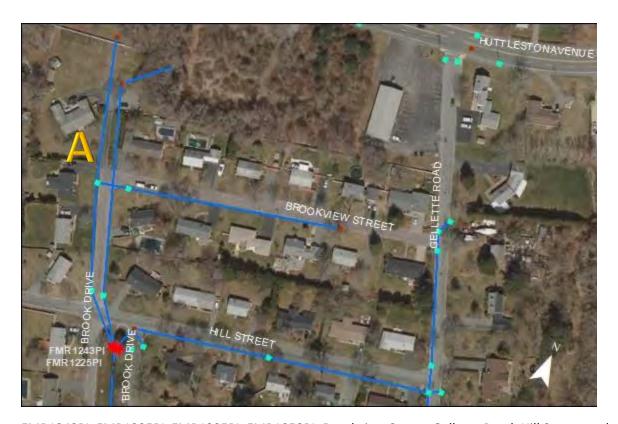
FMR1235PI- Angies Way: No issues found.



FMR1059PI- Weeden Road and Mark Drive: No significant issues found. At point A, a 12" concrete pipe enters the manhole. Its origin is unknow. Further investigation is recommended.



FMR1061PI- Weeden Road, Studley Street, and Jenna Drive: No issues found.



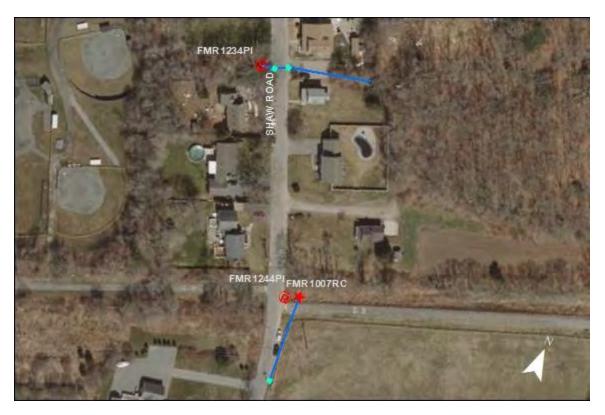
FMR1243PI, FMR1225PI, FMR1225PI, FMR1058PI- Brookview Street, Gellette Road, Hill Street, and Brooke Drive: No significant issues found. The catchbasin at point B has an incoming pipe. Town maps indicate it connects to a manhole behind house #347 on Route 6. Homeowner would not allow us on property. Connection not confirmed.



FMR1057PI, FMR1055PI, FMR1052PI, and FMR1051PI- Brook Drive: No issues found.



FMR1083RC, FMR1085RC, FMR1084RC, FMR1226PI, and FMR1041PI- Brook Drive: At point A the catchbasin is inking. Further maintenance is recommended.



FMR1234PI, FMR1244PI, and FMR1007RC- Shaw Road: No issues found. New outfall inventoried.

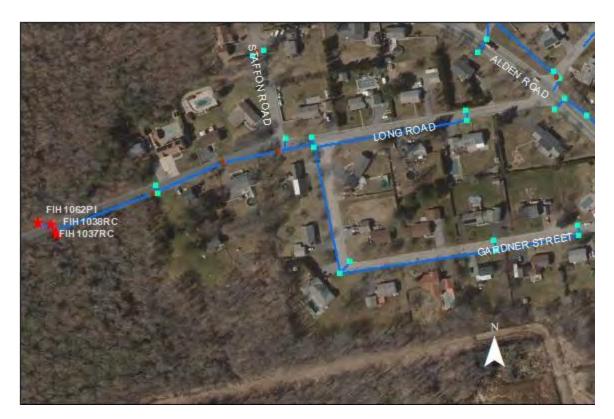


FMR1232PI, FMR1233PI, FMR1234PI- Shaw Road: No issues found.

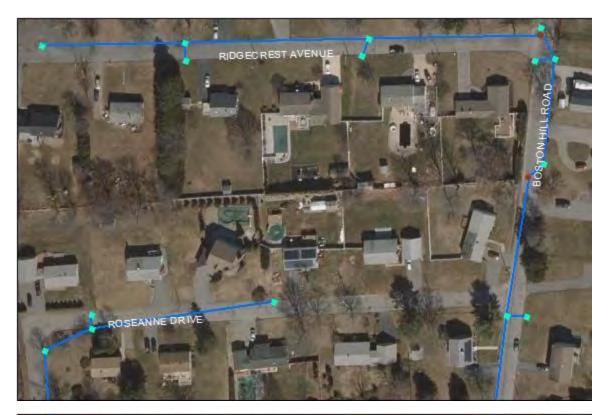


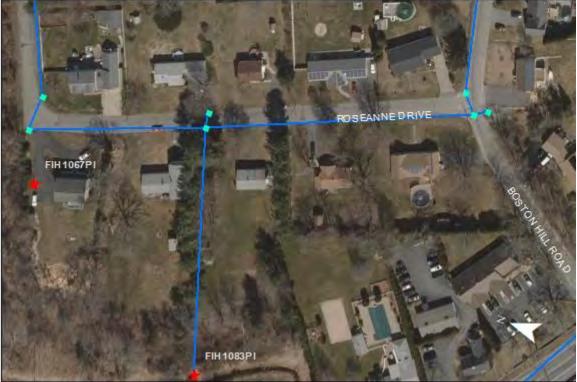


FMR1046PI and FMR1047PI- Stephen Street and Evergreen Street: No issues found.



FIH1062PI, FIH1038RC, and FIH1037RC- Long Toad and Gardner Street: No issues found.





FIH1083PI- Ridgecrest Avenue, Boston Hill Road, and Roseanne Drive: No issues found. Need to revisit.



FMR1090PI and FMR1089PI- Mill Road, Eddy Street, and Prince Street: The catchbasins at A, B, C, D, and E are sinking. Further maintenance is recommended.



Teal Circle- No issues found.



FMR1092PI- Hiller Avenue: No issues found.



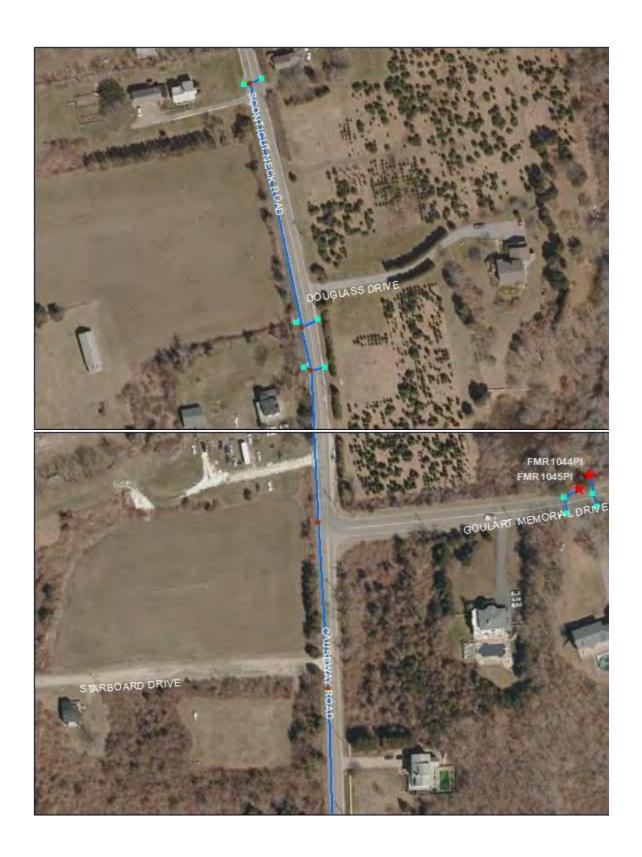
John Street and Timothy Street: No issues found. Sconticut Neck Road was not visited. Police detail is needed to complete.



Fairhaven Highschool- No issues found. Need to revisit.

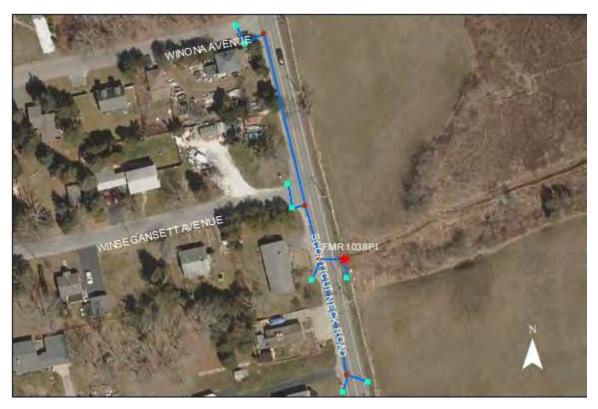


FIH1012PI- Causeway Road: No issues found.





FIH1003PI- Causeway Road: No issues found.



FMR1038PI- Sonticut Neck Road: No issues found.



FMR1045PI and FMR1044PI- Goulart Memorial Drive: No issues found.



FMR1034PI- Goulart Memorial Drive: No issues found.



FMR1030PI, FMR1032PI, and FMR1228PI- Goulart Memorial Drive: No issues found.



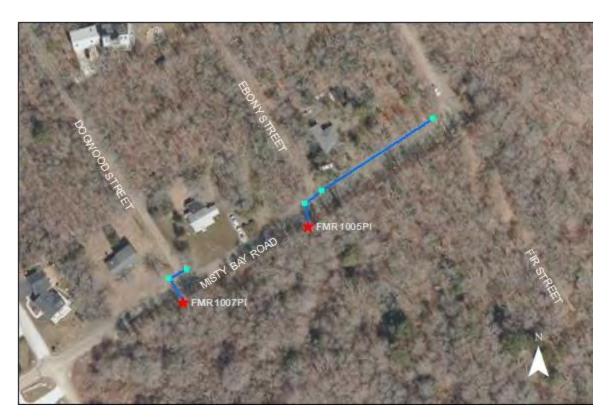
FMR1026PI- Goulart Memorial Drive: No major issues found. At point A the catchbasin cover has two broken corners.



FMR1016PI- Goulart Memorial Drive: No issues found.



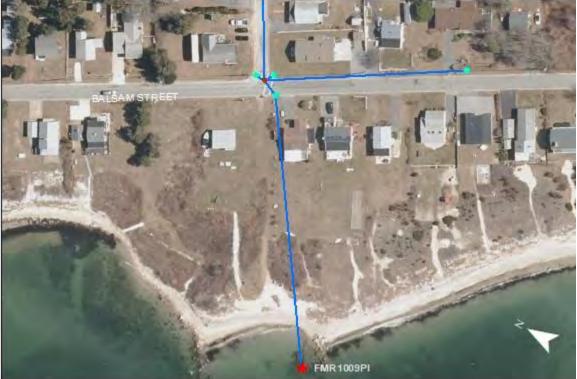
FMR1013PI and FMR1014PI- Sconticut Neck Road: No major issues found. At point A catchbasin is sinking.



 $\label{lem:fmr1007PI} \textbf{FMR1005PI- Misty Bay Road: No issues found.}$





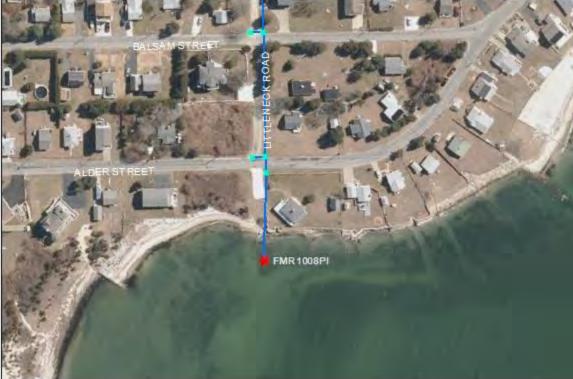


FMR1009PI- Fishermans Road: No issues found.



FMR1010PI- Gull Island Road: Catchbasin at point A is sinking. Further maintenance is recommended.





FMR1008PI- Little Neck Road: No issues found.

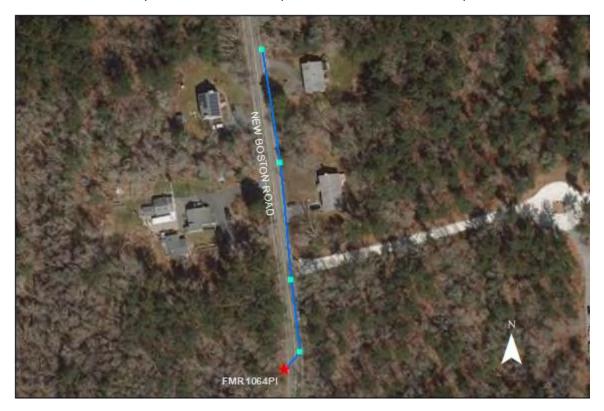




FMR1002PI- Bluepoint Road: No major issues found. There were multiple structures that had pet waste bags in them. Community outreach is suggested for proper disposal.



FMR1006PI- Causeway Road: Catchbasins at point A and B are in need of repair.



FMR1064PI- New Boston Road: No issues found.



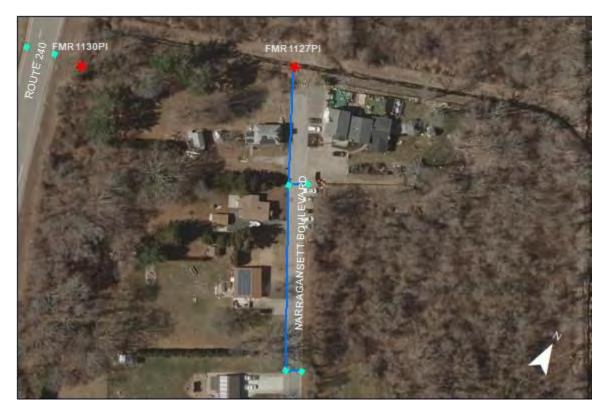
FMR1079PI- New Boston Road: No issues found.



FMR1087PI and FMR1086PI- New Boston Road: No issues found.



FMR1037RC and FMR1094PI- New Boston Road: No issues found.



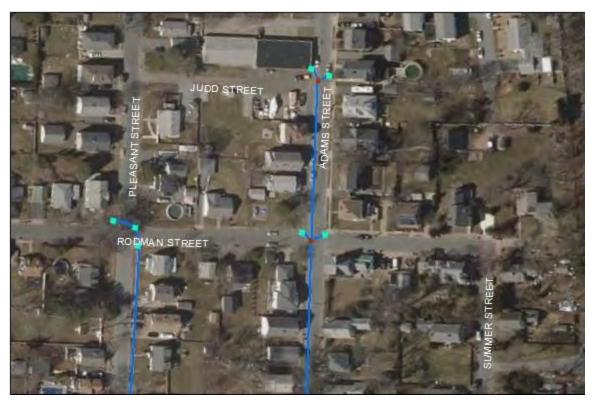
FMR1127PI- Narragansett Boulevard: No issues found.



FMR1219PI and FMR1220PI- Narragansett Boulevard: No issues found.



FMR1108PI, FMR1106PI, FMR1221PI- Narragansett Boulevard, Elmwood Avenue, and Winter Street: No issues found.

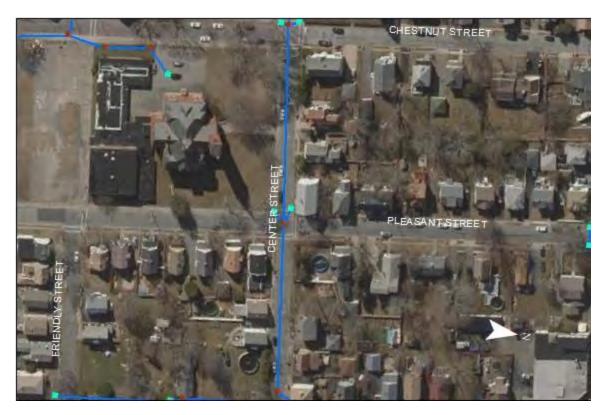






(1/2) FIH1051PI- Adams Street: At point A and B the structures were full of water. Likely that there is a blockage in each one. Friendly Street floods during rain events. Further maintenance is highly suggested.

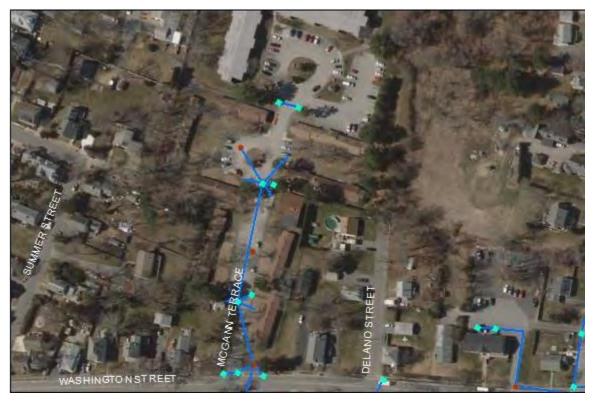


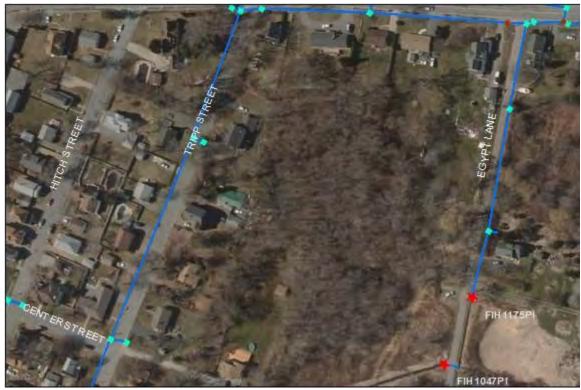


(2/2) FIH1051PI- Center Street: No issues found.



FIH1050PI- Hitch Street: no issues found.







(1/2) FIH1048PI and FIH1175PI- Tripp Street, Egypt Lane, Washington Street, and McGann Terrace: No issues found.



(2/2) FIH1048PI- Washington Street, Sunset Lane, and Temple Place: Catchbasins at point A, B, and C have begun to sink. Further maintenance is suggested.