

**The Buzzards Bay Stormwater Collaborative
Illicit Discharge Investigation Trailer**



Town of Mattapoisett Report

June 2023

MassDEP MS4 Municipal Assistance Grant Program 2020-2021

MassDEP MS4 Municipal Assistance Grant Program 2021-2022

FY23 Stormwater Contract IDDE Trailer

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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Mattapoisett IDDE Report

Illicit Discharge Detection and Elimination Field Work has been conducted during April and July of 2021, May of 2022, and the Spring of 2023.

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, and a FY23 Stormwater Contract between the Town of Mattapoisett and Massachusetts Maritime Academy. A total of 83 storm drain networks were examined for illicit connections. Each storm drain network is a collection of connected structures that discharge to one point and is referred to by the facility ID of the outfall pipe. 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 no illicit connections detected in the observed storm drain networks. The storm drain 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 and clean but a few had some debris accumulation; roadways and sidewalks were clean of pet waste; and there were several sump pumps and yard drain connections to catchbasins. This investigation identified at least two interconnections between the town drainage and state drainage systems. One was at the intersection of Railroad Avenue and Route 6. Another interconnection is suspected at the intersection of Main Street and Route 6.

A difficult investigation area is the drainage at the intersection of Church Street and Main Street. There is an underground culvert that connects some of the structure pipes and this presents high potential for illicit connections. A different type of camera is required for a covered culvert of this nature. Additional work in this area should be done.

Another important problem to be addressed is the catchbasin at the end of the driveway to house #5 on Crestfield Street. There is 50+ dog waste bags. Although this basin and the catchment it is apart of is outside the urbanized area this problem should be addressed with community outreach. The basin should be cleaned out as soon as possible.

The data collected was used to update the Buzzards Bay National Estuary Program stormwater GIS. Despite the extensive mapping of the Mattapoisett 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 outfall pipes, light blue squares show catchbasins, brown circles show drain manholes, and blue lines show connecting pipes. Drainage interconnections are shown as red circles filled with yellow. Issues found within the network are annotated. Issues and recommendations are included in the text below each map.

The areas inspected were the drain networks located in the watershed of Tub Mill Brook with the exception of Upland Way and Hitching Post Road. As well as the neighborhoods South and North of Route 6. Below are the observations made for each of the 83 storm drain systems. Each drain system is referenced by the facility ID of the outfall pipe and street name.



TMR1076PI – Mendell Road: No issues found; note that vehicle washing in front of the DPW garage will enter this system, recommend avoiding the use of detergents and address spill prevention. TMR1077PI – Acushnet Road: No issues found; the pipes from both directions enter into the culvert for Tub Mill Brook.



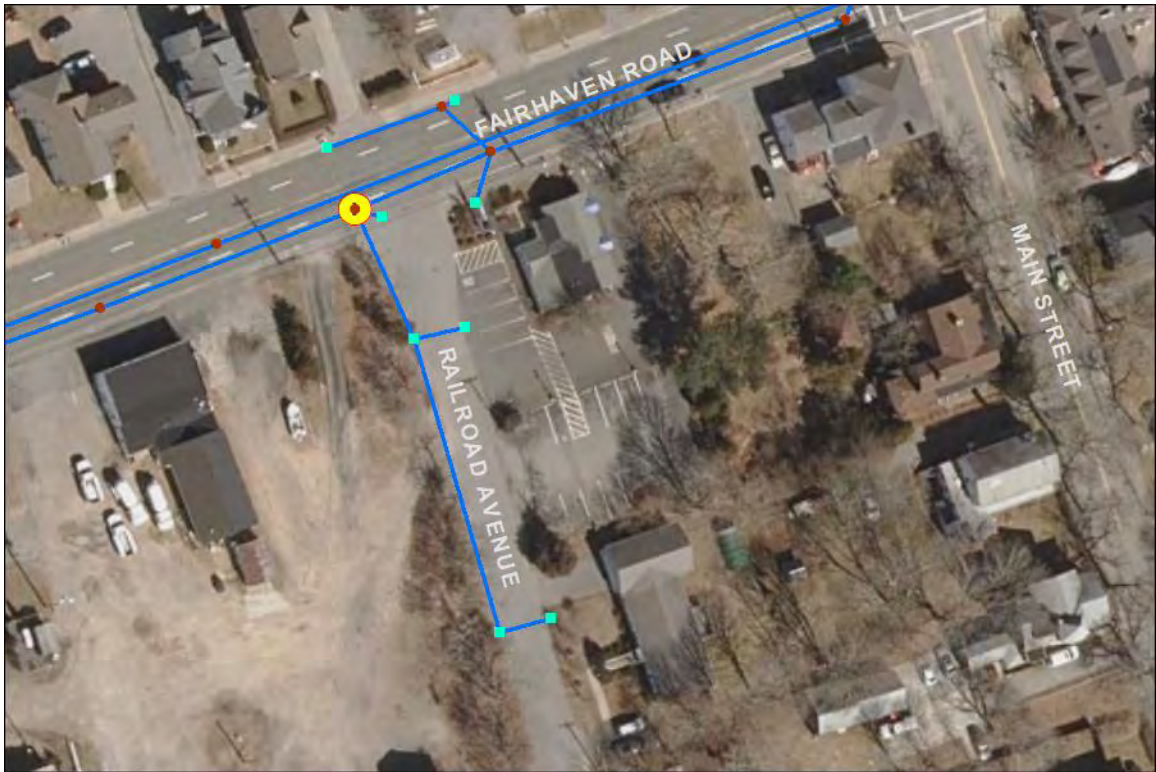
TMR1083PI – Barlow Lane: Private road; outfall pipe could not be found; structures are in poor condition; recommend that the owner be compelled to repair structures.



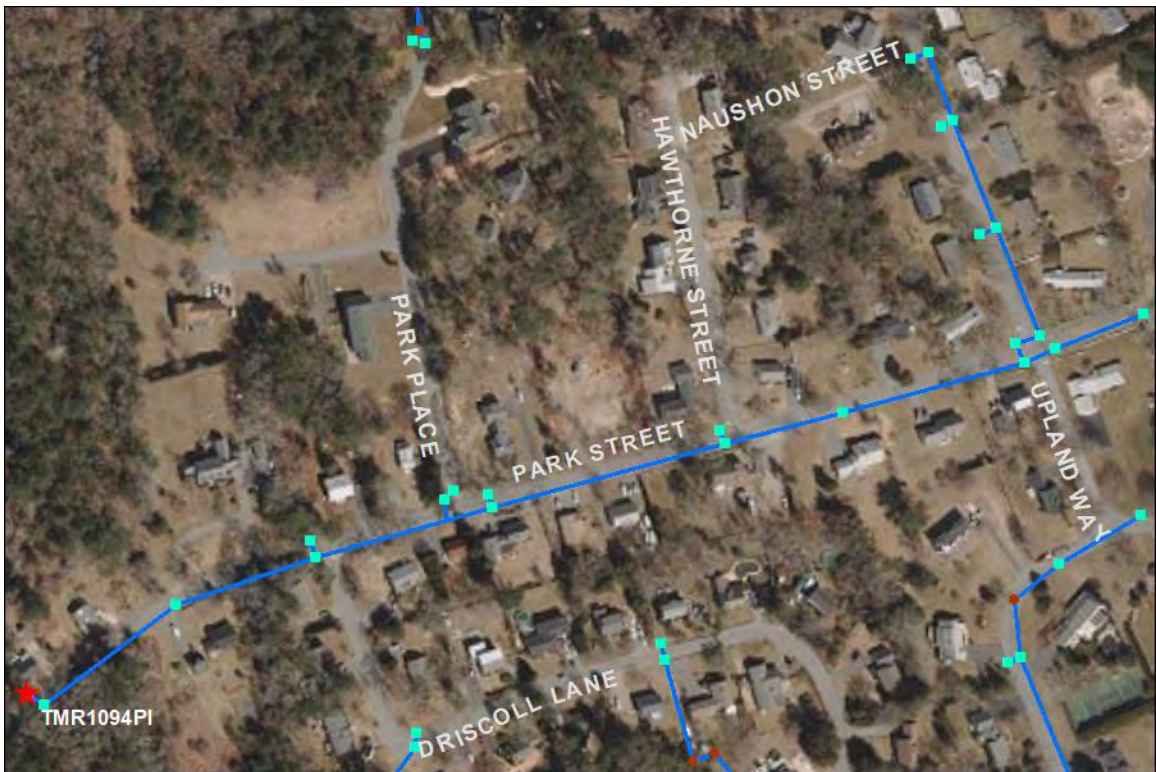
TMR1102PI and TMR1281PI – Park Place: No issues found; the system includes structures to retain high flows; the outfall was recently moved to accommodate the construction of another home; some catchbasins in this area require cleaning.



TMR1087PI and TMR1081PI – Driscoll Lane: No issues found; the two manhole junctions shown behind homes have concrete covers and could not be inspected; several sump pump drains were observed but none were flowing; the ground water flow at outfall TMR1081PI was tested for detergents but none were detected.



Railroad Avenue: No issues found; the activities to the West could be industrial and impact these catchbasins; recommend testing sumps for evidence of oil; these structures drain to an interconnection on Route 6.



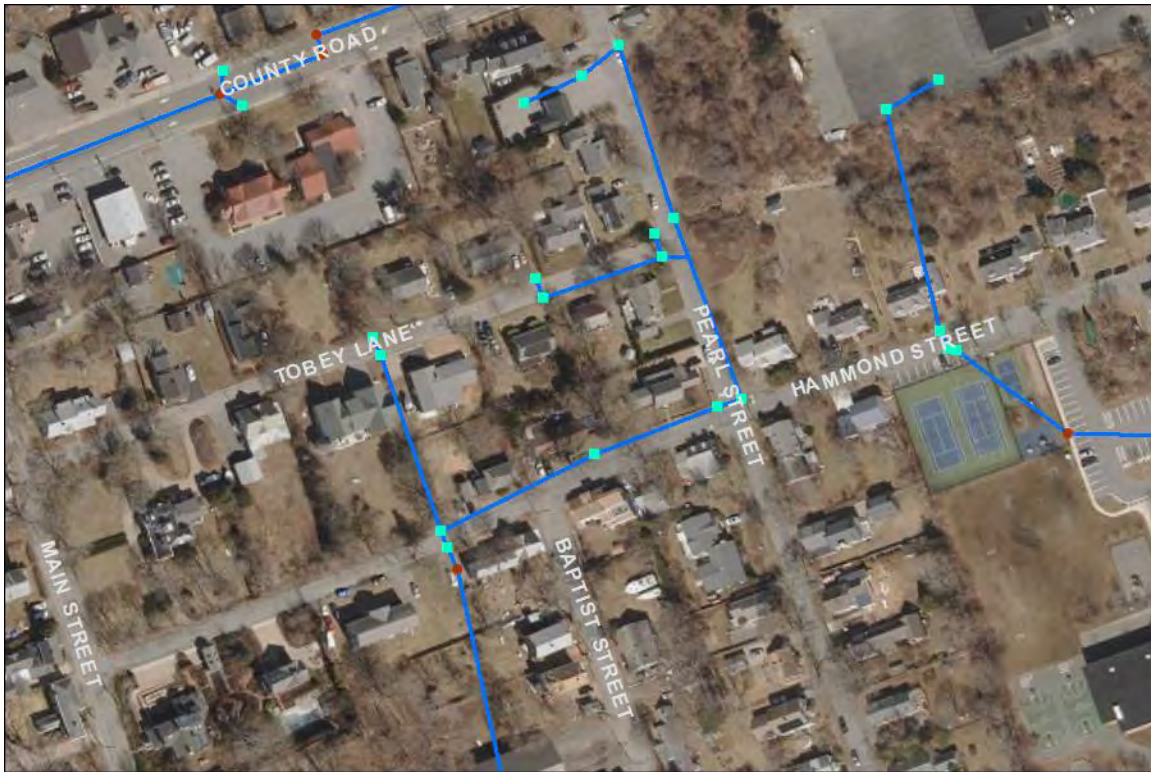
TMR1094PI – Park Street: No issues found; this large network drains into a channel at 17 Park Street and will also drain into the wetland across the street; the wetland flows in the direction of the channel when no storm flow is present.



TMR1092PI (culvert) and TMR1284PI (outfall) – Park Street: No issues found; the boat yard appears to drain into this system; several dead-end pipes observed that are perhaps installed for future drain expansion.



Housing Authority at Village Court: No issues found; TMR1075PI and TMR1283PI are simple culverts; TMR1074PI and TMR1072PI drain one catchbasin each; TMR1282PI could not be found; Main Street may connect to Route 6.



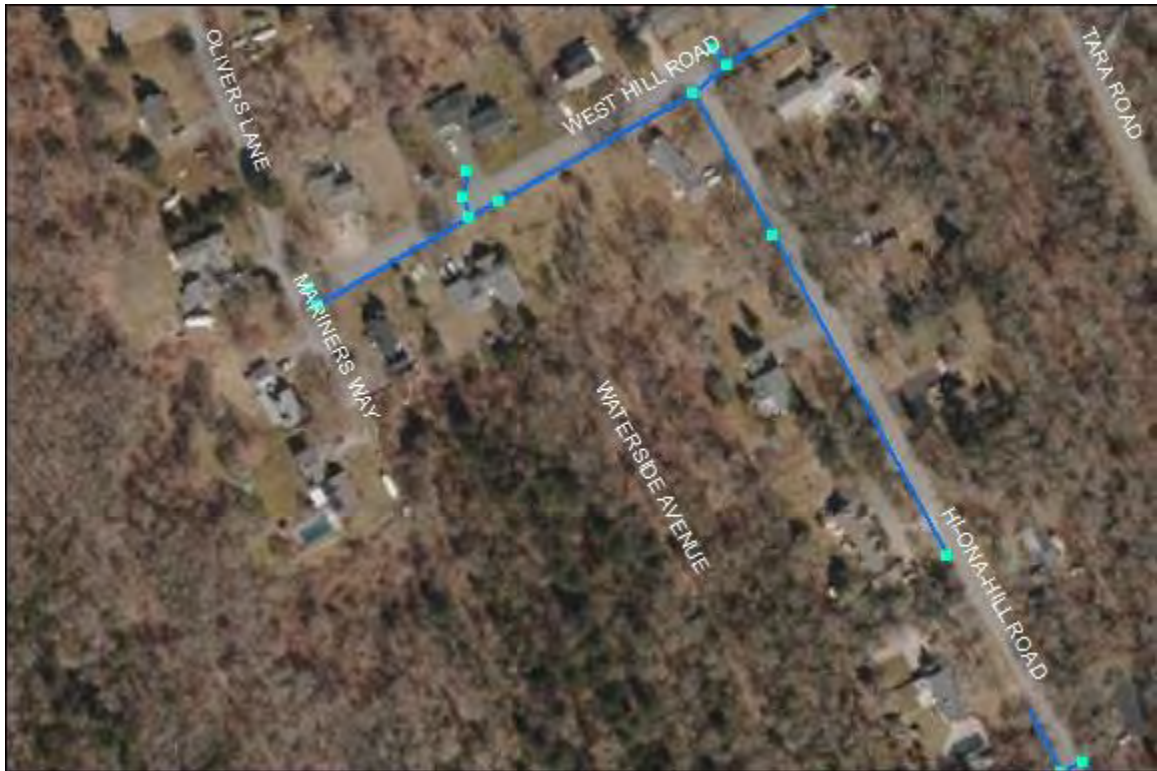
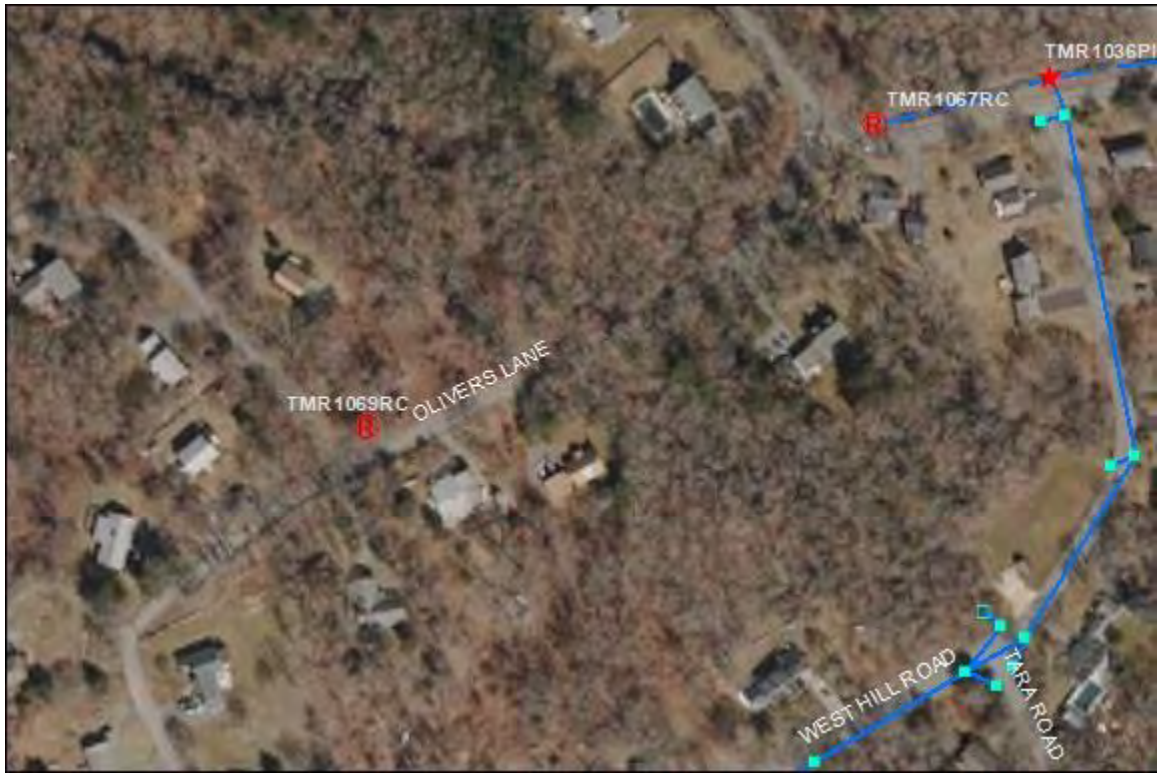
TMR1058PI – Main Street: No issues found; this is an extensive network and cumulates into a covered culvert with several pipes entering it across Main Street; catchbasins on Church Street and Baptist Street require cleaning.



Upland Way and Hitching Post Road: No issues found; blocked pipes were reported and an attempt to jet the obstruction was made; the source of the problem is a poorly installed bend in the pipe at the location marked A; this storm drain network continues South across Route 6 and then to the Bay; there may be a state interconnection at Route 6; this investigation stopped at Hitching Post Road.



TMR1285PI, TMR1014PI, and TMR1008PI- Brant Beach Avenue and Ocean View Avenue: No issues found. At point A there is an 8" PVC pipe that enters the catchbasin. Its origin is unknown. Further investigation is recommended.



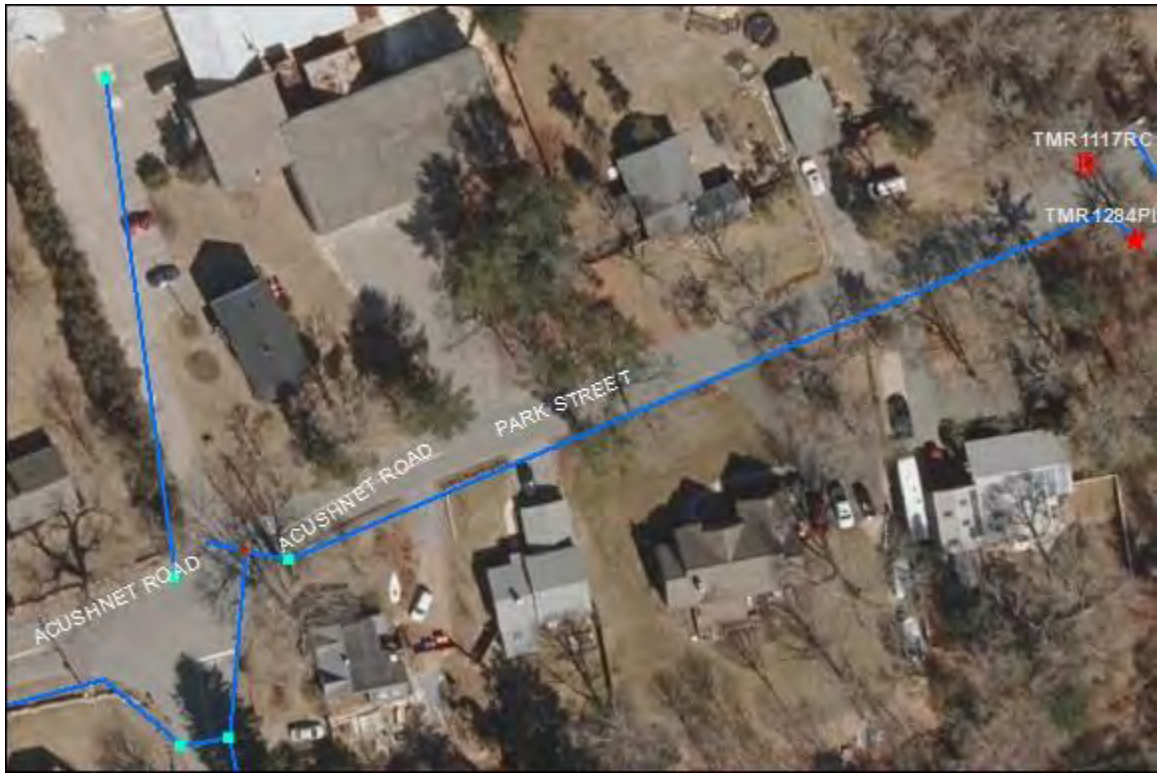
TMR1036PI, TMR1067RC, and TMR1069RC: West Hill Road, Hi-Ona-Hill Road, and Olivers Lane: No issues found.



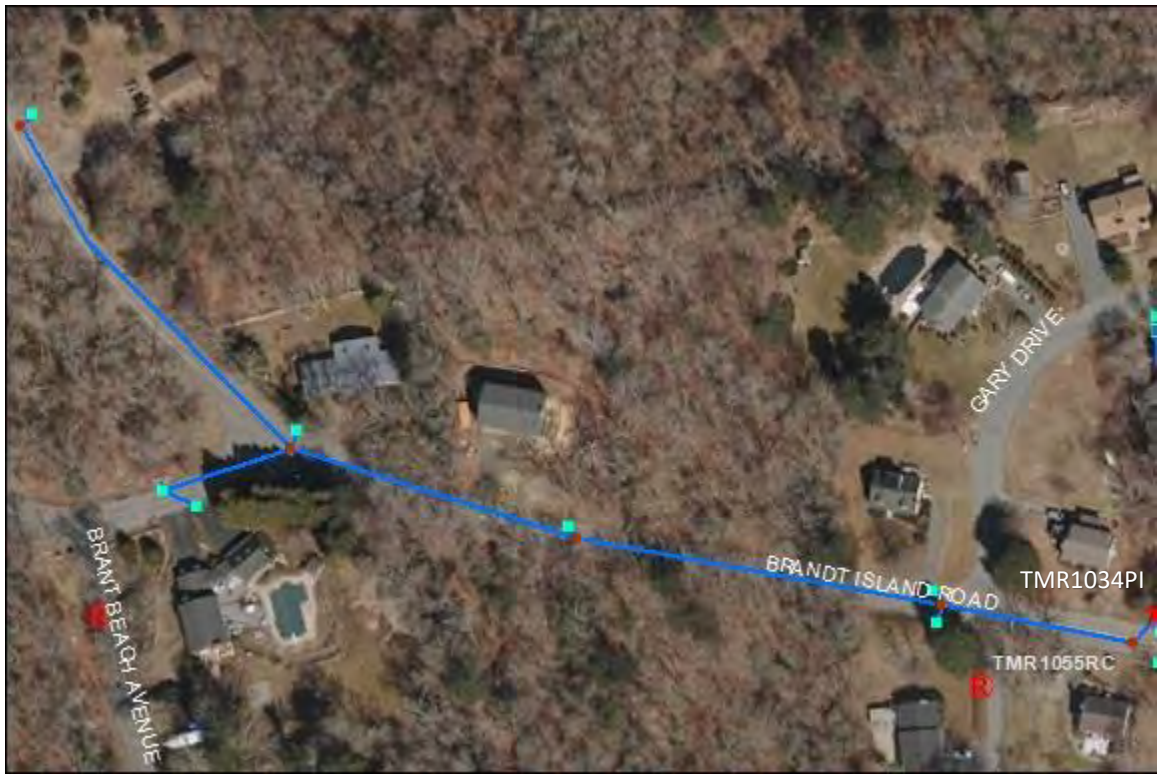
TMR1015PI- Tara Road, Hi-Ona-Hill Road, and Anchorage Way: No significant issues found. At point A and B, the catchbasins are both beginning to sink. Preventative measures are recommended.



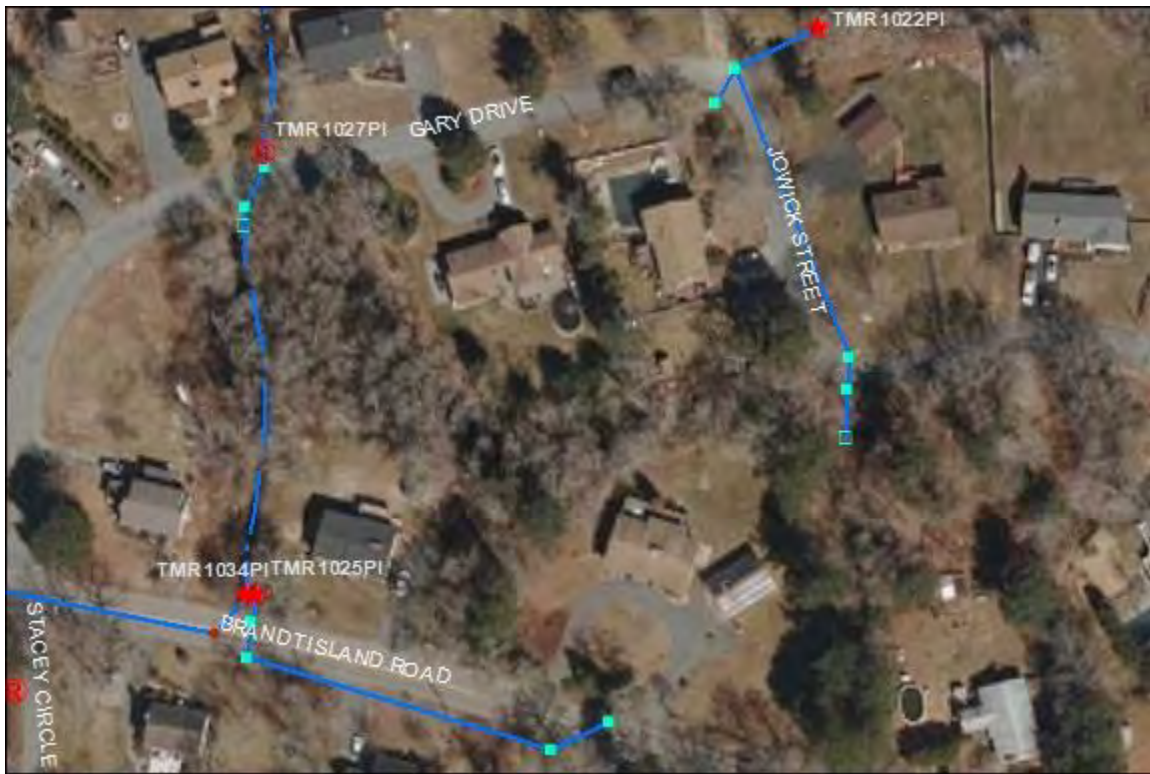
Main Street N of County Road: No issues found. Interconnection between Mattapoisett's stormwater system and the state's stormwater system. At point A, a 12" metal pipe enters the catchbasin. Its origin is unknown. Further investigation is recommended.



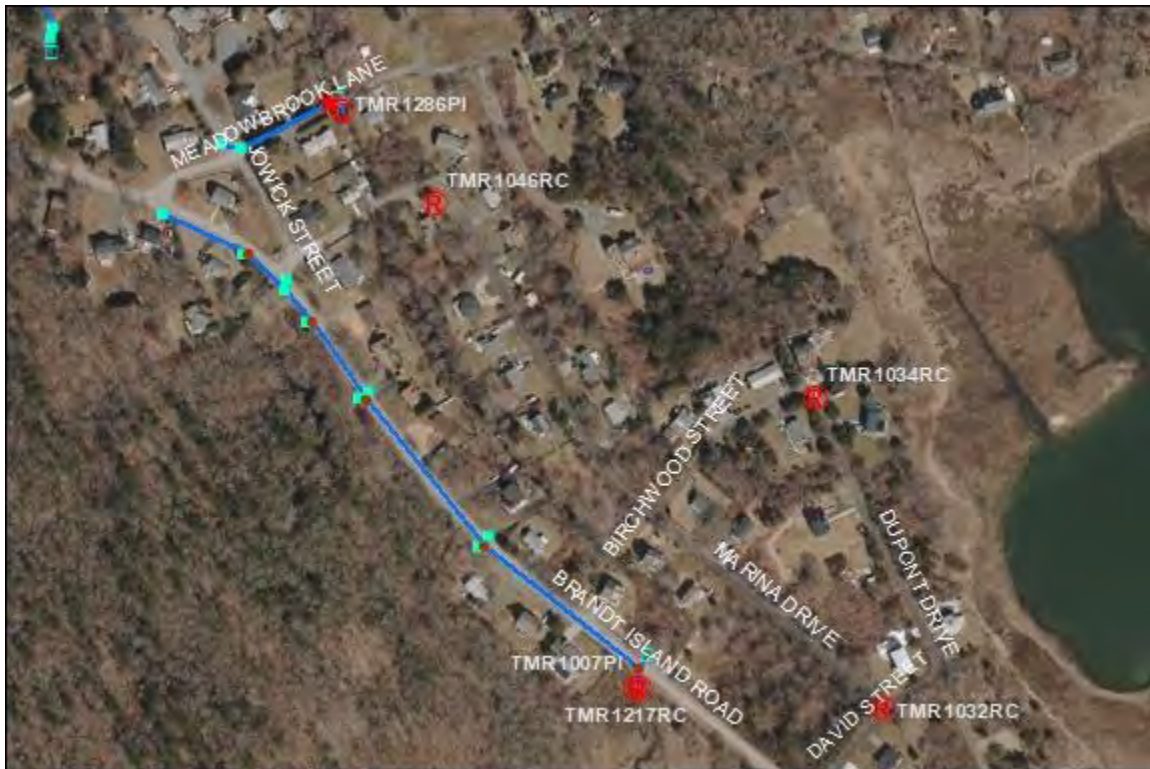
TMR1284PI- Park Street and Acushnet Road: No issues found.



TMR1034PI- Brandt Island Road: No issues found.



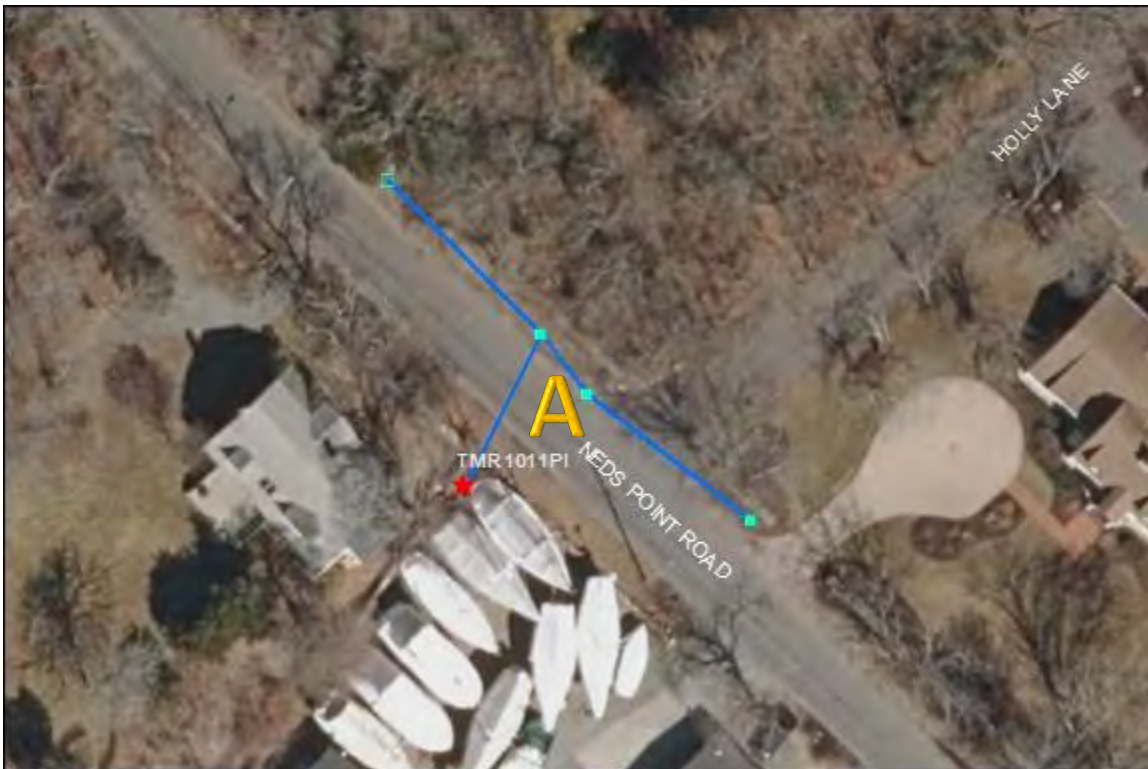
TMR1025PI and TMR1022PI- Brandt Island Road and Jowick Street: No issues found.



TMR1286PI, TMR1046RC, TMR1034RC, TMR1032RC, TMR1007PI, and TMR1217RC- Meadowbrook Lane, Brandt Island Road, Birchwood Street, and David Street: No issues found.



TMR1088PI- Shaw Street at the elementary school: No issues found.



TMR1011PI- Neds Point Road: No issues found. At point A two 12" metal pipes exit the catchbasin. Their destinations are unknown. Further investigation is suggested.

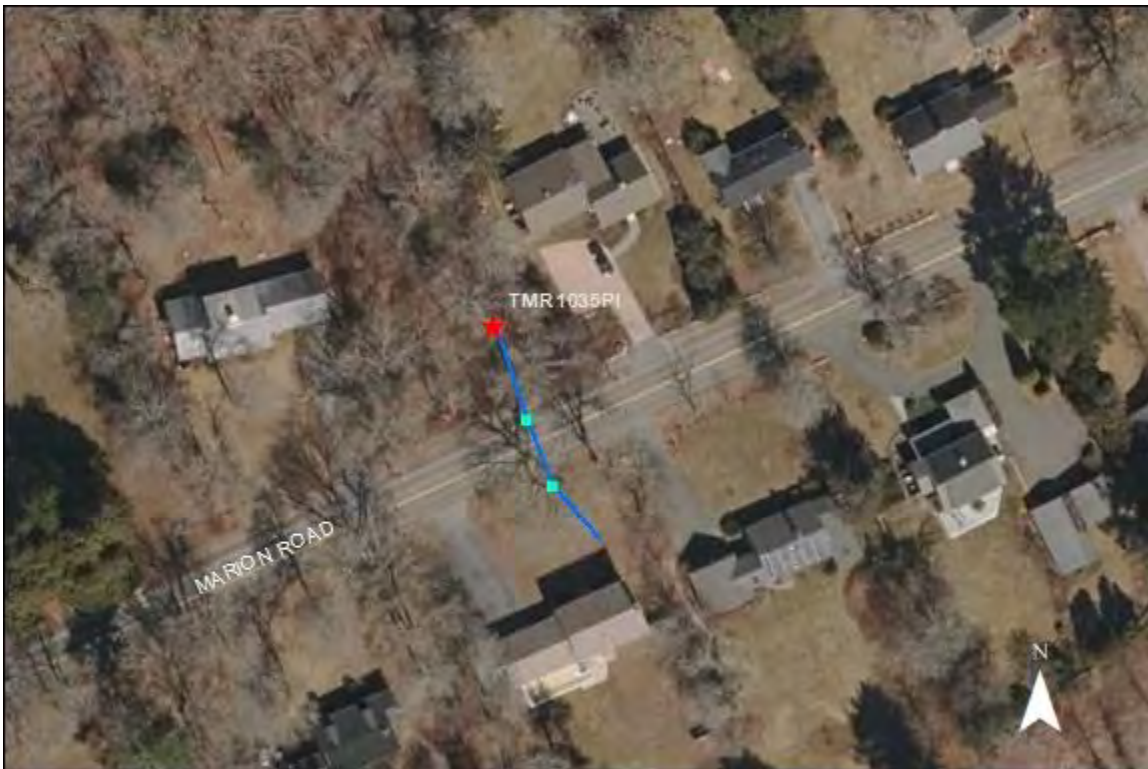




TMR1039PI- North Street: No issues found.



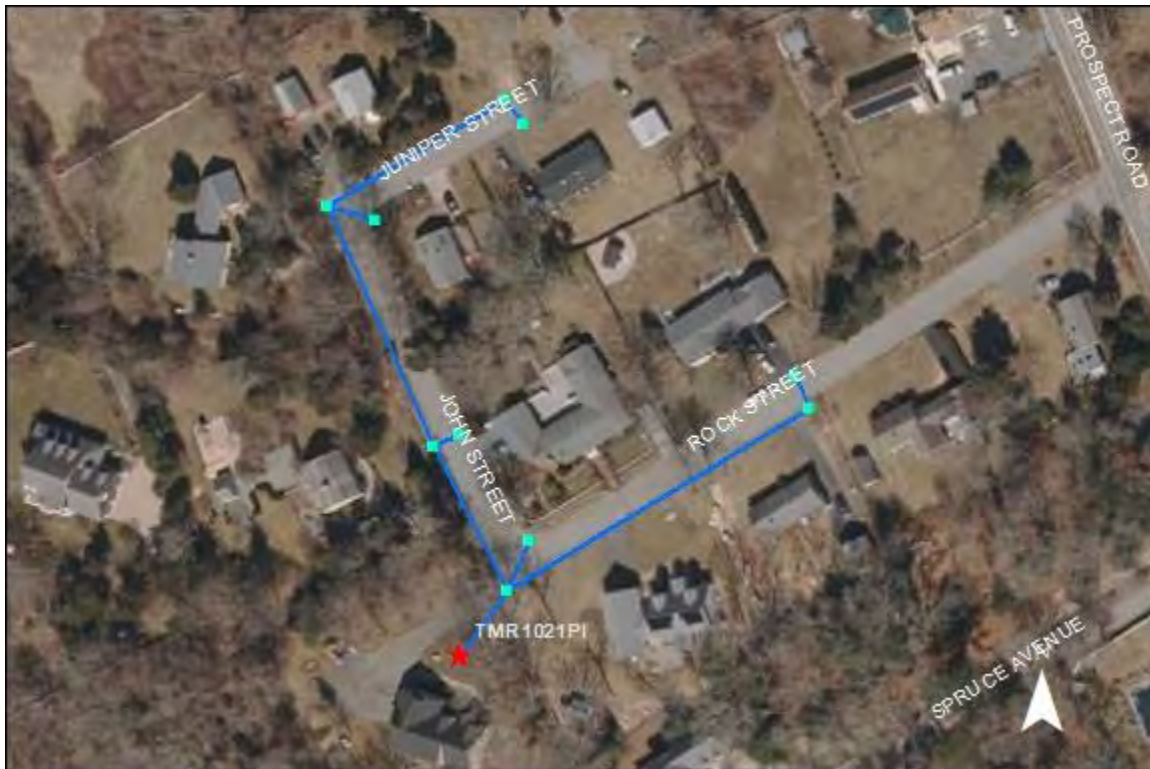
TMR1032PI- Marion Road and Baker Lane: No issues found.



TMR1035PI- Marion Road: No issues found.



TMR1037PI- Sherwood Avenue: At point A, a 12" PVC pipe enters the catchbasin. Its origin is unknown. Further investigation is suggested. At points B, C, and D the catchbasins have begun to sink. Preventative measures are strongly recommended.



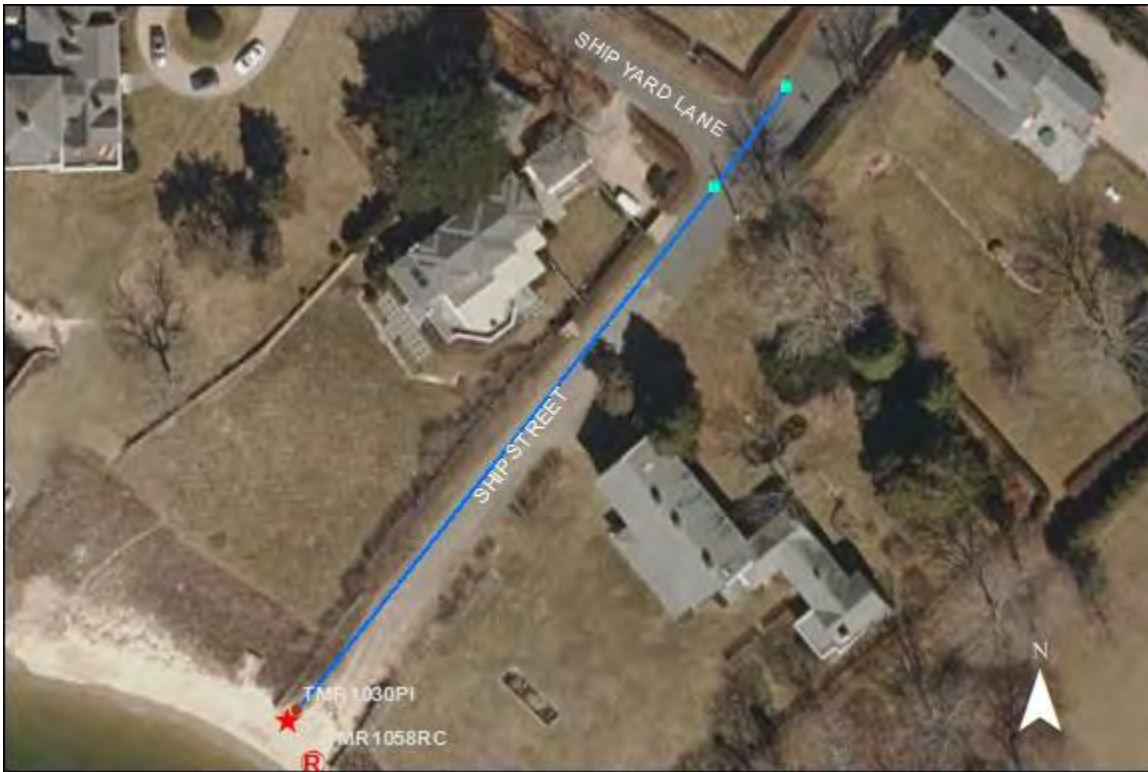
TMR1021PI- Juniper Street, John Street, and Rock Street: No issues found.



TMR1059PI- Pepperbush Lane: No issues found.



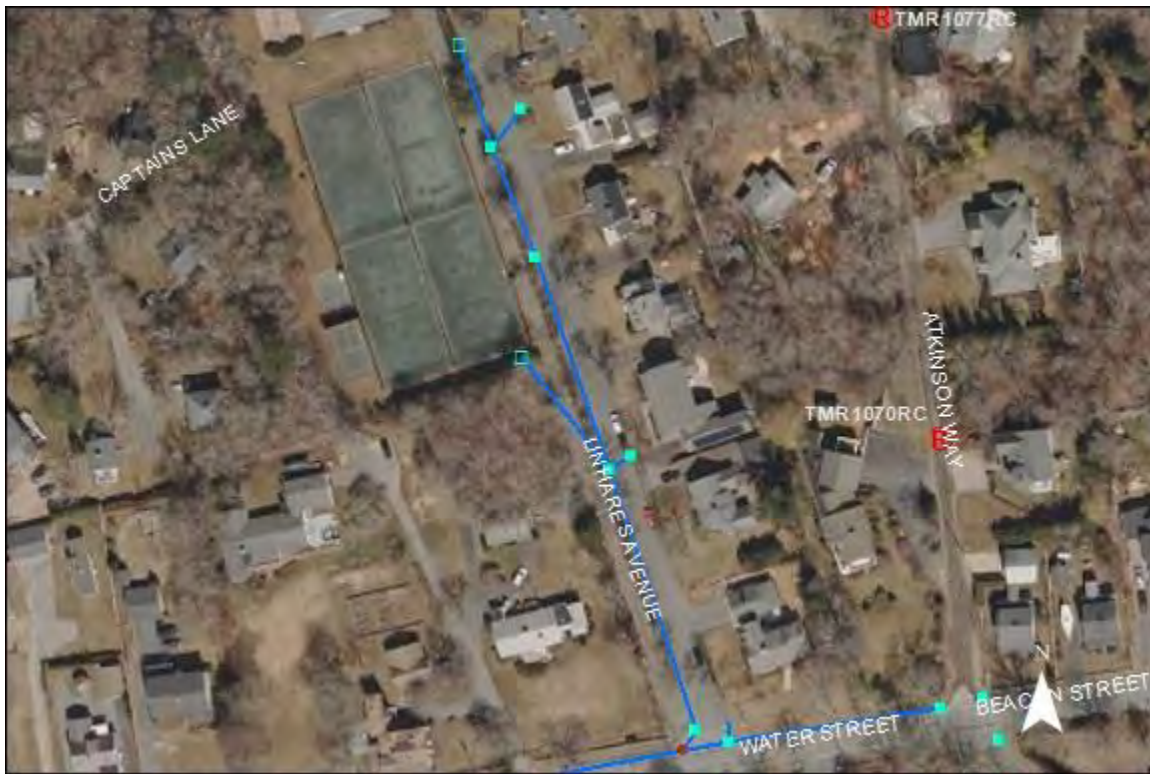
TMR1026PI- Winnatuxett Beach Road: At point A the catchbasin is sinking. Further attention is needed.



TMR1030PI and TMR1058RC- Ship Street: No issues found.



TMR1019PI- Tupola Lane and Channing Road: No issues found. At point A an 8" metal pipe enters the catchbasin. Its origin is unknown. Further investigation is suggested.



Linhares Avenue: No issues found.



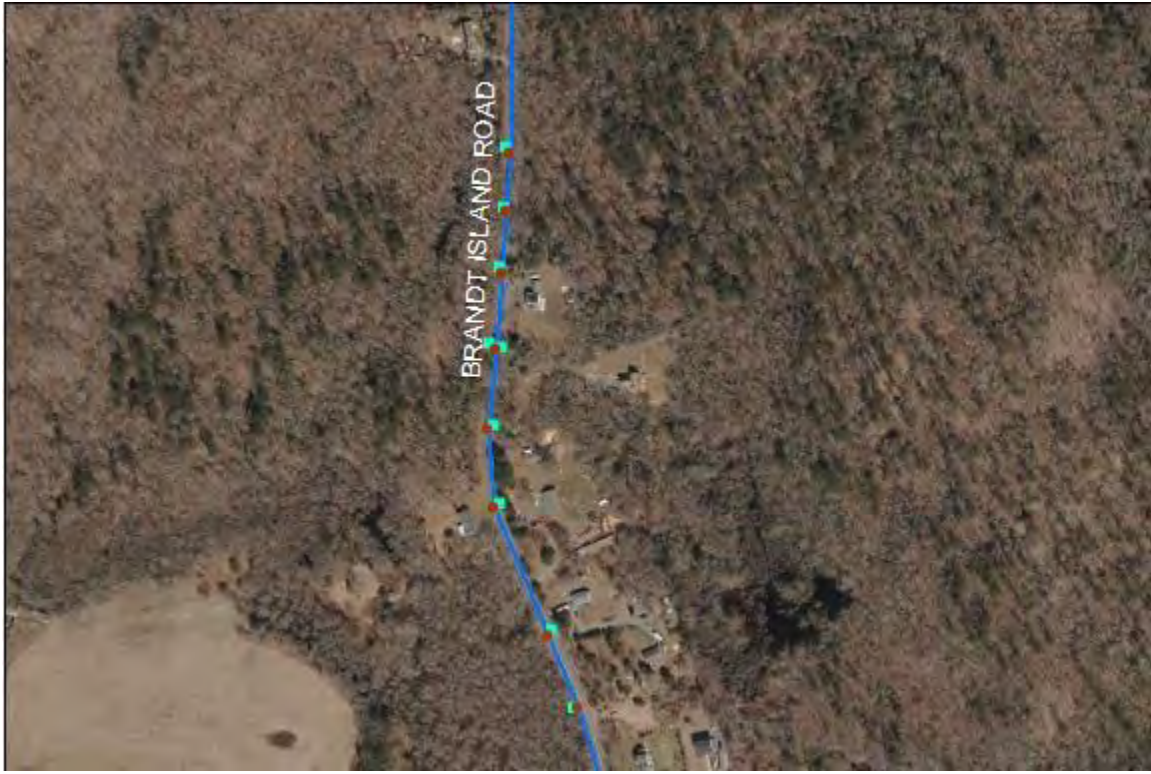
TMR1031PI and TMR1274PI- Ship Yard Lane: No issues found. Multiple pipes shown at point A and B enter the catchbasins. Their origins are unknown. Further investigation is suggested.



TMR1072RC and TMR1288PI- Marina parking lot: No significant issues found. Suds were observed in the catchbasin. Given that no pipes enter this structure it is likely these suds came from people washing off their boats after pulling them from the water. Educational outreach is recommended.



TMR1122RC, TMR1108RC, and TMR1102RC- Brandt Island Road (1/2): No issues found.





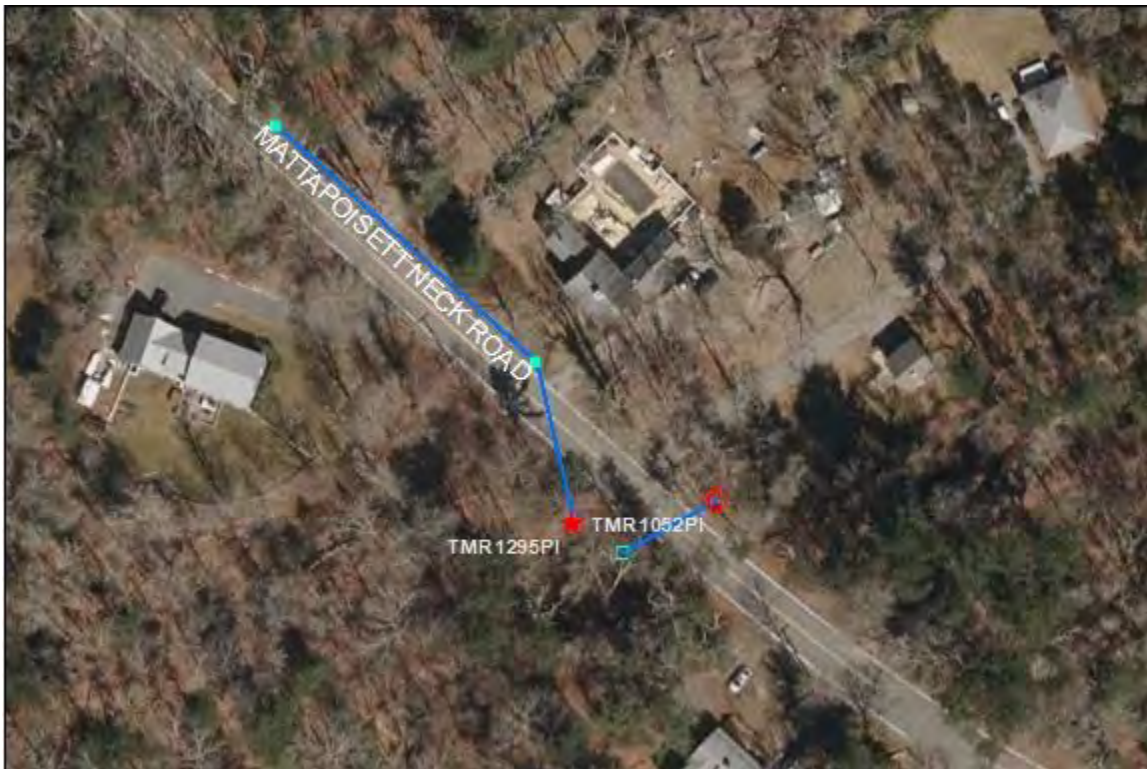
TMR1293PI, TMR1294PI, TMR1071PI, TMR1065RC, TMR1066RC, TMR1027PI, TMR1034PI, and TMR1025PI- Brandt Island Road (2/2): No issues found.



TMR1002PI- Perkins Lane: Both catchbasins are starting to sink. Sink holes adjacent to structures. Further attention is recommended.



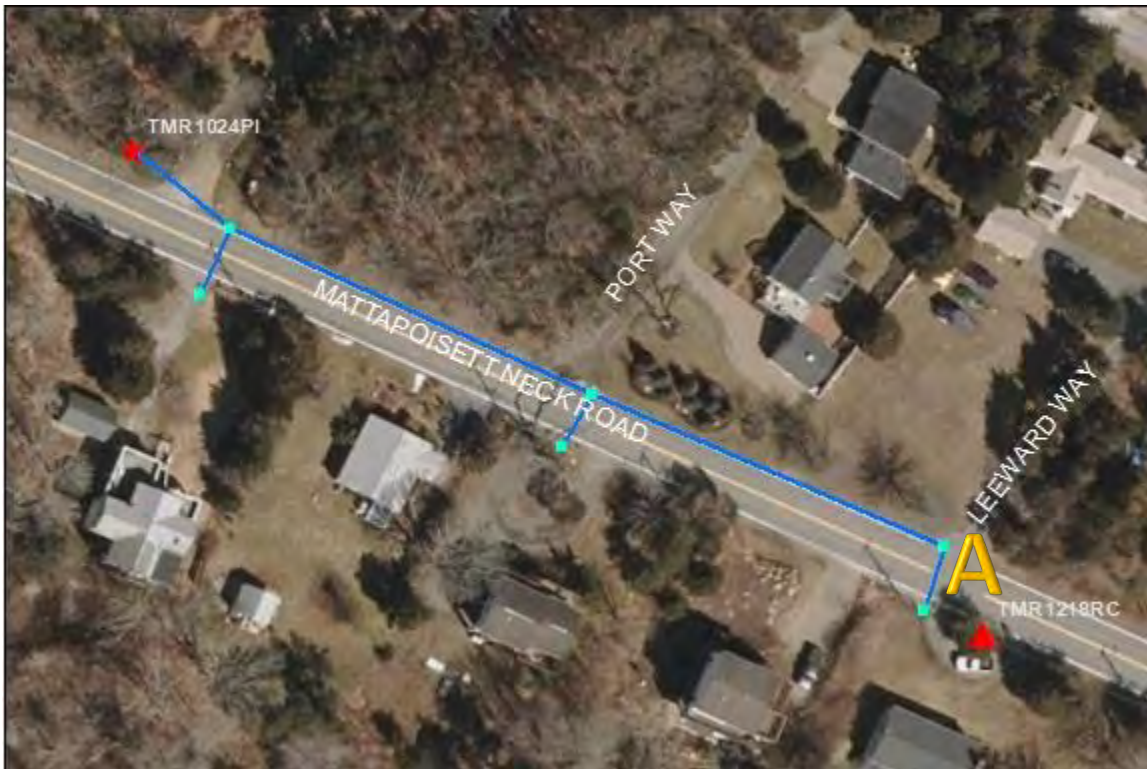
TMR1272PI and TMR1019RC- Bay View Avenue MS: No issues found.



TMR1295PI and TMR1052PI- Mattapoissett Neck Road: No issues found.



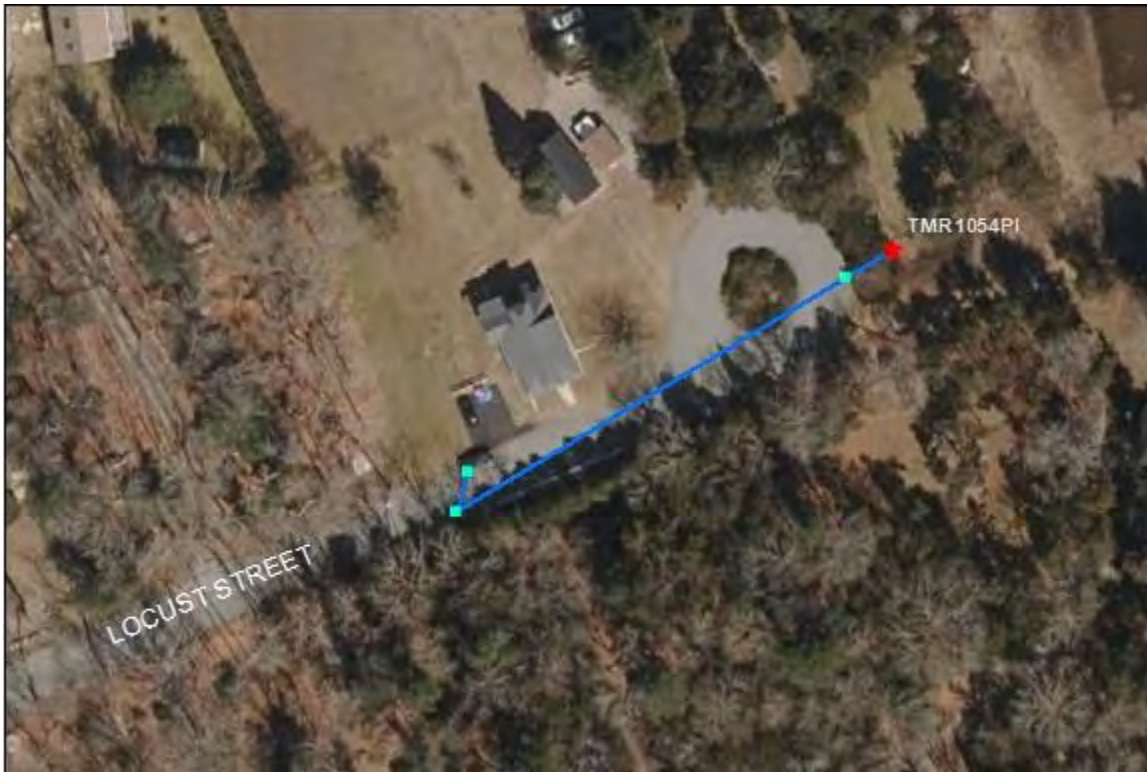
TMR1006PI, TMR1023RC, and TMR1022RC- Mattapoissett Neck Road: No issues found.



TMR1024PI and TMR1218RC- Mattapoissett Neck Road: Catchbasins at point A are full of water. Very likely there is a blockage in pipes. Further maintenance is suggested.

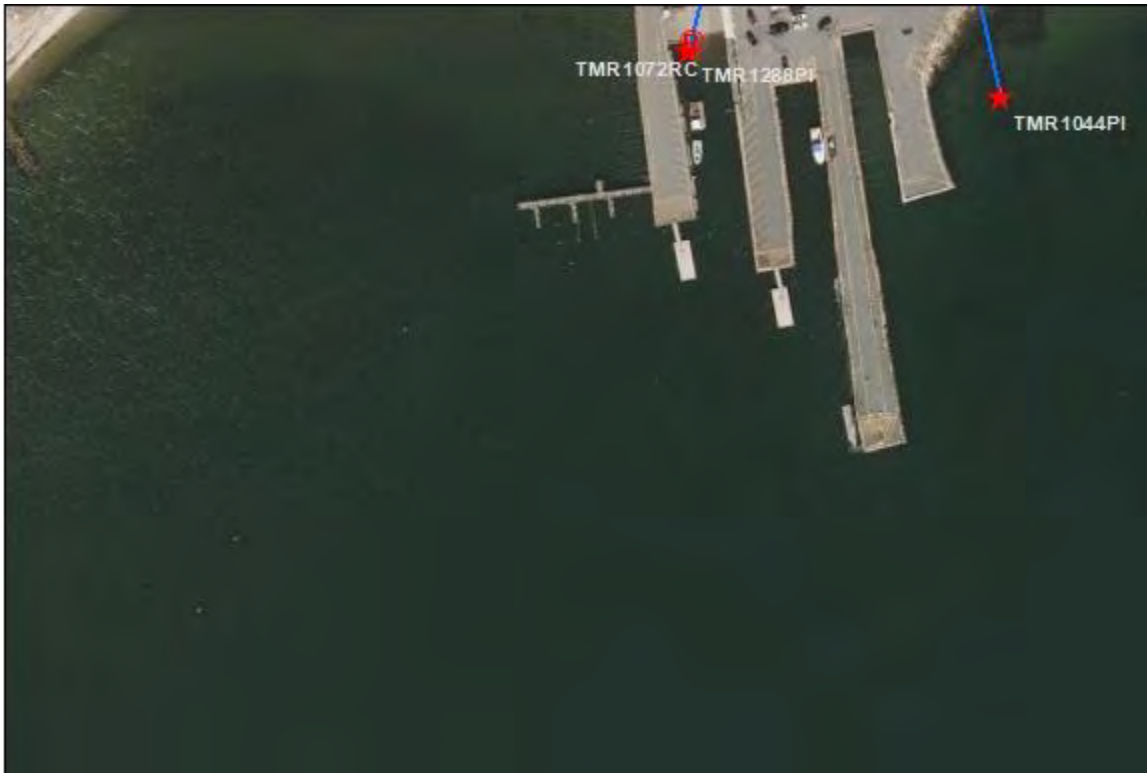


TMR1001PI, TMR1017RC, and TMR1013RC- Mattapoissett Neck Road: No significant issues found. Catchbasins at point A, B, and C have begun to sink. Preventative maintenance is suggested.



TMR1054PI- Locust Street: No issues found.





TMR1044PI- Water Street, Barstow Street, Church Street, Cannon Street, and Hammond Street: No issues found.





TMR1041PI- Mechanic Street: No issues found.



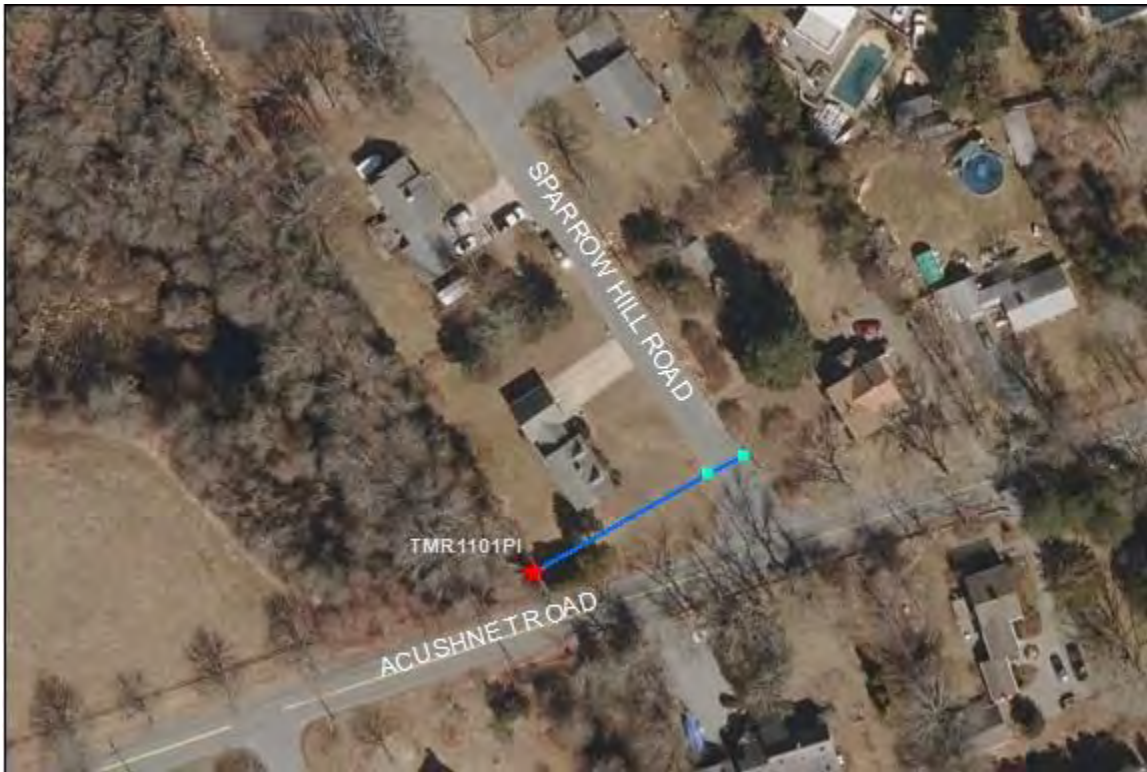
TMR1121RC, TMR1118RC, TMR1115RC, and TMR1089PI- River Road (1/3): No issues found.



TMR1099PI, TMR1123RC, and TMR1095PI- River Road: No issues found.



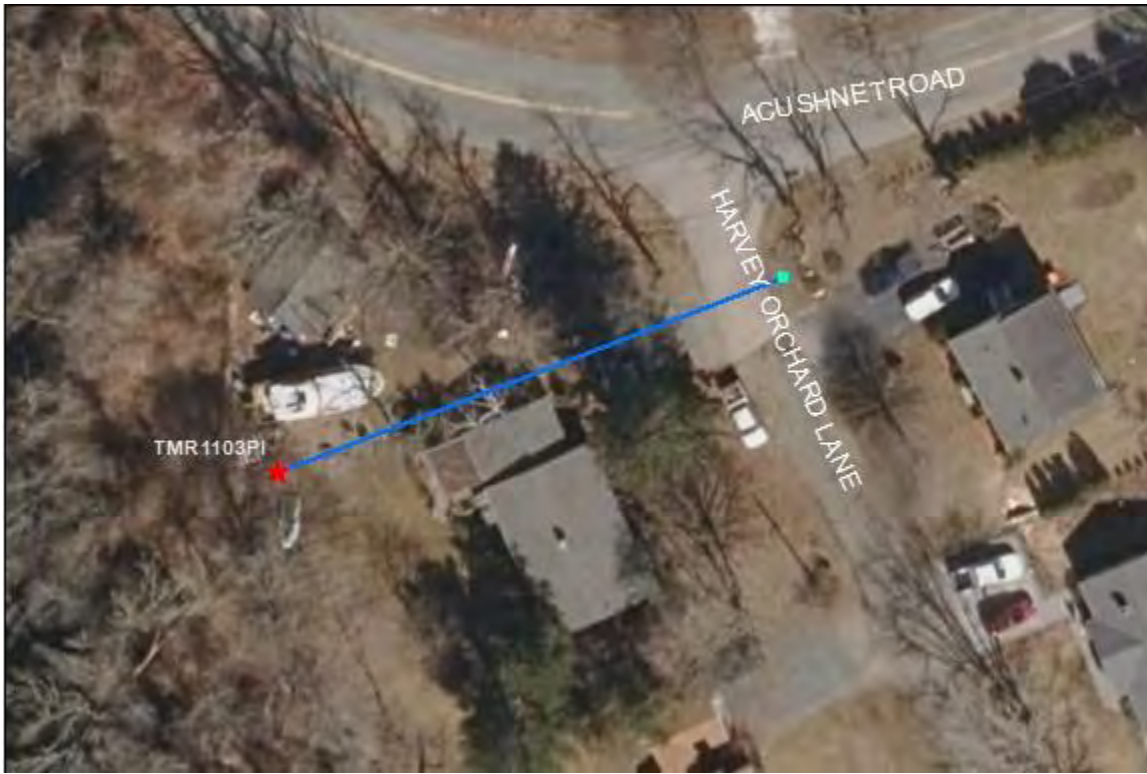
TMR1106PI- Ryans Way: No issues found. Riverside Drive: Catchbasins are infiltration basins. No issues found. River Road: Catchbasin at point A has a blocked pipe exiting it. Drainage outfall could not be determined due to this. Maintenance and reinspection are recommended.



TMR1101PI- Sparrow Hill Road: No issues found.



TMR1097PI- Fairview Drive and Crestfield Street: At point A there is an incredible amount of dog waste bags, roughly 50. Cleaning of the catchbasin and community outreach is strongly recommended.



TMR1103PI- Harvey Orchard Lane: No issues found.



TMR1106PI- Ryans Way: No issues found.



TMR1105PI- Acushnet Road: No issues found.



TMR1121PI and TMR1108PI- Acushnet Road: No issues found.



TMR1296PI- Acushnet Road: No issues found.



TMR1171PI- Acushnet Road: No issues found.



TMR1291PI and TMR1290PI- Acushnet Road: No issues found.



TMR1303PI and TMR1302PI- Industrial Drive and Bay Club Drive: No issues found.



Industrial Drive: No issues found. At point A the pipe continues towards a catchbasin attached to outfall TMR1220PI. Very likely this connects however unable to confirm due to water levels in structures and the inability to empty structures due to location and traffic.



TMR1220PI- Industrial Drive: The structures on Boat Rock Road did not appear to connect to outfall TMR1220PI. At point A the catchbasin is in need of cleaning. The entire structure is full of roots. Further maintenance and reinspection are recommended. At point B, a pipe left the catchbasin. Its destination is unknown. There was a steady flow of water through this pipe. Further inspection is suggested.



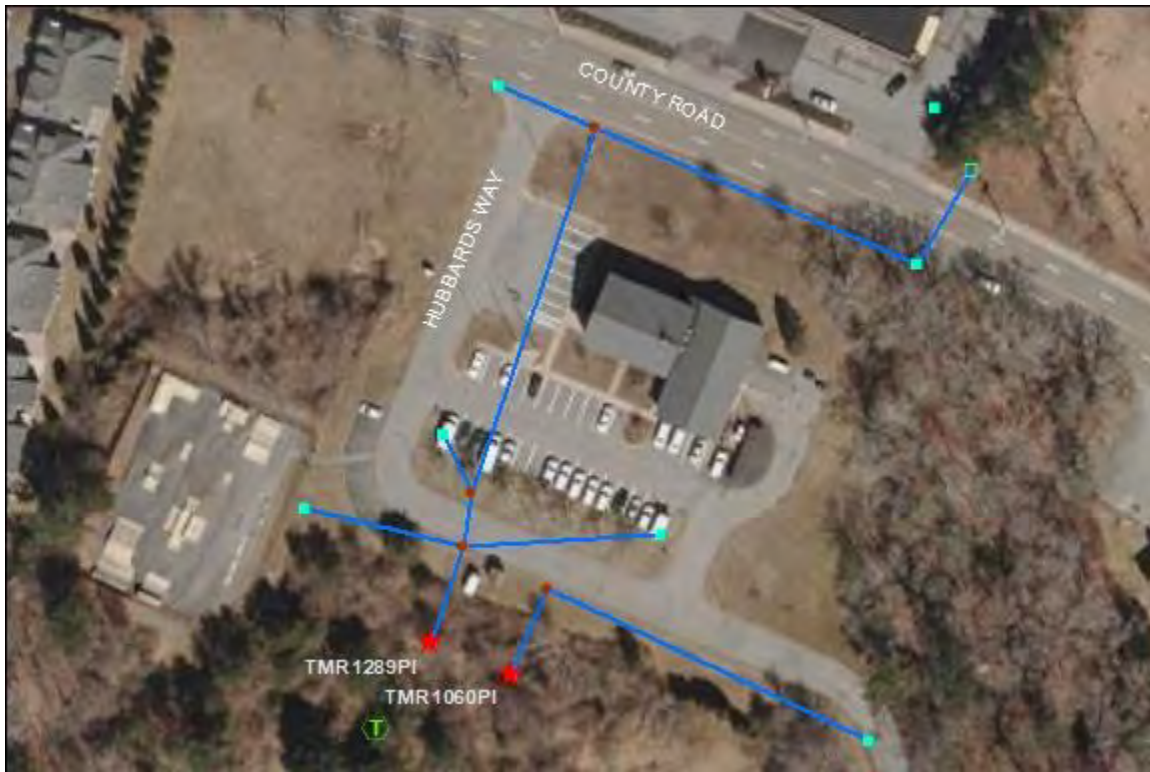
TMR1182PI TMR1202PI, TMR1297PI, and TMR1301PI- Industrial Drive: No issues found. At point A there is a steady flow of water flowing through the pipe. Its destination is unknown. It did not connect to stormwater infrastructure on Industrial Drive. Further investigation is suggested.



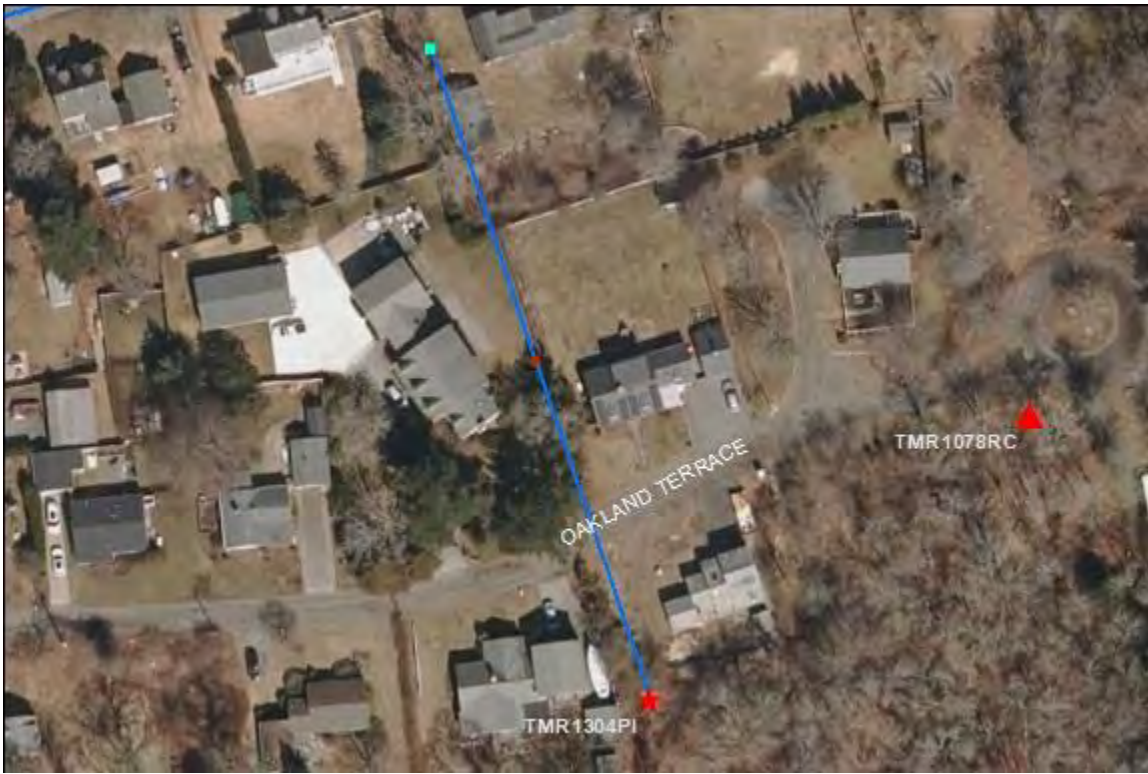
TMR1298PI, TMR1136RC, and TMR1135RC- Industrial Drive: No issues found. All other outfalls depicted on the above picture are state outfalls and were not investigated.



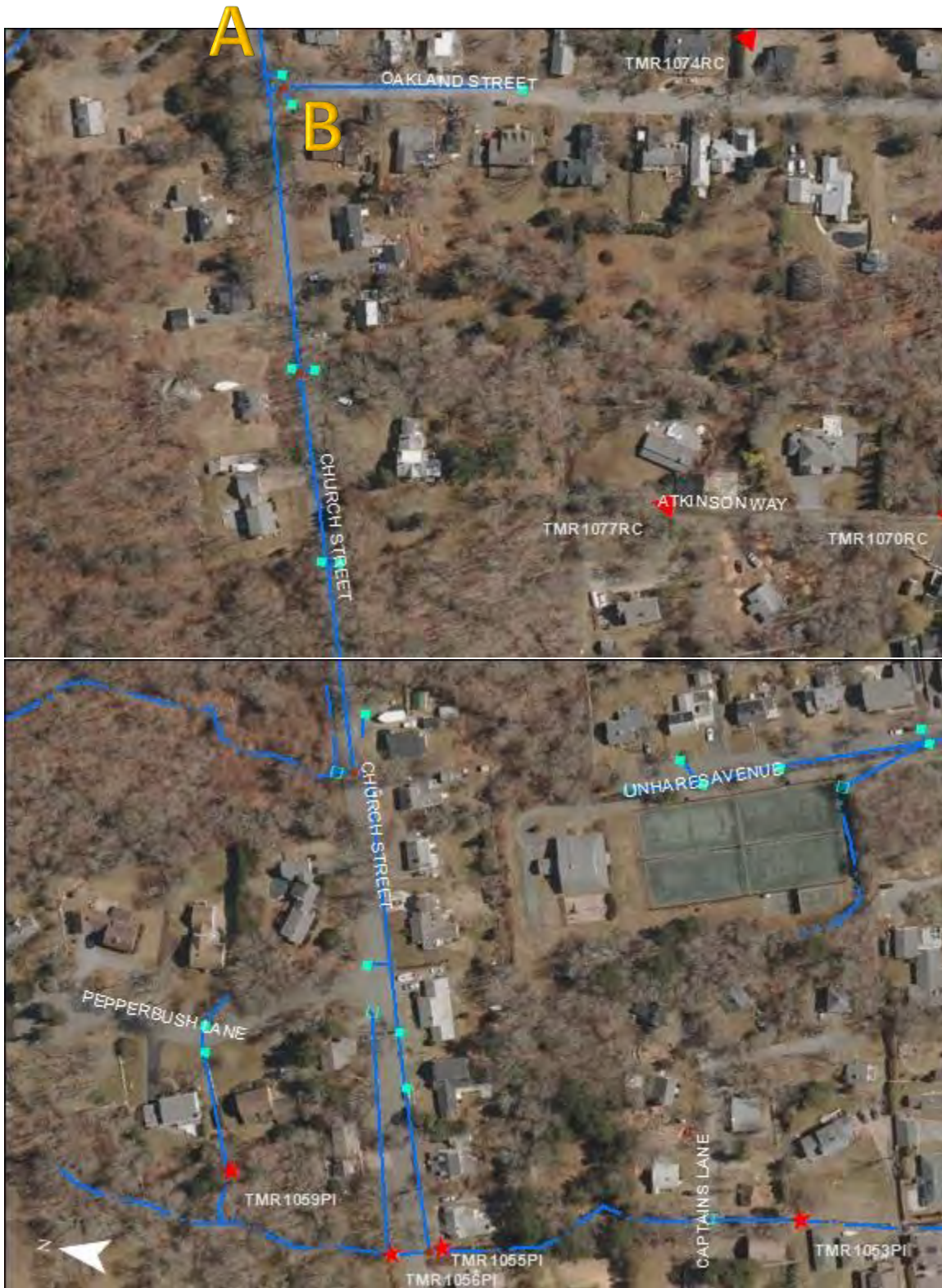
TMR1299PI and TMR1300PI- Industrial Drive: No issues found.



TMR1289PI and TMR1060PI- Hubbards Way: No issues found. Note that the arial picture above is not the most accurate due to the new construction of The Mattapoissett Fire Station. However, the drainage is up to date.



TMR1304PI- Oakland Terrace: No issues found.



TMR1055PI and TMR1056PI- Church Street: No significant issues found. At point A the stormwater structures begin to connect to the trunk line going West down Church Street. The origin of the trunk line has not been determined. There is an inlet slightly East of point A. Connection between the two still needs to be confirmed. Further investigation is recommended. At point B the catchbasin has begun to sink. Preventative maintenance is suggested.