

Memorandum

To: Catherine Woodbury, Senior Project Manager, Cambridge DPW

Fr: Garrett Bergey, CPMSM and Elizabeth Olson

Re: **Illicit Discharge Detection and Elimination Investigation Progress**

Dt: March 20, 2020

On March 17, 2020 the Illicit Discharge Detection and Elimination investigations in the Matignon Rd and Spark St drainage areas were put on hold due to the COVID19 pandemic. Below is a snapshot of the current progress for each drainage area.

Matignon Rd Drainage Area

- Standing water at D44DMH0005 (intersection of Matignon Rd and Alewife Brook Pkwy)
- Dye testing houses adjacent to standing water pipe segment
- Completed 4 of 6 buildings, all dye test results were legal
- Remaining addresses are 64-66 Matignon Rd and 26-27 Alewife Brook Pkwy

Sparks St Drainage Area

- Streets Cleared by Dry Weather Work: Linnaean St, Agassiz St, Washington St, Avon Hill St, Hurlbut St, Bowdoin St, Gray St, Wright St, Hudson St, Martin St, Avon St, Walker St, Shepard St, Walker Ter, Chauncy Lane, Garden St, Madison St, Fernald Dr, Bond St, Concord Ave, Craigie St, Buckingham St, Huron Ave, Manassas Ave, Highland Ave, Brewster St, Riedesel Ave, Sparks St, Mercer Cir, Hubbard Park Rd, Foster St, Mt Auburn St, Maynard Pl, Gibson St
- Streets with Standing Water
 - Parker St (downstream of contamination on Healey St)
 - Parts of Linnaean St
 - Parts of Martin St
- Streets with Contamination
 - Gray Gardens East
 - D31DMH5510: visual evidence
 - Raymond St
 - This contamination is downstream of contamination found on Gray Gardens East
 - Garden St
 - D31DMH4050(NW): Ammonia=0.4ppm Surfactants=1.00ppm
Chlorine=0.75ppm
Bacteria=184,168 MPN/100ml

- Robinson St
 - D31DMH8905: Ammonia=0.8ppm Surfactants=0.25ppm
Chlorine=1.2ppm
Bacteria=14.49 MPN/100ml
- Healey St
 - D31DMH3415: Ammonia=3.0ppm Surfactants=0.25ppm
Chlorine=0.07ppm
Bacteria=45,363 MPN/100ml
- Buckingham Pl
 - D31DMH3110(NE): Ammonia=0.0ppm Surfactants=0.5ppm
Chlorine=0.0ppm
Bacteria=365 MPN/100ml
- Hemlock Rd
 - D31DMH2405(W): Ammonia=4.0ppm Surfactants=0.5ppm
Chlorine=0.83ppm
Bacteria= Insufficient flow captured for lab sampling
 - D31DMH2405(N): Ammonia=0ppm Surfactants=0ppm
Bacteria=52,050 MPN/100mL
- Sparks St
 - This location is downstream of contamination found on Hemlock Rd
- **Additional Notes**
 - We have not conducted any dye testing or distributed fliers for the standing water in the Sparks drainage area
 - Due to low test kit values, we have not conducted any dye testing or distributed fliers for Buckingham Pl
 - Northeast inlet of D31DMH2405 (intersection of Hemlock Rd and Sparks St)
 - Clean test kit: Ammonia=0.0 Surfactants=0.0 Chlorine=0.66
 - High lab result: Bacteria=52,050 MPN/100ml
 - Only location found with low test kit & high bacteria that is not downstream of known contamination
 - Recommend conducting additional dye testing and/or dry weather work
- **Illicit Connections Found**
 - 9 Gray Gardens East - Not Legal / Dye in Both
 - 2 Hemlock Rd - Not Legal
 - Sewer Manhole S47SMH3312 on Healey St - Dye in Both
 - 79-81 Garden St - No Dye Found

● **Remaining Addresses for Dye Testing**

Street No	Street No Extension	Street Name	Contaminated Manhole	Comments
5		Gray Gardens East	D31DMH5505	Also listed as 60 Raymond St. *appointment for 3/16 - Canceled
5		Hemlock St	D31DMH2405	*appointment for 3/18 - Canceled
9		Hemlock St	D31DMH2405	
11		Hemlock St	D31DMH2405	
12		Hemlock St	D31DMH2405	*appointment for 3/16 - Canceled
76	-76A	Sparks St	D31DMH2025	



354 Merrimack Street, Suite 200
Lawrence, MA 01843-1755
p| 978.975.0500
e| info@sde-inc.com
sde-inc.com

15		Hemlock St	D31DMH2405	Refusal (due to coronavirus concerns)
35	-39	Robinson St	D31DMH8905	Refusal @ 35 (due to coronavirus concerns). 39 is separate owner
3		Gray Gardens West	D31DMH9310	
37		Gray Gardens East	D31DMH9310	
91		Gardens St	D31DMH9310	

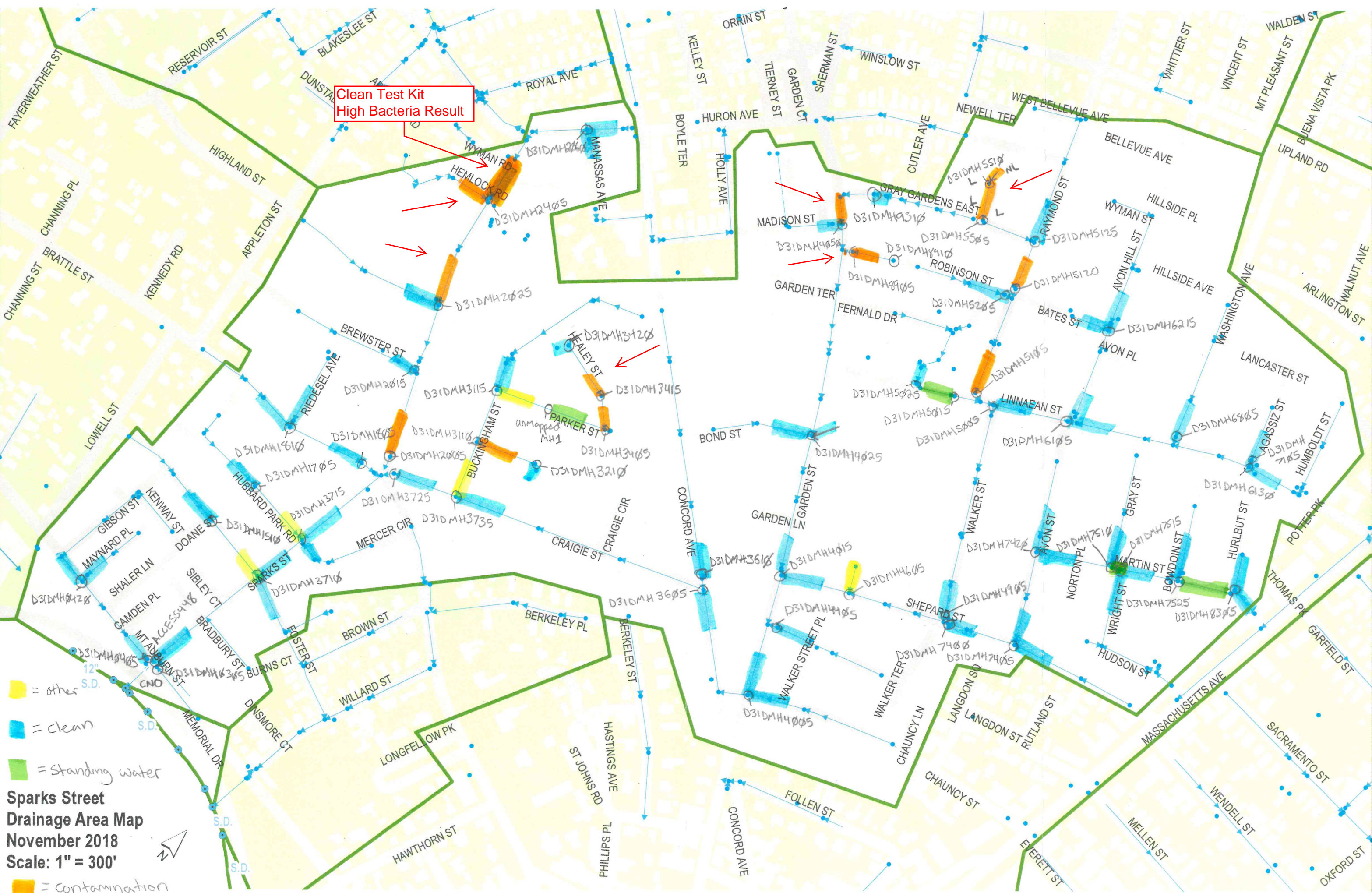
Certified letters were sent out to 27 Alewife Brook Pkwy, 66 Matignon Rd and 5 Gray Gardens East. The owners of 5 Gray Gardens East (AKA 60 Raymond St) called SDE to schedule a dye test appoint. However, the test was not completed as all work ceased prior to the schedule appointment. The owners of 27 Alewife Brook Pkwy and 66 Matignon Rd did not contact SDE to schedule an appointment.

Once the investigation resumes efforts to dye test the above listed addresses should continue. An additional manhole/pipe inspection is needed at D31DMH2055 to determine if the high hits for bacteria found at D31DMH2405 originates on Sparks St or Huron Ave. The buildings located in the section where the issue originates should be added to the list of addresses to be dye tested.

dtTest	TribArea	address_id	StreetNo	Street	TestResults	Comments	TestingCo
16-Jan-20	Matignon	12879	28	Alewife Brook Pkwy	Legal	No access to piping, finished basement. Resident stated that all fixtures are stacked in home.	SDE, Inc.
17-Feb-20	Matignon	12880	30	Alewife Brook Pkwy	Legal		SDE, Inc.
23-Jan-20	Matignon	12888	68	Matignon Rd	Legal		SDE, Inc.
23-Jan-20	Matignon	10155	76	Matignon Rd	Legal		SDE, Inc.
11-Mar-20	Sparks	207	79	Garden St	Inconclusive - NDF	Waited for 1.5 hours and performed each test 3 times. Also checked S45SMH5115 & D31DMH5210. Checked manholes along Garden St, Robinson St and Fernald Drive.	SDE, Inc.
11-Mar-20	Sparks	207	79	Garden St	Inconclusive - NDF	Waited for 1.5 hours and performed each test 3 times. Also checked S45SMH5115 & D31DMH5210. Checked manholes along Garden St, Robinson St and Fernald Drive.	SDE, Inc.
10-Mar-20	Sparks	10661	87	Garden St	Legal		SDE, Inc.
10-Mar-20	Sparks	10661	87	Garden St	Legal		SDE, Inc.
17-Feb-20	Sparks	1609	11	Gray Gardens East	Legal	Finished basement	SDE, Inc.
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05-Feb-20	Sparks	2291	13	Gray Gardens East	Legal		SDE, Inc.
05-Feb-20	Sparks	2291	13	Gray Gardens East	Legal		SDE, Inc.
17-Feb-20	Sparks	7577	3	Gray Gardens East	Legal		SDE, Inc.
17-Feb-20	Sparks	7577	3	Gray Gardens East	Legal		SDE, Inc.
05-Feb-20	Sparks	11328	9	Gray Gardens East	Inconclusive - DIB	Dye first seen in drain after 2 minutes and then in sewer after another 2 minutes. Dye seen in drain was significantly brighter.	SDE, Inc.
05-Feb-20	Sparks	11328	9	Gray Gardens East	Not Legal	Dye appeared in drain after 2 minutes. Crew may have seen faint trace of dye in sewer after more then 20 minutes.	SDE, Inc.

11-Mar-20	Sparks	190	18	Healey St	Inconclusive - DIB	Dye appeared in sewer 10 minutes after administering test then in drain after another 5 minutes. Tested sewer MH directly and also resulted in DIB. Suspect infrastructural issue.	SDE, Inc.
10-Mar-20	Sparks	4431	20	Healey St	Inconclusive - DIB	Dye seen in sewer and drain after 1.5 hours. Dye in sewer was brighter intensity than drain. Tested sewer MH directly and also resulted in DIB. Suspect infrastructural issue.	SDE, Inc.
11-Mar-20	Sparks	N/A	N/A	Healey St	Inconclusive - DIB	Dye tested sewer manhole S47SMH3312 on Healey St. After 3 hours, dye was observed in both downstream sewer & drain manholes. Dye in sewer was of brighter intensity than drain.	SDE, Inc.
10-Mar-20	Sparks	3803	18	Hemlock Rd	Legal		SDE, Inc.
11-Mar-20	Sparks	6209	2	Hemlock Rd	Not Legal	Dye appeared in drain after 5 minutes.	SDE, Inc.
09-Mar-20	Sparks	24005	1	Highland St	Legal	Finished basement. Dye seen in southwest inlet (Highland St) of sewer manhole.	SDE, Inc.
09-Mar-20	Sparks	24005	1	Highland St	Legal	Finished basement. Dye seen in southwest inlet (Highland St) of sewer manhole.	SDE, Inc.
09-Mar-20	Sparks	6148	29	Robinson St	Legal		SDE, Inc.
09-Mar-20	Sparks	6148	29	Robinson St	Legal		SDE, Inc.
09-Mar-20	Sparks	9954	70	Sparks St	Legal	Finished basement.	SDE, Inc.
09-Mar-20	Sparks	9954	70	Sparks St	Legal	Finished basement.	SDE, Inc.
09-Mar-20	Sparks	10023	72	Sparks St	Legal		SDE, Inc.
09-Mar-20	Sparks	160	75	Sparks St	Legal	Finished basement	SDE, Inc.
09-Mar-20	Sparks	160	75	Sparks St	Legal	Finished basement	SDE, Inc.
09-Mar-20	Sparks	160	75	Sparks St	Legal	Finished basement	SDE, Inc.
10-Mar-20	Sparks	10205	77	Sparks St	Legal		SDE, Inc.

Clean Test Kit
High Bacteria Result

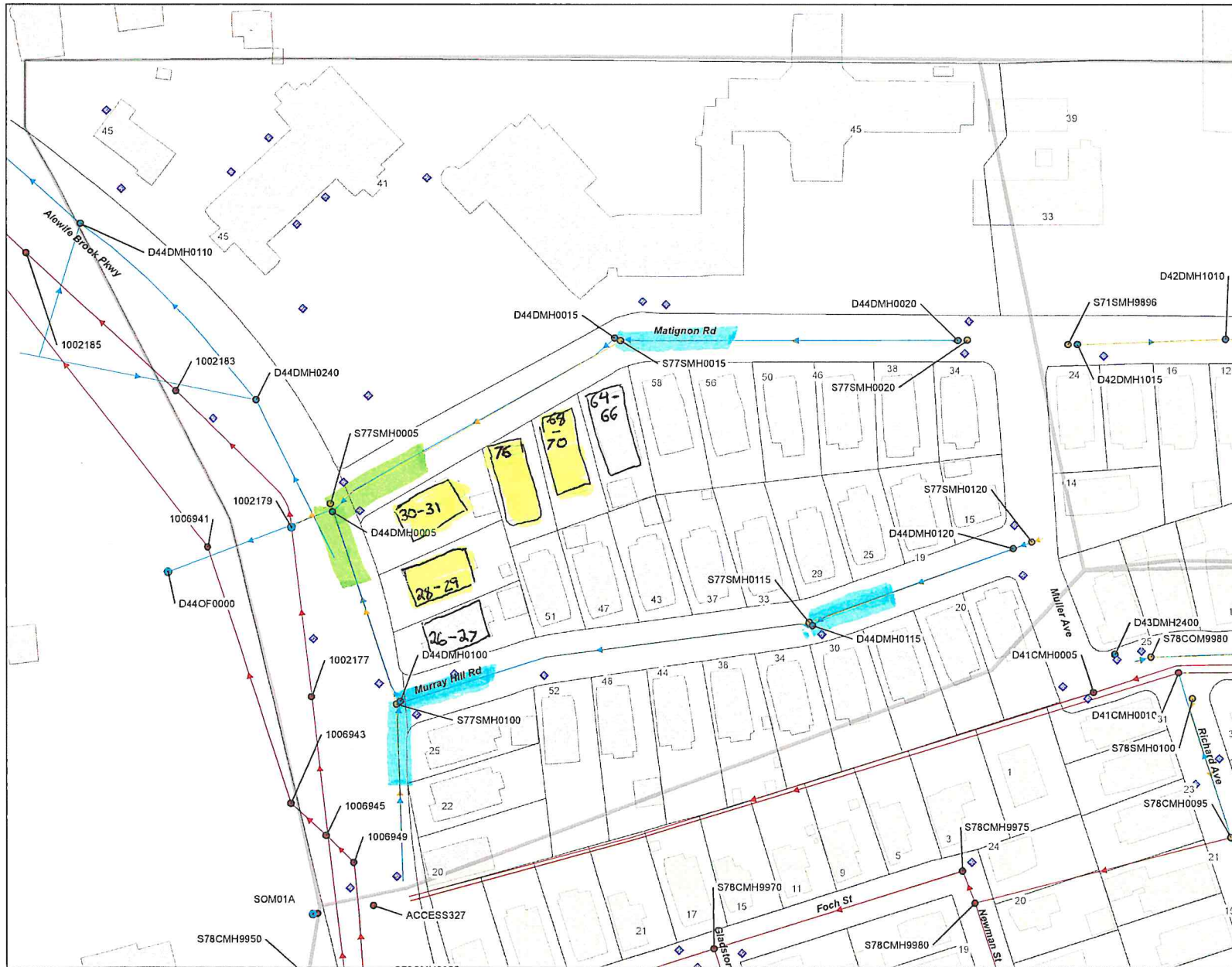


- = other
- = clean
- = standing water
- = contamination

Sparks Street
Drainage Area Map
November 2018
Scale: 1" = 300'



Matignon Road Drainage Area Map



Legend

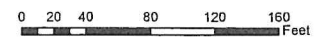
- Outfall
- Catchbasin
- Catchment Boundary

Manholes

- CMH
- SMH
- DMH

Pipes

- Combined Sewer
- Sanitary Sewer
- Storm Drain



= standing water

= clean

= dye tested Legal