

Leak Survey Report

M222 – Lewes Board of Public Works

August 2021

American Leak Detection

Jimmy Carter, Sr. Dir. of Field Operations

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Scope of Works

American Leak Detection (ALD) undertook a leakage survey of Lewes Board of Public Works in August 2021. The following report contains the results of the leakage survey.

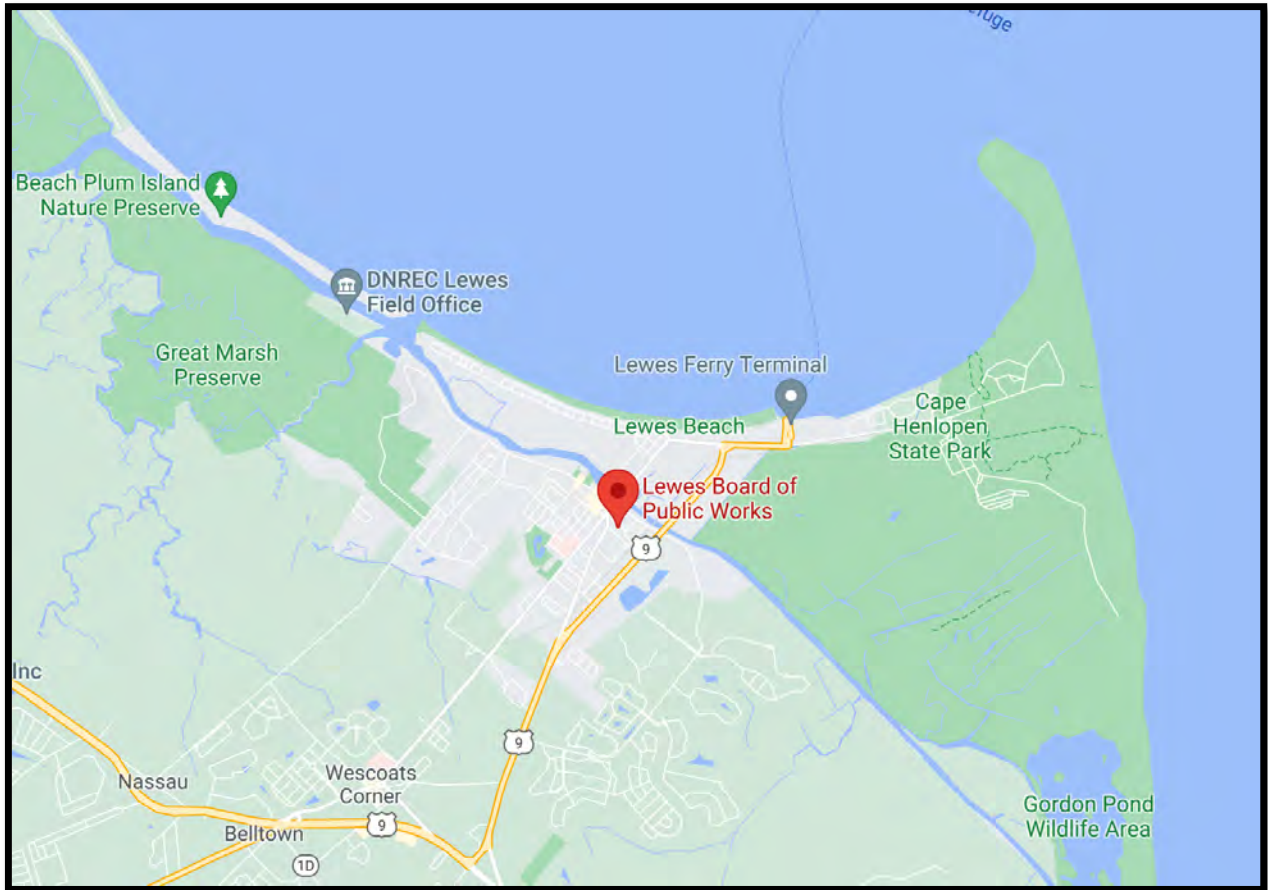
The techniques used during the leak detection survey (where appropriate) may have included

- Leak Noise Correlation
- Open Sounding
- Surface Sounding

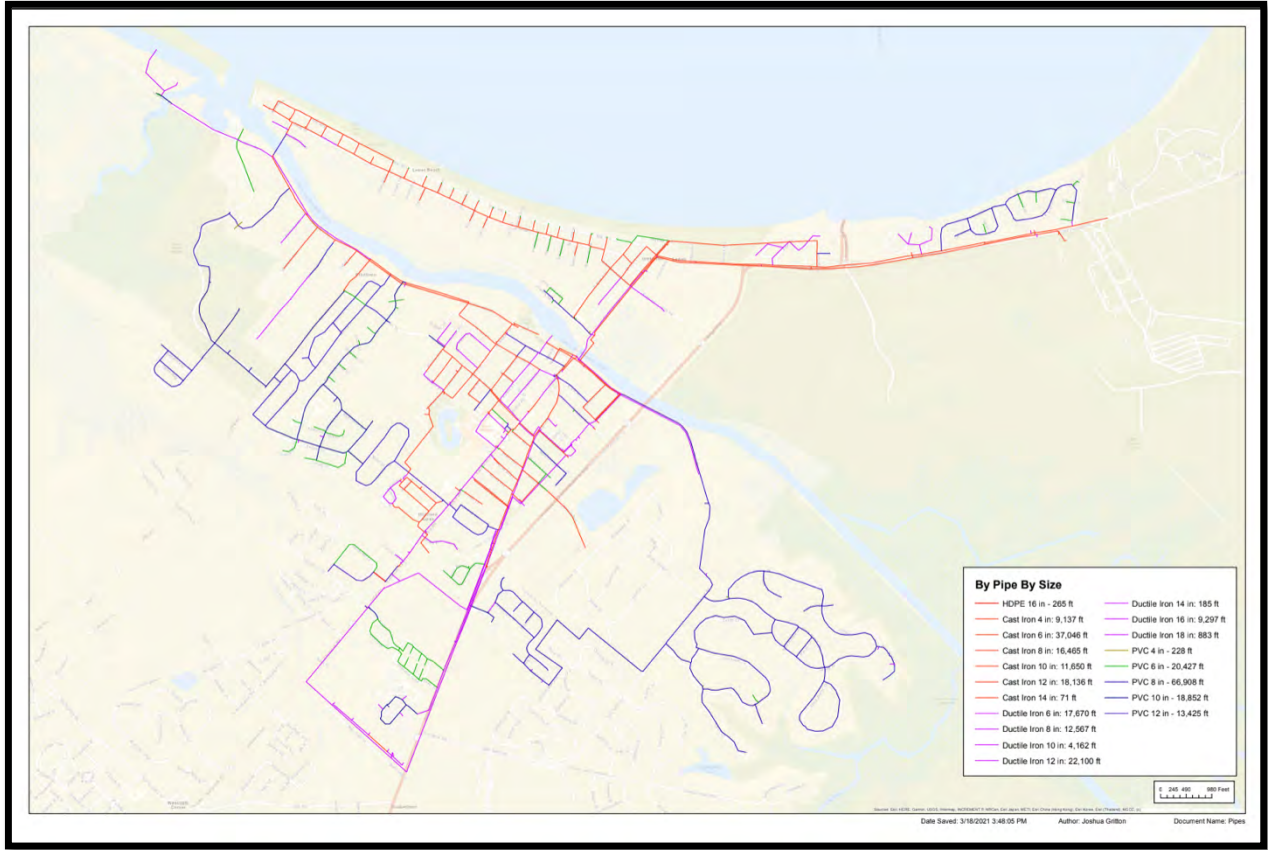
The equipment used to perform the works (where appropriate) may have included

- Leak Noise Correlator using Accelerometers
- Ground Microphone
- Electronic Listening Stick
- Metal Detector
- Pipe Tracer Kit
- Assorted hand tools

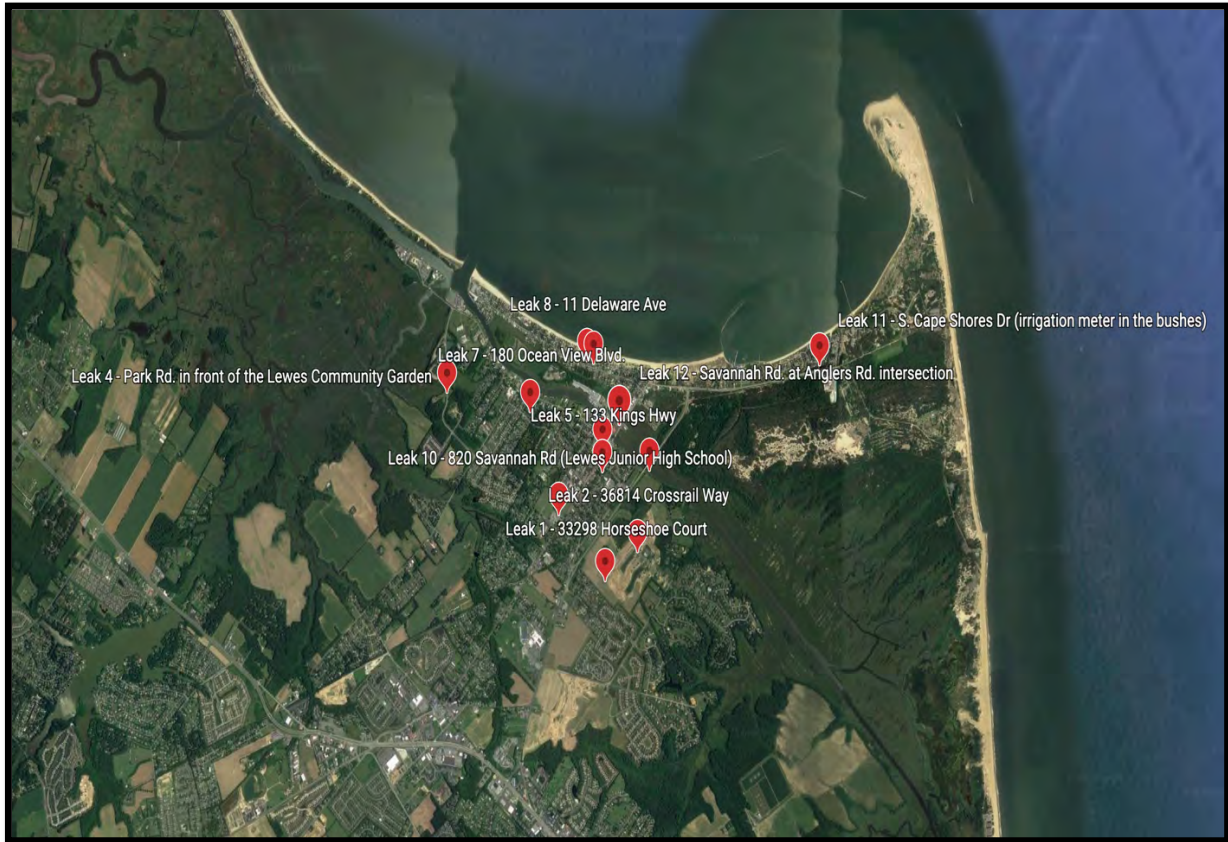
Ordnance Survey Map



Distribution Network



Leak Map



Leak Summary

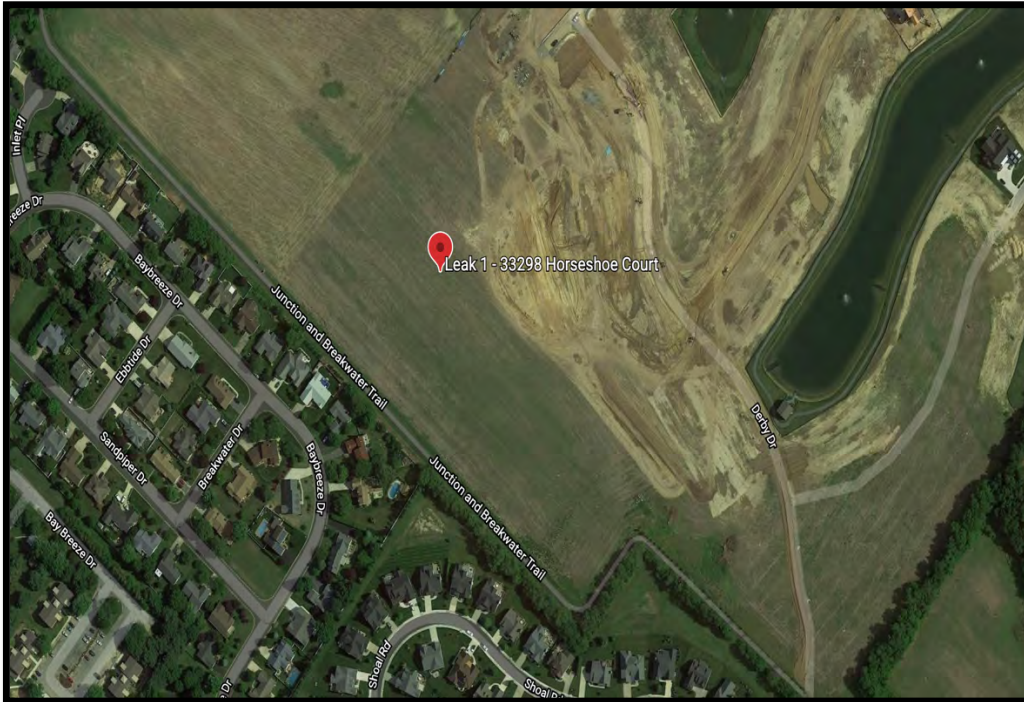
Total Leaks Found	Mains Leaks	Line Valve Leak	Hydrant Leaks	Meter Leaks	Customer Leaks
12	0	1	10	1	0

Point on Map	X Co-ordinate	Y Co-ordinate	Zip	Address (near)	Severity
Leak 1	38.762680	-75.138927	19958	33298 Horseshoe Ct, Lewes, DE	Minor
Leak 2	38.765256	-75.134067	19958	36814 Crossrail Way, Lewes, DE	Minor
Leak 3	38.7724954	-75.1322690	19958	Gills Neck Rd approximately 300' south of the route 9 bridge, Lewes, DE	Minor
Leak 4	38.779429	-75.162735	19958	Park Rd. in front of the Lewes Community Garden, Lewes, DE	Minor
Leak 5	38.772379	-75.139359	19958	133 Kings Hwy, Lewes, DE	Minor
Leak 6	38.774400	-75.139334	19958	212 Savannah Rd, Lewes, DE	Minor
Leak 7	38.777720	-75.150221	19958	180 Ocean View Blvd, Lewes, DE	Minor
Leak 8	38.782249	-75.141664	19958	11 Delaware Avenue, Lewes, DE	Minor
Leak 9	38.782012	-75.140675	19958	11 Rhode Island Avenue, Lewes, DE	Minor
Leak 10	38.768566	-75.145928	19958	820 Savannah Rd (Lewes Junior High School), Lewes, DE	Minor
Leak 11	38.781867	-75.106650	19958	S. Cape Shores Dr (irrigation meter in the bushes), Lewes, DE	Minor
Leak 12	38.776530	-75.136792	19958	Savannah Rd. at Anglers Rd. intersection, Lewes, DE	Minor

Leak Information

Point on Map	Leak 1
Field Notes	Leak appears to be at either the hydrant lateral or hydrant flange. We initially flushed the hydrant in hopes of it stopping and it did not.
Traffic Considerations	Dual Lane
Reinstatement	Grass Verge
Leak	Hydrant/WO
Address	33298 Horseshoe Court, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.762680 -75.138927
Severity	Minor (2 GPM)
Recommendation	Repair to be carried out as required

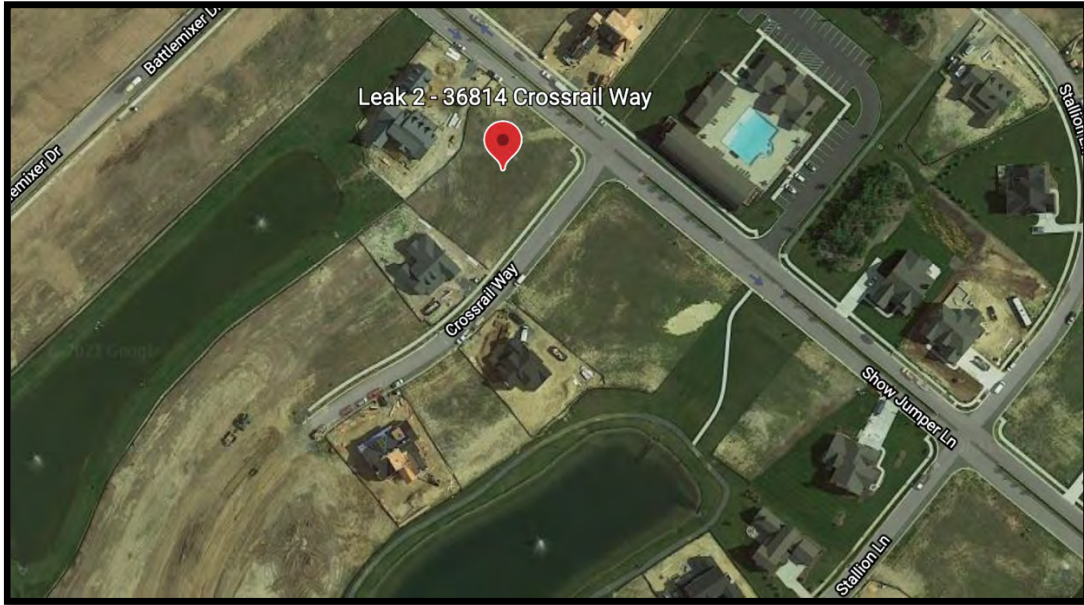
Google Earth image shows site still under construction



Leak Information

Point on Map	Leak 2
Field Notes	Leak appears to be at the fire hydrant. We suspect that maybe a contractor is taking water from the hydrant. Yesterday it had leak noise, then it didn't have leak noise, and then a follow up this morning the leak noise was back.
Traffic Considerations	Dual Lane
Reinstatement	Grass Verge
Leak	Hydrant/WO
Address	36814 Crossrail Way, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.765256 -75.134067
Severity	Minor (0.0025 GPM)
Recommendation	Repair to be carried out as required

Google Earth image shows site still under construction



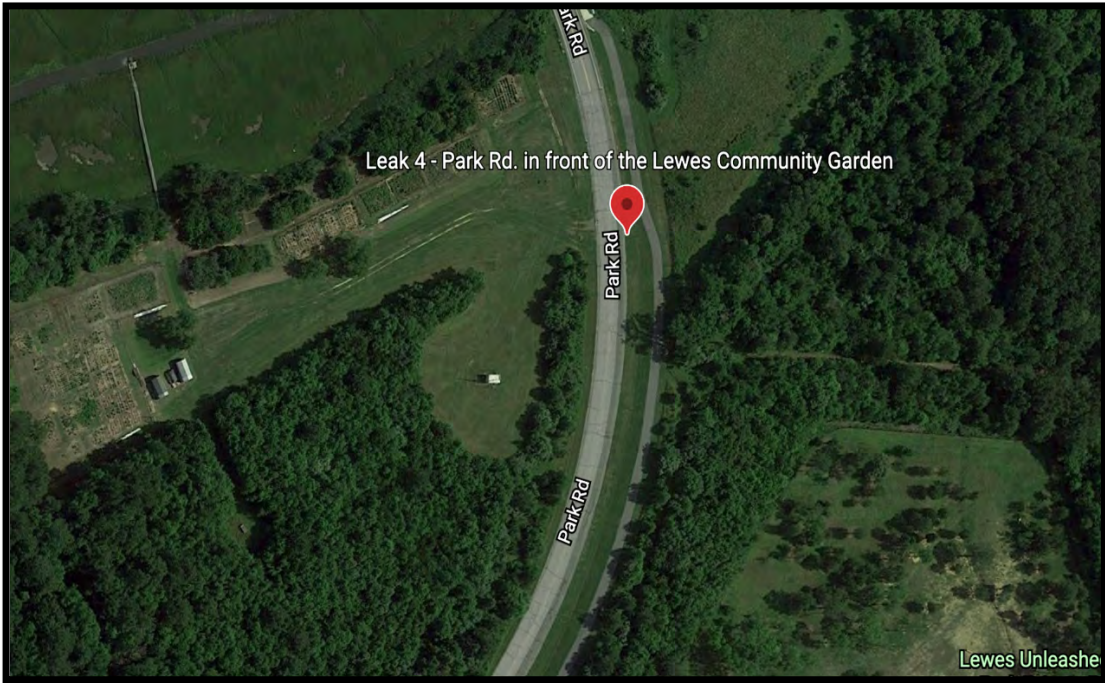
Leak Information

Point on Map	Leak 3
Field Notes	Leak appears to be at the fire hydrant.
Traffic Considerations	Dual Lane
Reinstatement	Grass Verge
Leak	Hydrant/WO
Address	Gills Neck Rd approximately 300' south of the route 9 bridge, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.7724954 -75.1322690
Severity	Minor (1 GPM)
Recommendation	Repair to be carried out as required



Leak Information

Point on Map	Leak 4
Field Notes	Leak appears to be at the fire hydrant. Ground is saturated everywhere around the hydrant.
Traffic Considerations	Dual Lane
Reinstatement	Grass Verge
Leak	Hydrant/WO
Address	Park Rd. in front of the Lewes Community Garden, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.779429 -75.162735
Severity	Minor (2 GPM)
Recommendation	Repair to be carried out as required



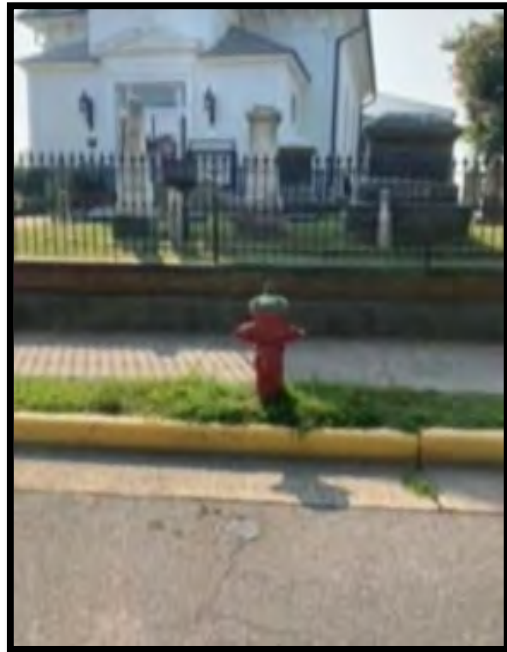
Leak Information

Point on Map	Leak 5
Field Notes	Leaks appears to be at the fire hydrant.
Traffic Considerations	Dual Lane
Reinstatement	Grass Verge
Leak	Hydrant/WO
Address	133 Kings Highway, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.772379 -75.139359
Severity	Minor (2 GPM)
Recommendation	Repair to be carried out as required



Leak Information

Point on Map	Leak 6
Field Notes	Leaks appears to be at the fire hydrant.
Traffic Considerations	Dual Lane
Reinstatement	Grass Verge
Leak	Hydrant/WO
Address	133 Kings Highway, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.772379 -75.139359
Severity	Minor (2 GPM)
Recommendation	Repair to be carried out as required



Leak Information

Point on Map	Leak 6
Field Notes	Leak appears to be at hydrant.
Traffic Considerations	Dual Lane
Reinstatement	Grass Verge
Leak	Hydrant/WO
Address	212 Savannah Road, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.774400 -75.139334
Severity	Minor (1 GPM)
Recommendation	Repair to be carried out as required



Leak Information

Point on Map	Leak 7
Field Notes	Leak appears to be at hydrant
Traffic Considerations	Dual Lane
Reinstatement	Gravel Verge
Leak	Hydrant/WO
Address	180 Ocean View Blvd, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.777720 -75.150221
Severity	Minor (2 GPM)
Recommendation	Repair to be carried out as required



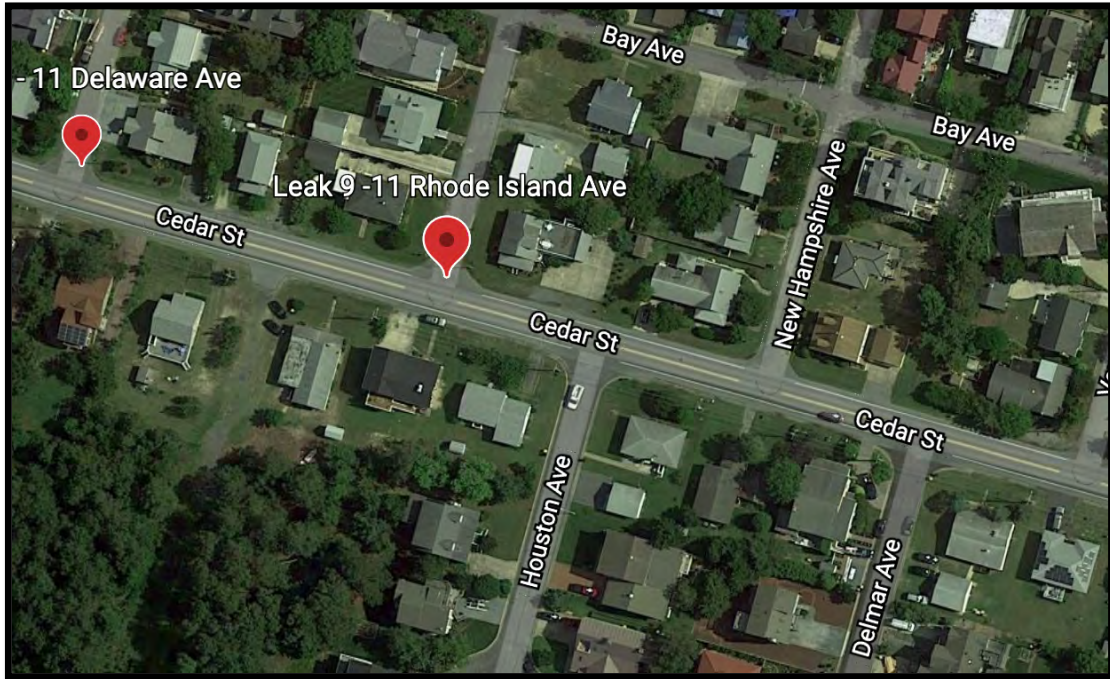
Leak Information

Point on Map	Leak 8
Field Notes	Leak appears to be at the hydrant
Traffic Considerations	Dual Lane
Reinstatement	Grass Verge
Leak	Hydrant/WO
Address	11 Delaware Avenue, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.782249 -75.141664
Severity	Minor (0.25 GPM)
Recommendation	Repair to be carried out as required



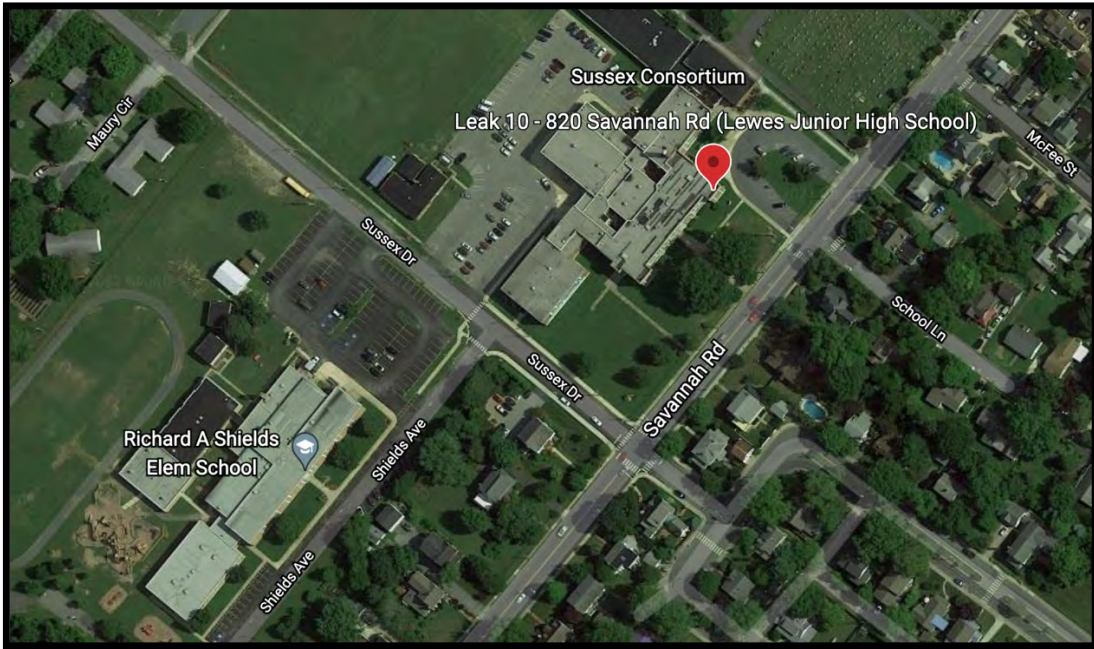
Leak Information

Point on Map	Leak 9
Field Notes	Leak appears to be at the hydrant
Traffic Considerations	Dual Lane
Reinstatement	Grass Verge
Leak	Hydrant/WO
Address	11 Rhode Island Avenue, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.782012 -75.140675
Severity	Minor (0.25 GPM)
Recommendation	Repair to be carried out as required



Leak Information

Point on Map	Leak 10
Field Notes	Leak appears to be at the hydrant
Traffic Considerations	Dual Lane
Reinstatement	Concrete Verge
Leak	Hydrant/WO
Address	820 Savannah Rd (Lewes Junior High School), Lewes, DE
Zip	19958
X and Y Co-ordinates	38.768566 -75.145928
Severity	Minor (0.1 GPM)
Recommendation	Repair to be carried out as required



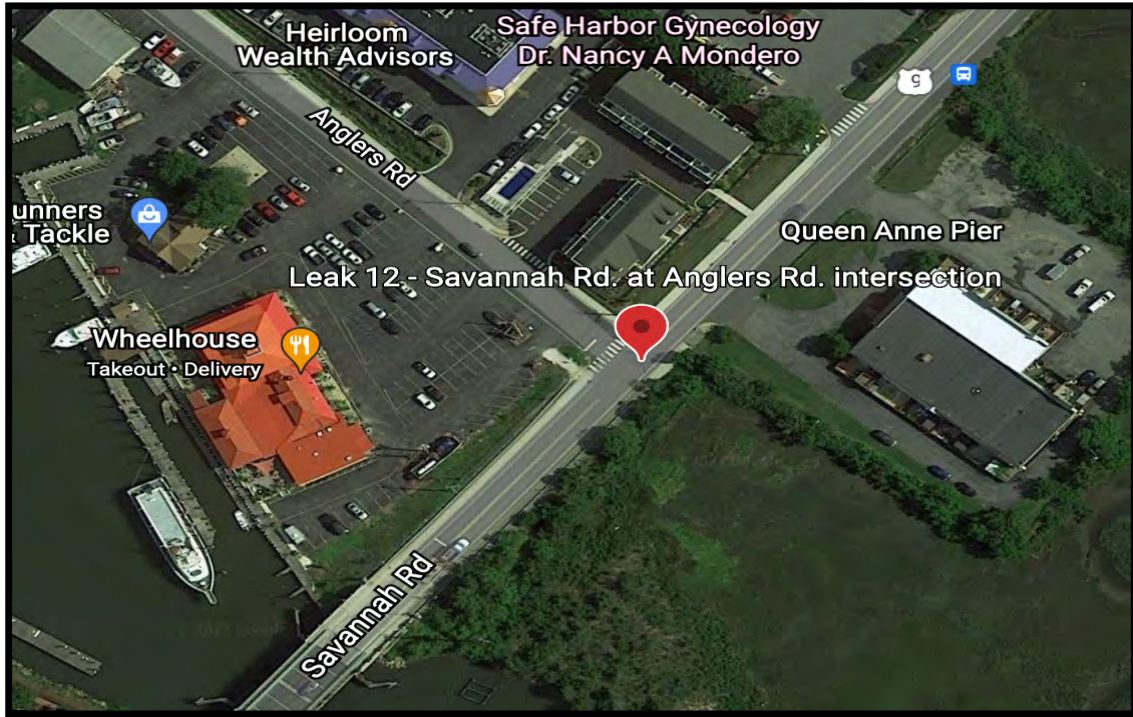
Leak Information

Point on Map	Leak 11
Field Notes	Leak appears to be under the meter inside of the meter box. Possibly a small hole in the meter body.
Traffic Considerations	Dual Lane
Reinstatement	Gravel Verge
Leak	Meter
Address	S. Cape Shores Dr (irrigation meter in the bushes), Lewes, DE
Zip	19958
X and Y Co-ordinates	38.781867 -75.106650
Severity	Minor (0.1 GPM)
Recommendation	Repair to be carried out as required



Leak Information

Point on Map	Leak 12
Field Notes	Leak appears to be at or near the main line valve. We correlated the area 3 different times, and each time it came back to the "center" valve, which had the most noise. Valve in question was painted blue.
Traffic Considerations	Dual Lane
Reinstatement	Concrete Verge
Leak	Line Valve
Address	Savannah Rd. at Anglers Rd. intersection, Lewes, DE
Zip	19958
X and Y Co-ordinates	38.776530 -75.136792
Severity	Minor (5 GPM)
Recommendation	Repair to be carried out as required



Water Loss Summary (Gallons)

Point on Map	Per Day	Per Week	Per Month (30 Days)	Per Year
Leak 1	2,880	20,160	86,400	1,051,200
Leak 2	4	25	108	1,314
Leak 3	1,440	10,080	43,200	525,600
Leak 4	2,880	20,160	86,400	1,051,200
Leak 5	2,880	20,160	86,400	1,051,200
Leak 6	1,440	10,080	43,200	525,600
Leak 7	2,880	20,160	86,400	1,051,200
Leak 8	360	2,520	10,800	131,400
Leak 9	360	2,520	10,800	131,400
Leak 10	144	1,008	4,320	52,560
Leak 11	144	1,008	4,320	52,560
Leak 12	7,200	50,400	216,000	2,628,000

Following our recent comprehensive survey of 54 miles of the distribution network, we would like to draw your attention to the 12 leaks which have been located resulting in the losses shown in the tables below.

Total Loss Per Day (Gallons)	Total Loss Per Week (Gallons)	Total Loss Per Months (30 days) (Gallons)	Total Loss Per Year (Gallons)
22,612	158,281	678,348	8,253,234

American Leak Detection, our field teams, Brian Carey, LaDanta Barnes and Siobhan Gayler and I would like to thank you for having the opportunity of working with you and your team in Lewes, DE.