

2022 FALMOUTH PESTICIDE MONITORING | RESULTS MEMORANDUM

INTRODUCTION

FB Environmental Associates (FBE) was contracted by the Town of Falmouth to conduct baseline pesticide and fertilizer monitoring of stormwater outfalls in 2022. The goal of this pilot monitoring program was to track changes in related parameters (pesticides and nutrients) following the Town-wide changes in pesticide and fertilizer management. A recent adopted ordinance of a pesticide and fertilizer management requires professional applicators to register with the Town and to submit annual pesticide and fertilizer application reports which specify the application location, date, and compound(s) used.

This memorandum includes a summary of the current state of pesticide and fertilizer monitoring in Maine, the sampling methodology used, sampling results, a discussion of key takeaways from the results, recommended next steps for the Town, and the results of the 2023 community survey on pesticide and fertilizer use.

CURRENT STATE OF PESTICIDE MONITORING SCIENCE IN MAINE

Pesticides, in the form of insecticides, herbicides, and fungicides, are used nationwide. Insecticide contamination is most prevalent in residential areas, while herbicide contamination is predominant in areas with heavy agricultural use (Van Metre *et al.* 2018). Inevitably these compounds make their way into surface waters where concentrations disperse, making specific identification and detection a difficult task. Additionally, pesticide compounds generally have a short persistence in the environment, meaning they degrade quickly, further complicating sampling protocols to determine contamination trends (Bryer, 2021). The most effective method for comprehensive pesticide sampling is to collect frequent samples throughout the course of the growing season. This method can capture seasonal fluctuations in pesticide concentrations but is not very practical due to the cost of sampling and analyzing frequent samples. Targeted sampling, as was completed in Falmouth in 2022, is more cost effective than high frequency sampling and provides preliminary insight into the concentration and location of pesticide use.

The Environmental Protection Agency (EPA) has established Aquatic Life Benchmark threshold values for pesticide compounds (EPA, 2022). Benchmark values represent the concentration at which a particular pesticide compound is expected to detrimentally impact a given taxon (i.e., when aquatic life will be negatively affected by pesticide concentrations in the water). The susceptibility of species to contamination is varied and the EPA benchmark values are set forth to aid in the identification of priority sites and/or pesticides that may require further investigation.

Owing to its rural nature and relatively low potential for pesticide contamination, Maine is seldom the subject of national assessments of current-use pesticides in surface waters. A study conducted by the Maine Board of Pesticide Control (ME BPC) in 2019 aimed to address this information gap. The study used targeted sampling to test surface waters of 10 cities across Maine for pesticides and found that cities with a higher population size had a greater occurrence of different pesticides, although concentrations did not frequently reach levels of concern. Out of 6,300 tests throughout the 10 cities, only two samples were present over the Aquatic Life Benchmark threshold value.

In summary, pesticide sampling and analysis has limitations because detecting pesticides in surface waters can be very difficult or expensive for a variety of reasons (varied application methods, chemical properties of certain compounds, and elevated detection limits). Additionally, because pesticides are often applied seasonally, the pesticide concentration in surface waters can vary by time of year. It should also be noted that some pesticide compounds may exceed EPA threshold values for seasonal periods but on average seldomly exceed these threshold values.

METHODOLOGY

FBE conducted a field investigation on 3/28/2022 to locate potential outfalls to sample. Three target outfalls were selected for subsequent sampling (Map 1). Scientists from FBE completed stormwater outfall sampling on 6/9/2022, 8/18/2022, and 10/18/2022 at the three target outfalls. Descriptions of sampled outfalls are as follows:

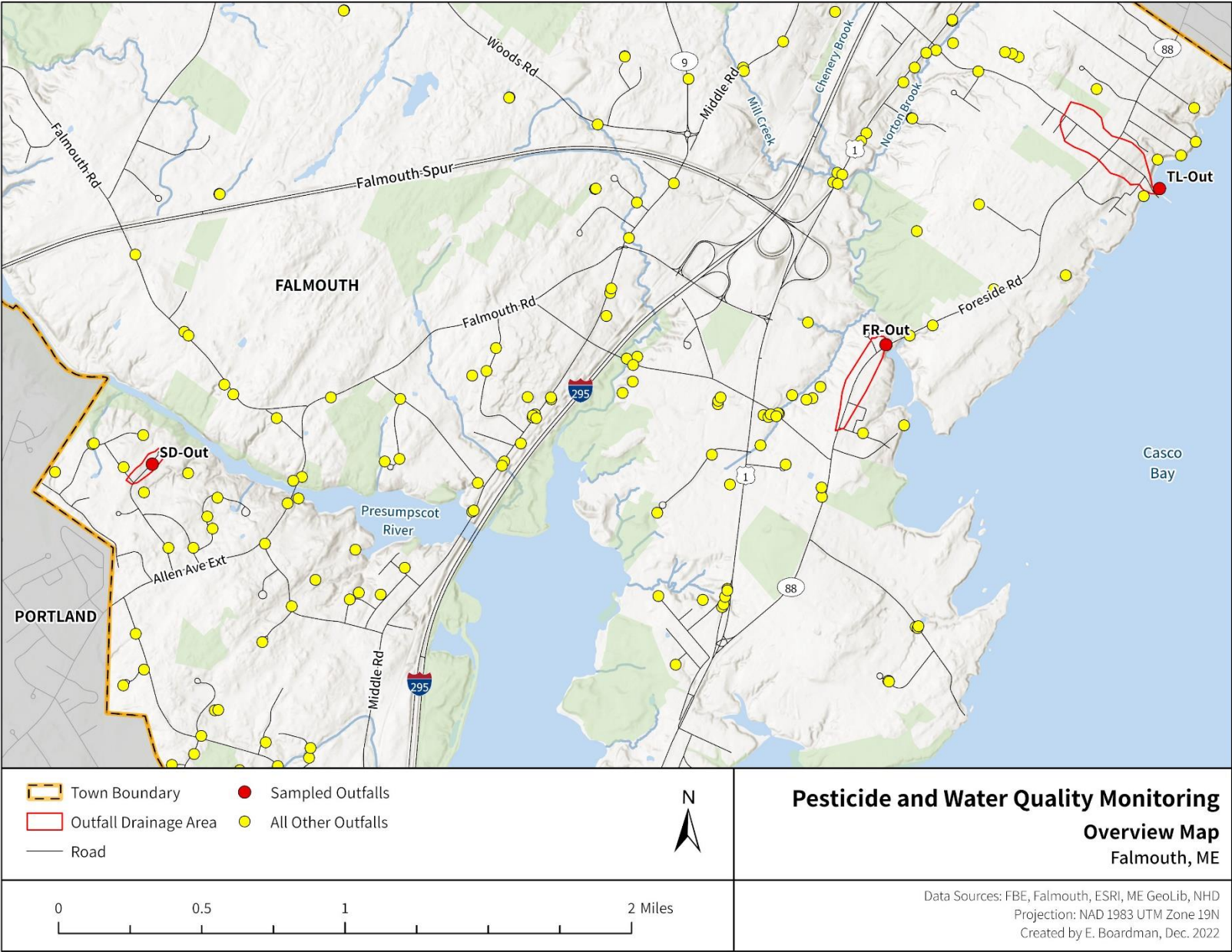
- **FR-OUT** is an outfall located on the western side of Foreside Road, which drains water through a vegetated swale and eventually into Mill Creek.
- **TL-OUT** is an outfall which drains into Casco Bay and is located at the end of Town Landing Road.
- **SD-OUT** is the final catch basin of Stapleford Drive. The catch basin was sampled instead of the outfall because the mapped outfall could not be located. The catch basin conveys stormwater drainage to the missing outfall.

Samples were collected during wet weather conditions ($> 0.5"$ rain within 24 hours) in an attempt to capture nonpoint source pollution transported by stormwater runoff (Table 1). FBE aimed to collect samples during the peak of the rain event (within limitations of laboratory business hours) to be able to obtain a sample from stormwater outfalls while they are flowing. Surface water samples were collected and analyzed as follows:

- Field parameters included dissolved oxygen, temperature, salinity, and specific conductance and were recorded using a YSI ProSolo field meter. Field pH was measured using an ExoStick pH meter.
- Total phosphorus, nitrate, nitrite, and total Kjeldahl nitrogen (TKN) samples were analyzed at Maine Environmental Laboratory (MEL) in Yarmouth, Maine.
- Samples were analyzed for polar and non-polar pesticide compounds by the Montana Department of Agriculture Analytical Laboratory (DAAL). The Montana DAAL was used per recommendation from the Maine Board of Pesticide Control because they accept out-of-state samples and offer a suite of residential and commercial pesticide analyses not offered by local laboratories.

Table 1. Precipitation totals 24, 48, and 72 hours prior to sampling. Weather data are from station KMEFALMO24.

Sample Date	Hours Prior to Sampling	Precipitation (in)
6/9/2022	24hrs	0.74
	48hrs	1.31
	72hrs	1.31
8/18/2022	24hrs	0.85
	48hrs	0.85
	72hrs	0.85
10/18/2022	24hrs	3.84
	48hrs	3.84
	72hrs	3.85



Map 1. Overview of sampled outfalls and the drainage areas of sampled outfalls for 2022 Falmouth Pesticide Monitoring.

RESULTS

Field water quality parameters, pH, temperature, dissolved oxygen, and specific conductance, and laboratory water quality parameters, total phosphorus, nitrate, nitrite, and TKN (to calculate total nitrogen), were measured at each site during each sampling event, except for FR-OUT, which was not sampled on the second sampling event (8/18/2022) due to a lack of flow from the outfall (Table 2). Field and laboratory parameters provide standard metrics of water quality that can help with data interpretation and have applicable state criteria. For example, dissolved oxygen in the water is critical to aquatic life. If there is an excessive source of nutrients to the stream (e.g., fertilizers), it can cause an abundance of algae to grow. The eventual decomposition of this algae by heterotrophic bacteria can consume the available oxygen and cause low dissolved oxygen readings. The Maine Department of Environmental Protection (DEP) and the EPA set recommended thresholds or mandated state criteria for several of these parameters. All sites met the recommended thresholds for pH, temperature, dissolved oxygen, and specific conductance. All sites exceeded the EPA recommended threshold for reference stream water quality conditions for total phosphorus and total nitrogen (calculated by the summation of nitrate, nitrite, and total Kjeldahl nitrogen) on all sampling events.

The Montana DAAL analyzes samples using their Universal Water Screen test, which tests for about 100 commonly used pesticides and reports samples with pesticide concentrations above the reporting limit. Second, an analysis for non-polar pesticides (such as pyrethroids and permethrin) was run.

Given the challenge of detecting pesticides in water samples, we presented results by the number of positive pesticide compounds or the number of pesticide compounds greater than the reporting limit (i.e. the minimum detection limit for the laboratory analyses). Of polar pesticide compounds detected using the Universal Water Screen test, the number of pesticide compounds detected above the reporting limit was highest for the first sampling event (6/9/2022) with a total of nine different pesticide compounds found between three outfalls (Table 3). Some compounds were detected at multiple outfalls. Subsequent sampling showed fewer pesticide compounds, with six different compounds present on 8/18/2022 between the outfalls (with some detected at multiple outfalls) and three different compounds present on 10/18/2022 between the outfalls. All non-polar pesticide compounds were non-detect in all samples.

Site FR-OUT had a total of six positive pesticide compounds on the first sampling event (6/9/2022) and two positive pesticide compounds on the third sampling event (10/18/2022). This site was not flowing on 8/18/2022 so no pesticide samples were collected. Site TL-OUT showed fewer positive pesticide compounds between each consecutive sampling event, with seven, two, and one pesticide compound(s) identified on 6/9/2022, 8/18/2022, and 10/18/2022, respectively. Site SD-OUT had five positive pesticide compounds on both the first and second sampling events. No pesticide compounds measured above the limit of quantification at SD-OUT on 10/18/2022.

Table 2. Field and laboratory water quality results for 2022 Falmouth pesticide monitoring sampling in Falmouth, Maine. **Red bolded** values exceed the freshwater threshold. Cells with a dash indicate a reading was not collected due to field meter errors.

Date	Site Name	Time	pH	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Temperature (°C)	Specific Conductivity (µS/cm)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
<i>Threshold (freshwater)</i>			<i>6.5 - 8.5</i>	<i>< 7 mg/L</i>	<i>< 75% saturation</i>	<i>> 24°C</i>	<i>> 854 µS/cm</i>	<i>> 0.02 mg/L</i>	<i>> 0.38 mg/L</i>
6/9/2022	FR-Out	11:51	7.73	9.22	92.2	20.3	23.4	0.23	0.89
6/9/2022	TL-Out	12:07	7.43	9.63	97.1	19.6	36.7	0.18	1.39
6/9/2022	SD-Out	13:00	6.91	8.77	87.7	23.9	53.0	0.13	1.32
8/18/2022	TL-Out	9:30	-	8.91	96.0	18.9	179.7	0.11	1.00
8/18/2022	SD-Out	10:00	-	8.70	92.7	18.4	-	0.09	1.24
10/18/2022	FR-Out	9:20	7.45	9.30	90.2	14.0	65.7	0.24	1.85
10/18/2022	TL-Out	10:00	7.74	10.09	98.9	14.4	237.0	0.05	2.59
10/18/2022	SD-Out	10:30	6.88	9.78	95.7	14.4	329.7	0.03	5.60
Average	FR-Out	-	7.59	9.26	91.20	17.15	44.55	0.24	1.37
Average	TL-Out	-	7.59	9.54	97.33	17.63	151.13	0.11	1.66
Average	SD-Out	-	6.90	9.08	92.03	18.90	191.35	0.08	2.72

Table 3. Total number of polar pesticide samples that were above the reporting limit at each site for each sampling event for 2022 Falmouth pesticide monitoring. All non-polar pesticide samples were non-detect. FR-OUT samples were not collected on 8/18/2022 because the outfall was not flowing.

Date	FR-OUT	TL-OUT	SD-OUT
Number of Positive Pesticide Results			
6/9/2022	6	7	5
8/18/2022	-	2	5
10/18/2022	2	1	0
Total	8	10	10



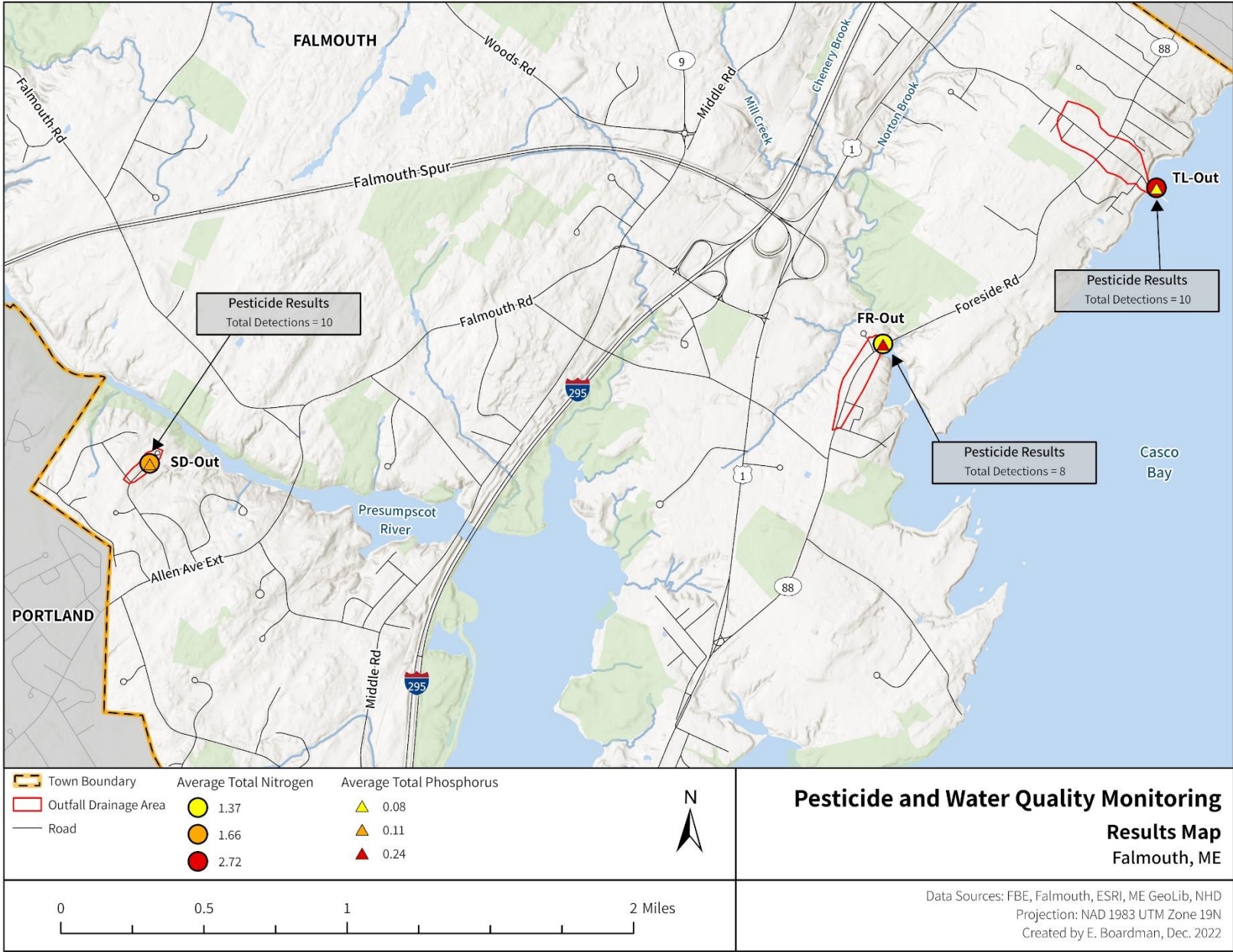
View of the FR-Out drainage area



View of where the TL-Out drainage area meets Casco Bay



The catch basin that was sampled at SD-Out and the site's drainage area.



Map 2. Summarized nutrient and pesticide monitoring results for 2022 Falmouth pesticide monitoring.

DISCUSSION & RECOMMENDATIONS

Elevated nutrients in stormwater, such as total nitrogen above the regional reference condition of <0.38 mg/L, are common in surface waters impacted by suburban/rural areas contributing polluted runoff such as Falmouth. While all total nitrogen results were greater than the regional reference condition, total nitrogen concentrations at SD-OUT (5.60 mg/L) and TL-OUT (2.59 mg/L) on 10/18/2022 were notably elevated above the regional reference condition as well as the results from other outfalls and during other sampling events. High levels of total nitrogen can cause eutrophication, leading to excessive growth of plants and algae. This is particularly pertinent to marine water and therefore is a concern for coastal areas like Falmouth. Furthermore, the elevated total nitrogen concentrations, which were largely comprised of nitrate, could be an indication of fertilizer in runoff or atmospheric deposition or both. A public survey with questions related to pesticide and fertilizer use indicated that approximately 40% of the respondents said they use fertilizers or pesticide on their properties (refer to the following section for additional survey results). Elevated levels of total phosphorus above the regional reference condition of <0.02 mg/L were measured at all sites during all sampling events and can also be an indication of polluted runoff from fertilizers or waste or other sources. pH was slightly higher than what would be expected at site FR-OUT and TL-OUT (as compared to similar areas along southern Maine), although still well within the range recommended by Maine DEP (6.5-8.5).

As mentioned previously, pesticide compounds can act as herbicides, pesticides, or fungicides. To help put the detected pesticide compounds into perspective, FBE identified which function the detected pesticide compounds perform. All three categories of pesticide compounds were detected during this monitoring (Table 4). Herbicide compounds were the most frequently detected, potentially indicating that herbicide use within the targeted drainage areas occurs throughout the growing season and is more widespread than that of insecticides or fungicides. One insecticide compound (Imidacloprid) was detected at least once at all sampling sites. This insecticide had the highest number of detections (six) of any pesticide compound. The number of detections and widespread occurrence of Imidacloprid may indicate that a specific product containing said compound is being used throughout the Town of Falmouth. Interestingly, most respondents of the survey who used pesticides indicated they were using pesticides to control weeds (i.e., herbicides). However, controlling weeds was closely followed by using pesticides to control insects, ticks, and mosquitos (i.e., insecticides).

There was only one pesticide compound that exceeded an EPA Registered Pesticide Aquatic Life Benchmark: Imidacloprid exceeded the benchmark for chronic harm to invertebrates (0.01 ppb) (EPA, 2022) at site SD-OUT on 6/9/2022 and 8/18/2022. This compound is commonly used to control insects, specifically fleas and ticks on pets. Imidacloprid is water soluble and when exposed to water and sunlight it degrades quickly, although degradation speed is impacted by pH and water temperature (Gervais *et al.* 2010). Imidacloprid has not been found to be toxic to birds but is slightly toxic to fish and highly toxic to insects such as honeybees.

The second most detected pesticide compound was the herbicide 2,4-D. This compound is widely used to control broadleaved weeds in a variety of settings, most pertinent are lawns, right-of-way areas, and aquatic sites (EPA, 2022). 2,4-D was detected at all sites on 6/9/2022, indicating that the compound may be applied more frequently and/or at higher concentrations in the spring. The compound was not found at a concentration that exceeds the EPA Aquatic Life Benchmark values.

Table 4. Number of detections and function for positive pesticide compounds detected above the limit of quantification during 2022 Falmouth pesticide monitoring.

Pesticide Compound	Function	Total Number of Detections
2,4-D	Herbicide	5
Atrazine	Herbicide	3
Deethyl atrazine	Herbicide	3
Diuron	Herbicide	1
Fluroxypyr	Herbicide	1
Imazapic	Herbicide	2
Imazapyr	Herbicide	1
Imidacloprid	Insecticide	6
MCPA	Herbicide	2
MCP	Herbicide	3
Tebuconazole	Fungicide	1

Recommendations

The results of this pilot study for pesticide and fertilizer monitoring completed in 2022 provide helpful insight into the presence of pesticides and possibly fertilizers in Falmouth but does not provide enough information to draw conclusions on the intensity of pesticide and fertilizer use, severity of their effect on aquatic life, or extent of the problem in Falmouth surface waters. If the Town of Falmouth wishes to continue pesticide and fertilizer monitoring, we recommend conducting a small neighborhood scale study (rather than a Town-wide sampling effort). For example, conduct a neighborhood scale study where all (or most) of the residents are interested in participating in reporting on pesticide and fertilizer use and frequency and establish a control site for comparison.

FALMOUTH WATER QUALITY MONITORING SURVEY SUMMARY

As part of this pesticide and nutrient monitoring pilot project, FBE also coordinated with the Falmouth Conservation Commission to complete a public survey with questions related to pesticide and fertilizer use and application timing as well as dog waste removal practices. The survey was open during the month of February 2023 and 152 residents participated. All results are available in Appendix A, and key results are summarized here.

When asked how important their lawn is to them on a scale from 1 (low) to five (high), most residents rated the importance of their lawn as a 3, moderate; however, when residents rated the importance of having a weed-free pest-free lawn, most residents rated it as a 1 (low).

Approximately 60% of the respondents said they do not use fertilizer or pesticide on their properties. Of the respondents who do use these products, most hire a professional rather than treat it themselves. The number of applications per year varies broadly, with the largest group of respondents (26%) applying two times per year and the second largest group of respondents (19%) applying only once per year. May, June, July, and September are the months pesticides are most commonly applied, while May and June are the months fertilizers are most commonly applied. Lawns were the most common location where fertilizers are applied (when compared to vegetable beds, flower beds, and potted plants). Of respondents who used pesticides, most people were using pesticides to control weeds, followed closely by insects, ticks, and mosquitos. An array of fertilizer and pesticide brands are used, with quantities used ranging from only 2 tablespoons a year to 160 pounds and more and spanning up to 25,000 square feet.

Of the respondents who own dogs, most pick up their dog's waste (83%) and most dispose of it in the trash (72%).

CITATIONS

Bryer P. 2021. Surveillance of current-use pesticides in Maine's freshwater resources along a population gradient.

https://www.maine.gov/dacf/php/pesticides/documents2/bd_mtgs/Nov21/6-Cities%20Report%20Draft.pdf

EPA. 2022. 2,4-D. <https://www.epa.gov/ingredients-used-pesticide-products/24-d>

EPA. 2022. US EPA Aquatic Life Benchmarks and Ecological Risk Assessments for Registered Pesticides.

<https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-and-ecological-risk>

Gervais, J. A.; Luukinen, B.; Buhl, K.; Stone, D. 2010. *Imidacloprid General Fact Sheet*; National Pesticide Information Center, Oregon State University Extension Services. <http://npic.orst.edu/factsheets/imidagen.html>.

Van Metre, P.C., Mahler, B.J., Carlisle, D., and J. Coles. 2018. The Midwest Stream Quality Assessment—Influences of human activities on streams. U.S. Geological Survey Fact Sheet 2017–3087. (<https://doi.org/10.3133/fs20173087>)

Weather History for KMEFALMO24. 2022. <https://www.wunderground.com/dashboard/pws/KMEFALMO24>

APPENDIX A

Question 1: Which street do you live on?*Answered: 148**Skipped: 4*

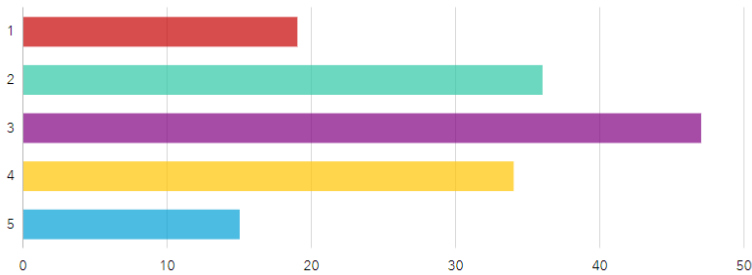
Road	Number of People
Allen Avenue ext	1
Alpine Drive & Sylvan	1
Anderson Drive	1
Arborside Drive	1
Autumn Way	1
Bayshore Drive	1
Bethpage Drive	1
Blackstrap Road	6
Casco Terrace	2
Chandler Drive	1
Chester Avenue	2
Copp's Way	1
Dale Street	1
Depot Road	2
East Ramsdell Road	2
Entwood Road	1
Falmouth Road	7
Field Road	1
Foreside Road	6
Fox Run Road	1
Goldenrod Lane	1
Gray Road	1
Hadlock Road	2
Halls Hill	1
Hardy Road	4
Hartford Avenue	1
Heron Point Road	1
Hideaway Lane	1
Hillside Avenue	1
Hunter Way	1
Huston Road	1
Innkeepers Lane	2
Inverness Road	1
Jackson Way	1
Johnson Road	2
Just A Mere Road	3
Knight Hill Road	1
Lakeside Drive	4
Ledgewood Drive	2
Leighton Road	1
Liberty Road	1
Lincoln Farms Road	1
Longwoods Road	3
Lowell Farm Road	1
Lower Falls Road	1

Road (continued)	Number of People
Madokawando Road	2
Mast Road	2
McKinley Road	1
Meadow Creek Lane	1
Merrill Road	2
Middle Road	9
Mitchellwood Drive	1
Mountain Road	1
Oasis Landing	1
Oriole Street	1
Paddock Way	1
Parker Way	1
Payson Road	2
Pine Grove Way	1
Pine View Road	1
Pinehurst Lane	1
Pride Farm Road	2
Providence Avenue	1
Ramsdell	2
Ridgewood Drive	1
Rockaway Road	1
Rt. 88	1
Scittery Gussett	1
Seaside Way	1
Shady Lane	1
Sherman Drive	1
Shoreline Drive	1
Slocum Drive	1
Sprucewood Lane	1
Stonecrest Drive	1
Susan Lane	1
Terison Drive	1
Thistle Lane	1
Thornhurst Road	2
Twin Ponds	1
Underwood Road	2
Waites Landing Road	1
Watts Farm Way	1
Winn Road	5
Winsome Lea	1
Winters	1
Woods Road	2
Woodville Road	4
Zacharias Farm Way	1

Question 2: On a scale of 1 (low) to 5 (high), please rate how important your lawn is to you.

Answered: 151

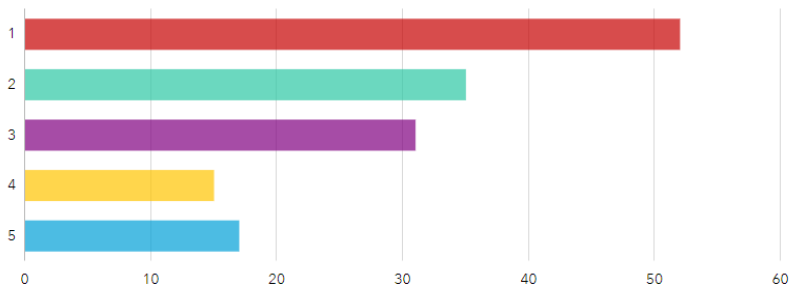
Skipped: 1



Question 3: On a scale of 1 (low) to 5 (high), please rate how important a weed-free, pest-free lawn is to you.

Answered: 150

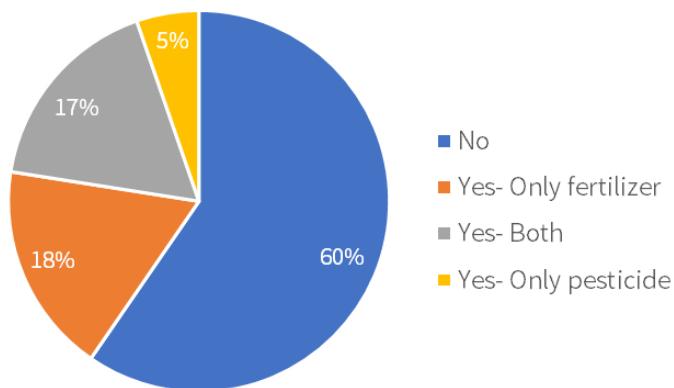
Skipped: 2



Question 4: Do you treat your lawns, gardens, and shrubs/trees, or other areas of your property with synthetic pesticides and/or fertilizer?

Answered: 151

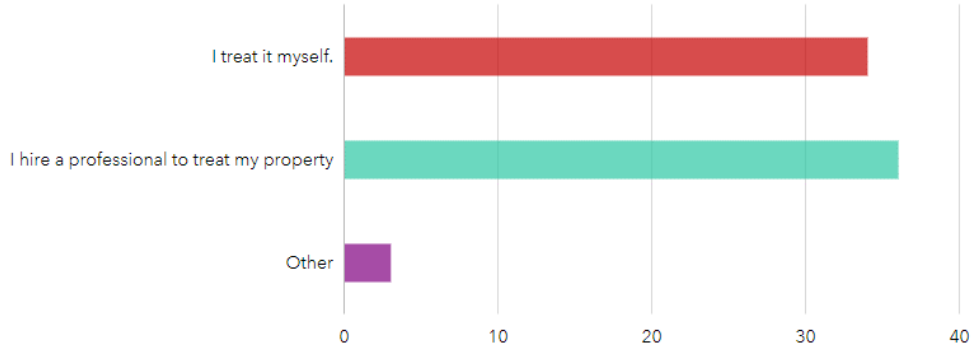
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Question 5: Who applies the synthetic pesticide and/or fertilizer to your property?

Answered: 64

Skipped: 88



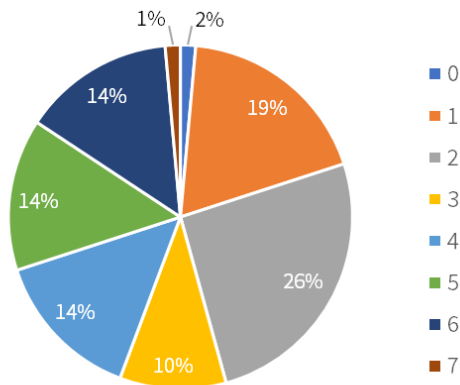
Other:

- Part of the Ridgewood Association. Only been here for 3 months.
- Condo association hires a service.

Question 6: On average how many applications of fertilizer and/or synthetic pesticide do you, or your hired land care professional, apply per year?

Answered: 77

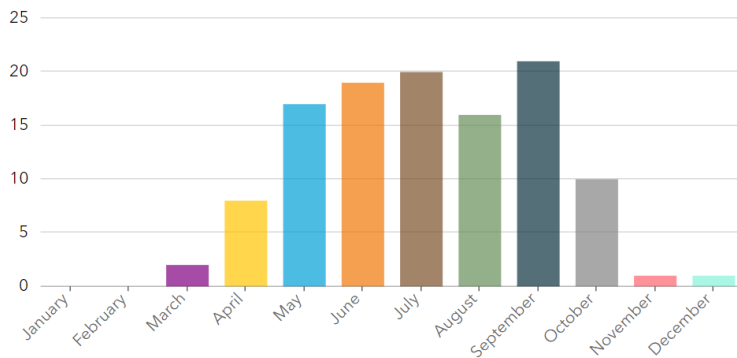
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Question 7: Which month(s) do you, or your hired land care professional, typically apply synthetic pesticides to your property?

Answered: 33

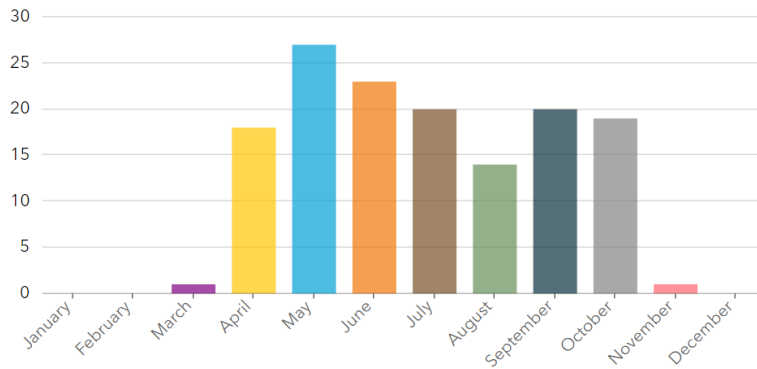
Skipped: 119



Question 8: Which month(s) do you, or your hired land care professional, typically apply fertilizer to your property?

Answered: 41

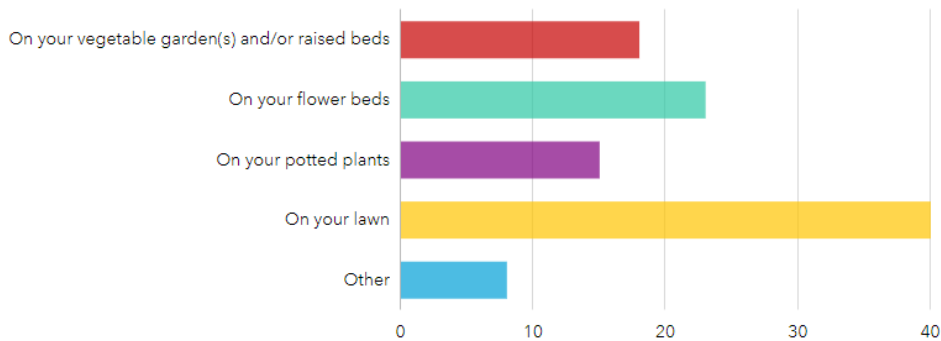
Skipped: 101



Question 9: Where do you, or your hired land care professional, use fertilizers?

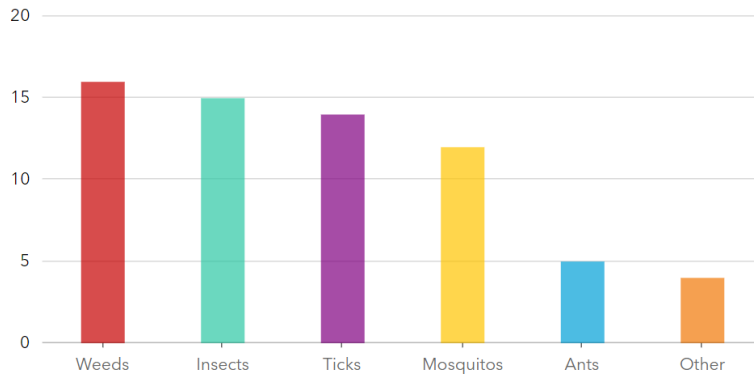
Answered: 58

Skipped: 94



Other:

- Root treatments for about 6 ashes (to protect against EAB), root treatments for about 8 hemlocks (to protect against HWA), and cut stump and some foliar treatments for invasives.
- Poison ivy in field edge
- On beds of rhododendrons and azaleas
- Fruit bushes and trees
- Edge of lawn where it meets wooded lot

Question 10: What do you, or your hired land care professional, use synthetic pesticides to control?*Answered: 37**Skipped: 115*

Other:

- Poison Ivy
- Grubs
- Fungus on fruit trees

Question 11: Which brand/type of fertilizer and/or synthetic pesticide do you, or your hired land care professional, use?*Answered: 57**Skipped: 95*

Brand	Number of Users
2,4-D	1
BioAdvanced	1
Bithenthrin	1
Compost	3
Cow Manure	1
Esposa Roots Organic	1
Fish Emulsion	2
Glyphosate	1
Granular Fertilier	6
Holly-tone	2
Horse Manure	1
Imidicloprid	1
Local Maine organic fertilizer	1
Milorganite	1
Miracle-Gro	7
Permethrin	1
Plant-tone	2
Pro Gro	2
Round Up	1
Scotts	6
Tenacity	1
I don't know	21

Question 12: What quantity of fertilizer and/or synthetic pesticide do you, or your hired land care professional, use per application?

Answered: 102

Skipped: 50

Response	Number of Responses
None	38
I don't know	27
Not Specified	6
Whatever is recommended in instructions	7
Small/minimal amount	6
1-2 tablespoons	1
Less than a small box per year	1
Less than 1/2 lb	1
2 lbs	1
1/2 gallon	1
5 lbs	1
10 lbs	1
20 lbs	1
50 lbs	2
80 lbs	2
160 lbs	1
400 sq ft coverage	1
15,000 sq ft coverage	1
2 small bags	1
3 bags	2
Cupfuls around branch circumferences of a dozen bushes and cupfuls on six flower beds.	1

Question 13: What is the total area treated with fertilizer and/or synthetic pesticide per application by you, or your hired land care professional?

Answered: 101

Skipped: 51

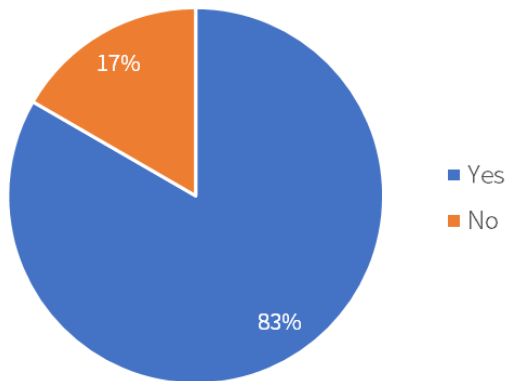
Response	Number of Responses
None	37
1/10 acre	1
1/4 acre	2
1/2 acre	3
1 acre	3
2 acres	2
3 acres	1
3.5 acres	1
3 sq ft	1
50 sq ft	1
64 sq ft	1
200 sq ft	2
400 sq ft	1
1,000 sq ft	1
3,000 sq ft	1
5,000 sq ft	3
6,000 sq ft	1
9,000 sq ft	1
10,000 sq ft	1
12,000 sq ft	2
15,000 sq ft	4
25,000 sq ft	1

Response	Number of Responses
I don't know	19
I use Benson Farms organic feed on my vegetable garden roughly 35 feet by 35 feet and on my raspberries as well as on my flower garden surrounding my house.	1
Less than 10 pots	1
Perimeter of the house only	1
Only the vegetable garden	1
Small area	2

Question 14: If you own a dog, do you pick up their waste from your yard?

Answered: 84

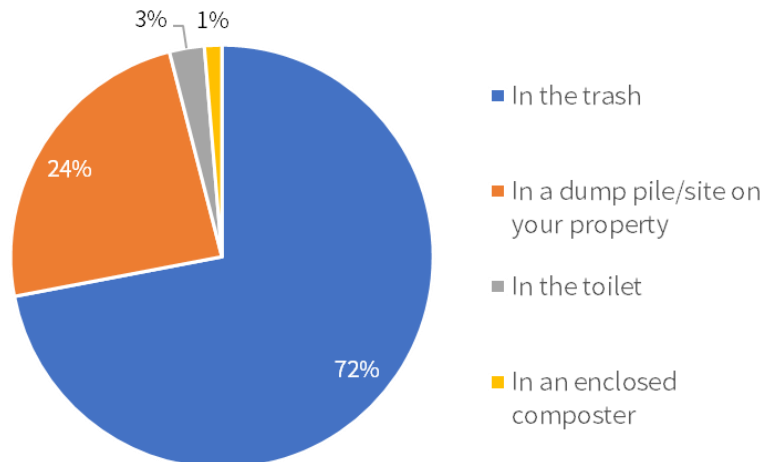
Skipped: 68



Question 15: If so, where/how do you dispose of your dog's waste?

Answered: 77

Skipped: 75



Additional comments and concerns

- The HOA applies pesticides, fertilizers, and herbicides to the common areas. Last year there were at least two instances of evidence that it had been spilled on the road, only to wash into storm drains when it rained. I am absolutely against using any of these, but I'm continually outvoted. We have never personally used insecticide or pesticides on our own lawn and, as of this year, will no longer use fertilizer.
- I am concerned about the Poppy Lane new development that borders my land. They are obviously using pesticides on their weed free lawns. I have my own well, thus I am potentially concerned for my health. P.S. I am glad you are doing this. Can you have a conversation with those who are using pesticides?
- There was no place for notes so using this space: My neighborhood is on Mussel Cove. Over the past 20 years I have seen all the mussels disappear from Mussel Cove and thick green algae grow along the shore and beaches. Many neighbors along the waterfront and in the neighborhood use pesticides and fertilizers that leach into the soil and into the ocean. It's a big problem and they just don't understand or see the impact of their actions. They also don't see that pesticides that kills insects also kill honeybees and birds and can harm all kinds of species, let alone contribute to the algae and choking the clams and mussels. I hope this effort by the town can help address this the same way the Portland and other communities have.
- I don't own a dog, but visitors sometimes (rarely) bring their dogs -grossly over-estimated at less than 10 visits in a year. Waste is tossed into the tall grass (field) to decompose - there are no harvested crops on this land.
- We keep the area untreated within 100 feet of the stream on our property. We are beginning to let significant areas of the lawn revert back to natural ground cover/grass and leave it untreated.