

## **MEMORANDUM**

**To:** Conservation Commission

**CC:** Nathan Poore, Town Manager

**From:** Ashley Krulik, Sustainability Coordinator

**Date:** October 22, 2020

**Re:** Water Testing Regarding Pesticides and Fertilizers

---

This memo is intended to provide the Conservation Commission background information on the use of water testing to guide further regulations on the use of pesticides and fertilizers within Falmouth and offer recommended next steps for the Commission to take based on this exercise to achieve the purpose outlined in the Ordinance.

### **Recap of Pesticide and Fertilizer Ordinance**

The Town of Falmouth is committed to safeguarding the health and welfare of the residents of Falmouth and to conserve and protect Falmouth's environment, water, and natural resources by ensuring the proper use of outdoor pesticide and fertilizers in Falmouth. To support this commitment, an Ordinance for Pesticide and Fertilizer Regulations was passed on March 9, 2020. This Ordinance requires professional licensed applicators to register with the Town and pay a fee prior to the application of pesticides and/or fertilizers within the town. It also requires an annual application report from registered applicators, due January 31 of each year. This report will assist Town staff in developing a baseline understanding of the location, type, and quantity of pesticides and/or fertilizers used within the town.

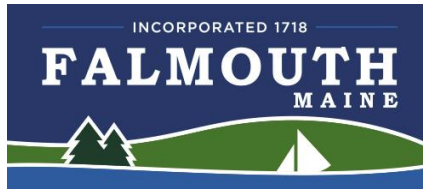
### **Applicator Registration Status**

To date, 19 companies have registered with the Town.

### **Water Testing Approach**

To further support the Town's commitment and guide the development of potential additional fertilizer- and pesticide-specific regulation, Town staff and Conservation Commission explored water testing strategies to gain better knowledge of the prevalence of non-point source (NPS) pollutants in downstream waterbodies. Staff obtained two water testing proposals from FB Environmental Associates and sought expert advice from the Casco Bay Estuary Partnership and Maine Department of Environmental Protection. The takeaway from these proposals and the expert reviews of them is that collecting the data needed to reasonably estimate the input of pesticides and fertilizers into, and impact on, the town waterbodies will be very challenging because:

- NPS pollutants enter waterbodies through various mechanisms, including stormwater runoff and complex groundwater flow paths, making isolating and identifying the NPS pollutant's specific source difficult;



- The chemical composition of the pollutant can change its 'ability' to move through the landscape, with processes such as adsorption to soil particles and chemical breakdown occurring along its transport pathway;
- There is little precedent for monitoring pesticide contamination in surface waters in Maine; and
- An extensive and costly sampling and analysis program would be needed to achieve significant results.

### **Pesticide and Fertilizer Monitoring Working Group**

In addition to scoping out a possible water testing program, Town staff explored with the same parties the establishment of a Pesticide and Fertilizer Monitoring Working Group to identify the specific questions that staff should try to answer upfront to make the water testing effort efficient and as least costly as possible. Upon concluding this exploration, Town staff determined that even with the establishment of a monitoring working group with a detailed monitoring approach, including the careful selection of testing sites, precise data collection, mapping, and land use analysis, the challenges to water testing would still be prevalent and weigh on the Town's ability to feel confident in the results.

### **Recommendations**

Reducing the amount of pesticides and fertilizers that are used within Falmouth will protect the environment and safeguard its residents. To achieve this goal, the recommended next step Town staff suggest is continued educational outreach to residents about alternatives to, and appropriate application of, pesticides and fertilizers. Informing residents about the harmful effects of pesticides and fertilizers will better prepare them to guide their hired lawn care professionals and well as their own application of these products.

Town staff proposes, working in tandem with the Conservation Commission, to develop and implement an extensive outreach plan to elevate the *Living Lawns* campaign utilizing news media, digital platforms, social media, retailers, and educational materials to broaden the reach of this message and adoption of alternative practices.

In addition, analysis of the already required licensed applicator reports will give us year-over-year usage data that the Town and Conservation Commission can use to assess the success of the educational campaigns.

While water testing does offer some new data and benefits, broadening our educational campaign will get to the core of the Town's purpose more quickly – ensuring the proper use of pesticides and fertilizers in Falmouth.