



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY
BOARD OF PESTICIDES CONTROL
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333

6

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

Memorandum

To: Board of Pesticides Control

From: Pamela J. Bryer, Ph.D. | Pesticides Toxicologist | Maine Board of Pesticides Control

Subject: Forestry Aerial Herbicide Project Update

Date: December 2, 2022

This update memo is meant to advise the board members on progress to date and provide an opportunity for input and advice. Executive Order 41 directed the BPC to conduct an extensive water quality monitoring project in the summer/fall of 2022. The projected cost of the project hovers around \$100,000. Funds were not allocated to cover the cost of the proposed project. BPC staff used summer 2022 to prepare for and ground-truth the project plan while sources of funding were sought out. BPC hired a temporary employee for 20 hr/wk to work on these tasks.

Summer 2022 Activities-

Glyphosate monitoring capabilities- The Caas Cube is a piece of analytical equipment that allows for rapid low-cost screening of water samples for glyphosate. This summer staff worked through use of the equipment and established a standard operating procedure (SOP). The SOP is needed to be included in the Quality Assurance Project Plan (QAPP) to be created for this study. Monies received from EPA for water quality studies require the establishment and documentation of a thoughtful research approach which the QAPP document satisfies.

Field visits- Staff visited several areas to be sprayed in 2022 for site prep and conifer release activities to better assess the feasibility of the previously proposed plan. These activities highlighted the lack of appropriate sampling areas as described in the previously proposed plan. State pesticide law prohibits broadcast spraying within 25 feet of waterbodies while harvest laws restrict timber harvest within 75 to 250 feet from waterbodies. While the distance to water is variable and based on various factors, clear-cutting is not allowed as close to waterbodies as spraying is allowed. Standard industry practices as well as Maine laws governing timber harvesting (Chapters 21 and 27 https://www.maine.gov/dacf/mfs/rules_and_regulations.html) mean that the previous water quality study plan (which was built around exploring if the current distances cited in pesticide regulations are sufficiently protective) is not relevant to how forestry is conducted today. A review of sites on

MEGAN PATTERSON, DIRECTOR
90 BLOSSOM LANE, MARQUARDT BUILDING



PHONE: (207) 287-2731
WWW.THINKFIRSTSPRAYLAST.ORG

GIS layers marked with streams shows that most areas to be sprayed are much farther from streams. Distances of 2,000' to 2,500' were commonly found.

BPC staff have extended the contract with our temporary employee to better describe the distances common to timber harvest and, by extension, aerial herbicide activities. In fall 2022, we will use ArcGIS layers to determine distances to waterbodies (lakes, ponds, rivers, streams, wetlands, and vernal pools) and SALOs as submitted in the 2022 spray plans from all of the companies conducting this work in 2022.

Future Activities-

A new approach to water quality sampling needs to be finalized once the data from the mapping investigation are obtained. While visiting the areas an additional complication to the study design was the proximity of multiple spray plots. This complicates the previous sampling plan but does open the door to a new approach. We noticed that with many sites draining into a single watershed that downstream sampling could provide an integrated understanding of the extent of pesticide movement within the watershed. Small boat launches in particular provide a high 'touch point' where public exposure might occur if pesticides were present in the watershed. Sampling from boat launches allows a focus on protection of human health as boat launches are frequently used by people to fish and swim.

The previous sampling plan's aim was to capture both day-of application drift and run-off over time. Moving forward, fewer sites with increased data collection per site might be more appropriate. Drift collectors set in the forest around a spray area will likely collect more data than surface water sampling.

A combination of integrated watershed water sampling to detect the general prevalence and site-specific drift sampling might provide a better dataset for understanding the scope of offsite movement rather than the previous sampling plan given the actual practices used by our local industry.