



May 6, 2024

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Re: Response to Proposed Framework for Water Monitoring Programs in Canada (released March 22, 2024)

The Canadian Environmental Law Association ([CELA](#)) is a federally incorporated non-profit organization and a Legal Aid Ontario Clinic that uses existing law to protect the environment, and advocates environmental law reform to promote access to justice and to provide aid to low-income individuals and disadvantaged communities in Ontario facing environmental problems.

CELA welcomes the opportunity to submit comments and recommendations to the consultation document “Proposed Framework for Water Monitoring Programs in Canada” (“Proposed Framework”) released for public comment by Health Canada Pest Management Regulatory Agency on March 22 2024.¹ CELA supports the need to develop a National Water Monitoring program for pesticides in Canada. The proposed Framework for Water Monitoring in Canada advances the efforts by Health Canada Pest Management Regulatory Agency towards this goal. However, we have identified several significant gaps in the Proposed Framework that weaken Health Canada’s “commitment to provide access to information, meaningful public understanding, and transparent decision-making”² pertaining to completing evaluations of

¹ Health Canada Pest Management Regulatory Agency. March 22, 2024. Consultation on Proposed Framework for Water Monitoring Programs in Canada

² Health Canada Pest Management Regulatory Agency. March 22, 2024. Consultation on Proposed Framework for Water Monitoring Programs in Canada.

pesticides. Furthermore, we note that the commitment to “Increase and strengthen the data available for risk assessment and risk management decisions” will be undermined if the issues presented below are not effectively addressed and incorporated in the Proposed Framework. Finally, we focus on the following issues to ensure that the Water monitoring program for pesticides will not lead to risk to human health and the environment, particularly threats to drinking water sources (groundwater and surface water) and aquatic organisms from pesticides that may be present in lakes, rivers and streams.

Proposed Framework Lacks Strategy and Workplan to Outline Commitment and Resources

The Proposed Framework includes key elements of the work to be undertaken to support and engage in water monitoring for pesticides in Canada. However, the proposed framework lacks a strategy and workplan that outline how and when the monitoring will be undertaken in Canada. The absence of such a Strategy that outlines the specific commitments and deadlines to be followed by Health Canada is critical to the effectiveness of the Proposed Framework. We think the Proposed Framework lacks the necessary triggers to put in place a national water-monitoring program. In addition, the absence of such a strategy and uncertainty of the resources available to undertake a national water monitoring program, suggest that the Proposed Framework will to rely mainly on the monitoring programs that already exist at the Provincial/Territorial level, rather than carve out a unique and distinct role for Health Canada and PMRA to fill the data gap on pesticides and outline how the data will be used to conduct risk assessments of pesticides moving forward.

Recommendation: The Proposed Framework should be accompanied by a strategy and workplan including timelines to determine when and how water monitoring is undertaken by Health Canada PMRA. The failure to outline a strategy and workplan commitment will undermine the Proposed Framework.

Prescriptive Priority Setting for Pesticides Needed

The Proposed Framework aims to inform decision making on pesticides and has been, in part, informed by the 2-year pilot program on water monitoring. The pilot project included monitoring for close to 200 pesticides and transformation products. There is a clear expectation that a Proposed Framework would include some consideration of prioritizing pesticides for water monitoring. However, this is not the case with the Proposed Framework. It has not included a list of pesticides and transformation products that the government sees as priorities. The factors for considering priorities is inadequate and seems to focus on applying a ranking tool to set priorities. It would be more relevant if the approach included a substantive role for stakeholders, particularly communities and other vulnerable groups that could add their perspective on this exercise. According to the Pest Management Regulatory Agency Annual Report 2020–2021, “There are more than 600 registered active ingredients in more than 7600 registered pesticide products in Canada.”³ The work completed under the pilot program is a starting point to establish

³ Health Canada. February 18, 2022. Pest Management Regulatory Agency Annual Report 2020–2021. URL:

priorities for monitoring pesticides but should take into consideration the input of other stakeholders, particularly potentially at risk communities (where there is an increase of use of pesticides or may end up) and other experts (e.g. academic researchers). We will not be in a position to provide substantial insight into many of the pesticides in the current market if the framework does not provide a clear commitment to expand on the list of pesticides for monitoring in water. Finally, the consideration of prioritizing pesticides should also include specific formulants and contaminants on pesticides (i.e. PFAS or dioxins).

Recommendation: Establish a list of active ingredients and pesticide products to conduct water monitoring beyond reliance of a ranking tool. This approach should engage input from other stakeholders including vulnerable communities and experts such as academics (that do not have conflicts of interest) but are well established on monitoring methods for pesticides.

Transformation and Metabolites

The Proposed Framework fails to outline a commitment to include transformation products and metabolites in the water monitoring. In fact, the lack of a specific commitment to consider transformation products for monitored is further complicated by discussing the potential cost to monitor these products and the uncertainty of methods to identify such products. The absence of a commitment to include transformation products will be a significant oversight as the formation of transformation products and metabolites is a significant part of the fate and lifecycle of the pesticides. Moreover, formulants and contaminants are also not considered in the Proposed Framework and no specific details were provided for their exclusion.

Recommendation: Outline a specific commitment to include transformation products and metabolites in the Proposed Framework as part of establishing a priority list of pesticides and active ingredients including formulants and contaminants (i.e. PFAS and dioxins).

Recommendation: Add pesticide formulants and contaminants for consideration in the Proposed Framework.

Role of Monitoring Data in Conducting Risk Assessment for Pesticides

Health Canada states a clear objective for designing water monitoring data for pesticides to “Increase and strengthen the data available for risk assessment and risk management decisions.” Further noting:

...Monitoring levels of pesticides in water can identify potential risks to aquatic life and human health and support effective regulatory decisions.

Linking pesticide concentration to ancillary data, such as the amounts of pesticides applied, the timing of applications, weather information (e.g., wind, rain), hydrological modelling data or the type of soil, can help interpret pesticide monitoring results. Water monitoring data provide more realistic exposure scenarios, allowing for refinement of risk assessments beyond the use of water modelling exposure estimates. As real-world data are made available, the PMRA will closely review the water monitoring data for pesticide concentrations to identify possible risks and determine if further action should occur, such as improved mitigation (e.g., reduction in rates, mandatory vegetative filter strips) or best management practices (i.e., seeding setback, voluntary vegetative areas, riparian strips) to prevent movement of the pesticide from the application site and reduce risks to aquatic environments.⁴

The Proposed Framework does not provide how the monitoring data will be used in risk assessment. We note that to effectively use water-monitoring data, the following information should be prescriptive in the Proposed Framework to provide predictability in conducting risk assessment. It is important that the following information be included in the Proposed Framework:

- Identify locations, and times where pesticides are used;
- Monitoring methods must include data from use and toxicity information to look at peak concentration of pesticides that is determined by specific properties including but not limited to identifying and using highest application rates, weather and water conditions to capture times of heavy runoff or snow melt, etc.;
- Establish high frequency sampling approaches and take into account the changes in concentration, particularly high concentrations, of the pesticide product. Address chronic exposures in the environment by assessing concentrations over time;
- Be designed to validate the models that the PMRA uses to assess estimated environmental concentrations;
- Ensure that geographic and spatial distribution for monitoring takes into account different landscapes, agricultural areas, province/territories, differences in water bodies (stream, lakes, etc.) precipitation patterns (snowfall, rainfall, etc.) and even seasonal differences when conducting water monitoring.

Recommendation: Add more details on how the water monitoring is used to conduct risk assessment for pesticides.

Recommendation: Water monitoring data for risk assessment should include the data noted above.

⁴ Health Canada Pest Management Regulatory Agency. March 22, 2024. Consultation on Proposed Framework for Water Monitoring Programs in Canada.

Database on monitoring data and public accessibility

The Proposed Framework outlines the importance of making the water monitoring data available and accessible through the Government of Canada's Open Data portal. It is equally important that the monitoring data collected also include information on the Open Data portal on how the data has been used to support risk assessment of pesticides products and active ingredients. The reference to the section titled "Reports and Interpretation" outlines some of the methods that can be used to demonstrate how water monitoring data will be shared to the public. It is critical that this approach be more specific on what method is taken to release the data that has been used and provided in the database. Data releases through annual reports or risk assessment completed on pesticides, must be easily tracked to the data presented in the database to demonstrate how it has been used and potential limitations associated with it in the context of the report prepared. Potential users of the data available through open access could benefit from the approaches taken by the government on how the data is used and reported to the public.

Recommendation: Add requirements in the Proposed Framework focused on details of the database to ensure that the public is provided with updates to the database on a regular basis and available through a publicly accessible website. Furthermore, the database and reports by the government (e.g. annual report or risk assessment) should include information on how the water monitoring data was used.

Please do not hesitate to contact us should you have questions.

Yours truly,
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