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Maryland Pesticide Network

My name is Ruth Berlin and I am the executive director of the Maryland Pesticide Network, a coalition of 25 Maryland organizations concerned about the impact of pesticides on public health, wildlife and the Bay.

The Maryland Pesticide Network urges the Chesapeake Bay Program to fully implement the 2010 Chesapeake Bay Protection and Restoration Executive Order 13508 mandate to establish toxic contaminant reduction goals. Toxic contaminants of concern include PCBs, PAHs, pesticides, mercury, pharmaceuticals and endocrine disruptors.

As a coalition of public health, health care providers, consumer and environmental organizations we are deeply disturbed by the exclusion in the 2014 Chesapeake Bay Program (CBP) Watershed Agreement of toxic reduction goals, when a steadily growing body of research links these toxic chemicals to intersex fish, fish kills, hermaphroditism in amphibians, alarming rates of bee hive deaths and public health impacts including increased rates of asthma, autism, birth defects, cancer, ADHD, depression, obesity, neurological, reproductive and developmental impacts, Parkinson's disease, Alzheimer's, reduced IQ and more. Recent research links systemic neonicotinoid pesticides, already linked to bee hive deaths, to brain damage in children and adverse impacts on blue crabs.

Current state programs and local toxic maximum daily load (TMDL) standards inadequately address the serious and pervasive contaminant data gaps identified in the 2012 federal report - *Toxic Contaminants in the Chesapeake Bay and its Watershed: Extent and Severity of Occurrence and Potential Biological Effects* ("Toxic Contaminants Report"*).* While data is available to take action now and establish best management practices (BMPs) to stop ongoing Bay contamination, the Executive Council must adopt measures to ensure over time and on an ongoing basis that the BMPs are adequately protective. This requires:

- ✓ Rigorous ongoing data collection of toxic compounds in the Bay
- ✓ Adopting new reduction measures for toxic runoff from the full range of use patterns, and
- ✓ Strategies for addressing interstate contamination.

The 2010 Chesapeake Bay Executive Order Strategy for Protecting and Restoring the Chesapeake Bay Watershed, notes that:
- Addressing the significant problem of toxic pollutant contamination in the Bay and its watershed is a key element of this strategy" and cites "significant" environmental and human health risks from toxic contaminants.
- Reducing or eliminating the input of chemical contaminants from all controllable sources to levels that result in no toxic or bioaccumulative impact on the living resources that inhabit the Bay or on human health" is a priority goal.
- In addition to nutrients and sediments, other serious contaminants negatively affect Bay water quality, such as PCBs, PAHs, metals such as mercury, endocrine disruptors, and pesticides.

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The 2012 Toxic Contaminants report details the extent and severity of Bay chemical contaminants. The U.S. EPA, Geological Service, and Fish and Wildlife Services report was part of President Obama's 2010 Chesapeake Bay Executive Order to set goals for reducing toxic substances. The report notes:

-- Since 2000, new concerns, such as intersex conditions in fish, have arisen. Although the causes are undetermined, "increasing evidence indicates that contaminant exposures may play a role."
-- About 72% of the Bay segments are impaired by contaminants.
-- Widespread occurrence throughout the Bay watershed of Polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), herbicides and mercury and localized occurrences of dioxins/furans, petroleum hydrocarbons, some pesticides and some metals.
-- Monitoring data gaps exist for toxic contaminants such as certain pesticides and pharmaceuticals dioxins and furans, petroleum hydrocarbons, household and personal care products, flame retardants, and biogenic hormones. Moreover, the widespread distribution of contaminant sources (e.g., wastewater effluents, agricultural runoff, etc.) in the watershed and summarized occurrence data indicate that contaminants from each of these groups have the potential to be found in many Bay watershed locations. For example, data and research gaps exist for many pesticides and consequently the extent and severity remains uncertain and cannot now be evaluated; the potential sublethal effects of low concentrations of many pesticides and their mixtures in the environment are poorly understood.

The CBP Watershed Agreement must specifically target toxic compounds, including pesticides, pharmaceuticals, mercury, PCBs and PAH's and include the following in the 2014 CBP agreement:

- **Goal- Toxics:** The effects of thousands of chemicals and the mixtures of those chemicals in our waterways are some of the least understood influences on the Chesapeake Bay and its watershed tributaries. The addition of known eco-toxins and endocrine disrupting chemicals to our waterways makes it necessary to increase research and re-emphasize the goal of the Clean Water Act to reduce these chemicals. Our goal is to improve knowledge of the effects of toxic contaminants on the health of fish, wildlife and the public by 2015 so strategies can be determined to reduce loadings of PCBs, PAH's, pesticides, pharmaceuticals and mercury in order to return water to the ecosystem that has the least amount of chemicals of any kind, and has no toxic or bio-accumulative impact on living resources or on human health.

- **Monitoring Outcome:** Jurisdictions will address toxic contaminant data gaps as outlined in the 2012 *Toxic Contaminants in the Chesapeake Bay and its Watershed: Extent and Severity of Occurrence and Potential Biological Effects* Report; Jurisdictions will increase their own monitoring of the toxics identified in the Toxic Contaminants Report, and their cooperation with federal agencies currently working to improve our understanding of toxics and potential toxics in order to identify and implement strategies for reducing occurrence and impact of toxic contaminants in the Chesapeake Bay.

To minimize the importance of a clear and aggressive strategy for toxics as a priority in the CBP Watershed Agreement is to ignore the seriousness and urgency of health and environmental threats that continue to escalate. The Maryland Pesticide Network urges you to carry out the mandate of the Executive Order, respond to the 2012 report, and incorporate clear and specific strategies and

toxic chemical reduction goals into the Agreement.