

April 30, 2015

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Mr. Nicholas DiPasquale
Chair, Chesapeake Bay Program Management Board
410 Severn Avenue, Suite 109
Annapolis, MD 21403



**RE: Toxics Policy and Prevention and Toxics Research
Management Strategies Comments**

Dear Mr. DiPasquale and Management Board Members:

The undersigned members of the Choose Clean Water Coalition—a coalition of organizations from Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia with the common goal of restoring the thousands of streams and rivers flowing to the Chesapeake Bay—respectfully submit the following comments on the draft Toxics Policy and Prevention and Toxics Research Management Strategies.

Members of the Choose Clean Water Coalition specifically asked that the toxics goals and outcomes be included in the Chesapeake Watershed Agreement. We are pleased that the goals and outcomes were included in the agreement, and we recognize the significant work and resources that went into compiling the detailed information and approach related to PCBs in the policy and prevention strategy. We also recognize the effort to address a broader suite of toxics in the research strategy.

However, the toxics management strategies need significant work to ensure that they will meet the stated outcomes.

A. The Toxics Policy and Prevention Strategy, as Currently Drafted, Will Not Meet Chesapeake Watershed's Toxics Outcome.

The Chesapeake Bay Watershed Agreement toxics outcome is to:

Continually improve practices and control that reduce and prevent the effects of toxics contaminants below levels that harm aquatic systems and humans. Build on existing programs to reduce the amount and effects of PCBs in the Bay and watershed. Use research findings to evaluate the implementation of additional policies, programs and practices for other contaminants that need to be further reduced or eliminated.

The Toxic Contaminants Policy and Prevention Management Strategy's sole focus on PCBs to the exclusion of all other toxic contaminants fails to meet the outcome's broad focus on toxic contaminants. Policies and programs to reduce PCBs is only one element of the outcome.

The Toxics Management Strategy work group claims that other toxics will be addressed in later iterations of the management strategy. But, as the Chesapeake Bay Watershed Agreement explains, "the strategies will outline the means for accomplishing each Outcome" and "will be implemented in two-year periods." *Chesapeake Bay Watershed Agreement at 15.* To spend a year developing a management strategy that only addresses PCBs and then to suggest that other toxics will be addressed later misses this opportunity of public comment and partner

attention and resources to address a broader suite of toxics. Focusing on PCBs for the first two-year implementation period may be a good strategy. But limiting the entire management strategy to only PCBs and then suggesting other toxics be addressed at some later point in time is unacceptable.

At the very least, the Toxic Contaminants Policy and Prevention strategy should contain the general outline of management approaches for a broad range of toxics policy and prevention issues that can be further fleshed out in two-year work plans and through the adaptive management process. These comments provide specific suggestions of elements of management approaches that should be included in the final Toxic Contaminants Policy and Prevention Management Strategy. Significantly, offers by members of the work group to draft language addressing a broader suite of toxics issues were rejected by the work group lead.

B. The Toxic Contaminants Policy and Prevention Management Strategy Should Include Management Approaches Addressing a Broad Array of Toxic Contaminants.

The current version of the Toxic Contaminants Policy and Prevention management strategy only addresses PCBs, to the exclusion of other toxic contaminants. Because public health and aquatic systems in the Chesapeake Bay Watershed are threatened by more toxic contaminants than PCBs, the policy and prevention management strategy must lay out the framework for addressing additional toxic contaminants.

Further, because several Chesapeake Bay Watershed Agreement signatories are already taking policy and prevention steps to address toxic contaminants beyond PCBs, we can learn from those signatories and incorporate into the management strategy toxic policy and prevention strategies that are already underway in Bay states. By recognizing the steps that jurisdictions are already taking to address toxics, we will give jurisdictions credit for the work they are doing to address toxics and will facilitate a process by which other jurisdictions can replicate those strategies.

For example, several states are currently pursuing toxics policy and prevention strategies that would not be covered within the draft strategy. These include, but are not limited to:

- Virginia's rail safety effort;
- West Virginia's effort to address chemical storage facilities;
- Maryland's ban on microbeads; and
- The City of Harrisburg, Pennsylvania's resolution against oil trains.

Including placeholders for crude-by-rail safety, chemical storage, accumulated metal, fracking wastewater and tailings, microbeads, coal ash, tar sealants, pesticides, and other contaminants in the policy and prevention strategies will allow us to recognize the work being done around the watershed while making space for jurisdictions to design their own toxics 2-year work plans.

1. The Toxic Contaminants Policy and Prevention Management Strategy Should Address Chemical Storage.

On January 9, 2014, a chemical storage tank in Charleston, West Virginia leaked 10,000 gallons of a chemical into the Elk River shutting down access to drinking water for the capital city and nine surrounding counties. As the Elk River spill in West Virginia demonstrated, chemical storage is an important issue to address in preventing the effects of toxic contaminants in our waters. There are over 1,100 toxic chemical storage sites within the James River watershed alone. The Policy & Prevention management strategy is missing a huge opportunity to preserve these issues for future discussion, in light of the prevalence of chemical storage in the Bay watershed and demonstrated impacts of poor management of these sites.

Suggested management approaches include:

- Map above-ground chemical storage locations along all waterways.
- Develop and adopt a policy of regular inspections of above ground chemical storage facilities. Areas that have the potential to contaminate waterways should have stricter standards to ensure that leakage does not occur.
- Review current industry practices and determine range of standards. Fill any gaps identified in the existing industry toxic storage policies and procedures with standards that ensure adequate safeguards and inspections for the storage of all chemicals. These should include storage tank construction, labeling, inspection, leak detection, and recordkeeping requirements.

2. The Toxic Contaminants Policy and Prevention Management Strategy Should Address Crude-by-Rail Safety.

On April 30, 2014, a train carrying crude oil derailed and caught fire in Lynchburg, Virginia. Three rail cars fell into the James River. One caught fire and completely lost its contents, either by burning up or spilling into the river. In the aftermath of the Lynchburg oil train explosion and the resulting fire on the James River, it is important to include rail safety—particularly related to oil trains and trains carrying toxic chemicals—in the toxics policy and prevention strategy.

Suggested management approaches include:

- Encourage the federal government to adopt comprehensive new safety standards including strict speed limits, adequate insurance requirements, and tank car standards which will protect the public from future accidents involving Bakken crude trains.
- Insist that new safety standards classify Bakken crude oil appropriately based on its volatility and require appropriate notification to state and local governments of the hazardous substances being carried through their borders.
- Increase inspections, particularly along the lines hauling Bakken crude oil. This issue can be addressed simply by hiring new inspectors.

3. The Toxic Contaminants Policy and Prevention Management Strategy Should Address Sedimentation Accumulation of Metal Loadings such as Iron, Aluminum, or Manganese.

Approximately 1,920 stream miles in the Susquehanna River Basin are impacted by sedimentation accumulation of metal loadings such as iron, aluminum, or manganese. These toxic metals, often the result of abandoned mine drainage, pollute more than 5,500 miles of Pennsylvania's waterways. These impacted waterways, often easily identified by their bright orange or neon-blue hue, are literally rendered lifeless. There are no fish, crayfish, not even grasses in these toxic streams. Groups in Pennsylvania such as Eastern Pennsylvania Coalition for Abandoned Mine Reclamation have been working tirelessly to address these toxic conditions, and these conditions should be addressed by the management strategy. It is improper to limit the definition of "toxic" to chemicals that have been identified as such in regulation. Toxic should be interpreted broadly to include the quantity of pollutants that leads to impairment of the aquatic life use.

Suggested management approaches include:

- Prioritize and fund abandoned mine drainage impacted watersheds in need of cumulative hydrogeological watershed assessments to measure metal (iron, manganese, aluminum), sediment, and acidity loadings of the headwater tributaries impacted that flow to the Susquehanna River's East and West Branch's, ultimately reaching the Chesapeake Bay.
- Conduct riparian forest and streamside buffer projects along previously impacted abandoned mine lands within the Chesapeake Bay watersheds where reclamation and reforestation initiatives can be implemented under the Appalachian Region Reforestation Initiative.
- Utilize geographic information systems (GIS) maps that can be overlapped with stormwater MS4 communities in need of correcting their deficiencies to prioritize funding for BMPs and watershed restoration work.
- Map abandoned mines within the Chesapeake Bay watershed that have the potential to produce abandoned mine drainage leading to significant harm of aquatic conditions.

4. The Toxic Contaminants Policy and Prevention Management Strategy Should Address Fracking Wastewater and Tailings.

Somewhere between 20% – 40% of the water used for hydrofracking a well returns to the surface as wastewater, also known as produced water. This wastewater not only contains the toxic and hazardous chemicals used in fracking fluid but also contains contaminants that it picks up from deep within the earth, most notably heavy metals, volatile organic compounds, salty brine and radioactive materials. Insufficient or incomplete treatment of wastewater results in water being released into our streams, rivers and lakes that contain contaminants that are in higher levels that are considered safe. Given the existence and growth of hydrofracking in the region, the management strategy should address this issue.

Suggested management approaches include:

- Ban open pits in the watershed.
- Prohibit fracking waste water from being sent to publicly owned treatment works.
- Ban use of use of wastewater from drilling for winter snow and ice clearing and dust management.
- Prohibit use of use of fracking drill cuttings in roadways and well pads as a "beneficial reuse."

5. The Toxic Contaminants Policy and Prevention Management Strategy Should Address Microbeads.

Tiny plastic particles from a wide range of personal care products and cosmetics have been found in increasing numbers in waters across the region. Scientists checking four Maryland rivers with a net pulled up microplastic particles in all but one of their 60 samples, with the greatest concentrations in Baltimore's Patapsco River.¹ Microplastics may be harmful to fish that ingest them, where they could irritate or damage their digestive systems. Further, plastic marine debris also accumulates toxic pollutants such as PCBs.

Suggested management approaches include:

- Ban microbeads in cosmetics.

6. The Toxic Contaminants Policy and Prevention Management Strategy Should Address Coal Ash Impoundments.

On February 2, 2014, a stormwater pipe burst sending 39,000 tons of coal ash and 24 million gallons of wastewater into the Dan River in Eden, North Carolina. The Dan River incident raised awareness of the dangers of coal ash and the toxic impacts such catastrophes can have on aquatic life. In Virginia, eleven coal ash facilities lie along the banks of rivers. Four are in the James River watershed and others discharge directly to the Potomac River.

Suggested management approaches include:

- Map all coal ash impoundments in the watershed.
- Design safeguards to ensure the coal ash impoundments are maintained and do not fail (i.e. lead to groundwater or surface water contamination).
- Require emergency preparedness plans for all jurisdictions in which coal ash impoundments are located.

¹ See Yonkos et al. Microplastics in four estuarine rivers in the Chesapeake Bay, U.S.A. Environ Sci Technol. 2014 Dec 16;48(24):14195-202 <http://www.ncbi.nlm.nih.gov/pubmed/25389665>

7. The Toxic Contaminants Policy and Prevention Management Strategy Should Address Coal Tar Sealants.

Coal-tar based seal coat is the black, viscous liquid sprayed or painted on asphalt pavement like parking lots. Studies by the United States Geological Survey have identified coal-tar based sealcoat as a major source of polycyclic aromatic hydrocarbon (PAH) contamination in urban areas for large parts of the Nation. Polycyclic aromatic hydrocarbons (PAHs) are suspected to be human carcinogens and are toxic to human life.

Suggested management approaches include:

- Ban use of coal-tar-based sealcoat

8. The Toxic Contaminants Policy and Prevention Management Strategy Should Address Pesticides.

A steadily growing body of research links toxic chemicals, especially pesticides, to contaminated intersex fish, fish kills, alarming rates of bee hive deaths and public health impacts. These include 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. Given these threats, pesticides should be addressed in the management strategy.

Suggested management approaches include:

- Create a simple and cost-neutral, centralized online pesticide reporting database accessible to public health and environmental experts. The database can be funded through an increase on the annual product registration fee paid by pesticide chemical manufacturers.
- Protecting pollinators by requiring labelling of nursery plants treated with toxic, bee-killing pesticides and restrict their consumer use.

9. The Toxic Contaminants Policy and Prevention Management Strategy Should Address a Broad Array of Toxics, including Tributyltin and copper.

While PCBs are a legacy problem, other toxics are an increasing problem throughout the watershed. Toxics like polycyclic aromatic hydrocarbons (PAHs) and metals like copper and chromium also have toxic effects in the waterways. They should be tested for and policies should be adopted to minimize their presence in our waterways.

Suggested management approaches include:

- Encourage alternatives to anti-fouling paints.
- Limit copper in brake pads, like California and Washington.
- Assess the feasibility of testing for all PAHs and 23 Target Analyte List metals more regularly from stormwater dischargers.

C. The Research-related Management Approaches Should Be Moved from the Toxic Contaminants Policy and Prevention Management Strategy to the Toxic Contaminants Research Management Strategy.

Several of the management approaches included in the toxics policy and prevention strategy actually relate to research. For example, the draft includes an entire section labeled “Stormwater Research Approaches.” There are also wastewater and atmospheric approaches related to research. Any research-related approaches should be included in the Toxic Research Management Strategy instead of the policy and prevention strategy.

D. The Toxic Contaminants Policy and Prevention Management Strategy Should Be Edited to Make the Strategy More Readable and Accessible to the Public.

The Toxic Contaminants Policy and Prevention Management Strategy is nearly unreadable for people who are not experts in working with government agencies and scientific acronyms. In the first five pages of the management strategy, it uses 27 different acronyms 123 times. This level of acronym use is unacceptable in a document that is sent out for public comment and meant to provide an umbrella approach for reducing toxics throughout out watershed. While use of some common acronyms, like PCBs and TMDL, may be unavoidable, acronyms like TCW, CWA, ICPRB, OSCPP, LCD and abbreviations for the states only serve to make the document extremely difficult to read.

To the extent the Bay Program partners seek partnership and assistance from any non-profit groups in meeting the toxics goals, the Toxic Contaminants Policy and Prevention Management Strategy needs to be edited with an eye to making the strategy more readable.

We are happy to discuss our comments on the draft Toxics Management Strategies further. Please contact Jill Witkowski by phone at 443-842-7525 or by email at witkowskij@nwf.org.

Respectfully submitted,

Anacostia Watershed Society

Audubon Naturalist Society

Blue Water Baltimore

Clean Water Action

Conservation Pennsylvania

Conservation Voters of Pennsylvania

Delaware Nature Society

Eastern Pennsylvania Coalition for Abandoned Mine Reclamation

Friends of the North Fork of the Shenandoah River

Friends of the Rappahannock

James River Association

Lackawanna River Corridor Association

Maryland Conservation Council

Maryland Environmental Health Network

Maryland Sierra Club
Mid-Atlantic Council of Trout Unlimited
National Aquarium
National Parks Conservation Association
Nature Abounds
Neighbors of the Northwest Branch, Anacostia River
New York League of Conservation Voters
Penn Future
Potomac Riverkeeper Network
Rock Creek Conservancy
Sleepy Creek Watershed Association
South River Federation
St. Mary's River Watershed Association
Trash Free Maryland
Virginia Conservation Network
Waterkeepers Chesapeake
West Virginia Rivers Coalition