Toxic Contaminants Research Outcome

Effective date: 2016-2018

Goal: *Toxic Contaminants*
Outcome: Research
Long term Target:
2 year Target:
Partner contributions to 2 year target:

Management Approach 1: Supply information to make fish and shellfish safe for human consumption

Key Action *Description of work/project. Define each major action step on its own row. Identify specific program that will be used to achieve action.*	**Performance Target(s)** *Identify incremental steps to achieve Key Action*	**Partners Responsible** *Identify responsible partner for each step.*	**Geographic Location**	**Timeline** *Identify completion date (month and year) for each step.*	**Estimated Project Cost** *Best estimate total cost of project (need)*	**Available funding by Partner**	**Total Available Funding** *Roll up of estimated funding*	**Factors Influencing and/or Gap** *ID related factor or gap in Mgmt. Strat*
1. Monitor levels of PCBs in fish and shellfish and move contaminated sites towards cleanup (discussed in Policy and Prevention Work plan)	(see policy and prevention)	(see policy and prevention)	(see policy and prevention)	(see policy and prevention)				
2. Better delineate toxic contaminant sources from diffuse sources of land, release from deposits in stormwater pipes, and atmospheric deposition. (see policy and prevention work plan)	(see policy and prevention)	(see policy and prevention)	(see policy and prevention)					
3. Summarize information from recent studies by NOAA and partners to enhance understanding of the effects of contaminants on shellfish and fisheries.	Need NOAA to decide if they want this included	NOAA and partners						

4. Consider the development of a PCB mass balance model for the Chesapeake Bay.	Depends on the results of strategy and prevention source tracking results.	TCW and science partners						
5. Generate further information on mercury, focused on determining whether further Chesapeake Strategies are needed to supplement national efforts to reduce its impact on fish and associated consumption advisories.	• Establish a Mercury Subgroup that would begin to summarize information to be considered by TCW to minimize effects of mercury. • Maryland is conducting a trend analysis study on young of the year (MD DNR?). • Review and obtain information documented during the establishment of Maryland's proposed Mercury TMDL (MD MDE?).	Mercury Working Group (Scherwell, DNR?)						
6. Explore the extent to which diverse populations are located in areas where fish advisories are being issued, using EPA's EJSCREEN tool.	• Obtain funding for a collaborative project with the Diversity Action Team.	TCW and Diversity Action Team						
Management Approach 2: Understanding the influence of contaminants in degrading the health, and contributing to mortality, of fish and wildlife								
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1. Generate information to document fish health conditions in the Bay watershed.	• Summarize information from USGS and cooperator studies on the status of fish health in the watershed (USGS).	USGS in partnership with MD, PA, and WV						

	• Evaluate findings from condition of Yellow Perch in urban areas (FWS, MDE). • Continue monitoring of fish conditions in agricultural areas (with companion studies on occurrence and sources of EDCs) (USGS with PA, MD, and WVA). Begin planning for studies in urban areas. • Expand activities to identify compounds causing the observed impacts on fish (USGS). • Reflect additional studies of fish health (other partners?)							
2.Assess the effects of toxic contaminants on wildlife by summarizing existing studies and considering additional research activities.	• Complete review of contaminants found in wildlife. Present results to TCW and consider needs for additional studies (USGS) • Publish and present results from the recently published Chesapeake Bay osprey food study (USGS). Assess results from the Delaware-based osprey food study currently underway. Have TCW consider results and implications for relative risk (what would be the process for to summarize and consider information?) • Continue study on tumor analysis in the tidal Potomac. (FWS). Have TCW consider	USGS and FWS						

	results and implications for relative risk (same as above)							
Management Approach 3: Document the occurrence, concentrations, and sources of contaminants causing fish and wildlife degredation								
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3. Better define the sources and occurrence of EDCs and other contaminant groups that are affecting the health of fish and wildlife.	• Prepare initial summary of the occurrence and sources of contaminant information collected by USGS in the Bay watershed (USGS) • Continue study of sources and occurrence of EDCs in agricultural watersheds (same locations as fish health studies). Gather information for GIS analysis of sources and occurrence of EDCs in the watershed (USGS with MD, WV, PA). Begin planning for study of urban watersheds, focusing on impact of BMPs on EDCs in the environment. • List other EDC, Pesticide and hormone water collection studies (that are not connected to above)	USGS in partnership with MD, WV, and PA						
4. Identify settings where inputs of contaminants are expected to have the maximum impact on fish, amphibian, and other biological resources, as well as								

human health.								

Management Approach 4: Assess the relative risk of contaminants, and options for mitigation, to inform policy and prevention

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1.Develop approaches to assess the relative risk of contaminants to help inform policy and prevention strategies.	• Provide lessons learned from DC study (DOEE) • Develop approaches to assess relative risk to help inform policy and prevention strategies (WHO and HOW) How do we begin to summarize info on pesticides, PAHs, etc for consideration	TCW, DOEE						
2.Share approaches for assessing relative risk with the TCW so that they can consider options for mitigating impacts of toxic contaminants.	• Begin a risk assessment study of EDCs compounds with occurrence of intersex and other fish health conditions (USGS)	USGS						

Management Approach 5: Gather information on issues of emerging concern

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3.Propose STAC workshops to	• STAC will conduct a literature	STAC						

address contaminant toxicity to pollinators, and microplastics.(Medium)	review on the effects of microplastics on fish and wildlife.							
4. Better delineate potential impacts of UOG activities.								