MANAGEMENT STRATEGY Toxic Contaminants Research

GOAL: Toxic Contaminants

OUTCOME

Continually increase our understanding of the impacts and mitigation options for toxic contaminants. Develop a research agenda and further characterize the occurrence, concentrations, sources and effects of mercury, PCBs and other contaminants of emerging and widespread concern. In addition, identify which best management practices might provide multiple benefits of reducing nutrient and sediment pollution as well as toxic contaminants in waterways.

CURRENT EFFORTS

- All jurisdictions, in cooperation with USEPA, have monitoring programs to ensure there are guidelines for safe fish and shellfish consumption.
- Ongoing research to better understand the influence of toxics on the health of fish and wildlife.
- The *Toxic Contaminant Summary Report* (2013) provides the most current understanding of 10 contaminant groups.
- Monitoring programs for occurrence and concentrations of selected contaminant groups (e.g., pesticides).
- The Research workgroup has reached out to local organizations in areas of most concern.

GAPS

- Research needed to improve information on PCB sources to fish contamination.
- Research needed to determine primary contaminants (and mixtures) adversely affecting fish and wildlife health.
- Monitoring gaps for dioxins, furans, petroleum hydrocarbons, some pesticides, pharmaceuticals, household and personal care products, flame retardants, and biogenic hormones.
- Need more information on issues listed in research strategy to consider moving beyond PCBs in the next management strategy.
- More information needed about the presence/ impacts of microplastics in the watershed.
- Limited activity to engage local groups.

MANAGEMENT APPROACHES

The research agenda is the primary mechanism for the management approach. The issues addressed in the research agenda are:

- Provide information to make fish and shellfish safe for human consumption.
- Understand the influence of contaminants in degrading health, and contributing to mortality, of fish and wildlife
- Document the occurrence, concentrations, and sources of contaminants causing fish and wildlife degradation. Primary activities will focus on contaminants affecting fish health.
- Assess relative risk of contaminants, and options for mitigation, to inform policy and prevention. An initial approach could be based on Toxic Contaminant Summary Report.
- Gather information on issues of emerging concern, for example, contaminant toxicity to pollinators and microplastics.
- The research team will work with local organizations to inform them of ongoing studies and discuss closer interaction

Chesapeake Bay Program
Science. Restoration. Partnership.

For the full management strategy, visit: www.chesapeakebay.net/managementstrategies