Improve the CBP Monitoring Networks: Toxic Contaminants

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Based on efforts by the CBP Toxic Contaminant Workgroup

Strategic Approach by the TCW

- Reviewed outcomes for Toxic Contaminant Goal
  - Policy and Prevention
  - Research

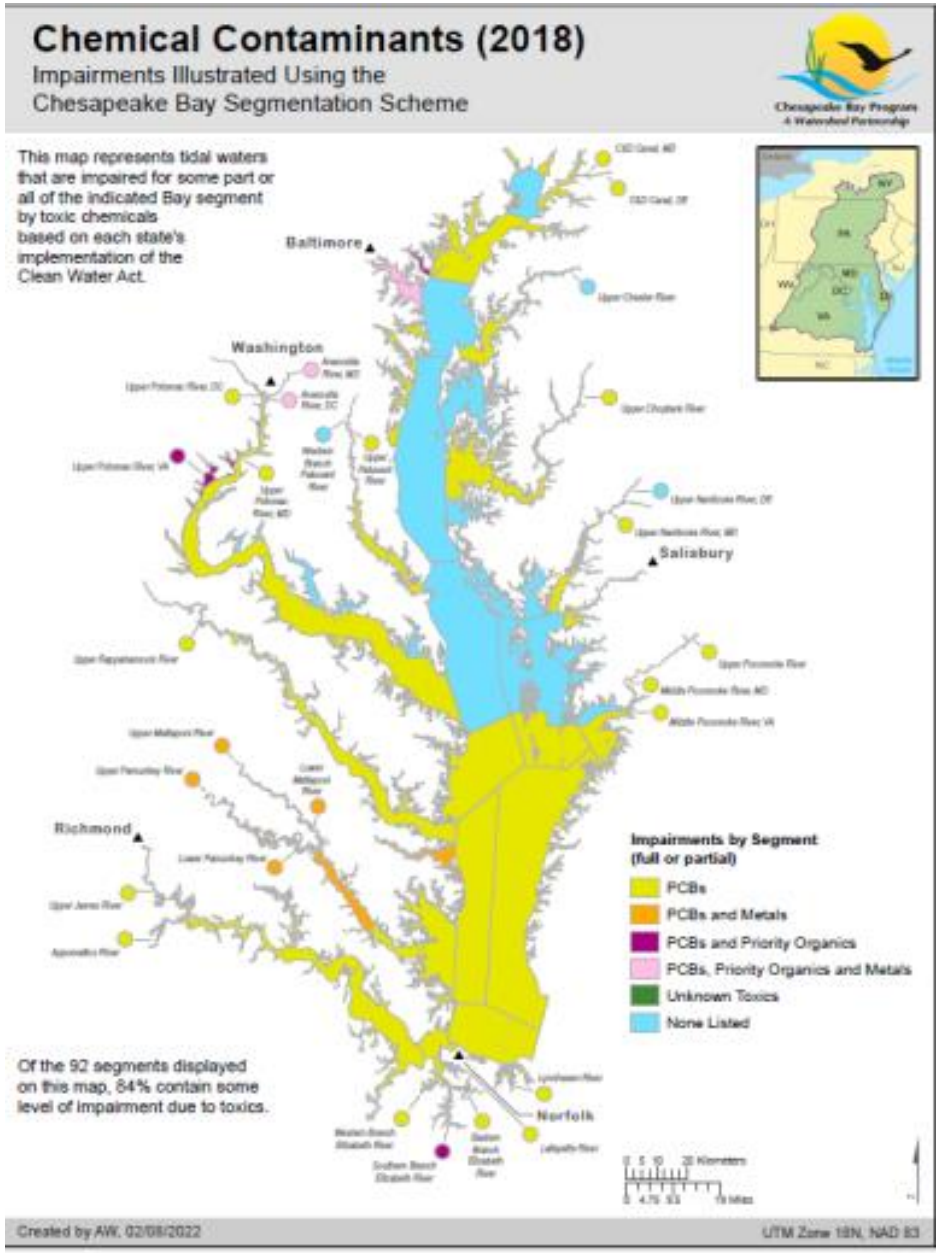
- Identified four primary monitoring needs:
  - Changes to PCBs levels as total maximum daily loads (TMDLs) and associated management actions are implemented.
  - Assessing contaminants of emerging concern (polyfluoroalkyl substances [PFAS] and microplastics).
  - Assessing contaminants of widespread concern (such as pesticides)
  - Changes to mercury as TMDLs and associated management actions are implemented.

Toxic Contaminants: PCBs

Many places impaired but no coordinated monitoring

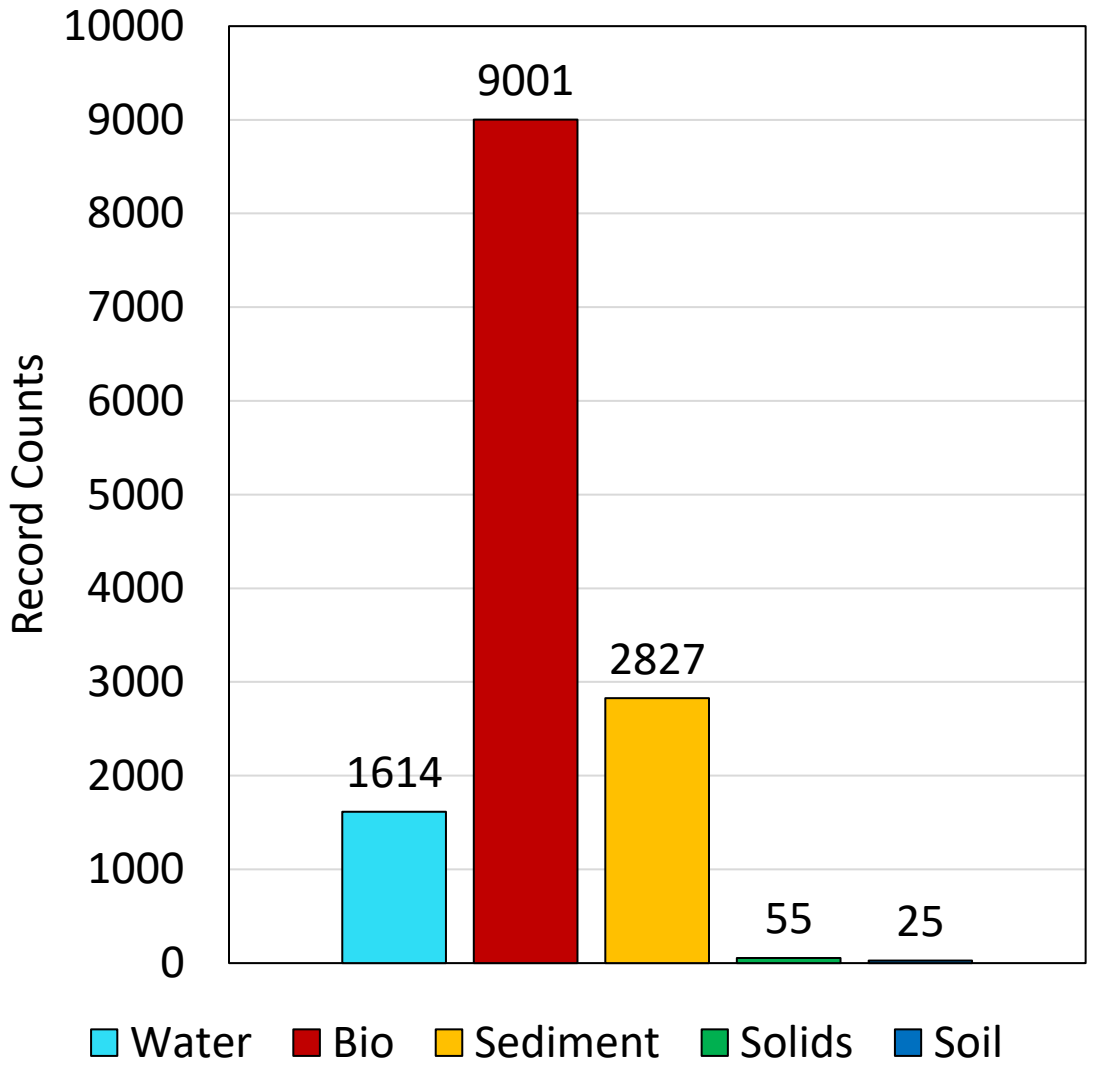
Establish network to detect changes in PCBs from TMDLs

Supplement existing sampling in selected places



Current Monitoring

- Numerous sites with one time or rotational sampling to assess condition
  - Most monitoring by states and DC
  - Fish, water, sediment
  - Sampled every 2-5 years
- Methods vary among jurisdictions and federal agencies
  - Different lab methods
  - Many sites not at flow stations
  - Limits calculations of load reduction
- Lack monitoring over time to assess effects of management interventions



Objectives of Enhanced PCB monitoring

- Establish current conditions and determine if remediation and management actions are resulting in downstream reductions in PCBs.

- A multi-pronged approach with several inter-related components:

  (1) current conditions,

  (2) refine identification of sources

  (3) determine PCB response to collective mitigation efforts

  (4) assess fish conditions and relation to consumption thresholds

Recommendation 1

- Focus monitoring in areas:
  - Impaired by PCBs
  - Have TMDL and implementing a clean-up effort
- Help the jurisdictions assess if PCBs being reduced where mitigation actions are being implemented and or planned
- Supplement jurisdictional monitoring

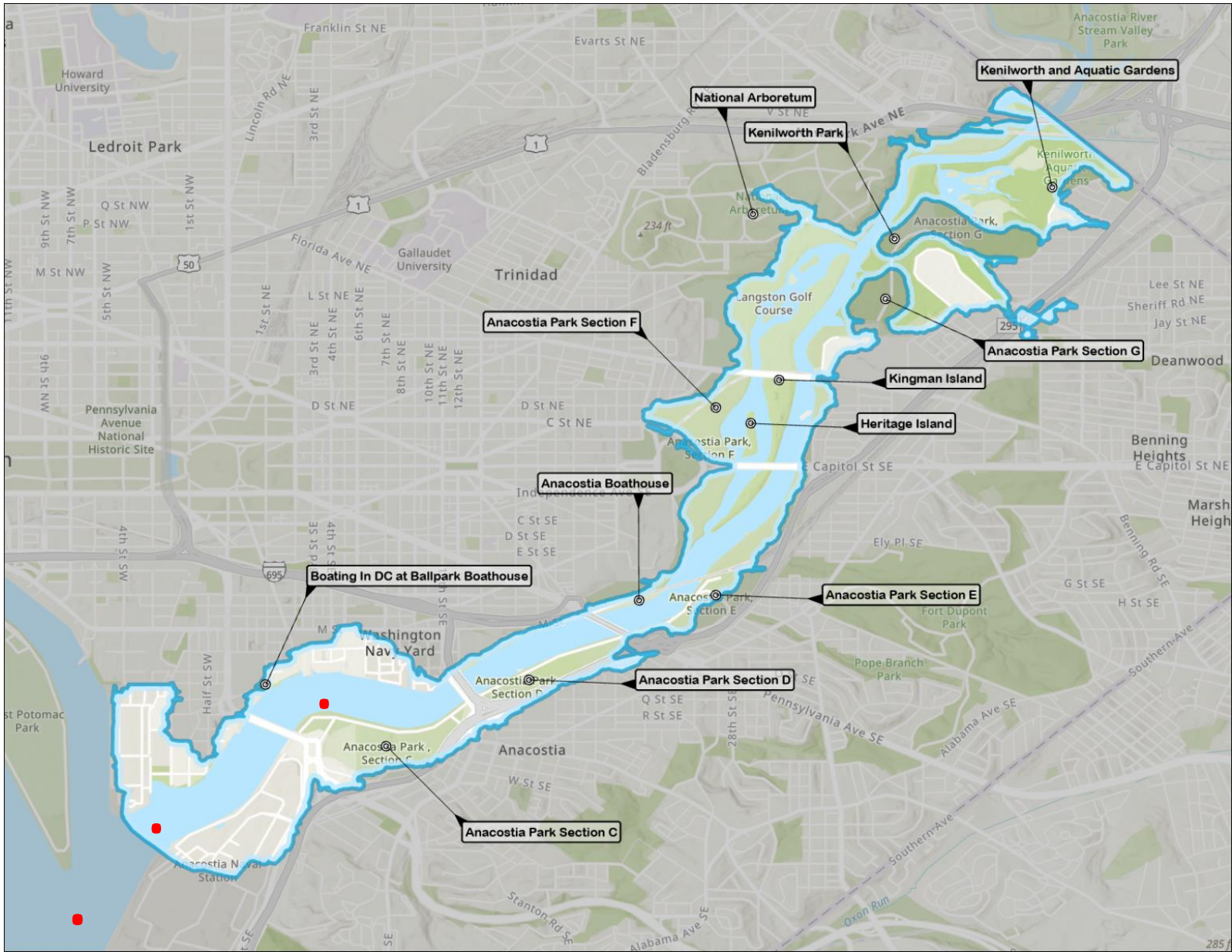
Recommendation 2

Is PCB net transport out of the river being reduced by the upstream remedial activities?

- **New** Monitoring stations
- Supplement existing monitoring

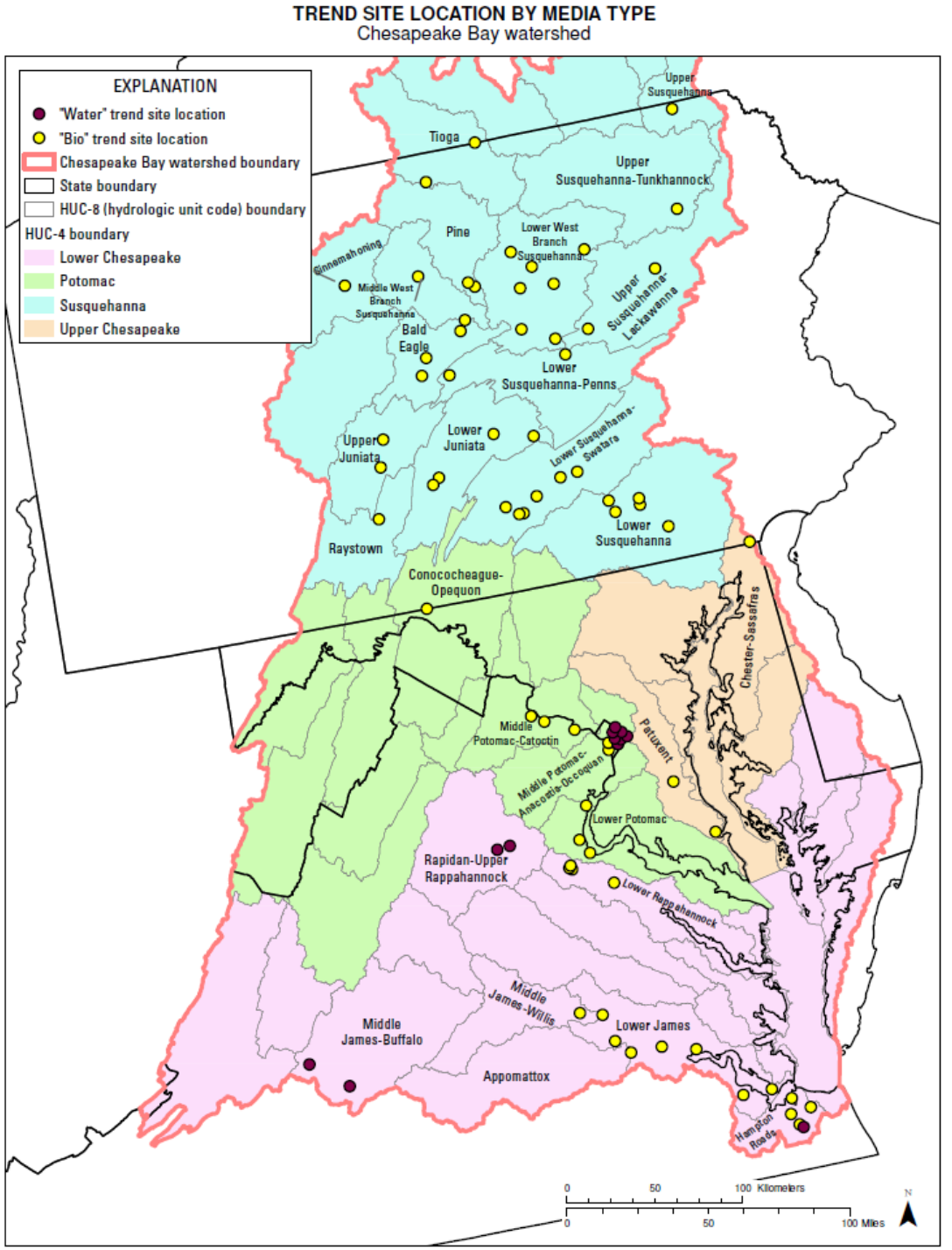
Combination of:

- Fish and surface water
- At least 3 locations per area
- Likely 5 or more years



Recommendation 3

- Take advantage of existing monitoring
  - Map shows sites with sampling over at least 5 years
- Initiate monitoring in a single geographic-focus area as a pilot
  - DC: Anacostia
  - MD: Anacostia tributaries; Tidal Patapsco River
  - VA: Potomac Tributaries, James
  - DE: Nanticoke River



Estimated Costs

- $276K additional funding needed for one pilot area
  - Would need to be multi-year effort
  - Currently NO CBP FUNDING

- Discussion: Need to identify partners willing to partner with the TCW
  - Chose pilot area
  - Finalize study design
  - Identify funding to implement the pilot

CBP NETWORK	Project	CATEGORY	Award Entity	FUNDING				
				Year 1	*Year 2*	*Year 3*	*Year 4*	*Year 5*
Toxics	3 new sites, 1 geo-region Fish/shellfish & surface water quality (PCB)	Operations & Maintenance	NA	276K	276+K	276+K	276+K	276+K
Funder								

More information available

- CBP monitoring report (page 25)
- Discussion Paper by TCW

  tcw_pcb_monitoring_discussion_paper_dec_20_final1.pdf (d18lev1ok5leia.cloudfront.net)
- Executive Summary by TCW
- tcw_pcb_monitoring_paper_executive_summary_final_dec_201.pdf (d18lev1ok5leia.cloudfront.net)

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