

Summary of “Contaminant Exposure and Potential Effects on Terrestrial Vertebrates Residing in the National Capital Region Network and the Mid-Atlantic Network” (Rattner and Ackerson, 2006).

Pollutant data for air, water, soil and biota were compiled from databases and internet sources and by staff interviews at 23 National Park Service (NPS) units in the National Capital Region Network and the Mid-Atlantic Network. The data from each park were assessed and used to rank the parks according to their overall contaminant threat.

Conclusions:

- About half of the 22 park units were located in areas with multiple pollution threats, while the contaminant threat at six park units (Appomattox Court House National Historical Park, Manassas National Battlefield Park, National Mall and Memorial Parks, George Washington Memorial Parkway, Booker T. Washington National Monument, and Wolf Trap National Park for the Performing Arts) was apparently minimal.
- Based upon pollutant hazards, contaminant monitoring studies should be undertaken at Shenandoah NP, Richmond National Battlefield Park, Chesapeake and Ohio Canal National Historical Park, Valley Forge National Historical Park, Hopewell Furnace National Historic Site, Monocacy National Battlefield, and Harpers Ferry National Historical Park.
- These studies should include relevant endpoints and taxa, and examine agrichemical and emerging contaminant hazards.
- Management recommendations include incorporating ecotoxicological monitoring into the Vital Signs program, training and familiarization of NPS staff on current ecotoxicological issues, and restricting the use of lead ammunition and fishing sinkers, and certain pesticides and herbicides on NPS lands.
- There is also a need to develop protocols for collection, submission, and analysis of samples from mortality events involving terrestrial vertebrates.

Table 6. Rank of Overall Contaminant Threat to Mid-Atlantic and National Capital Region Network Park Units^d

Park Name	NPL Superfund Sites	Percent Surface Waters Impaired	No. of Toxic Pesticides ^b	Relative Toxicity of Pesticides	No. of TRI Sites	No. TRI Sites Discharging POPs	State Fish Advisories	Overall Contaminant Threat ^c
Antietam NB	0	1	2	2	1	0	1	7
Appomattox Court House NHP	0	0	2	1	1	1	0	5
Booker T Washington NM	0	0	1	1	0	0	2	4
Catoctin Mountain NP	0	0	1	1	1	0	1	4
Chesapeake & Ohio Canal NHP	2	0	1	1	4	3	2	13
Fort McHenry NM & HS	2	3	2	2	4	3	2	18
Fredericksburg & Spotsylvania NM	0	0	2	1	1	1	2	7
George Washington MP	1	0	0	0	2	1	2	6
Gettysburg NMP & Eishenhower NHS	0	0	3	2	1	0	1	7
Harpers Ferry NHP	0	0	3	2	1	1	2	9
Hopewell Furnace NHS	0	1	2	2	2	1	2	10
Manassas NBP	0	0	0	0	2	1	2	5
Monocacy NB	0	0	3	2	3	1	1	10
National Capital Parks-East	4	1	0	0	4	3	2	14
National Mall & Memorial Parks	1	1	0	0	2	1	2	7
Petersburg NB	0	1	1	1	4	2	2	11
Prince William FP	1	0	1	1	1	1	2	7
Richmond NBP	1	0	2	2	4	3	2	14
Rock Creek Park	1	1	2	2	2	1	2	11
Shenandoah NP	2	1	3	2	3	1	2	14
Valley Forge NHP	2	1	1	1	4	1	2	12
Wolf Trap NP for the Performing Arts	0	0	0	0	1	0	1	2

^a Color classification scheme described in detail in Section II-B

^b Based on the toxicity classification scheme in Hill and Camardese (1986) and Smith (1987) toxic pesticides were classified as moderately toxic, highly toxic, and very highly toxic.

^c Overall contaminant threat score was derived as the sum of individual contaminant threat categories and color coded according to severity (green, low; yellow, moderate; red, serious)