DEPARTMENT OF THE NAVY
NAVAL DISTRICT WASHINGTON
WEST AREA
101 STRAUSS AVENUE
INDIAN HEAD, MARYLAND 20640-5035

IN REPLY REFER TO
5090
Ser HN2SJ/13
30 Jun 04

Mr. Elmer Biles
6315 Indian Head Highway
Indian Head, MD 20640

Dear Mr. Biles:

The Navy appreciates the continued interest and support of the public and especially that of the Indian Head Restoration Advisory Board members. Your recent letters of 6 April and 22 April 2004 express concern regarding the human health risk associated with the consumption of fish from Mattawoman Creek.

The Navy's Mattawoman Creek Study attempted to quantify risk to potential receptors within the creek system regardless of the source of contamination (i.e., Navy or non-Navy). Included within these receptors is a recreational fisherman scenario. The report concludes that there is no unacceptable risk to adults associated with exposure to surface water and sediment, but does find a potential unacceptable risk to adults and adolescents associated with ingestion of fish tissue. As you are aware, the potential risk identified is subject to uncertainty because only three background fish fillet samples were collected. As a result, a statistical comparison to background could not be performed, which may have reduced the number of chemicals of concern. Had we obtained additional background fish fillet samples and were able to conduct the statistical comparison, no additional chemicals of concern would have been identified. Since the comparison could not be performed, we are conservatively assuming that a potential risk exists, even though that potential risk may be a result of contributions from background contaminants. Our results are consistent with the recommendations from the Maryland Department of the Environment fish advisory for the lower Potomac River.

As you are aware, fish do not typically receive their exposure to chemical constituents from a single location, as their foraging range varies by species and time of year and often covers many kilometers. For example, bass found in Mattawoman Creek do not reside only in the creek, but also forage within the Potomac River. Thus, the fish's exposure is an averaging of the chemical constituents across their foraging range and the chemicals found in the fish may not be representative of the chemicals in Mattawoman Creek. For example, of the three

chemicals that drove the risk, one (Arochlor-1260) was not found in Mattawoman Creek sediments and the other two (4-methylphenol and 2-amino-4,6-dinitrotoluene) were detected in only one out of forty and one out of forty-six samples, respectively. This data supports a view that the fish tissue chemicals of concern identified in the report may be from sources other than Mattawoman Creek.

Currently, the State of Maryland routinely monitors chemical concentrations within fish for many species in several locations across the State and publishes maximum allowable monthly fish consumption advisories for the general population, women of childbearing age (who are or may become pregnant), and children. For the Lower Potomac River, from the DC line to the Maryland 301 Bridge, pesticides and PCBs are listed in the most recent advisory, which is enclosed. The advisory can be found at the following Maryland Department of the Environment (MDE) website:

http://www.mde.state.md.us/CitizensInfoCenter/FishandShellfish/home/index.asp

The fish consumption advisory identifies several fish species that should be consumed selectively, both in quantity and frequency. The advisories are not directed at the Navy's Indian Head Facility and its present or past activities, but at the Potomac River regional conditions associated with past uses of pesticides and PCBs by our society. Therefore, it is appropriate for any fish consumer to heed these advisories and consume fish accordingly.

Your concern is appreciated. The Navy continues to characterize the potential for human health and ecological risk associated with onshore and offshore areas of this facility, and, as necessary, take ameliorative action to reduce risk with concurrence of the U. S. Environmental Protection Agency and the MDE.

Please note that if you have specific concerns with the values used in the risk assessment calculations, such as what constitutes a normal adult meal or weekly consumption of fish, please be aware that we prepare our assessments as described in EPA guidance documents, which are referenced in the study. In addition, if you have concerns with the MDE Recommended Maximum

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Allowable Yearly Fish Consumption From Select Maryland Waters document or how it is disseminated, please consider contacting the MDE. Their telephone number is located on the web page provided previously in this letter.

Your letter of April 6, 2004 specifically asks that your comments be a part of the background information and record relative to this Final Mattawoman Creek Study. Please be aware that all written comments received from community members, as well as responses from the Navy, are included in the Administrative Record for our Activity. This is true for all comments and responses made on Installation Restoration Program documents. A copy of the Administrative Record is contained in the Information Repository, which is located at the Naval District Washington, Indian Head, General Library, Building 620, 101 Strauss Avenue, Indian Head, MD 20640-5035.

Please note that we are still looking into the additional comments on the Mattawoman Creek Study that you provided in your letter of April 22, 2004. We are working with our contractor to provide an explanation for any potential discrepancies in the report and what we may need to do to resolve these issues.

If you have any additional comments or questions concerning this matter, please contact Mr. Shawn Jorgensen on (301) 744-2263.

Sincerely,

SCOTT BOHNHOFF
Director, Environmental
NDW, Indian Head
By direction of the Commander

Encl:
(1) Recommended Maximum Allowable Monthly Fish Consumption From Select Maryland Waters and Consumption Advisories For Fish Caught From The Potomac River Watershed, 2004

Copy to:
RAB Members
EPA BTAG (S. Hahn)
CH2M Hill (M. Kasim)
Tetra Tech (G. Latulippe)

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Electronic Blind copy to:
NDW (T. Lewis)
NDW (J. Kidwell)
NDW West Area AOO (J. Johnson)
EFACHES (J. Gonzalez)
07TL

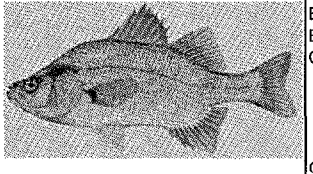
Writer: S. Jorgensen, Code HN2SJ, X2263
Typist: S. Jorgensen, 25 Jun 04

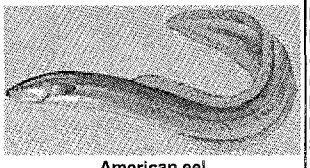
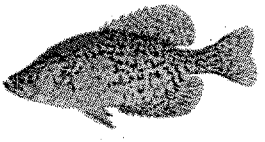
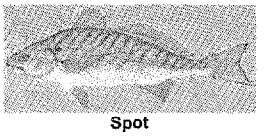
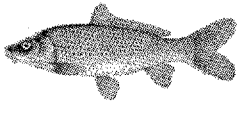
044SJ SJ

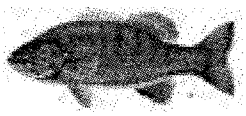
Recommended Maximum Allowable Yearly Fish Consumption From Select Maryland Waters

Consumption based on 8 oz (0.227 kg) meal size, or the edible portion of 9 crabs (4 crabs for children).
(8 oz - General Population; 6 oz - Women; 3 oz - Children)

NOTE: Consumption recommendations based on spacing of meals to avoid elevated exposure levels

Species	Waterbody	Allowable Meals/Year			Contaminants
		General Population	Women*	Children**	
		8 oz meal	6 oz meal	3 oz meal	
 **Channel Catfish**	Back River	7	5	4	PCBs, Pesticides***
	Bohemia River	12	9	7	
	Bush River	14	11	8	
	Chester River	59	45	35	
	Choptank River	57	43	33	
	Elk River (incl. C&D Canal)	8	6	5	
	Gunpowder River	16	12	9	
	Middle River	4	AVOID	AVOID	
	Nanticoke River	90	68	53	
	Northeast River	18	14	11	
	Patapsco River	AVOID	AVOID	AVOID	
	Patuxent River	36	24	20	
	Pocomoke River	88	67	52	
	Lower Potomac River	AVOID	AVOID	AVOID	
	(DC Line to MD 301 Bridge)	< 18" - 13	< 18" - 10	< 18" - 7	
	Sassafras River	10	6	4	
	Susquehanna River	10	8	6	
 **White Perch**	Back River	23	17	13	PCBs, Pesticides
	Bohemia River	17	13	9	
	Bush River	14	11	8	
	Chesapeake Bay:				
	off Hart Miller Island	13	10	7	
	off Fair Lee Creek	18	14	11	
	off Sandy Point	31	23	18	
	off Fairhaven	31	23	18	
	Chester River	59	45	35	
	Choptank River	No Advisory	No Advisory	92	
	Elk River (including C&D Canal	9	7	5	
	Gunpowder River	24	18	14	
	Middle River	15	11	9	
	Nanticoke River	No Advisory	No Advisory	No Advisory	
	Northeast River	15	11	9	
	Patapsco River	5	AVOID	AVOID	
	Patuxent River	85	65	50	
	Pocomoke River	No Advisory	No Advisory	80	
	Potomac River	52	39	31	
	Sassafras River	24	18	14	
	Severn River	31	24	19	
	South River	37	28	22	
	Wye River	No Advisory	No Advisory	No Advisory	
	Liberty Reservoir	77	70	42	
 **Striped Bass**	Chesapeake Bay and Tributaries	USE SEASONAL INFORMATION			PCBs
	< 28" May 16 - December 15	24	12	12	Methylmercury
	> 28" April 15 - May 15	12	10	8	

 **Blue Crab**	Patapsco River (1 meal equals 9 crabs) (4 crabs for children)	96 DO NOT CONSUME "MUSTARD"	96	24	PCBs
 **American eel**	Bush River Back River Lower Potomac River (DC Line to MD 301 Bridge) Northeast River Middle River Patuxent River South River	52 7 19 22 12 26 37	39 5 14 17 9 20 28	31 4 11 13 7 15 22	PCBs, Pesticides
 **White Catfish**	Lower Potomac River (DC Line to MD 301 Bridge)	< 18" AVOID < 18" 24	AVOID 12	AVOID AVOID	PCBs, Pesticides
 **Brown Bullhead**	Back River Furnace/ Curtis Creeks	11 9	11 8	11 6	PCBs, Pesticides
 **Black Crappie**	Lake Roland Liberty Reservoir	1 8	1 4	1 4	PCBs, Pesticides
 **Spot**	South River	50	38	30	PCBs, Pesticides
 **Common Carp**	Back River Advisory for carp should also apply to Elk River, C&D Canal, Bohemia River, Bush, Potomac, Gunpowder, Patapsco, and Northeast since elevated levels in these species may be anticipated.	AVOID	AVOID	AVOID	PCBs, Pesticides

 **Small and Largemouth Bass**	Statewide: all publicly accessible impoundments	48	48	24	Methylmercury
	Lake Lariat, Frostburg, and Savage Reservoirs; Potomac River @ Spring Gap	12	12	AVOID	
	All Rivers and Streams	No Advisory	96	96	
	Lake Roland	24	24	24	PCBs, Pesticides
	Advisory for lakes and impoundments above also apply to pickerel, northern pike, and walleye				
 **Bluegill**	Statewide: all publicly accessible lakes and impoundments	96	96	96	Methylmercury
		No Advisory For Rivers and Streams			
 **Yellow Perch**	Frostburg Reservoir and Deep Creek Lake	48	48	24	Methylmercury
	Susquehanna River (mainstream)	24	12	12	PCBs
	Gunpowder River	29	22	17	PCBs
	Bush River	80	61	47	PCBs

* **Women of childbearing age who are pregnant or may become pregnant, or are nursing**

** **Children include all young children to age 6**

** Pesticides - consist of banned organochlorine pesticide compounds; include chlordane, DDT, dieldrin, or heptachlor epoxide