



STATE OF MICHIGAN

DEPARTMENT OF COMMUNITY HEALTH  
LANSING

RICK SNYDER  
GOVERNOR

JAMES K. HAVEMAN  
DIRECTOR

November 30, 2012

Joseph Bohr, Coordinator  
Fish Contaminant Monitoring Program  
Michigan Department of Environmental Quality  
P.O. Box 30458  
Lansing, MI 48909

Dear Mr. Bohr:

Per our conversation September 19, 2012, this letter corrects Table 1 and related language in my August 29, 2012 letter to you regarding the Michigan Department of Community Health’s (MDCH) evaluation of perfluorinated chemicals (PFCs) in fish taken from ponds in Clark’s Marsh, near Oscoda in Iosco County, Michigan.

I had indicated the fish samples were taken from “four ponds in Clark’s Marsh,” however you clarified that they were sampled from two ponds. Specifically, sample locations 1 and 2 were in the “upper” pond, closest to Wurtsmith Air Force Base. Sample location 3 also was in the “upper” pond, but near the discharge from that waterbody into the “lower” pond. Sample location 4 was in the “lower” pond. This letter amends the language in the fourth paragraph, first sentence, of my earlier letter to: “Fish samples were taken from four locations in two ponds in Clark’s Marsh in 2011 and analysis completed in 2012.”

Also, this letter amends Table 1 from my earlier letter; the updated table is below.

Table 1. Perfluorooctane sulfonate (PFOS) concentrations in fish sampled from ponds in Clark’s Marsh (south of Wurtsmith Air Force Base [WAFB]) in Oscoda, Iosco County, Michigan in 2011. (Concentrations are in nanograms per gram [ng/g, or parts per billion (ppb)]).

Sample Location	No. Fish	Species	PFOS Range	PFOS Average <sup>1</sup>
1 (Upper pond)	5	Pumpkinseed	4,750 – 8,930	7,040
2 (Upper pond)	5	Pumpkinseed	3,290 – 9,580	5,642
3 (Upper pond)	4	Pumpkinseed	3,170 – 3,820	3,390
4 (Lower pond)	5	Pumpkinseed (4), Bluegill (1)	334 – 1,290	618

To clarify further, I am attaching the map you have recently supplied showing locations where the fish were sampled in the ponds.

<sup>1</sup> Average given is the arithmetic mean. Sample size was not sufficient to conduct statistical analysis.

The corrections discussed here do *not* affect conclusions or recommendations in my earlier letter.

Sincerely,

A handwritten signature in black ink that reads "Christina Rose Bush". The signature is written in a cursive style with a large initial 'C' and 'B'.

Christina Bush, Toxicologist  
Toxicology and Response Section  
Division of Environmental Health

Attachment

Map of fish sampling (site) locations in Clark's Marsh, Oscoda (Iosco County), Michigan.

