

Errata for

Stage I Assessment Report
Volume 1 - Injury Assessment: Kalamazoo River Environment
Volume 2 - Economic Assessment: Kalamazoo River Environment

Original Report dated March 15, 2005

Michigan Department of Environmental Quality,
Michigan Attorney General,
U.S. Fish and Wildlife Service,
and
National Oceanic and Atmospheric Administration

Prepared by: Stratus Consulting, Inc.

Errata
Issued 9 February 2006

Stage I Assessment Report
Volume 1 - Injury Assessment: Kalamazoo River Environment

1. Page 2-6, Section 2.2.2, 1st paragraph, 2nd sentence, currently reads:

The Bryant Mill and the King Mill deinked carbonless copy paper from the mid-1950s through at least 1971, the period when the paper contained PCBs.

Page 2-6, Section 2.2.2, 1st paragraph, 2nd sentence, should read:

The Bryant and King Mills deinked carbonless copy paper from the mid-1950s through at least 1971 and 1965, respectively (Blasland, Bouck & Lee, 1996).

2. Page 2-10, Section 2.2.2, 1st full paragraph, last sentence, currently reads:

In the early 1990s, erosion control measures were taken at the FRDLs and at the former Type III Landfill (Blasland, Bouck & Lee, 2000b).

Page 2-10, Section 2.2.2, 1st full paragraph, last sentence, should read:

In the early 1990s, erosion control measures were taken at the FRDLs, the Monarch and Bryant HRDLs, and at the former Type III landfill (Blasland, Bouck & Lee, 2000b).

3. Page 2-12, Section 2.2.3, 1st paragraph, 1st sentence, currently reads:

Before 1954, all industrial wastewater from Georgia-Pacific was discharged directly to the Kalamazoo River (Rockwell Int'l Corp., 107 F. Supp. 2d 817).

Page 2-12, Section 2.2.3, 1st paragraph, 1st sentence, should read:

Before 1954, all industrial wastewater from the paper mills currently owned by Georgia-Pacific was discharged directly to the Kalamazoo River (Rockwell Intl. Corp., 107 F. Supp. 2d 817).

4. Page 2-17, Section 2.2.3, 1st full paragraph, 1st sentence, currently reads:

The King Highway Landfill is an operational licensed Type III landfill used for disposal of paper waste by Georgia-Pacific (Figure 2.4).

Page 2-17, Section 2.2.3, 1st full paragraph, 1st sentence, should read:

The King Highway Landfill was an operational licensed Type III landfill used for disposal of paper waste by Georgia-Pacific (Figure 2.4).

5. Page 2-26, Table 2.9, currently depicts the total mass of PCBs as 29,484 kg. Table 2.9 should be revised to reflect the correct total mass of PCBs as 29,454 kg as follows:

Table 2.9. Sediment area, volume, and mass estimates in reaches of the Kalamazoo River and Portage Creek

Reach	Reach description	Total sediment area (acres)	Total sediment (yd ³)	PCB-containing sediment (yd ³)	PCB mass (kg)
—	Morrow Lake	1,000	—	2,541,000	2,831
A1	Morrow Dam to Portage Creek	112	350,000	58,000	345
—	Portage Creek	7	33,600	23,050	162
A2	Portage Creek to Main St., Plainwell	331	950,000	341,000	754
B	Main St., Plainwell, to Plainwell Dam	44	99,000	53,000	241
C	Plainwell Dam to Otsego City Dam	96	415,000	224,000	695
D	Otsego City Dam to Otsego Dam	83	290,000	191,000	306
E	Otsego Dam to Trowbridge Dam	131	542,000	263,000	719
F	Trowbridge Dam to Allegan City Line	190	450,000	258,000	476
G	Allegan City Line to Allegan City Dam	127	748,000	417,000	2,562
H	Allegan City Dam to Lake Allegan Dam	1,649	10,163,100	5,143,000	20,363
Total	Portage Creek and Kalamazoo River	3,770	14,040,700	9,512,050	29,454

Source: Blasland, Bouck & Lee, 2000b.

6. Page 2-28, Figure 2.10. "Approx. 10 ppm" should be replaced with "Approx. 1 ppm":

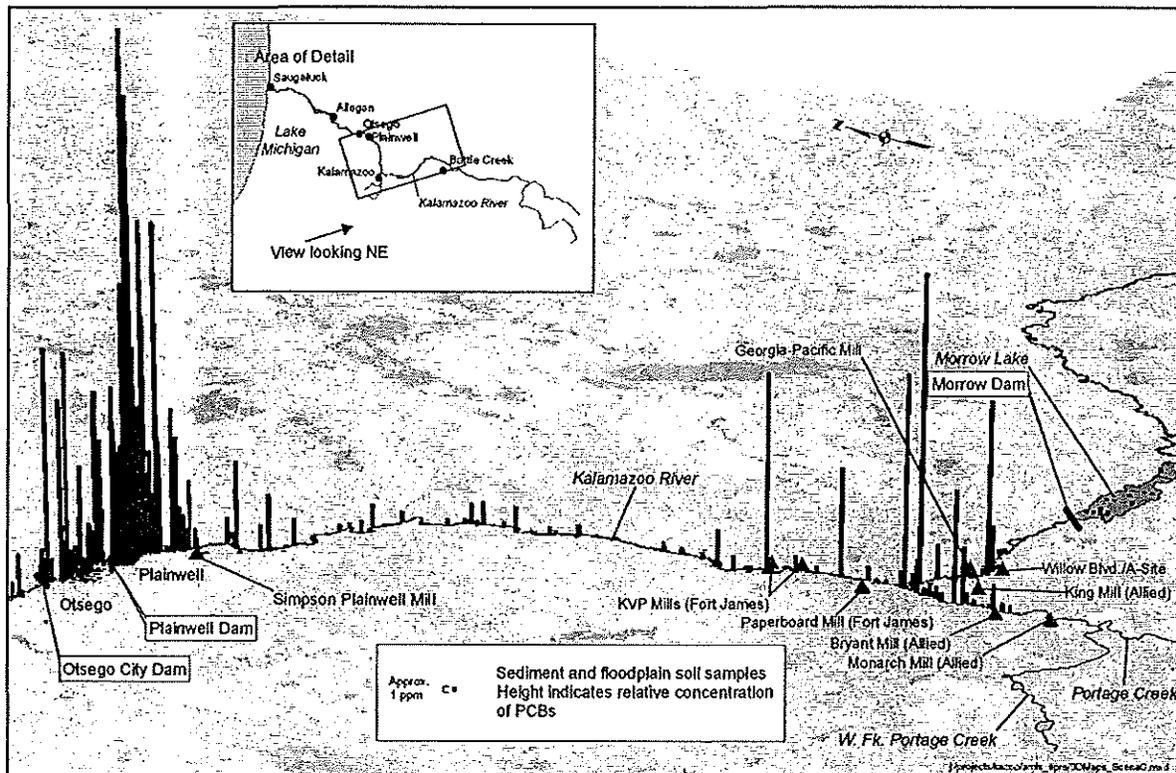


Figure 2.10. PCB concentrations in surface sediments and floodplain soils from Morrow Lake to the Otsego City Dam.

Sources: Blasland, Bouck & Lee, 2001; Camp Dresser & McKee, 2002a.

7. Page 2-29, Figure 2.11. "Approx. 10 ppm" should be replaced with "Approx. 1 ppm":

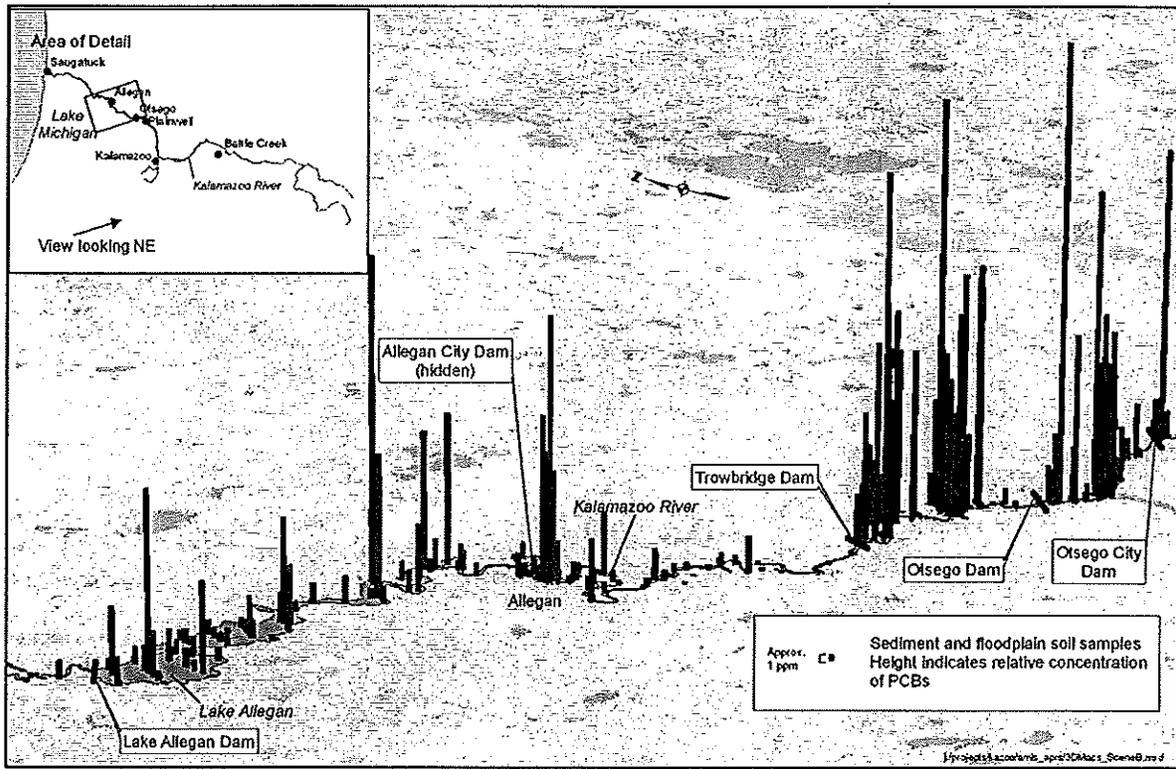


Figure 2.11. PCB concentrations in surface sediments and floodplain soils from the Otsego City Dam to the Lake Allegan Dam.

Sources: Blasland, Bouck & Lee, 2001; Camp Dresser & McKee, 2002a.

8. Page 2-30, Figure 2.12. "Approx. 10 ppm" should be replaced with "Approx. 1 ppm":

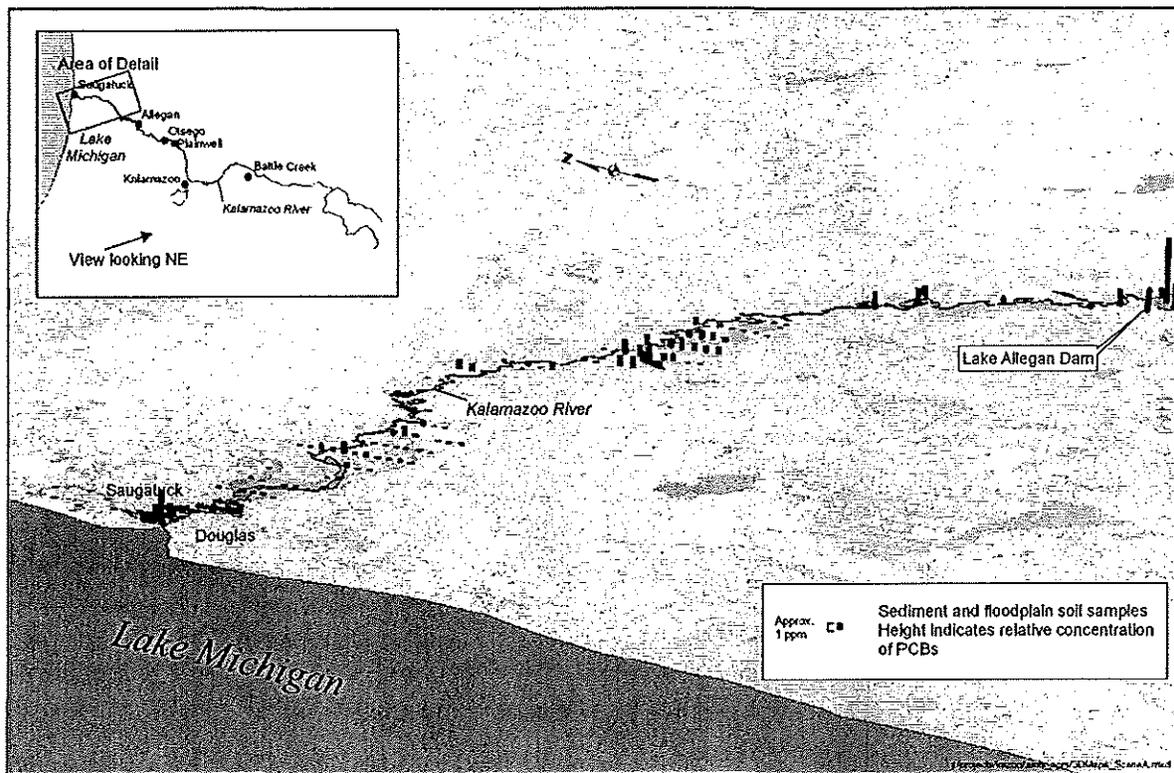


Figure 2.12. PCB concentrations in surface sediments and floodplain soils from the Lake Allegan Dam to the mouth of the Kalamazoo River at Lake Michigan.

Sources: Blasland, Bouck & Lee, 2001; Camp Dresser & McKee, 2002a.

9. Page 5-1, Section 5.3.1, 1st paragraph, should include the following sentence as the new third sentence:

From 2002 to 2004, an advisory was also issued in the Ceresco impoundment.

10. Page 5-2, Section 5.3.1, 1st complete sentence, currently reads:

The advisories are communicated to the public in annual fishing guides published by MDNR (MDNR, 1977, 1978a, 1979, 1980, 1981b, 1982, 1983, 1984a, 1985, 1986, 1987c, 1988, 1989, 1990a, 1991, 1992a, 1993a, 1994a, 1995-2001).

Page 5-2, Section 5.3.1, 1st complete sentence, should read:

The advisories are communicated to the public in annual fishing guides published by MDNR (MDNR, 1977, 1978a, 1979, 1980, 1981b, 1982, 1983, 1984a, 1985, 1986, 1987c, 1988, 1989, 1990a, 1991, 1992a, 1993a, 1994a, 1995-2001) and by MDCH (2002, 2003, 2004).

- 11. Table 5.2 on pages 5-4, Section 5.3.2, for the 2001 and 2002 fish consumption advisories for carp in the Kalamazoo River from Battle Creek to Morrow Lake Dam are presented as 0,1.**

The Table on pages 5-4, Section 5.3.2, should reflect the 2001 and 2002 fish consumption advisories for carp in the Kalamazoo River from Battle Creek to Morrow Lake Dam as 1,2.

- 12. Table 5.2 on pages 5-4, Section 5.3.2, currently reflects Portage Creek as included in the 2002-2004 fish consumption advisories for carp from the Kalamazoo River from Morrow Dam to Lake Allegan Dam.**

Table 5.2 on pages 5-4, Section 5.3.2 should reflect 2003 and 2004 Portage Creek advisories as 0,2 for carp, and catfish were limited to over 12 inches. 2003 and 2004 advisories for Monarch Pond on Portage Creek should be 0,1 for carp.

- 13. Pages 5-7, Section 5.3.2, 2nd paragraph, 1st sentence, currently reads:**

PCBs were the only contaminants identified as being responsible for the advisories in the Kalamazoo River and Portage Creek for 1979 to 1981 and for 1989 to 2004.

Pages 5-7, Section 5.3.2, 2nd paragraph, 1st sentence, should read:

PCBs were the only contaminants identified as being responsible for the advisories in the Kalamazoo River and Portage Creek from 1979 to 1981 and from 1989 to 2003.

- 14. Page 5-12, 1st bulleted point, currently reads:**

- Kalamazoo River from Battle Creek to Morrow Dam: ABSA 1 (near Battle Creek) and ABSA 2 (Morrow Lake)

Page 5-12, 1st bulleted point, should read:

- Kalamazoo River from Ceresco impoundment to Morrow Dam: ABSA 1 (near Battle Creek) and ABSA 2 (Morrow Lake)

15. Page 7-51, Section 7.7.2, 2nd paragraph, 5th sentence, currently reads:

The low effect value for mink used in the Ecological Risk Assessment (Camp, Dresser & McKee, 2003b) was 1.1 mg/kg ww.

Page 7-51 Section 7.7.2, 2nd paragraph, 5th sentence, should read:

The low effect value for mink used in the Ecological Risk Assessment (Camp, Dresser & McKee, 2003b) was 0.6 mg/kg ww.

16. Page R-4, References. The following reference used in item 1 of this errata sheet should be added as the fifth entry on the list of references at page R-4:

Blasland, Bouck, & Lee, 1996. Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Remedial Investigation/Feasibility Study. Technical Memorandum 15, Mill Investigation. Volume I of II. August.

Stage I Assessment Report

Volume 2 - Economic Assessment: Kalamazoo River Environment

1. Pages B-14 to B-16, Appendix B, Table B.8. The values on the last two rows of Table B.8 (at Page B-16) should be changed as follows:

Table B.8. Anglers (shore and boat) observed during Phase II of the KRRA study

Site I.D.	Observation location	Weekday		Weekend		All		Share of all anglers in Phase II observed at site
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	
Upper Kalamazoo								
101	S. Wattles Park	Not surveyed	2	0	Not surveyed	0	2	0%
102	37 Trail	Not surveyed	0	0	Not surveyed	0	0	0%
103	2 River Junction	Not surveyed	0	0	Not surveyed	0	0	0%
104	96 Bend	Not surveyed	1	0	Not surveyed	0	1	0%
105	97 Area	Not surveyed	0	0	Not surveyed	0	0	0%
106	Trailer Park Bend	Not surveyed	0	0	Not surveyed	0	0	0%
107	Gales Bridge	Not surveyed	0	2	Not surveyed	2	0	0%
Upper Kalamazoo total		Not surveyed	3	2	Not surveyed	2	3	1%
Central Kalamazoo								
201	Morrow Dam	0	0	0	Not surveyed	0	0	0%
202	Morrow Lake	2	5	1	Not surveyed	3	5	1%
203	Morrow Park	0	0	0	Not surveyed	0	0	0%
204	Wenke Park	0	0	0	Not surveyed	0	0	0%
205	Mills Bridge	0	0	0	Not surveyed	0	0	0%
206	Verburg Park	1	0	0	Not surveyed	1	0	0%
207	Mosel Bridge	0	0	0	Not surveyed	0	0	0%
208	Parchment Park	4	0	0	Not surveyed	4	0	1%
209	D. Ave (Gravel Pit)	2	2	0	Not surveyed	2	2	1%
210	Plainwell Dam	0	3	0	Not surveyed	0	3	0%

Table B.8. Anglers (shore and boat) observed during Phase II of the KRRRA study (cont.)

Site I.D.	Observation location	Weekday		Weekend		All		Share of all anglers in Phase II observed at site
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	
Central Kalamazoo (cont.)								
211	Otsego Dam	0	2	0	Not surveyed	0	2	0%
212	Trowbridge Dam	0	0	0	Not surveyed	0	0	0%
219	Monroe Rd. Bend	1	0	0	Not surveyed	1	0	0%
220	Lake Allegan	6	9	4	Not surveyed	10	9	3%
Central Kalamazoo total		16	21	5	Not surveyed	21	21	6%
Lower Kalamazoo								
301	Allegan-Dam-only visit	5	58	123	185	128	243	54%
301	Allegan Dam as part of reach surveys	51	56	58	15	109	71	26%
302	650 Area	0	0	4	0	4	0	1%
303	Swan Creek Marsh	0	2	0	0	0	2	0%
304	Marsh Public Access	0	0	1	0	1	0	0%
305	Big Daily Bayou	4	4	6	0	10	4	2%
306	22 Junction	1	0	1	0	2	0	0%
307	Rabbit River Access	4	0	5	1	9	1	1%
308	RR Junction	0	0	0	0	0	0	0%
309	New Richmond	6	5	3	9	9	14	3%
310	130th Access	0	0	0	0	0	0	0%
311	Douglas Bayou	4	7	9	12	13	19	5%

Table B.8 Anglers (shore and boat) observed during Phase II of the KRRA study (cont.)

Site I.D.	Observation location	Weekday		Weekend		All		Share of all anglers in Phase II observed at site
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	
	Lower Kalamazoo total	75	132	210	222	285	354	93%
	Total across all sites	91	156	217	222	308	378	100%
	Total sampling periods^a	6	10	8	10	14	20	
	Average anglers per visit	15.2	15.6	27.1	22.2	22.0	18.9	

a. The total number of sampling periods is calculated as the sum of the visits for the upper, central, and lower reaches plus those sampling periods that focused solely on the Allegan Dam site (see Table B.6). Because of the extra visits to the Allegan Dam site associated with sampling periods to the central reach, the average anglers per visit results presented above have an upward bias because these extra trips are not accounted for and because of the popularity of the Allegan Dam site.