

A light blue, stylized cloud with a black outline. Several thin black lines representing rain fall from the bottom of the cloud, each ending in a small white oval. The text is centered within the area of the rain.

**Monitoring Program
for Mercury
in Precipitation
in Indiana**

Monitoring Program for Mercury in Precipitation in Indiana

Data Summary (prepared February 2004)

Overview of Data Summary

This summary for Indiana has two formats:

(1) Illustrations showing

- (a) Annual total mercury deposition in precipitation for each monitoring station—shown on a map of the State for each year of the program.
- (b) Seasonal total mercury deposition in precipitation for each monitoring station—shown on a bar graph for the duration of the program.
- (c) Weekly total mercury deposition in precipitation for each monitoring station—shown on box plots for each year of the program.

(2) Tables:

- (a) Seasonal data—descriptive statistics and summary values for mercury in precipitation are presented in tables representing seasonal groups for each year of the program. Each season has 13 weeks—winter (January through March), spring (April through June), summer (July through September) and fall (October through December).
- (b) Annual data—descriptive statistics and summary values for mercury in precipitation are presented in a table for each year of the program. Annual data combines four seasons of data.

Weekly monitoring data are not included in this summary; weekly data that have been finalized are posted on the National Atmospheric Deposition Network (NADP) website for the Mercury Deposition Network [<http://nadp.sws.uiuc.edu/mdn/in.asp>]. Some of the recent seasonal data may be based on preliminary weekly data that are not posted on the NADP website.

Monitoring Stations in the Data Summary

Three monitoring stations for mercury in precipitation in Indiana began operation during fall 2000. The stations at the Dunes Lakeshore and Huntington (Roush Lake) collected data during November and December 2000. The station at the Bloomington Airport collected data during late December 2000. The fall 2000 data are summarized only in a table. The Clifty Falls station began operation in January 2001, and all four stations were operated January 2001 through March 2003. The Fort Harrison station began operation in April 2003, and all five stations were operated after April 2003.

Terms in the Data Summary

This summary quantifies precipitation, mercury concentrations, and mercury deposition. Following are definitions of the terms with their units of measure and methods of determination or calculation.

Precipitation volume is the rain, snow, and mixtures of liquid and frozen precipitation recorded by the rain gage at the monitoring station. The units are in inches because inches are used most frequently in weather reports. (The NADP website lists weekly precipitation in millimeters; one inch is equal to 25.4 millimeters.)

Concentration is the mercury mass per volume of precipitation. Concentration is determined by laboratory analysis of the weekly precipitation sample accumulated in the automated collector at the monitoring station. Concentration units are nanograms per liter (equivalent to one-thousandth microgram per liter and approximately one part per trillion).

Median concentration is a descriptive statistic for a season (13 weeks) or a year (52 weeks) of mercury concentrations. When concentrations are ranked from smallest to largest, the median separates the ranked concentrations into two parts—half of the concentrations are greater than the median and half of the concentrations are less than the median. Units are nanograms per liter.

Volume-weighted mean concentration is a computed value of the seasonal or annual mean mercury concentration based on the ratio of the precipitation volume in the weekly samples to the total precipitation volume for a season or a year. The volume-weighted mean concentration is a better representation of mercury concentrations in a group of precipitation samples than an arithmetic mean (also known as an “average”). Large concentrations in small volume samples will bias an arithmetic mean but not a volume-weighted mean. To obtain a weekly volume-weighted mean concentration, the weekly sample concentration is multiplied by the ratio of that week’s precipitation to the total precipitation for the season or the year. The seasonal or annual volume-weighted mean concentration is a sum of the volume-weighted weekly concentrations for a season or year. Units are nanograms per liter.

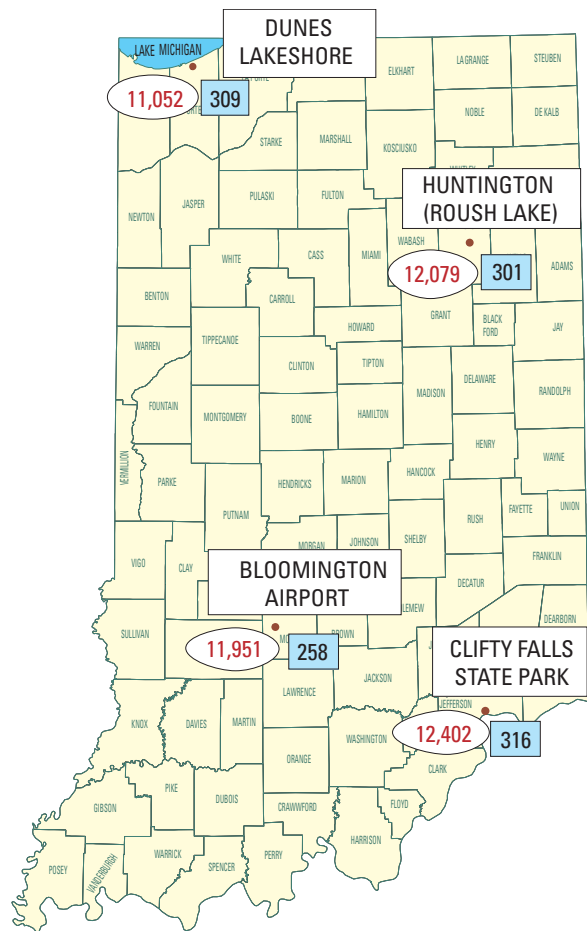
Weekly wet deposition is a mercury mass per unit area per time, deposited in precipitation, based on the weekly sample interval. The units are nanograms per square meter per week. Weekly deposition is calculated by multiplying the weekly sample concentration by the weekly precipitation volume. (The calculation also requires a conversion factor for the area of the rain gage and automated collector.)

Seasonal or annual wet deposition is the sum of the weekly deposition for a season or year.

Normalized seasonal or annual wet deposition is deposition per inch of precipitation (the seasonal or annual sum of the weekly deposition divided by the seasonal or annual sum of the weekly precipitation.) When the precipitation differs among monitoring stations for a season or year, the normalized deposition allows a comparison as if the precipitation were the same.

Total mercury includes inorganic and organic mercury.

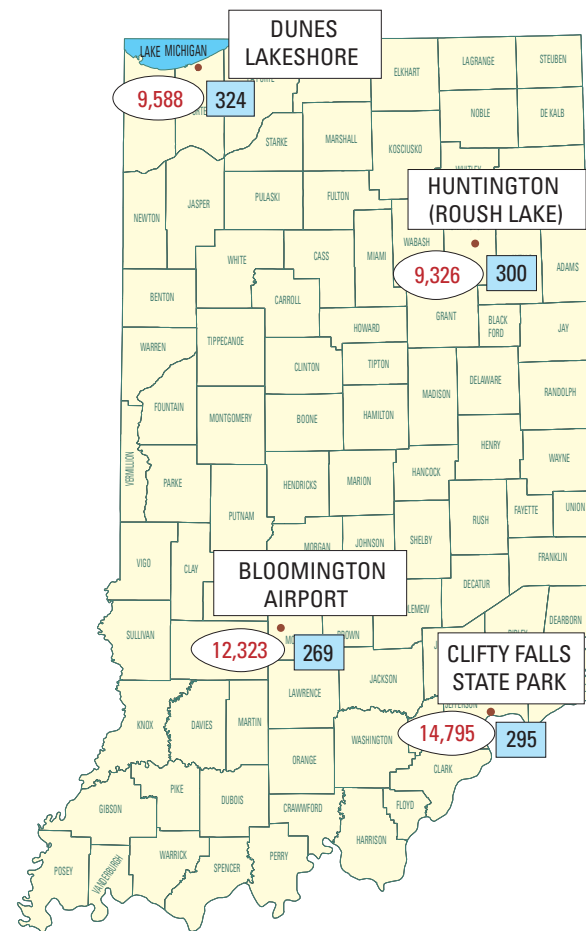
Methylmercury is the form of organic mercury reported as part of the total mercury. Methylmercury was analyzed separately because it is the form of mercury that accumulates in the aquatic food web.



EXPLANATION

- Mercury-monitoring station (12,402) Total mercury deposition in nanograms per square meter per year
- Normalized total mercury deposition in nanograms per square meter per year per inch of precipitation (316)

Figure 1. Annual total mercury deposition in precipitation in 2001 at four monitoring stations in Indiana.



EXPLANATION

- Mercury monitoring station (12,323) Total mercury deposition in nanograms per square meter per year
- Normalized total mercury deposition in nanograms per square meter per year per inch of precipitation (269)

Figure 2. Annual total mercury deposition in precipitation in 2002 at four monitoring stations in Indiana.

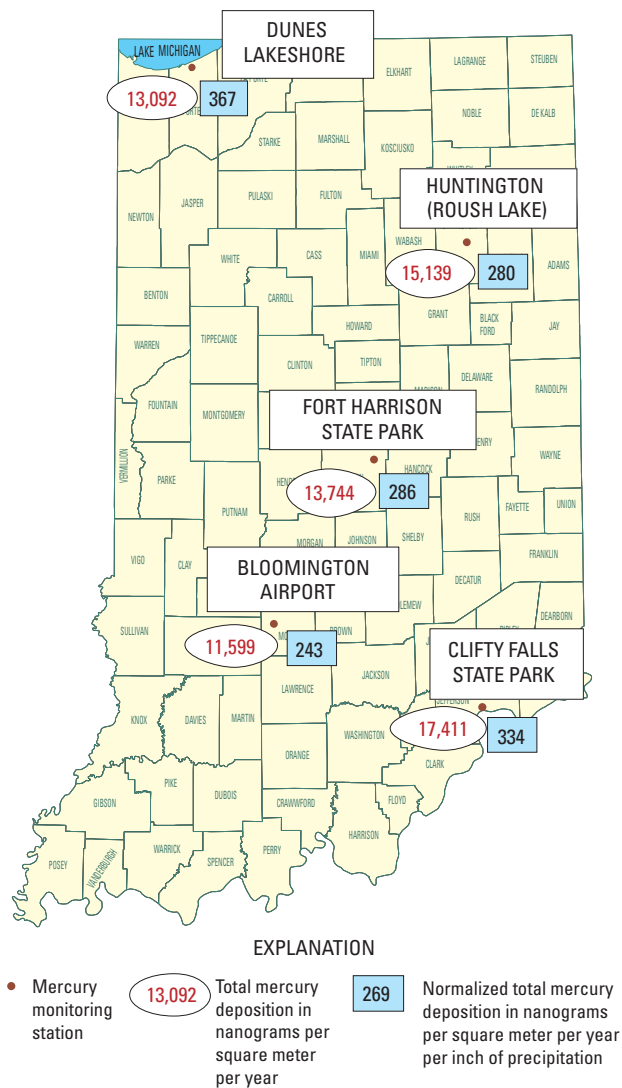


Figure 3. Annual total mercury deposition in precipitation in 2003 at five monitoring stations in Indiana.

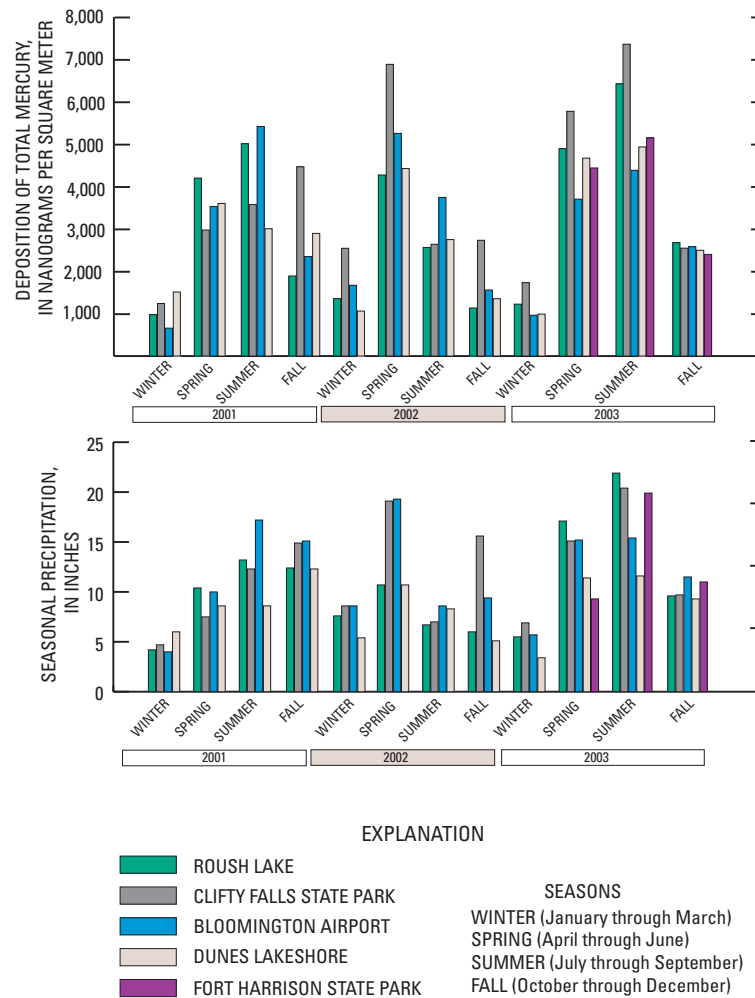


Figure 4. Seasonal deposition of total mercury in precipitation and seasonal precipitation at five monitoring stations in Indiana, January 1, 2001, through December 31, 2003.

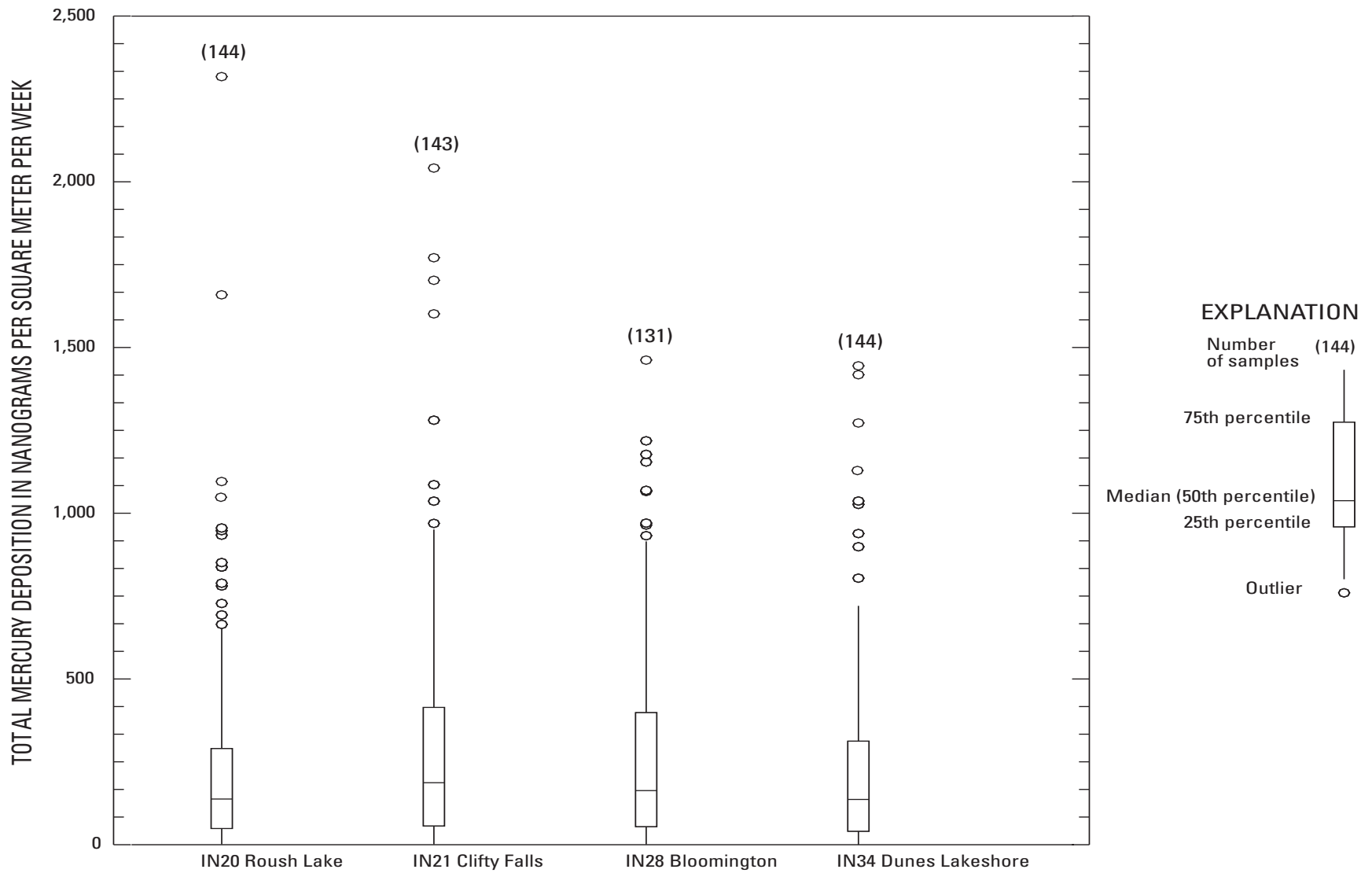
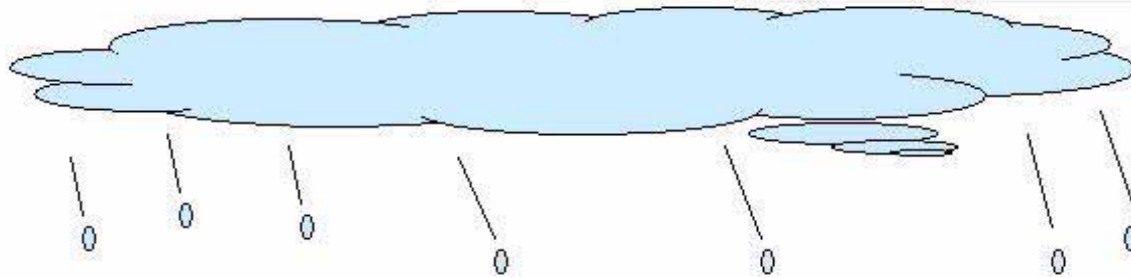


Figure 5. Boxplots of weekly total mercury deposition at four monitoring stations in Indiana, January 2001 through December 2003.



Seasonal and Annual Data for 2003

The following tables present seasonal and annual values for precipitation, total mercury concentrations, and total mercury deposition during 2003.

Winter 2003 (December 24, 2002, through March 25, 2003)

	Roush Lake ^a	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	5.5	6.9	5.7	3.4
Total mercury median concentration (nanograms per liter)	6.7	9.7	3.4	8.2
Total mercury volume-weighted mean concentration (nanograms per liter)	9.0	9.8	6.3	11.8
Total mercury sum of weekly deposition (nanograms per square meter)	1,225 ^b	1,733	963 ^c	990 ^d
Total mercury deposition per inch of precipitation (nanograms per square meter) ^e	223	251	169	291
Number of samples with wet deposition of total mercury	13	12	10	13
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

^aName of station officially changed from Huntington to Roush Lake in 2003.

^bIncludes 3 weeks with estimated deposition because precipitation data were valid but samples were invalid because of equipment malfunction. Deposition was estimated for these weeks by use of those weeks' valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^cIncludes 1 week with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for this week by use of the week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^dIncludes 2 weeks with estimated deposition because precipitation data were valid but samples were invalid because of equipment malfunction. Deposition was estimated for these weeks by use of those weeks' valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^eCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.

Spring 2003 (March 25, 2003, through June 24, 2003)

	Roush Lake	Clifty Falls	Fort Harrison ^a	Bloomington	Dunes
Total precipitation (inches)	17.1	15.1	9.3	15.2	11.4
Total mercury median concentration (nanograms per liter)	13.2	13.8	14.1	11.5	16.9
Total mercury volume-weighted mean concentration (nanograms per liter)	11.5	15.0	18.6	9.7	16.0
Total mercury sum of weekly deposition (nanograms per square meter)	4,893	5,775	4,438	3,702	4,669
Total mercury deposition per inch of precipitation (nanograms per square meter) ^b	286	381	476	244	408
Number of samples with wet deposition of total mercury	11	13	10	11	11
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN26	IN28	IN34

^aNew monitoring station began operation in spring 2003.

^bCalculated with non-rounded values, as seasonal sum of weekly deposition divided by seasonal precipitation.

Summer 2003 (June 24, 2003, through September 23, 2003)

	Roush Lake	Clifty Falls	Fort Harrison	Bloomington	Dunes
Total precipitation (inches)	21.9	20.4	19.9	15.4	11.6
Total mercury median concentration (nanograms per liter)	14.6	15.3	10.9	13.2	18.3
Total mercury volume-weighted mean concentration (nanograms per liter)	11.5	14.1	10.0	11.0	16.2
Total mercury sum of weekly deposition (nanograms per square meter)	6,422	7,357	5,148	4,382	4,934
Total mercury deposition per inch of precipitation (nanograms per square meter) ^a	293	360	259	284	425
Number of samples with wet deposition of total mercury	11	12	11	10	11
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN26	IN28	IN34

^aCalculated with non-rounded values, as seasonal sum of weekly deposition divided by seasonal precipitation.

Fall 2003 (September 23, 2003, through December 30, 2003)

	Roush Lake	Clifty Falls	Fort Harrison	Bloomington	Dunes
Total precipitation (inches)	9.6	9.7	11.0	11.5	9.3
Total mercury median concentration (nanograms per liter)	8.3	7.1	9.7	9.7	12.2
Total mercury volume-weighted mean concentration (nanograms per liter)	11.1	10.0	8.6	9.0	10.2
Total mercury sum of weekly deposition (nanograms per square meter)	2,677	2,546	2,398	2,581	2,496
Total mercury deposition per inch of precipitation (nanograms per square meter) ^a	279	262	218	224	268
Number of samples with wet deposition of total mercury	14	14	14	14	14
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN26	IN28	IN34

^aCalculated with non-rounded values, as seasonal sum of weekly deposition divided by seasonal precipitation.

2003 Annual Composite (December 24, 2002, through December 30, 2003)

	Roush Lake	Clifty Falls	Fort Harrison	Bloomington	Dunes
Total precipitation (inches)	54.1	52.2	40.2	47.8	35.7
Total mercury median concentration (nanograms per liter)	11.7	11.8	12.5	10.1	14.3
Total mercury volume-weighted mean concentration (nanograms per liter)	11.3	13.0	11.8	9.7	14.2
Total mercury sum of weekly deposition (nanograms per square meter)	15,139 ^{a,b}	17,411	11,908 ^b	11,599 ^c	13,092 ^d
Total mercury deposition per inch of precipitation (nanograms per square meter) ^e	280	334	296	243	367
Number of samples with wet deposition of total mercury	50	51	35	44	49
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN26	IN28	IN34

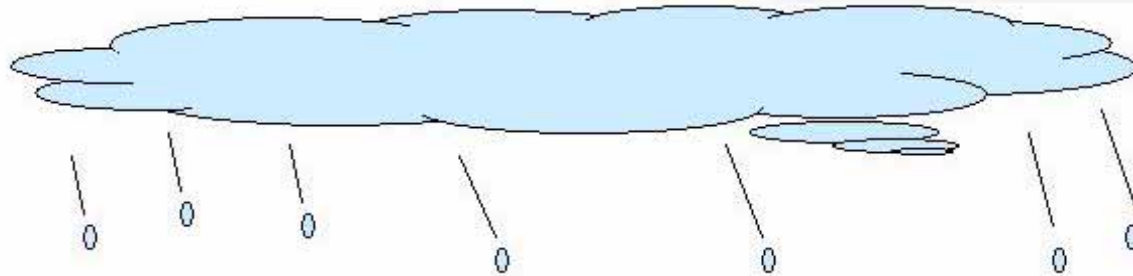
^aIncludes 3 weeks with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for these weeks by use of those week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^bValue is the sum of weekly deposition for three seasons during which the station was operated. For comparison with other four stations, the mercury deposition during winter 2003 can be estimated with the volume-weighted average concentration from the other four stations during winter 2003 (9.2 nanograms per liter) and the average precipitation during winter 2003 at two National Weather Service observer stations near IN26 at Castleton and Fishers in the northeast Indianapolis Metropolitan Area (7.8 inches). The estimated total mercury deposition during winter 2003 at IN26, based on this concentration and precipitation, is 1,836 nanograms per square meter. If the estimated deposition for winter 2003 at IN26 is added to the sum of weekly deposition in the above table, the annual total mercury deposition at IN26 is estimated to be 13,744 nanograms per square meter per year. For comparative purposes, this value is shown in figure 3, along with the normalized annual mercury deposition that includes winter 2003.

^cIncludes 2 weeks with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for these weeks by use of those week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^dIncludes 4 weeks with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for these weeks by use of those week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^eCalculated with non-rounded values, as seasonal sum of weekly deposition divided by seasonal precipitation.



Seasonal and Annual Data for 2002

The following tables present seasonal and annual values for precipitation, total mercury concentrations, and total mercury deposition during 2002. Methylmercury monitoring are included for winter 2002.

Winter 2002 (December 26, 2001, through March 26, 2002)

	Huntington	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	7.6	8.6	8.6	5.4
Total mercury median concentration (nanograms per liter)	7.1	9.6	6.9	12.4
Total mercury volume-weighted mean concentration (nanograms per liter)	6.6	11.7	8.3	7.2
Total mercury sum of weekly deposition (nanograms per square meter)	1,356	2,543	2,404 ^a	1,062
Total mercury deposition per inch of precipitation (nanograms per square meter) ^b	178	298	194	196
Number of samples with wet deposition of total mercury	13	12	11	13
Methylmercury median concentration (nanograms per liter)	.038	.047	.052	.047
Methylmercury volume-weighted mean concentration (nanograms per liter)	.034	.043	.051	.023
Methylmercury sum of weekly deposition (nanograms per square meter)	7.9 ^c	10.9	11.0	3.4
Methylmercury deposition per inch of precipitation (nanograms per square meter) ^b	1.11	1.28	1.28	1.14
Number of samples with wet deposition of methylmercury	7	12 ^d	10 ^e	8 ^d
Ratio of methylmercury deposition to total mercury deposition (percent) ^e	.62	.43	.66	.62
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

^aIncludes 1 week with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for this week by use of the week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^bCalculated with non-rounded values as seasonal sum of weekly deposition divided by sum of precipitation for samples with methylmercury concentrations.

^cIncludes 1 week with estimated methylmercury deposition because precipitation data were valid and sample volume was adequate but data were invalid because of analytical problems. Methylmercury deposition was estimated for this week by use of the week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^dIncludes 2 weeks with estimated methylmercury deposition because precipitation data were valid and sample volume was adequate but data were invalid because of analytical problems. Methylmercury deposition was estimated for this week by use of the week's valid precipitation data and the seasonal volume weighted mean concentration for the valid samples.

^eRatio of methylmercury deposition to total mercury deposition calculated only for those samples analyzed for total mercury and methylmercury.

Spring 2002 (March 26, 2002, through June 25, 2002)

	Huntington	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	10.7	19.1	19.3	10.7
Total mercury median concentration (nanograms per liter)	16.5	15.2	10.9	21.0
Total mercury volume-weighted mean concentration (nanograms per liter)	15.8	14.3	10.8	16.2
Total mercury sum of weekly deposition (nanograms per square meter)	4,273	6,883	5,352	4,424 ^a
Total mercury deposition per inch of precipitation (nanograms per square meter) ^b	399	361	277	412
Number of samples with wet deposition of total mercury	12	13	12	12
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

^aIncludes 1 week with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for this week by use of the week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^bCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.

Summer 2002 (June 25, 2002, through September 24, 2002)

	Huntington	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	6.7	7.0	8.6	8.3
Total mercury median concentration (nanograms per liter)	12.4	14.8	11.1	12.1
Total mercury volume-weighted mean concentration (nanograms per liter)	15.1	15.6	16.9	13.9
Total mercury sum of weekly deposition (nanograms per square meter)	2,563	2,637	3,743	2,748
Total mercury deposition per inch of precipitation (nanograms per square meter) ^a	381	377	437	329
Number of samples with wet deposition of total mercury	11	9	8	9
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

^aCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.

Fall 2002 (September 24, 2002, through December 24, 2002)

	Huntington	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	6.0	15.6	9.4	5.1
Total mercury median concentration (nanograms per liter)	6.1	6.5	6.1	7.2
Total mercury volume-weighted mean concentration (nanograms per liter)	7.5	6.9	6.6	10.6
Total mercury sum of weekly deposition (nanograms per square meter)	1,134 ^a	2,732	1,558 ^a	1,353
Total mercury deposition per inch of precipitation (nanograms per square meter) ^b	189	175	169	266
Number of samples with wet deposition of total mercury	12	12	12	11
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

^aIncludes 1 week with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for this week by use of the week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^bCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.

2002 Annual Composite (December 26, 2001, through December 24, 2002)

	Huntington	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	31.1	50.2	45.9	29.6
Total mercury median concentration (nanograms per liter)	9.5	12.7	8.8	11.4
Total mercury volume-weighted mean concentration (nanograms per liter)	15.5	11.7	10.8	13.0
Total mercury minimum concentration (nanograms per liter)	1.6	2.1	2.5	1.5
Total mercury maximum concentration (nanograms per liter)	71	119 ^a	77	578 ^b
Total mercury annual sum of weekly deposition (nanograms per square meter)	9,326 ^c	14,795	12,323 ^d	9,588 ^c
Total mercury minimum weekly deposition (nanograms per square meter)	1.7	5.2	3.0	.6
Total mercury maximum weekly deposition (nanograms per square meter)	1,049	1,281	1,069	1,419 ^e
Total mercury deposition per inch of precipitation (nanograms per square meter) ^f	300	295	269	324
Number of samples with wet deposition of total mercury	48	46	43	45
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

^aConcentration in less than 0.03 inches precipitation yielded 5.6 nanograms per square meter total mercury deposition.

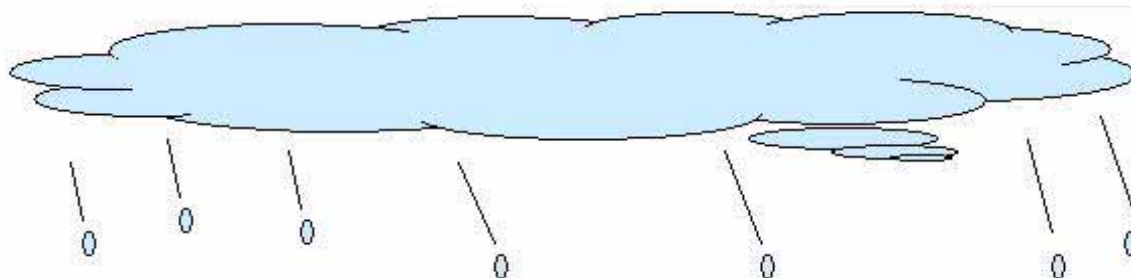
^bConcentration in less than 0.03 inches precipitation yielded 4.6 nanograms per square meter total mercury deposition.

^cIncludes 1 week with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for this week by use of the week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^dIncludes 2 weeks with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for these weeks by use of those weeks' valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^eComposite sample of two precipitation events totalling 4.15 inches.

^fCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.



Seasonal Data for Late 2000 and Seasonal and Annual Data for 2001

The following tables present seasonal and annual values for precipitation, total mercury/methylmercury concentrations, and total mercury/methylmercury deposition during 2001.

Fall 2000 (November 1 through December 26, 2000)

	Huntington	Bloomington	Dunes
Total precipitation (inches)	4.9	0.67	4.5
Total mercury median concentration (nanograms per liter)	5.3	5.6	6.2
Total mercury volume-weighted mean concentration (nanograms per liter)	6.2	8.4	5.9
Total mercury sum of weekly deposition (nanograms per square meter)	772	95	673
Total mercury deposition per inch of precipitation (nanograms per square meter) ^a	157	142	151
Number of samples with wet deposition of total mercury	7	1	8
Methylmercury median concentration (nanograms per liter)	.07	.01	.04
Methylmercury volume-weighted mean concentration (nanograms per liter)	.06	.01	.05
Methylmercury sum of weekly deposition (nanograms per square meter)	7.5	.20	6.0
Methylmercury deposition per inch of precipitation (nanograms per square meter) ^a	1.5	.30	1.3
Number of samples with wet deposition of methylmercury	6	1	7
Ratio of methylmercury deposition to total mercury deposition (percent) ^b	1	.2	.9
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN28	IN34

^aCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.

^bRatio of methylmercury deposition to total mercury deposition calculated only for those samples analyzed for total mercury and methylmercury.

Winter 2001 (December 26, 2000, through March 27, 2001)

	Huntington	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	4.2	4.7	4.0	6.0
Total mercury median concentration (nanograms per liter)	8.1	10.2	7.6	11.2
Total mercury volume-weighted mean concentration (nanograms per liter)	8.9	11.0	6.3	9.8
Total mercury sum of weekly deposition (nanograms per square meter)	980	1,240	659	1,510 ^a
Total mercury deposition per inch of precipitation (nanograms per square meter) ^b	236	267	164	252
Number of samples with wet deposition of total mercury	9	11	12	13
Methylmercury median concentration (nanograms per liter)	.078	.080	.059	.071
Methylmercury volume-weighted mean concentration (nanograms per liter)	.050	.068	.056	.071
Methylmercury sum of weekly deposition (nanograms per square meter)	5.1	7.6	5.8	10.5
Methylmercury deposition per inch of precipitation (nanograms per square meter) ^b	1.2	1.6	1.4	1.8
Number of samples with wet deposition of methylmercury	6	9	7	9
Ratio of methylmercury deposition to total mercury deposition (percent) ^c	.52	.61	.88	.70
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

^aIncludes 1 week with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for this week by use of the week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^bCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.

^cRatio of methylmercury deposition to total mercury deposition calculated only for those samples analyzed for total mercury and methylmercury.

Spring 2001 (March 27, 2001, through June 26, 2001)

	Huntington	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	10.4	7.5	10.0	8.6
Total mercury median concentration (nanograms per liter)	14.9	19.0	15.1	18.9
Total mercury volume-weighted mean concentration (nanograms per liter)	15.7	15.6	14.4	16.5
Total mercury sum of weekly deposition (nanograms per square meter)	4,200	2,974	3,530	3,603 ^a
Total mercury deposition per inch of precipitation (nanograms per square meter) ^b	403	397	354	418
Number of samples with wet deposition of total mercury	12	12	11	12
Methylmercury median concentration (nanograms per liter)	.050	.027	.025	.057
Methylmercury volume-weighted mean concentration (nanograms per liter)	.046	.052	.028	.062
Methylmercury sum of weekly deposition (nanograms per square meter)	13.3	9.4	6.8	13.5
Methylmercury deposition per inch of precipitation (nanograms per square meter) ^b	1.3	1.2	.68	1.6
Number of samples with wet deposition of methylmercury	12	6	10	11
Ratio of methylmercury deposition to total mercury deposition (percent) ^c	.32	.32	.19	.38
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

^aIncludes 2 weeks with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for these weeks by use of those weeks' valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples

^bCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.

^cRatio of methylmercury deposition to total mercury deposition calculated only for those samples analyzed for total mercury and methylmercury.

Summer 2001 (June 26, 2001, through September 25, 2001)

	Huntington	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	13.2	12.3	17.2	8.6
Total mercury median concentration (nanograms per liter)	15.0	11.1	11.8	15.3
Total mercury volume-weighted mean concentration (nanograms per liter)	14.9	11.5	12.5	13.6
Total mercury sum of weekly deposition (nanograms per square meter)	5,009	3,575	5,416	3,004
Total mercury deposition per inch of precipitation (nanograms per square meter) ^a	379	292	315	351
Number of samples with wet deposition of total mercury	13	12	10	11
Methylmercury median concentration (nanograms per liter)	.021	.031	.011	.027
Methylmercury volume-weighted mean concentration (nanograms per liter)	.041	.027	.019	.033
Methylmercury sum of weekly deposition (nanograms per square meter)	13.8	8.1	8.2	7.3
Methylmercury deposition per inch of precipitation (nanograms per square meter) ^a	1.0	.66	.48	.85
Number of samples with wet deposition of methylmercury	10	7	8	9
Ratio of methylmercury deposition to total mercury deposition (percent) ^b	.27	.23	.15	.24
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

^aCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.

^bRatio of methylmercury deposition to total mercury deposition calculated only for those samples analyzed for total mercury and methylmercury.

Fall 2001 (September 25, 2001, through December 26, 2001)

	Huntington	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	12.4	14.9	15.1	12.3
Total mercury median concentration (nanograms per liter)	6.3	9.4	7.3	7.1
Total mercury volume-weighted mean concentration (nanograms per liter)	6.0	12.1	6.1	9.2
Total mercury sum of weekly deposition (nanograms per square meter)	1,890	4,613 ^a	2,347	2,894 ^a
Total mercury deposition per inch of precipitation (nanograms per square meter) ^b	153	310	155	235
Number of samples with wet deposition of total mercury	12	11	12	13
Methylmercury median concentration (nanograms per liter)	.032	.017	.041	.015
Methylmercury volume-weighted mean concentration (nanograms per liter)	.038	.029	.022	.021
Methylmercury sum of weekly deposition (nanograms per square meter)	12.3	10.3	8.9	5.8
Methylmercury deposition per inch of precipitation (nanograms per square meter) ^b	.99	.69	.59	.47
Number of samples with wet deposition of methylmercury	11	9	11	11
Ratio of methylmercury deposition to total mercury deposition (percent) ^c	.65	.22	.25	.20
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

^aIncludes 1 week with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for this week by use of the week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^bCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.

^cRatio of methylmercury deposition to total mercury deposition calculated only for those samples analyzed for total mercury and methylmercury.

2001 Annual Composite (December 26, 2000, through December 26, 2001)

	Huntington	Clifty Falls	Bloomington	Dunes
Total precipitation (inches)	40.2	39.3	46.3	35.8
Total mercury median concentration (nanograms per liter)	11.6	11.8	10.8	13.0
Total mercury volume-weighted mean concentration (nanograms per liter)	11.9	12.5	10.2	12.0
Total mercury minimum concentration (nanograms per liter)	2.3	2.76	3.7	2.4
Total mercury maximum concentration (nanograms per liter)	51.2	46.7	27.6	277 ^a
Total mercury annual sum of weekly deposition (nanograms per square meter)	12,079	12,402 ^b	11,951	11,052 ^c
Total mercury minimum weekly deposition (nanograms per square meter)	3.6	3.6	1.3	2.2
Total mercury maximum weekly deposition (nanograms per square meter)	1,098	1,703	1,178	1,447
Total mercury deposition per inch of precipitation (nanograms per square meter) ^d	301	316	258	309
Number of samples with wet deposition of total mercury	46	46	45	49
Methylmercury median concentration (nanograms per liter)	.035	.032	.029	.040
Methylmercury volume-weighted mean concentration (nanograms per liter)	.042	.038	.025	.042
Methylmercury minimum concentration (nanograms per liter) ^e	< R.L.	< R.L.	< R.L.	.004
Methylmercury maximum concentration (nanograms per liter)	.43	.47	.87	.28
Methylmercury annual sum of weekly deposition (nanograms per square meter)	44.6	35.4	29.8	38.0
Methylmercury minimum weekly deposition (nanograms per square meter)	.084	.005	.014	.001
Methylmercury maximum weekly deposition (nanograms per square meter)	4.8	3.2	3.0	3.3
Methylmercury deposition per inch of precipitation (nanograms per square meter) ^d	1.1	.9	.6	1.1
Number of samples with wet deposition of methylmercury	39	34	36	40
Ratio of methylmercury deposition to total mercury deposition (percent) ^f	.37	.29	.25	.34
National Atmospheric Deposition Program monitoring-station identifier	IN20	IN21	IN28	IN34

Footnotes on following page

^aConcentration in less than 0.03 inches precipitation yielded 2.2 nanograms per square meter total mercury deposition.

^bIncludes 1 week with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for this week by use of the week's valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^cIncludes 3 weeks with estimated deposition because precipitation data were valid but sample was invalid because of equipment malfunction. Deposition was estimated for these weeks by use of those weeks' valid precipitation data and the seasonal volume-weighted mean concentration for the valid samples.

^dCalculated with non-rounded values as seasonal sum of weekly deposition divided by seasonal precipitation.

^e<R.L. indicates concentration was less than the reporting limit, which varied from 0.003 to 0.021 nanograms per liter.

^fRatio of methylmercury deposition to total mercury deposition calculated only for those samples analyzed for total mercury and methylmercury.