

IOWA'S WATER

Ambient Monitoring Program

Water Quality Summary 2006*

Water Quality Parameter	Units	Number of Samples	Min Value	Percentiles					Max Value
				10th	25th	50th	75th	90th	
Acetochlor [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	9.9
Alachlor [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.0
Ammonia (as N)	mg/L	1,015	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	1.3
Atrazine [†]	µg/L	918	<0.05	<0.05	<0.05	0.05	0.12	0.35	17
Butylate [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbonaceous BOD (5 day)	mg/L	993	<2	<2	<2	<2	2	4	18
Chloride	mg/L	1,016	4.6	16	20	25	31	40	120
Chlorophyll free of pheophytin	µg/L	993	<1	3	6	15	41	110	870
Cyanazine [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06
Deethylatrazine [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	0.07	0.10	1.2
Deisopropylatrazine [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23
Dimethenamid [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.4
Diss. Orthophosphate (as P)	mg/L	1,016	<0.02	<0.02	0.03	0.07	0.13	0.22	4.2
Dissolved Oxygen	mg/L	1,015	4.9	7.9	8.9	10.9	13.7	14.9	20
<i>E. coli</i> Bacteria	CFU/100 ml	1,016	<10	<10	20	110	390	2,200	210,000
Field pH	pH units	993	6.9	8.0	8.2	8.3	8.5	8.6	9.4
Field Temperature	Celsius	1,015	0.0	0.3	2.8	12.2	20.9	24.7	33.0
Flow**	CFS	849	1	18	75	290	990	2,800	24,700
Metolachlor [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	0.06	0.15	3.2
Metribuzin [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.5
Nitrate+Nitrite (as N)	mg/L	1,016	<0.05	0.77	3.1	6.4	9.3	13	28
Silica	mg/L	991	<1	4.6	8.7	12	17	21	29
Simazine [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.3
Specific Conductance	µmhos/cm	1,014	220	440	520	622	720	820	1,400
Sulfate	mg/L	993	12	22	28	36	61	96	350
Total Dissolved Solids	mg/L	1,016	140	260	300	360	430	490	890
Total Hardness (as CaCO ₃)	mg/L	993	100	200	250	310	370	420	560
Total Kjeldahl Nitrogen	mg/L	1,014	<0.1	0.4	0.5	0.8	1.2	1.7	8.2
Total Phosphorus	mg/L	1,016	<0.02	0.08	0.12	0.18	0.28	0.48	4.3
Total Suspended Solids	mg/L	1,734	<1	2	5	15	46	110	2,620
Trifluralin [†]	µg/L	918	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09
Turbidity	NTU	1,016	<1	3.6	7.4	16	35	84	1,500

µg/L – micrograms per liter (parts per billion)

mg/L – milligrams per liter (parts per million)

CFU/100 ml – Colony Forming Units per 100 milliliters of water

CFS – Cubic Feet per Second (ft³/sec)

µmhos/cm – micromhos per centimeter

NTU – Nephelometric Turbidity Units

< – less than detection limit shown

BOD – Biological Oxygen Demand

Diss. – Dissolved

* Includes monthly and event samples for all stream sites.

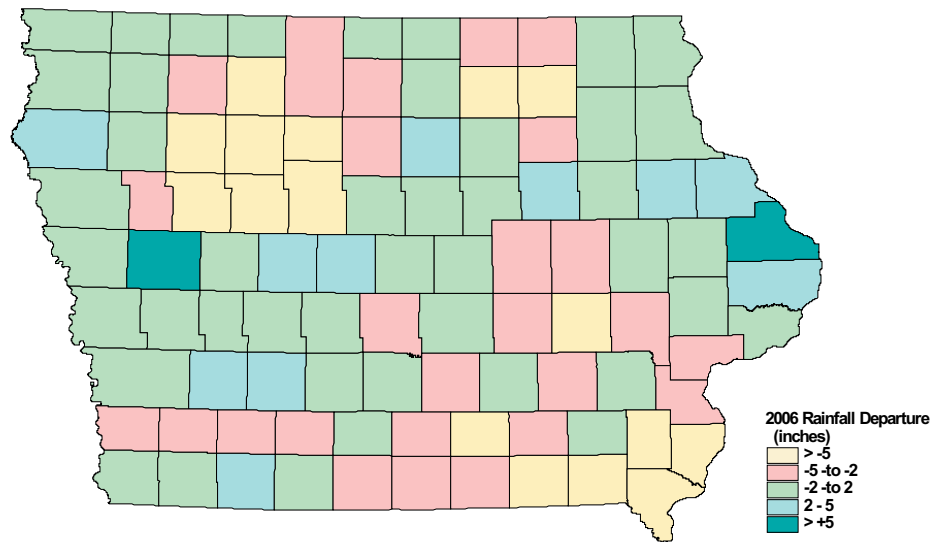
** Provisional data from the U.S. Geological Survey and University of Iowa Hygienic Laboratory

† Sampling discontinued in Dec 2006.

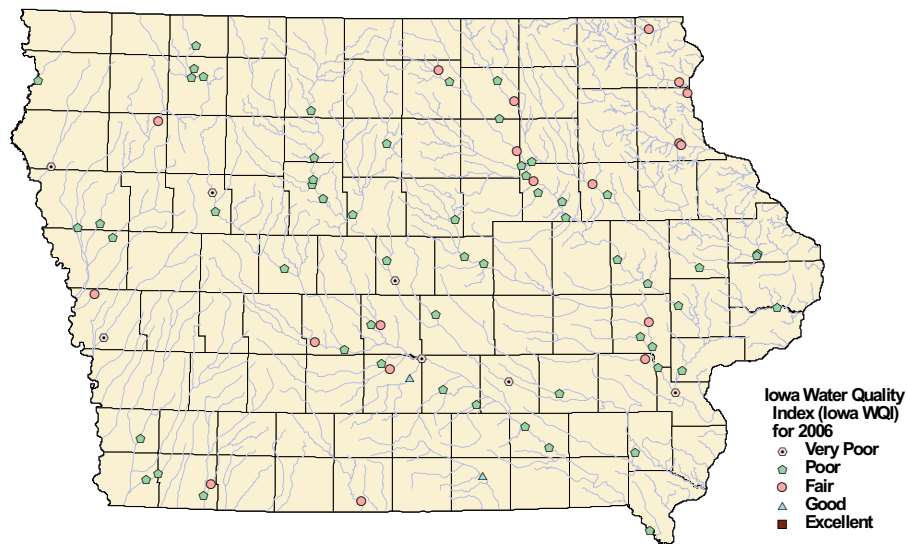
A total of 84 stream sites were sampled monthly from Jan to July, 83 in Aug and Sep, 82 in Oct and Nov, and 75 in Dec.

Raw data are available through STORET at wqm.igsb.uiowa.edu/iastoret

Departure from Long-term Average Annual Rainfall



Source: Harry Hillaker, State Climatologist,
Iowa Department of Agriculture & Land Stewardship.



Iowa Water Quality Index

In 2005, the Iowa Department of Natural Resources developed the Iowa Water Quality Index (WQI), a standardized method for comparing the water quality of various water bodies across the state. The Iowa WQI rates water quality using the following nine parameters: biological oxygen demand, dissolved oxygen, *E.coli* bacteria, nitrate+nitrite as nitrogen, total detected pesticides, pH, total phosphorus, total dissolved solids, and total suspended solids. Values range from 0 – 100 and streams are classified as **very poor** (0 – 25), **poor** (25.1 – 50), **fair** (50.1 – 70), **good** (70.1 – 90), and **excellent** (90.1 – 100). For 2006, 2% of the streams had an Iowa WQI in the **excellent** category, 11% were **good**, 32% were **fair**, 38% were **poor**, and 21% were **very poor**.



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