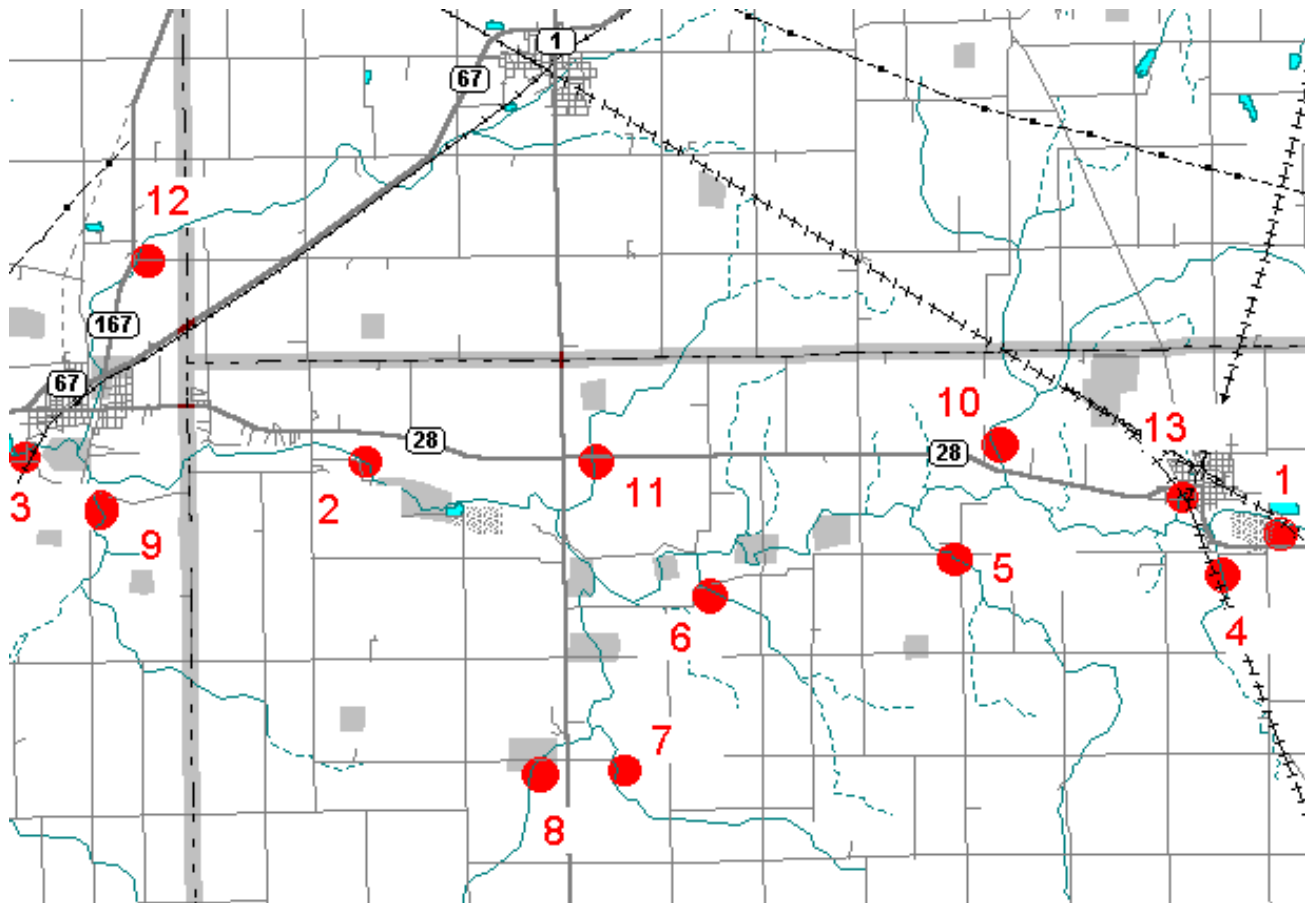


MISSISSINEWA RIVER WATERSHED DIAGNOSTIC STUDY (Phase 2)

The Mississinewa River is one of the largest tributaries of the Wabash River in northeastern Indiana. In 1999 the Randolph County SWCD received funding from the Indiana Lake and River Enhancement (LARE) program of IDNR to study and prioritize water quality problems in the uppermost end of this watershed. The study was completed in February 2001. The local SWCDs decided to seek additional funding to begin work on the next downstream segment of the river. A second LARE grant was received in 2002. The Mississinewa River and the most recent study area and water quality monitoring sites are shown below:



Water Quality Measurements

Water chemistry results collected during dry weather are shown in Table 1. Data collected in wet weather are shown in Table 2.

Table 1. Water Quality (Base Flow) May 29, 2003

Site	D.O. mg/l	pH SU	Cond uS	Temp C	ChlA ug/l	Turb NTU	NO3 mg/l	NH3 mg/l	PO4 mg/l Total	PO4 mg/l Ortho	E.coli /100 ml
Mississinewa Site 1	9.0	8.3	680	18.0	29	4.8	15.0	<0.1	0.22	0.14	125
Mississinewa Site 2	9.9	8.6	620	20.5	45	5.2	10.0	0.1	0.11	0.08	60
Mississinewa Site 3	8.9	8.2	660	19.5	43	7.7	13.0	0.1	0.21	0.19	398
Fetid Creek Site 4	7.4	8.1	660	19.0	27	4.8	9.7	0.1	0.27	0.21	2250
Bear Creek. Site 5	8.6	8.1	700	18.5	33	4.3	5.0	0.1	0.19	0.14	89
Heuss Ditch Site 6	8.8	8.2	700	19.0	33	4.2	9.0	0.1	0.20	0.14	25
Bush Creek Site 7	9.0	8.1	700	21.0	32	4.3	2.1	0.1	0.23	0.18	443
Elkhorn Creek Site 8	8.8	8.0	700	19.5	27	3.3	7.5	0.1	0.25	0.21	428
Mud Creek Site 9	8.8	8.0	700	20.5	20	4.3	6.5	0.1	0.17	0.13	72
Days Creek Site 10	9.1	8.3	700	21.0	20	3.8	11.0	0.1	0.15	0.13	156
Platt Nibarger Site 11	9.2	8.3	700	22.0	41	13.7	15.0	0.1	0.33	0.28	3
Halfway Cr. Site 12	9.7	8.4	700	23.0	30	5.1	9.5	0.1	0.40	0.35	58
Ridge Run Site 13	9.5	8.2	700	22.5	39	4.7	2.8	0.1	0.35	0.28	331

D.O. = Dissolved Oxygen
Turb. = Turbidity
Cond. = Conductivity
NO3 = Nitrite + nitrate (as Nitrogen)
ChlA = Chlorophyl a
NH3 = Ammonia (as Nitrogen)
PO4 = Phosphate (as Phosphorus)

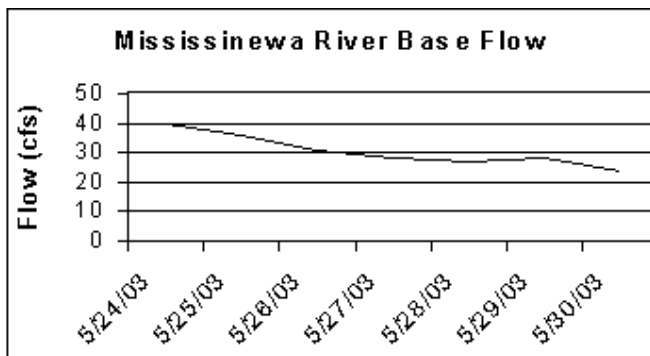
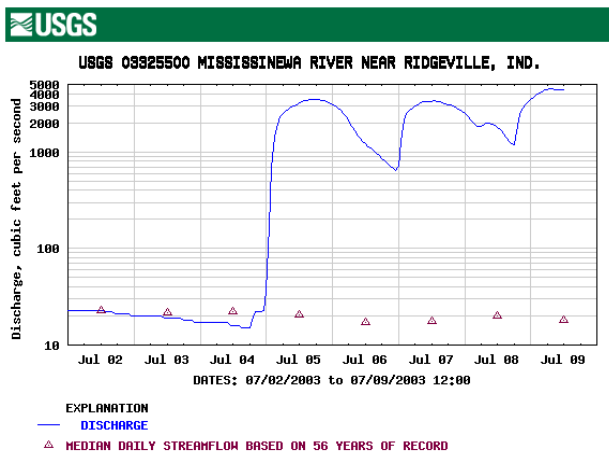


Table 2. Water Quality (Storm Flow) - July 5, 2003

Site	D.O. mg/l	pH SU	Cond uS	Temp C	ChlA ug/l	Turb NTU	NO3 mg/l	NH3 mg/l	PO4 mg/l Total	PO4 mg/l Ortho	E.coli /100 ml
Mississinewa Site 1	6.0	7.3	420	20.2	191	248	5.0	0.2	0.20	0.14	1720
Mississinewa Site 2	6.1	7.2	300	20.2	207	378	12.0	0.2	0.61	0.55	1580
Mississinewa Site 3	6.6	7.1	340	20.2	214	368	8.5	0.3	0.48	0.42	3640
Fetid Creek Site 4	6.6	7.2	300	21.3	183	232	4.0	0.4	0.69	0.65	2440
Bear Creek. Site 5	7.3	7.1	280	22.5	180	224	2.8	0.2	0.60	0.53	2960
Heuss Ditch Site 6	6.7	7.2	210	20.9	221	325	2.1	0.3	0.52	0.48	2720
Bush Creek Site 7	6.9	7.1	270	20.3	224	315	7.0	0.3	0.45	0.39	1280
Elkhorn Creek Site 8	6.8	7.2	360	20.3	168	164	17.0	0.3	0.60	0.55	5700
Mud Creek Site 9	6.4	7.2	270	20.2	144	132	8.5	0.3	0.75	0.68	480
Days Creek Site 10	6.1	7.3	360	21.3	169	210	8.5	0.3	0.62	0.52	240
Platt Nibarger Site 11	6.7	7.3	360	21.8	164	136	14.0	0.5	0.61	0.50	2080
Halfway Cr. Site 12	5.9	7.4	380	21.3	166	176	21.0	0.5	0.42	0.39	6180
Ridge Run Site 13	7.0	7.2	270	22.8	176	236	2.5	<0.1	0.40	0.30	5340
Stoney Creek Reference	7.1	7.3	310	21.6	127	56	10.0	0.2	0.82	0.75	5400

D.O. = Dissolved Oxygen
Turb. = Turbidity
Cond. = Conductivity
NO3 = Nitrite + nitrate (as Nitrogen)
ChlA = Chlorophyl a
NH3 = Ammonia (as Nitrogen)
PO4 = Phosphate (as Phosphorus)



Provisional Data Subject to Revision