

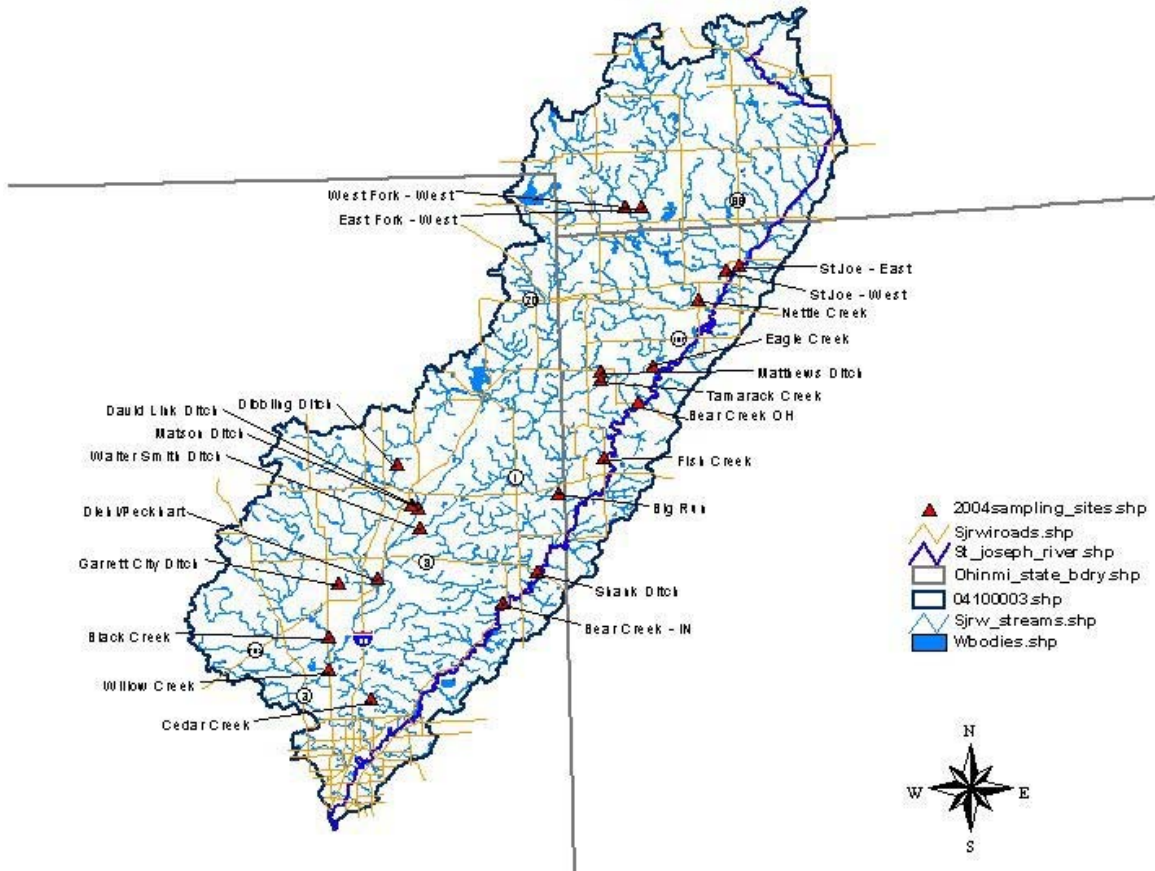
# **St. Joseph River Watershed Initiative**

## ***2004 Water Quality Sampling Report***

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# 2004 SJRWI Sampling Stations



## 2004 St. Joseph River Watershed Initiative Water Quality Report

### Executive Summary

The St. Joseph River Watershed Initiative here presents a summary of the 2004 St. Joseph River sampling season. Included in the text of this report are highlights featuring the most important of our sampling parameters, as well as some historical perspective where time and space allow. The 2004 sampling season has offered many encouraging results in the parameters of concern. Where results remain troublesome, they are serving to clarify geographic area of concern and help pinpoint our efforts. Improving bacteria results are a clear step in the right direction, although concentrations still need to be improved dramatically. The pesticide results show that atrazine and other chemicals remain low *on a yearly average basis*. As with the bacteria, however, the magnitude and persistent distribution of the high concentration events require further examination in order to address the specific sources and locations of contamination. High ammonia values at several sites in 2004 also are presented as new concerns requiring further investigation.

The St. Joseph River Watershed Initiative is equipped and prepared in the coming years to both investigate and address the issues presented in this 2004 sampling report. A Great Lakes Commission Erosion Reduction Project grant will allow the Initiative to further study sediment levels in the watershed and begin to implement on-the-ground solutions. The Source Water Protection Initiative in conjunction with the Agricultural Research Service is addressing pesticide concerns with more detailed sampling and funding for innovative best management practices in the Cedar Creek Watershed. Similar work is being done and planned through the Cedar Creek Management Plan and the Lower St. Joseph River/Bear Creek Management plan.

An appendix follows the text of the report containing the complete sampling results for the 2004 season.

### Sampling Summary

The 2004 sampling season began on April 6 and was concluded on October 26, 2004. Sampling was conducted every Tuesday for the following sites in the St. Joseph River Watershed:

Site Name	Site Number	Location	Parameters
Cedar Creek	100	Tonkel Rd, Allen Co.	Full + nutrients
Willow Creek	101	Coldwater Rd, Allen Co.	Full
Black Creek	102	CR 7A, Dekalb Co.	Full
Little Cedar Creek	103	CR 64, Dekalb Co.	Full
Diehl/Peckhart Ditch	104	SR 427, Dekalb Co.	Full + nutrients
Matson Ditch	106	CR 39, Dekalb Co.	Full + nutrients
Garrett City Ditch	117	CR 15, Dekalb Co.	Full
Shank Ditch	123	CR 75A, Dekalb Co.	Full
Fish Creek	124	SR 49, Williams Co., Ohio	Full
St. Joe - West	125	US 20, Williams Co., Ohio	Full + nutrients
St. Joe - East	126	SR 15, Williams Co., Ohio	Full
Big Run	127	CR 79, Dekalb Co.	Full
Bear Creek – IN	128	SR 1, Dekalb Co.	Full
Nettle Creek	129	SR 576, Williams Co, Ohio	Full
Eagle Creek	130	CR J, Williams Co., Ohio	Full
Bear Creek – OH	131	SR 34, Williams Co, Ohio	Full + nutrients
Matthews Ditch	132	CR 4, Williams Co., Ohio	Full
Tamarack Creek	133	CR 4, Williams Co., Ohio	Full
East Fork – West	134	Sampson Rd, Hillsdale Co., MI	Full
West Fork – West	135	Sampson Rd, Hillsdale Co., MI	Full
Walter Smith Ditch	141	CR 39, Dekalb Co.	Full + nutrients
David Link Ditch	142	CR 37, Dekalb Co.	Full
Dibbling Ditch	143	CR 18, Dekalb Co.	Full

Table 1: 2004 sampling sites and parameters.

Sites shaded in green were added to the 2003 sampling roster. These sites have previously been sampled by the Initiative, and were restarted for 2004 in order to provide coverage in the southwestern section of the Cedar Creek Watershed. 2003 sites Diehl Ditch (136) and Peckhart Ditch (137) were removed from sampling for the 2004 season to make room for the additional sites.

The full parameters include those acquired via the Hach Hydrolab, those measured by hand, and bacteria and pesticide data analyzed by the laboratory at the City of Fort Wayne water filtration plant. These parameters are:

Hand Measurements

Time  
Air Temp  
Cloud Cover  
Wind  
Bridge-to-Water distance (Flow Height)

Hydrolab Measurements

Time  
Water Temp  
pH  
Specific Conductance  
Total Dissolved Solids  
Dissolved Oxygen  
Turbidity

Lab Measurements

Atrazine  
Metolachlor  
Alachlor  
Cyanazine  
E. Coli  
Total Coliform  
Heterotrophic Plate Count

Nutrient samples were taken at the indicated six sites. These samples were analyzed by the laboratory at the Water Pollution Control Plant of the City of Fort Wayne. The parameters are:

Phosphorus (total)  
Ammonia (NH<sub>3</sub>)

**2004 Sampling Season Notes**

There are several issues of note for the 2004 season to consider when examining the data. These issues will be addressed as general issues and those applying to specific sampling dates.

*General Issues*

Black Creek (Site 102) was sampled at a location ¼ mile downstream of the historical location for the first 9 weeks of the season. The historical location (CR 9A) was resumed on June 1. The results for these locations are listed and reported as the same site, #102.

Walter Smith Ditch (#141) was dredged between the 2003 and 2004 seasons, causing a substantial shift in the topography and sediment content of the ditch. The bridge-to-water measurement location and grab sample location on the bridge was moved about 3 feet to the south, reflecting the shift in the ditch layout.

There were several occasions, especially in September and October, when water levels were too low to grab a proper sample. These events are recorded in the database and on the sampling note sheets.

### *Date-Specific Issues*

- June 8 – Heavy oil sheen noted at Garrett City Ditch (117)
- June 29 – Heavy foam noted at Black Creek (102)
- July 6 – Heavy weed accumulation at Tamarack Creek (133) prevented flow height measurement
- August 3 – Debris accumulation at Eagle Creek (130) prevented flow height measurement
  - Heavy foam and oil sheen noted at Bear Creek OH (131)
- August 17 – Contractor observed applying pesticide to road sides at and near Diehl/Peckhart (104)
- August 24 – 7 cows wading in East Fork – West (134) upstream of sampling location
- August 31 – 5 cows wading in East Fork – West (134) upstream of sampling location
- September 7 – Very strong manure odor at and around Dibbling Ditch (143)
- September 21 – Downed tree at West Fork – West (135) prevented flow height measurement
- September 28 – Very heavy rain throughout the sampling day
  - Low flow height at Tamarack Creek (133) prevented Hydrolab recording
  - Low flow exposing rocks in Shank Ditch (123) prevented flow height measurement
- October 5 – Water level at Walter Smith (141) too low to take nutrient sampler
  - Downed tree in East Fork – West prevented flow height measurement
  - Extremely low flow in Tamarack Creek (133)
- October 12 – Low flow at Walter Smith (141) prevented any sampling or Hydrolab recording
  - Low flow at Nettle Creek (129) prevented Hydrolab recording, samples taken
  - No flow at Matthews Ditch (132) prevented sampling or Hydrolab recording
  - No flow at Tamarack Creek (133) prevented sampling or Hydrolab recording
  - Low flow caused the bed of Fish Creek (124) to be stirred, preventing Hydrolab
- October 19 – Extremely low flow at Walter Smith (141) prevented sampling or Hydrolab recording
  - No flow at Tamarack Creek (133) prevented sampling or Hydrolab recording
- October 26 – Low flow at Diehl/Peckhart (104) prevented nutrient sampling
  - Low flow at Walter Smith (141) prevented all sampling and Hydrolab recording
  - Bridge construction at St. Joe – West prevented any access to the sampling location
  - Low flow at Nettle Creek (129) prevented Hydrolab recording, all samples taken
  - No flow at Tamarack Creek (133) prevented any sampling or Hydrolab recording

### **2004 Weather Conditions**

Measured precipitation at Auburn Indiana in Dekalb County is presented in the following graph as an indication of weather conditions during the 2004 sampling season. Data acquired from the Purdue University Climate Data Page (<http://shadow.agry.purdue.edu/sc.index.html>).

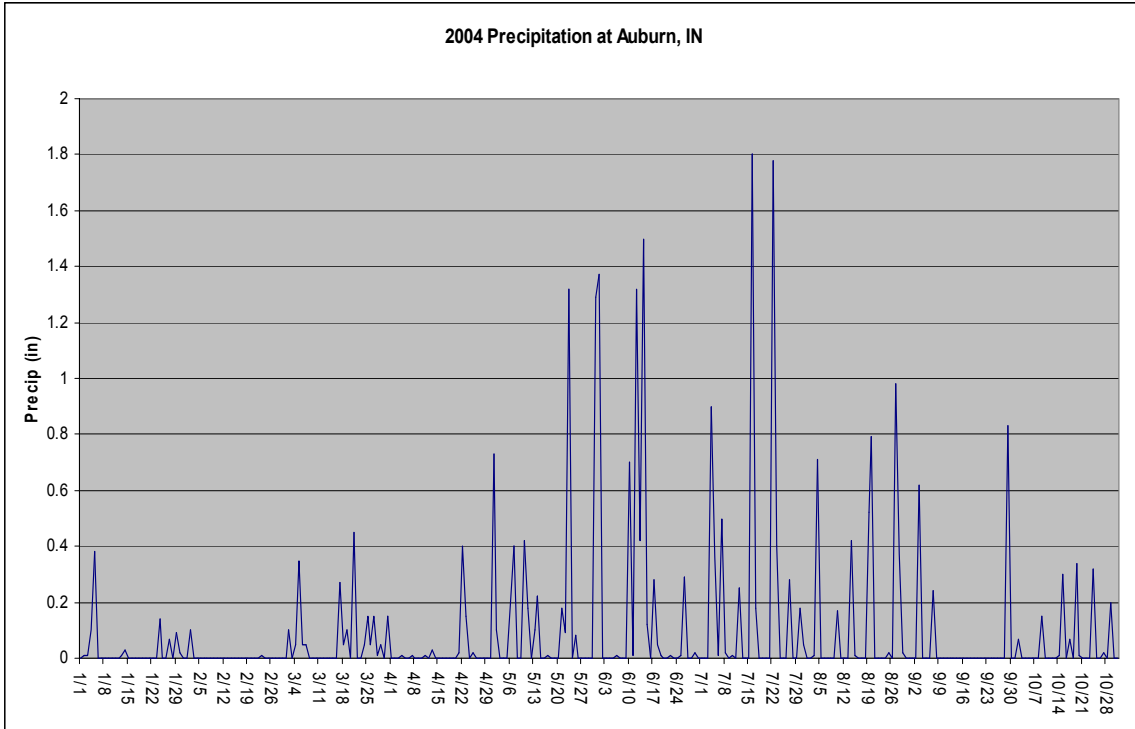


Figure 1 – 2004 Daily Precipitation at Auburn

Monthly totals are tabulated below, as are average monthly totals for comparison.

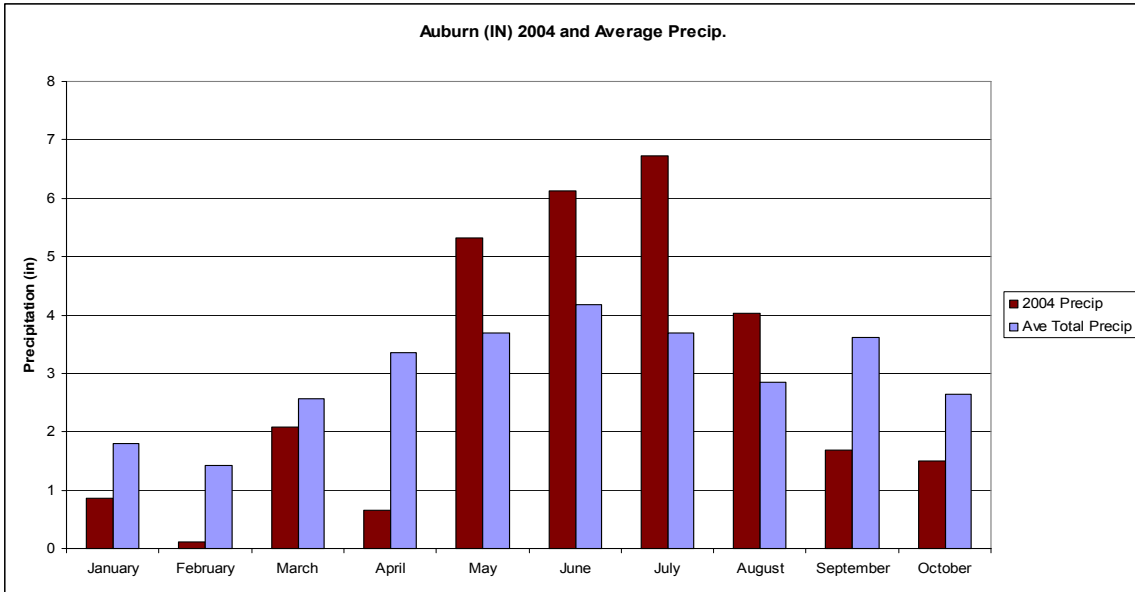


Figure 2 – Average monthly and 2004 monthly precipitation

Total daily flow as recorded in the St. Joseph River at the USGS gauging station (USGS #04180500, info. at [http://nwis.waterdata.usgs.gov/nwis/discharge/?site\\_no=04180500](http://nwis.waterdata.usgs.gov/nwis/discharge/?site_no=04180500)) in Fort Wayne, Indiana, is charted below. Dates are limited to the 2004 sampling period.

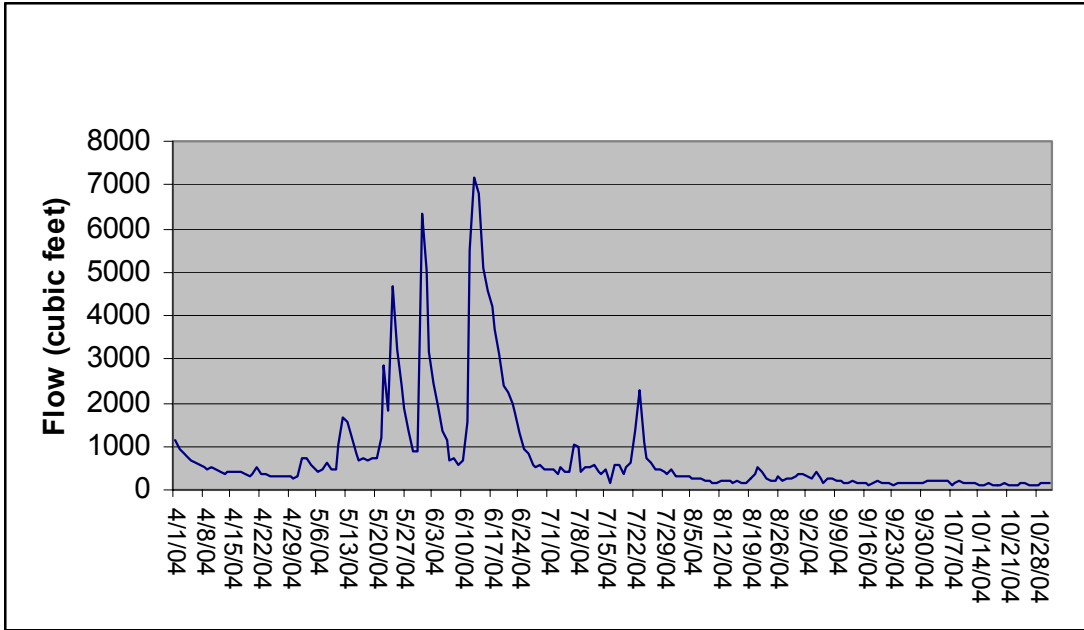


Figure 3 – St. Joseph River discharge

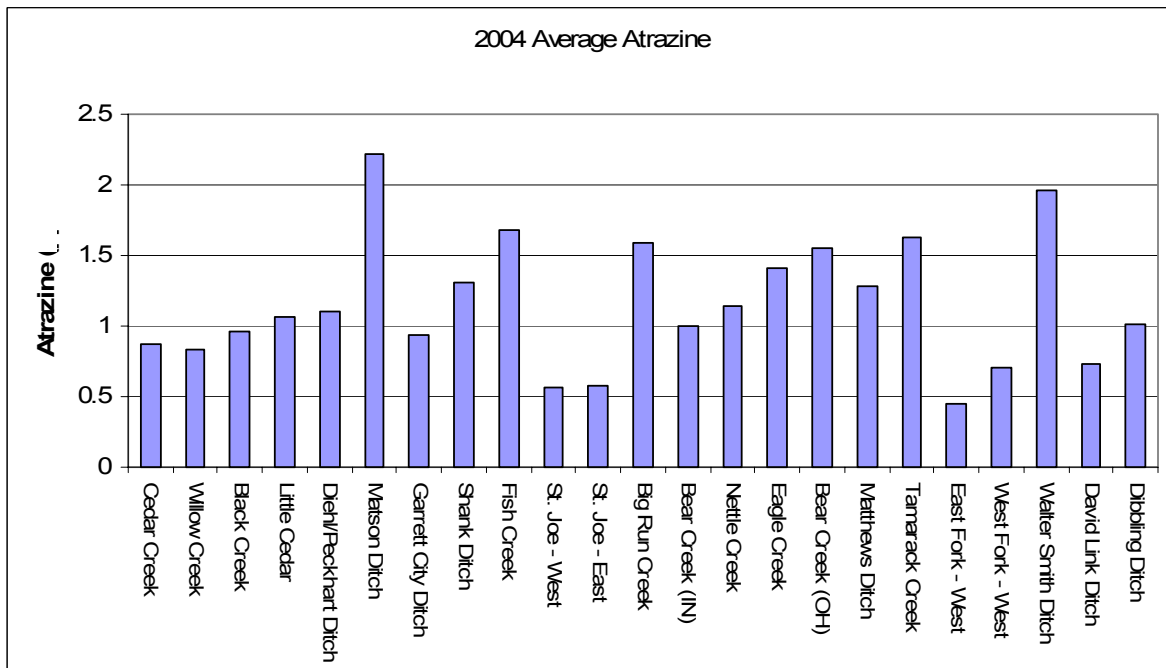
## 2004 Sampling Results

### Pesticides

#### *Atrazine*

Average atrazine levels for each site are graphed below. No site had a season average exceeding the EPA MCL of 3.00 parts per billion atrazine.

Figure 4 – 2004 average atrazine values (units = ppb)



The 2003 statistics for atrazine are presented below.

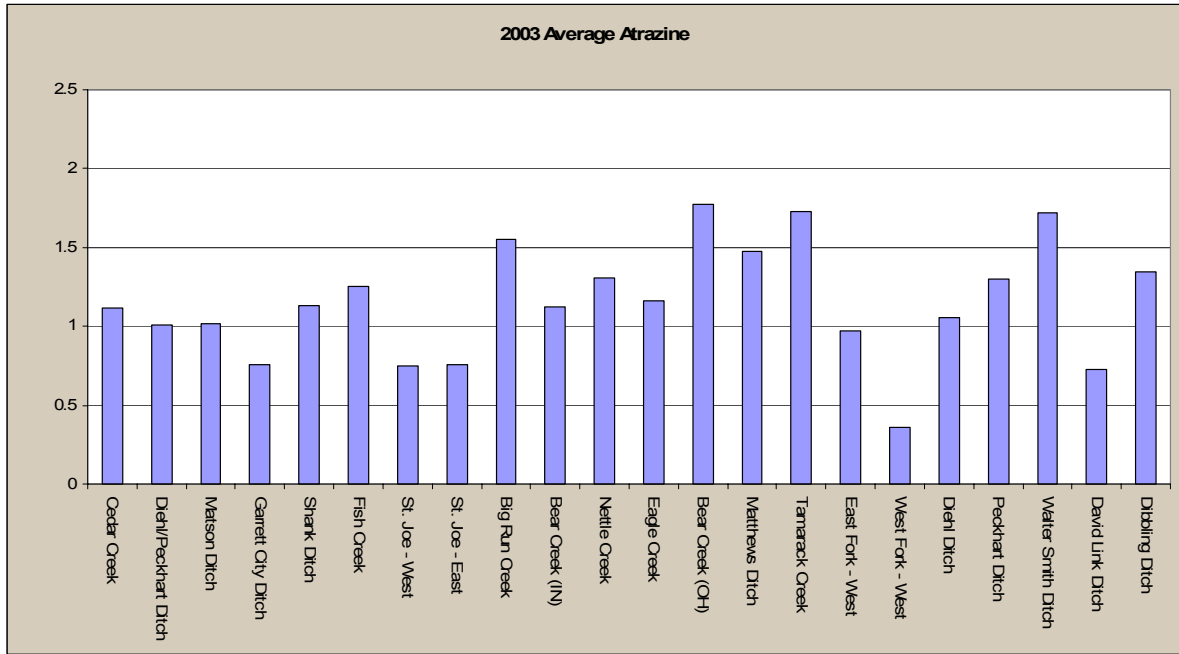


Figure 5 – 2003 average atrazine values (units = ppb)

A comparison reveals very similar results:

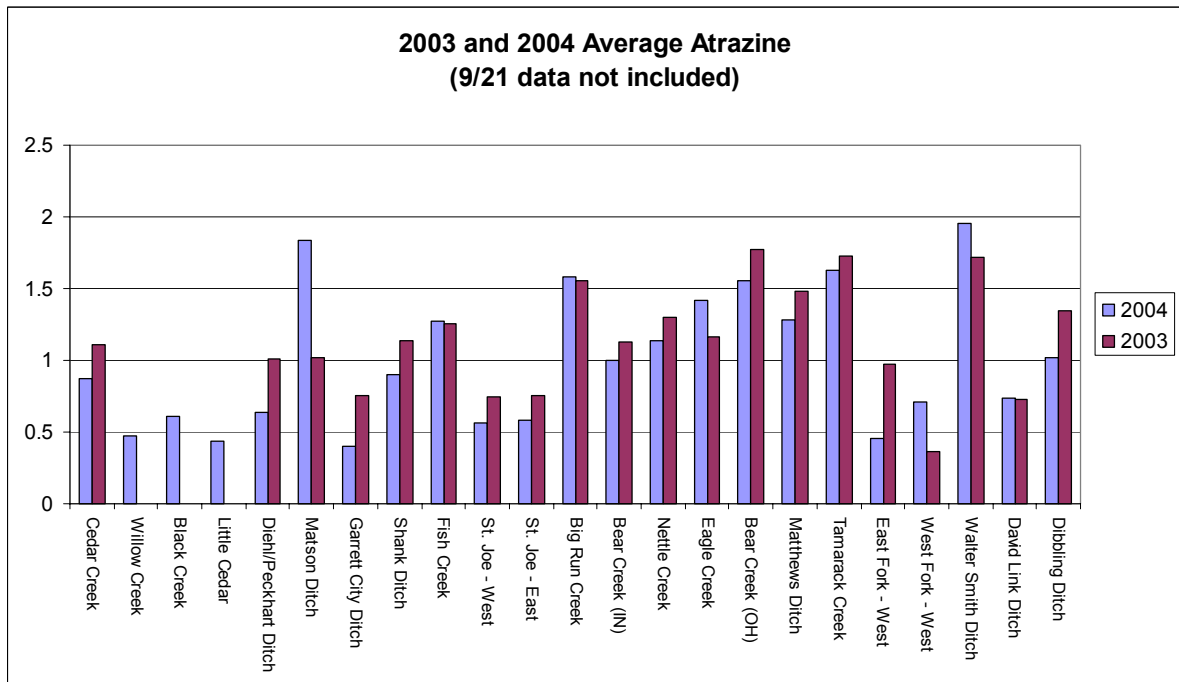


Figure 6 – 2004 and 2003 average atrazine comparison (units = ppb)

When examining the 2004 atrazine trends, it is important to note the effects of an unusually high set of atrazine levels from the sampling day 9/21. These results are highlighted below in red:

Site #	101	102	103	104	106	117	123	124
9/14/2004	0.02	0.11	0.11	0.13	0.14	0	0.08	0.4
9/21/2004	11.14	11.4	12.53	14.63	13.28	16.54	13.17	13.39
9/28/2004	0	0.05	0.06	0.06	0.07	0.06	0.01	0.26

Table 2 – September 14 to 21 atrazine results for selected sites.

There are several factors to observe when drawing conclusions about this unusual atrazine event. First, the sites in question occur sequentially in the order the lab analyzes them. Second, the event occurs very late in the sampling season. Third, there is no indication before or after September 21 to indicate the potential for or lasting effects of a high concentration pesticide event. These factors suggest the potential for laboratory error. As a result, averages have been calculated both including and omitting the September 21 sampling data. The averages graph is included below (without the 9/21 samples)

*Atrazine MCL Exceedence Events*

The Environmental Protection Agency’s maximum contaminant level for atrazine is 3.00 parts per billion. Two sites did not exceed the MCL at any point during the 2004 season, and one additional site exceeded the MCL only during the September 21 anomaly. The sites that never exceeded the MCL were Fish Creek (124) and East Fork – West (134). Little Cedar Creek (103) exceeded the MCL on September 21, but did not on any other sampling day. The following graph shows the percentage of total samples at each site which exceed the atrazine MCL. The maroon bars represent those sites affected by the September 21 exceedence, as if the date had not experienced the event.

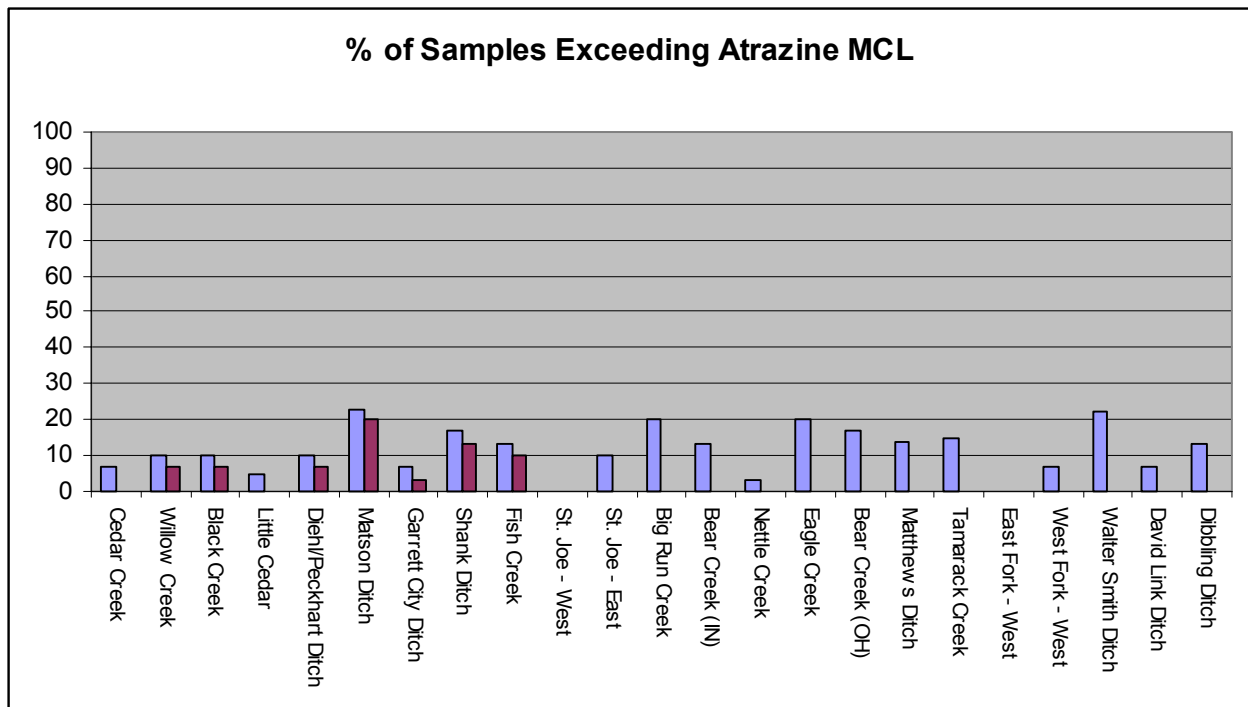


Figure 7 – Percent of samples exceeding the atrazine MCL

Not including the September 21 anomaly, there were 69 separate exceedences of the atrazine MCL. Of these exceedences, 66 occurred during the traditional peak season of the pesticide application: the months of April, May, and June. Exceedence percentages for all sites are graphed below, illustrating the effects of this period:

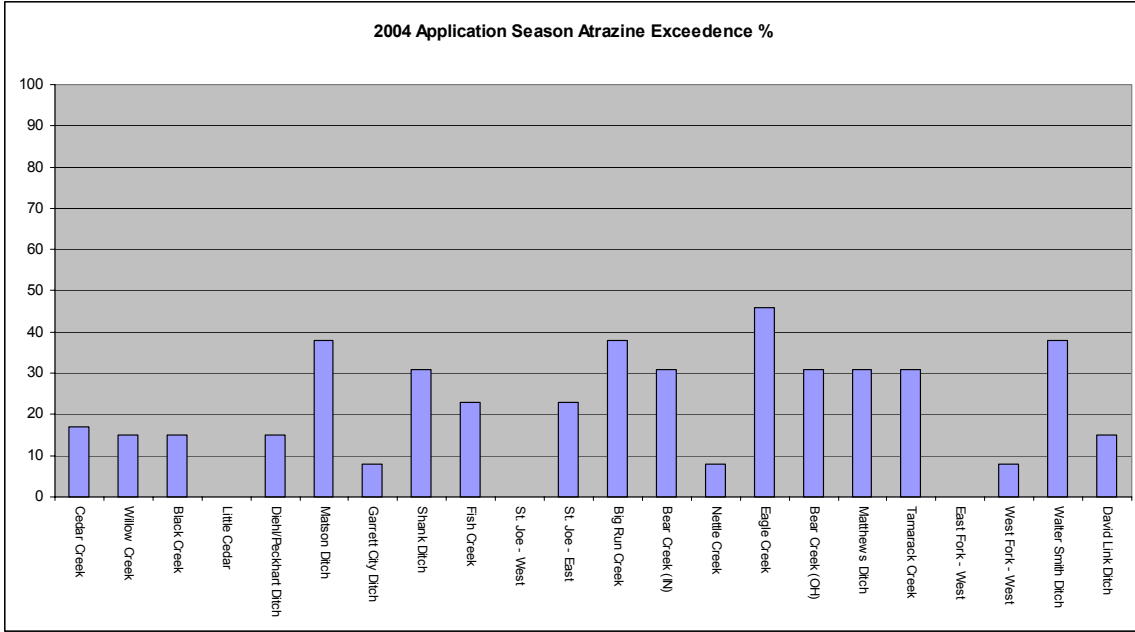


Figure 8 – Percent of sampled exceeding the atrazine MCL during the application season

It is important to understand the degrees by which sites have exceeded the MCL, and the highest single values recorded at each site. In most cases, sites demonstrating high yearly and seasonal averages also record the highest single events and exceed the MCL by a higher average value. This was the case during the 2004 sampling season, indicating a more persistent and centrally located source of contamination. The seven highest values in 2004 were found at Matson Ditch (9.17 ppb), Big Run Creek (8.53 ppb), Eagle Creek (9.37 ppb), Bear Creek Ohio (10.48 ppb), Tamarack Creek (9.57 ppb), West Fork – West (8.42 ppb), and Walter Smith Ditch (9.52 ppb). Note that these seven sites include six of the eight highest atrazine averages for the sampling season.

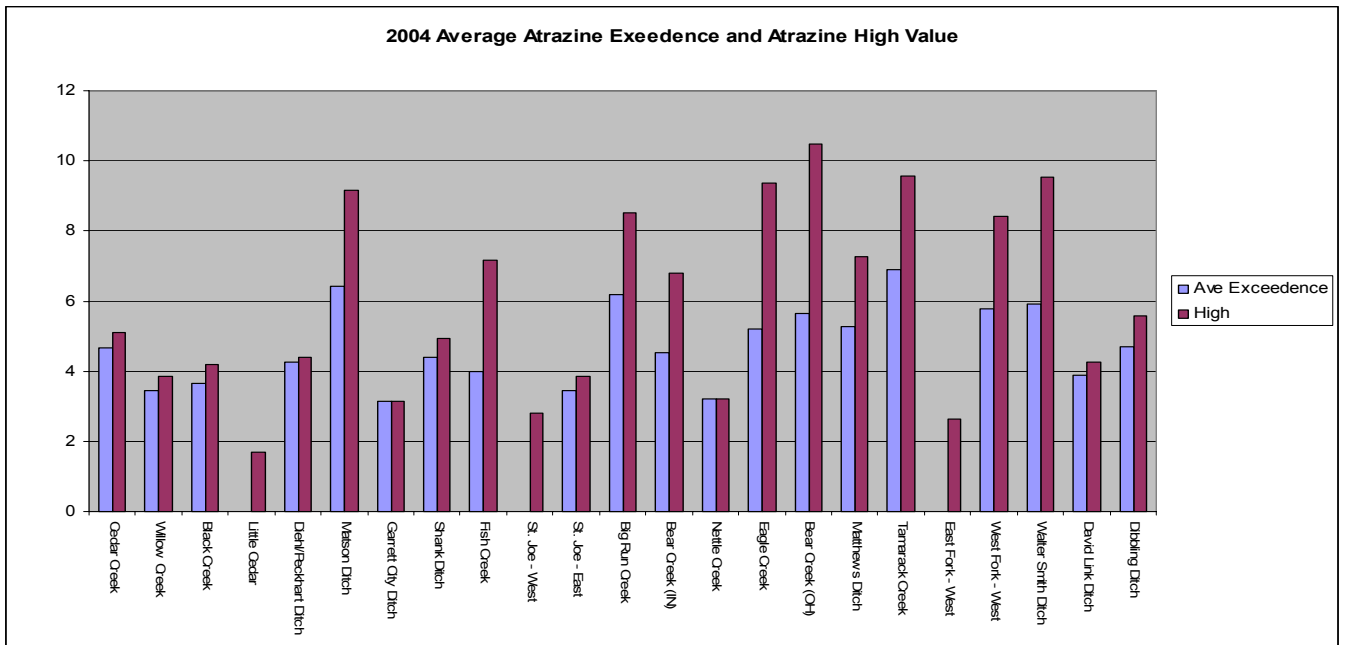


Figure 9 – 2004 average atrazine exceedence values and atrazine maximum values (atrazine units = ppb)

Statistical analysis of two representative sites demonstrates the general trend for atrazine in the watershed.

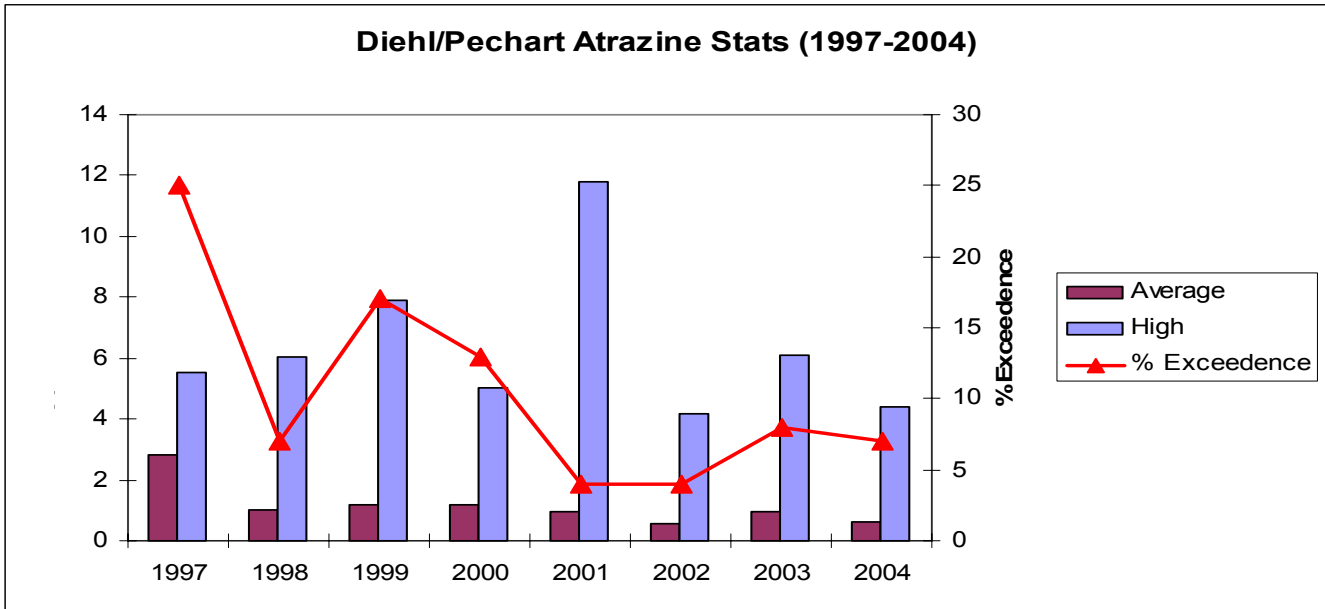


Figure 10 - Diehl/Peckhart Atrazine statistics 1997-2004 (atrazine units = ppb)

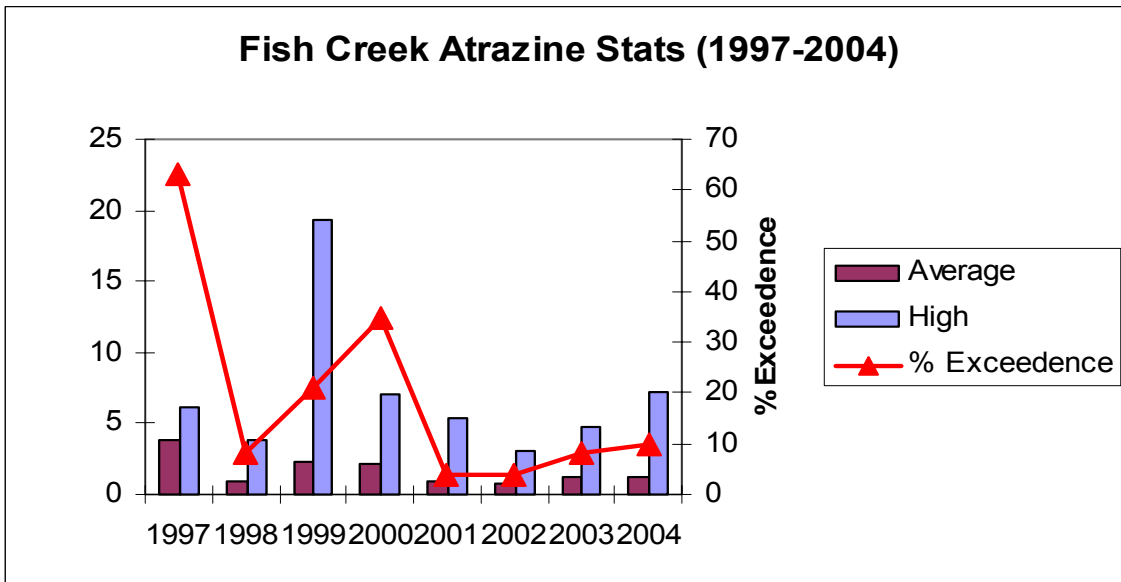


Figure 11 – Fish Creek Atrazine statistics, 1997-2004 (atrazine units = ppb)

## Bacteria Results

### *E. Coli*

In a scientific sense, *E. coli* refers to the large family of various strains of *Escherichia coli*, the vast majority of which are harmless to humans. *E. coli* is a member of the larger family of enteric bacteria, the intestinal-dwelling organisms also including the various salmonella bacteria strains. Human intestinal functioning is dependent on some strains of *E. coli*. One particular strain of the bacteria, *E. coli* 0157:H7, is of particular concern to stream and drinking water quality, and is the strain referred to simply as *E. coli*. *E. coli* 0157:H7 is commonly found in the intestines of cattle, chickens, deer, sheep, horses, and pigs. Although harmless to animals, the 0157:H7 strain is potentially fatal to humans, especially children and those with compromised immune systems or otherwise poor health.

*E. coli* and total coliform results are intended to represent the potential presence of the broad spectrum of enteric bacteria and bacterial contamination from the variety of potential sources. Common sources in a watershed encompassing both rural and urban lands can include failed septic systems, combined sewer overflows, grazing or penned animals in areas lacking proper buffers or filter strips or wildlife to protect the waterways.

The EPA MCL for *E. coli* in fresh waters is 235 colonies per 100 mL of sample water. This is a difficult mark for waters in all but the most pristine conditions to meet. The following graph illustrates this difficulty. No site exceeded the ML on less than 25% of the sampling days. The entire watershed exceeded the MCL on 61% of the sampling days during the 2004 season.

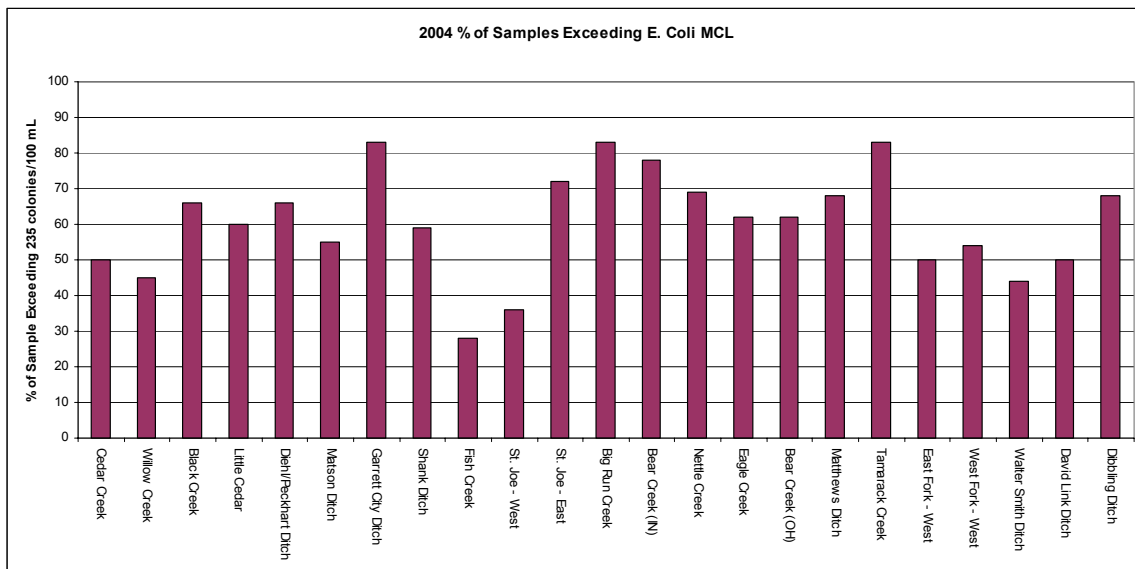


Figure 12 – Percent of 2004 *e. coli* samples exceeding the MCL

Yearly averages are less useful in examining bacteria data than as with other parameters, but are nevertheless helpful in locating sites with extensive contamination. Note that no site had an average less than the 235 colonies/100 mL MCL.

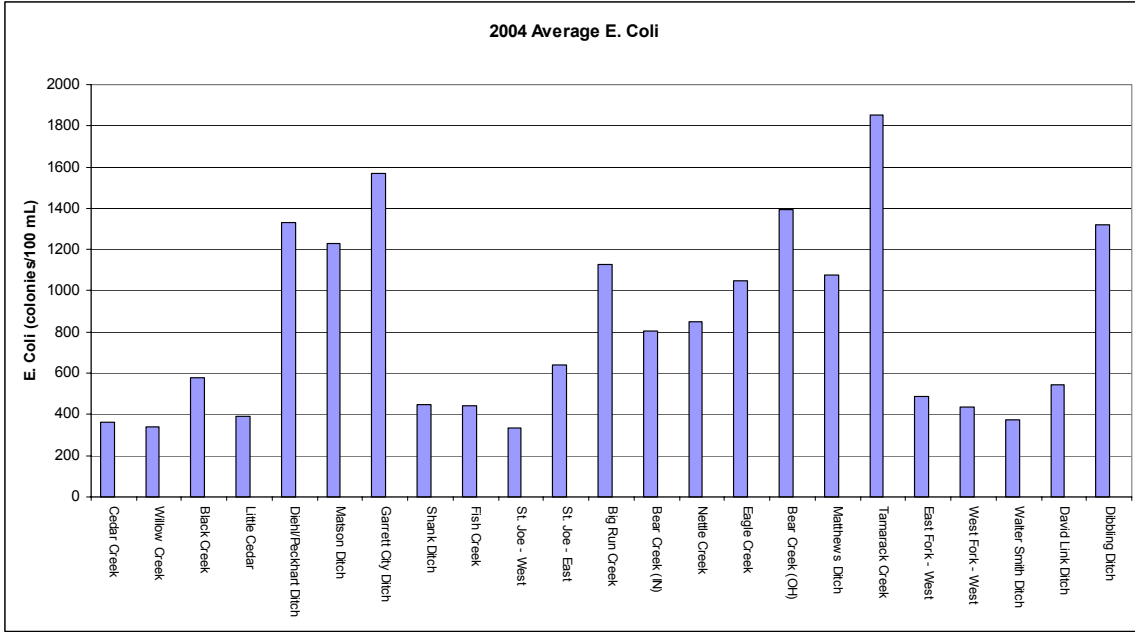
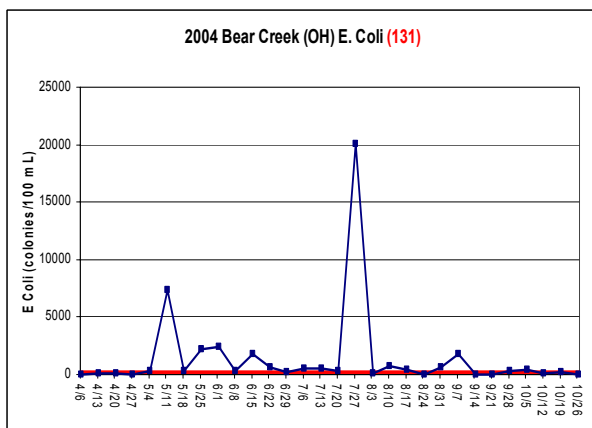
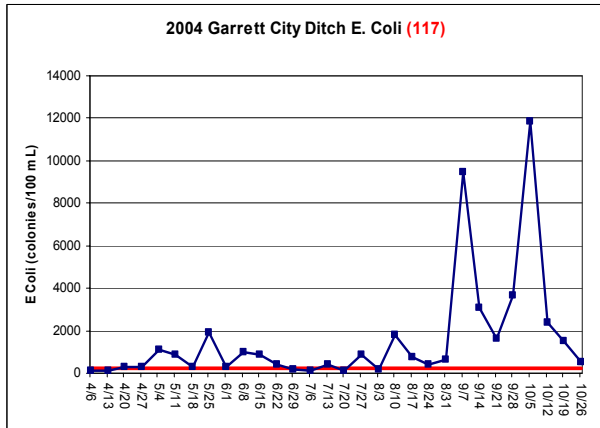
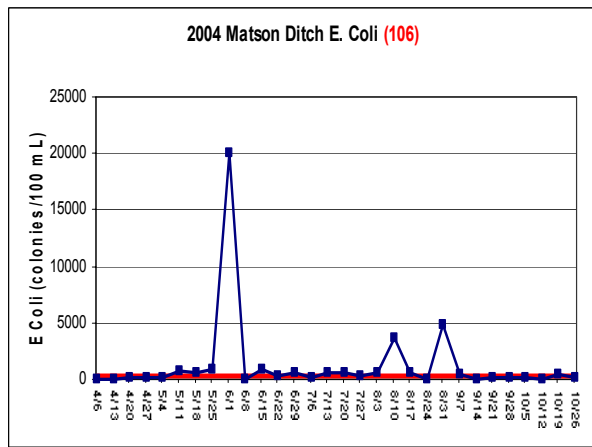
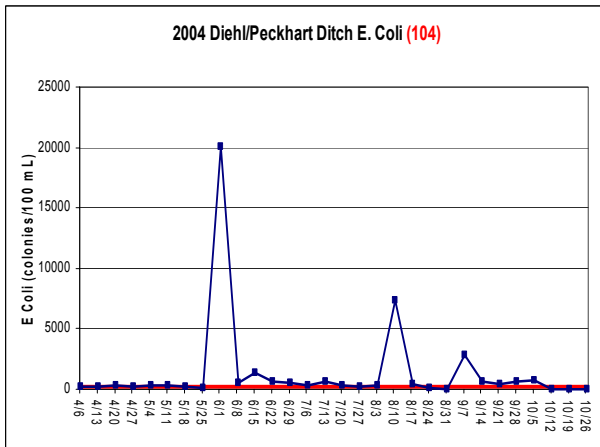
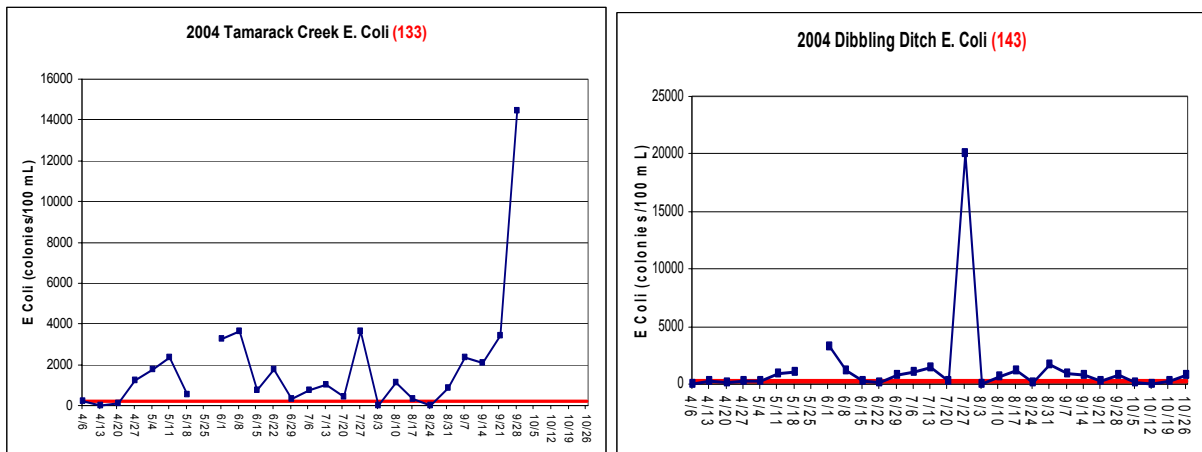


Figure 12 – 2004 average e. coli values

Setting a value of 1200 colonies/100 mL as an arbitrary cutoff, six sites are highlighted here to demonstrate some of the significant trends in bacterial contamination during the 2004 season. The 2004 results for these sites are graphed below. The red line in these graphs indicates the MCL level.





Figures 14 to 19 – 2004 e. coli results from six selected sites.

Extremely high E. coli levels were recorded on many occasions during the 2004 season. An examination of the bacteria highs and seasonal standard deviation is beneficial in understanding the variation potential at the different sites. The following graph illustrates these statistics. The standard deviation was derived using the standard formula as defined in *Modern Data Analysis*, by Lawrence C. Hamilton (Brooks/Cole Publishing, Belmont CA, 1990). The standard deviation indicates the average value by which the parameter deviates from the median value. A high standard deviation indicates that values can fluctuate widely, or that very high values have at least occasionally been recorded at the site.

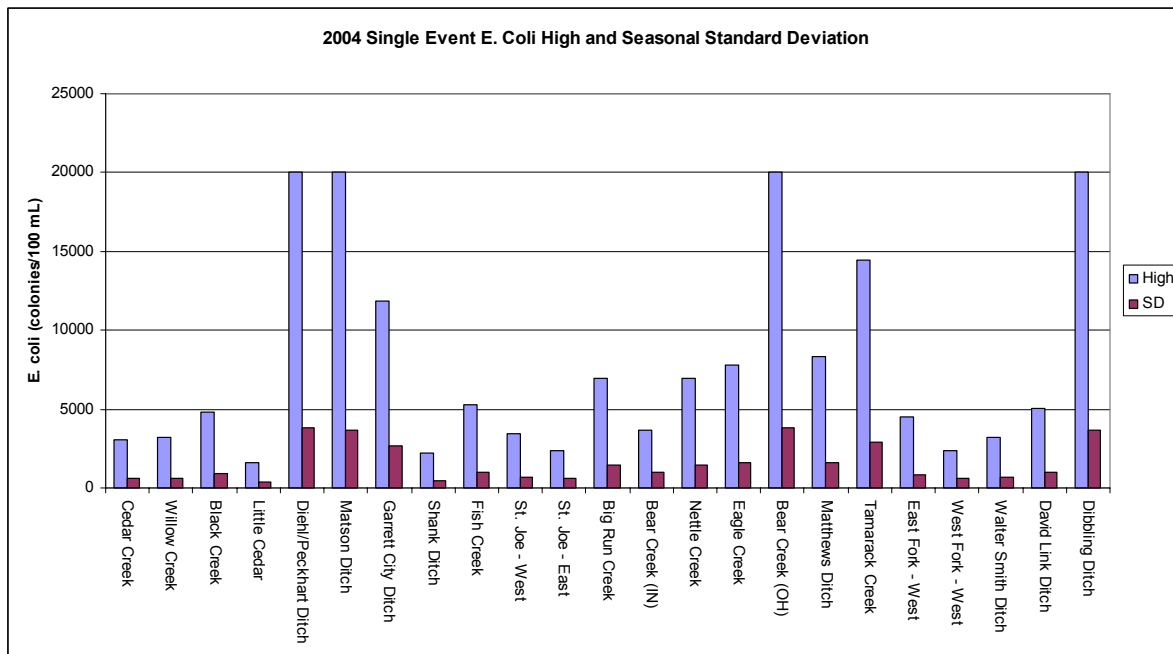


Figure 20 – 2004 maximum e. coli values and standard deviations.

It is noteworthy that the same sites recording the highest single event levels were also the same sites recording the highest seasonal averages, % exceedences, and standard deviations. On a seasonal level, this trend is indicative of persistent, high-level contamination in these sub-watersheds. Historical data must be examined to determine the extents of these trends. 2003 average values are graphed below, while more detailed studies of the highlighted sites follow:

### Average E. Coli Values All Sites - 2003 Sampling Year

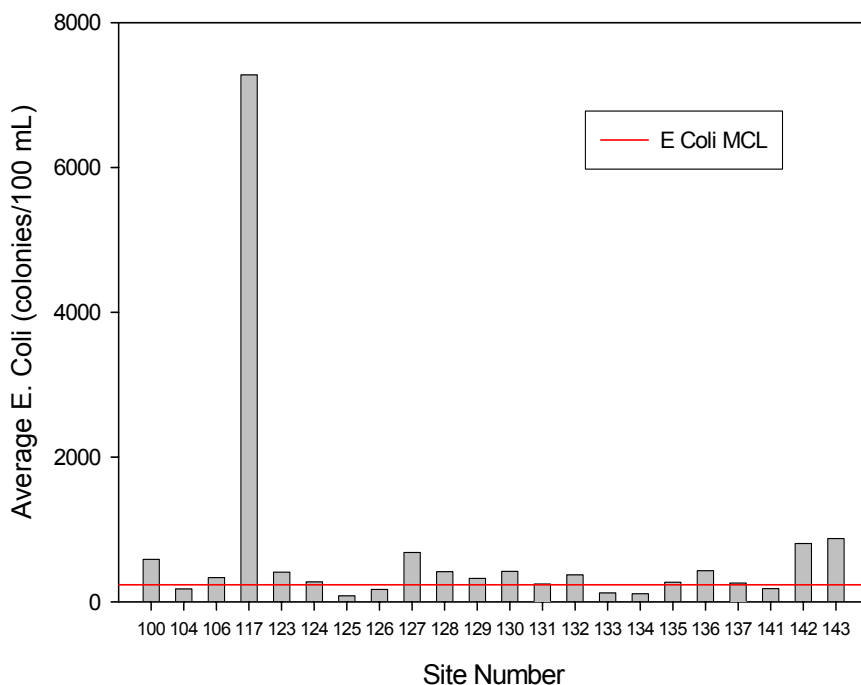


Figure 21 – 2003 average e. coli values

#### *E. coli Historical Trends*

Historical trends will be analyzed on a site-by-site basis, according to the highlighted sites for this parameter. Diehl/Peckhart Ditch (104) is here researched from the first year of Initiative sampling (1996) to the most recent. The average annual values are first graphed.

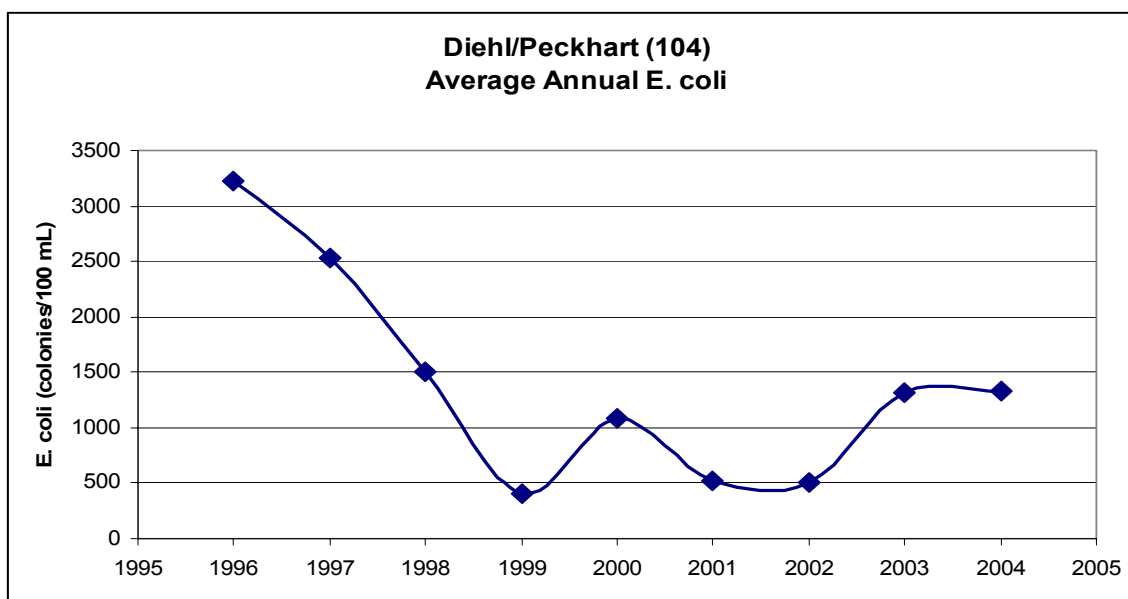
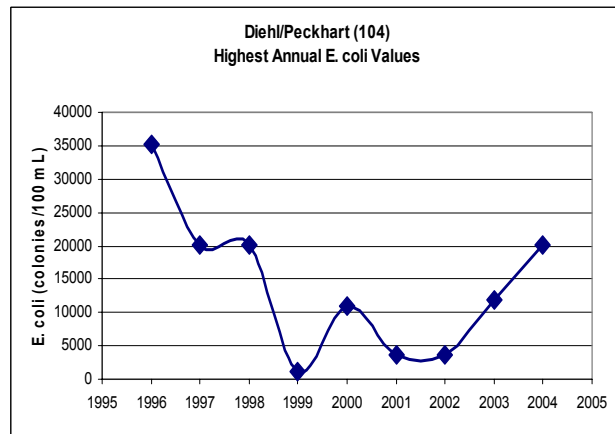
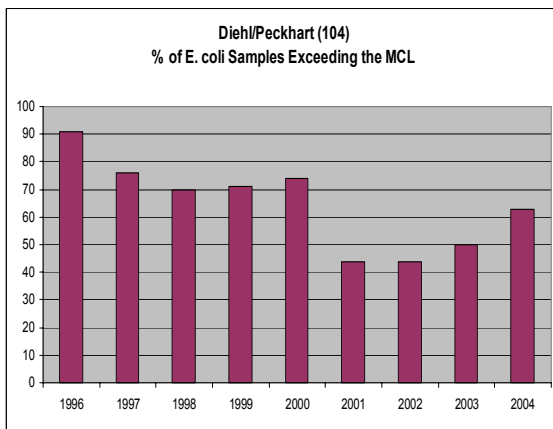


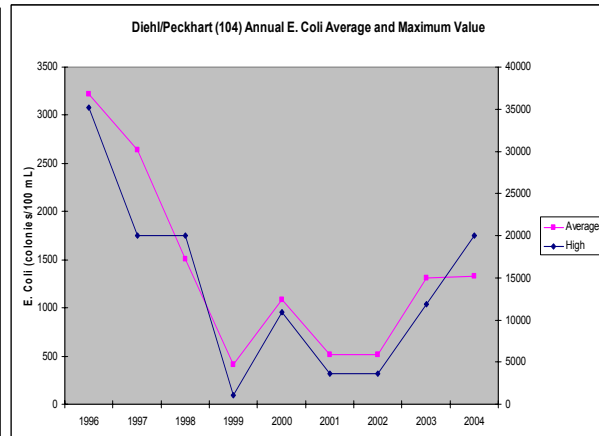
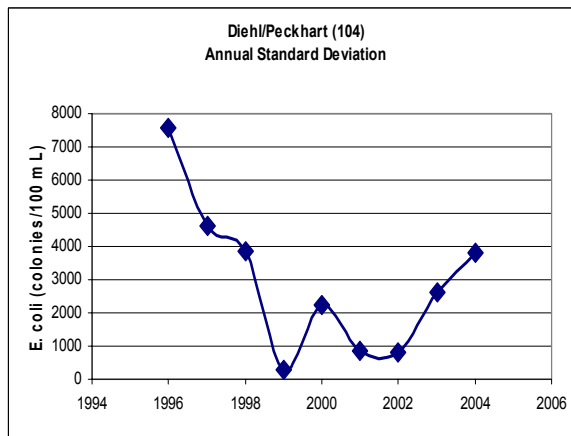
Figure 22 – Average annual e. coli values 1996 to 2004.

While the steep decline from the initial season is notable, the range of sampling dates must be factored into the originally high values. In 1996 Diehl/Peckhart was sampled 21 times starting on May 14. Sampling continued through November 14, with gaps on July 24, September 3 and 11, and October 2. In 1997, the site was sampled 22 times from April 11 to October 2 with no interruptions. In 1998 the site was sampled 27 times between March 26 and September 30 with one interruption on June 2. In 1999 the site was sampled 24 times between April 6 and September 14, missing the April 21 sampling day. The year 2000 sampling season for the site included 23 sampling days from April 11 to September 21 without interruption. While the 1996, 1997, and 1998 numbers were legitimately high, averages over this time period should be viewed with consideration of the variable time-frames.

The sampling time-frame factors require that additional factors be examined in conjunction with the simple average. The highest recorded values, standard deviations, exceedences, and general trends should be examined as well as the averages to determine the actual nature of the data. As a general trend, such an examination does bear out the evidence suggested by the averages for the highlighted sites. An example of this type of examination is presented below, using Diehl/Peckhart (104) data from 1996 to 2004.



Figures 23 and 24 – 1996 to 2004 annual % MCL exceedences and maximum single e. coli results.



Figures 25 and 26 – 1996 to 2004 annual e. coli standard deviations, annual average values, and maximum single values.

All of the selected statistics follow the same general trend. The above right graph illustrates the relationship between the yearly averages and more specific statistics, such as the yearly maximum value. The clear correlation between the values confirms the overall E. coli trends in the entire St. Joseph River Watershed.

A similar treatment of the data from Bear Creek (Ohio) yields similar results.

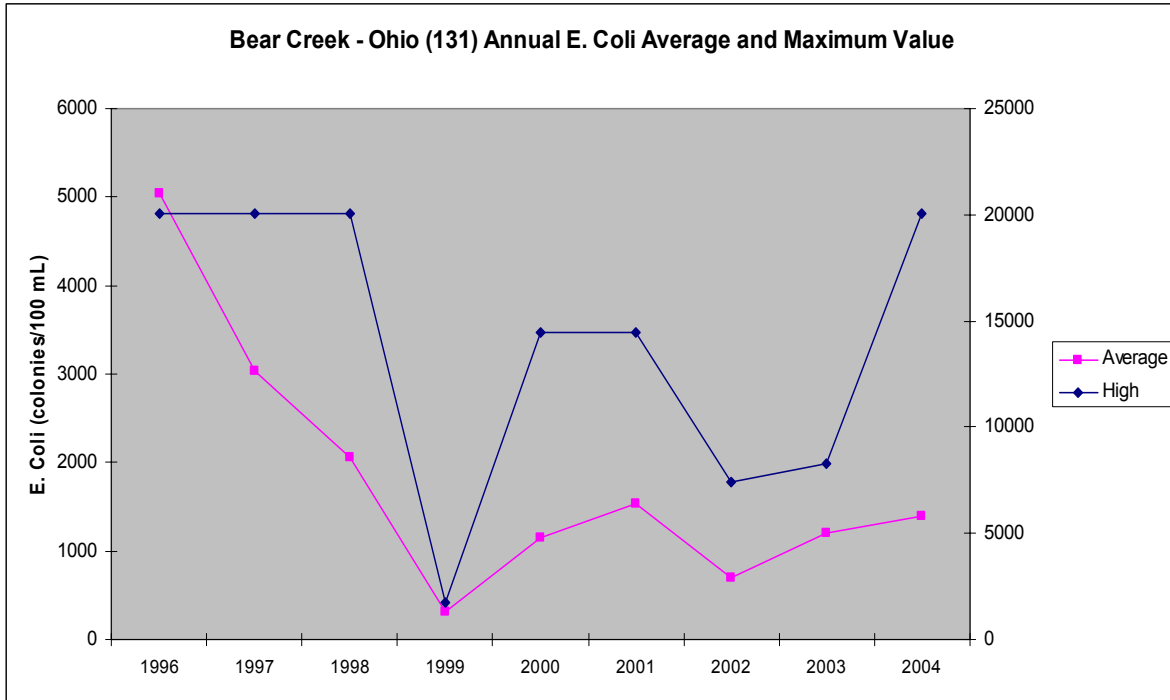


Figure 27 – 1996 to 2004 annual average e. coli and maximum single values at Bear Creek – Ohio.

### *Improvements in Bacterial Concentrations*

The highlighted sites do not necessarily suggest a general increase in E. coli from 2003 to 2004. Of the 20 sites sampled both during both years, 5 sites saw an increase in average in 2004 and 6 increased or maintained the maximum recorded values. When examining the sum of the data starting in 1996 to the current year, it is evident that while the high average sites have increased in the last year, the overall trend indicates a decreased E. coli concentration across the entire watershed.

The following graph charts the overall E. coli average for every site in the watershed for each sampling year, as well as the average of the high values from each site. Referring back to the validity of the high results in the early sampling seasons, the overall trends have been highly variable, but show a general decrease from the 1996, 1997, and 1998 years.

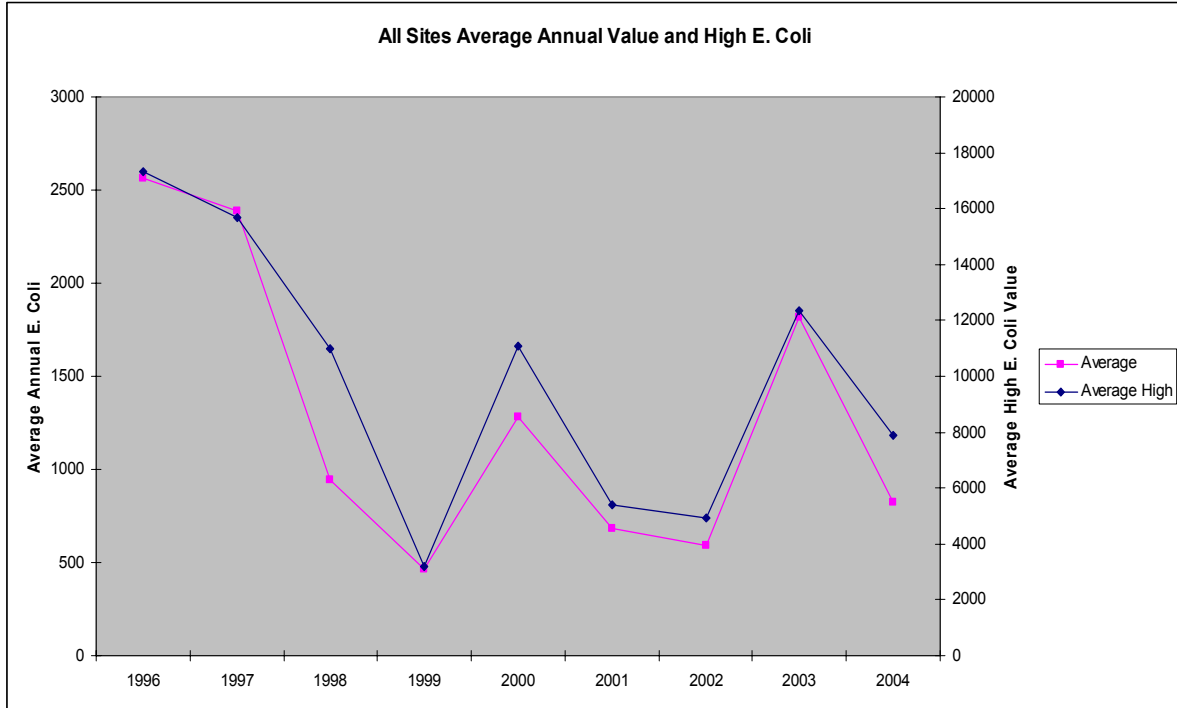


Figure 28 – Average annual e. coli values and annual maximum single values at all sampling sites 1996 to 2004.

A brief look at a typical site with declining bacterial values demonstrates the trend illustrated in the above graph.

Nutrients

*Phosphorus*

There are no federal, state, or local standards concerning phosphorus in rivers, streams, and lakes, but some general guidelines have been established across the country. The nutrient is considered an EPA Priority Pollutant, and has had several benchmark concentrations established for its presence in freshwaters. The EPA of the State of Illinois had established a level of 0.61 mg/L as capable of impairing aquatic life.

Phosphorus can enter waters through both natural and man-made means. Naturally, phosphorus occurs as an erosion product of local rocks and minerals, and as a primary constituent in the nucleic acids of all living cells. Urban runoff, livestock operations, and untreated wastewater, and secondarily treated wastewater are the major sources of phosphorus contamination. Minor sources include malfunctioning septic systems, illegal trash dumping, and residential fertilizers. All of these sources, major and minor, are increased substantially by heavy rainfall and runoff.

Averages for the 2004 sampling season are well below the phosphorus benchmark of 0.61 mg/L.

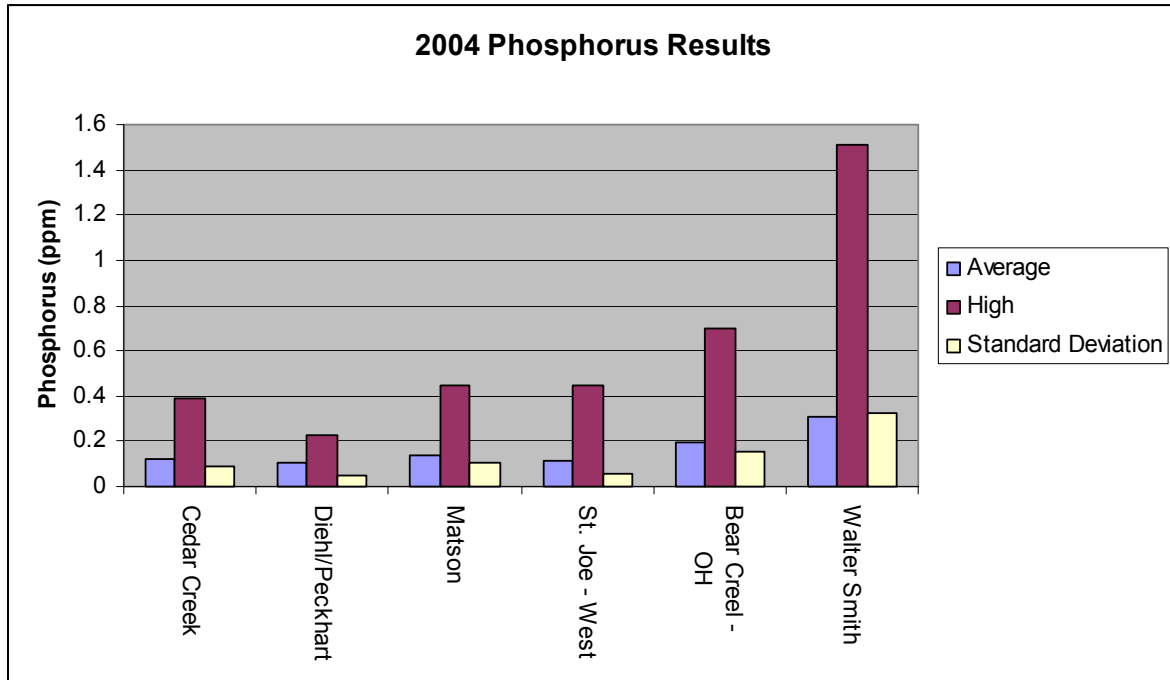


Figure 29 – 2004 phosphorus statistics from all sampled sites.

There were three exceedences of the phosphorus benchmark, once at Bear Creek – OH (131) and twice at Walter Smith (141). The Walter Smith results were the only demonstrating a persistent tendency towards higher values.

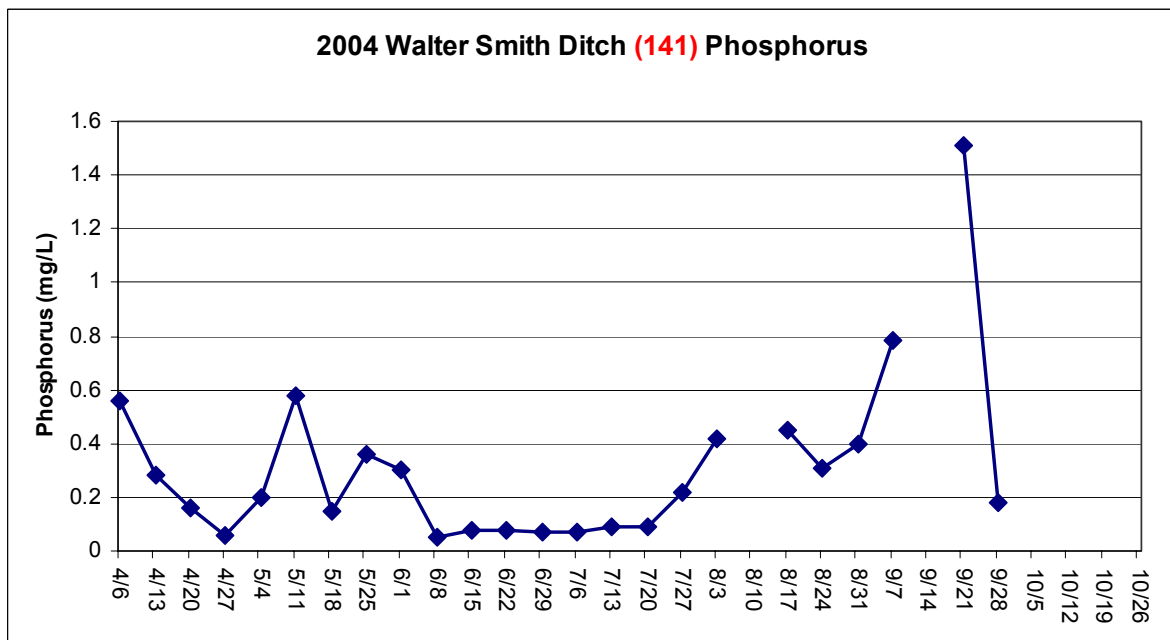


Figure 30– 2004 Walter Smith Ditch phosphorus results.

*Ammonia*

Ammonia is very simply the most reduced form of nitrogen, and is produced by the biological decay and animal and plant material. Ammonia is introduced into rivers and streams via urban and rural routes, and is equally represented in the sampling areas of the St. Joseph River watershed. Urban exposure to ammonia generally results from the discharge of sewer treatment plants and from such industrial processes such as fertilizer

manufacture and oil refining. In rural and agricultural areas, the pollutant is often present due to fertilizer applications and failing septic systems.

The toxic effects of ammonia are controlled by the pH of the stream. At a higher pH (>8.0), ammonia is converted to a highly toxic (unionized) form that is fatal to aquatic life at very low levels. At a high pH, ammonia levels as low as 0.06 ppb can begin to damage fish, and levels of 0.20 ppb will begin to kill sensitive fish species. As a general rule, streams with an ammonia level of 0.10 ppb or greater should be considered to be impaired by the pollutant. The Indiana Administrative Code recommends that ammonia concentrations in fresh waters should range between 0.00 and 0.21 ppb, depending on water temperature and pH.

Ammonia results for 2004 varied widely. The following graphs show the sampling results and the averages and standard deviations. While five of the six sites averaged below 0.20 ppb, several high concentration events are evident. Additionally, the high standard deviations indicate the potential at three of the site for wide variation in ammonia values.

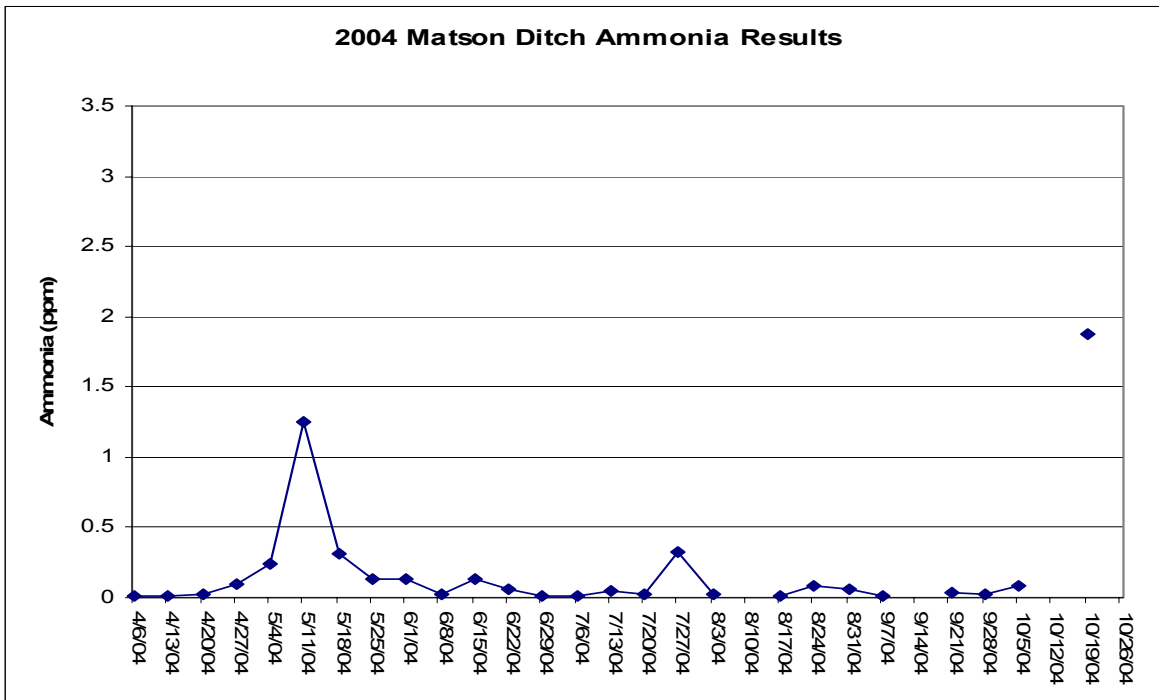


Figure 31 – Matson Ditch ammonia results.

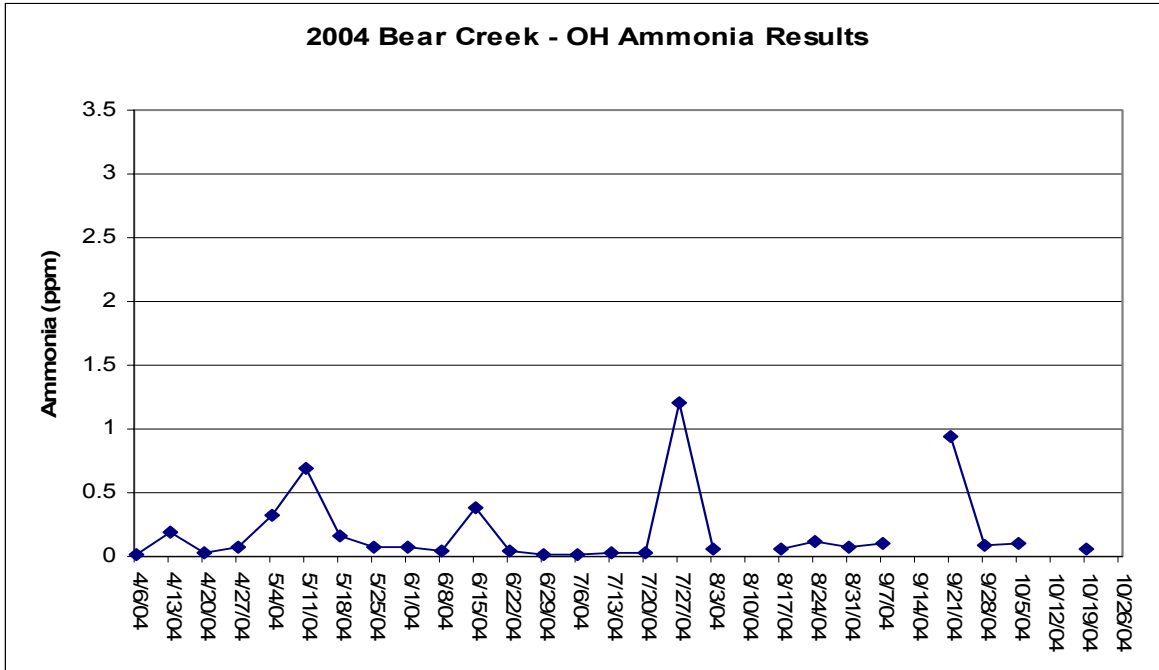


Figure 32 – Bear Creek Ohio ammonia results.

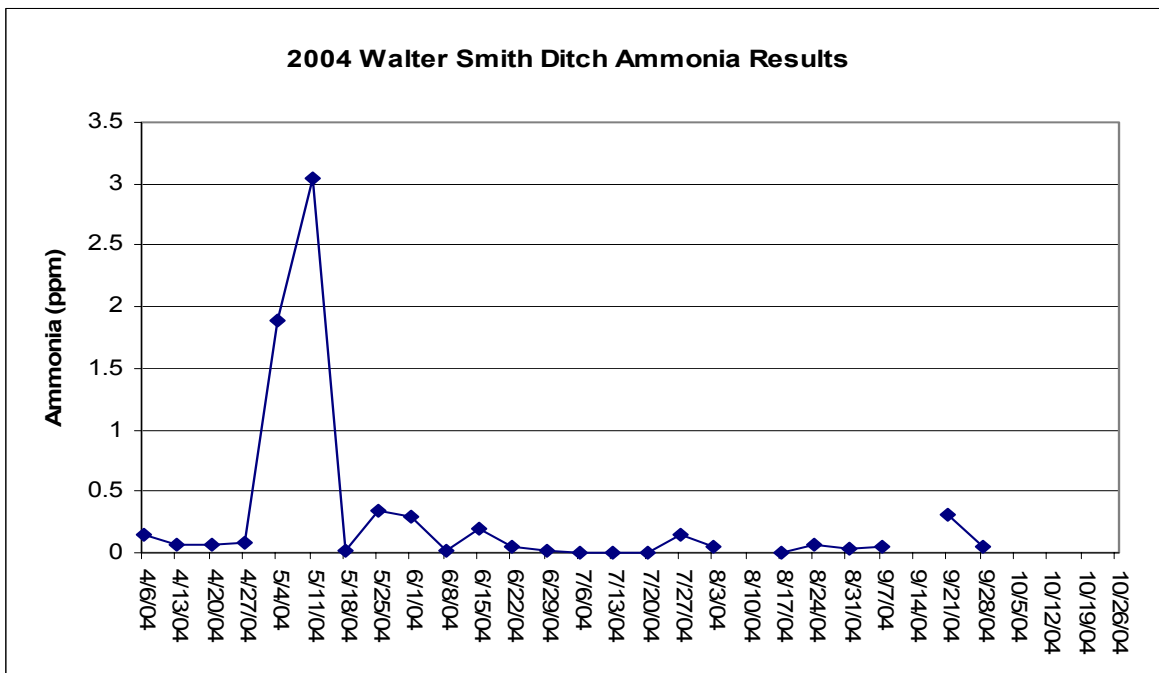


Figure 33 – Walter Smith Ditch ammonia results.

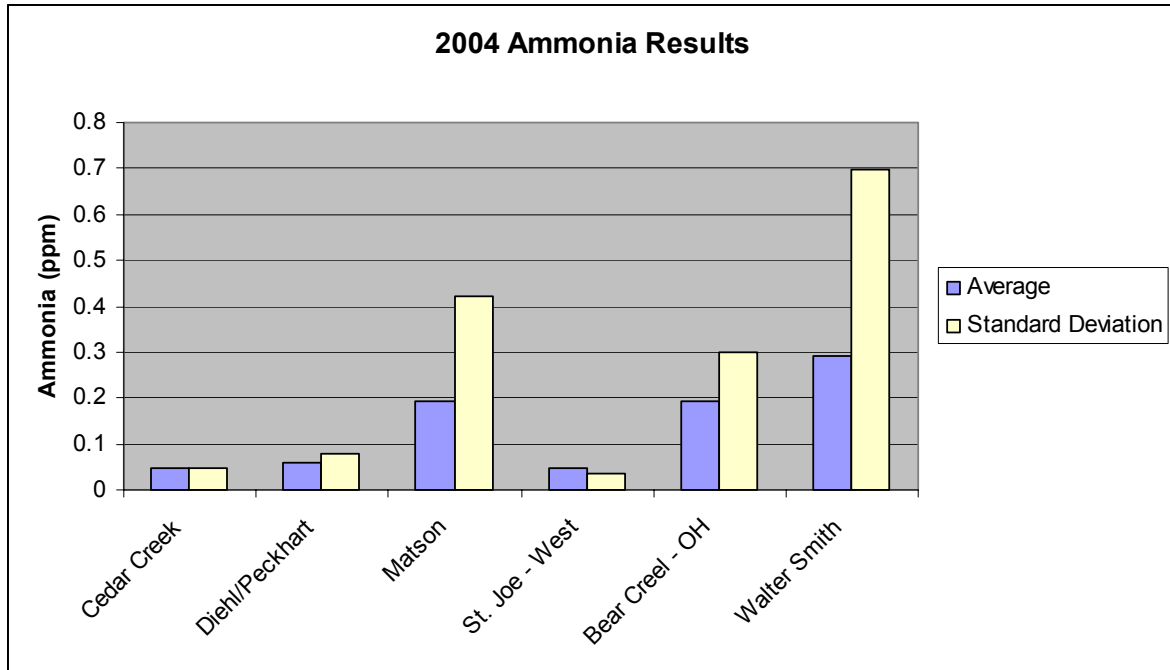


Figure 34 – 2004 ammonia averages and maximum single values.

The presented graphs show the results for 2004 from the three sites with high ammonia values. Figure 32 summarizes the results from all sampling sites in 2004.

## **Appendix**

### **Weekly values at SJRWI Sampling Sites**

## Cedar Creek Site 100

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.07	0.13	0.04	0.04	100	200	0	0.08	0.009
4/13/2004	0.03	0.08	0.02	0.02	0	100	400	0.08	0.0211
4/20/2004	0.09	0.23	0.04	0.03	0	750	300	0.11	0.02
4/27/2004	0.07	0.28	0.01	0.06	0	530	600	0.009	0.07
5/4/2004	0.18	1.03	0.04	0.23	0	1240	900	0.09	0.1
5/11/2004	0.13	2.69	0.08	1.23	530	6240	4800	0.39	0.16
5/18/2004									
5/25/2004	0.3	5.09	0.13	1.48	640	20050	9800	0.24	0.09
6/1/2004	0.27	4.24	0.14	1.87	3060	20050	33300	0.33	0.06
6/8/2004	0.09	1.95	0.07	0.26	530	9450	2000	0.08	0.02
6/15/2004	0.09	2.31	0.07	0.77	870	20050	12800	0.08	0.11
6/22/2004	0.08	1.25	0.05	0.3	310	16520	4000	0.08	0.04
6/29/2004	0.08	0.76	0.02		200	2540	400		
7/6/2004	0.06	0.98	0.04		310	4060	2000	0.006	0.008
7/13/2004	0.11	0.77	0.04		200	10910	2800	0.08	0.01
7/20/2004	0.03	0.76	0.02		420	10130	2100	0.17	0.002
7/27/2004	0.04	0.35	0.02		310	9450	6400	0.15	0.04
8/3/2004	0.04	0.51	0.01		0	8310	4400	0.15	0.02
8/10/2004	0.06	0.24	0.06		200	8310	1400		
8/17/2004	0.03	0.16	0.02		310	4290	9100	0.205	0.195
8/24/2004	0.06	0.33	0.02	0	100	8850	16300	0.14	0.03
8/31/2004	0.09	0.32	0.02	0	750	16520	7000	0.15	0.02
9/7/2004	0.01	0.21	0.02	0.02	420	6590	2400	0.085	0.033
9/14/2004	0.07	0.15	0.01	0.01	100	3440	1100		
9/21/2004	0.09	0.14	0.01	0	0	20050	11700	0.06	0.055
9/28/2004	0.03	0.07	0	0.06	640	6590	4600	0.005	0.021
10/5/2004	0	0.04	0.01	0.01	0	1920	1800	0.1	0.057
10/12/2004	0.02	0.1	0.01	0.01	100	1240	800		
10/19/2004	0.01	0.04	0	0.02	420	1920	1800	0.086	0.008
10/26/2004	0	0.05	0	0.01	0	1920	14200	0.145	0.027

## Willow Creek Site 101

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.06	0.01	0.16	0.02	100	200	200		
4/13/2004	0.07	0	0.02	0.02	420	640	100		
4/20/2004	0.07	0.02	0.03	0.04	0	310	100		
4/27/2004	0.07	0	0.01	0.06	0	530	4200		
5/4/2004	0.13	0.36	0.02	0.04	0	1920	4600		
5/11/2004	0.13	0.62	0.03	0.06	420	1640	7400		
5/18/2004	0.07	0.3	0.03	0.09	0	1920	9200		
5/25/2004	0.32	3.02	0.12	1.08	750	20050	19100		
6/1/2004	0.23	3.85	0.16	1.3	3240	20050	30500		
6/8/2004	0.08	1.57	0.05	0.1	310	6970	1600		
6/15/2004	0.1	1.36	0.08	0.23	640	20050			
6/22/2004	0.27	0.55	0.03	0.23	100	12980	18500		
6/29/2004	0.14	0.29	0.01		100	4290	1900		
7/6/2004	0.11	0.18	0.06		420	7380	800		
7/13/2004	0.16	0.22	0.02		750	9450	1300		
7/20/2004	0.08	0.23	0.02		310	3840	2400		
7/27/2004	0.04	0.16	0.03		990	7820	1400		
8/3/2004	0.1	0.06	0.02		310	5600	3200		
8/10/2004	0.09	0.03	0.01		0	8850	1500		
8/17/2004	0.07	0.46	0		0	6590	1600		
8/24/2004	0.21	0.04	0		100	20050	13000		
8/31/2004	0.1	0.21	0.05		0	16520	4600		
9/7/2004	0.1	0.11	0		640	7820	3200		
9/14/2004	0.14	0.02	0.01		420	9450	3200		
9/21/2004	0.26	11.14	0		0	1920	2600		
9/28/2004	0.2	0	0.01		0	2070	2700		
10/5/2004	0.1	0	0.01		0	1780	2200		
10/12/2004	0.04	0.04	0.01		0	4290	6200		
10/19/2004	0.04	0.01	0		100	4780	4000		
10/26/2004	0	0	0	0.11	0	530	700		

## Black Creek Site 102

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.07	0.16	0.03	0.02	100	1110	0		
4/13/2004	0.02	0.11	0.01	0.02	100	640	100		
4/20/2004	0.08	0.14	0.01	0	310	1240	1600		
4/27/2004	0.09	0.14	0.02	0.03	100	1640	1900		
5/4/2004	0.09	0.3	0.02	0.15	2540	10130	10700		
5/11/2004	0.13	2.82	0.05	0.84	310	9450	17300		
5/18/2004	0.37	1.03	0.06	2.63	200	5310	7700		
5/25/2004	0.23	4.19	0.08	1.46	1240	20050	27300		
6/1/2004	0.26	3.09	0.09	0.9	4780	20050	33100		
6/8/2004	0.13	1.26	0.07	0.18	870	8310	8400		
6/15/2004	0.88	0.83	0.03	0.35	640	20050			
6/22/2004	0.52	0.5	0.03	0.15	640	9450	70400		
6/29/2004	0.2	0.31	0.01		420	9450	4000		
7/6/2004	0.16	0.24	0.08		310	4530	700		
7/13/2004	0.19	0.28	0.02		750	20050	2700		
7/20/2004	0.11	0.48	0.05		310	2380	2400		
7/27/2004	0.05	0.22	0.05		530	7820	2200		
8/3/2004	0.13	0.16	0.06		530	6240	4400		
8/10/2004	0.13	0.14	0.02		200	5040	3200		
8/17/2004	0.09	0.4	0.01		420	4780	1500		
8/24/2004	0.18	0.08	0		100	14450	4400		
8/31/2004	0.16	0.23	0.04		310	10130	2900		
9/7/2004	0.19	0.1	0.01		420	8310	2300		
9/14/2004	0.2	0.11	0.01		420	4060	4700		
9/21/2004	0.24	11.4	0		100	6240	1200		
9/28/2004	0.2	0.05	0.01		0	14450	142500		
10/5/2004	0.11	0.13	0.01		640	5910	2500		
10/12/2004	0.03	0.06	0.01		0	3840	700		
10/19/2004	0.03	0.02	0		100	1920	5400		
10/26/2004	0	0.03	0	0.11	0	1500	4900		

## Little Cedar Creek Site 103

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004									
4/13/2004									
4/20/2004									
4/27/2004									
5/4/2004									
5/11/2004									
5/18/2004									
5/25/2004									
6/1/2004									
6/8/2004									
6/15/2004	0.15	1.7	0.08	0.65	1640	20050			
6/22/2004	0.42	1.05	0.08	0.7	750	11840	21800		
6/29/2004	0.22	0.65	0.04		100	20050	5600		
7/6/2004	0.19	0.79	0.09		530	3240	0		
7/13/2004	0.07	0.56	0.03		100	7380	1500		
7/20/2004	0.02	1.01	0.05		0	3440	700		
7/27/2004	0.02	0.37	0.05		310	5600	6400		
8/3/2004					640	7380	1200		
8/10/2004	0.06	0.28	0.01		530	20050	5100		
8/17/2004	0.05	0.46	0.01		200	4060	700		
8/24/2004	0.07	0.11	0.01	0	100	4530	12900		
8/31/2004	0.02	0.26	0.03	0	870	20050	12100		
9/7/2004	0.05	0.12	0.02	0.04	420	6590	2000		
9/14/2004	0.06	0.11	0.01	0.12	310	6590	5000		
9/21/2004	0.16	12.53	0	0.09	100	2540	1800		
9/28/2004	0.12	0.06	0	0	420	5310	1400		
10/5/2004	0.02	0.04	0.01	0.11	0	1110	3300		
10/12/2004	0.01	0.14	0	0.02	420	10910	3100		
10/19/2004	0.03	0.07	0	0.02	310	4780	7400		
10/26/2004	0	0.02	0	0.13	100	2380	1300		

## Diehl-Peckhart Ditch Site 104

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.13	0.07	0.02	0.03	200	990	0	0.08	0.009
4/13/2004	0.05	0.12	0.06	0.05	200	530	100	0.191	0.0145
4/20/2004	0.07	0.12	0.06	0.02	310	2380	400	0.06	0.02
4/27/2004	0.07	0.05	0.02	0.05	200	1110	2600	0.08	0.04
5/4/2004	0.09	0.43	0.02	0.08	310	1920	400	0.07	0.06
5/11/2004	0.18	1.25	1.25	0.43	310	10130	7400	0.17	0.12
5/18/2004	0.1	0.04	0.04	0.17	200	4530	7500	0.15	0.009
5/25/2004	0.46	4.11	0.13	1.45	100	11840	4900	0.18	0.12
6/1/2004	0.31	4.41	0.14	2.17	20050	20050	13600	0.23	0.15
6/8/2004	0.07	1.13	0.06	0.26	530	7380	4300	0.08	0.02
6/15/2004	0.15	1.29	0.07	0.97	1370	14450	12800	0.08	0.13
6/22/2004	0.29	0.77	0.04	0.72	640	6590	9800	0.08	0.06
6/29/2004	0.2	0.41	0.03		530	6970	2300	0.08	0.008
7/6/2004	0.1	0.56	0.07		310	3840	1400	0.08	0.008
7/13/2004	0.14	0.41	0.02		640	12980	1600	0.08	0.008
7/20/2004	0.08	0.58	0.08		310	5910	3700	0.12	0.03
7/27/2004	0.02	0.47	0.06		200	11840	9700	0.07	0.06
8/3/2004	0.05	0.2	0.04		310	8310	5000	0.14	0.02
8/10/2004	0.12	0.25	0.02		7380	20050	5100		
8/17/2004	0.08	0.4	0.01		420	5600	100	0.172	0
8/24/2004	0.07	0.15	0.02	0	100	10130	6000	0.09	0.04
8/31/2004	0.13	0.28	0.01	0.13	0	10130	3100	0.1	0.02
9/7/2004	0.03	0.56	0.03	0.08	2880	20050	13400	0.156	0.109
9/14/2004	0.11	0.13	0.01	0.13	640	10130	11000	0.08	0.39
9/21/2004	0.2	14.63	0	0.18	420	6590	200	0.06	0.062
9/28/2004	0.07	0.06	0.01	0.6	640	5910	6700	0.06	0.034
10/5/2004	0.04	0.12	0.01	0.07	750	5910	4400	0.03	0.036
10/12/2004	0.03	0.05	0.01	0.06	0	10130	1900		
10/19/2004	0.03	0.08	0.01	0.08	0	2710	2600	0.189	
10/26/2004	0	0.06	0.01	0.18	0	1370	500		

## Matson Ditch Site 106

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.15	1.04	0.17	0.05	0	0	0	0.08	0.009
4/13/2004	0.13	9.17	0.19	4.16	0	750	500	0.212	0.0157
4/20/2004	0.09	0.68	0.11	0.23	200	1780	1500	0.1	0.02
4/27/2004	0.23	0.46	0.05	0.19	200	420	500	0.016	0.1
5/4/2004	0.15	0.95	0.02	0.15	100	640	600	0.09	0.24
5/11/2004	0.44	9.17	0.19	4.16	750	10130	12900	0.45	1.25
5/18/2004	0.06	0.19	0.19	0.09	530	20050	119700	0.31	0.31
5/25/2004	0.68	6.33	0.17	2.31	870	11840	9600	0.3	0.13
6/1/2004	0.47	6.63	0.24	3.74	20050	20050	7800	0.28	0.13
6/8/2004	0.3	2.5	0.16	0.48	0	4780	2100	0.08	0.02
6/15/2004	0.32	4.24	0.16	1.83	870	20050	5800	0.08	0.13
6/22/2004	0.57	1.72	0.11	1.14	310	6240	28100	0.08	0.06
6/29/2004	0.47	1.11	0.1		530	5600	3200	0.03	0.01
7/6/2004	0.21	0.64	0.07		200	4060	1500	0.011	0.008
7/13/2004	0.25	0.58	0.03		530	6970	3200	0.08	0.05
7/20/2004	0.16	0.6	0.1		530	5040	2200	0.04	0.02
7/27/2004	0.08	0.4	0.04		310	10910	33800	0.14	0.32
8/3/2004	0.18	0.38	0.07		640	5040	4300	0.09	0.02
8/10/2004	0.35	0.98	0.02		3640	20050	5100		
8/17/2004	0.3	0.47	0.01		530	5040	600	0.189	0.01
8/24/2004	0.22	0.16	0.01	0	0	3840	7400	0.17	0.09
8/31/2004	0.11	0.36	0.03	0.08	4780	20050	5100	0.26	0.06
9/7/2004	0.15	0.3	0.56	0.56	420	10910	3100	0.148	0.009
9/14/2004	0.26	0.14	0.01	0.24	0	6240	4300		
9/21/2004	0.49	13.28	0	0.07	100	2220	100	0.05	0.04
9/28/2004	0.27	0.07	0.01	0.48	200	3240	3700	0.07	0.023
10/5/2004	0.14	0.07	0.02	0.24	100	1780	900	0.08	0.084
10/12/2004	0.24	0.15	0.01	0.17	0	7380	2000		
10/19/2004	0.38	3.09	0.11	1.88	420	20050	16800	0.201	1.88
10/26/2004	0.17	0.7	0.05	0.6	100	3240	1800		

## Garrett City Ditch Site 117

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.03	0.03	0.07	0.15	100	870	400		
4/13/2004	0.04	0.15	0.01	0.12	100	2710	500		
4/20/2004	0.08	0.05	0.05	0.12	310	2220	300		
4/27/2004	0.11	0.08	0.02	0.03	310	1240	2400		
5/4/2004	0.05	0.1	0.01	0.06	1110	20050	3800		
5/11/2004	0.1	0.97	0.05	0.54	870	10910	10000		
5/18/2004	0.04	0.04	0.04	0.1	310	20050	16100		
5/25/2004	0.42	1.74	0.11	0.91	1920	20050	114000		
6/1/2004	0.23	1.3	0.07	0.72	310	20050	13400		
6/8/2004	0.23	0.33	0.05	0.6	990	16520	700		
6/15/2004	0.1	0.72	0.07	0.58	870	20050	8600		
6/22/2004	0.2	3.16	0.03	0.78	420	20050	16300		
6/29/2004	0.12	0.06	0.04		200	8310	2300		
7/6/2004	0.07	0.23	0.04		100	7380	2100		
7/13/2004	0.08	0.14	0.02		420	20050	4600		
7/20/2004	0	0.22	0		100	10910	800		
7/27/2004	0	0.23	0.05		870	20050	4900		
8/3/2004	0	0.07	0.01		200	3240	14300		
8/10/2004	0.12	0.08	0.02		1780	20050	5100		
8/17/2004	0.02	0.22	0.01		750	7820	4100		
8/24/2004	0.07	0.05	0.01	0.16	420	20050	3900		
8/31/2004	0.07	0.18	0.02	0.06	640	20050	6000		
9/7/2004	0.01	0.61	0.09	0.09	9450	20050	23300		
9/14/2004	0.08	0	0	0.09	3060	20050	5600		
9/21/2004	0.13	16.54	0	0.1	1640	20050	7300		
9/28/2004	0.04	0.06	0.01	0.44	3640	20050	6000		
10/5/2004	0.01	0.09	0.01	0.16	11840	20050	14100		
10/12/2004	0.02	0.09	0.02	0.08	2380	20050	4100		
10/19/2004	0.04	0.49	0.01	0.1	1500	20050	4700		
10/26/2004	0	0.13	0	0.13	530	20050	3300		

## Shank Ditch Site 123

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.07	0.04	0.04	0.06	100	750	200		
4/13/2004	0.03	0	0.01	0.04	100	200	200		
4/20/2004	0.09	0.02	0.03	0.05	0	420	100		
4/27/2004	0.08	0.03	0.02	0.04	0	990	500		
5/4/2004	0.09	1.08	0.07	0.13	1370	2710	1100		
5/11/2004	0.12	1.72	0.06	0.75	200	2710	1500		
5/18/2004	0.12	0.08	0.08	0.26	530	5600	2500		
5/25/2004	1	4.92	0.16	2.22	640	20050	17800		
6/1/2004	1.17	4.69	0.19	3.18	2220	20050	31100		
6/8/2004	0.56	3.49	0.17	0.55	200	10910	1400		
6/15/2004	0.92	4.41	0.2	1.56	310	20050	6500		
6/22/2004	0.7	2.2	0.14	1.71	100	8310	6900		
6/29/2004	0.21	0.51	0.09		640	5040	1500		
7/6/2004	0.04	0.49	0.05		530	5040	1700		
7/13/2004	0.11	0.48	0.03		310	8850	1300		
7/20/2004	0.11	0.64	0.08		200	3640	1300		
7/27/2004	0.08	0.37	0.03		990	20050	26800		
8/3/2004	0.04	0.33	0.03		310	5910	6300		
8/10/2004	0.12	0.15	0.01		750	8310	4100		
8/17/2004	0.06	0.07	0.01		310	8850	1800		
8/24/2004	0.13	0.11	0.01	0	750	9450	15800		
8/31/2004	0.05	0.1	0.02	0	100	20050	5700		
9/7/2004	0.02	0.05	0.05	0.05	530	11840	5800		
9/14/2004	0.07	0.08	0	0.06	1240	6970	6100		
9/21/2004	0.06	13.17	0	0	0	3240	3500		
9/28/2004	0.03	0.01	0.01	0.2	0	0	0		
10/5/2004	0	0	0.02	0	100	1920	1800		
10/12/2004	0.01	0.01	0	0.05	310	3440	600		
10/19/2004	0.02	0.01	0	0.03	420	2710	2500		
10/26/2004	0	0	0	0.01	200	20050	13300		

## Fish Creek Site 124

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.07	0.3	0.05	0.05	0	200	0		
4/13/2004	0.05	0.29	0.03	0.08	0	100	300		
4/20/2004	0.11	0.02	0.06		100	870	500		
4/27/2004	0.09	0.17	0.02	0.06	100	200	700		
5/4/2004	0.07	0.43	0.03	0.38	200	1370	400		
5/11/2004	0.42	7.17	0.21	5.87	2220	14450	8100		
5/18/2004	0.09	0.09	0.09	0.37	0	11840	3200		
5/25/2004	0.49	3.68	0.15	2.11	310	14450	10900		
6/1/2004	0.51	5.07	0.2	3.08	5310	14450	13100		
6/8/2004	0.28	2.05	0.15	0.4	310	8310	800		
6/15/2004	0.17	2.63	0.26	1.18	100	3640	1900		
6/22/2004	0.19	1.31	0.09	1.01	420	5600	15300		
6/29/2004	0.18	1.01	0.09		200	2540	1200		
7/6/2004	0.07	1.39	0.08		0	1920	900		
7/13/2004	0.09	1.3	0.05		100	5600	800		
7/20/2004	0.01	1.41	0.09		200	7380	2800		
7/27/2004	0	1.02	0.04		200	4530	38800		
8/3/2004	0.01	0.84	0.04		200	2540	200		
8/10/2004	0.26	0.69	0.05		200	4780	3100		
8/17/2004	0.06	0.49	0.03		200	2380	1400		
8/24/2004	0.05	0.96	0.03	0	200	10910	2000		
8/31/2004	0.04	1.11	0.02	0.14	200	9450	1700		
9/7/2004	0	0.62	0.17	0.17	530	5910	2500		
9/14/2004	0.05	0.4	0.02	0.15	310	5600	4600		
9/21/2004	0.06	13.39	0	0.09	0	5310	2200		
9/28/2004	0.01	0.26	0.26	0.16	990	7820	3700		
10/5/2004	0.01	0.73	0.05	0.49	200	1640	1400		
10/12/2004	0.05	0.54	0.04	0.09	100	2540	1200		
10/19/2004	0.04	0.38	0.03	0.16	100	1110	2300		
10/26/2004	0	0.47	0.02	0.17	200	1500	3300		

## St. Joseph River – West Branch Site 125

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.08	0.12	0.09	0.03	0	310	0	0.08	0.0997
4/13/2004	0.02	0.09	0.02	0.05	0	750	500	0.238	0.0342
4/20/2004	0.04	0.06	0.05	0.04	0	3640	700	0.1	0.03
4/27/2004	0.06	0.09	0.02	0.04	0	420	1300	0.075	0.04
5/4/2004	0.06	0.05	0.01	0.01	200	420	400	0.08	0.02
5/11/2004	0.05	0.09	0.02	0.05	100	870	400	0.24	0.02
5/18/2004	0.2	0.1	0.1	0.57	310	2710	3400	0.17	0.03
5/25/2004	0.31	2.8	0.11	1.27	870	2220	3700	0.08	0.06
6/1/2004	0.26	2.32	0.09	1.65	200	1920	3200	0.07	0.009
6/8/2004	0.33	2.23	0.2	1.16	100	3060	2100	0.08	0.03
6/15/2004	0.25	2.29	0.15	1.48	100	4060	3000	0.08	0.11
6/22/2004	0.22	1.29	0.1	1.94	100	7820	20300	0.08	0.11
6/29/2004	0.23	0.75	0.07		0	2540	2000	0.17	0.04
7/6/2004	0.06	0.52	0.04		0	5310	900	0.054	0.008
7/13/2004	0.1	0.5	0.02		100	5910	5500	0.08	0.008
7/20/2004	0.01	0.3	0.3		0	5310	3500	0.09	0.02
7/27/2004	0.02	0.25	0.02		3440	20050	23600	0.17	0.1
8/3/2004	0.04	0.39	0.03		310	8310	3300	0.14	0.03
8/10/2004	0.06	0.25	0.01		200	10910	4500		
8/17/2004	0.15	0.28	0.01		200	3640	800	0.171	0.016
8/24/2004	0.1	0.21	0	0	0	4780	1500	0.1	0.12
8/31/2004	0.08	0.23	0.02	0	420	20050	9500	0.1	0.04
9/7/2004	0.01	0.14	0.01	0.01	640	10910	1600	0.16	0.04
9/14/2004	0.04	0.18	0	0.07	310	2880	800		
9/21/2004	0.11	0.3	0.04	0.02	420	5310	1100	0.04	0.061
9/28/2004	0.05	0.11	0.11	0.13	1110	6970	5500	0.06	0.046
10/5/2004	0.01	0.14	0.02	0.05	100	2220	2300	0.02	0.06
10/12/2004	0.04	0.08	0.01	0.11	100	6240	1500	0.234	0.068
10/19/2004	0.03	0.08	0.01	0.03	310		5100	0.106	0.029
10/26/2004	0								

## St. Joseph River – East Branch Site 126

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.51	0.1	0.08	0.02	310	640	100		
4/13/2004	0.02	0.14	0.03	0.08	200	420	300		
4/20/2004	0.05	0.07	0.04	0.09	0	1110	700		
4/27/2004	0.08	0.08	0.02	0.07	200	750	800		
5/4/2004	0.07	0.78	0.04	0.3	200	990	400		
5/11/2004	0.06	0.14	0.03	0.08	0	990	1300		
5/18/2004	0.22	0.12	0.12	0.7	1780	20050	3900		
5/25/2004	0.63	3.25	0.1	1.64	1370	9450	5700		
6/1/2004	0.51	3.86	0.17	1.73	2380	20050	5900		
6/8/2004	0.23	1.36	0.09	0.28	530	8850	1000		
6/15/2004	0.17	3.21	0.13	1.45	1370	10130	5400		
6/22/2004	0.08	0.83	0.06	0.75	310	8310	10800		
6/29/2004	0.07	0.53	0.02		750	5310	2200		
7/6/2004	0.04	0.91	0.04		530	7820	2200		
7/13/2004	0.02	0.31	0.01		420	8850	1300		
7/20/2004	0.01	0.52	0.52		530	7380	1400		
7/27/2004	0	0.13	0.01		1640	14450	7000		
8/3/2004	0.02	0.23	0.02		530	5910	3900		
8/10/2004	0.02	0.15	0.01		750	20050	5000		
8/17/2004	0	0.06	0.01		420	2710	600		
8/24/2004	0.04	0.12	0	0	750	20050	8000		
8/31/2004	0.03	0.1	0	0	420	20050	3800		
9/7/2004	0	0.07	0.01	0.01	2220	20050	2700		
9/14/2004	0.07	0.12	0.01	0.04	100	6590	3700		
9/21/2004	0.04	0.1	0	0	310	4060	400		
9/28/2004	0.01	0.02	0.02	0.03	530	4060	700		
10/5/2004	0	0.06	0	0	100	3640	20000		
10/12/2004	0.01	0.06	0	0.03	310	6590	1700		
10/19/2004	0.01	0.03	0	0.05	100	4060	10700		
10/26/2004	0	0.03	0	0.05	100	1110	14100		

## Big Run Site 127

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.08	0.1	0.07	0.03	200	310	0		
4/13/2004	0.51	8.53	0.03	9.99	1240	5910	400		
4/20/2004	0.14	0.08	0.03	0.1	1240	2710	700		
4/27/2004	0.05	0	0.02	0.04	0	2540	600		
5/4/2004	0.2	1.71	0.06	0.72	200	14450	290000		
5/11/2004	0.51	8.53	0.21	16.25	1640	10910	35400		
5/18/2004	0.4	0.15	0.15	0.23	420	16520	12700		
5/25/2004	0.51	3.75	0.13	3.35	870	20050	25200		
6/1/2004	0.34	3.95	0.17	2.83	2710	20050	30800		
6/8/2004	0.16	1.08	0	0.44	530	10910	8300		
6/15/2004	0.3	5.7	0.17	3.23	530	20050	5500		
6/22/2004	0.15	1.68	0.08	1.26	530	10130	3400		
6/29/2004	0.13	0.65	0		1500	5310	1000		
7/6/2004	0.13	1.38	0.11		990	9450	2500		
7/13/2004	0.16	0.86	0.03		640	9450	2000		
7/20/2004	0.03	0.67	0.67		1500	10910	3800		
7/27/2004	0.01	6.64	0.17		4290	20050	29800		
8/3/2004	0.02	0.23	0.01		310	8850	4300		
8/10/2004	0.08	0.2	0.01		530	8850	4200		
8/17/2004	0.08	0.24	0.02		310	4530	900		
8/24/2004	0.09	0.13	0	0	750	11840	3100		
8/31/2004	0.11	0.33	0.03	0.11	990	12980	4300		
9/7/2004	0	0.52	0.01	0.01	6970	20050	12900		
9/14/2004	0.03	0.08	0	0.05	310	7380	5300		
9/21/2004	0.04	0.07	0.02	0.06	310	11840	7500		
9/28/2004	0.04	0.05	0.05	0	3240	20050	87000		
10/5/2004	0.01	0.06	0.01	0.1	200	4530	1700		
10/12/2004	0.02	0.11	0	0.11	750	5910	3400		
10/19/2004	0	0.03	0	0.13	100	3440	3200		
10/26/2004	0.16	0.03	0	0.06	0	2540	1600		

## Bear Creek (Indiana) Site 128

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.04	0.11	0.06	0.05	0	750	300		
4/13/2004	0.02	0.31	0.07	0.03	100	200	100		
4/20/2004	0.11	0.31	0.07	0.05	200	420	500		
4/27/2004	0.08	0.01	0.01	0	310	750	300		
5/4/2004	0.1	1.84	0.08	0.51	420	2380	2400		
5/11/2004	0.18	3.34	0.08	1.6	640	2380	1700		
5/18/2004	0.08	0.07	0.07	0.23	420	11840	7300		
5/25/2004	0.4	6.81	0.21	2.59	870	20050	22600		
6/1/2004	0.35	3.5	0.12	1.52	2880	20050	37100		
6/8/2004	0.17	1.45	0.11	0.37	310	6970	1800		
6/15/2004	0.24	4.41	0.16	1.76	420	16520	5800		
6/22/2004	0.04	1.08	0.07	0.53	420	9450	2800		
6/29/2004	0.11	0.59	0.03		530	5910	2700		
7/6/2004	0.12	0.68	0.06		200	3440	700		
7/13/2004	0.09	1.13	0.1		870	9450	1300		
7/20/2004	0.08	1.12	1.12		420	20050	2800		
7/27/2004	0.02	1.48	0.03		990	20050	9500		
8/3/2004	0.05	0.29	0.03		420	10910	1400		
8/10/2004	0.06	0.2	0						
8/17/2004	0.06	0.18	0.02		420	8310	1100		
8/24/2004	0.09	0.19	0	0	750	12980	1500		
8/31/2004	0.04	0.13	0.02	0	1640	20050	18700		
9/7/2004	0.04	0.45	0.14	0.14	3640	20050	15400		
9/14/2004	0.03	0.06	0	0.1	750	9450	1600		
9/21/2004	0.02	0.08	0	0.01					
9/28/2004	0.03	0.02	0.02	0	3640	14450	11700		
10/5/2004	0	0	0	0.04	990	2710	1200		
10/12/2004	0.01	0.1	0	0.08	200	3440	400		
10/19/2004	0	0.04	0	0.1	100	1920	1000		
10/26/2004	0	0.02	0	0.07	0	1240	2000		

## Nettle Creek Site 129

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.08	0.15	0.12	0.05	100	530	100		
4/13/2004	0.1	0.26	0.03	0.03	0	100	300		
4/20/2004	0.09	0.13	0.09	0.07	0	1370	400		
4/27/2004	0.05	0.01	0.03	0.03	0	530	1000		
5/4/2004	0.11	0.25	0.01	0.21	200	3060	3800		
5/11/2004	0.14	1.78	0.08	0.71	1110	6240	5400		
5/18/2004	0.25	0.11	0.11	0.76	530	14450	10900		
5/25/2004	0.42	1.9	0.09	1.01	750	5310	7600		
6/1/2004	0.05	1.94	0.1	2.06	1110	12980	10400		
6/8/2004	0.17	1.9	0.08	0.71	420	8850	3400		
6/15/2004	0.28	3.2	0.12	2.06	420	14450	5700		
6/22/2004	0.33	2.52	0.1	1.94	200	10130	16200		
6/29/2004	0.46	1.85	0.07		750	5600	800		
7/6/2004	0.27	2.06	0.16		750	6590	900		
7/13/2004	0.31	1.99	0.03		1240	10130	2100		
7/20/2004	0.09	1.44	0.06		420	7380	1900		
7/27/2004	0.06	0.26	0.06		6970	20050	75500		
8/3/2004	0.12	1.31	0.07		870	8850	2500		
8/10/2004	0.34	1.39	0.04		4530	20050	5100		
8/17/2004	0.28	1.92	0.07		200	3840	1300		
8/24/2004	0.27	1.39	0.05	0	640	4780	700		
8/31/2004	0.13	1.01	0.06	0.4	640	16520	3700		
9/7/2004	0.11	1.28	0.22	0.22	1500	11840	4400		
9/14/2004	0.16	0.73	0.03	0.25	200	3640	1900		
9/21/2004	0.15	0.77	0.04	0.18	100	2070	1100		
9/28/2004	0.2	0.53	0.53	0.16	420	12980	2700		
10/5/2004	0.07	0.51	0.03	0.15	530	1920	1100		
10/12/2004	0.12	0.66	0.03	0.22	420	4530	3900		
10/19/2004	0.1	0.42	0.02	0.14	100	4290	6100		
10/26/2004	0.09	0.37	0.01	0.07	310	870	300		

## Eagle Creek Site 130

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.05	0.16	0.22	0.05	0	870	300		
4/13/2004	0.01	0.16	0	0.07	100	1500	600		
4/20/2004	0.09	0.18	0.03	0.03	0	1370	400		
4/27/2004	0.08	0.13	0.02	0.06	0	1780	0		
5/4/2004	0.14	3.93	0.14	0.46	0	750	200		
5/11/2004	0.74	9.37	0.22	7.92	7820	12980	26300		
5/18/2004	0.46	0.31	0.31	2.94	3440	20050	102600		
5/25/2004	0.29	5.73	0.14	1.89	1640	7820	9400		
6/1/2004	0.32	5.44	0.19	3.16	2540	20050	19400		
6/8/2004	0.14	1.87	0.09	0.18	870	11840	4900		
6/15/2004	0.19	3.16	0.12	1.76	530	20050	8100		
6/22/2004	0.15	3.55	0.14		200	12980	22200		
6/29/2004	0.12	1.67	0.06		750	5910	1100		
7/6/2004	0.15	1.31	0.1		310	8850	1200		
7/13/2004	0.06	0.54	0		990	8310	1700		
7/20/2004	0.05	0.66	0.04		1110	9450	2800		
7/27/2004	0	2.35	0.02		3060	20050	10900		
8/3/2004	0.05	0.29	0.04		750	6590	2400		
8/10/2004	0.06	0.18	0		2070	14450	4800		
8/17/2004	0.07	0.14	0.01		200	2710	1600		
8/24/2004	0.04	0.12	0	0	1110	14450	2900		
8/31/2004	0.03	0.24	0.02	0.08	640	20050	5300		
9/7/2004	0.01	0.43	0.01	0.01	1780	16520	2900		
9/14/2004	0.06	0.12	0	0.13	200	16520	13200		
9/21/2004	0.01	0.08	0	0.04	750	6240	600		
9/28/2004	0.01	0.02	0.02	0	530	5910	8400		
10/5/2004	0.01	0.06	0.01	0	0	2220	400		
10/12/2004	0.01	0.15	0	0.1	0	5040	8900		
10/19/2004	0	0.06	0	0.09	0	1640	7800		
10/26/2004	0	0.04	0	0.1	0	2220	30800		

## Bear Creek (Ohio) Site 131

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.11	0.15	0.12	0.1	0	530	100	0.08	0.0116
4/13/2004	0.09	0.16	0.03	0.13	100	870	600	0.289	0.187
4/20/2004	0.2	0.35	0.1	0.11	100	990	1500	0.2	0.03
4/27/2004	0.1	0.14	0.02	0.11	0	640	800	0.101	0.07
5/4/2004	0.19	1.01	0.05	0.2	310	1640	2000	0.16	0.33
5/11/2004	1	10.48	0.31	2.68	7380	14450	21500	0.7	0.69
5/18/2004	0.57	0.28	0.28	2.91	310	16520	7500	0.36	0.16
5/25/2004	0.44	4.17	0.18	2.15	2220	8850	7800	0.36	0.07
6/1/2004	0.47	5.95	0.29	3.11	2380	20050	9500	0.39	0.08
6/8/2004	0.14	1.89	0.07	0.41	310	4060	600	0.09	0.05
6/15/2004	0.26	4.38	0.14	3.4	1780	20050	8600	0.17	0.38
6/22/2004	0.16	1.91	0.09	2.72	640	10910	7000	0.08	0.04
6/29/2004	0.11	0.87	0.05		200	2880	800	0.05	0.02
7/6/2004	0.23	2.48	0.19		530	5040	1400	0.111	0.009
7/13/2004	0.11	0.71	0.03		530	4290	800	0.08	0.03
7/20/2004	0.04	0.64	0.02		310	4780	1700	0.12	0.03
7/27/2004	0.08	1.02	0.13		20050	20050	51300	0.51	1.21
8/3/2004	0.04	0.31	0.03		100	5040	3400	0.19	0.06
8/10/2004	0.08	0.29	0.03		750	7380	3900		
8/17/2004	0.09	0.3	0.02		420	3640	3800	0.132	0.063
8/24/2004	0.16	1.2	0.06	0	0	20050	1300	0.11	0.12
8/31/2004	0.25	0.89	0.04	0.2	640	10910	22300	0.23	0.08
9/7/2004	0.02	0.76	0.25	0.46	1780	20050	3100	0.159	0.104
9/14/2004	0.04	0.17	0	0.37	0	2880	2500		
9/21/2004	0.05	0.13	0	0.1	0	1920	400	0.04	0.94
9/28/2004	0.04	0.09	0.09	0.02	310	5910	3300	0.13	0.09
10/5/2004	0.06	0.5	0.05	0.22	420	2540	2500	0.08	0.099
10/12/2004	0.05	0.22	0.01		100	2880	1700		
10/19/2004	0.09	1.92	0.08	0.25	200	4060	6600	0.158	0.06
10/26/2004	0.21	3.29	0.11	1.45	0	1640	64100		

## Matthews Ditch Site 132

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.09	0.18	0.07	0.1	100	1640	700		
4/13/2004	0.03	0.1	0.02	0.13	420	10910	3200		
4/20/2004	0.22	0.41	0.05	0.11	750	16520	9800		
4/27/2004	0.13	0.24	0.02	0.11	200	5910	900		
5/4/2004	0.09	0.32	0.03	0.2	2380	20050	4500		
5/11/2004	0.42	7.27	0.13	2.68	2540	10910	12200		
5/18/2004	0.32	0.21	0.21	2.91	750	20050	6400		
5/25/2004	0.32	3.95	0.09	2.15	870				
6/1/2004	0.27	5.42	0.19	3.11	2070	16520	11700		
6/8/2004	0.17	1.8	0.08	0.41	200	4060	2300		
6/15/2004	0.28	4.39	0.15	3.4	420	14450	5500		
6/22/2004	0.19	2.47	0.11	2.72	100	6590	45200		
6/29/2004	0.17	1.45	0.06		100	4530	2700		
7/6/2004	0.18	1.11	0.12		200	5910	2700		
7/13/2004	0.15	0.67	0.04		200	6970	2900		
7/20/2004	0.08	0.54	0.05		530	6970	5700		
7/27/2004	0.06	0.67	0.05		1500	20050	18400		
8/3/2004	0.09	0.39	0.04		0	0	100		
8/10/2004	0.08	0.5	0.02		1240	20050	5000		
8/17/2004	0.08	0.2	0.01		310	6590	1100		
8/24/2004	0.07	1.8	0.07	0	100	4060	1800		
8/31/2004	0.08	1.83	0.06	0.2	1500	20050	13000		
9/7/2004	0.03	0.28	0.46	0.46	8310	20050	11600		
9/14/2004	0.07	0.26	0.01	0.37	200	6590	4500		
9/21/2004	0.04	0.1	0	0.1	310	5310	6800		
9/28/2004	0.03	0.05	0.05	0.02	1240	14450	8100		
10/5/2004	0.02	0.18	0.02	0.22	310	4780	1500		
10/12/2004									
10/19/2004	0.02	0.13	0	0.25	1640	10910	8900		
10/26/2004	0	0.18	0	0.19	2710	8850	8700		

## Tamarack Creek Site 133

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.23	0.31	0.17	0.08	200	640	300		
4/13/2004	0.2	0.36	0.02	0.08	0	310	1300		
4/20/2004	0.49	0.37	0.1	0.11	100	1110	1000		
4/27/2004	0.31	0.14	0.04	0.13	1240	2380	800		
5/4/2004	0.41	0.74	0.04	0.3	1780	2070	900		
5/11/2004	1.11	9.57	0.24	3.26	2380	20050	18000		
5/18/2004	0.48	0.17	0.17	1.14	530	10910	4100		
5/25/2004	0.61	3.43	0.12	2.25					
6/1/2004	0.95	8.01	0.45	6.6	3240	20050	19400		
6/8/2004	0.54	1.98	0.11	0.56	3640	20050	1700		
6/15/2004	0.41	6.59	0.19	3.59	750	20050	8200		
6/22/2004	0.75	2.28	0.1	3.03	1780	12980	42800		
6/29/2004	0.35	1.49	0.07		310	6970	3600		
7/6/2004	0.69	1.85	0.11		750	16520	5300		
7/13/2004	0.36	1	0.01		990	20050	5100		
7/20/2004	0.14	0.96	0.03		420	10130	3600		
7/27/2004	0.05	0.21	0.04		3640	20050	23500		
8/3/2004	0.23	0.42	0.04		0	0	400		
8/10/2004	0.34	0.47	0.01		1110	20050	5100		
8/17/2004	0.43	0.6	0.02		310	20050	1200		
8/24/2004	0.26	0.3	0.01	0	0	20050	6500		
8/31/2004	0.27	0.33	0.02	0.12	870	20050	8000		
9/7/2004	0.12	0.14	0.09	0.09	2380	20050	17800		
9/14/2004	0.33	0.17	0	0.19	2070	20050	12300		
9/21/2004	0.32	0.3	0	0.13	3440	20050	14200		
9/28/2004	0.3	0.2	0.2	0.15	14450	20050	20000		
10/5/2004	0								
10/12/2004									
10/19/2004									
10/26/2004									

## St. Joseph River – West Branch, East Fork Site 134

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.03	0.08	0.06	0.03	100	200	300		
4/13/2004	0	0.23	0.01	0.05	0	0	200		
4/20/2004	0.07	0.07	0.06	0.05	310	1780	100		
4/27/2004	0.01	0	0.01	0.03	100	530	1300		
5/4/2004	0.04	0.12	0.01	0.06	100	990	200		
5/11/2004	1.11	1.39	0.04	0.49	640	2070	600		
5/18/2004	0.24	0.2	0.2	1.01	530	10130	10300		
5/25/2004	0.12	2.65	0.09	1.02					
6/1/2004	0.1	2.55	0.09	1.61	870	4780	400		
6/8/2004	0.04	0.4	0.02	0.08	420	4530	1600		
6/15/2004	0.19	2.12	0.09	1.54	870	14450	3100		
6/22/2004	0.09	1.02	0.05	0.87	0	5310	9200		
6/29/2004	0.06	0.35	0.02		420	3240	2400		
7/6/2004	0.04	0.35	0.04		310	4780	1300		
7/13/2004	0.11	0.4	0.01		200	1920	1500		
7/20/2004	0.01	0.41	0.03		200	3440	400		
7/27/2004	0	0.11	0.01		0	2220	6100		
8/3/2004	0.01	0.22	0.03		0	0			
8/10/2004	0.14	0.18	0.03		420	1640	1400		
8/17/2004	0.02	0.19	0.01		200	750	3000		
8/24/2004	0.09	0.11	0	0	640	20050	3300		
8/31/2004	0.1	0.08	0.02	0.02	200	20050	7100		
9/7/2004	0.01	0.03	0	0	200	3440	1100		
9/14/2004	0.02	0.03	0	0.09	4530	10130	7600		
9/21/2004	0.09	0.05	0	0	1240	2710	600		
9/28/2004	0.07	0.01	0.01	0	640	3240	1200		
10/5/2004	0.04	0.04	0	0.01	200	870	1000		
10/12/2004	0.03	0.1	0	0.1	200	4060	400		
10/19/2004	0.02	0.03	0	0.05	530	990	800		
10/26/2004	0	0.01	0	0.03	0	990	1200		

## St. Joseph River – West Branch, West Fork Site 135

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.06	0.19	0.1	0.04	0	0	0		
4/13/2004	0.01	0.22	0.02	0.05	0	200	100		
4/20/2004	0.07	0.16	0.05	0.03	100	990	300		
4/27/2004	0.06	0.02	0.01	0.03	100	640	0		
5/4/2004	0.05	0.08	0.01	0.04	100	530	1400		
5/11/2004	0.09	3.14	0.08	1.92	2070	10130	5200		
5/18/2004	0.14	0.17	0.17	1.85	2380	11840	9300		
5/25/2004	0.07	1.25	0.04	0.37					
6/1/2004	0.34	2.16	0.1	1.22	640	7380	1100		
6/8/2004	0.06	0.4	0.02	0.07	100	4060	4000		
6/15/2004	0.11	1.3	0.07	1.24	1640	20050	6700		
6/22/2004	0.03	0.35	0.03	0.84	200	4530	24000		
6/29/2004	0.01	0.11	0.01		640	2710	200		
7/6/2004	0.09	0.49	0.03		420	7380	600		
7/13/2004	0.03	0.2	0.08		420	4530	3100		
7/20/2004	0.01	0.21	0		100	1110	100		
7/27/2004	0	0.56	0.01		310	4290	8000		
8/3/2004	0.02	0.29	0.01		0	0	100		
8/10/2004	0.03	0.12	0		200	3640	2600		
8/17/2004	0.05	0.13	0.01		200	1780	500		
8/24/2004	0.01	0.85	0	0	310	2220	300		
8/31/2004	0	0.09	0	0.35	100	5910	3900		
9/7/2004	0	8.42	0.01	0.01	530	3060	700		
9/14/2004	0.04	0.03	0.01	0.09	200	2540	300		
9/21/2004	0.04	0.03	0	0	420	1500	700		
9/28/2004	0.01	0	0	0	420	3060	500		
10/5/2004	0.04	0.04	0.01	0	420	20050	1000		
10/12/2004	0.02	0.14	0	0.06	310	3060	600		
10/19/2004	0	0.02	0	0	310	870	900		
10/26/2004	0	0.01	0	0.02	0	530	7300		

## Walter Smith Ditch Site 141

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.56	0.16	0.09	0	0	420	700	0.557	0.154
4/13/2004	0.35	0.29	0.09	0.06	0	100	1100	0.281	0.0674
4/20/2004	0.61	0.29	0.09	0.06	870	16520	700	0.16	0.07
4/27/2004	0.64	0.53	0.05	0.88	0	0	900	0.059	0.08
5/4/2004	0.6	4.39	0.14	1.15	420	1780	1300	0.2	1.89
5/11/2004	0.81	9.52	0.29	7.09	1500	8850	1900	0.58	3.04
5/18/2004	0.63	0.22	0.22	1.41	100	6970	5100	0.15	0.009
5/25/2004	0.75	8.8	0.3	2.84				0.36	0.35
6/1/2004	0.53	5.62	0.2	2.97	420	20050	8700	0.3	0.3
6/8/2004	0.6	1.48	0.06	0.47	100	3240	5200	0.05	0.02
6/15/2004	0.33	3.58	0.12	1.98	100	16520	7000	0.08	0.2
6/22/2004	0.5	0.87	0.07	0.35	420	6240	24000	0.08	0.05
6/29/2004	0.45	0.46	0.01		640	3840	2600	0.07	0.02
7/6/2004	0.38	0.61	0.05		530	5600	1300	0.072	0.008
7/13/2004	0.38	2.82	0.03		310	4780	1800	0.09	0.008
7/20/2004	0.19	2.6	0.09		310	3240	600	0.09	0.003
7/27/2004	0.15	0.44	0.02		420	20050	28500	0.22	0.14
8/3/2004	0.31	0.48	0.05		0	0		0.42	0.05
8/10/2004	0.56	1.73	0.05		0	5040	3200		
8/17/2004	0.56	0.45	0.02		3240	20050	2700	0.45	0.007
8/24/2004	0.52	0.2	0	0.04	0	4290	700	0.31	0.07
8/31/2004	0.41	0.43	0.02	0.05	0	14450	3300	0.4	0.04
9/7/2004	0.31	0.18	1.65	1.65	100	8310	3300	0.785	0.043
9/14/2004	0.58	3.49	0.1	0.43	0	4060	1600		
9/21/2004	0.49	1.63	0.05	0.09	0	6970	1700	1.51	0.313
9/28/2004	0.6	0.87	0.05	0.03	100	6240	2200	0.18	0.042
10/5/2004	0.4	0.7	0.04	0.12	200	5310	2700		
10/12/2004									
10/19/2004									
10/26/2004									

## David Link Ditch Site 142

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.08	0.14	0.07	0.03	0	200	100		
4/13/2004	0.04	0.09	0.04	0.06	0	0	0		
4/20/2004	0.12	0.09	0.04	0.03	100	1920	900		
4/27/2004	0.1	0.02	0.02	0.02	0	420	900		
5/4/2004	0.08	0.13	0.01	0.04	420	5600	3000		
5/11/2004	0.09	1.18	0.03	0.25	1500	6590	2700		
5/18/2004	0.09	0.05	0.05	0.32	1920	20050	9100		
5/25/2004	0.19	1.97	0.08	0.83					
6/1/2004	0.29	4.27	0.16	3.33	5040	20050	11600		
6/8/2004	0.17	2.21	0.13	0.61	200	5600	3300		
6/15/2004	0.15	3.52	0.14	1.64	1500	20050	7500		
6/22/2004	0.15	1.69	0.09	0.75	310	16520	23200		
6/29/2004	0.09	1.18	0.03		310	7380	1600		
7/6/2004	0.15	1.56	0.08		530	7820	2700		
7/13/2004	0.07	0.73	0.02		420	11840	2500		
7/20/2004	0.07	0.9	0.02		420	6590	2600		
7/27/2004	0	0.26	0.02		100	7380	6600		
8/3/2004	0.05	0.33	0.02		0	0	200		
8/10/2004	0.08	0.3	0		310	7380	3900		
8/17/2004	0.12	0.27	0.01		870	4530	800		
8/24/2004	0.06	0.52	0.06	0	100	20050	6900		
8/31/2004	0	0.21	0	0	0	20050	5400		
9/7/2004	0.01	0.08	0	0	640	7820	3000		
9/14/2004	0.1	0.06	0	0.08	0	4290	1700		
9/21/2004	0.47	0.04	0	0	0	1780	600		
9/28/2004	0.08	0.01	0	0	0	1780	900		
10/5/2004	0.03	0	0	0	200	2220	200		
10/12/2004	0.09	0.09	0	0.12	200	7380	1400		
10/19/2004	0.03	0.08	0	0.12	100	5600	5200		
10/26/2004	0.11	0.07	0	0.1	530	20050	25100		

## Dibbling Ditch Site 143

Date	Alachlor	Atrazine	Cyanazine	Metolachlor	E. Coli	Total Coliform	HPC	Phosphorus	Ammonia
4/6/2004	0.08	0.2	0.16	0.01	0	530	400		
4/13/2004	0.08	0.11	0.03	0.05	200	2070	300		
4/20/2004	0.12	0.16	0.06	0.04	100	640	900		
4/27/2004	0.08	0.06	0.04	0	310	640	1000		
5/4/2004	0.3	1.18	0.05	0.29	310	1920	2800		
5/11/2004	0.3	4.94	0.13	2.16	870	5910	11100		
5/18/2004	0.32	0.19	0.19	0.79	990	10130	900		
5/25/2004	0.36	3.08	0.13	0.82					
6/1/2004	0.4	5.18	0.22	3.87	3240	20050	12800		
6/8/2004	0.19	1.72	0.06	0.19	1110	5040	1300		
6/15/2004	0.25	5.59	0.16	1.77	310	20050	10800		
6/22/2004	0.12	1.5	0.08	1.67	100	9450	25200		
6/29/2004	0.17	0.61	0.01		750	6970	2700		
7/6/2004	0.11	0.61	0.09		990	6240	1300		
7/13/2004	0.14	0.77	0.02		1370	20050	5200		
7/20/2004	0.06	1.11	0.01		310	7820	1100		
7/27/2004	0.03	0.61	0.02		20050	20050	25000		
8/3/2004	0.04	0.19	0.03		0	0			
8/10/2004	0.19	0.2	0		640	8310	4100		
8/17/2004	0.13	0.67	0.03		1110	5910	1700		
8/24/2004	0.11	0.58	0.07	0	100	3440	300		
8/31/2004	0.07	0.68	0.05	0.09	1640	20050	10000		
9/7/2004	0.03	0.23	0.02	0.02	870	7820	2100		
9/14/2004	0.09	0.08	0.01	0.14	750	6590	2200		
9/21/2004	0.07	0	0	0	200	2880	1000		
9/28/2004	0	0.04	0	0	750	5310	2000		
10/5/2004	0.01	0.01	0	0	100	1640	1100		
10/12/2004	0.08	0.13	0	0.07	0	4290	1000		
10/19/2004	0.04	0.01	0	0.04	310	4530	5100		
10/26/2004	0	0.04	0	0.02	750	5910	4500		

