



## Office of Water Quality Total Maximum Daily Load Program

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### **Total Maximum Daily Load for *Escherichia coli* (*E. coli*) for the St. Joseph River, Elkhart and St. Joseph Counties**

*Prepared by:*

Office of Water Quality – TMDL Program  
Indiana Department of Environmental Management  
100 N. Senate Avenue  
P.O. Box 6015  
Indianapolis, IN 46206-6015

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**Indiana Department of Environmental Management  
Total Maximum Daily Load Program  
February 28, 2004**

**Total Maximum Daily Load (TMDL) for *Escherichia coli* (*E. coli*) in  
St. Joseph River, St. Joseph and Elkhart Counties, Indiana**

**Introduction**

Section 303(d) of the federal Clean Water Act and the United States Environmental Protection Agency's (USEPA's) Water Quality Planning and Management Regulations (Title 40 of the Code of Federal Regulations (CFR), Part 130) require states to develop Total Maximum Daily Loads (TMDLs) for waterbodies that are not meeting Water Quality Standards (WQS). TMDLs provide states a basis for determining the pollutant reductions necessary from both point and nonpoint sources to restore and maintain the quality of their water resources. Both the Michigan Department of Environmental Quality (MDEQ) and the Indiana Department of Environmental Management (IDEM) have the St. Joseph River listed for *Escherichia coli* (*E. coli*) impairment on their respective 303(d) Lists of Impaired Waterbodies. MDEQ has the St. Joseph River listed from the Lake Michigan confluence in Morrison Channel upstream to Michigan/Indiana state line. IDEM has the St. Joseph River listed at the City of Elkhart in Elkhart County, Indiana to the Michigan-Indiana State Line in St. Joseph County, Indiana. The MDEQ and IDEM have been working jointly to complete TMDLs on all listed segments of the St. Joseph River. The purpose of this TMDL is to identify the sources and determine the allowable levels of *E. coli* bacteria that will result in the attainment of the applicable WQS in the St. Joseph River in Indiana at the City of Elkhart in Elkhart County to the Michigan-Indiana state line in St. Joseph County.

**Background**

In 1998, Indiana's section 303(d) list cites the St. Joseph River as being impaired in Elkhart and St. Joseph counties. In 2002, Indiana's section 303(d) list cites the St. Joseph River as being impaired at the City of Elkhart in Elkhart County to the Indiana-Michigan state line in St. Joseph County. This TMDL address approximately 27 miles of St. Joseph River in Indiana (from the City of Elkhart in Elkhart County to the Michigan-Indiana State Line in St. Joseph County) where recreational uses are impaired by elevated levels of *E. coli* during the recreational season (Figure 1). The description of the study area, its topography, and other particulars is as follows:

<b>Waterbody Name:</b>	St. Joseph River
<b>303(d) List ID:</b>	36
<b>County:</b>	Elkhart and St. Joseph Counties
<b>Length:</b>	27 miles
<b>Basin:</b>	Great Lakes
<b>Hydrologic Unit Code:</b>	04050001
<b>Impairments:</b>	<i>E. coli</i> , Fish Consumption Advisory for PCB and mercury
<b>Schedule:</b>	2010-2015, <i>E. coli</i> , 2020-2020, Fish Consumption Advisory for PCB and mercury

Historical data collected by IDEM and the Interagency *E. coli* Task Force document elevated levels of *E. coli* in 1997. This data was the basis for the listing of the St. Joseph River on the 1998 303(d) list. IDEM completed two intensive surveys of the St. Joseph River and its major tributaries between September 27, 2000, to October 26, 2000. IDEM sampled nineteen sites five

times evenly spaced over a 30-day period during Indiana's recreational season (April 1<sup>st</sup> through October 31<sup>st</sup>). Of the nineteen sites, fifteen sites violated the single sample maximum standard. Of the fifteen sites that violated the single sample maximum standard, eight sites violated the geometric mean standard. Based on this intensive study in 2000, IDEM determined that an *E. coli* TMDL would need to be completed on the St. Joseph River (Attachment A).

The three cities of Elkhart, Mishawaka, and South Bend ("the Three Cities") had also extensively sampled the St. Joseph River for *E. coli*. The results of their *E. coli* sampling completed in 2000 through 2003 are also included in developing this TMDL (Salee, M. 2003, Kopec, K. 2003, Zmudzinski, K. 2003). The *E. coli* results from the Three Cities have met the requirements of Indiana's Quality Assurance Project Plan and were acceptable for use in this TMDL. The Three Cities sampled eighteen sites along the St. Joseph River. These eighteen sites were sampled during Indiana's recreational and non-recreational seasons. Of the eighteen sites, twelve sites violated the single sample maximum standards during the recreational season. Of the twelve sites that violated the single sample maximum standard, ten sites violated the geometric mean standard during the recreational season.

The *E. coli* data collected by IDEM and the Three Cities showed similar results. Nine of IDEM's nineteen sites sampled in 2000 were at the same locations as the Three Cities (Figure 2 and Attachment A).

Water quality *E. coli* load duration curves were created by combining both IDEM's data and the data received from The Three Cities. A flow duration interval is defined as a percentage. Zero (0) percent corresponds to the highest stream discharge (flood condition) and 100 percent corresponds to the lowest discharge (drought condition). The *E. coli* values at each site were plotted with the corresponding flow duration interval to show the *E. coli* violations of the single-sample maximum standard and geometric mean standard during both the recreational and non-recreational seasons (Attachment B).

Of the eighteen sites sampled by The Three Cities, twelve sites were also sampled during the non-recreational season. Of those twelve sites, eight of these sites would have violated either Indiana's single sample maximum or geometric mean *E. coli* standard during the recreational season. However, Michigan does have an *E. coli* WQS for their non-recreational season (November 1<sup>st</sup> to April 30<sup>th</sup>). Of the twenty-seven sites sampled in the St. Joseph River TMDL Watershed, seventeen sites were sampled during Michigan's non-recreational season. Of these seventeen sites, six of these sites would have violated Michigan's non-recreational season *E. coli* WQS.

## **Numeric Targets**

The impaired designated use for the St. Joseph River at this location is for full body contact recreational use during the recreational season, April 1<sup>st</sup> through October 31<sup>st</sup>.

327 IAC 2-1.5-8(e)(2) establishes the full body contact recreational use *E. coli* WQS<sup>1</sup> for all waters in the Great Lakes system as follows:

*E. coli* bacteria, using membrane filter (MF) count, shall not exceed one hundred twenty-five (125) per one hundred (100) milliliters as a geometric mean

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<sup>1</sup> *E. coli* WQS = 125 cfu/100ml or 235 cfu/100ml; 1 cfu (colony forming units)= 1 mpn (most probable number)

based on not less than five (5) samples equally spaced over a thirty (30) day period nor exceed two hundred thirty-five (235) per one hundred (100) milliliters in any one (1) sample in a thirty (30) day period.

The sanitary wastewater *E. coli* effluent limits from point sources in the Great Lakes system during the recreational season, April 1<sup>st</sup> through October 31<sup>st</sup>, are also covered under 327 IAC 2-1.5-8(e)(2).

Under Rule 100 of the Michigan WQS, the St. Joseph River must be protected for total body contact recreation from May 1 to October 31. The Michigan ambient *E. coli* standards are established in Rule 62 of the WQS as follows:

R 323.1062 Microorganisms.

Rule 62. (1) All waters of the state protected for total body contact recreation shall not contain more than 130 *Escherichia coli* (*E. coli*) per 100 ml, as a 30-day geometric mean. Compliance shall be based on the geometric mean of all individual samples taken during 5 or more sampling events representatively spread over a 30-day period. Each sampling event shall consist of 3 or more samples taken at representative locations within a defined sampling area. At no time shall the waters of the state protected for total body contact recreation contain more than a maximum of 300 *E. coli* per 100 ml. Compliance shall be based on the geometric mean of 3 or more samples taken during the same sampling event at representative locations within a defined sampling area.

The difference between Michigan and Indiana's *E. coli* WQS is due to significant figure rounding (Michigan rounded to two significant figures, Indiana did not). Michigan and Indiana's *E. coli* WQS are based on eight (8) illnesses per 1000 people. While each state has a different numeric *E. coli* WQS, both WQS are based on the same illness rate. Therefore, each state used its respective WQS as its target for their St. Joseph River TMDL.

Indiana's recreational season runs from April 1<sup>st</sup> through October 31<sup>st</sup>, while Michigan's recreational season runs from May 1<sup>st</sup> through October 31<sup>st</sup>. Since Indiana is the downstream state and its recreational season is longer, it should not cause or contribute to a violation of Michigan's WQS during Michigan's shorter recreation season. Therefore, the difference in recreational seasons is not an issue that is addressed in this St. Joseph River TMDL.

Indiana does not have a non-recreational season, partial body contact WQS for *E. coli* while Michigan does. Michigan's rule addressing non-recreational partial body contact states in R 323.1062 that "all waters of the state protected for partial body contact recreation shall not contain more than a maximum of 1,000 *E. coli* per 100 milliliters. Compliance shall be based on the geometric mean of 3 or more samples, taken during the same sampling event, at representative locations within a defined sampling area."

Under 40 CFR 122.4(d), no permit shall be issued "when the imposition of condition cannot ensure compliance with the applicable water quality standards of all affected states."

For its recreational season, May 1<sup>st</sup> to October 31<sup>st</sup>, MDEQ has set the *E. coli* target level for their St. Joseph River TMDL at the WQS of 130 per 100 ml as a 30-day geometric mean of five or more sampling events.

For the Indiana St. Joseph River TMDL, for the recreational season, April 1<sup>st</sup> through October 31<sup>st</sup>, Indiana has set the target level at the *E. coli* WQS of 125 per one hundred milliliters as a 30-day geometric mean based on not less than five samples equally spaced over a thirty day period

## **Source Assessment**

### Watershed Characterization

The St. Joseph River Watershed is located from the Michigan-Indiana State Line in Elkhart County, Indiana to the Michigan-Indiana State Line in St. Joseph County, Indiana. The 1998 303(d) Listed segment of the St. Joseph River is for Elkhart and St. Joseph Counties. Based on sampling completed by IDEM and The Three Cities in 2000 through 2003, twenty-one of twenty-seven sites exceeded WQS. The remaining six sites that did not violate the *E. coli* WQS were located from the Indiana-Michigan State Line in Elkhart County to the city of Elkhart (Attachment B). Michigan does not have the upstream segment of the St. Joseph River, which enters Indiana, listed as impaired. The sampling completed by The Three Cities in 2001 through 2003 supports Indiana's 2002 303(d) listing of the St. Joseph River.

Indiana Tributaries to the St. Joseph River were sampled to determine if they were sources of the St. Joseph River *E. coli* impairment. The tributaries sampled include Little Elkhart River, Pine Creek, Christina Creek, Elkhart River, Baugo Creek, Eller Ditch, Willow Creek, and Juday Creek. The two tributaries, Little Elkhart River and Pine Creek, which discharge into the nonimpaired portion of the St. Joseph River are not considered sources of the overall *E. coli* impairment of the St. Joseph River. However, results of the sampling completed on these tributaries do show they have elevated levels of *E. coli*, which will be addressed in separate TMDLs.

The remaining tributaries, Christina Creek, Elkhart River, Baugo Creek, , Eller Ditch, Willow Creek , and Juday Creek discharge into the impaired portion of the St. Joseph River. The data collected on the tributaries was compared to each respective downstream site on the St. Joseph River. When tributary data violated the *E. coli* WQS, the respective downstream site on the St. Joseph River violated the *E. coli* WQS. When tributary data did not violate the *E. coli* WQS, the respective downstream site on the St. Joseph River did not violate the *E. coli* WQS. This comparison indicates that the tributaries are contributing to the *E. coli* impairment in the St. Joseph River (Attachment A and Figure 2).

### Municipalities

Municipalities in this watershed include Granger, Georgetown, South Bend, Gulivoire Park, Mishawaka, Roseland, Indian Village, Osceola, Wakarusa, Elkhart, Simonton Lake, Dunlap, Goshen, and Bristol. The land use for this watershed is comprised of urban, agricultural, and forested uses. Urban and agricultural uses are the dominant land uses in this watershed. (Figure 3)

As identified by 2000 Census data, there is a tribal service area of the Pokagon Band of Potawatomi within St. Joseph County. The Pokagon Band has no land held in federal trust within the state of Indiana. Since no land is held under federal trust, the Pokagon Band of the Potawatomi does not have jurisdiction with respect to environmental laws in the tribal service areas. Therefore, the tribal service area will be considered part of Clay Township in St. Joseph County and the Pokagon Band of Potawatomi will not be considered a separate potential source of *E. coli* (Figure 4) (Parrish, M. 2003).

### Permitted Dischargers

There are forty-one permitted dischargers in the St. Joseph River TMDL Watershed (Figure 5, Table 1). Sixteen of forty-one permitted dischargers do not have *E. coli* limits in their permits. None of these sixteen dischargers have a sanitary component to their discharge and therefore, *E. coli* limits do not apply to their permits. These permitted discharges are not contributing to the source of *E. coli* in the St. Joseph River.

Eight of the forty-one St. Joseph River permitted dischargers have total residual chlorine limits in their permits (Figure 5, Table 1). These dischargers do have possible sanitary components in their discharge. Previously, facilities with design flows under 1 MGD (typically minor municipals and semipublics) were not required to have *E. coli* effluent limits or conduct monitoring for *E. coli* bacteria, provided they maintained specific total residual chlorine levels in the chlorine contact tank. The assumption was that as long as chlorine levels were adequate in the chlorine contact tank, the *E. coli* bacteria would be deactivated and compliance with the *E. coli* WQS would be met by default. The original basis for allowing chlorine contact tank requirements to replace bacteria limits was based on fecal coliform, not *E. coli*. No direct correlation between the total residual chlorine levels and *E. coli* bacteria can be conclusively drawn. Further, it has been shown that exceedances of *E. coli* bacteria limits may still occur when the chlorine contact tank requirements are met. Due to the complications of comparing total residual chlorine to *E. coli*, it is difficult to determine to what extent, if any, these eight dischargers could be a source of *E. coli* in the St. Joseph River. Four of these eight dischargers did report violations of their total residual chlorine limits during 2000 through 2002. Fairfield Jr/Sr High School, Virgil Grissom Middle School, and Clear Water Mobile Home Village had construction occur in 2002 that addressed their total residual chlorine violations. This construction was completed in 2003. Millersburg Municipal STP had only three reported low total residual chlorine numbers for 2000-2003.

Four of the forty-one permitted discharges are for land application, production and use, and/or surface disposal of WWTP sludge (Figure 5, Table 1). Land application permits only allow WWTP sludge application on designated land where the sludge application will not cause or contribute to a violation of WQS. Therefore, these permits are not suspected to be a significant source of the *E. coli* impairment in the St. Joseph River.

Three of the forty-one permitted discharges are for stormwater discharges (Figure 5, Table 1). These three stormwater dischargers include: Dairy Farmers of America (IN0055565); Metech International (INU059595); and Sunrise Orchards-Elkhart Co (IN0056855). Dairy Farmers of America has a total residual chlorine limit, however the record states that there is no discharge of effluent to the St. Joseph River. Metech International and Sunrise Orchards-Elkhart Co do not have sanitary components to their stormwater. Since none of these three dischargers are known sources of *E. coli* to the St. Joseph River, they are not considered contributors to the *E. coli* impairment in the St. Joseph River.

Ten of the forty-one permitted dischargers have *E. coli* limits in their permits (Figure 5, Table 1). Only one of these ten dischargers violated their *E. coli* limits. The Mishawaka Municipal STP (IN0025640) had eight *E. coli* violations in the years 2000 through 2002. The violations that occurred in this time span were sporadic and adjustments were made to correct the cause of the violations. Therefore, these ten permitted dischargers are considered to be in compliance and are not considered a significant source of the *E. coli* impairment in the St. Joseph River.

### Combined Sewer Overflows

Of the fourteen municipalities in the St. Joseph River Watershed, five have combined sewer overflows (CSOs). The numbers of CSOs per city are broken down as follows: Elkhart has 22 CSO outfalls, Mishawaka has 19 CSO outfalls, South Bend has 35 CSO outfalls, Goshen has 6 CSO outfalls, and Wakarusa has 6 CSO outfalls. Elkhart and Mishawaka have submitted CSO Long Term Control Plans (LTCP) that currently are at IDEM and EPA awaiting review and approval. South Bend's CSO LTCP is not due until December of 2005, while Goshen's and Wakarusa's LTCPs are due in December of 2004. CSO outfalls are considered a source of *E. coli* to the St. Joseph River Watershed.

A community with combined sewer overflows that believes it is not possible to meet existing water quality based requirements may develop information that supports a use attainability analysis. Such information may be included in the CSO long term control plan. The use attainability analysis may result in the relaxation of designated uses and associated criteria if the applicable requirements of state and federal law, including 40 CFR 131.10 are met. However, designated uses that are existing uses in the receiving water cannot be relaxed. Additionally, any existing use, even if not a designated use must be protected. Furthermore, downstream water quality standards must be maintained and protected.

In the event that designated uses and associated water quality criteria applicable to the St. Joseph River are revised in accordance with applicable requirements of state and federal law, this TMDL may be revised to be consistent with such revisions.

### Non-Recreational Season

Michigan has the St. Joseph River impaired for *E. coli* during the recreational and non-recreational seasons because Michigan has an *E. coli* WQS for both their recreational and non-recreational seasons. Indiana has the St. Joseph River impaired for *E. coli* only during recreational season, because Indiana does not have a non-recreational season WQS for *E. coli*. Because Indiana does not have a non-recreational limit for *E. coli*, Indiana's NPDES dischargers are not currently required to disinfect their effluent during the non-recreational season. Since Indiana's NPDES dischargers do not disinfect during the non-recreational season, Indiana is contributing to the *E. coli* violations in Michigan during their non-recreational season. Data received from the Three Cities that was collected outside of Indiana's recreational season, shows violations of Michigan's non-recreational season WQS. (Attachment A). Per CFR 122.4(d), no permit shall be issued "when the imposition of condition cannot ensure compliance with the applicable water quality standards of all affected states."

### **Linkage Analysis and *E. coli* Load Duration Curves**

The linkage between the *E. coli* concentrations in the St. Joseph River and the potential sources provides the basis for the development of this TMDL. The linkage is defined as the cause and effect relationship between the selected indicators and the sources. Analysis of this relationship allows for estimating the total assimilative capacity of the stream and any needed load reductions. Analysis of the data for the St. Joseph River indicates that a significant amount of the *E. coli* load enters the St. Joseph River through both wet and dry weather sources.

To further investigate the potential sources mentioned above, an *E. coli* load duration curve



analysis, as outlined in an unpublished paper by Cleland (2002), was developed for each sampling station on the St. Joseph River. The load duration curve analysis is a relatively new method utilized in TMDL development. The method considers how stream flow conditions relate to a variety of pollutant loadings and their sources (point and non-point sources).

In order to develop a load duration curve, continuous flow data is required. The USGS gage (4101500) located in Niles, Michigan, was used for the development of the *E. coli* load duration curve analysis for the Michigan portion of the St. Joseph River TMDL. The Indiana portion of the St. Joseph River TMDL used the USGS gage (04101000) located in Elkhart, Indiana for the development of the load duration curve analysis. Based on a comparison completed on these two gages, it is concluded that they are similar and could be used to create the load duration curves in each state.

The flow data is used to create flow duration curves, which display the cumulative frequency of distribution of the daily flow for the period of record. The flow duration curve relates flow values measured at the monitoring station to the percent of time that those values are met or exceeded. Flows are ranked from extremely low flows, which are exceeded nearly 100 percent of the time, to extremely high flows, which are rarely exceeded. Flow duration curves are then transformed into load duration curves by multiplying the flow values along the curve by applicable water quality criteria values for *E. coli* and appropriate conversion factors. The load duration curves are conceptually similar to the flow duration curves, in that the x-axis represents the flow recurrence interval and the y-axis represents the allowable load of the water quality parameter. The curve representing the allowable load of *E. coli* was calculated using the daily and geometric mean standards of 235 *E. coli* per 100 ml and 125 *E. coli* per 100 ml, respectively. The final step in the development of a load duration curve is to add the water quality pollutant data to the curves. Pollutant loads are estimated from the data as the product of the pollutant concentrations, instantaneous flows measured at the time of sample collection, and appropriate conversion factors. In order to identify the plotting position of each calculated load, the recurrence interval of each instantaneous flow measurement was defined. Water quality pollutant monitoring data are plotted on the same graph as the load duration curve that provides a graphical display of the water quality conditions in the waterbody. The pollutant monitoring data points that are above the target line exceed the WQS; those that fall below the target line meet WQS (Mississippi DEQ, 2002).

The load duration curves for each station sampled on the St. Joseph River are included in Attachment C. The load duration curves created for the sampling sites on the St. Joseph River that have continuous monitoring from 2000 through 2003 best describe the sources of *E. coli* to the St. Joseph River. These sampling sites are Bittersweet, Angela, Colfax, Ironwood, Auten Rd., Main St. (Mishawaka). The data indicate that the largest exceedances of the *E. coli* WQS are prevalent during wet weather events (noted by diamonds above the curve on the far left side of the figure in Attachment C). Dry weather contributions are also a source of *E. coli* to the St. Joseph River (noted by the diamonds above the curve on far right side of the figure in Attachment C). This is further supported by a similar analysis of data collected by MDEQ (Michigan Department of Environmental Quality, 2003).

Compliance with the numeric *E. coli* WQS in the St. Joseph River depends on:

- 1) successfully implementing of the CSO LTCPs;
- 2) verifying limits are met by requiring permitted dischargers with total residual chlorine limits to monitor for *E. coli* (recognizing direct correlation between the total residual chlorine levels and *E. coli* bacteria can not be conclusively drawn);
- 3) requiring permitted dischargers to monitor for *E. coli* during the non-recreational season; and

4) controlling of nonpoint sources using best management plans (BMPs).

If the *E. coli* inputs can be controlled as outlined above, then total body contact recreation use in St. Joseph River will be protected.

### **TMDL Development**

The TMDL represents the maximum loading that can be assimilated by the waterbody while still achieving WQS. As indicated in the Numeric Targets section, the target for this *E. coli* TMDL is 125 per one hundred milliliters as a geometric mean based on not less than five samples equally spaced over a thirty-day period from April 1 through October 31. Concurrent with the selection of a numeric concentration endpoint, TMDL development also defines the critical conditions that will be used when defining allowable levels. Many TMDLs are designed as the set of environmental conditions that, if controls are designed and put in place, will ensure attainment of WQS for the pollutants. For example, the critical conditions for the control of point sources in Indiana are given in 327 IAC 5-2-11.1(b). In general, the 7-day average low flow in 10 years (Q7, 10) for a stream is used as the design condition for point source dischargers. However, *E. coli* sources to St. Joseph River arise from a mixture of dry and wet weather-driven conditions, and there is no single critical condition that would achieve the *E. coli* WQS. For the St. Joseph River and the contributing sources, there could be a number of different allowable loads that will ensure compliance, as long as they are distributed properly throughout the watershed.

For most pollutants, TMDLs are expressed on a mass loading basis (e.g. pounds per day). For *E. coli* indicators, however, mass is not an appropriate measure, because *E. coli* TMDLs can be expressed in terms of organism counts (or resulting concentration) (USEPA, 2001). The geometric mean *E. coli* WQS allows for the best characterization of the watershed. Therefore, this *E. coli* TMDL is concentration-based consistent with 327 IAC 5-2-11.1(b) and 40 CFR, Section 130.2 (i) and the TMDL is equal to the *E. coli* WQS for a geometric mean for each month of the recreational season (April 1 through October 31).

### **Allocations**

TMDLs are comprised of the sum of individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background levels. In addition, the TMDL must include a Margin of Safety (MOS), either implicitly or explicitly, that accounts for uncertainty in the relationship between pollutant loads and the quality of the receiving waterbody. Conceptually, this definition is denoted by the equation:

$$\text{TMDL} = \sum \text{WLAs} + \sum \text{LAs} + \text{MOS}$$

The term TMDL represents the maximum loading that can be assimilated by the receiving water while still achieving WQS. The overall loading capacity is subsequently allocated into the TMDL components of WLAs for point sources, LAs for nonpoint sources, and the MOS. As previously indicated, this *E. coli* TMDL is not expressed on a mass loading basis, but is concentration-based consistent with USEPA regulations at 40 CFR, Section 130.2(i).

### **Wasteload Allocations**

As mentioned previously, there are 41 permitted point source dischargers to the St. Joseph River or its tributaries. Sixteen dischargers do not have a sanitary component to their discharge. Three stormwater permits are in the watershed, but they are not recording a discharge. The four land application permits do not show any discharge locations or limits. These 41 dischargers, as long

as they continue to comply with their permits, are not considered significant sources of *E. coli* to the St. Joseph River.

There are 88 CSOs located in the St. Joseph River that are considered a source of *E. coli*. The *E. coli* levels in the St. Joseph River are significantly higher after a rainfall. The 88 CSOs are broken down as follows: The City of Elkhart has twenty-two CSOs, the City of Mishawaka has nineteen CSOs, the City of South Bend has 35 CSOs, the City of Goshen has six CSOs, and the City of Wakarusa has six CSOs. As was mentioned in the Source Assessment Section CSO LTCPs are being developed for each of these CSO communities. Currently Mishawaka and Elkhart have submitted CSO LTCPs. Goshen's and Wakarusa's LTCPs are due in December of 2004, while South Bend's CSO LTCP is not due until December of 2005. The purpose of the CSO LTCP is to ensure that discharges from CSOs comply with technology based and water quality based requirements of the Clean Water Act and state law. Each CSO LTCP must be approved by IDEM and U.S. EPA. The CSOs are considered a source of *E. coli* and at time of discharge, the CSO must not cause or contribute to a violation of WQS. The WLA is set at the WQS of 125 per one hundred milliliters as a geometric mean based on not less than five samples equally spaced over a thirty-day period.

A community with combined sewer overflows that believes that it is not possible to meet existing water quality based requirements may develop information that supports a use attainability analysis. Such information may be included in the CSO long term control plan. The use attainability analysis may result in the revision of designated uses and associated criteria if the applicable requirements of state and federal law, including 40 CFR 131.10 are met. However, States may remove a designated use that is *not* an existing use. Additionally, any existing use, even if not a designated use must be protected. Furthermore, downstream water quality standards must be maintained and protected.

In the event that designated uses and associated water quality criteria applicable to the St. Joseph River are revised in accordance with applicable requirements of state and federal law, this TMDL would be revised to be consistent with such revisions.

The impaired portion of the St. Joseph River flows into Michigan from Indiana. The load duration curves not only show exceedances of the WQS during Indiana's recreational season, but also indicate exceedances of Michigan's non-recreational WQS. Since Michigan has a partial body contact WQS for the non-recreational season, Indiana is contributing to the impairment of a waterbody in Michigan, a downstream state. As stated in 40 CFR 122.4(d) and additionally addressed in conversations with US EPA Region V, a permitted facility cannot contribute to water quality impairment in a downstream state. Accordingly, based on the existing designated uses for the downstream Michigan segments of the St. Joseph River, Indiana's permitted facilities discharging *E. coli* to the St. Joseph River need to address Michigan's non-recreational season limitations during the next permit cycle in order to comply with 40 CFR 122.2.

#### Load Allocations

This TMDL is concentration-based; therefore, the LA is equal to the WQS of 125 per one hundred milliliters as a geometric mean based on not less than five samples equally spaced over a thirty-day period from April 1<sup>st</sup> through October 31<sup>st</sup>. The assumption used in this load allocation strategy is that there are equal bacterial loads per unit area for all lands within the watershed. Therefore, the relative responsibility for achieving the necessary reductions of bacteria and maintaining acceptable conditions is determined by the amount of land under the jurisdiction of the various local units of government within the watershed. This gives a clear indication of the

relative amount of effort that will be required by each entity to restore and maintain the total body contact designated uses to the St. Joseph River.

The government entities with the largest portion of the land area in the St. Joseph River TMDL watershed are Penn Township (12.3%), City of South Bend (9.4%), Harrison Township (8.5%), City of Granger (6.9%), and Clinton Township (6.2%). Government entities utilizing three to four percent each of the overall land area use the second largest portion of land area. The remaining users, with percentages of 2% and lower, consist of the smaller cities and those parts of the townships that are not included with the larger cities or where only portions of the townships are included in the watershed (ESRI) see Table 2 and Figures 4 and 6.

Load allocations may be affected by subsequent work in the watershed. The results of a number of the St. Joseph River watershed projects will be useful in defining the nonpoint sources of the *E. Coli* in the St. Joseph River. Additionally, Indiana is in the process of issuing Municipal Separate Storm Sewer System (MS4) general permits according to 327 IAC 15-13). These permits will be used to address storm water impacts to the St. Joseph River.

### Margin of Safety

A Margin of Safety (MOS) was incorporated into this TMDL analysis. The MOS accounts for any uncertainty or lack of knowledge concerning the relationship between pollutant loading and water quality. The MOS can be either implicit (i.e., incorporated into TMDL analysis through conservative assumptions) or explicit (i.e., expressed in the TMDL as a portion of the loadings). This TMDL uses an implicit MOS by applying a couple of conservative assumptions. First, no rate of decay for *E. coli* was applied. *E. coli* bacteria have a limited capability of surviving outside of their hosts and therefore, a rate of decay normally would be applied. However, applying a rate of decay could result in a discharge limit that would be greater than the *E. coli* WQS, thus no rate of decay was applied. IDEM determined that applying the *E. coli* WQS of 125 per one hundred milliliters is a more conservative approach that provides for greater protection of the water quality. Second, the *E. coli* WQS was applied to all flow conditions. This adds to the MOS for this TMDL.

### **Seasonality**

Seasonality in the TMDL is addressed by expressing the TMDL in terms of the *E. coli* WQS for total body contact during the recreational season (April 1<sup>st</sup> through October 31<sup>st</sup>) as defined by 327 IAC 2-1.5-8(e)(2). There is no applicable total body contact *E. coli* WQS during the remainder of the year in Indiana. Because this is a concentration-based TMDL, *E. coli* WQS will be met regardless of flow conditions in the applicable season.

### **Monitoring**

Future monitoring of the St. Joseph River Watershed will take place during IDEM's 5-year rotating basin schedule and/or once TMDL implementation methods are in place. During the 5-year rotating basin schedule, IDEM will monitor the St. Joseph River for *E. coli* a minimum of five consecutive weeks between April 1<sup>st</sup> through October 31<sup>st</sup>. Monitoring will be adjusted as needed to assist in continued source identification and elimination. When these results indicate that the waterbody is meeting the *E. coli* WQS, IDEM will conduct monitoring at an appropriate frequency to determine if Indiana's 30-day geometric mean value of 125 *E. coli* per one hundred milliliters is being met. Once the data has been collected and reviewed, the information will be shared with MDEQ for their information.

In addition to IDEM's monitoring, the Three Cities collect data each year. IDEM will request the Three Cities' *E. coli* data for each year IDEM completes additional *E. coli* monitoring. The Three Cities' data will be used to assist in determining if the St. Joseph River is meeting the *E. coli* WQS.

The Hoosier Riverwatch Group collects water quality data at sites along the St. Joseph River and its major tributaries. The data collected by this group is fecal coliform data. This information is used as background data. IDEM will review data collected by the Hoosier Riverwatch Group, when IDEM completes additional monitoring.

MDEQ monitored in 2002 and plans on completing future monitoring of the St. Joseph River during their rotating, 5-year basin monitoring schedule. When these results indicate that the waterbody is meeting the *E. coli* WQS, MDEQ will conduct monitoring at an appropriate frequency to determine if Michigan's 30-day geometric mean value of 130 *E. coli* per 100 milliliters is being met.

### **Reasonable Assurance Activities**

Reasonable assurance activities are programs that are in place or will be in place that assist in meeting the St. Joseph River TMDL allocations.

### **Permitted Dischargers**

Indiana's permitted dischargers only have to monitor for *E. coli* during the recreational season (April 1<sup>st</sup> through October 31<sup>st</sup>). Data collected for this TMDL during the non-recreational season shows *E. coli* values well above the *E. coli* WQS. Michigan does have an *E. coli* value that must be met during their non-recreational season. To assist with the St. Joseph River meeting the *E. coli* WQS in Michigan and Indiana during their recreational and non-recreational seasons, IDEM proposes that year round *E. coli* limits be applied to dischargers in accordance with 327 IAC 5-2-11.3(a) when their permit is renewed. For the permitted dischargers that have only total residual chlorine limits in their current permits, IDEM proposes that *E. coli* limits and monitoring be added when next permit renewals are issued.

Long Term Control Plans (LTCPs) are required for the five municipalities that have combined sewer overflows (CSOs) in the St. Joseph River Watershed. The goal of the LTCPs is for the CSOs to not cause or contribute to a violation of WQS. These LTCPs may provide information that supports a use attainability analysis. The use attainability analysis may result in the relaxation of designated uses and associated criteria if the applicable requirements of state and federal law, including 40 CFR 131.10 are met. These plans must be approved by IDEM and U.S. EPA before they are considered final. Implementation of these LTCPs will assist the St. Joseph River in meeting the *E. coli* WQS during wet weather events.

MS4 permits are being issued in the state of Indiana. Once these permits have been issued and implemented, they will improve the water quality of the St. Joseph River. Guidelines for MS4 permits and timelines are outlined in Indiana's Municipal Separate Storm Sewer System (MS4) Rule 13 (327 IAC 15-13-10 and 327 IAC 15-13-11). These permits will be used to address storm water impacts to the St. Joseph River.

### **Watershed Projects**

There have been multiple watershed projects that have been completed or are ongoing in the St. Joseph River Watershed. The types of projects include education, cost-share, and watershed management plan development. The watershed management plan development project will identify point and nonpoint sources. These watershed projects will help reduce the *E. coli* impairment of the St. Joseph River.

Four watershed projects, from 1991 through 2000, have been completed on Juday Creek. In 1991, a project was sponsored by the St. Joseph River Basin Commission to create a watershed management plan. The St. Joseph County Drainage Board created a cost-share program to reduce erosion and sedimentation in 1998. Additionally, in 2000, the St. Joseph County Drainage Board sponsored bank stabilization work. In 1995, the Michiana Area Council of Governments (MACOG) sponsored riparian landowners to install best management practices (BMPs) in the Juday Creek watershed.

MACOG also sponsored a project to develop a watershed management plan on Baugo Creek. This project created a database of land use and potential water quality impairments for Baugo Creek and its sub-watersheds.

A public education project for Eller Creek was funded in 1997 to encourage erosion control measures.

The Elkhart County Commissioners sponsored a project for water quality monitoring and engineering to prioritize watersheds in Elkhart County according to their levels of *E. coli*. Based on the findings, the watershed with the highest level of *E. coli* will have a watershed management plan developed.

There have been three watershed projects that affected the entire St. Joseph River Basin. One of the projects, started in 2001, was implemented by MACOG to educate builders and developers on land use changes and impacts on nonpoint source pollution throughout the St. Joseph River Basin. This project also created a video to stress the care and maintenance of on-site sewage disposal systems. The second project was sponsored by the City of Elkhart to establish a watershed protection initiative between Elkhart, Mishawaka, and South Bend for the St. Joseph River. This project includes water quality monitoring and the development of a water quality model to characterize point and nonpoint sources of *E. coli*. The third project started in November 2002. This 319 project, awarded by MDEQ, is sponsored by the Friends of the St. Joe River Association, Inc. The goal of this project is to develop a watershed management plan for the entire St. Joseph River Watershed with public education and participation. The goal is to list problems in the watershed and identify BMPs that will link the TMDL to corrective actions. Other key activities such as drainage basin characterization will identify land uses in the watershed for future planning and decision-making. Finally, the creation of the website: [www.stjoeriver.net](http://www.stjoeriver.net) establishes a centralized source of information for this large watershed. The website will provide the latest progress of the group on the defined tasks and serve as a means of sharing information with other partners in the watershed. The steering committee included representatives from Michigan and Indiana.

The completed and current watershed projects assist in identifying and reducing the nonpoint sources of *E. coli* in the St. Joseph River. Past reductions are illustrated by comparing data IDEM's Fixed Station *E. coli* data (collected until 2000) with the data used to complete this TMDL. The comparison shows a reduction in the *E. coli* values over time for the St. Joseph River. Watershed projects and other efforts in the St. Joseph River Basin improve the water quality of the St. Joseph River.

### Tributary TMDLs

*E. coli* TMDLs are scheduled for six of the tributaries on the St. Joseph River. The following table shows when these six tributary TMDLs will be completed.

<b>303(d) #</b>	<b>Stream Name</b>	<b>County</b>	<b>Scheduled TMDL</b>
7	Elkhart River	Elkhart and Noble	2005
14	Juday Creek	St. Joseph	2005
232	Baugo Creek	Elkhart	2005
235	Pine Creek	Elkhart	2005
236	Little Elkhart River	Elkhart and St. Joseph	2005
237	Willow Creek	St. Joseph	2005

The development and implementation of these TMDLs will identify and reduce sources of *E. coli* on these tributaries, and subsequently improve the water quality of the St. Joseph River.

### **Conclusion**

The sources of *E. coli* to the St. Joseph River include both point and nonpoint sources. In order for the St. Joseph River to achieve Indiana's *E. coli* WQS, the wasteload and load allocations for the St. Joseph River in Indiana have been set to the *E. coli* WQS of 125 per one hundred milliliters as a geometric mean based on not less than five samples equally spaced over a thirty day from April 1<sup>st</sup> through October 31<sup>st</sup>. Achieving the wasteload and load allocations for the St. Joseph River depends on:

- 1) implementing the combined sewer overflow (CSO) long term control plan (LTCP);
- 2) requiring permitted dischargers with total residual chlorine limits to monitor for *E. coli*;
- 3) requiring permitted dischargers to monitor for *E. coli* during the non-recreational season; and
- 4) controlling nonpoint sources of *E. coli* by implementing best management practices in the watershed.

The next phase of this TMDL is to identify and support the implementation of activities that will bring the St. Joseph River in compliance with the *E. coli* WQS. IDEM will continue to work with its existing programs on implementation. In the event that designated uses and associated water quality criteria applicable to the St. Joseph River are revised in accordance with applicable requirements of state and federal law, the TMDL implementation activities may be revised to be consistent with such revisions. Additionally, IDEM will work with local stakeholder groups to pursue best management practices that will result in improvement of the water quality in the St. Joseph River watershed.

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**Table 1: Permitted Dischargers in St. Joseph River TMDL Watershed**Permitted Dischargers with *E. coli* Limits

Permit No.	Facility Name	Receiving Waters
IN0025674	Elkhart WWTP	St. Joseph River
	CSO- Cassopolis/Beardsley	St. Joseph River
	CSO-Johnson/Beardsley	St. Joseph River
	CSO-Michigan/Fulton	St. Joseph River
	CSO-W.Boulevard/McNaughton	St. Joseph River
	CSO-McNaughton Park West	St. Joseph River
	CSO-Michigan at RVR, S. of Lex.	St. Joseph River
	CSO-Bridge and Hudson	St. Joseph River
	CSO-S.Shore/Cottage Court	St. Joseph River
	CSO-S.Shore/Nadel	St. Joseph River
	CSO-Franklin/8 <sup>th</sup>	St. Joseph River
	CSO-Indiana/Franklin	St. Joseph River
	CSO-Pottawatomi/Second	St. Joseph River
	CSO-Main/Pottawatomi	St. Joseph River
	CSO-Edgewater/Navajo	St. Joseph River
	CSO-Washington at River	St. Joseph River
	CSO-Jefferson at the River	St. Joseph River
	CSO-Edgewater/Okema	St. Joseph River
	CSO-Lexington/6 <sup>th</sup>	St. Joseph River
	CSO-Franklin/Krau	St. Joseph River
	CSO-West High at River	St. Joseph River
	CSO-McNaughton Park South	St. Joseph River
	CSO-Nappanee/Lexington	St. Joseph River
INL025674	Elkhart WWTP	N/A
	Land Application	
	Production and Use	
IN0025640	Surface Disposal	
	Mishawaka Municipal STP	St. Joseph River
	CSO-Middleboro Street	St. Joseph River
	CSO-Logan Street	St. Joseph River
	CSO-Calhoun Street	St. Joseph River
	CSO-Webster Street	St. Joseph River
	CSO-Clay Street	St. Joseph River
	CSO-Benton Street	St. Joseph River
	CSO-Charlotte Street	St. Joseph River
	CSO-West Street	St. Joseph River
	CSO-ChristyAnn Street	St. Joseph River
	CSO-Cedar Street	St. Joseph River
	CSO-Laurel Street	St. Joseph River
	CSO-Merrifield Park Boat Land	St. Joseph River
	CSO-Merrifield Park West	St. Joseph River
	CSO-Battell Street	St. Joseph River
	CSO-Roosevelt Avenue	St. Joseph River
	CSO-Main Street	St. Joseph River
	CSO-Plant Outfall East	St. Joseph River
	CSO-Vistula Rd at Ballard Ave	St. Joseph River
	CSO-Lincolnway, E. Cedar Overflow	St. Joseph River

**Permitted Dischargers with *E. coli* Limits (continued)**

Permit No.	Facility Name	Receiving Waters
INL025640	Mishawaka Municipal STP	N/A
	Land Application	
	Production and Use	
IN0024520	South Bend Municipal STP	St. Joseph River
INM024520	City of South Bend	
	CSO-Oakwood Blvd/Riverside Dr.	St. Joseph River
	CSO-Sherman/Riverside Dr.	St. Joseph River
	CSO-Sherman/McCartney	St. Joseph River
	CSO-West End Angela Bridge	St. Joseph River
	CSO-Riverside/LeLand Ave.	St. Joseph River
	CSO-Lafayette St./Park Lane	St. Joseph River
	CSO-Park Lane/Main St.	St. Joseph River
	CSO-Bartlett St./Riverside Dr.	St. Joseph River
	CSO-LaSalle/Michigan	St. Joseph River
	CSO-LaSalle/Michigan	St. Joseph River
	CSO-Monroe/Lincolnway East	St. Joseph River
	CSO-Bowman Creek	St. Joseph River
	CSO-Miami/Lincolnway East	St. Joseph River
	CSO-Lincolnway/Twyckenham	St. Joseph River
	CSO-East End Trunk Sewer	St. Joseph River
	CSO-Lafayette/North Shore	St. Joseph River
	CSO-Leeper Ave.	St. Joseph River
	CSO-Niles/Sorin	St. Joseph River
	CSO-Niles/Sorin	St. Joseph River
	CSO-Colfax/Sycamore	St. Joseph River
	CSO-St. Louis/North Side	St. Joseph River
	CSO-Cooper Bridge	St. Joseph River
	CSO-Emerson/North Side Blvd.	St. Joseph River
	CSO-Clover St./North Side Blvd.	St. Joseph River
	CSO-Twyckenham/North Side Blvd.	St. Joseph River
	CSO-21 <sup>st</sup> /Pleasant St.	St. Joseph River
	CSO-North Side Blvd./26 <sup>th</sup> St.	St. Joseph River
	CSO-27 <sup>th</sup> Street Lift Station	St. Joseph River
	CSO-Alley-31-32-North Side Blvd.	St. Joseph River
	CSO-North Side Blvd./36 <sup>th</sup> Street	St. Joseph River
	CSO-North Side Blvd./Logan	St. Joseph River
	CSO-Northview/Riverside	St. Joseph River
	CSO-Main Plant CSO	St. Joseph River
	CSO-Siphon River Crossing #1 (Playland Park)	St. Joseph River
	CSO-Siphon River Crossing #2 (Sample Street)	St. Joseph River
INL025640	South Bend Municipal STP	N/A
	Land Application	
	Production and Use	
IN0025755	Goshen Municipal STP	Elkhart River
	CSO-Riverside Boulevard	Elkhart River
	CSO-Indiana Avenue	Elkhart River
	CSO-Wilkinson Street	Elkhart River
	CSO-Purl Street	Elkhart River
	CSO-Plymouth Avenue	Elkhart River
	CSO-WWTP Headworks	Elkhart River

**Permitted Dischargers with *E. coli* Limits (continued)**

<u>Permit No.</u>	<u>Facility Name</u>	<u>Receiving Waters</u>
INM025755	Goshen Combined Sewer System	N/A
INL025755	Goshen Municipal STP	N/A
	Land Application	
	Production and Use	
IN0022845	Jimtown Elementary and High School	Baugo Creek
IN0050717	Norfolk Southern Corp, Elkhart	
IN0024775	Wakarusa Municipal STP	Werntz Ditch
	CSO-N. Washington Street	Werntz Ditch
	CSO-North Olive Street	Werntz Ditch
	CSO-Sycamore Street/Olive Street	Werntz Ditch
	CSO-Elkhart Street/Sycamore Street	Werntz Ditch
	CSO-North Spring Street	Werntz Ditch
	CSO-Indiana Street/Waterford Street	Werntz Ditch
IN0000884	Plume De Veau Plant	Auten Ditch

**Permitted outfalls with residual chlorine limits**

<u>Permit No.</u>	<u>Facility Name</u>	<u>Receiving Waters</u>
IN0036846	Bristol Municipal STP	St. Joseph River
IN0000884	Berliner & Marx/Plume de Veau	Auten Ditch
IN0037761	Clear Water Mobile Home Village	Auten Ditch
IN0036781	Fairfield Jr-Sr High School	Hydraulic Canal
IN0000761	Johnson Controls, Inc.	Rock Run Creek
IN0040363	Millersburg Municipal STP	Stoney Creek
IN0041602	Sunset Trailer Village	Auten Ditch
IN0030848	Virgil Grissom Middle School	Rogers Ditch

**General Permits no *E. coli***

<u>Permit No.</u>	<u>Facility Name</u>	<u>Receiving Waters</u>
ING080103	Henschen Oil, Inc	N/A
ING080059	Toll Road Service Area 5 North	N/A
ING340054	South Bend Terminal	N/A
ING670029	South Bend Terminal	N/A
ING080120	7-Eleven, Inc Store #32578	N/A
ING490082	Aggregate Industries dba as Fidler Inc	N/A

**Permits with No *E. coli* or residual chlorine limits**

<u>Permit No.</u>	<u>Facility Name</u>	<u>Receiving Waters</u>
<u>Individual NPDES Permits</u>		
IN0000493	Bechtel Plant Machinery, Inc	N/A
IN0055468	Juday Creek Estates Subdivision	Juday Creek
IN0000345	Mishawaka Utilities Water Dept.	N/A
IN0000922	Holy Cross Services Corporation	St. Joseph River

**Permits with No *E. coli* or residual chlorine limits (continued)**

<b><u>Permit No.</u></b>	<b><u>Facility Name</u></b>	<b><u>Receiving Waters</u></b>
IN0056707	Bayer Corporation	St. Joseph River
INU059455	Amoco Oil Company-Bulk Terminal	on-site infiltration basin
IN0050717	Norfolk Southern Corporation	Crawford Ditch
IN0022845	Baugo Community Schools	Baugo Creek
IN0061409	Central Rubber & Plastics, Inc.	Rock Run Creek
IN0049875	Bodine State Fish Hatchery	St. Joseph River

**No *E. coli* limits and stormwater permit**

<b><u>Permit No.</u></b>	<b><u>Facility Name</u></b>	<b><u>Receiving Waters</u></b>
IN0056855	Sunrise Orchards-Elkhart Co.	Elkhart River

**Stormwater permits**

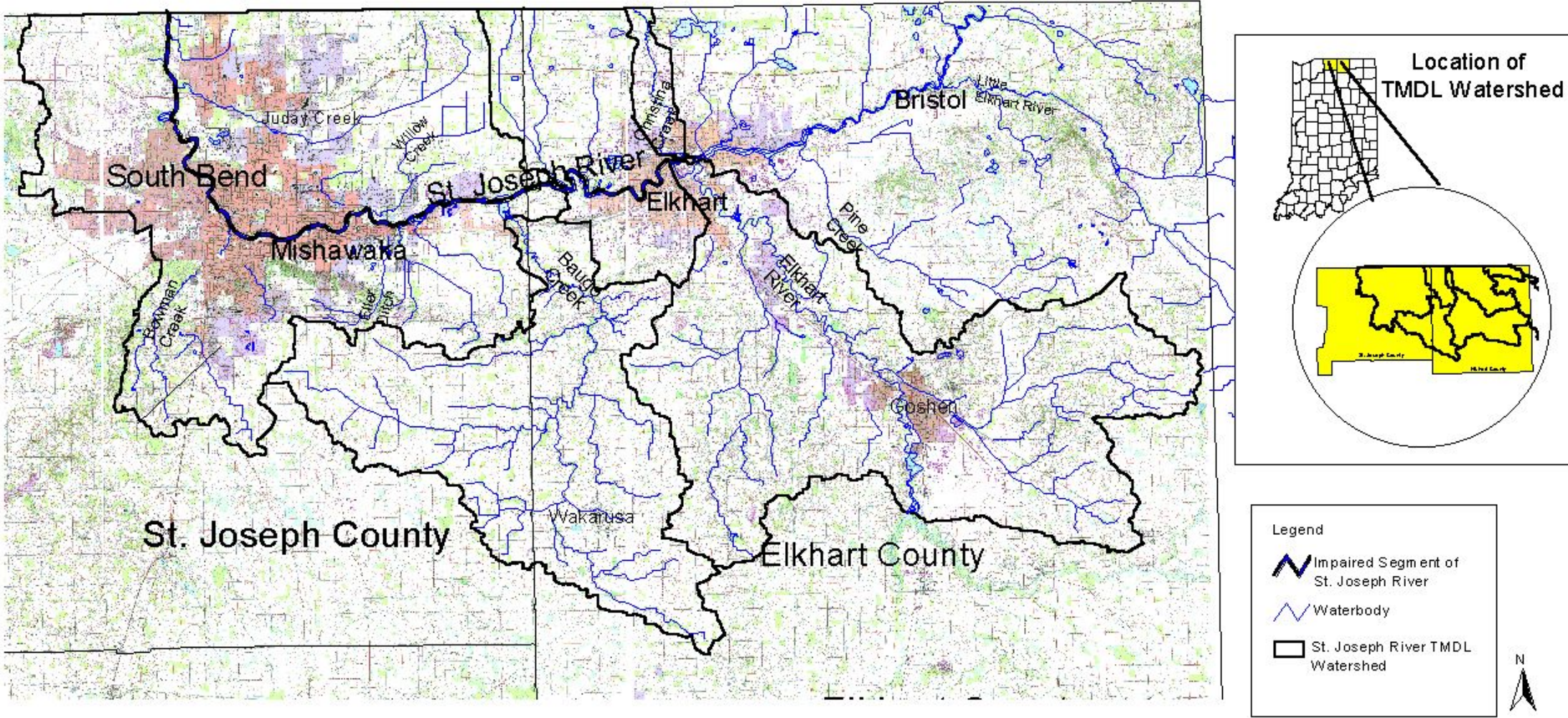
<b><u>Permit No.</u></b>	<b><u>Facility Name</u></b>	<b><u>Receiving Waters</u></b>
IN0055565	Dairy Farmers of America	N/A
INU059595	Metech International	N/A

**Table 2: Land Area Distribution for the St. Joseph River TMDL Watershed**

<b>Municipality</b>	<b>Square Mile</b>	<b>Percent</b>
Penn Township	46.77	12.3
City of South Bend	35.76	9.4
Harrison Township	32.21	8.5
City of Granger	26.2	6.9
Clinton Township	23.6	6.2
Madison Township	18.1	4.8
Concord Township	16.6	4.4
Elkhart Township	16.89	4.4
Olive Township	16.46	4.3
City of Elkhart	16.01	4.2
City of Mishawaka	16.03	4.2
Baugo Township	14.77	3.9
Cleveland Township	13.36	3.5
City of Goshen	12.78	3.3
Centre Township	11.63	3.1
Clay Township	9.0	2.4
German Township	8.14	2.1
Union Township	7.69	2.0
Jefferson Township	7.0	1.8
Middlebury Township	4.9	1.3
City of Dunlap	4.23	1.1
Locke Township	4.09	1.1
Osolo Township	3.66	1.0
City of Roseland	0.39	0.19
Portage Township	3.6	0.9
City of Wakarusa	2.26	0.6
City of Georgetown	1.95	0.5
City of Osceola	1.37	0.4
City of Gulivoire Park	1.37	0.4
Warren Township	1.0	0.3
Greene Township	1.0	0.3
City of Indian Village	0.1	0.02
Benton Township	0.8	0.2
<b>Total</b>	<b>379.72</b>	<b>100</b>



Figure 1: St. Joseph River TMDL Watershed





## Figure 2: St. Joseph River Sampling Sites

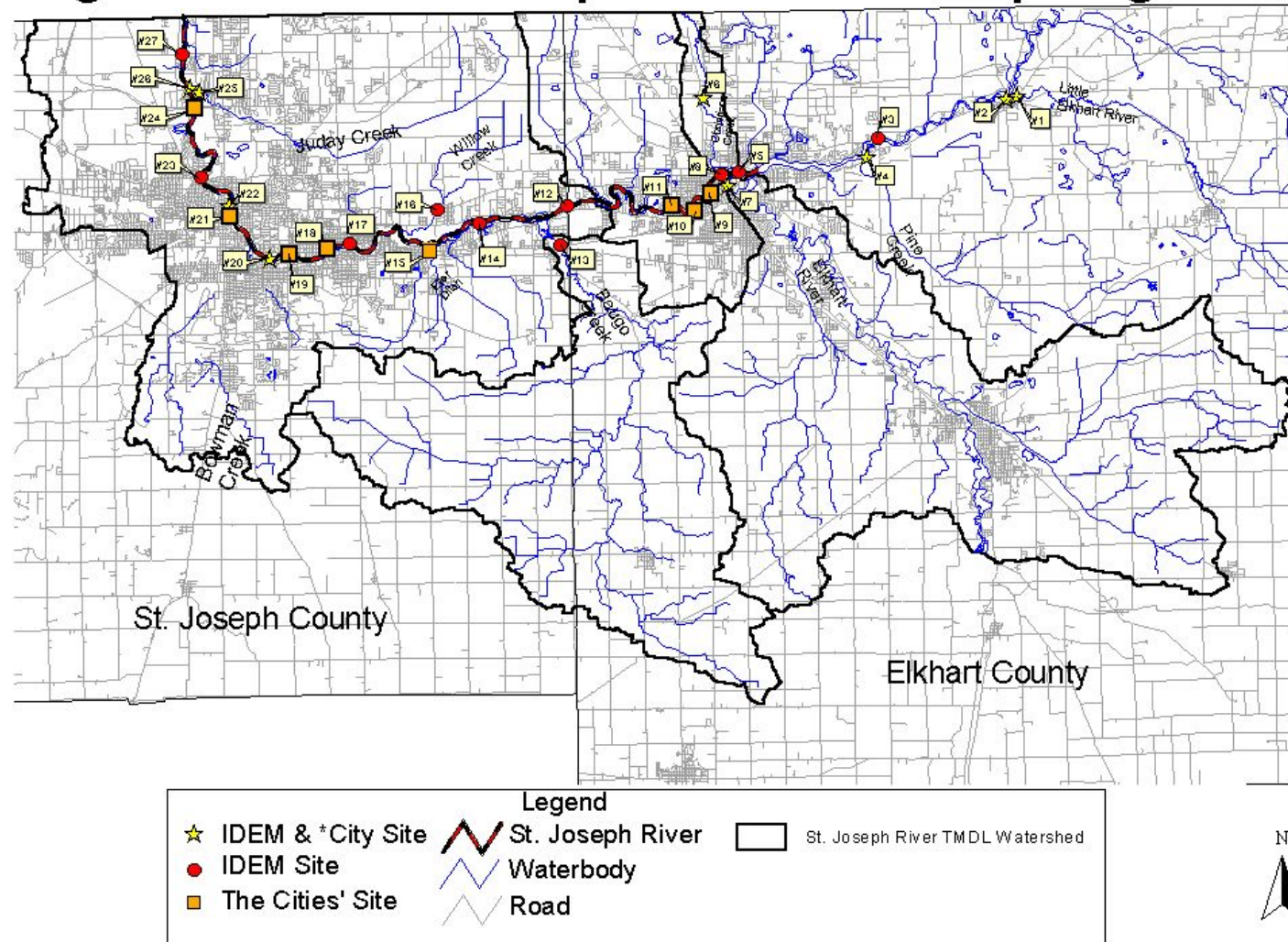


Figure 3: Landuse for the St. Joseph River TMDL Watershed

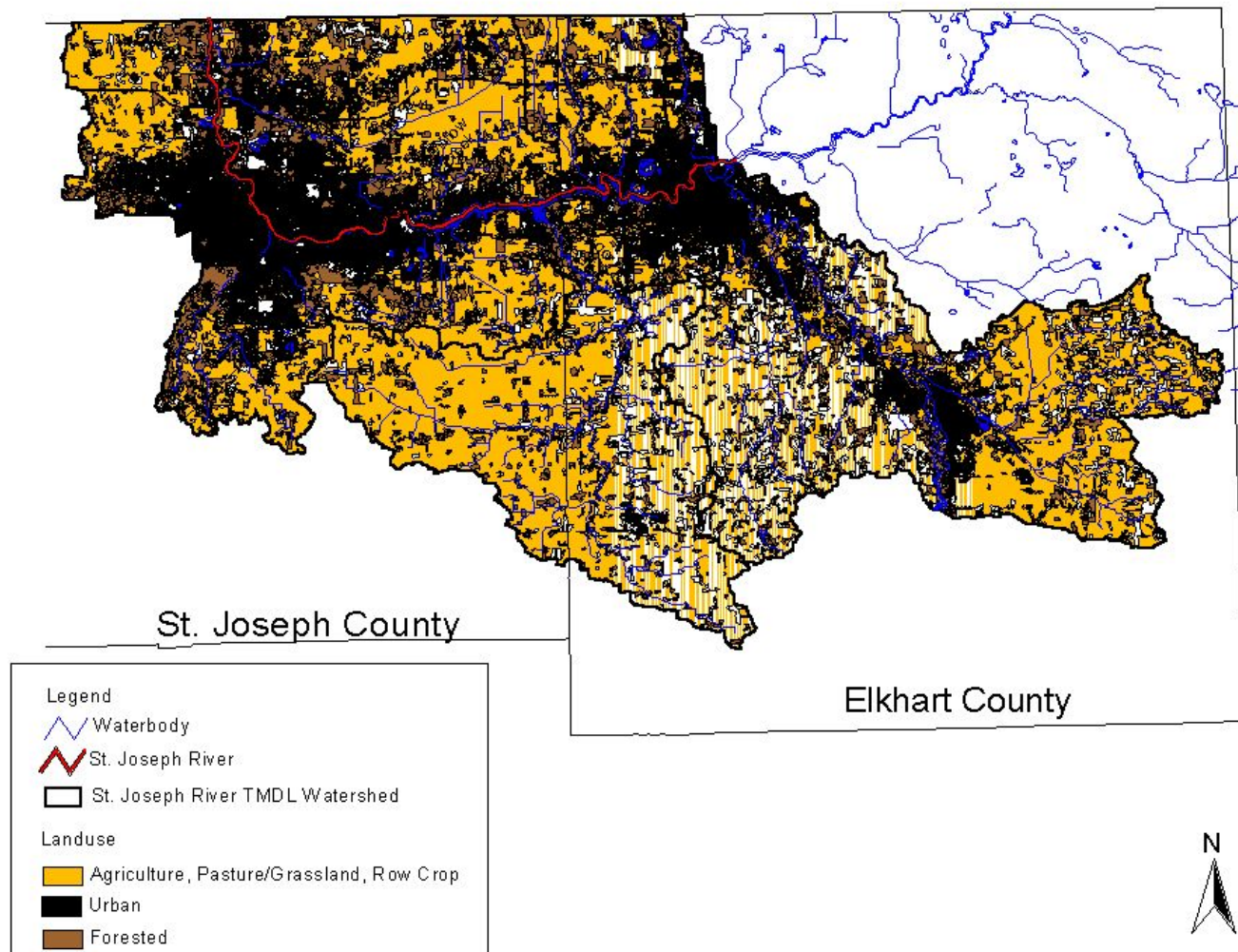




Figure 4: Municipalities in St. Joseph River TMDL Watershed

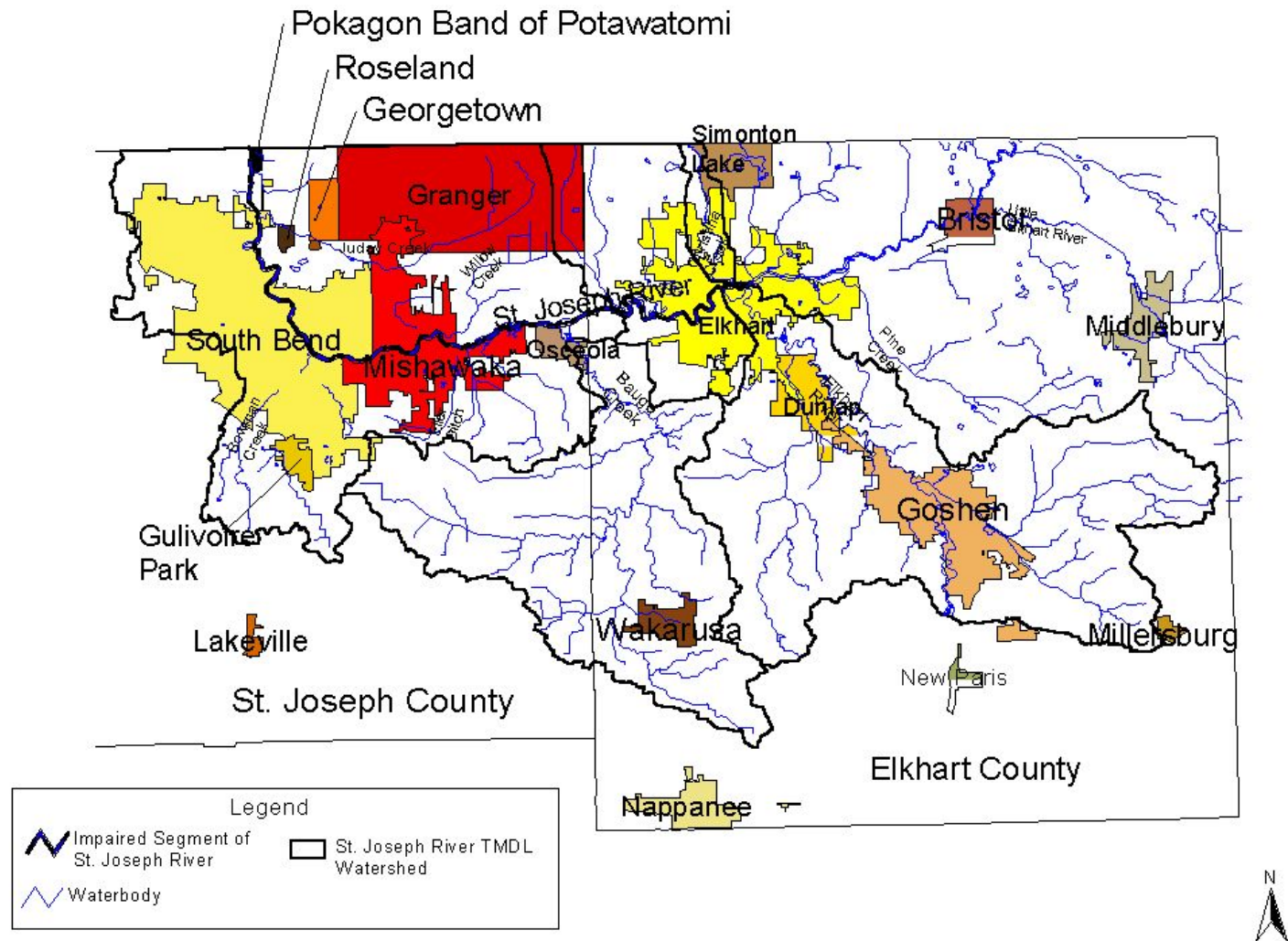


Figure 5: Permitted Discharges in St. Joseph River TMDL Watershed

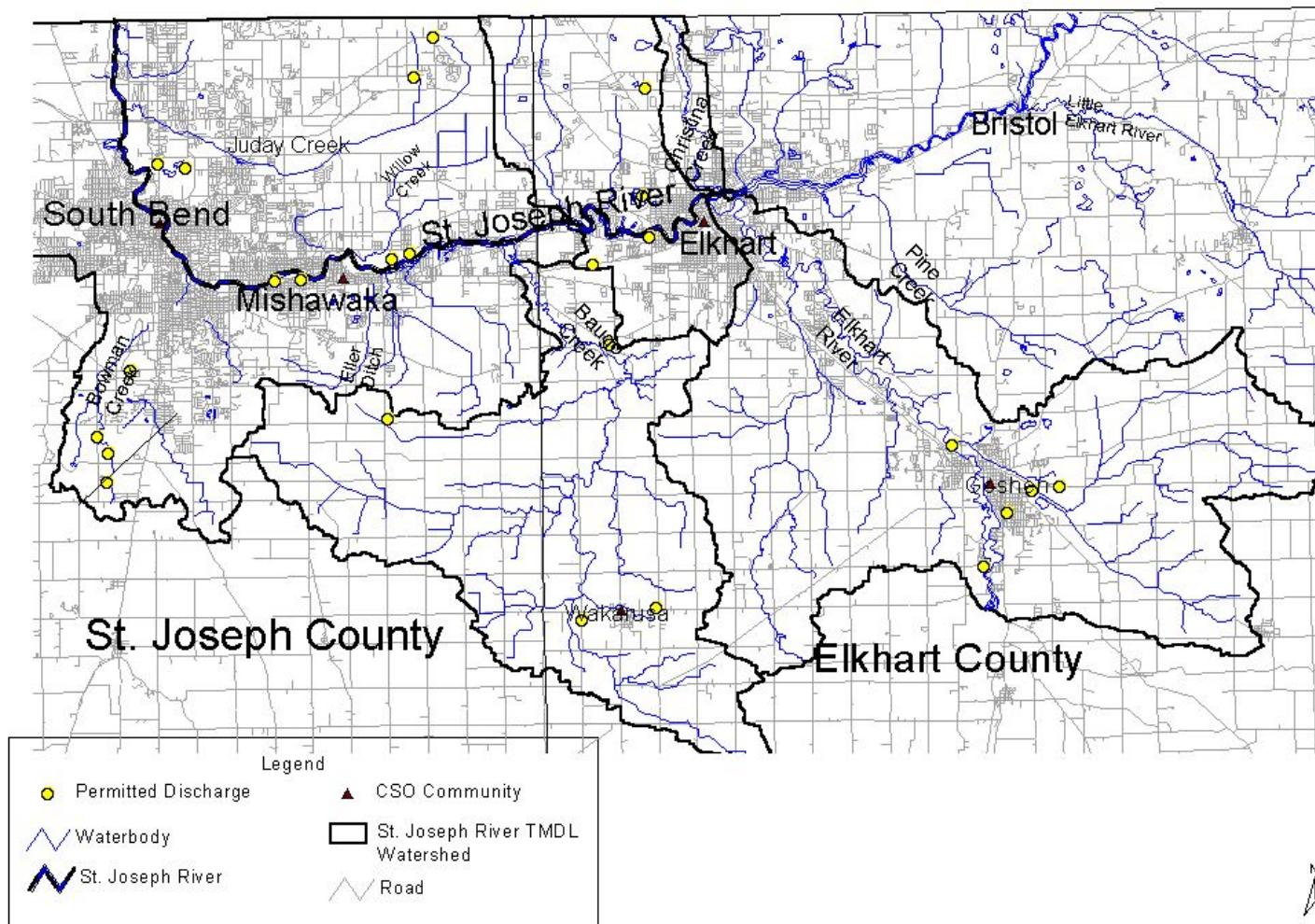


Figure 6: Townships in the St. Joseph River TMDL Watershed

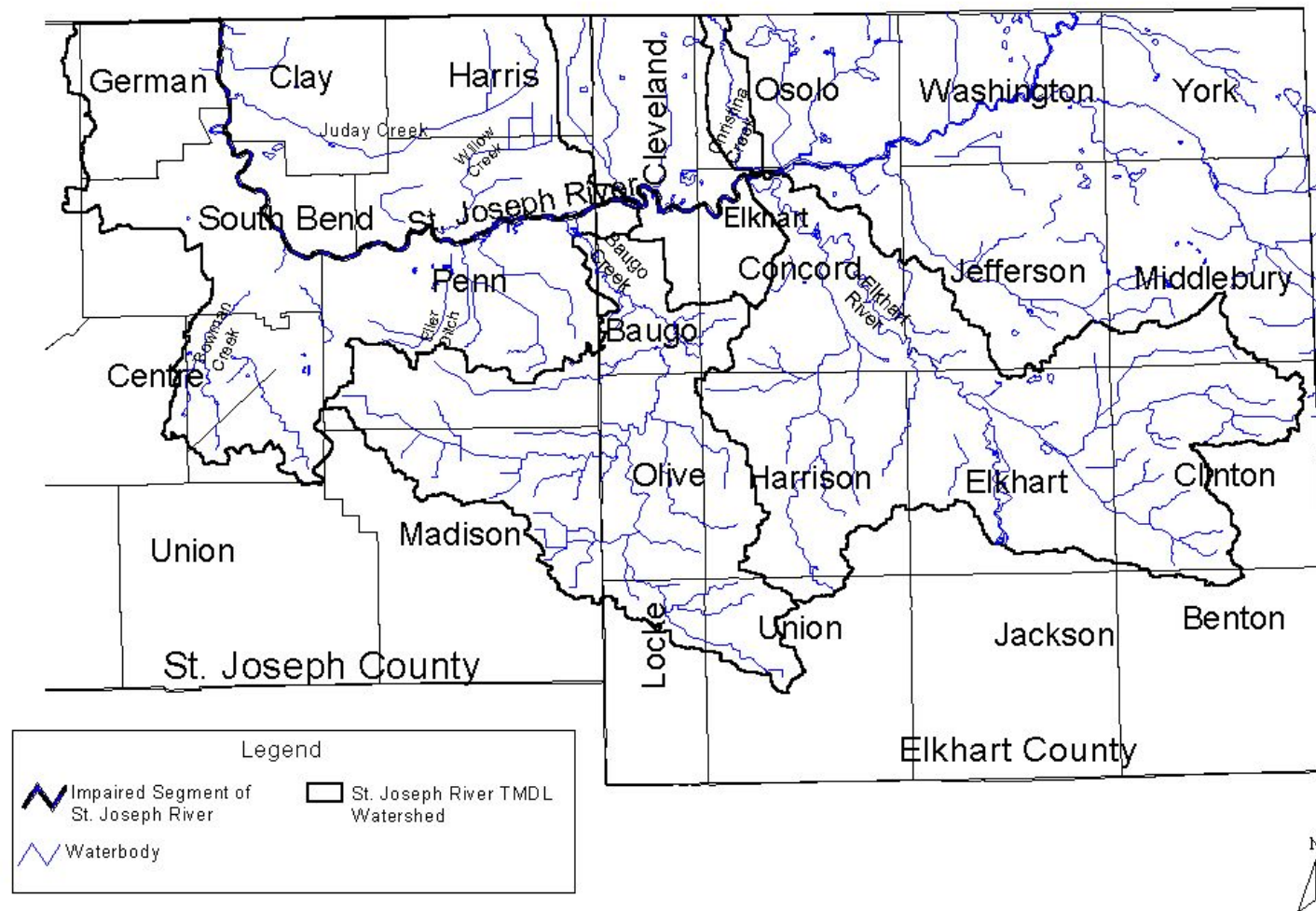




Figure 6: Permitted Discharges in St. Joseph River TMDL Watershed

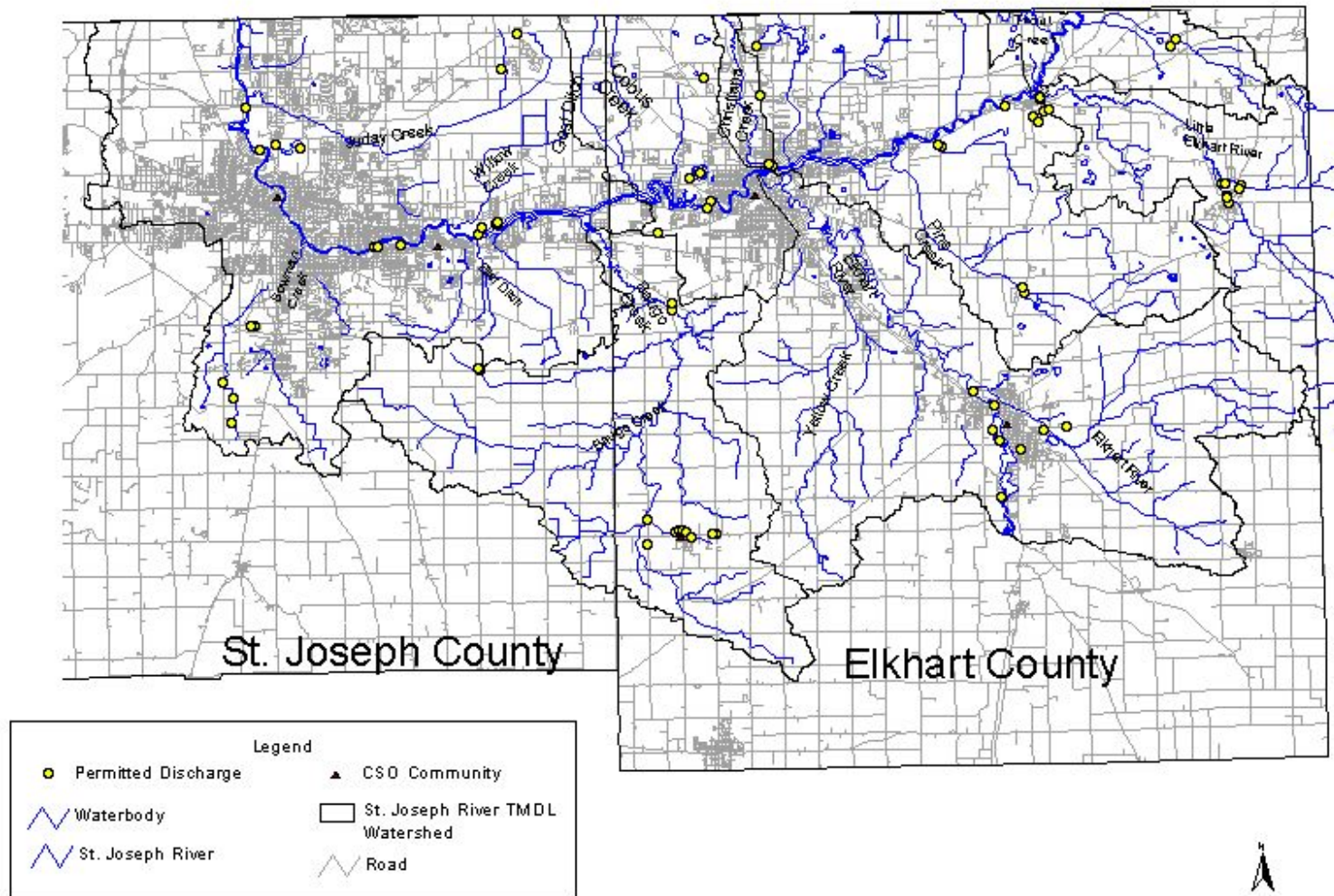
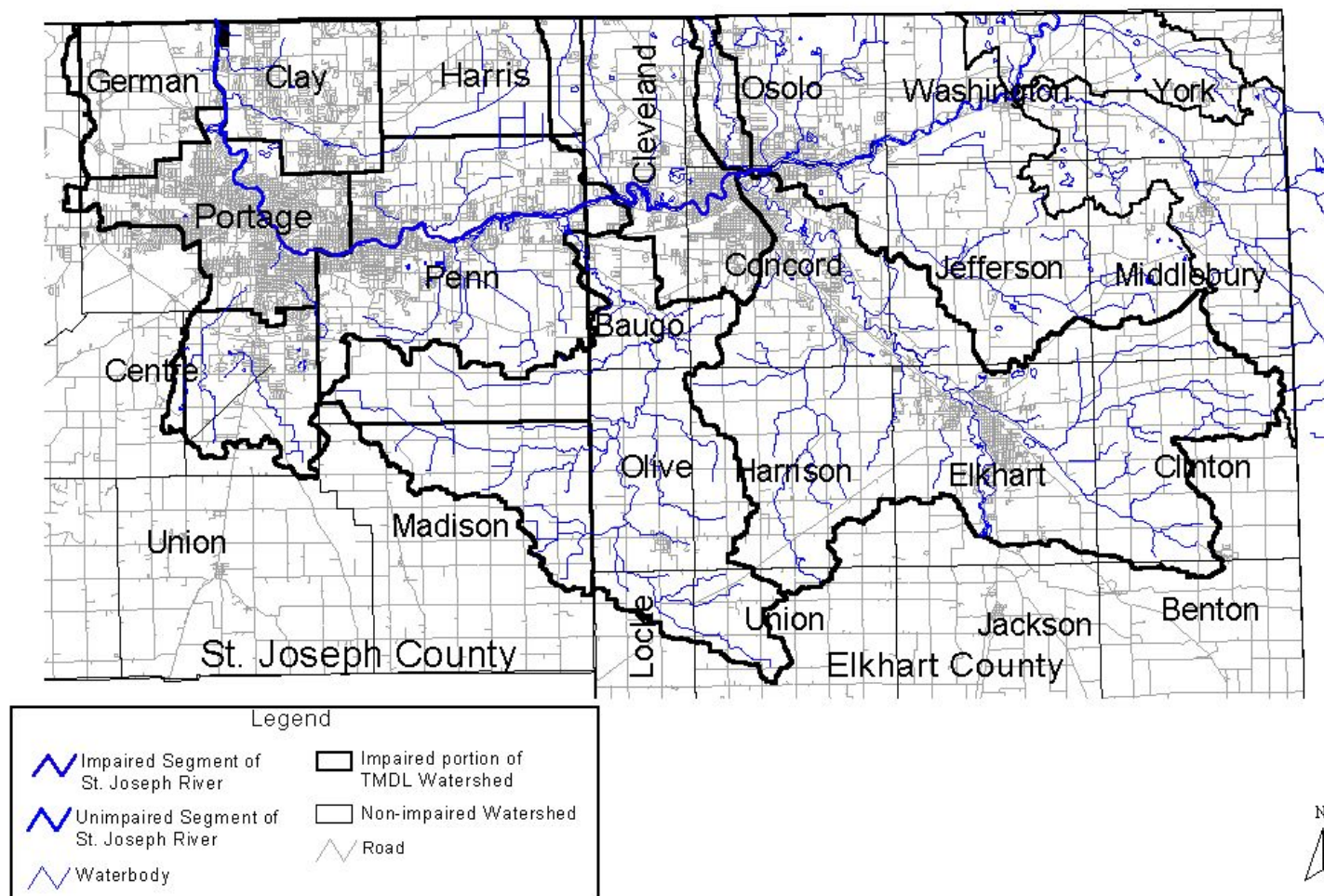


Figure 7: Townships in the St. Joseph River TMDL Watershed



**Attachment A**

**St. Joseph River Watershed *E. coli* Data**

**Attachment B**

**Water Quality Duration Curves for the  
St. Joseph River TMDL**

## **Attachment C**

### **Load Duration Curves for the St. Joseph River TMDL**



**Attachment A: St. Joseph River Watershed *E. coli* Data**

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
1	LMJ140-0009	IDEM Data	Little Elkhart River	SR 15	09/27/00	AA01997	40				
	LMJ140-0009	IDEM Data	Little Elkhart River	SR 15	10/04/00	AA02341	760				
	LMJ140-0009	IDEM Data	Little Elkhart River	SR 15	10/12/00	AA02556	10				
	LMJ140-0009	IDEM Data	Little Elkhart River	SR 15	10/19/00	AA02796	<10				
	LMJ140-0009	IDEM Data	Little Elkhart River	SR 15	10/26/00	AA03011	30		<39	09/27/00-10/26/00	
2	LMJ150-0004	IDEM Data	St. Joseph River	CR Bristol, N Division St	09/27/00	AA01996	10	No			
	LMJ150-0004	IDEM Data	St. Joseph River	CR Bristol, N Division St	10/04/00	AA02340	80	No			
	LMJ150-0004	IDEM Data	St. Joseph River	CR Bristol, N Division St	10/12/00	AA02555	20	No			
	LMJ150-0004	IDEM Data	St. Joseph River	CR Bristol, N Division St	10/19/00	AA02795	10	No			
	LMJ150-0004	IDEM Data	St. Joseph River	CR Bristol, N Division St	10/26/00	AA03010	10	No	10	09/27/00-10/26/00	
3	LMJ150-0003	IDEM Data	St. Joseph River	6-Span	09/27/00	AA01995	10	No			
	LMJ150-0003	IDEM Data	St. Joseph River	6-Span	10/04/00	AA02339	140	No			
	LMJ150-0003	IDEM Data	St. Joseph River	6-Span	10/12/00	AA02554	10	No			

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
3	LMJ150-0003	IDEM Data	St. Joseph River	6-Span	10/19/00	AA02794	10	No			
	LMJ150-0003	IDEM Data	St. Joseph River	6-Span	10/26/00	AA03009	10	No	10	9/27/00-10/4/00	
	SJ-1	Elkhart Data	St. Joseph River	6-Span	07/18/02		48	No			dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	07/25/02		29	No			dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	07/30/02		106	No			wet
	SJ-1	Elkhart Data	St. Joseph River	6-Span	08/08/02		106	No			dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	08/14/02		25	No	52	07/18/02-08/14/02	wet
	SJ-1	Elkhart Data	St. Joseph River	6-Span	08/29/02		33	No	49	07/25/02-08/29/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	09/05/02		25	No	47	07/30/02-09/05/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	09/12/02		54	No	41	08/08/02-09/12/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	09/19/02		38	No	34	08/14/02-09/19/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	09/26/02		43	No	37	08/29/02-09/26/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	10/03/02		16	No	32	09/05/02-10/03/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	10/10/02		23	No	32	09/12/02-10/10/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	10/17/02		73	No	34	09/19/02-10/17/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	10/24/02		21	No	30	09/26/02-10/24/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	10/31/02		13	No	24	10/03/02-10/31/02	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
3	SJ-1	Elkhart Data	St. Joseph River	6-Span	11/06/02		40	No	28	10/10/02-11/06/02	wet
	SJ-1	Elkhart Data	St. Joseph River	6-Span	11/14/02		17	No	27	10/17/02-11/14/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	11/21/02		6	No	16	10/24/02-11/21/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	12/05/02		14	No	15	10/31/02-12/05/02	dry
	SJ-1	Elkhart Data	St. Joseph River	6-Span	12/19/02		34	No	18	11/06/02-12/19/02	wet
	SJ-1	Elkhart Data	St. Joseph River	6-Span	01/16/03		nd	No			dry
4	LMJ150-0006	IDEM Data	Pine Cr	SR 120	09/27/00	AA01994	40				
	LMJ150-0006	IDEM Data	Pine Cr	SR 120	10/04/00	AA02338	200				
	LMJ150-0006	IDEM Data	Pine Cr	SR 120	10/12/00	AA02553	150				
	LMJ150-0006	IDEM Data	Pine Cr	SR 120	10/19/00	AA02793	<10				
	LMJ150-0006	IDEM Data	Pine Cr	SR 120	10/26/00	AA03008	240		<78	09/27/00-10/26/00	
5	LMJ150-0005	IDEM Data	St. Joseph River	Johnson Bridge	09/27/00	AA01993	70	No			
	LMJ150-0005	IDEM Data	St. Joseph River	Johnson Bridge	10/04/00	AA02337	1800	Yes			
	LMJ150-0005	IDEM Data	St. Joseph River	Johnson Bridge	10/12/00	AA02552	20	No			
	LMJ150-0005	IDEM Data	St. Joseph River	Johnson Bridge	10/19/00	AA02792	10	No			

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
5	LMJ150-0005	IDEM Data	St. Joseph River	Johnson Bridge	10/26/00	AA03007	70	No	71	09/27/00-10/26/00	
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	07/18/02		17	No			dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	07/25/02		13	No			dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	07/30/02		36	No			wet
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	08/08/02		12	No			dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	08/14/02		32	No	20	7/18/02-8/14/02	wet
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	08/20/02		78	No	27	7/25/02-8/20/02	wet
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	08/29/02		31	No	32	7/30/02-8/29/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	09/05/02		13	No	26	8/8/02-9/5/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	09/12/02		10	No	25	8/14/02-9/12/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	09/19/02		21	No	23	8/20/02-9/19/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	09/26/02		21	No	18	8/29/02-9/26/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	10/03/02		82	No	22	9/5/02-10/3/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	10/10/02		28	No	25	9/12/02-10/10/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	10/17/02		52	No	35	9/19/02-10/17/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	10/24/02		24	No	36	9/26/02-10/24/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	10/31/02		16	No	34	10/3/02-10/31/02	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
5	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	11/06/02		70	No	33	10/10/02-11/06/02	wet
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	11/14/02		19	No	31	10/17/02-11/14/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	11/21/02		20	No	25	10/24/02-11/21/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	12/05/02		12	No	22	10/31/02-12/5/02	dry
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	12/19/02		40	No	26	11/6/02-12/19/02	wet
	SJ-2	Elkhart Data	St. Joseph River	Johnson Bridge	01/16/03		4	No			dry
6	LMJ160-0002	IDEM Data	Christiana Cr	CR 6, W of SR 19, N of Elkhart	09/26/00	AA02059	61	no			
	LMJ160-0002	IDEM Data	Christiana Cr	CR 6, W of SR 19, N of Elkhart	10/03/00	AA02212	387	yes			
	LMJ160-0002	IDEM Data	Christiana Cr	CR 6, W of SR 19, N of Elkhart	10/11/00	AA02578	41	no			
	LMJ160-0002	IDEM Data	Christiana Cr	CR 6, W of SR 19, N of Elkhart	10/17/00	AA02831	35	no			
	LMJ160-0002	IDEM Data	Christiana Cr	CR 6, W of SR 19, N of Elkhart	10/24/00	AA02974	78	no	76	09/26/00-10/24/00	
7	LMJ210-0008	IDEM Data	Elkhart River	SR 120 (E Jackson Blvd) Bridge, Elkhart	09/26/00	AA01979	40	No			
	LMJ210-0008	IDEM Data	Elkhart River	SR 120 (E Jackson Blvd) Bridge, Elkhart	10/03/00	AA02322	120	No			

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
7	LMJ210-0008	IDEM Data	Elkhart River	SR 120 (E Jackson Blvd) Bridge, Elkhart	10/11/00	AA02493	20	No			
	LMJ210-0008	IDEM Data	Elkhart River	SR 120 (E Jackson Blvd) Bridge, Elkhart	10/18/00	AA02770	-1	No			
	LMJ210-0008	IDEM Data	Elkhart River	SR 120 (E Jackson Blvd) Bridge, Elkhart	10/25/00	AA03024	70	No	23	09/26/00-10/25/00	
	LMJ210-0008	IDEM Data	Elkhart River	SR 120 (E Jackson Blvd) Bridge, Elkhart	09/27/00	AA01992	470	Yes			
	LMJ210-0008	IDEM Data	Elkhart River	SR 120 (E Jackson Blvd) Bridge, Elkhart	10/04/00	AA02336	5700	Yes			
	LMJ210-0008	IDEM Data	Elkhart River	SR 120 (E Jackson Blvd) Bridge, Elkhart	10/12/00	AA02551	40	No			
	LMJ210-0008	IDEM Data	Elkhart River	SR 120 (E Jackson Blvd) Bridge, Elkhart	10/19/00	AA02791	10	No			
	LMJ210-0008	IDEM Data	Elkhart River	SR 120 (E Jackson Blvd) Bridge, Elkhart	10/26/00	AA03006	90	No	157	09/27/00-10/26/00	
8	LMJ220-0003	IDEM Data	St. Joseph River	Main St. (Elkhart)	09/27/00	AA01991	10	No			
	LMJ220-0003	IDEM Data	St. Joseph River	Main St. (Elkhart)	10/04/00	AA02335	500	Yes			
	LMJ220-0003	IDEM Data	St. Joseph River	Main St. (Elkhart)	10/12/00	AA02550	10	No			

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
8	LMJ220-0003	IDEM Data	St. Joseph River	Main St. (Elkhart)	10/19/00	AA02790	70	No			
	LMJ220-0003	IDEM Data	St. Joseph River	Main St. (Elkhart)	10/26/00	AA03005	110	No	10	09/27/00-10/26/00	
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	07/18/02		48	No			dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	07/25/02		36	No			dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	07/30/02		56	No			wet
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	08/08/02		25	No			dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	08/14/02		560	Yes	67	7/18/02-8/14/02	wet
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	08/20/02		56	No	69	7/25/02-8/20/002	wet
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	08/29/02		36	No	69	7/30/02-8/29/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	09/05/02		16	No	54	8/08/02-9/5/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	09/12/02		26	No	54	8/14/02-9/12/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	09/19/02		104	No	39	8/20/02-9/19/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	09/26/02		30	No	34	8/29/02-9/26/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	10/03/02		24	No	32	9/5/02-10/3/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	10/10/02		20	No	33	9/12/02-10/10/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	10/17/02		70	No	40	9/12/02-10/17/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	10/24/02		40	No	33	09/26/02-10/24/02	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
8	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	10/31/02		38	No	35	10/03/02-10/31/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	11/06/02		59	No	42	10/10/02-11/6/02	wet
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	11/14/02		10	No	36	10/24/02-11/14/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	11/21/02		32	No	31	10/31/02-11/21/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	12/05/02		50	No	32	11/6/02-12/5/02	dry
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	12/19/02		74	No	37	11/14/02-12/19/02	wet
	SJ-3	Elkhart Data	St. Joseph River	Main St. (Elkhart)	01/16/03		10	No			dry
9	SJ-4	Elkhart Data	St. Joseph River	Lexington	07/18/02		84	No			dry
10	SJ-5	Elkhart Data	St. Joseph River	Arcade	07/18/02		48	No			
	SJ-5	Elkhart Data	St. Joseph River	Arcade	10/17/02		31	No			
	SJ-5	Elkhart Data	St. Joseph River	Arcade	11/21/02		28	No			
	SJ-5	Elkhart Data	St. Joseph River	Arcade	12/19/02		97	No			
11	SJ-6	Elkhart Data	St. Joseph River	Nappanee	07/18/02		50	No			dry
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	07/25/02		37	No			dry
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	07/30/02		80	No			wet
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	08/08/02		42	No			dry
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	08/14/02		3500	Yes	117	07/18/02-08/14/02	wet
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	08/20/02		64	No	123	07/25/02-08/20/02	wet
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	08/29/02		42	No	126	07/30/02-08/29/02	dry



Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
11	SJ-6	Elkhart Data	St. Joseph River	Nappanee	09/05/02		21	No	96	08/08/02-09/05/02	dry
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	09/12/02		21	No	84	08/14/02-09/12/02	dry
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	09/19/02		18	No	29	08/20/02-09/19/02	dry
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	09/26/02		32	No	25	08/29/02-09/26/02	dry
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	10/17/02		23	No			dry
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	11/21/02		25	No			dry
	SJ-6	Elkhart Data	St. Joseph River	Nappanee	12/19/02		137	No			wet
12	LMJ240-0007	IDEM Data	St. Joseph River	Ash Rd	09/26/00	AA02063	24.9	No			
	LMJ240-0007	IDEM Data	St. Joseph River	Ash Rd	09/27/00	AA01990	10	No			
	LMJ240-0007	IDEM Data	St. Joseph River	Ash Rd	10/03/00	AA02216	110.6	No			
	LMJ240-0007	IDEM Data	St. Joseph River	Ash Rd	10/04/00	AA02334	90	No			
	LMJ240-0007	IDEM Data	St. Joseph River	Ash Rd	10/11/00	AA02579	32.7	No			
	LMJ240-0007	IDEM Data	St. Joseph River	Ash Rd	10/12/00	AA02549	10	No			
	LMJ240-0007	IDEM Data	St. Joseph River	Ash Rd	10/17/00	AA02832	19.9	No			
	LMJ240-0007	IDEM Data	St. Joseph River	Ash Rd	10/19/00	AA02789	10	No			
	LMJ240-0007	IDEM Data	St. Joseph River	Ash Rd	10/24/00	AA02975	44.1	No			

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
12	LMJ240-0007	IDEM Data	St. Joseph River	Ash Rd	10/26/00	AA03004	10	No			
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	07/18/02		20	No			dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	07/25/02		24	No			dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	07/30/02		52	No			wet
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	08/08/02		13	No			dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	08/14/02		20	No	23	7/18/02-8/14/02	wet
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	08/20/02		80	No	30	7/25/02-8/20/02	wet
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	08/29/02		38	No	33	7/30/02-8/29/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	09/05/02		9	No	23	8/8/02-9/5/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	09/12/02		6	No	20	8/14/02-9/12/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	09/19/02		17	No	19	8/20/02-9/19/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	09/26/02		10	No	13	8/29/02-9/26/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	10/03/02		29	No	12	9/5/02-10/3/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	10/10/02		10	No	12	9/12/02-10/10/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	10/17/02		10	No	14	9/19/02-10/17/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	10/24/02		12	No	13	9/26/02-10/24/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	10/31/02		7	No	12	10/3/02-10/31/02	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
12	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	11/06/02		174	No	17	10/10/02-11/6/02	wet
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	11/14/02		83	No	26	10/24/02-11/14/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	11/21/02		68	No	38	10/31/02-11/21/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	12/05/02		430	Yes	78	11/06/02-12/05/02	dry
	SJ-7	Elkhart Data	St. Joseph River	Ash Rd	12/19/02		1420	Yes			wet
13	LMJ230-0004	IDEM Data	Baugo Creek	Old US Hwy 33 (Lincoln Way)	09/27/00	AA01989	200				
	LMJ230-0004	IDEM Data	Baugo Creek	Old US Hwy 33 (Lincoln Way)	10/04/00	AA02333	1000				
	LMJ230-0004	IDEM Data	Baugo Creek	Old US Hwy 33 (Lincoln Way)	10/12/00	AA02548	80				
	LMJ230-0004	IDEM Data	Baugo Creek	Old US Hwy 33 (Lincoln Way)	10/19/00	AA02788	<10				
	LMJ230-0004	IDEM Data	Baugo Creek	Old US Hwy 33 (Lincoln Way)	10/26/00	AA03003	140		<118		
		Mishawaka Data	Baugo Creek		07/18/02		460				dry
		Mishawaka Data	Baugo Creek		07/25/02		212				dry
		Mishawaka Data	Baugo Creek		07/30/02		2300				
		Mishawaka Data	Baugo Creek		08/08/02		900				dry
		Mishawaka Data	Baugo Creek		08/20/02		3200		916	07/18/02-08/20/02	
		Mishawaka Data	Baugo Creek		08/29/02		550		950	07/25/02-08/29/02	dry
		Mishawaka Data	Baugo Creek		09/05/02		300		1018	07/30/02-09/05/02	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
13		Mishawaka Data	Baugo Creek		09/12/02		260		658	08/08/02-09/12/02	dry
		Mishawaka Data	Baugo Creek		09/19/02		246		508	08/20/02-09/19/02	dry
		Mishawaka Data	Baugo Creek		09/26/02		585		362	08/29/02-09/26/02	dry
		Mishawaka Data	Baugo Creek		10/03/02		380		336	09/05/02-10/03/02	dry
		Mishawaka Data	Baugo Creek		10/10/02		360		348	09/12/02-10/10/02	dry
		Mishawaka Data	Baugo Creek		10/17/02		240		343	09/19/02-10/17/02	dry
		Mishawaka Data	Baugo Creek		10/24/02		310		359	09/26/02-10/24/02	dry
		Mishawaka Data	Baugo Creek		10/31/02		590		360	10/03/02-10/31/02	dry
		Mishawaka Data	Baugo Creek		11/06/02		700		406	10/10/02-11/06/02	dry
		Mishawaka Data	Baugo Creek		11/14/02		240		375	10/17/02-11/14/02	dry
		Mishawaka Data	Baugo Creek		11/21/02		230		371	10/24/02-11/21/02	dry
		Mishawaka Data	Baugo Creek		12/19/02		2800				wet
		Mishawaka Data	Baugo Creek		01/16/03		71				dry
14											
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/11/00		46.6	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/18/00		11	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/25/00		232	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/02/00		520	Yes			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/09/00		25	No	69	04/11/00-05/09/00	wet

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
14	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/16/00		25	No	61	04/18/00-5/16/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/23/00		100	No	95	04/25/00-05/23/00	wet
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/30/00		940	Yes	125	05/02/00-05/30/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	06/06/00		5500	Yes	200	05/09/00-06/06/00	wet
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	06/13/00		353	Yes	340	05/16/00-06/13/00	wet
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	06/20/00		58	No	403	05/23/00-06/20/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	06/27/00		770	Yes	606	05/30/00-06/27/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	07/05/00		111	No	395	06/06/00-07/05/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	07/11/00		560	Yes	250	06/13/00-07/11/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	07/18/00		23	No	145	06/20/00-07/18/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	07/25/00		19	No	116	06/27/00-07/25/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	08/01/00		82	No	74	07/05/00-08/01/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	08/08/00		800	Yes	110	07/11/00-08/08/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	08/15/00		25	No	59	07/18/00-08/15/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	08/22/00		14	No	53	07/25/00-08/22/00	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
14	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	08/29/00		26	No	57	08/01/00-08/29/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	09/05/00		27	No	46	08/08/00-09/05/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	09/12/00		319	Yes	38	08/15/00-09/12/00	wet
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	09/19/00		56	No	45	08/22/00-09/19/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	09/26/00		102	No	66	08/29/00-09/26/00	dry
	LMJ240-0016	IDEM Data	St. Joseph River	Bittersweet Rd	09/27/00	AA01988	10	No			
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/04/00		67	No			wet
	LMJ240-0016	IDEM Data	St. Joseph River	Bittersweet Rd	10/04/00	AA02332	90	No			
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/10/00		83	No			dry
	LMJ240-0016	IDEM Data	St. Joseph River	Bittersweet Rd	10/12/00	AA02547	20	No			
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/17/00		76	No			dry
	LMJ240-0016	2000 St. Joseph River	St. Joseph River	Bittersweet Rd	10/19/00	AA02787	10	No			
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/24/00		120	No			wet
	LMJ240-0016	IDEM Data	St. Joseph River	Bittersweet Rd	10/26/00	AA03001	100	No	28	09/27/00-10/26/00	
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/31/00		40	No	73	10/04/00-10/31/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	11/07/00		99	No	79	10/10/00-11/07/00	wet
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	11/14/00		273	Yes	100	10/17/00-11/14/00	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	03/20/01		113	No			dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
14	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	03/27/01		102	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/03/01		32	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/10/01		197	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/17/01		265	Yes	114	03/20/01-04/17/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/24/01		162	No	123	03/27/01-04/24/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/01/01		169	No	136	04/03/01-05/01/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/08/01		86	No	165	04/10/01-05/08/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/15/01		156	No	158	04/17/01-05/15/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/22/01		6000	Yes	294	04/24/01-05/22/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/29/01		2500	Yes	509	05/01/01-05/29/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	06/05/01		300	No	570	05/08/01-06/05/01	wet
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	06/12/01		2400	Yes	1110	05/15/01-06/12/01	wet
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	06/26/01		22	No	750	05/22/01-06/26/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	07/10/01		52	No	290	05/29/01-07/10/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	07/17/01		110	No	155	06/05/01-07/17/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	07/24/01		50	No	109	06/12/01-07/24/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	08/07/01		156	No	63	06/26/01-08/07/01	dry



Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
14	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	08/14/01		40	No	71	07/10/01-08/14/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	08/21/01		256	Yes	97	07/17/01-08/21/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	08/28/01		261	Yes	116	07/24/01-08/28/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	09/05/01		103	No	134	08/07/01-09/05/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	09/11/01		750	Yes	183	08/14/01-09/11/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	09/25/01		140	No	235	08/21/01-09/25/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/02/01		280	Yes	240	08/28/01-10/02/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/09/01		285	Yes	243	09/05/01-10/09/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/18/01		760	Yes	364	09/11/01-10/18/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/23/01		185	No	275	09/25/01-10/23/01	wet
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/30/01		132	No	272	10/02/01-10/30/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	11/06/01		80	No	211	10/09/01-11/06/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	11/13/01		104	No	173	10/18/01-11/13/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/10/02		116	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/16/02		18	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/23/02		271	Yes			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	04/30/02		112	No			dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
14	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/07/02		151	No	99	04/10/02-05/07/02	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/14/02		5000	Yes	210	04/16/02-05/14/02	wet
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/21/02		169	No	329	04/23/02-05/21/01	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	05/28/02		90	No	264	04/30/02-05/28/02	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	09/19/02		24	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	09/26/02		32	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/03/02		27	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/10/02		72	No			dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/17/02		77	No	41	09/19/02-10/17/02	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/24/02		44	No	46	09/26/02-10/24/02	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	10/31/02		28	No	45	10/03/02-10/31/02	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	11/06/02		140	No	63	10/10/02-11/06/02	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	11/14/02		26	No	51	10/17/02-11/14/02	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	11/21/02		76	No	51	10/24/02-11/21/02	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	12/05/02		54	No	53	10/31/02-12/05/02	dry
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	12/19/02		166	No	76	11/06/02-12/19/02	wet
	508	Mishawaka Data	St. Joseph River	Bittersweet Rd	01/09/03		58	No			dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
15		Mishawaka Data	Eller Ditch		09/05/01		1000	yes			dry
		Mishawaka Data	Eller Ditch		09/11/01		3700	yes			dry
		Mishawaka Data	Eller Ditch		09/25/01		650	yes			dry
		Mishawaka Data	Eller Ditch		10/02/01		9600	yes			dry
		Mishawaka Data	Eller Ditch		10/09/01		1201	yes	1944	09/05/01-10/09/01	dry
		Mishawaka Data	Eller Ditch		10/18/01		920	yes	1911	09/11/01-10/18/01	dry
		Mishawaka Data	Eller Ditch		10/23/01		7800	yes	2219	09/25/01-10/23/01	wet
		Mishawaka Data	Eller Ditch		10/30/01		420	yes	2033	10/02/01-10/30/01	dry
		Mishawaka Data	Eller Ditch		11/06/01		400	yes	1077	10/09/01-11/06/01	dry
		Mishawaka Data	Eller Ditch		11/13/01		900	yes	1016	10/18/01-11/13/01	dry
		Mishawaka Data	Eller Ditch		07/18/02		1600	yes			dry
		Mishawaka Data	Eller Ditch		07/25/02		943	yes			dry
		Mishawaka Data	Eller Ditch		07/30/02		2200	yes			
		Mishawaka Data	Eller Ditch		08/08/02		2300	yes			dry
		Mishawaka Data	Eller Ditch		08/14/02		9900	yes	2375	07/18/02-08/14/02	
		Mishawaka Data	Eller Ditch		08/20/02		1100	yes	2204	07/25/02-08/20/02	
		Mishawaka Data	Eller Ditch		08/29/02		1050	yes	2252	07/30/02-08/29/02	dry
		Mishawaka Data	Eller Ditch		09/05/02		3100	yes	2411	08/08/02-09/05/02	dry
		Mishawaka Data	Eller Ditch		09/12/02		625	yes	1858	08/14/02-09/12/02	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
15		Mishawaka Data	Eller Ditch		09/19/02		886	yes	1147	08/20/02-09/19/02	dry
		Mishawaka Data	Eller Ditch		09/26/02		825	yes	1083	08/29/02-09/26/02	dry
		Mishawaka Data	Eller Ditch		10/03/02		875	yes	1044	09/05/02-10/03/02	dry
		Mishawaka Data	Eller Ditch		10/10/02		567	yes	743	09/12/02-10/10/02	dry
		Mishawaka Data	Eller Ditch		10/17/02		350	yes	662	09/19/02-10/17/02	dry
		Mishawaka Data	Eller Ditch		10/24/02		480	yes	585	09/26/02-10/24/02	dry
		Mishawaka Data	Eller Ditch		10/31/02		745	yes	574	10/03/02-10/31/02	dry
		Mishawaka Data	Eller Ditch		11/06/02		590	yes	530	10/10/02-11/06/02	dry
		Mishawaka Data	Eller Ditch		11/14/02		300	yes	467	10/17/02-11/14/02	dry
		Mishawaka Data	Eller Ditch		11/21/02		475	yes	496	10/24/02-11/21/02	dry
		Mishawaka Data	Eller Ditch		12/05/02		407	yes	480	10/31/02-12/05/02	dry
		Mishawaka Data	Eller Ditch		12/19/02		720	yes	477	11/06/02-12/19/02	wet
		Mishawaka Data	Eller Ditch		01/16/03		520	yes			dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
16	LMJ240-0005	IDEM Data	Willow Creek	Jefferson St in Powerline Easement, S of Old US 20 (Mckinley Ave on Map) E of Byrkit	09/26/00	AA02064	548	Yes			
	LMJ240-0005	IDEM Data	Willow Creek	Jefferson St in Powerline Easement, S of Old US 20 (Mckinley Ave on Map) E of Byrkit	10/04/00	AA02217	>2420	Yes			
	LMJ240-0005	IDEM Data	Willow Creek	Jefferson St in Powerline Easement, S of Old US 20 (Mckinley Ave on Map) E of Byrkit	10/11/00	AA02583	689	Yes			
	LMJ240-0005	IDEM Data	Willow Creek	Jefferson St in Powerline Easement, S of Old US 20 (Mckinley Ave on Map) E of Byrkit	10/17/00	AA02836	727	Yes			

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
16	LMJ240-0005	IDEM Data	Willow Creek	Jefferson St in Powerline Easement, S of Old US 20 (Mckinley Ave on Map) E of Byrkit	10/24/00	AA03033	517	Yes	>807	09/26/00-10/24/00	
		Mishawaka Data	Willow Creek		09/05/01		1500	Yes			dry
		Mishawaka Data	Willow Creek		09/11/01		800	Yes			dry
		Mishawaka Data	Willow Creek		09/25/01		1280	Yes			dry
		Mishawaka Data	Willow Creek		10/02/01		3300	Yes			dry
		Mishawaka Data	Willow Creek		10/09/01		394	Yes	1148	09/05/01-10/09/01	dry
		Mishawaka Data	Willow Creek		10/18/01		390	Yes	877	09/11/01-10/18/01	dry
		Mishawaka Data	Willow Creek		10/23/01		740	Yes	864	09/25/01-10/23/01	wet
		Mishawaka Data	Willow Creek		10/30/01		243	Yes	619	10/02/01-10/30/01	dry
		Mishawaka Data	Willow Creek		11/06/01		180	No	346	10/09/01-11/06/01	dry
		Mishawaka Data	Willow Creek		11/13/01		93	No	259	10/18/01-11/13/01	dry
		Mishawaka Data	Willow Creek		07/18/02		780	Yes			dry
		Mishawaka Data	Willow Creek		07/25/02		420	Yes			dry
		Mishawaka Data	Willow Creek		07/30/02		680	Yes			
		Mishawaka Data	Willow Creek		08/08/02		460	Yes			dry
		Mishawaka Data	Willow Creek		08/14/02		1302	Yes	668	07/18/02-08/14/02	
		Mishawaka Data	Willow Creek		08/19/02		1000	Yes	702	07/25/02-08/19/02	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
16		Mishawaka Data	Willow Creek		08/29/02		525	Yes	735	07/30/02-08/29/02	dry
		Mishawaka Data	Willow Creek		09/05/02		670	Yes	732	08/08/02-09/05/02	dry
		Mishawaka Data	Willow Creek		09/12/02		725	Yes	802	08/14/02-09/12/02	dry
		Mishawaka Data	Willow Creek		09/19/02		873	Yes	740	08/19/02-09/19/02	dry
		Mishawaka Data	Willow Creek		09/26/02		800	Yes	708	08/29/02-09/26/02	dry
		Mishawaka Data	Willow Creek		10/03/02		875	Yes	784	09/05/02-10/03/02	dry
		Mishawaka Data	Willow Creek		10/10/02		838	Yes	820	09/12/02-10/10/02	dry
		Mishawaka Data	Willow Creek		10/17/02		494	Yes	760	09/19/02-10/17/02	dry
		Mishawaka Data	Willow Creek		10/24/02		230	No	582	09/26/02-10/24/02	dry
		Mishawaka Data	Willow Creek		10/31/02		220	No	449	10/03/02-10/31/02	dry
		Mishawaka Data	Willow Creek		11/06/02		100	No	291	10/10/02-11/06/02	dry
		Mishawaka Data	Willow Creek		11/14/02		220	No	223	10/17/02-11/14/02	dry
		Mishawaka Data	Willow Creek		11/21/02		240	Yes	193	10/24/02-11/21/02	dry
		Mishawaka Data	Willow Creek		12/05/02		120	No	169	10/31/02-12/05/02	dry
		Mishawaka Data	Willow Creek		12/19/02		200	No	166	11/06/02-12/19/02	wet
		Mishawaka Data	Willow Creek		01/16/03		136	No			dry



Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
17	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/11/00		22	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/18/00		4	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/25/00		201	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/02/00		45	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/09/00		50	No	33	04/11/00-05/09/00	wet
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/16/00		24	No	34	04/18/00-05/16/00	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/23/00		104	No	65	04/25/00-06/23/00	wet
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/30/00		710	Yes	83	05/02/00-05/30/00	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/06/00		3500	Yes	199	05/09/00-06/06/00	wet
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/13/00		588	Yes	325	05/16/00-06/13/00	wet
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/20/00		55	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/27/00		780	Yes			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/05/00		156	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/11/00		175	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/18/00		284	Yes			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/25/00		88	No	221	06/27/00-07/25/00	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/01/00		155	No	160	07/05/00-08/01/00	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/08/00		349	Yes	188	07/11/00-08/08/00	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/15/00		29	No	131	07/18/00-08/15/00	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/22/00		15	No	73	07/25/00-08/22/00	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
17	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/29/00		46	No	64	08/01/00-08/29/00	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	09/05/00		33	No	47	08/08/00-09/05/00	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	09/19/00		35	No	30	08/15/00-09/19/00	wet
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	09/26/00		42	No	32	08/22/00-09/26/00	dry
	LMJ240-0015	IDEM Data	St. Joseph River	Main St. (Mish)	09/27/00	AA01987	100	No	39		dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/04/00		257	Yes	56	08/29/00-10/04/00	wet
	LMJ240-0015	IDEM Data	St. Joseph River	Main St. (Mish)	10/04/00	AA02331	140	No			
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/10/00		28	No	51	09/05/00-10/10/00	dry
	LMJ240-0015	IDEM Data	St. Joseph River	Main St. (Mish)	10/12/00	AA02546	30	No			
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/17/00		26	No	49	09/19/00-10/17/00	dry
	LMJ240-0015	IDEM Data	St. Joseph River	Main St. (Mish)	10/19/00	AA02786	10	No			
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/24/00		279	Yes	74	09/26/00-10/24/00	wet
	LMJ240-0015	IDEM Data	St. Joseph River	Main St. (Mish)	10/26/00	AA03000	40	No	44	09/27/00-10/26/00	
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/31/00		26	No	67	10/04/00-10/31/00	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	11/07/00		93	No	55	10/10/00-11/07/00	wet

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
17	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	11/14/00		204	No	81	10/17/00-11/14/00	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	03/20/01		121	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	03/27/01		87	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/03/01		18	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/10/01		124	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/17/01		326	Yes	95	03/20/01-04/17/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/24/01		200	No	105	03/27/01-04/24/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/01/01		148	No	117	04/03/01-05/01/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/08/01		260	Yes	199	04/10/01-05/08/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/15/01		212	No	221	04/17/01-05/15/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/22/01		750	Yes	262	04/24/01-05/22/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/29/01		720	Yes	338	05/01/01-05/29/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/05/01		10200	Yes	788	05/08/01-06/05/01	wet
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/12/01		1920	Yes	1175	05/15/01-06/12/01	wet
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/26/01		29	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/10/01		97	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/17/01		133	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/24/01		154	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/07/01		600	Yes	128	06/26/01-08/07/01	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
17	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/14/01		88	No	160	07/10/01-08/14/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/21/01		276	Yes	197	07/17/01-08/21/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/28/01		214	No	217	07/24/01-08/28/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	09/05/01		111	No	203	08/07/01-09/05/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	09/11/01		650	Yes	206	08/14/01-09/11/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	09/25/01		100	No	212	08/21/01-09/25/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/02/01		208	No	200	08/28/01-10/02/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/09/01		257	Yes	208	09/05/01-10/09/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/18/01		1060	Yes	326	09/11/01-10/18/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/23/01		250	Yes	269	09/25/01-10/23/01	wet
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/30/01		84	No	260	10/02/01-10/30/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	11/06/01		80	No	215	10/09/01-11/06/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	11/13/01		92	No	175	10/18/01-11/13/01	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/10/02		80	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/16/02		12	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/23/02		240	Yes			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	04/30/02		100	No			dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
17	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/07/02		158	No	82	04/10/02-05/07/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/14/02		5100	Yes	188	04/16/02-05/14/02	wet
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/21/02		136	No	305	04/23/02-05/21/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	05/28/02		40	No	213	04/30/02-05/28/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/04/02		780	Yes	321	05/07/02-06/04/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/11/02		83	No	282	05/14/02-06/11/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/18/02		28	No	100	05/21/02-06/18/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	06/25/02		33	No	75	05/28/02-06/25/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/02/02		33	No	72	06/04/02-07/02/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/11/02		70	No	45	06/11/02-07/11/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/18/02		10	No	29	06/18/02-07/18/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/25/02		25	No	29	06/25/02-07/25/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	07/30/02		40	No	30	07/02/02-07/30/02	nd
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/08/02		23	No	28	07/11/02-08/08/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/14/02		196	No	34	07/18/02-08/14/02	nd

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
17	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/20/02		12	No	35	07/25/02-08/20/02	nd
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	08/29/02		62	No	42	07/30/02-08/29/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	09/05/02		18	No	36	08/08/02-09/05/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	09/12/02		25	No	37	08/14/02-09/12/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	09/19/02		24	No	24	08/20/02-09/19/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	09/26/02		49	No	32	08/29/02-09/26/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/03/02		20	No	25	09/05/02-10/03/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/10/02		50	No	31	09/12/02-10/10/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/17/02		22	No	30	09/19/02-10/17/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/24/02		15	No	28	09/26/02-10/24/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	10/31/02		10	No	20	10/03/02-10/31/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	11/06/02		900	Yes	43	10/10/02-11/06/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	11/14/02		28	No	38	10/17/02-11/14/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	11/21/02		29	No	41	10/24/02-11/21/02	dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	12/05/02		34	No	48	10/31/02-12/05/02	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
17	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	12/19/02		145	No	82	11/06/02-12/19/02-	wet
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	01/09/03		27	No			dry
	509	Mishawaka Data	St. Joseph River	Main St. (Mish)	01/16/03		91	No			dry
18	510	Mishawaka Data	Outfall	Mish WWTP	04/10/02		75	No			dry
	510	Mishawaka Data	Outfall	Mish WWTP	04/16/02		15	No			dry
	510	Mishawaka Data	Outfall	Mish WWTP	04/23/02		49	No			dry
	510	Mishawaka Data	Outfall	Mish WWTP	04/30/02		41	No			dry
	510	Mishawaka Data	Outfall	Mish WWTP	05/07/02		8	No	28	04/10/02-05/07/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	05/14/02		41	No	25	04/16/02-05/14/02	wet
	510	Mishawaka Data	Outfall	Mish WWTP	05/21/02		23	No	27	04/23/02-05/21/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	05/28/02		32	No	25	04/30/02-05/28/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	06/04/02		6	No	17	05/07/02-06/04/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	06/11/02		8	No	17	05/14/02-06/11/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	06/18/02		13	No	14	05/21/02-05/28/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	06/25/02		7	No	11	05/28/02-06/25/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	07/02/02		5	No	7	06/04/02-07/02/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	07/11/02		8	No	8	06/11/02-07/11/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	07/18/02		14	No	9	06/18/02-07/18/02	dry



Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
18	510	Mishawaka Data	Outfall	Mish WWTP	07/25/02		7	No	8	06/25/02-07/25/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	07/30/02		14	No	9	07/02/02-07/30/02	ND
	510	Mishawaka Data	Outfall	Mish WWTP	08/08/02		8	No	10	07/11/02-08/08/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	08/14/02		13	No	11	07/18/02-08/14/02	ND
	510	Mishawaka Data	Outfall	Mish WWTP	08/20/02		7	No	9	07/25/02-08/20/02	ND
	510	Mishawaka Data	Outfall	Mish WWTP	08/29/02		33	No	13	07/30/02-08/29/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	09/05/02		8	No	11	08/08/02-09/05/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	09/12/02		21	No	14	08/14/02-09/12/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	09/19/02		4	No	11	08/20/02-09/19/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	09/26/02		10	No	12	08/29/02-09/26/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	10/03/02		11	No	9	09/05/02-10/03/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	10/10/02		37	No	13	09/12/02-10/10/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	10/17/02		60	No	16	09/19/02-10/17/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	10/24/02		69	No	28	09/26/02-10/24/02	dry
	510	Mishawaka Data	Outfall	Mish WWTP	10/31/02		74	No	42	10/03/02-10/31/02	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
19	511	Mishawaka Data	St. Joseph River	Ironwood	04/11/00		20	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	04/18/00		10	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	04/25/00		250	Yes			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/02/00		58	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/09/00		78	No	47	04/11/2000-05/09/00	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	05/16/00		26	No	49	04/18/00-05/16/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/23/00		94	No	77	04/25/00-05/23/00	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	05/30/00		760	Yes	97	05/02/00-05/30/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	06/06/00		880	Yes	166	05/09/00-06/06/00	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	06/13/00		588	Yes	249	05/16/00-06/13/00	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	06/20/00		75	No	308	05/23/00-06/20/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	06/27/00		740	Yes	465	05/30/00-06/27/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/05/00		125	No	324	06/06/00-07/05/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/11/00		157	No	230	06/13/00-07/11/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/18/00		284	Yes	199	06/20/00-07/18/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/25/00		36	No	172	06/27/00-07/25/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	08/01/00		127	No	121	07/05/00-08/01/00	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
19	511	Mishawaka Data	St. Joseph River	Ironwood	08/08/00		310	Yes	145	07/11/00-08/08/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	08/15/00		35	No	107	07/18/00-08/15/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	08/22/00		20	No	63	07/25/00-08/22/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	08/29/00		42	No	65	08/01/00-08/29/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	09/05/00		31	No	49	08/15/00-09/05/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	09/12/00		580	Yes	56	08/22/00-09/12/00	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	09/19/00		39	No	57	08/29/00-09/19/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	09/26/00		153	No	85	09/05/00-09/26/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/04/00		514	Yes	141	09/12/00-10/04/00	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	10/10/00		44	No	151	09/19/00-10/10/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/17/00		25	No	80	09/26/00-10/17/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/24/00		355	Yes	125	10/04/00-10/24/00	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	10/31/00		33	No	92	10/10/00-10/31/00	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	11/07/00		129	No	70	10/17/00-11/07/00	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	11/14/00		187	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	03/20/01		268	Yes			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	03/27/01		132	No			dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
19	511	Mishawaka Data	St. Joseph River	Ironwood	04/03/01		11	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	04/10/01		299	Yes			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	04/17/01		246	Yes	123	03/20/01-04/17/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	04/24/01		240	Yes	121	03/27/01-04/24/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/01/01		290	Yes	141	04/03/01-05/01/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/08/01		350	Yes	282	04/10/01-05/08/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/15/01		420	Yes	302	04/17/01-05/15/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/22/01		700	Yes	372	04/24/01-05/22/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/29/01		740	Yes	466	05/01/01-05/29/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	06/05/01		2710	Yes	729	05/08/01-06/05/01	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	06/12/01		3300	Yes			wet
	511	Mishawaka Data	St. Joseph River	Ironwood	06/26/01		26	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/10/01		139	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/17/01		139	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/24/01		243	Yes			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	08/07/01		326	Yes	132	06/26/01-08/07/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	08/14/01		172	No	192	07/10/01-08/14/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	08/21/01		305	Yes	225	07/17/01-08/21/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	08/28/01		287	Yes	260	07/24/01-08/28/01	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
19	511	Mishawaka Data	St. Joseph River	Ironwood	09/05/01		220	No	255	08/07/01-09/05/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	09/11/01		660	Yes	294	08/14/01-09/11/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	09/25/01		88	No	257	08/21/01-09/25/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/02/01		195	No	235	08/28/01-10/02/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/09/01		270	Yes	232	09/05/01-10/09/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/18/01		1500	Yes	341	09/11/01-10/18/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/23/01		210	No	271	09/25/01-10/23/01	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	10/30/01		120	No	288	10/02/01-10/30/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	11/06/01		104	No	254	10/09/01-11/06/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	11/13/01		62	No	189	10/18/01-11/13/01	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	04/10/02		210	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	04/16/02		15	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	04/23/02		260	Yes			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	04/30/02		171	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/05/02		84	No	103	04/10/02-05/05/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/07/02		133	No	94	04/16/02-05/07/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/14/02		7200	Yes	324	04/23/02-05/14/02	wet

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
19	511	Mishawaka Data	St. Joseph River	Ironwood	05/21/02		132	No	283	04/30/02-05/21/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	05/28/02		46	No	218	05/05/02-05/28/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	06/04/02		520	Yes	313	05/07/02-06/04/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	06/11/02		100	No	296	05/14/02-06/11/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	06/18/02		32	No	100	05/21/02-06/18/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/02/02		37	No	78	05/28/02-07/02/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/11/02		84	No	88	06/04/02-07/11/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/18/02		29	No	49	06/11/02-07/18/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/25/02		44	No	42	06/18/02-07/25/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	07/30/02		48	No	45	07/02/02-07/30/02	nd
	511	Mishawaka Data	St. Joseph River	Ironwood	08/08/02		40	No	46	07/11/02-08/08/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	08/14/02		390	Yes	63	07/18/02-08/14/02	nd
	511	Mishawaka Data	St. Joseph River	Ironwood	08/20/02		25	No	61	07/25/02-08/20/02	nd
	511	Mishawaka Data	St. Joseph River	Ironwood	08/29/02		42	No	60	07/30/02-08/29/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	09/05/02		25	No	53	08/08/02-09/05/02	dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
19	511	Mishawaka Data	St. Joseph River	Ironwood	09/12/02		40	No	53	08/14/02-09/12/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	09/19/02		23	No	30	08/20/02-09/19/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	09/26/02		20	No	29	08/29/02-09/26/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/03/02		21	No	25	09/05/02-10/03/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/10/02		31	No	26	09/12/02-10/10/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/17/02		30	No	25	09/19/02-10/17/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/24/02		13	No	22	09/26/02-10/24/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	10/31/02		17	No	21	10/03/02-10/31/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	11/06/02		320	Yes	37	10/10/02-11/06/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	11/14/02		34	No	37	10/17/02-11/14/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	11/21/02		39	No	39	10/24/02-11/21/02	dry
	511	Mishawaka Data	St. Joseph River	Ironwood	12/19/02		135	No	63	10/31/02-12/19/02	wet
	511	Mishawaka Data	St. Joseph River	Ironwood	01/09/03		66	No			dry
	511	Mishawaka Data	St. Joseph River	Ironwood	01/16/03		161	No			dry

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
20	LMJ240-0014	IDEM Data	St. Joseph River	Twyckenham Dr near Veteran's Pk	09/27/00	AA01986	320	Yes			
	LMJ240-0014	IDEM Data	St. Joseph River	Twyckenham Dr near Veteran's Pk	10/04/00	AA02330	1700	Yes			
	LMJ240-0014	IDEM Data	St. Joseph River	Twyckenham Dr near Veteran's Pk	10/12/00	AA02545	20	No			
	LMJ240-0014	IDEM Data	St. Joseph River	Twyckenham Dr near Veteran's Pk	10/19/00	AA02785	10	No			
	LMJ240-0014	IDEM Data	St. Joseph River	Twyckenham Dr near Veteran's Pk	10/26/00	AA02998	40	No			
21		South Bend Data	St. Joseph River	Colfax	03/08/00		80	No			
		South Bend Data	St. Joseph River	Colfax	03/22/00		100	No			
		South Bend Data	St. Joseph River	Colfax	03/29/00		18	No			
		South Bend Data	St. Joseph River	Colfax	04/05/00		50	No			
		South Bend Data	St. Joseph River	Colfax	04/12/00		43	No	50	03/08/00-04/12/00	
		South Bend Data	St. Joseph River	Colfax	04/19/00		56	No	46	03/22/00-04/19/00	
		South Bend Data	St. Joseph River	Colfax	04/26/00		108	No	47	03/29/00-04/26/00	
		South Bend Data	St. Joseph River	Colfax	05/03/00		91	No	65	04/05/00-05/03/00	
		South Bend Data	St. Joseph River	Colfax	05/10/00		1090	Yes	121	04/12/00-05/10/00	
		South Bend Data	St. Joseph River	Colfax	05/24/00		84	No	138	04/19/00-05/24/00	



Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
21		South Bend Data	St. Joseph River	Colfax	05/31/00		257	Yes	187	04/26/00-05/31/00	
		South Bend Data	St. Joseph River	Colfax	06/07/00		1480	Yes	316	05/03/00-06/07/00	
		South Bend Data	St. Joseph River	Colfax	06/14/00		970	Yes	508	05/10/00-06/14/00	
		South Bend Data	St. Joseph River	Colfax	06/21/00		1835	Yes	564	05/24/00-06/21/00	
		South Bend Data	St. Joseph River	Colfax	06/28/00		240	Yes	695	05/31/00-06/28/00	
		South Bend Data	St. Joseph River	Colfax	07/05/00		126	No	603	06/07/00-07/05/00	
		South Bend Data	St. Joseph River	Colfax	07/12/00		164	No	388	06/14/00-07/12/00	
		South Bend Data	St. Joseph River	Colfax	07/19/00		64	No	225	06/21/00-07/19/00	
		South Bend Data	St. Joseph River	Colfax	07/26/00		50	No	110	06/28/00-07/26/00	
		South Bend Data	St. Joseph River	Colfax	08/02/00		120	No	95	07/05/00-08/02/00	
		South Bend Data	St. Joseph River	Colfax	08/09/00		239	Yes	109	07/12/00-08/09/00	
		South Bend Data	St. Joseph River	Colfax	08/23/00		48	No	85	07/19/00-08/23/00	
		South Bend Data	St. Joseph River	Colfax	08/30/00		41	No	78	07/26/00-08/30/00	
		South Bend Data	St. Joseph River	Colfax	09/06/00		35	No	72	08/02/00-09/06/00	
		South Bend Data	St. Joseph River	Colfax	09/20/00		64	No	64	08/09/00-09/20/00	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
21		South Bend Data	St. Joseph River	Colfax	09/27/00		93	No	53	08/23/00-09/27/00	
		South Bend Data	St. Joseph River	Colfax	10/04/00		5700	Yes	137	08/30/00-10/04/00	
		South Bend Data	St. Joseph River	Colfax	10/18/00		14	No	111	09/06/00-10/18/00	
		South Bend Data	St. Joseph River	Colfax	10/25/00		111	No	139	09/20/00-10/25/00	
		South Bend Data	St. Joseph River	Colfax	11/01/00		20	No	111	09/27/00-11/01/00	
		South Bend Data	St. Joseph River	Colfax	11/08/00		50	No	98	10/01/00-11/08/00	
		South Bend Data	St. Joseph River	Colfax	11/29/00		TNTC				
		South Bend Data	St. Joseph River	Colfax	12/06/00		122	No			
		South Bend Data	St. Joseph River	Colfax	01/24/01		78	No			
		South Bend Data	St. Joseph River	Colfax	01/31/01		640	Yes			
		South Bend Data	St. Joseph River	Colfax	02/08/01		88	No			
		South Bend Data	St. Joseph River	Colfax	02/15/01		750	Yes			
		South Bend Data	St. Joseph River	Colfax	02/22/01		78	No	191	01/24/01-02/22/01	
		South Bend Data	St. Joseph River	Colfax	02/28/01		356	Yes	259	01/31/01-02/28/01	
		South Bend Data	St. Joseph River	Colfax	03/07/01		86	No	174	02/08/01-03/07/01	
		South Bend Data	St. Joseph River	Colfax	03/15/01		70	No	166	02/15/01-03/15/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
21		South Bend Data	St. Joseph River	Colfax	03/22/01		201	No	127	02/22/01-03/22/01	
		South Bend Data	St. Joseph River	Colfax	03/28/01		297	Yes	166	02/28/01-03/28/01	
		South Bend Data	St. Joseph River	Colfax	04/04/01		10	No	81	03/07/01-04/04/01	
		South Bend Data	St. Joseph River	Colfax	04/10/01		106	No	85	03/15/01-04/10/01	
		South Bend Data	St. Joseph River	Colfax	04/18/01		199	No	105	03/22/01-04/18/01	
		South Bend Data	St. Joseph River	Colfax	04/25/01		238	Yes	108	03/28/01-04/25/01	
		South Bend Data	St. Joseph River	Colfax	05/02/01		148	No	94	04/04/01-05/02/01	
		South Bend Data	St. Joseph River	Colfax	05/09/01		352	Yes	192	04/10/01-05/09/01	
		South Bend Data	St. Joseph River	Colfax	05/17/01		395	Yes	250	04/18/01-05/17/01	
		South Bend Data	St. Joseph River	Colfax	05/23/01		214	No	254	04/25/01-05/23/01	
		South Bend Data	St. Joseph River	Colfax	05/30/01		115	No	219	05/02/01-05/30/01	
		South Bend Data	St. Joseph River	Colfax	06/06/01		520	Yes	282	05/09/01-06/06/01	
		South Bend Data	St. Joseph River	Colfax	06/14/01		80	No	210	05/17/01-06/14/01	
		South Bend Data	St. Joseph River	Colfax	06/20/01		63	No	145	05/23/01-06/20/01	
		South Bend Data	St. Joseph River	Colfax	06/28/01		60	No	113	05/30/01-06/28/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
21		South Bend Data	St. Joseph River	Colfax	07/11/01		116	No	113	06/06/01-07/11/01	
		South Bend Data	St. Joseph River	Colfax	07/18/01		200	No	93	06/14/01-07/18/01	
		South Bend Data	St. Joseph River	Colfax	07/26/01		395	Yes	128	06/20/01-07/26/01	
			St. Joseph River	Colfax	08/01/01		65	No	129	06/28/01-08/01/01	
		South Bend Data	St. Joseph River	Colfax	08/09/01		86	No	139	07/11/01-08/09/01	
		South Bend Data	St. Joseph River	Colfax	08/15/01		51	No	118	07/18/01-08/15/01	
		South Bend Data	St. Joseph River	Colfax	08/22/01		4900	Yes	223	07/26/01-08/22/01	
		South Bend Data	St. Joseph River	Colfax	08/30/01		61	No	153	08/01/01-08/30/01	
		South Bend Data	St. Joseph River	Colfax	09/13/01		123	No	174	08/09/01-09/13/01	
		South Bend Data	St. Joseph River	Colfax	09/19/01		1500	Yes	309	08/15/01-09/19/01	
		South Bend Data	St. Joseph River	Colfax	09/26/01		40	No	294	08/22/01-09/26/01	
		South Bend Data	St. Joseph River	Colfax	10/03/01		45	No	115	08/30/01-10/03/01	
		South Bend Data	St. Joseph River	Colfax	10/10/01		54	No	112	09/13/01-10/10/01	
		South Bend Data	St. Joseph River	Colfax	10/17/01		2050	Yes	197	09/19/01-10/17/01	
		South Bend Data	St. Joseph River	Colfax	10/24/01		261	Yes	139	09/26/01-10/24/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
21		South Bend Data	St. Joseph River	Colfax	10/31/01		56	No	149	10/03/01-10/31/01	
		South Bend Data	St. Joseph River	Colfax	11/06/01		65	No	160	10/10/01-11/06/01	
		South Bend Data	St. Joseph River	Colfax	11/15/01		89	No	177	10/17/01-11/15/01	
			St. Joseph River	Colfax	11/28/01		72	No	91	10/24/01-11/28/01	
		South Bend Data	St. Joseph River	Colfax	12/05/01		74	No	70	10/31/01-12/05/01	
		South Bend Data	St. Joseph River	Colfax	12/13/01		109	No	80	11/06/01-12/13/01	
		South Bend Data	St. Joseph River	Colfax	12/27/01		63	No	80	11/15/01-12/27/01	
		South Bend Data	St. Joseph River	Colfax	01/03/02		54	No			
		South Bend Data	St. Joseph River	Colfax	01/16/02		41	No			
		South Bend Data	St. Joseph River	Colfax	01/23/02		38	No			
		South Bend Data	St. Joseph River	Colfax	02/06/02		116	No			
		South Bend Data	St. Joseph River	Colfax	02/20/02		168	No	70	01/03/02-02/20/02	
		South Bend Data	St. Joseph River	Colfax	03/06/02		78	No	75	01/16/02-03/06/02	
		South Bend Data	St. Joseph River	Colfax	03/14/02		65	No	82	01/23/02-03/14/02	
		South Bend Data	St. Joseph River	Colfax	03/20/02		32	No	79	02/06/02-03/20/02	
		South Bend Data	St. Joseph River	Colfax	03/27/02		53	No	68	02/20/02-03/27/02	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
21		South Bend Data	St. Joseph River	Colfax	04/03/02		1188	Yes	100	03/06/02-04/03/02	
		South Bend Data	St. Joseph River	Colfax	04/11/02		108	No	107	03/14/02-04/11/02	
		South Bend Data	St. Joseph River	Colfax	04/17/02		1450	Yes	199	03/20/02-04/17/02	
		South Bend Data	St. Joseph River	Colfax	04/25/02		198	No	287	03/27/02-04/25/02	
			St. Joseph River	Colfax	04/30/02		246	Yes	390	04/03/02-04/30/02	
		South Bend Data	St. Joseph River	Colfax	05/07/02		54	No	210	04/11/02-05/07/02	
		South Bend Data	St. Joseph River	Colfax	05/15/02		860	Yes	319	04/17/02-05/15/02	
		South Bend Data	St. Joseph River	Colfax	05/22/02		62	No	170	04/25/02-05/22/02	
		South Bend Data	St. Joseph River	Colfax	05/28/02		23	No	110	04/30/02-05/28/02	
		South Bend Data	St. Joseph River	Colfax	06/13/02		48	No	80	05/07/02-06/13/02	
		South Bend Data	St. Joseph River	Colfax	06/19/02		47	No	77	05/15/02-06/19/02	
		South Bend Data	St. Joseph River	Colfax	07/02/02		34	No	41	05/22/02-07/02/02	
		South Bend Data	St. Joseph River	Colfax	07/18/02		58	No	40	05/28/02-07/18/02	
		South Bend Data	St. Joseph River	Colfax	07/25/02		93	No	53	06/13/02-07/25/02	
		South Bend Data	St. Joseph River	Colfax	07/30/02		149	No	66	06/19/02-07/30/02	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
21		South Bend Data	St. Joseph River	Colfax	08/08/02		50	No	67	07/02/02-08/08/02	
		South Bend Data	St. Joseph River	Colfax	08/14/02		3780	Yes	172	07/18/02-08/14/02	
		South Bend Data	St. Joseph River	Colfax	08/20/02		120	No	199	07/25/02-08/20/02	
		South Bend Data	St. Joseph River	Colfax	08/29/02		85	No	196	07/30/02-08/29/02	
		South Bend Data	St. Joseph River	Colfax	09/05/02		48	No	156	08/08/02-09/05/02	
		South Bend Data	St. Joseph River	Colfax	09/12/02		46	No	153	08/14/02-09/12/02	
		South Bend Data	St. Joseph River	Colfax	09/19/02		65	No	68	08/20/02-09/19/02	
		South Bend Data	St. Joseph River	Colfax	09/26/02		46	No	56	08/29/02-09/26/02	
		South Bend Data	St. Joseph River	Colfax	10/03/02		44	No	49	09/05/02-10/03/02	
		South Bend Data	St. Joseph River	Colfax	10/10/02		29	No	45	09/12/02-10/10/02	
		South Bend Data	St. Joseph River	Colfax	10/17/02		10	No	33	09/19/02-10/17/02	
		South Bend Data	St. Joseph River	Colfax	10/24/02		9	No	22	09/26/02-10/24/02	
		South Bend Data	St. Joseph River	Colfax	10/31/02		12	No	17	10/03/02-10/31/02	
		South Bend Data	St. Joseph River	Colfax	11/06/02		25	No	15	10/10/02-11/06/02	
		South Bend Data	St. Joseph River	Colfax	11/14/02		28	No	15	10/17/02-11/14/02	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
21		South Bend Data	St. Joseph River	Colfax	11/21/02		29	No	19	10/24/02-11/21/02	
		South Bend Data	St. Joseph River	Colfax	12/05/02		62	No	27	10/31/02-12/05/02	
		South Bend Data	St. Joseph River	Colfax	12/19/02		230	No	49	11/06/02-12/19/02	
		South Bend Data	St. Joseph River	Colfax	01/09/03		47	No			
		South Bend Data	St. Joseph River	Colfax	01/16/03		92	No			
22	LMJ240-0019	IDEM Data	St. Joseph River	Riverside Dr At End of Race	09/26/00	AA02068	261	Yes			
	LMJ240-0019	IDEM Data	St. Joseph River	Riverside Dr At End of Race	10/04/00	AA02223	2420	Yes			
	LMJ240-0019	IDEM Data	St. Joseph River	Riverside Dr At End of Race	10/11/00	AA02585	37	No			
	LMJ240-0019	IDEM Data	St. Joseph River	Riverside Dr At End of Race	10/17/00	AA02839	31	No			
	LMJ240-0019	IDEM Data	St. Joseph River	Riverside Dr At End of Race	10/24/00	AA02977	2420	Yes	281	09/26/00-10/24/00	
	LMJ240-0018	IDEM Data	St. Joseph River	Riverside Dr At End of Race	09/26/00	AA02071	345	Yes			
	LMJ240-0018	IDEM Data	St. Joseph River	Riverside Dr At End of Race	10/03/00	AA02221	2420	Yes			
	LMJ240-0018	IDEM Data	St. Joseph River	Riverside Dr At End of Race	10/11/00	AA02586	73	No			
	LMJ240-0018	IDEM Data	St. Joseph River	Riverside Dr At End of Race	10/17/00	AA02840	23	No			
	LMJ240-0018	IDEM Data	St. Joseph River	Riverside Dr At End of Race	10/24/00	AA02976	2419	Yes	321	09/26/00-10/24/00	



Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
23		South Bend Data	St. Joseph River	Angela St.	03/08/00		160	No			
		South Bend Data	St. Joseph River	Angela St.	03/22/00		116	No			
		South Bend Data	St. Joseph River	Angela St.	03/29/00		34	No			
		South Bend Data	St. Joseph River	Angela St.	04/05/00		47	No			
		South Bend Data	St. Joseph River	Angela St.	04/12/00		32	No	62	03/08/00-04/12/00	
		South Bend Data	St. Joseph River	Angela St.	04/19/00		63	No	52	03/22/00-04/19/00	
		South Bend Data	St. Joseph River	Angela St.	04/26/00		116	No	52	03/29/00-04/26/00	
			St. Joseph River	Angela St.	05/03/00		105	No	65	04/05/00-05/03/00	
		South Bend Data	St. Joseph River	Angela St.	05/10/00		1235	Yes	125	04/12/00-05/10/00	
		South Bend Data	St. Joseph River	Angela St.	05/24/00		128	No	165	04/19/00-05/24/00	
		South Bend Data	St. Joseph River	Angela St.	05/31/00		280	Yes	222	04/26/00-05/31/00	
		South Bend Data	St. Joseph River	Angela St.	06/07/00		1755	Yes	382	05/03/00-06/07/00	
		South Bend Data	St. Joseph River	Angela St.	06/14/00		1310	Yes	633	05/10/00-06/14/00	
		South Bend Data	St. Joseph River	Angela St.	06/21/00		1385	Yes	648	05/24/00-06/21/00	
		South Bend Data	St. Joseph River	Angela St.	06/28/00		240	Yes	735	05/31/00-06/28/00	
		South Bend Data	St. Joseph River	Angela St.	07/05/00		128	No	628	06/07/00-07/05/00	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
23		South Bend Data	St. Joseph River	Angela St.	07/12/00		215	No	413	06/14/00-07/12/00	
		South Bend Data	St. Joseph River	Angela St.	07/19/00		88	No	241	06/21/00-07/19/00	
		South Bend Data	St. Joseph River	Angela St.	07/26/00		88	No	139	06/28/00-07/26/00	
		South Bend Data	St. Joseph River	Angela St.	08/02/00		114	No	119	07/05/00-08/02/00	
		South Bend Data	St. Joseph River	Angela St.	08/09/00		298	Yes	141	07/12/00-08/09/00	
		South Bend Data	St. Joseph River	Angela St.	08/23/00		90	No	119	07/19/00-08/23/00	
		South Bend Data	St. Joseph River	Angela St.	08/30/00		84	No	118	07/26/00-08/30/00	
		South Bend Data	St. Joseph River	Angela St.	09/06/00		66	No	111	08/02/00-09/06/00	
		South Bend Data	St. Joseph River	Angela St.	09/20/00		112	No	111	08/09/00-09/20/00	
		South Bend Data	St. Joseph River	Angela St.	09/27/00		138	No	95	08/23/00-09/27/00	
	LMJ240-0013	IDEM Data	St. Joseph River	Angela St.	09/27/00	AA01985	40	No			
		South Bend Data	St. Joseph River	Angela St.	10/04/00		6240	Yes	222	08/30/00-10/04/00	
	LMJ240-0013	IDEM Data	St. Joseph River	Angela St.	10/04/00	AA02329	21000	Yes			
	LMJ240-0013	IDEM Data	St. Joseph River	Angela St.	10/12/00	AA02544	60	No			
		South Bend Data	St. Joseph River	Angela St.	10/18/00		12	No	150	09/06/00-10/18/00	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
23	LMJ240-0013	IDEM Data	St. Joseph River	Angela St.	10/19/00	AA02784	10	No			
		South Bend Data	St. Joseph River	Angela St.	10/25/00		150	No	177	09/20/00-10/25/00	
	LMJ240-0013	IDEM Data	St. Joseph River	Angela St.	10/26/00	AA02997	110	No	141	09/27/00-10/26/00	
		South Bend Data	St. Joseph River	Angela St.	11/01/00		28	No	134	09/27/00-11/01/00	
		South Bend Data	St. Joseph River	Angela St.	11/08/00		48	No	109	10/04/00-11/08/00	
		South Bend Data	St. Joseph River	Angela St.	11/29/00		TNTC				
		South Bend Data	St. Joseph River	Angela St.	12/06/00		137	No			
		South Bend Data	St. Joseph River	Angela St.	01/24/01		96	No			
		South Bend Data	St. Joseph River	Angela St.	01/31/01		405	Yes			
		South Bend Data	St. Joseph River	Angela St.	02/08/01		84	No			
		South Bend Data	St. Joseph River	Angela St.	02/15/01		665	Yes			
		South Bend Data	St. Joseph River	Angela St.	02/22/01		84	No	179	01/24/01-02/22/01	
		South Bend Data	St. Joseph River	Angela St.	02/28/01		305	Yes	225	01/31/01-02/28/01	
		South Bend Data	St. Joseph River	Angela St.	03/07/01		83	No	164	02/08/01-03/07/01	
		South Bend Data	St. Joseph River	Angela St.	03/15/01		69	No	158	02/15/01-03/15/01	
		South Bend Data	St. Joseph River	Angela St.	03/22/01		239	Yes	129	02/22/01-03/22/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
23		South Bend Data	St. Joseph River	Angela St.	03/28/01		294	Yes	165	02/28/01-03/28/01	
		South Bend Data	St. Joseph River	Angela St.	04/04/01		6	No	75	03/07/01-04/04/01	
		South Bend Data	St. Joseph River	Angela St.	04/10/01		98	No	78	03/15/01-04/10/01	
		South Bend Data	St. Joseph River	Angela St.	04/18/01		166	No	93	03/22/01-04/18/01	
		South Bend Data	St. Joseph River	Angela St.	04/25/01		208	No	90	03/28/01-04/25/01	
		South Bend Data	St. Joseph River	Angela St.	05/02/01		132	No	77	04/04/01-05/02/01	
		South Bend Data	St. Joseph River	Angela St.	05/09/01		231	No	159	04/10/01-05/09/01	
		South Bend Data	St. Joseph River	Angela St.	05/17/01		460	Yes	217	04/18/01-05/17/01	
		South Bend Data	St. Joseph River	Angela St.	05/23/01		215	No	229	04/25/01-05/23/01	
		South Bend Data	St. Joseph River	Angela St.	05/30/01		118	No	204	05/02/01-05/30/01	
		South Bend Data	St. Joseph River	Angela St.	06/06/01		358	Yes	249	05/09/01-06/06/01	
		South Bend Data	St. Joseph River	Angela St.	06/14/01		385	Yes	276	05/17/01-06/14/01	
		South Bend Data	St. Joseph River	Angela St.	06/20/01		270	Yes	248	05/23/01-06/20/01	
		South Bend Data	St. Joseph River	Angela St.	06/28/01		155	No	233	05/30/01-06/28/01	
		South Bend Data	St. Joseph River	Angela St.	07/11/01		93	No	222	06/06/01-07/11/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
23		South Bend Data	St. Joseph River	Angela St.	07/18/01		194	No	196	06/14/01-07/18/01	
		South Bend Data	St. Joseph River	Angela St.	07/26/01		408	Yes	198	06/20/01-07/26/01	
		South Bend Data	St. Joseph River	Angela St.	08/01/01		115	No	167	06/28/01-08/01/01	
		South Bend Data	St. Joseph River	Angela St.	08/09/01		92	No	151	07/11/01-08/09/01	
		South Bend Data	St. Joseph River	Angela St.	08/15/01		124	No	160	07/18/01-08/15/01	
		South Bend Data	St. Joseph River	Angela St.	08/22/01		8500	Yes	340	07/26/01-08/22/01	
		South Bend Data	St. Joseph River	Angela St.	08/30/01		74	No	242	08/01/01-08/30/01	
		South Bend Data	St. Joseph River	Angela St.	09/13/01		96	No	233	08/09/01-09/13/01	
		South Bend Data	St. Joseph River	Angela St.	09/19/01		305	Yes	296	08/15/01-09/09/01	
		South Bend Data	St. Joseph River	Angela St.	09/26/01		42	No	239	08/22/01-09/26/01	
		South Bend Data	St. Joseph River	Angela St.	10/03/01		24	No	74	08/30/01-10/03/01	
		South Bend Data	St. Joseph River	Angela St.	10/10/01		50	No	68	09/13/01-10/10/01	
		South Bend Data	St. Joseph River	Angela St.	10/17/01		2080	Yes	126	09/19/01-10/17/01	
		South Bend Data	St. Joseph River	Angela St.	10/24/01		420	Yes	135	09/26/01-10/24/01	
		South Bend Data	St. Joseph River	Angela St.	10/31/01		80	No	153	10/03/01-10/31/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
23		South Bend Data	St. Joseph River	Angela St.	11/06/01		108	No	207	10/10/01-11/06/01	
		South Bend Data	St. Joseph River	Angela St.	11/15/01		208	No	275	10/24/01-11/15/01	
		South Bend Data	St. Joseph River	Angela St.	11/28/01		96	No	149	10/31/01-11/28/01	
		South Bend Data	St. Joseph River	Angela St.	12/05/01		88	No	109	11/06/01-12/05/01	
		South Bend Data	St. Joseph River	Angela St.	12/13/01		125	No	119	11/15/01-12/13/01	
		South Bend Data	St. Joseph River	Angela St.	12/27/01		95	No	116	11/28/01-12/27/01	
		South Bend Data	St. Joseph River	Angela St.	01/03/02		77	No			
		South Bend Data	St. Joseph River	Angela St.	01/16/02		40	No			
		South Bend Data	St. Joseph River	Angela St.	01/23/02		34	No			
		South Bend Data	St. Joseph River	Angela St.	02/06/02		102	No			
		South Bend Data	St. Joseph River	Angela St.	02/20/02		260	Yes	77	01/03/02-02/20/02	
		South Bend Data	St. Joseph River	Angela St.	03/06/02		86	No	79	01/16/02-03/06/02	
		South Bend Data	St. Joseph River	Angela St.	03/14/02		58	No	85	01/23/02-03/14/02	
		South Bend Data	St. Joseph River	Angela St.	03/20/02		50	No	92	02/06/02-03/20/02	
		South Bend Data	St. Joseph River	Angela St.	03/27/02		61	No	83	02/20/02-03/27/02	
		South Bend Data	St. Joseph River	Angela St.	04/03/02		1025	Yes	109	03/06/02-04/03/02	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
23		South Bend Data	St. Joseph River	Angela St.	04/11/02		144	No	121	03/14/02-04/11/02	
		South Bend Data	St. Joseph River	Angela St.	04/17/02		1600	Yes	235	03/20/02-04/17/02	
		South Bend Data	St. Joseph River	Angela St.	04/25/02		132	No	286	03/24/02-04/25/02	
		South Bend Data	St. Joseph River	Angela St.	04/30/02		170	No	351	03/27/02-04/30/02	
		South Bend Data	St. Joseph River	Angela St.	05/07/02		56	No	196	04/03/02-05/07/02	
		South Bend Data	St. Joseph River	Angela St.	05/15/02		920	Yes	284	04/11/02-05/15/02	
		South Bend Data	St. Joseph River	Angela St.	05/22/02		58	No	146	04/25/02-05/22/02	
		South Bend Data	St. Joseph River	Angela St.	05/28/02		24	No	104	04/30/02-05/28/02	
		South Bend Data	St. Joseph River	Angela St.	06/13/02		56	No	83	05/07/02-06/13/02	
		South Bend Data	St. Joseph River	Angela St.	06/19/02		62	No	85	05/15/02-06/19/02	
		South Bend Data	St. Joseph River	Angela St.	07/02/02		69	No	51	05/22/02-07/02/02	
		South Bend Data	St. Joseph River	Angela St.	07/18/02		77	No	54	05/28/02-07/18/02	
		South Bend Data	St. Joseph River	Angela St.	07/25/02		120	No	74	06/13/02-07/25/02	
		South Bend Data	St. Joseph River	Angela St.	07/30/02		272	Yes	101	06/19/02-07/30/02	
		South Bend Data	St. Joseph River	Angela St.	08/08/02		107	No	113	07/02/02-08/08/02	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
23		South Bend Data	St. Joseph River	Angela St.	08/14/02		2760	Yes	237	07/18/02-08/14/02	
		South Bend Data	St. Joseph River	Angela St.	08/20/02		100	No	249	07/25/02-08/20/02	
		South Bend Data	St. Joseph River	Angela St.	08/29/02		87	No	234	07/30/02-08/29/02	
		South Bend Data	St. Joseph River	Angela St.	09/05/02		92	No	188	08/08/02-09/05/02	
		South Bend Data	St. Joseph River	Angela St.	09/12/02		58	No	167	08/14/02-09/12/02	
		South Bend Data	St. Joseph River	Angela St.	09/19/02		140	No	92	08/20/02-09/19/02	
		South Bend Data	St. Joseph River	Angela St.	09/26/02		64	No	84	08/29/02-09/26/02	
		South Bend Data	St. Joseph River	Angela St.	10/03/02		58	No	77	09/05/02-10/03/03	
		South Bend Data	St. Joseph River	Angela St.	10/10/02		36	No	64	09/12/02-10/10/02	
		South Bend Data	St. Joseph River	Angela St.	10/17/02		11	No	46	09/19/02-10/17/02	
		South Bend Data	St. Joseph River	Angela St.	10/24/02		12	No	28	09/26/02-10/24/02	
		South Bend Data	St. Joseph River	Angela St.	10/31/02		10	No	19	10/03/02-10/31/02	
		South Bend Data	St. Joseph River	Angela St.	11/06/02		57	No	19	10/10/02-11/06/02	
		South Bend Data	St. Joseph River	Angela St.	11/14/02		62	No	22	10/17/02-11/14/02	
		South Bend Data	St. Joseph River	Angela St.	11/21/02		32	No	27	10/24/02-11/21/02	



Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
23		South Bend Data	St. Joseph River	Angela St.	12/05/02		95	No	40	10/31/02-12/05/02	
		South Bend Data	St. Joseph River	Angela St.	12/19/02		402	Yes	85	11/06/02-12/19/02	
		South Bend Data	St. Joseph River	Angela St.	01/09/03		87	No			
		South Bend Data	St. Joseph River	Angela St.	01/16/03		172	No			
24		South Bend Data	Outfall	SB WWTP	03/08/00		4200	Yes			
		South Bend Data	Outfall	SB WWTP	03/22/00		3850	Yes			
		South Bend Data	Outfall	SB WWTP	03/29/00		4525	Yes			
		South Bend Data	Outfall	SB WWTP	04/05/00		57	No			
		South Bend Data	Outfall	SB WWTP	04/12/00		46	No	719	03/08/00-04/12/00	
		South Bend Data	Outfall	SB WWTP	04/19/00		56	No	303	03/22/00-04/19/00	
		South Bend Data	Outfall	SB WWTP	04/26/00		72	No	137	03/29/00-04/26/00	
		South Bend Data	Outfall	SB WWTP	05/03/00		12	No	42	04/05/00-05/03/00	
		South Bend Data	Outfall	SB WWTP	05/10/00		8	No	28	04/12/00-05/10/00	
		South Bend Data	Outfall	SB WWTP	05/24/00		2	No	15	04/19/00-05/24/00	
		South Bend Data	Outfall	SB WWTP	05/31/00		42	No	14	04/26/00-05/31/00	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
24		South Bend Data	Outfall	SB WWTP	06/07/00		25	No	12	05/03/00-06/07/00	
		South Bend Data	Outfall	SB WWTP	06/14/00		19	No	13	05/10/00-06/14/00	
		South Bend Data	Outfall	SB WWTP	06/21/00		20	No	15	05/24/00-06/21/00	
		South Bend Data	Outfall	SB WWTP	06/28/00		20	No	24	05/31/00-06/28/00	
		South Bend Data	Outfall	SB WWTP	07/05/00		14	No	19	06/07/00-07/05/00	
		South Bend Data	Outfall	SB WWTP	07/12/00		16	No	18	06/14/00-07/12/00	
		South Bend Data	Outfall	SB WWTP	07/19/00		15	No	17	06/21/00-07/19/00	
		South Bend Data	Outfall	SB WWTP	07/26/00		14	No	16	06/28/00-07/26/00	
		South Bend Data	Outfall	SB WWTP	08/02/00		20	No	16	07/05/00-08/02/00	
		South Bend Data	Outfall	SB WWTP	08/09/00		16	No	16	07/12/00-08/09/00	
		South Bend Data	Outfall	SB WWTP	08/23/00		70	No	22	07/19/00-08/23/00	
		South Bend Data	Outfall	SB WWTP	08/30/00		14	No	21	07/26/00-08/30/00	
		South Bend Data	Outfall	SB WWTP	09/06/00		47	No	27	08/02/00-09/06/00	
		South Bend Data	Outfall	SB WWTP	09/20/00		52	No	33	08/09/00-09/20/00	
		South Bend Data	Outfall	SB WWTP	09/27/00		18	No	34	08/23/00-09/27/00	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
24		South Bend Data	Outfall	SB WWTP	10/04/00		72	No	34	08/30/00-10/04/00	
		South Bend Data	Outfall	SB WWTP	10/18/00		22	No	37	09/06/00-10/18/00	
		South Bend Data	Outfall	SB WWTP	10/25/00		9	No	27	09/20/00-10/25/00	
		South Bend Data	Outfall	SB WWTP	11/01/00		1740	Yes	54	09/27/00-11/01/00	
		South Bend Data	Outfall	SB WWTP	11/08/00		5850	Yes	171	10/04/00-11/08/00	
		South Bend Data	Outfall	SB WWTP	11/29/00		3662	Yes	375	10/18/00-11/29/00	
		South Bend Data	Outfall	SB WWTP	12/06/00		3373	Yes	1025	10/25/00-12/06/00	
		South Bend Data	Outfall	SB WWTP	01/24/01		6275	Yes			
		South Bend Data	Outfall	SB WWTP	01/31/01		12400	Yes			
		South Bend Data	Outfall	SB WWTP	02/08/01		5275	Yes			
		South Bend Data	Outfall	SB WWTP	02/15/01		5125	Yes			
		South Bend Data	Outfall	SB WWTP	02/22/01		2662	Yes	5619	01/24/01-02/22/01	
		South Bend Data	Outfall	SB WWTP	02/28/01		6250	Yes	5614	01/31/01-02/28/01	
		South Bend Data	Outfall	SB WWTP	03/07/01		5250	Yes	4728	02/08/01-03/07/01	
		South Bend Data	Outfall	SB WWTP	03/15/01		2975	Yes	4216	02/15/01-03/15/01	
		South Bend Data	Outfall	SB WWTP	03/22/01		7150	Yes	4506	02/22/01-03/22/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
24		South Bend Data	Outfall	SB WWTP	03/28/01		300	Yes	2912	02/28/01-03/28/01	
		South Bend Data	Outfall	SB WWTP	04/04/01		170	No	1416	03/07/01-04/04/01	
		South Bend Data	Outfall	SB WWTP	04/10/01		450	Yes	866	03/15/01-04/10/01	
		South Bend Data	Outfall	SB WWTP	04/18/01		126	No	460	03/22/01-04/18/01	
		South Bend Data	Outfall	SB WWTP	04/25/01		104	No	198	03/28/01-04/25/01	
		South Bend Data	Outfall	SB WWTP	05/02/01		112	No	162	04/04/01-05/02/01	
		South Bend Data	Outfall	SB WWTP	05/09/01		118	No	151	04/10/01-05/09/01	
		South Bend Data	Outfall	SB WWTP	05/17/01		36	No	91	04/18/01-05/17/01	
		South Bend Data	Outfall	SB WWTP	05/23/01		27	No	67	04/25/01-05/23/01	
		South Bend Data	Outfall	SB WWTP	05/30/01		60	No	60	05/02/01-05/30/01	
		South Bend Data	Outfall	SB WWTP	06/06/01		33	No	47	05/09/01-06/06/01	
		South Bend Data	Outfall	SB WWTP	06/14/01		114	No	47	05/17/01-06/14/01	
		South Bend Data	Outfall	SB WWTP	06/20/01		43	No	48	05/23/01-06/20/01	
		South Bend Data	Outfall	SB WWTP	06/28/01		86	No	61	05/30/01-06/28/01	
		South Bend Data	Outfall	SB WWTP	07/11/01		44	No	57	06/06/01-07/11/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
24		South Bend Data	Outfall	SB WWTP	07/18/01		131	No	75	06/14/01-07/18/01	
		South Bend Data	Outfall	SB WWTP	07/26/01		30	No	58	06/20/01-07/26/01	
		South Bend Data	Outfall	SB WWTP	08/01/01		57	No	61	06/28/01-08/01/01	
		South Bend Data	Outfall	SB WWTP	08/09/01		75	No	59	07/11/01-08/09/01	
		South Bend Data	Outfall	SB WWTP	08/15/01		220	No	82	07/18/01-08/15/01	
		South Bend Data	Outfall	SB WWTP	08/22/01		150	No	84	07/26/01-08/22/01	
		South Bend Data	Outfall	SB WWTP	08/30/01		133	No	113	08/01/01-08/30/01	
		South Bend Data	Outfall	SB WWTP	09/13/01		154	No	138	08/09/01-09/13/01	
		South Bend Data	Outfall	SB WWTP	09/19/01		120	No	152	08/15/01-09/19/01	
		South Bend Data	Outfall	SB WWTP	09/26/01		14	No	88	08/22/01-09/26/01	
		South Bend Data	Outfall	SB WWTP	10/03/01		336	Yes	103	08/30/01-10/03/01	
		South Bend Data	Outfall	SB WWTP	10/10/01		120	No	101	09/13/01-10/10/01	
		South Bend Data	Outfall	SB WWTP	10/17/01		136	No	98	09/19/01-10/17/01	
		South Bend Data	Outfall	SB WWTP	10/24/01		41	No	79	09/26/01-10/24/01	
		South Bend Data	Outfall	SB WWTP	10/31/01		34	No	95	10/03/01-10/31/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
24		South Bend Data	Outfall	SB WWTP	11/06/01		5780	Yes	167	10/10/01-11/06/01	
		South Bend Data	Outfall	SB WWTP	11/15/01		9200	Yes	399	10/17/01-11/15/01	
		South Bend Data	Outfall	SB WWTP	11/28/01		6800	Yes	872	10/24/01-11/28/01	
		South Bend Data	Outfall	SB WWTP	12/05/01		3950	Yes	2174	10/31/01-12/05/01	
		South Bend Data	Outfall	SB WWTP	12/13/01		6500	Yes	6217	11/06/01-12/13/01	
		South Bend Data	Outfall	SB WWTP	12/27/01		2400	Yes	5214	11/15/01-12/27/01	
		South Bend Data	Outfall	SB WWTP	01/03/02		2100	Yes			
		South Bend Data	Outfall	SB WWTP	01/16/02		1058	Yes			
		South Bend Data	Outfall	SB WWTP	01/23/02		1188	Yes			
		South Bend Data	Outfall	SB WWTP	02/06/02		990	Yes			
		South Bend Data	Outfall	SB WWTP	02/20/02		2150	Yes	1412	01/03/02-02/20/02	
		South Bend Data	Outfall	SB WWTP	03/06/02		2150	Yes	1419	01/16/02-03/06/02	
		South Bend Data	Outfall	SB WWTP	03/14/02		1700	Yes	1560	01/23/02-03/14/02	
		South Bend Data	Outfall	SB WWTP	03/20/02		1310	Yes	1591	02/06/02-03/20/02	
		South Bend Data	Outfall	SB WWTP	03/27/02		nd				
		South Bend Data	Outfall	SB WWTP	04/03/02		24	No			

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
24		South Bend Data	Outfall	SB WWTP	04/11/02		77	No			
		South Bend Data	Outfall	SB WWTP	04/17/02		nd				
		South Bend Data	Outfall	SB WWTP	04/25/02		26	No			
		South Bend Data	Outfall	SB WWTP	04/30/02		14	No			
		South Bend Data	Outfall	SB WWTP	05/07/02		6	No			
		South Bend Data	Outfall	SB WWTP	05/15/02		44	No			
		South Bend Data	Outfall	SB WWTP	05/22/02		95	No	25	04/25/02-05/22/02	
		South Bend Data	Outfall	SB WWTP	05/28/02		46	No	28	04/30/02-05/28/02	
		South Bend Data	Outfall	SB WWTP	06/13/02		44	No	35	05/07/02-06/13/02	
		South Bend Data	Outfall	SB WWTP	06/19/02		11	No	39	05/15/02-06/19/02	
		South Bend Data	Outfall	SB WWTP	07/02/02		22	No	34	05/22/02-07/02/02	
		South Bend Data	Outfall	SB WWTP	07/18/02		66	No	32	05/28/02-07/18/02	
		South Bend Data	Outfall	SB WWTP	07/25/02		40	No	31	06/13/02-07/25/02	
		South Bend Data	Outfall	SB WWTP	07/30/02		16	No	25	06/19/02-07/30/02	
		South Bend Data	Outfall	SB WWTP	08/08/02		20	No	28	07/02/02-08/08/02	
		South Bend Data	Outfall	SB WWTP	08/14/02		63200	Yes	140	07/18/02-08/14/02	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
24		South Bend Data	Outfall	SB WWTP	08/20/02		22	No	112	07/25/02-08/20/02	
		South Bend Data	Outfall	SB WWTP	08/29/02		20	No	98	07/30/02-08/29/02	
		South Bend Data	Outfall	SB WWTP	09/05/02		16	No	98	08/08/02-09/05/02	
		South Bend Data	Outfall	SB WWTP	09/12/02		5	No	74	08/14/02-09/12/02	
		South Bend Data	Outfall	SB WWTP	09/19/02		27	No	16	08/20/02-09/19/02	
		South Bend Data	Outfall	SB WWTP	09/26/02		16	No	15	08/29/02-09/26/02	
		South Bend Data	Outfall	SB WWTP	10/03/02		2	No	9	09/05/02-10/03/02	
		South Bend Data	Outfall	SB WWTP	10/10/02		4	No	7	09/12/02-10/10/02	
		South Bend Data	Outfall	SB WWTP	10/17/02		18	No	9	09/19/02-10/17/02	
		South Bend Data	Outfall	SB WWTP	10/24/02		16	No	8	09/26/02-10/24/02	
		South Bend Data	Outfall	SB WWTP	10/31/02		26	No	9	10/03/02-10/31/02	
		South Bend Data	Outfall	SB WWTP	11/06/02		2200	Yes	37	10/10/02-11/06/02	
		South Bend Data	Outfall	SB WWTP	11/14/02		63200	Yes	253	10/17/02-11/14/02	
		South Bend Data	Outfall	SB WWTP	11/21/02		5800	Yes	804	10/24/02-11/21/02	
		South Bend Data	Outfall	SB WWTP	12/05/02		10800	Yes	2958	10/31/02-12/05/02	



Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
24		South Bend Data	Outfall	SB WWTP	12/19/02		2280	Yes	7237	11/06/02-12/19/02	
		Elkhart Data	Outfall	SB WWTP	01/06/03		8400	Yes			
		South Bend Data	Outfall	SB WWTP	01/09/03		11200	Yes			
		South Bend Data	Outfall	SB WWTP	01/16/03		8400	Yes			
25	LMJ240-0012	IDEM Data	Juday Cr	Izaak Walton Pk	09/27/00	AA01984	140				
	LMJ240-0012	IDEM Data	Juday Cr	Izaak Walton Pk	10/04/00	AA02328	3000				
	LMJ240-0012	IDEM Data	Juday Cr	Izaak Walton Pk	10/12/00	AA02543	110				
	LMJ240-0012	IDEM Data	Juday Cr	Izaak Walton Pk	10/19/00	AA02783	< 10				
	LMJ240-0012	IDEM Data	Juday Cr	Izaak Walton Pk	10/26/00	AA02993	130		<143	09/27/00-10/26/00	
26	LMJ240-0011	IDEM Data	St. Joseph River	Darden Rd	09/27/00	AA01983	560	Yes			
	LMJ240-0011	IDEM Data	St. Joseph River	Darden Rd	10/04/00	AA02327	1000	Yes			
	LMJ240-0011	IDEM Data	St. Joseph River	Darden Rd	10/12/00	AA02542	120	No			
	LMJ240-0011	IDEM Data	St. Joseph River	Darden Rd	10/19/00	AA02782	10	No			

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
26	LMJ240-0011	IDEM Data	St. Joseph River	Darden Rd	10/26/00	AA02996	100	No	146	09/27/00-10/26/00	
27		South Bend Data	St. Joseph River	Auten Rd.	03/08/00		180	No			
		South Bend Data	St. Joseph River	Auten Rd.	03/22/00		340	Yes			
		South Bend Data	St. Joseph River	Auten Rd.	03/29/00		214	No			
		South Bend Data	St. Joseph River	Auten Rd.	04/05/00		18	No			
		South Bend Data	St. Joseph River	Auten Rd.	04/12/00		80	No	114	03/08/00-04/12/00	
		South Bend Data	St. Joseph River	Auten Rd.	04/19/00		135	No	107	03/22/00-04/19/00	
		South Bend Data	St. Joseph River	Auten Rd.	04/26/00		94	No	83	03/29/00-04/26/00	
		South Bend Data	St. Joseph River	Auten Rd.	05/03/00		174	No	80	04/05/00-05/03/00	
		South Bend Data	St. Joseph River	Auten Rd.	05/10/00		1295	Yes	187	04/12/00-05/10/00	
		South Bend Data	St. Joseph River	Auten Rd.	05/24/00		132	No	207	04/19/00-05/24/00	
		South Bend Data	St. Joseph River	Auten Rd.	05/31/00		427	Yes	260	04/26/00-05/31/00	
		South Bend Data	St. Joseph River	Auten Rd.	06/07/00		2160	Yes	487	05/03/00-06/07/00	
		South Bend Data	St. Joseph River	Auten Rd.	06/14/00		2510	Yes	831	05/10/00-06/14/00	
		South Bend Data	St. Joseph River	Auten Rd.	06/21/00		5975	Yes	1128	05/24/00-06/21/00	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
27		South Bend Data	St. Joseph River	Auten Rd.	06/28/00		320	Yes	1347	05/31/00-06/28/00	
		South Bend Data	St. Joseph River	Auten Rd.	07/05/00		196	No	1152	06/07/00-07/05/00	
		South Bend Data	St. Joseph River	Auten Rd.	07/12/00		172	No	695	06/14/00-07/12/00	
		South Bend Data	St. Joseph River	Auten Rd.	07/19/00		78	No	347	06/21/00-07/19/00	
		South Bend Data	St. Joseph River	Auten Rd.	07/26/00		92	No	151	06/28/00-07/26/00	
		South Bend Data	St. Joseph River	Auten Rd.	08/02/00		176	No	134	07/05/00-08/02/00	
		South Bend Data	St. Joseph River	Auten Rd.	08/09/00		237	Yes	139	07/12/00-08/09/00	
		South Bend Data	St. Joseph River	Auten Rd.	08/23/00		66	No	115	07/19/00-08/23/00	
		South Bend Data	St. Joseph River	Auten Rd.	08/30/00		17	No	84	07/26/00-08/30/00	
		South Bend Data	St. Joseph River	Auten Rd.	09/06/00		28	No	67	08/02/00-09/06/00	
		South Bend Data	St. Joseph River	Auten Rd.	09/20/00		60	No	54	08/09/00-09/20/00	
		South Bend Data	St. Joseph River	Auten Rd.	09/27/00		238	Yes	54	08/23/00-09/27/00	
	LMJ240-0008	IDEM Data	St. Joseph River	Auten Rd.	09/27/00	AA01981	330	Yes			
		South Bend Data	St. Joseph River	Auten Rd.	10/04/00		13520	Yes	156	08/30/00-10/04/00	
	LMJ240-0008	IDEM Data	St. Joseph River	Auten Rd.	10/04/00	AA02324	20000	Yes			

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
27	LMJ240-0008	IDEM Data	St. Joseph River	Auten Rd.	10/12/00	AA02541	80	No			
	LMJ240-0008	IDEM Data	St. Joseph River	Auten Rd.	10/18/00	AA02780	30	No			
		South Bend Data	St. Joseph River	Auten Rd.	10/18/00		36	No	181	09/06/00-10/1800	
		South Bend Data	St. Joseph River	Auten Rd.	10/25/00		293	Yes	290	09/20/00-10/25/00	
	LMJ240-0008	IDEM Data	St. Joseph River	Auten Rd.	10/26/00	AA02995	130	No	920	09/27/00-10/26/00	
		South Bend Data	St. Joseph River	Auten Rd.	11/01/00		128	No	337	09/27/00-11/01/00	
		South Bend Data	St. Joseph River	Auten Rd.	11/08/00		216	No	330	10/04/00-11/08/00	
		South Bend Data	St. Joseph River	Auten Rd.	11/29/00		TNTC				
		South Bend Data	St. Joseph River	Auten Rd.	12/06/00		668	Yes			
		South Bend Data	St. Joseph River	Auten Rd.	01/24/01		488	Yes			
		South Bend Data	St. Joseph River	Auten Rd.	01/31/01		710	Yes			
		South Bend Data	St. Joseph River	Auten Rd.	02/08/01		2920	Yes			
		South Bend Data	St. Joseph River	Auten Rd.	02/15/01		990	Yes			
		South Bend Data	St. Joseph River	Auten Rd.	02/22/01		173	No	704	01/24/01-02/22/01	
		South Bend Data	St. Joseph River	Auten Rd.	02/28/01		568	Yes	726	01/31/01-02/28/01	
		South Bend Data	St. Joseph River	Auten Rd.	03/07/01		216	No	572	02/08/01-03/07/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
27		South Bend Data	St. Joseph River	Auten Rd.	03/15/01		140	No	312	02/15/01-0315/01	
		South Bend Data	St. Joseph River	Auten Rd.	03/22/01		645	Yes	286	02/22/01-03/22/01	
		South Bend Data	St. Joseph River	Auten Rd.	03/28/01		1732	Yes	454	02/28/01-03/28/01	
		South Bend Data	St. Joseph River	Auten Rd.	04/04/01		15	No	219	03/07/01-04/04/01	
		South Bend Data	St. Joseph River	Auten Rd.	04/10/01		112	No	192	03/15/01-04/10/01	
		South Bend Data	St. Joseph River	Auten Rd.	04/18/01		214	No	209	03/22/01-04/18/01	
		South Bend Data	St. Joseph River	Auten Rd.	04/25/01		186	No	163	03/28/01-04/25/01	
		South Bend Data	St. Joseph River	Auten Rd.	05/02/01		82	No	89	04/04/01-05/02/01	
		South Bend Data	St. Joseph River	Auten Rd.	05/09/01		302	Yes	162	04/10/01-05/09/01	
		South Bend Data	St. Joseph River	Auten Rd.	05/17/01		635	Yes	229	04/18/01-05/17/01	
		South Bend Data	St. Joseph River	Auten Rd.	05/23/01		343	Yes	251	04/25/01-05/23/01	
		South Bend Data	St. Joseph River	Auten Rd.	05/30/01		92	No	218	05/02/01-05/30/01	
		South Bend Data	St. Joseph River	Auten Rd.	06/06/01		443	Yes	306	05/09/01-06/06/01	
		South Bend Data	St. Joseph River	Auten Rd.	06/14/01		475	Yes	335	05/17/01-06/14/01	
		South Bend Data	St. Joseph River	Auten Rd.	06/20/01		134	No	245	05/23/01-06/20/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
27		South Bend Data	St. Joseph River	Auten Rd.	06/28/01		92	No	189	05/30/01-06/28/01	
		South Bend Data	St. Joseph River	Auten Rd.	07/11/01		129	No	202	06/06/01-07/11/01	
		South Bend Data	St. Joseph River	Auten Rd.	07/18/01		182	No	169	06/14/01-07/18/01	
		South Bend Data	St. Joseph River	Auten Rd.	07/26/01		830	Yes	189	06/20/01-07/26/01	
		South Bend Data	St. Joseph River	Auten Rd.	08/01/01		88	No	174	06/28/01-08/01/01	
		South Bend Data	St. Joseph River	Auten Rd.	08/09/01		75	No	167	07/11/01-08/09/01	
		South Bend Data	St. Joseph River	Auten Rd.	08/15/01		113	No	162	07/18/01-08/15/01	
		South Bend Data	St. Joseph River	Auten Rd.	08/22/01		15200	Yes	393	07/26/01-08/22/01	
		South Bend Data	St. Joseph River	Auten Rd.	08/30/01		110	No	263	08/01/01-08/30/01	
		South Bend Data	St. Joseph River	Auten Rd.	09/13/01		99	No	269	08/09/01-09/13/01	
		South Bend Data	St. Joseph River	Auten Rd.	09/19/01		9033	Yes	701	08/15/01-09/19/01	
		South Bend Data	St. Joseph River	Auten Rd.	09/26/01		100	No	684	08/22/01-09/26/01	
		South Bend Data	St. Joseph River	Auten Rd.	10/03/01		440	Yes	337	08/30/01-10/03/01	
		South Bend Data	St. Joseph River	Auten Rd.	10/10/01		97	No	328	09/13/01-10/10/01	
		South Bend Data	St. Joseph River	Auten Rd.	10/17/01		3900	Yes	685	09/19/01-10/17/01	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
27		South Bend Data	St. Joseph River	Auten Rd.	10/24/01		350	Yes	357	09/26/01-10/24/01	
		South Bend Data	St. Joseph River	Auten Rd.	10/31/01		84	No	345	10/03/01-10/31/01	
		South Bend Data	St. Joseph River	Auten Rd.	11/06/01		232	No	304	10/10/01-11/06/01	
		South Bend Data	St. Joseph River	Auten Rd.	11/15/01		735	Yes	455	10/17/01-11/15/01	
		South Bend Data	St. Joseph River	Auten Rd.	11/28/01		512	Yes	303	10/24/01-11/28/01	
		South Bend Data	St. Joseph River	Auten Rd.	12/05/01		114	No	242	10/31/01-12/05/01	
		South Bend Data	St. Joseph River	Auten Rd.	12/13/01		230	No	296	11/06/01-12/13/01	
		South Bend Data	St. Joseph River	Auten Rd.	12/27/01		106	No	253	11/15/01-12/27/01	
			St. Joseph River	Auten Rd.	01/03/02		106	No			
	SJ-13	Elkhart Data	St. Joseph River	Auten Rd.	01/16/02		550	Yes			
		South Bend Data	St. Joseph River	Auten Rd.	01/16/02		62	No			
		South Bend Data	St. Joseph River	Auten Rd.	01/23/02		49	No			
		South Bend Data	St. Joseph River	Auten Rd.	02/06/02		99	No			
		South Bend Data	St. Joseph River	Auten Rd.	02/20/02		282	Yes	98	01/03/02-02/20/02	
		South Bend Data	St. Joseph River	Auten Rd.	03/06/02		99	No	97	01/16/02-03/06/02	
		South Bend Data	St. Joseph River	Auten Rd.	03/14/02		104	No	107	01/23/02-03/14/02	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
27		South Bend Data	St. Joseph River	Auten Rd.	03/20/02		132	No	131	02/06/02-03/20/02	
		South Bend Data	St. Joseph River	Auten Rd.	03/27/02		790	Yes	198	02/20/02-03/27/02	
		South Bend Data	St. Joseph River	Auten Rd.	04/03/02		443	Yes	216	03/06/02-04/03/02	
		South Bend Data	St. Joseph River	Auten Rd.	04/11/02		161	No	239	03/14/02-04/11/02	
		South Bend Data	St. Joseph River	Auten Rd.	04/17/02		62	No	215	03/20/02-04/17/02	
		South Bend Data	St. Joseph River	Auten Rd.	04/25/02		206	No	235	03/27/02-04/25/02	
		South Bend Data	St. Joseph River	Auten Rd.	04/30/02		116	No	160	04/03/02-04/30/02	
		South Bend Data	St. Joseph River	Auten Rd.	05/07/02		98	No	119	04/11/02-05/07/02	
		South Bend Data	St. Joseph River	Auten Rd.	05/15/02		2080	Yes	198	04/17/02-05/15/02	
		South Bend Data	St. Joseph River	Auten Rd.	05/22/02		83	No	210	04/25/02-05/22/02	
		South Bend Data	St. Joseph River	Auten Rd.	05/28/02		46	No	155	04/30/02-05/28/02	
		South Bend Data	St. Joseph River	Auten Rd.	06/13/02		124	No	157	05/07/02-06/13/002	
		South Bend Data	St. Joseph River	Auten Rd.	06/19/02		95	No	156	05/15/02-06/19/002	
		South Bend Data	St. Joseph River	Auten Rd.	07/02/02		96	No	85	05/22/02-05/28/02	
		South Bend Data	St. Joseph River	Auten Rd.	07/18/02		93	No	86	05/28/02-07/18/02	



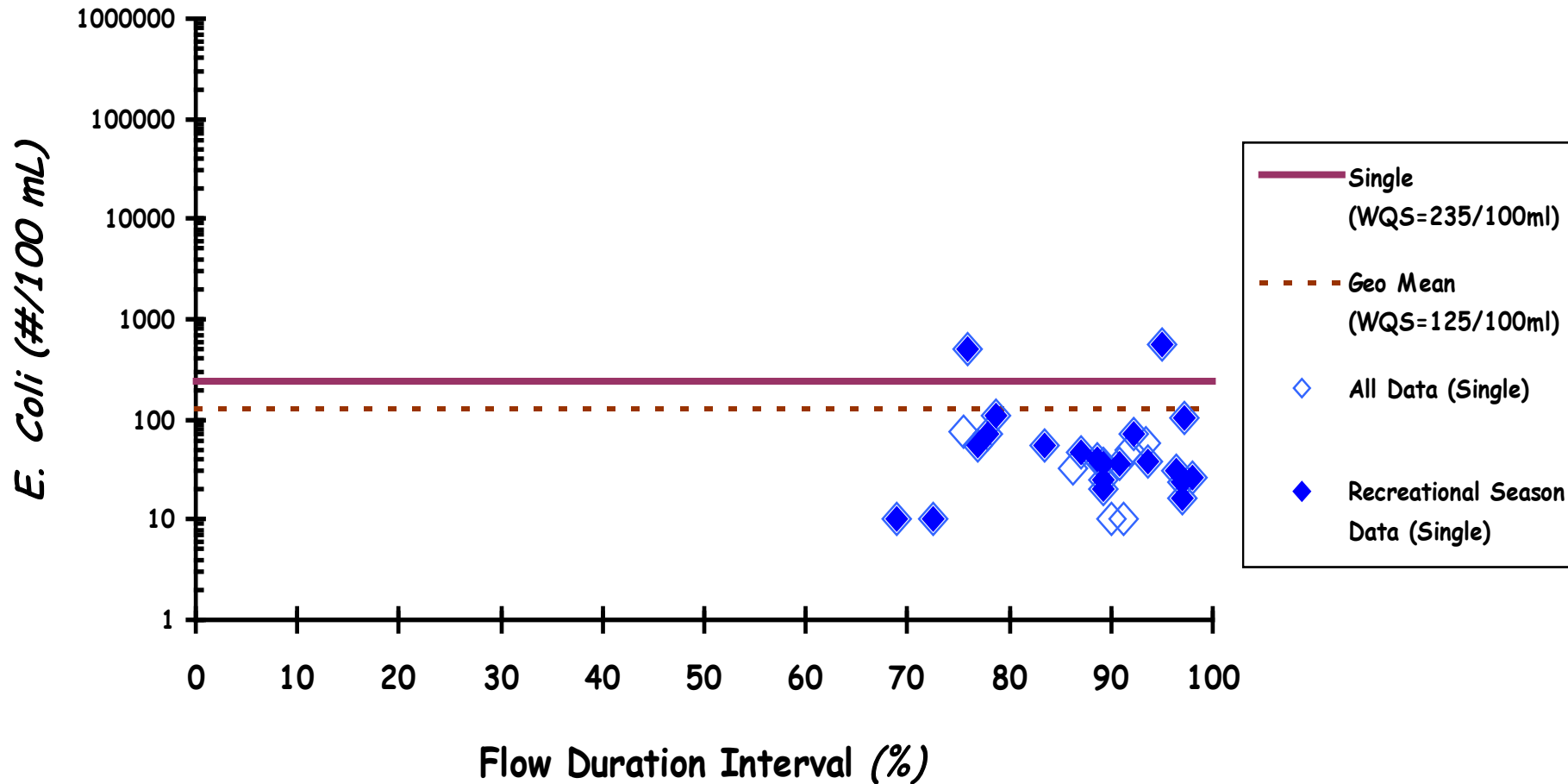
Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/Dry
27		South Bend Data	St. Joseph River	Auten Rd.	07/25/02		250	Yes	121	06/13/02-07/25/02	
		South Bend Data	St. Joseph River	Auten Rd.	07/30/02		290	Yes	144	06/19/02-07/30/02	
		South Bend Data	St. Joseph River	Auten Rd.	08/08/02		108	No	148	07/02/02-08/08/02	
		South Bend Data	St. Joseph River	Auten Rd.	08/14/02		3500	Yes	303	07/18/02-08/14/02	
		South Bend Data	St. Joseph River	Auten Rd.	08/20/02		220	No	360	07/25/02-08/20/02	
		South Bend Data	St. Joseph River	Auten Rd.	08/29/02		80	No	286	07/30/02-08/29/02	
		South Bend Data	St. Joseph River	Auten Rd.	09/05/02		83	No	223	08/08/02-09/05/02	
		South Bend Data	St. Joseph River	Auten Rd.	09/12/02		67	No	203	08/14/02-09/12/02	
		South Bend Data	St. Joseph River	Auten Rd.	09/19/02		122	No	104	08/20/02-09/19/02	
		South Bend Data	St. Joseph River	Auten Rd.	09/26/02		41	No	74	08/29/02-09/26/02	
		South Bend Data	St. Joseph River	Auten Rd.	10/03/02		86	No	75	09/05/02-10/03/02	
		South Bend Data	St. Joseph River	Auten Rd.	10/10/02		60	No	70	09/12/02-10/10/02	
		South Bend Data	St. Joseph River	Auten Rd.	10/17/02		16	No	53	09/19/02-10/17/02	
		South Bend Data	St. Joseph River	Auten Rd.	10/24/02		11	No	33	09/26/02-10/24/02	
		South Bend Data	St. Joseph River	Auten Rd.	10/31/02		7	No	23	10/03/02-10/31/02	

Site ID #	Lsite/site #	Project Name	Stream Name	Description	Sample Date	Sample Number	<i>E. coli</i> (cfu/mL)	Single Day Violation	30-Day Geometric Mean	30-Day Geometric Mean Date	Wet/ Dry
27		South Bend Data	St. Joseph River	Auten Rd.	11/06/02		146	No	26	10/10/02-11/06/02	
		South Bend Data	St. Joseph River	Auten Rd.	11/14/02		2100	Yes	52	10/17/02-11/14/02	
		South Bend Data	St. Joseph River	Auten Rd.	11/21/02		284	Yes	92	10/24/02-11/21/02	
		South Bend Data	St. Joseph River	Auten Rd.	12/05/02		520	Yes	200	10/31/02-12/05/02	
		South Bend Data	St. Joseph River	Auten Rd.	12/19/02		2000	Yes	619	11/06/02-12/19/02	
		South Bend Data	St. Joseph River	Auten Rd.	01/09/03		321	Yes			
		South Bend Data	St. Joseph River	Auten Rd.	01/16/03		550	Yes			
*TNTC= Too Numerous to Count											
*nd= Not Determined											

# St. Joseph River at Elkhart

## WQ Duration Curve (2000, 2002 Monitoring Data)

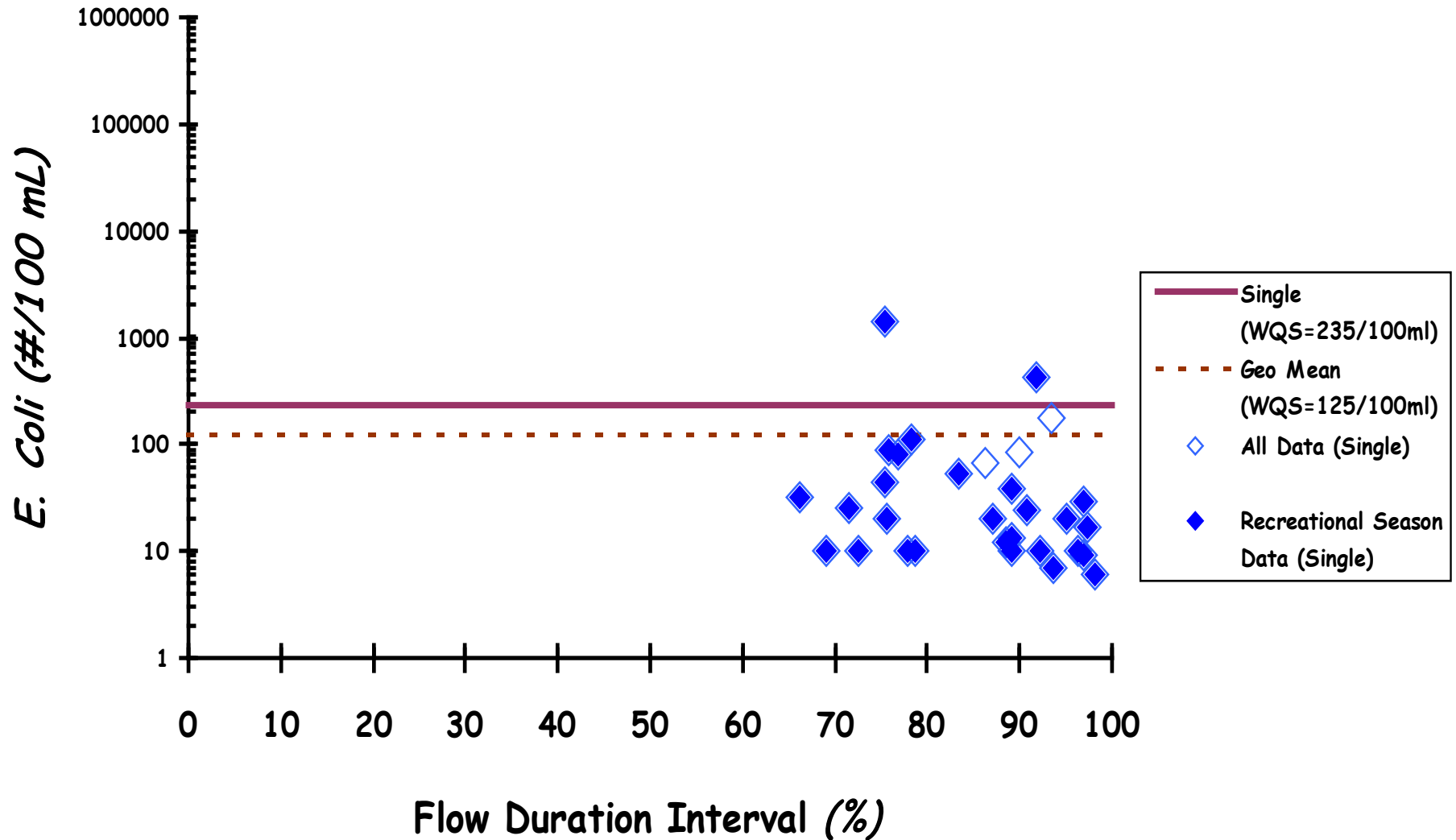
*Site: Main St (Elkhart)*



# St. Joseph River at Elkhart

## WQ Duration Curve (2000-2002 Monitoring Data)

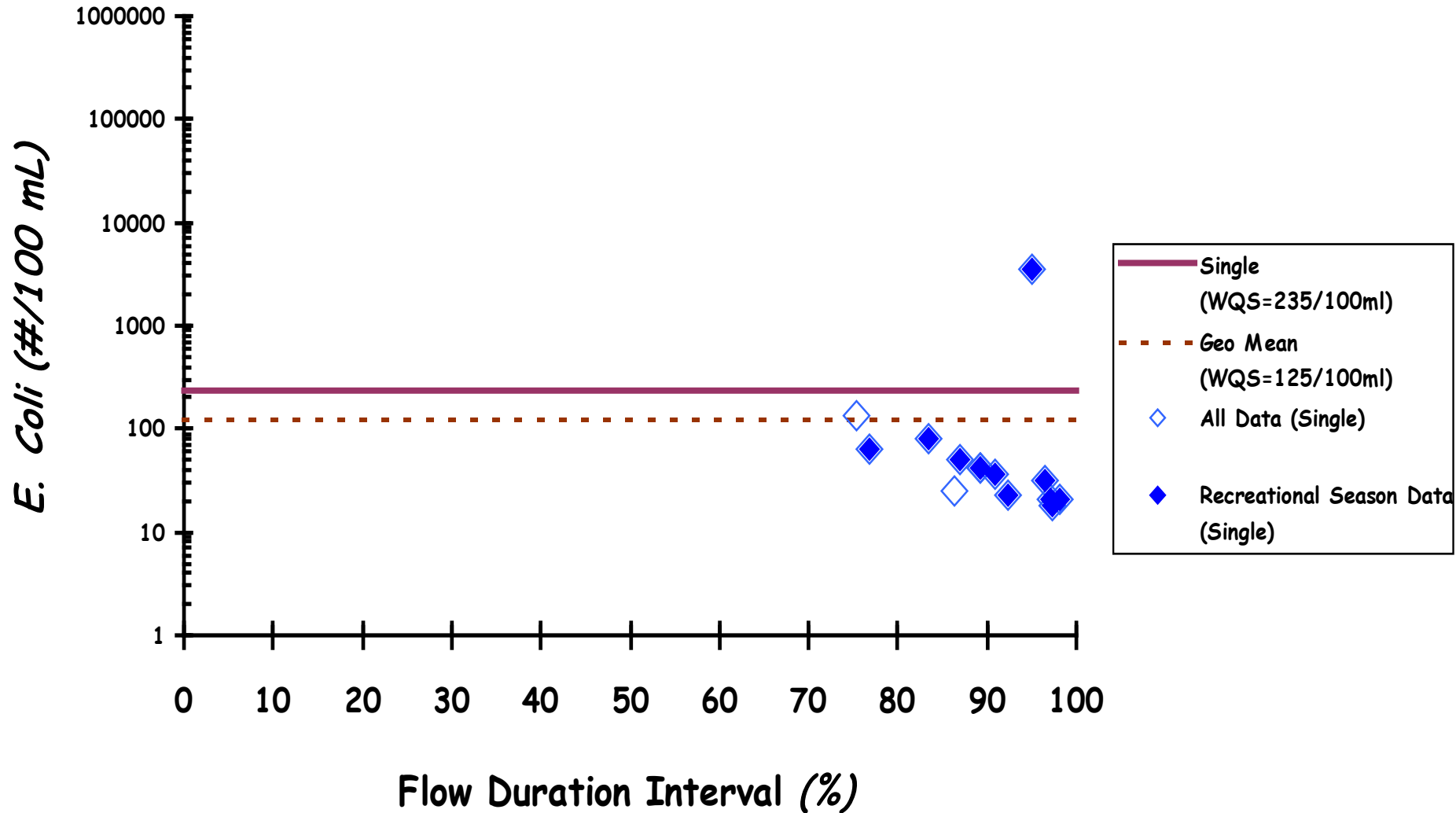
Site: Ash Road



# St. Joseph River at Elkhart

## WQ Duration Curve (2002 Monitoring Data)

*Site: Nappanee*



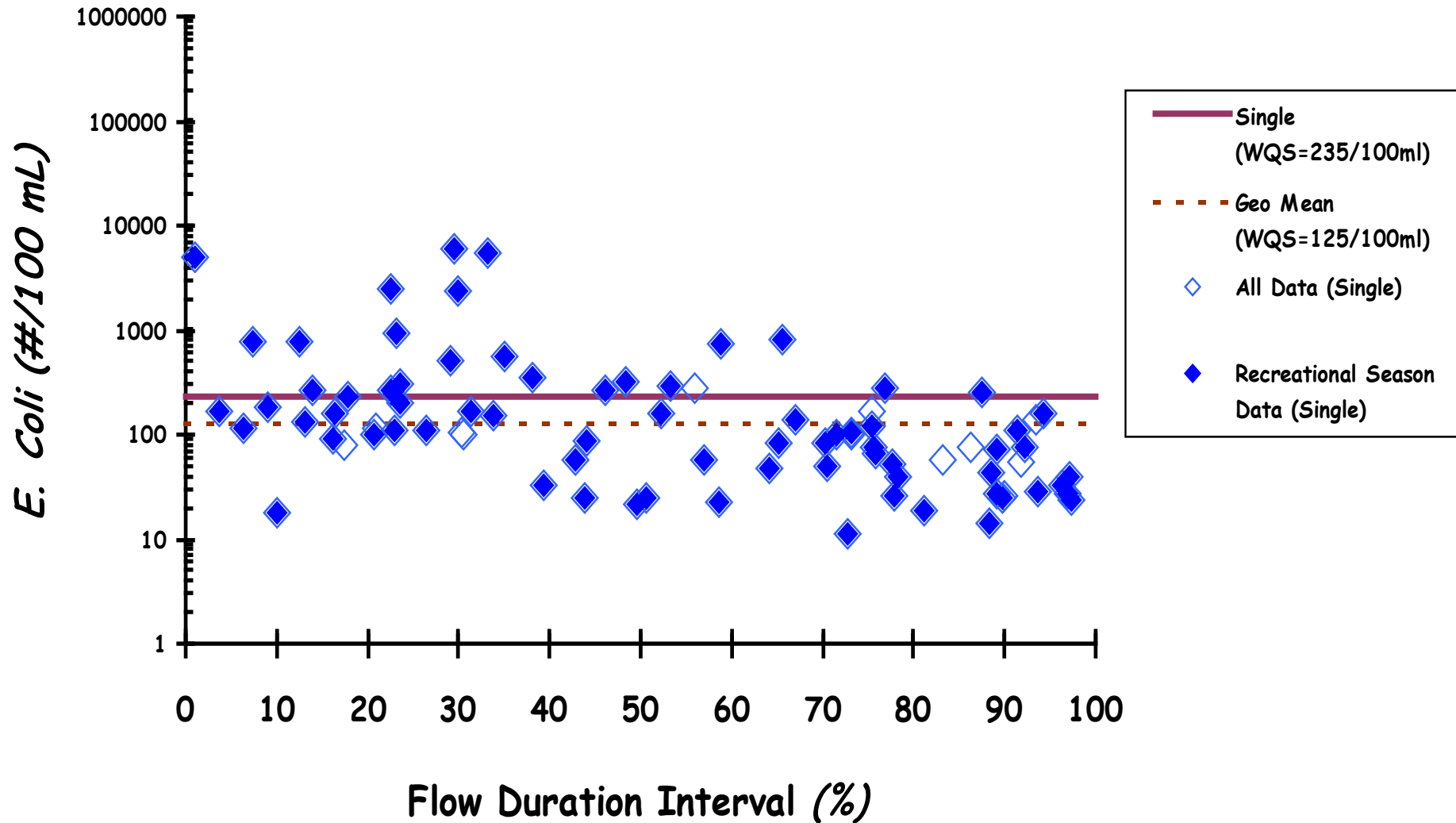
*Elkhart Data & Elkhart Gage Duration Interval*

*3,370 square miles*

# St. Joseph River at Elkhart

## WQ Duration Curve (2000-2003 Monitoring Data)

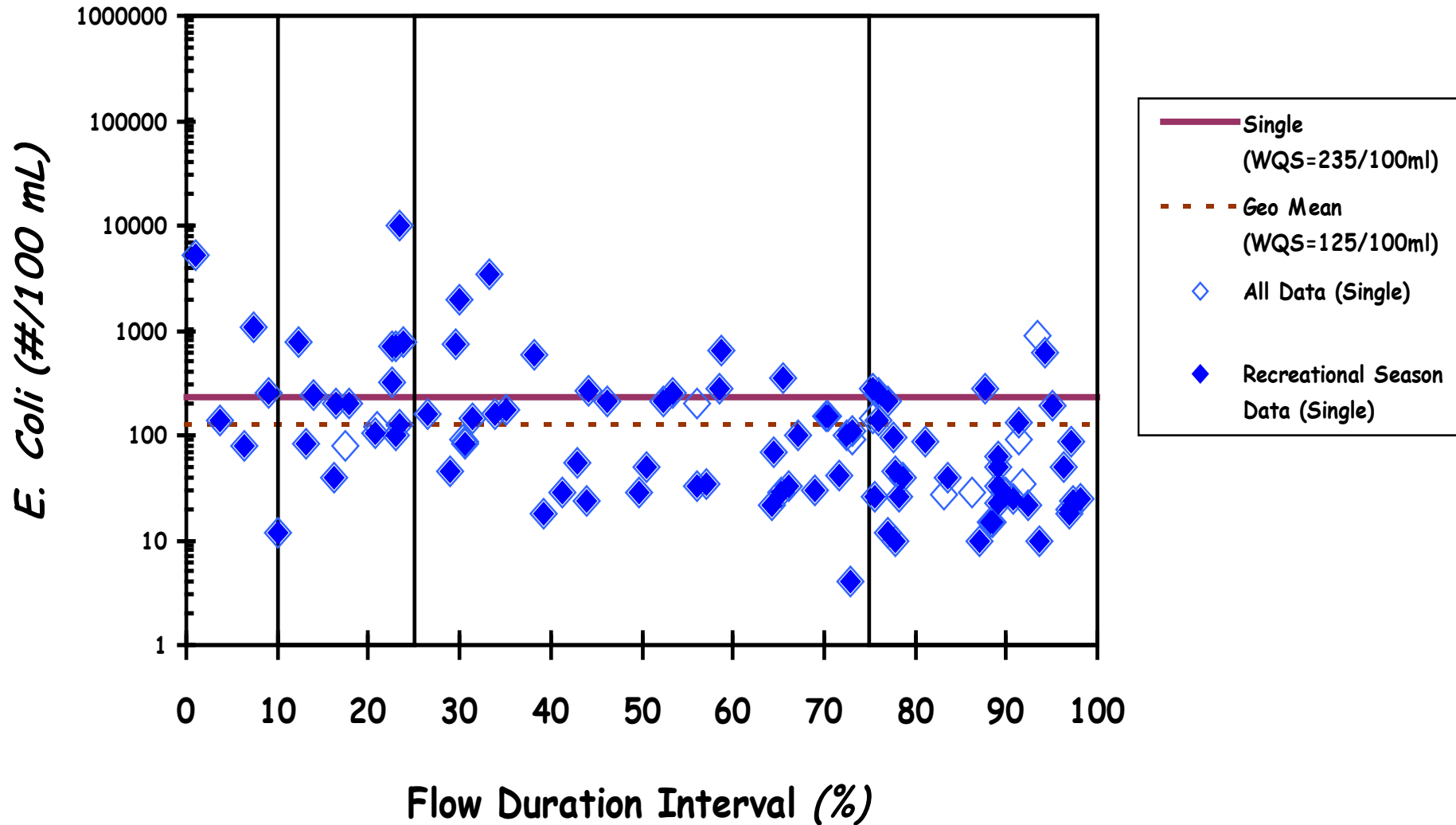
Site: Bittersweet



# St. Joseph River at Elkhart

## WQ Duration Curve (2000-2003 Monitoring Data)

Site: Main Street (Mishawaka)



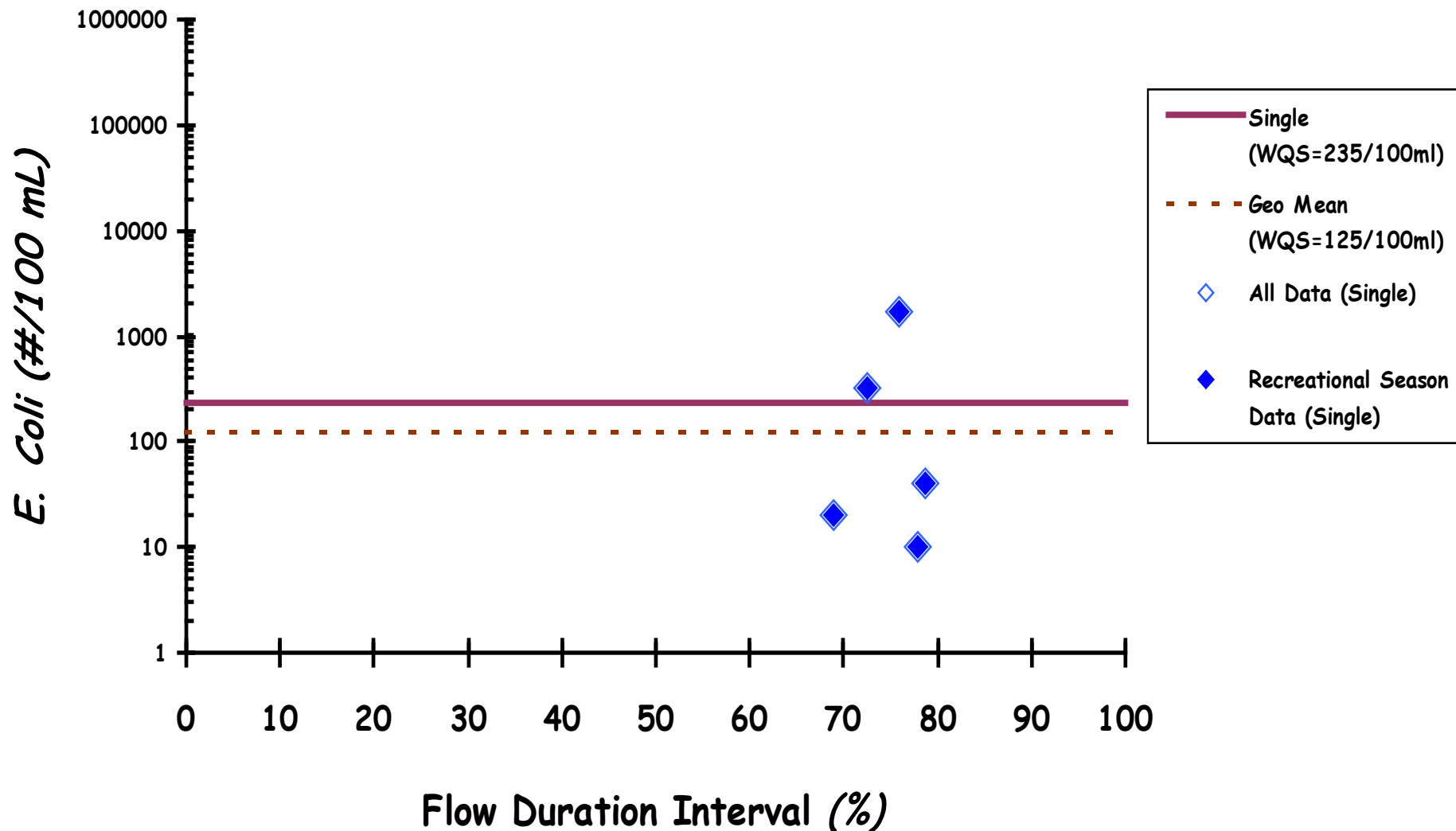
IDEM Data & Mishawaka Data & Elkhart Gage Duration Interval

3,370 square miles

# St. Joseph River at Elkhart

## WQ Duration Curve (2000 Monitoring Data)

Site: Twychkenham Dr. near Veteran's Park

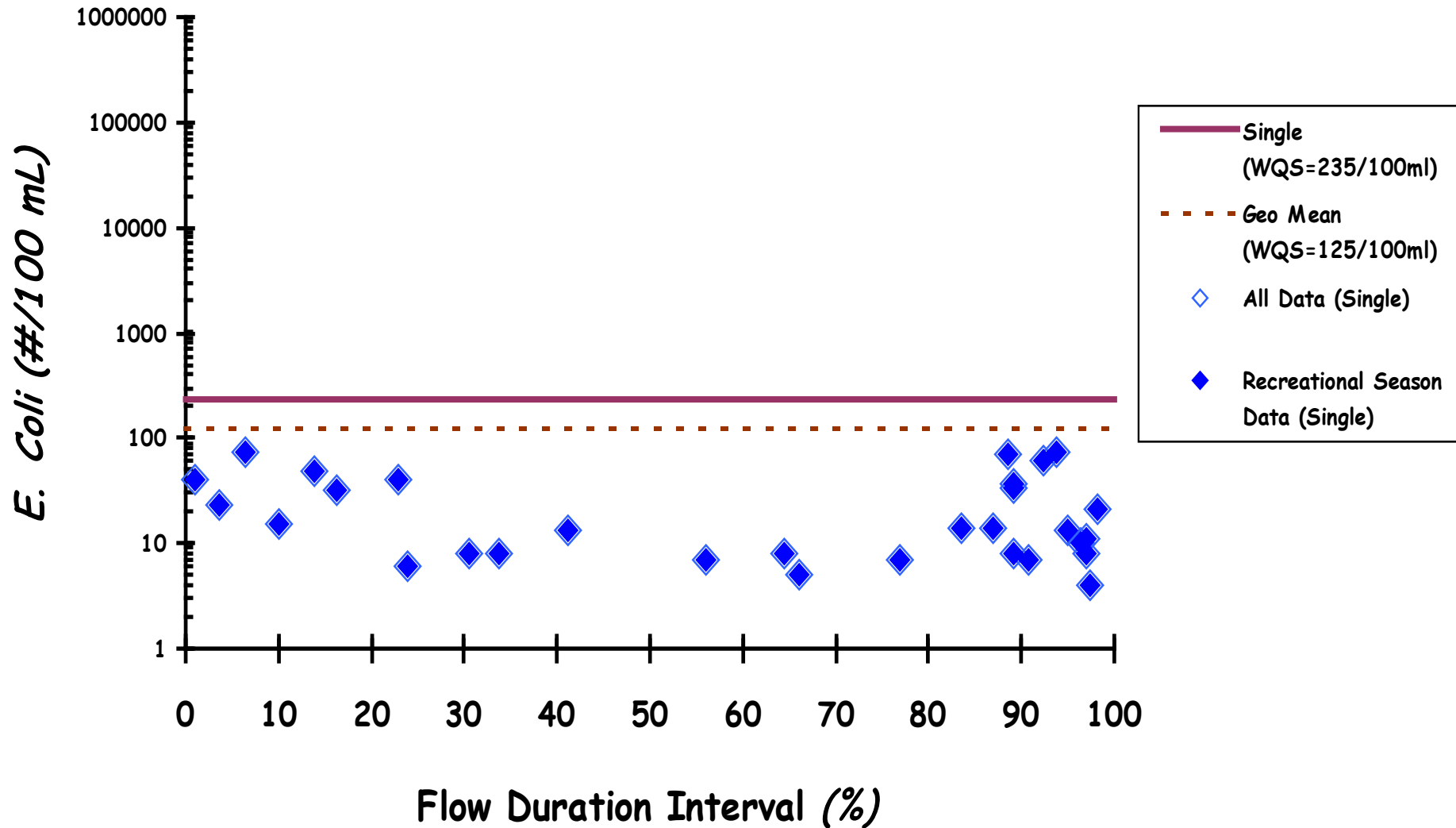




# St. Joseph River at Elkhart

## WQ Duration Curve (2002 Monitoring Data)

*Site: Mishawaka WWTP*



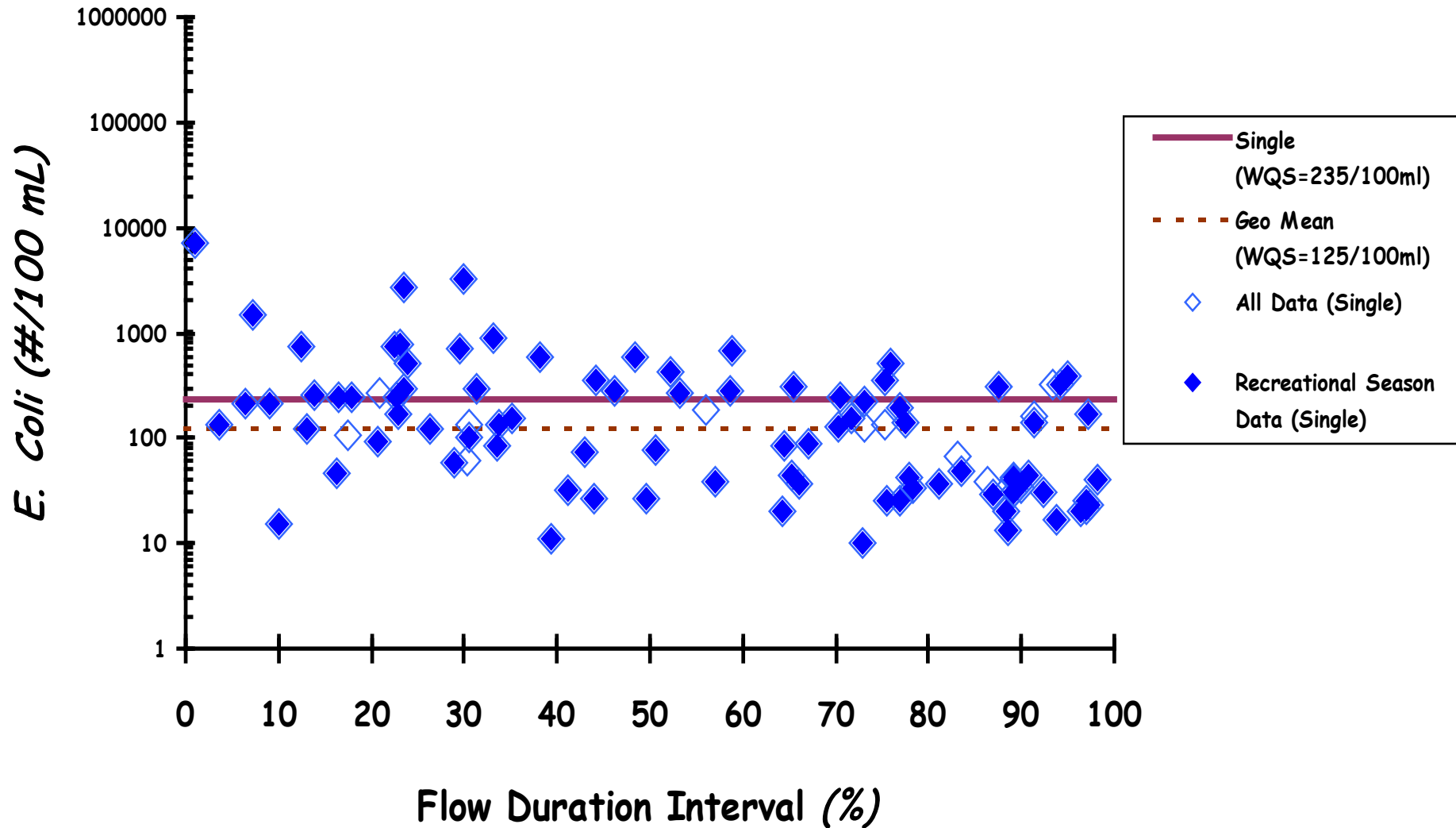
*Mishawaka Data & Elkhart Gage Duration Interval*

*3,370 square miles*

# St. Joseph River at Elkhart

## WQ Duration Curve (2000-2003 Monitoring Data)

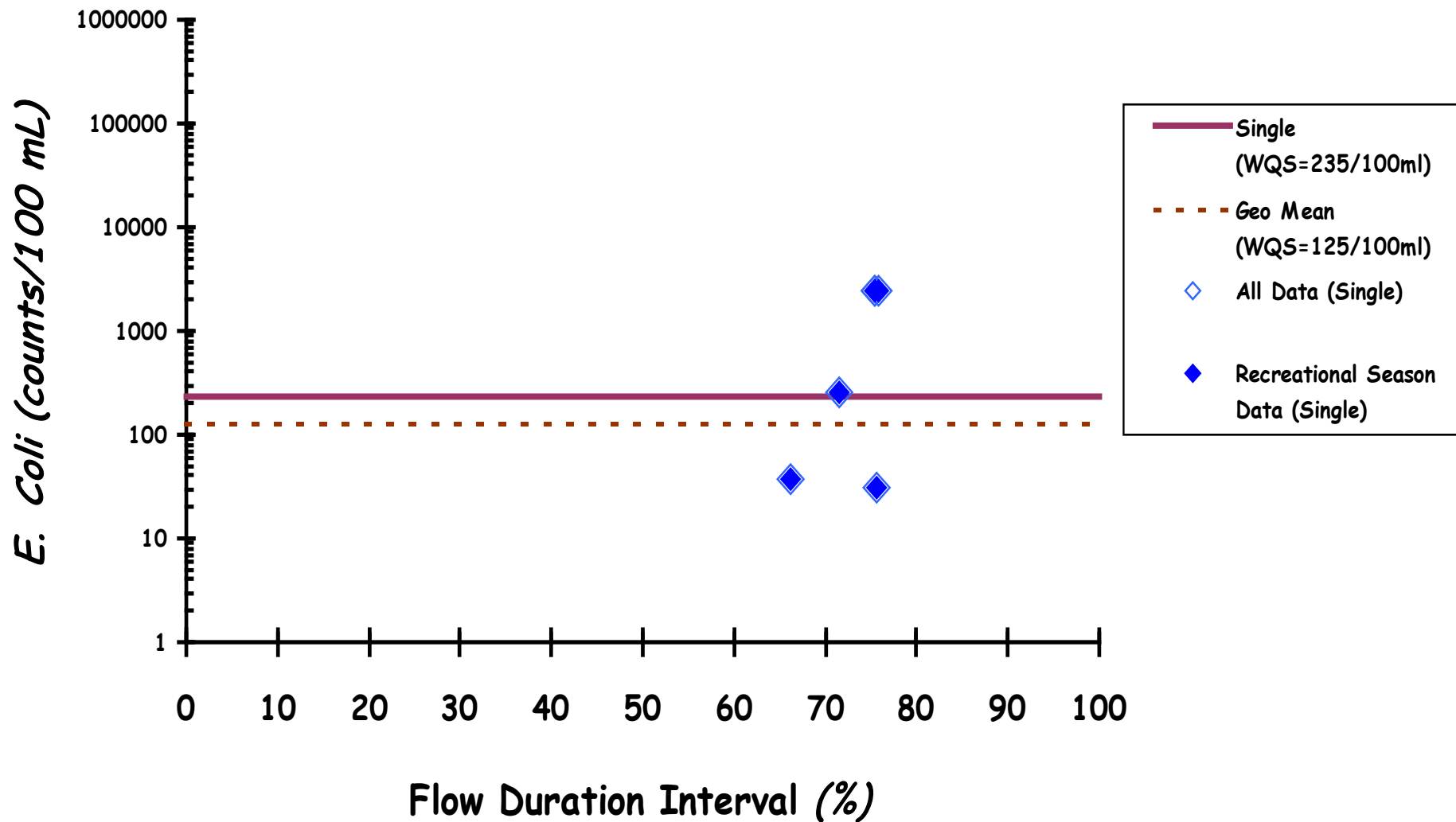
Site: Ironwood



# St. Joseph River at Elkhart

## WQ Duration Curve (2000 Monitoring Data)

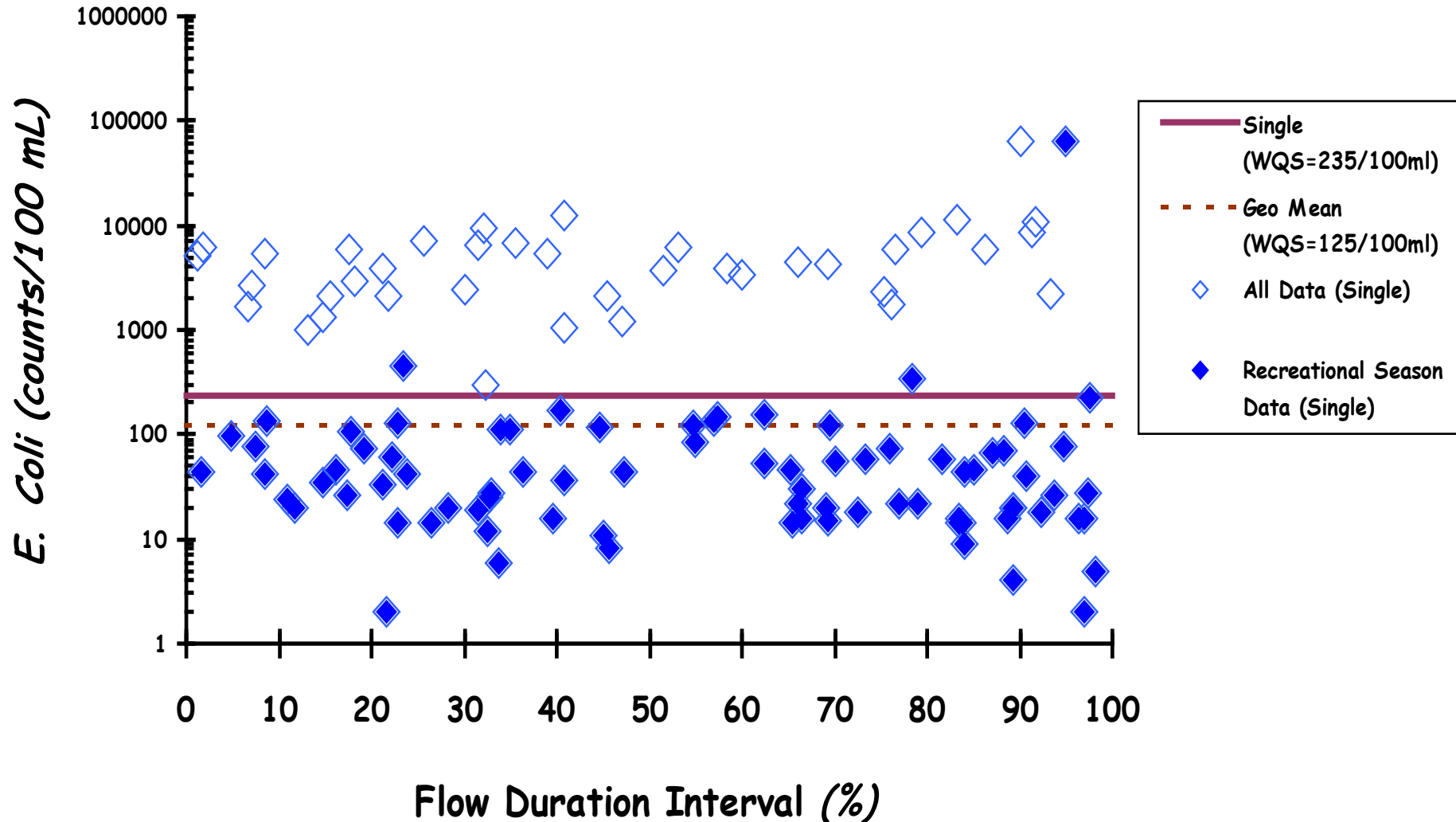
*Site: Riverside Dr. at End of Race*



# St. Joseph River at Elkhart

## WQ Duration Curve (2000-2003 Monitoring Data)

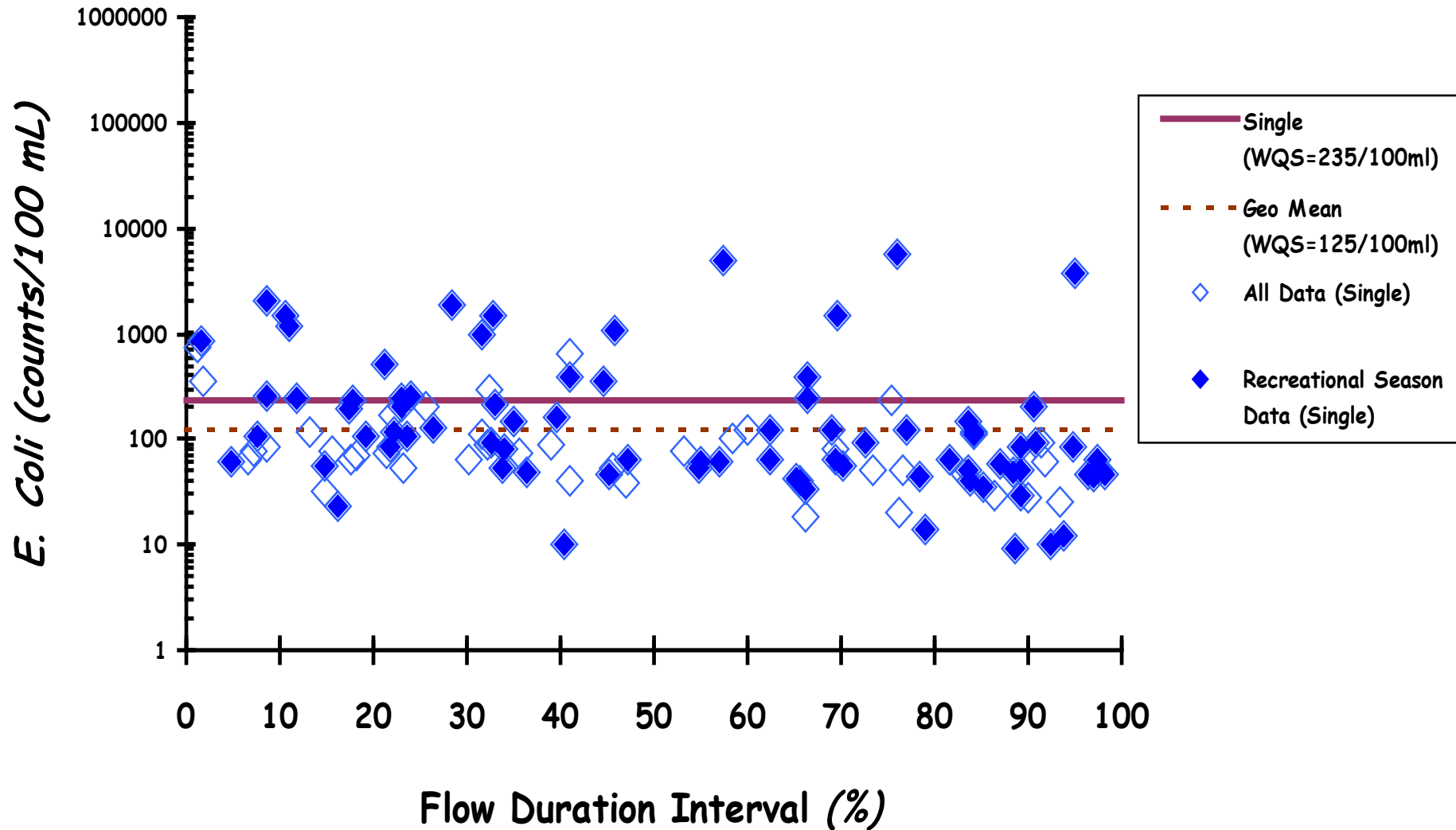
Site: South Bend WWTP



# St. Joseph River at Elkhart

## WQ Duration Curve (2000-2003 Monitoring Data)

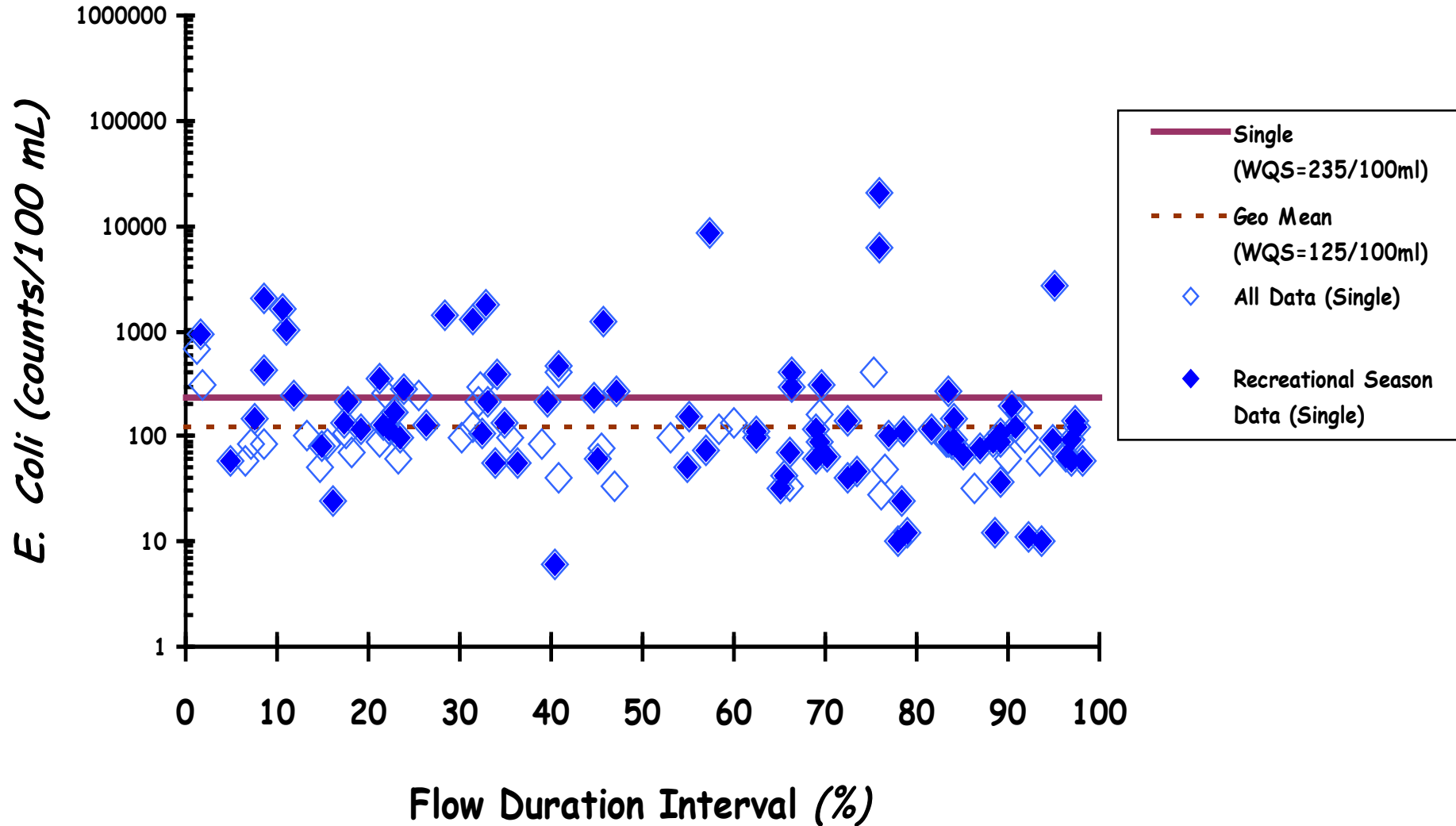
Site: Colfax



# St. Joseph River at Elkhart

## WQ Duration Curve (2000-2003 Monitoring Data)

Site: Angela



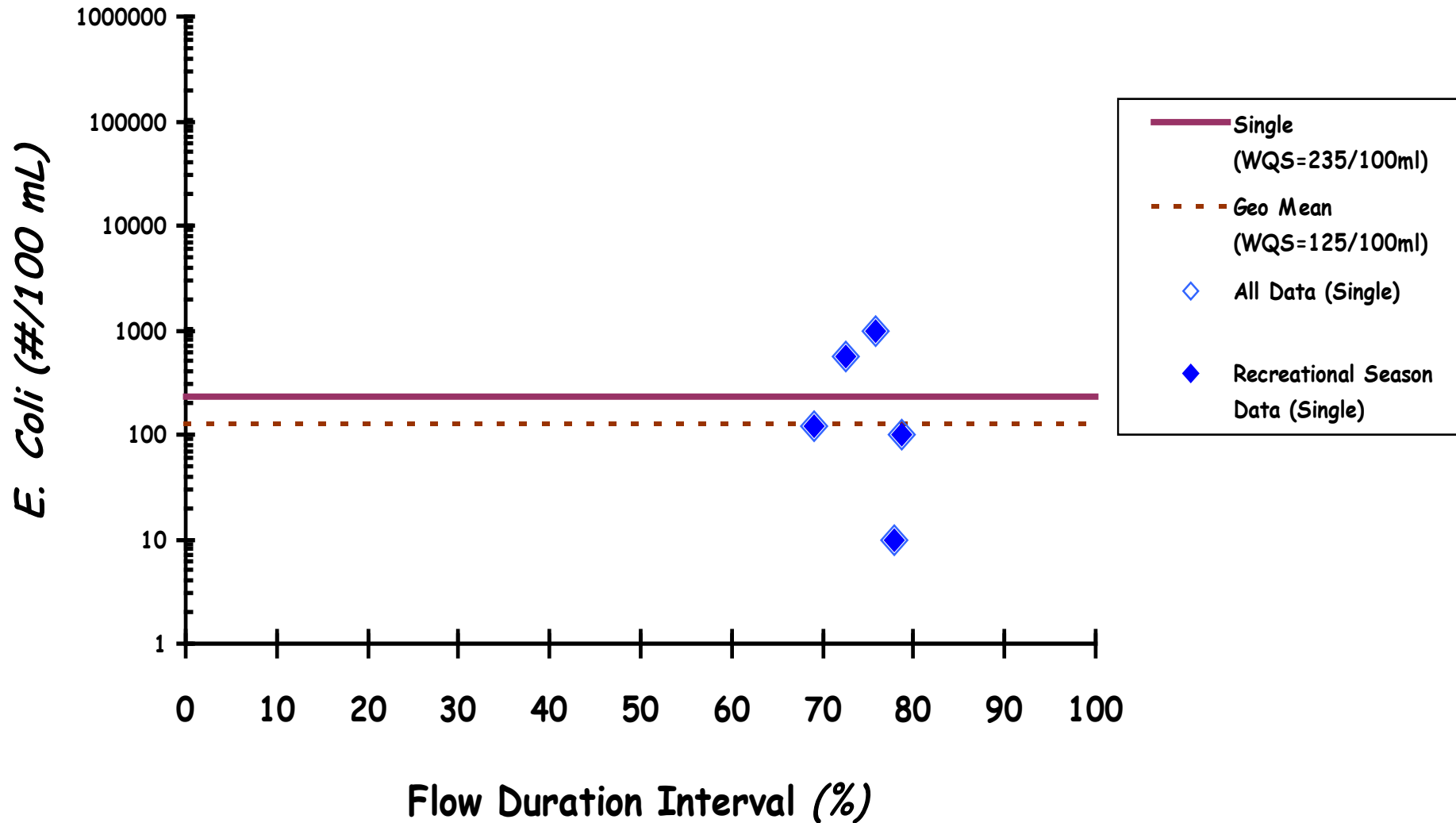
*IDEM Data & South Bend Data & Elkhart Gage Duration Interval*

*3,370 square miles*

# St. Joseph River at Elkhart

## WQ Duration Curve (2000 Monitoring Data)

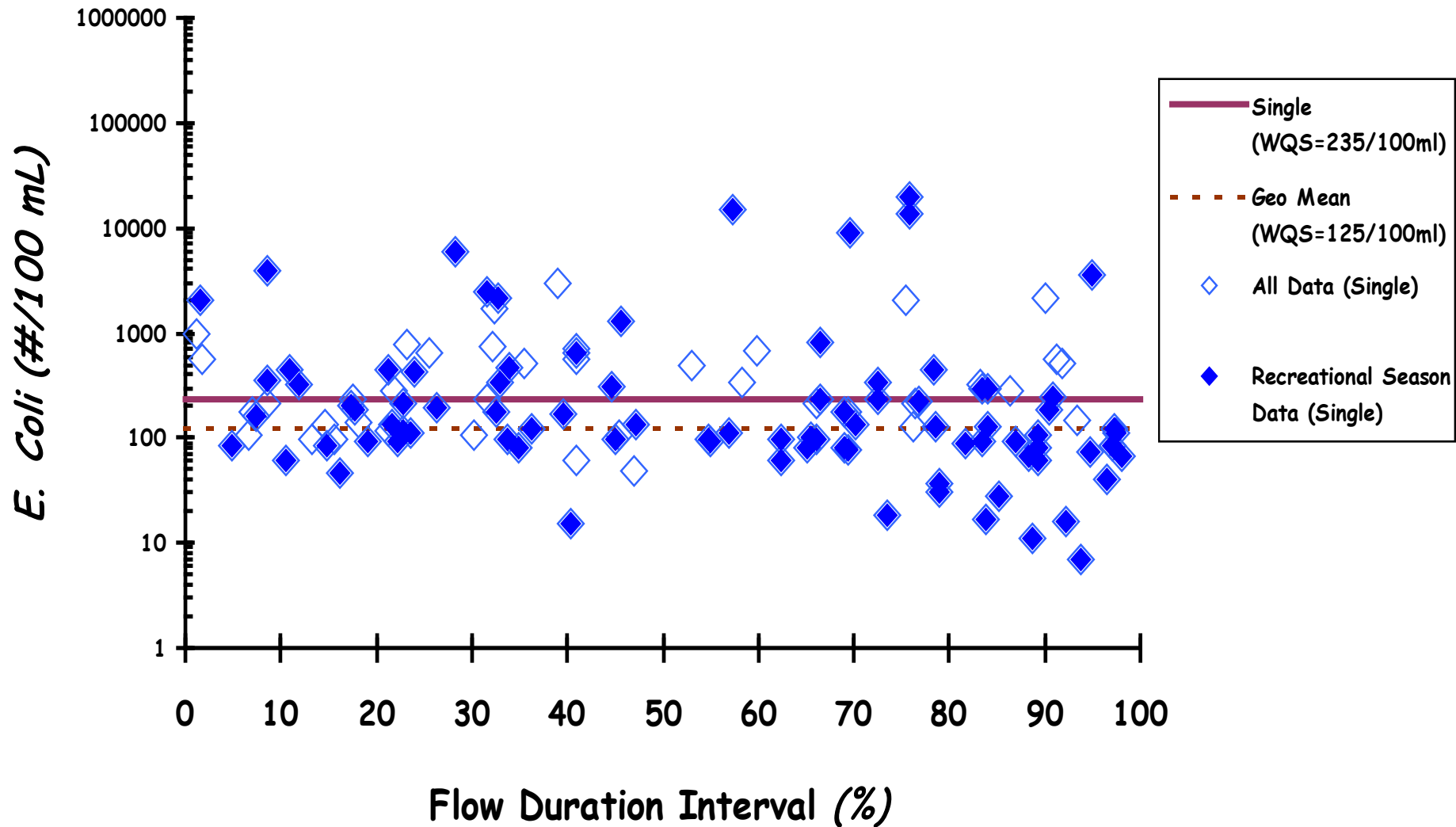
Site: Darden Road



# St. Joseph River at Elkhart

## WQ Duration Curve (2000 Monitoring Data)

*Site: Auten Road*

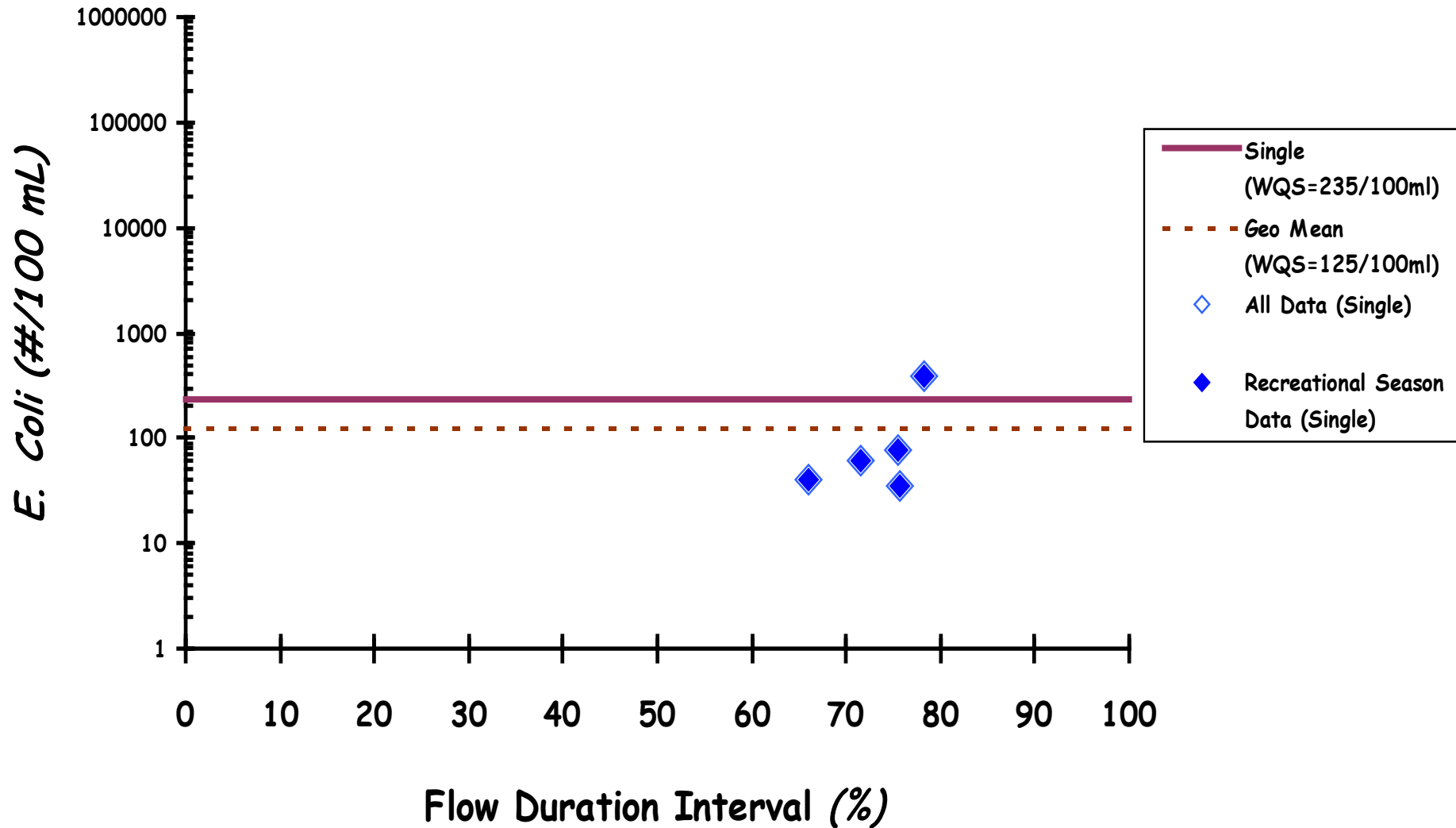




# St. Joseph River at Elkhart

## WQ Duration Curve (2000 Monitoring Data)

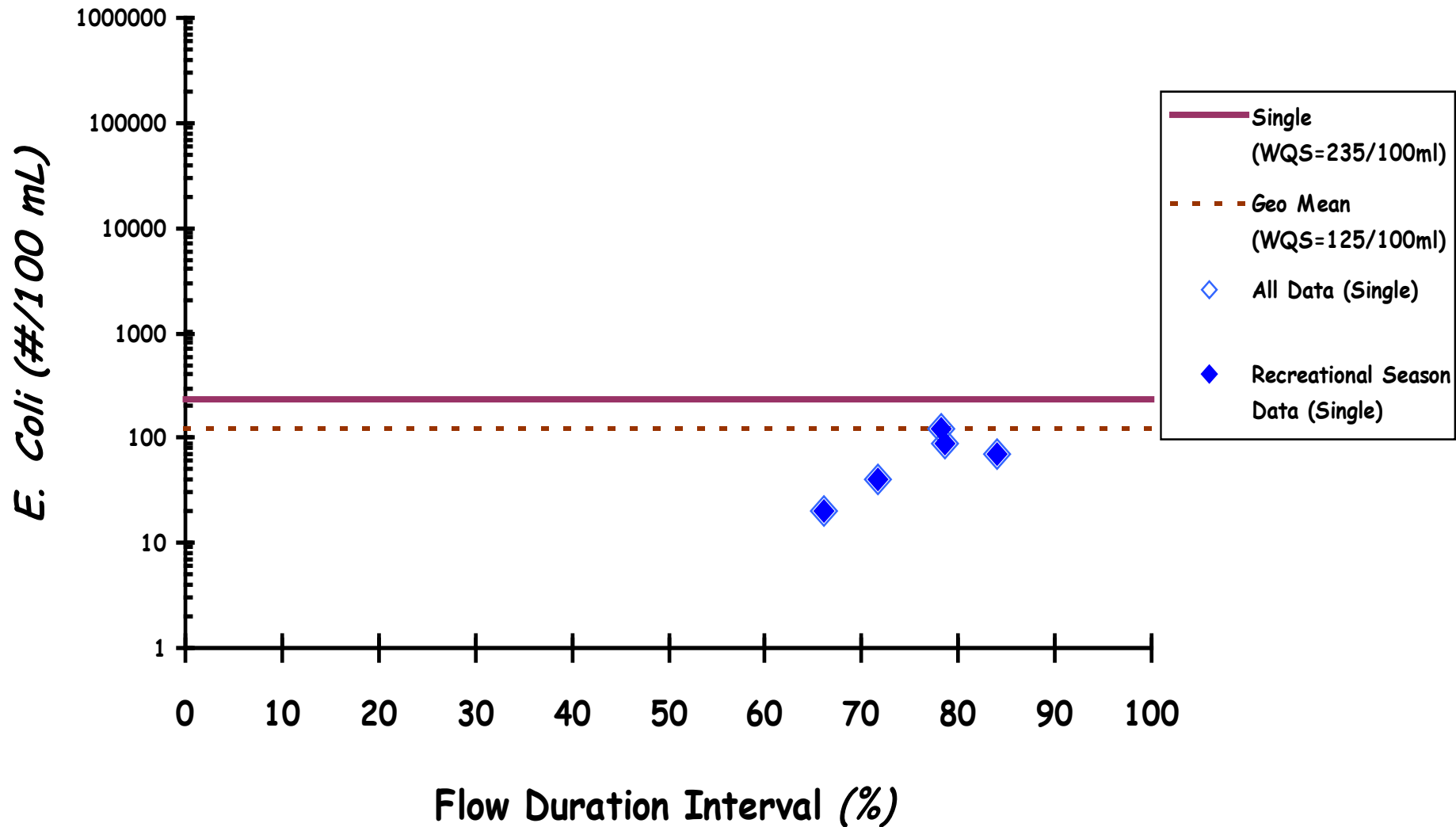
*Site: Christina Creek*



# St. Joseph River at Elkhart

## WQ Duration Curve (2000 Monitoring Data)

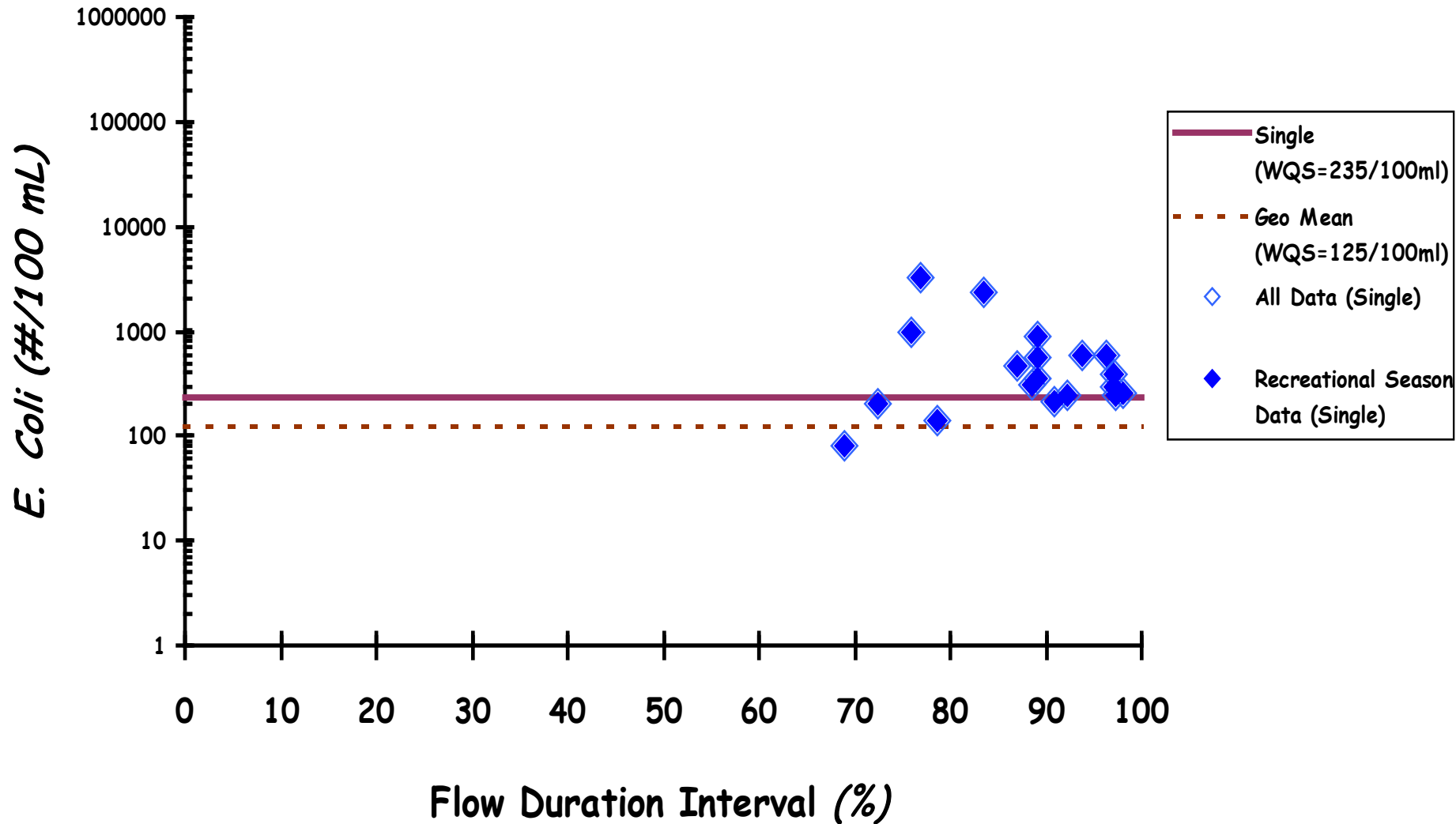
*Site: Elkhart River*



# St. Joseph River at Elkhart

WQ Duration Curve (2000, 2002, 2003 Monitoring Data)

Site: Baugo Creek



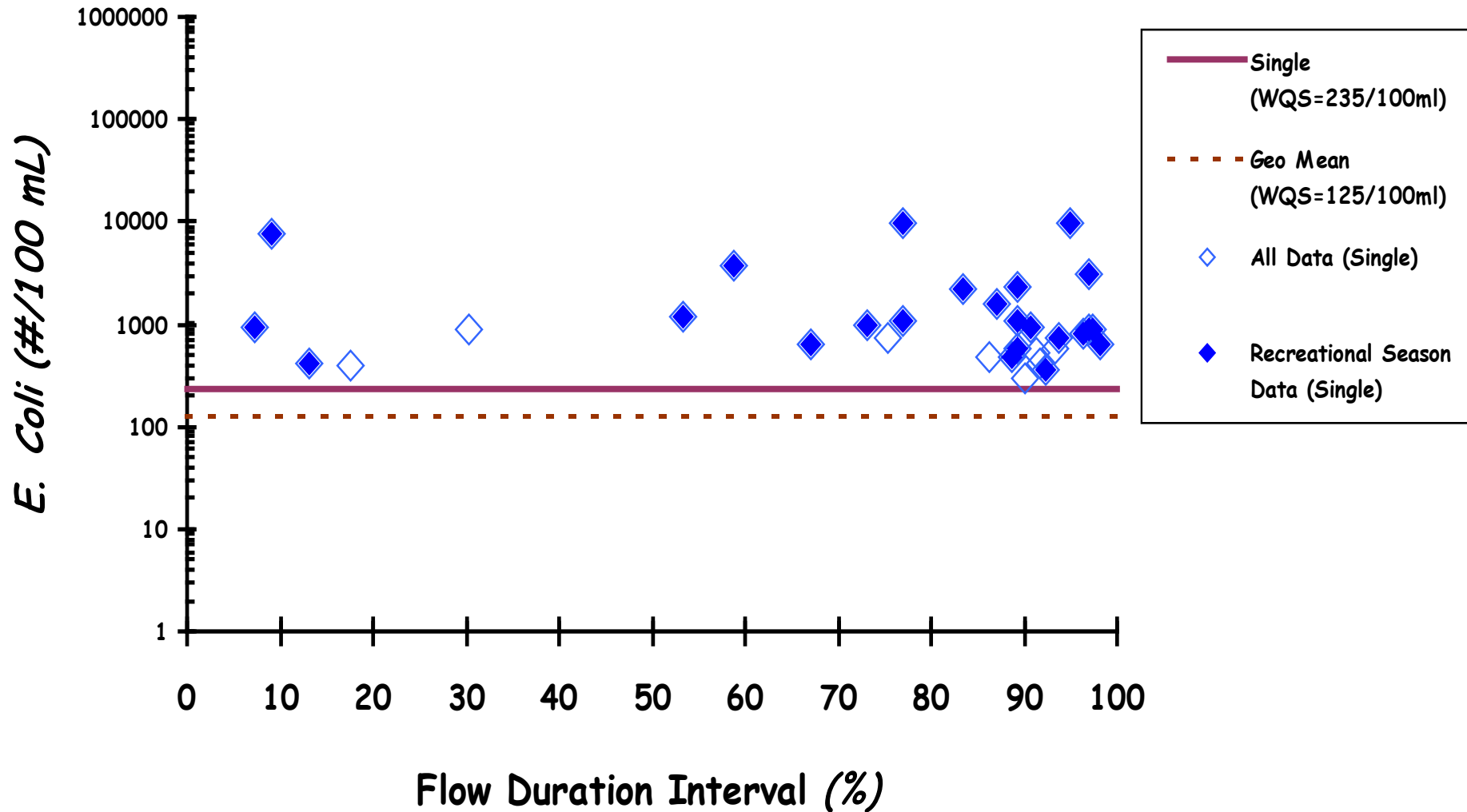
IDEM Data & Mishawaka Data & Elkhart Gage Duration Interval

3,370 square miles

# St. Joseph River at Elkhart

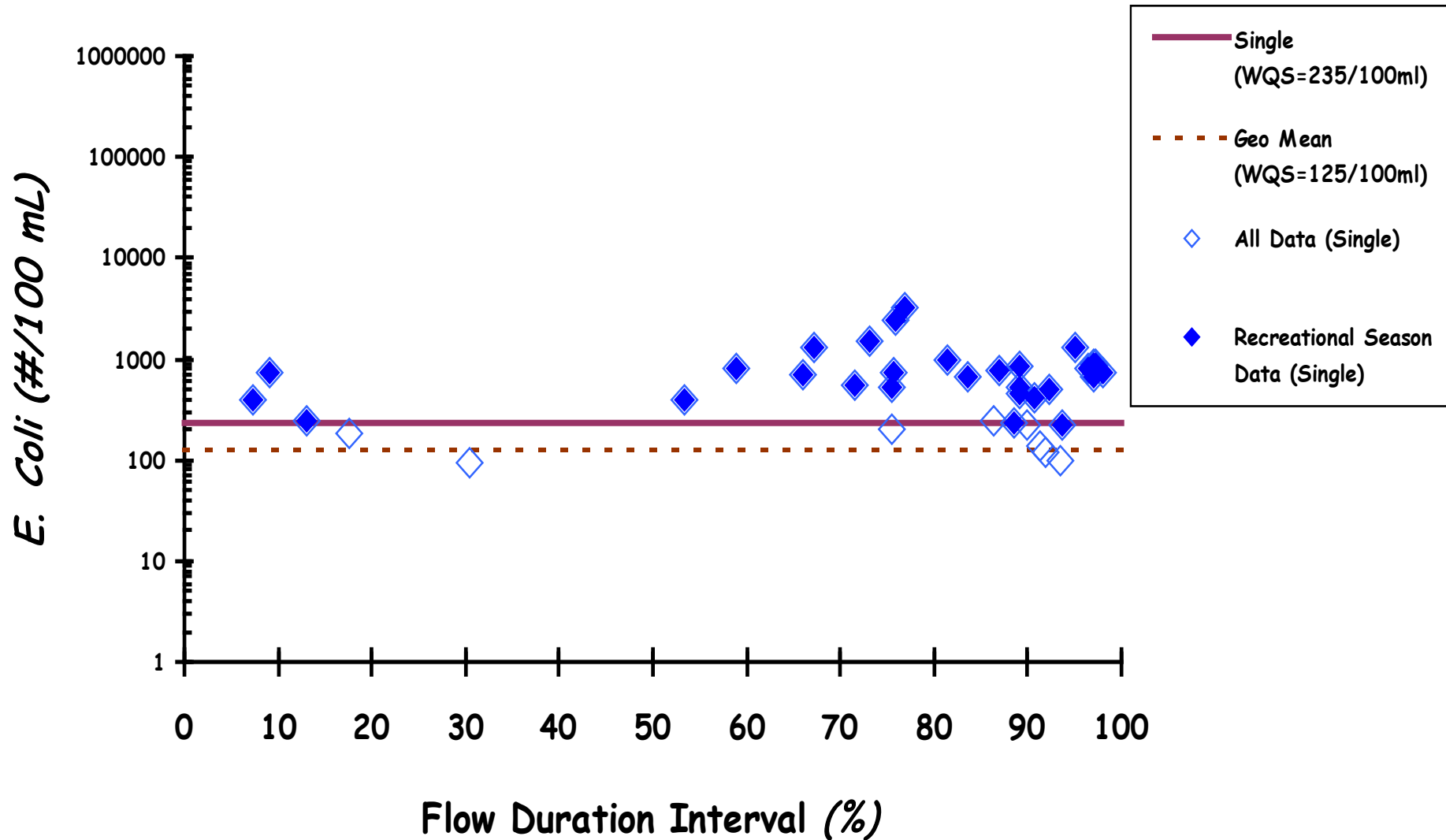
## WQ Duration Curve (2001-2003 Monitoring Data)

Site: Eller Ditch



# St. Joseph River at Elkhart

WQ Duration Curve (2000, 2002, 2003 Monitoring Data)  
Site: Willow Creek



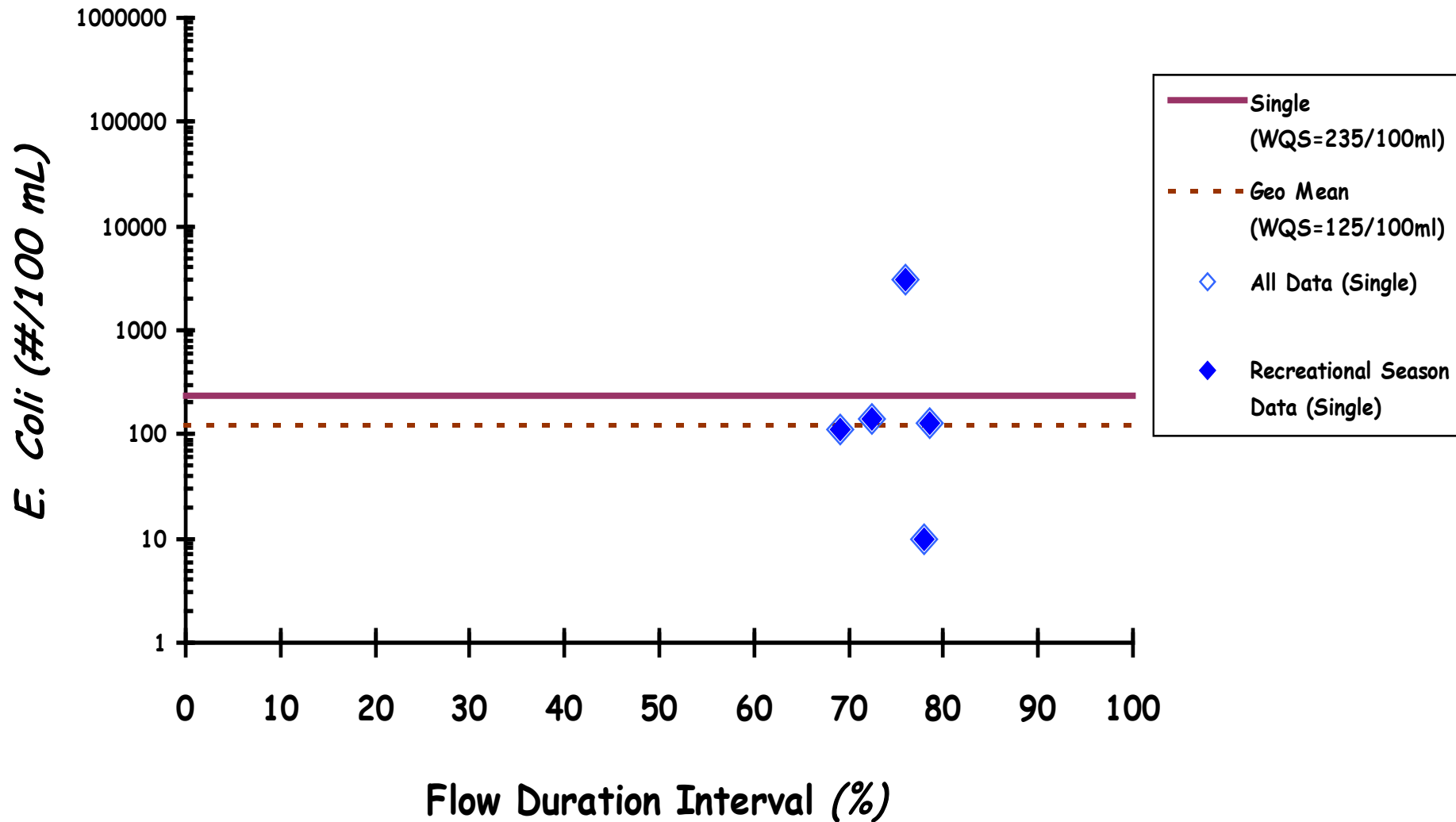
IDEM Data & Mishawaka Data & Elkhart Gage Duration Interval

3,370 square miles

# St. Joseph River at Elkhart

## WQ Duration Curve (2000 Monitoring Data)

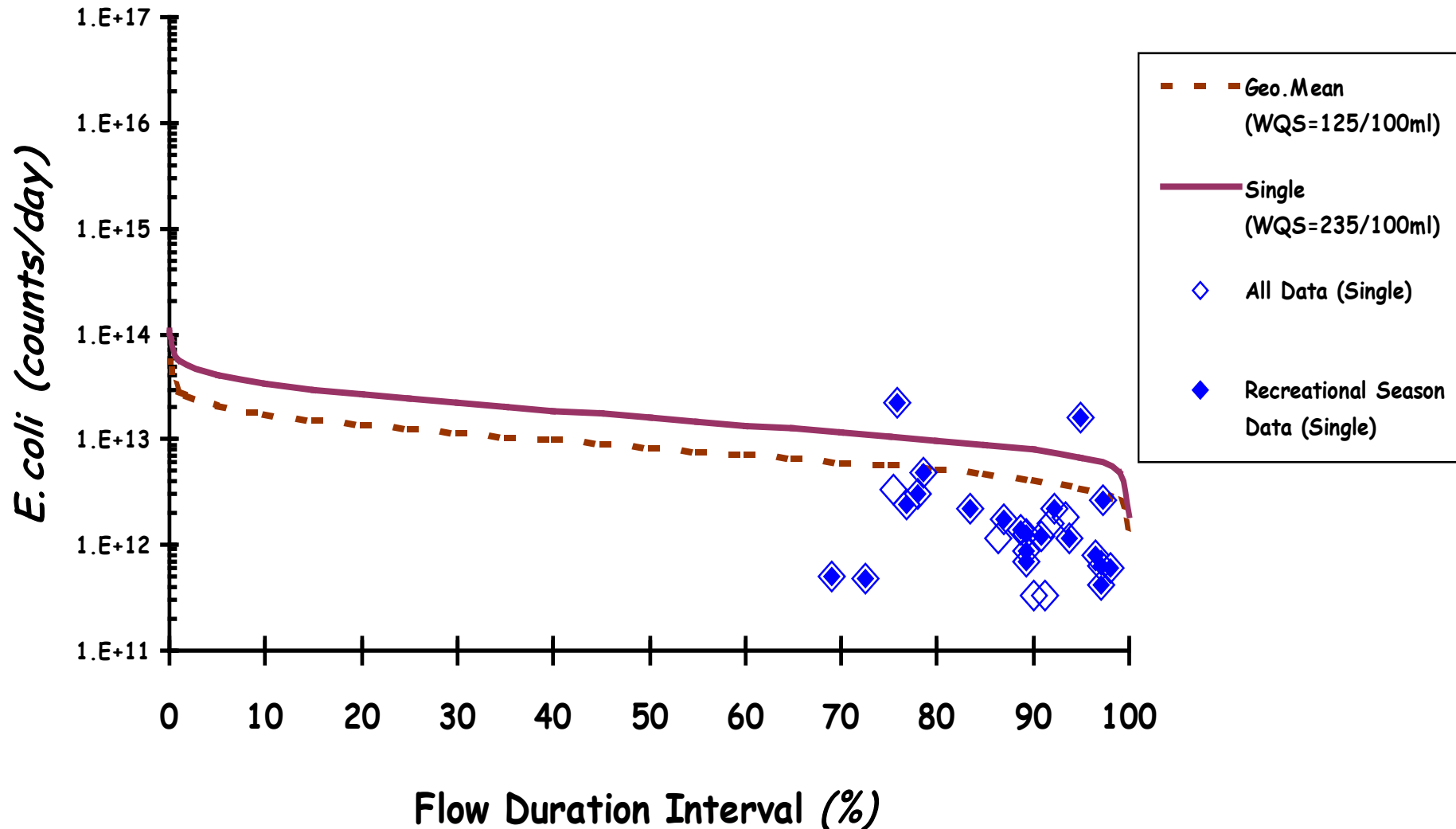
Site: Juday Creek



# St. Joseph River

Load Duration Curve (2000, 2002 Monitoring Data)

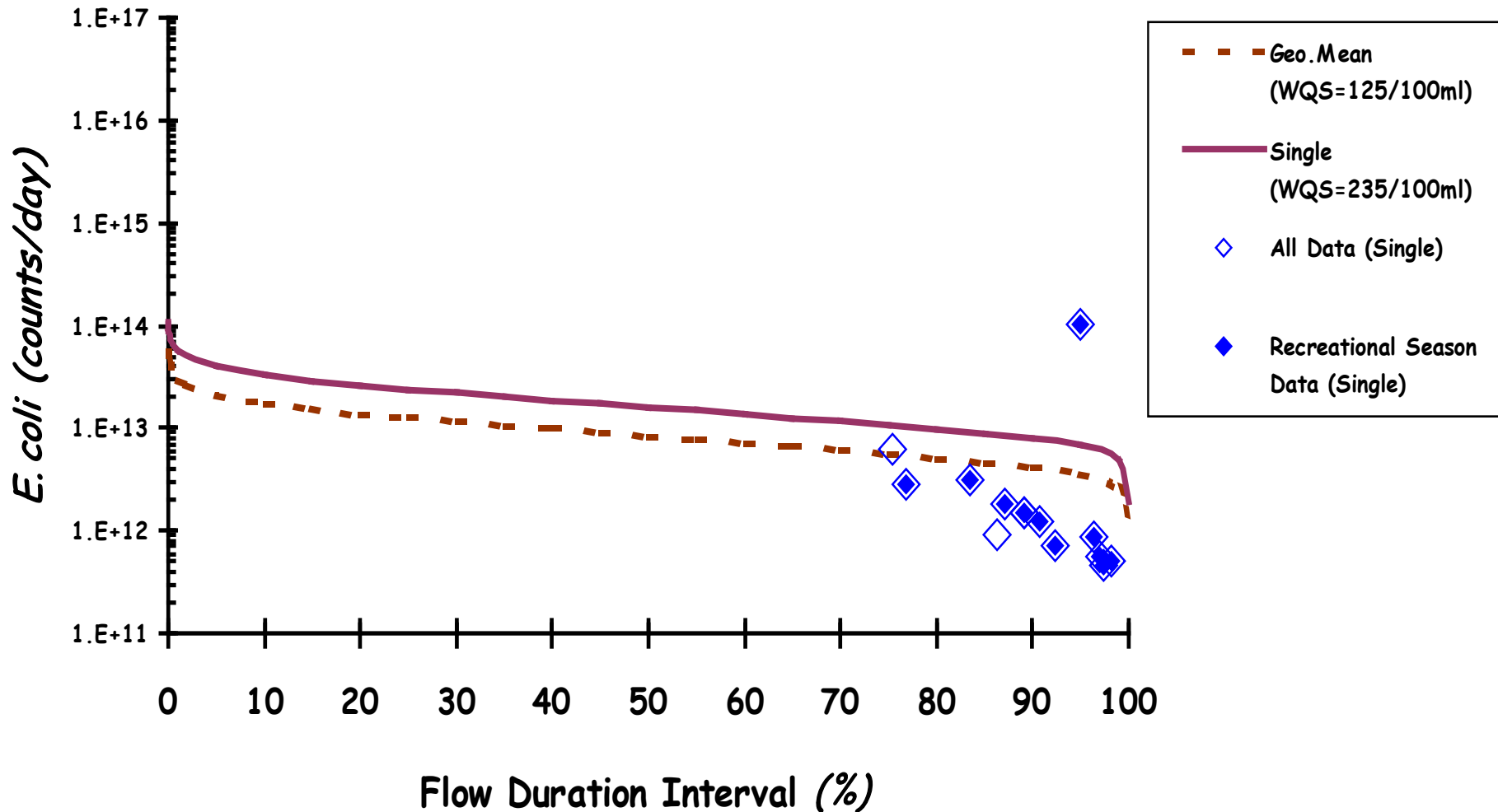
Site: Main St (Elkhart)



# St. Joseph River

## Load Duration Curve (2002 Monitoring Data)

Site: Nappanee

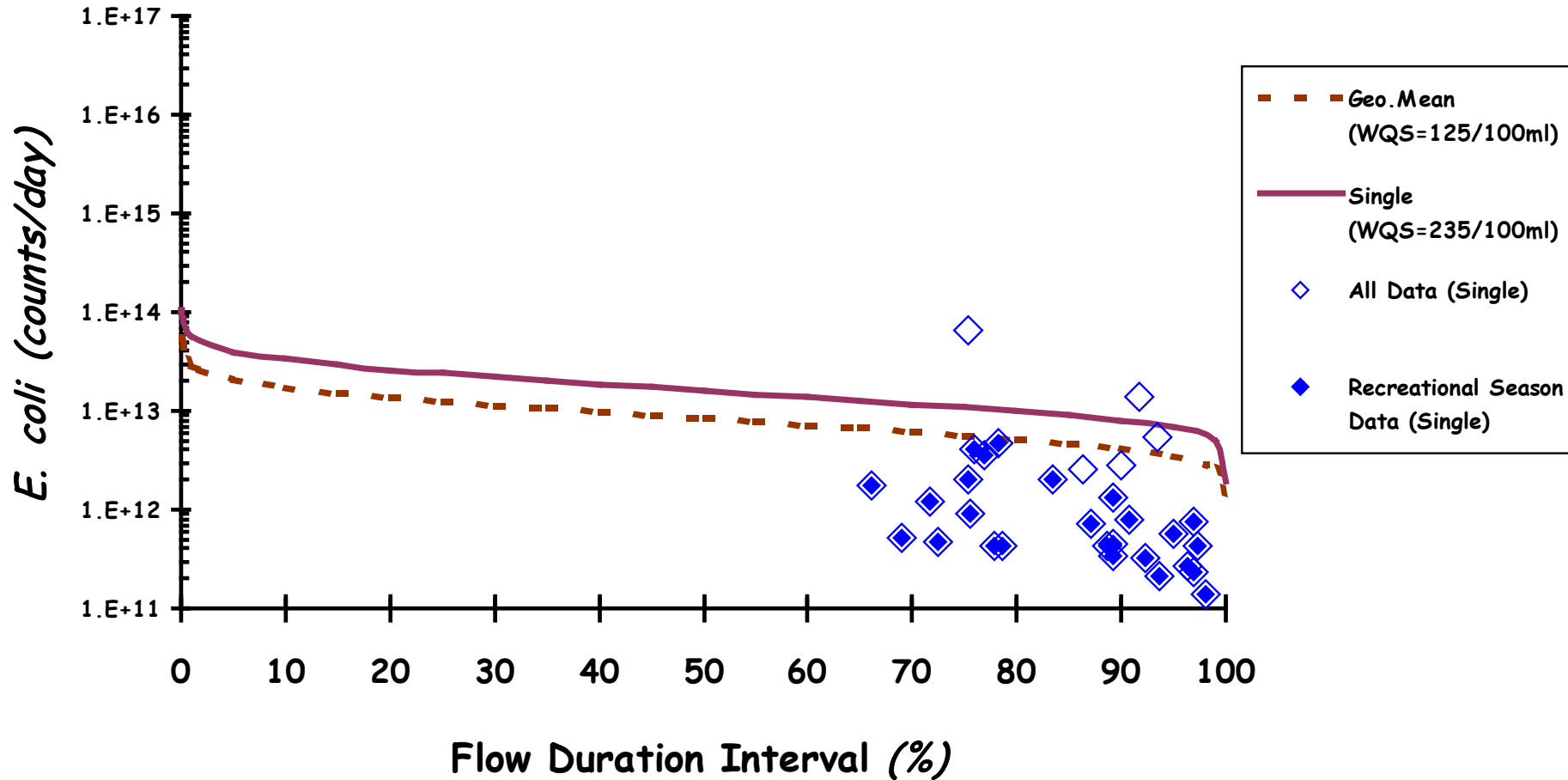




# St. Joseph River

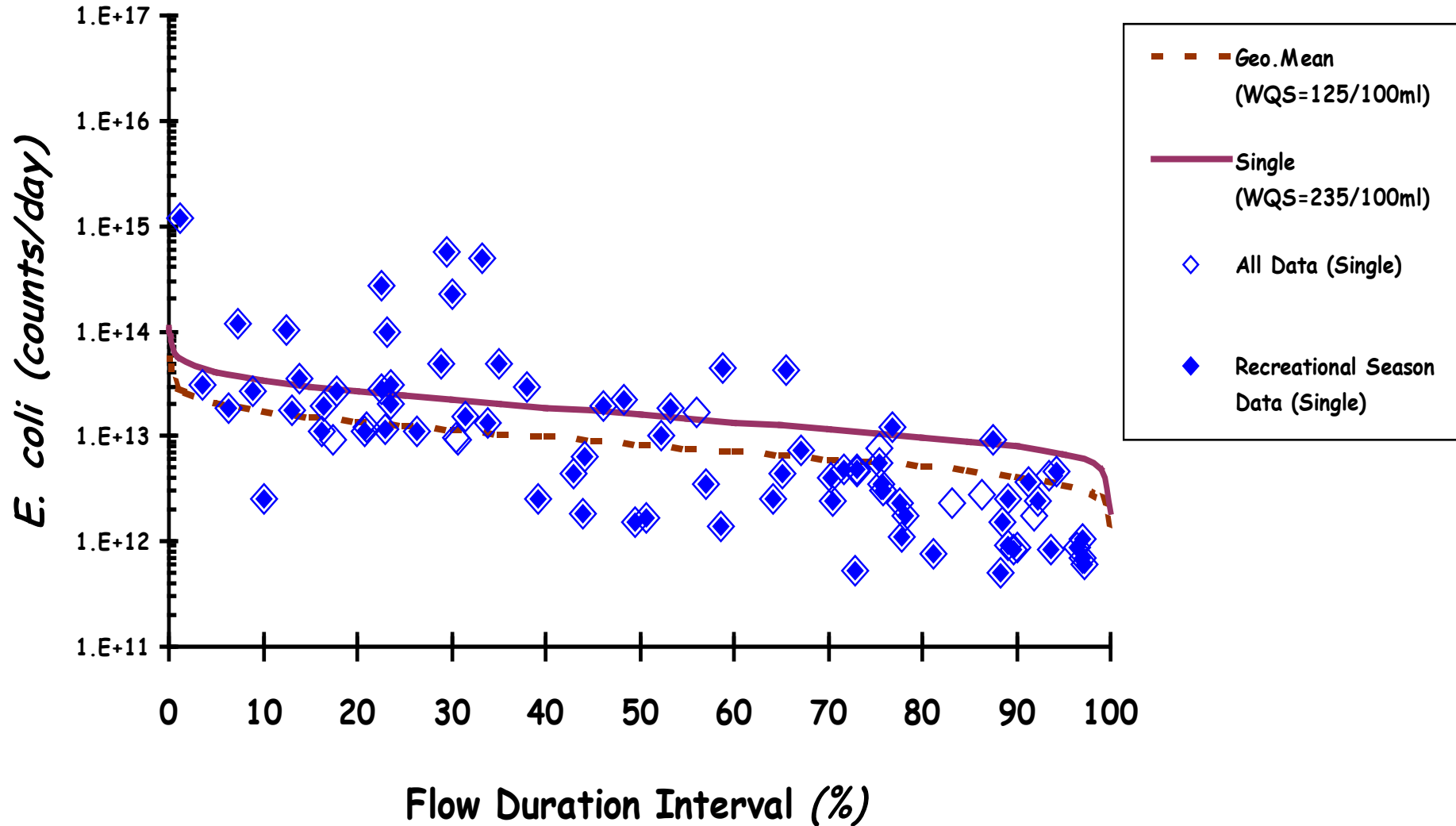
## Load Duration Curve (2000 - 2002 Monitoring Data)

Site: Ash Rd



# St. Joseph River

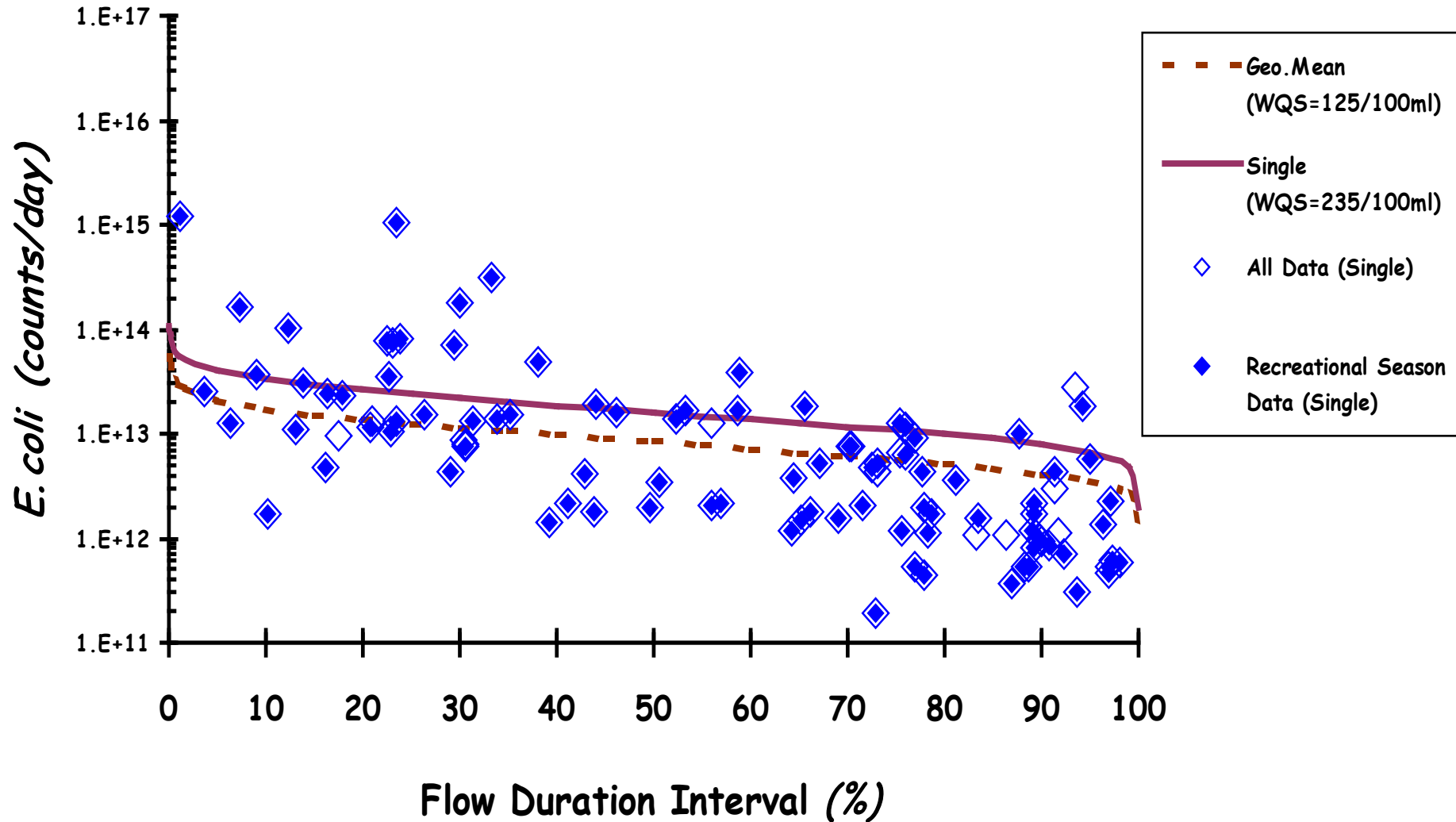
Load Duration Curve (2000 - 2003 Monitoring Data)  
Site: Bittersweet



# St. Joseph River

Load Duration Curve (2000 - 2003 Monitoring Data)

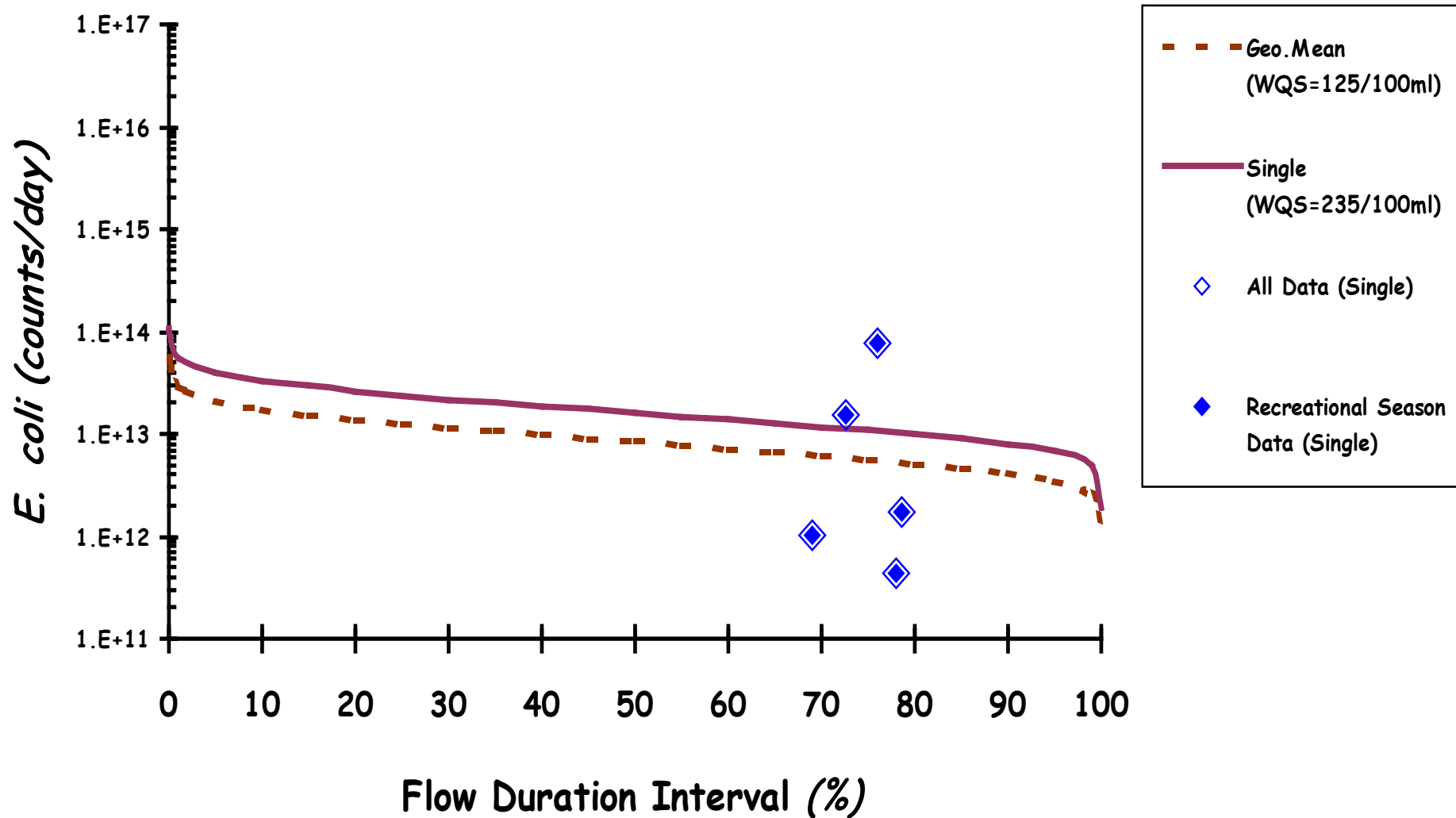
Site: Main St (Mishawaka)



# St. Joseph River

## Load Duration Curve (2000 Monitoring Data)

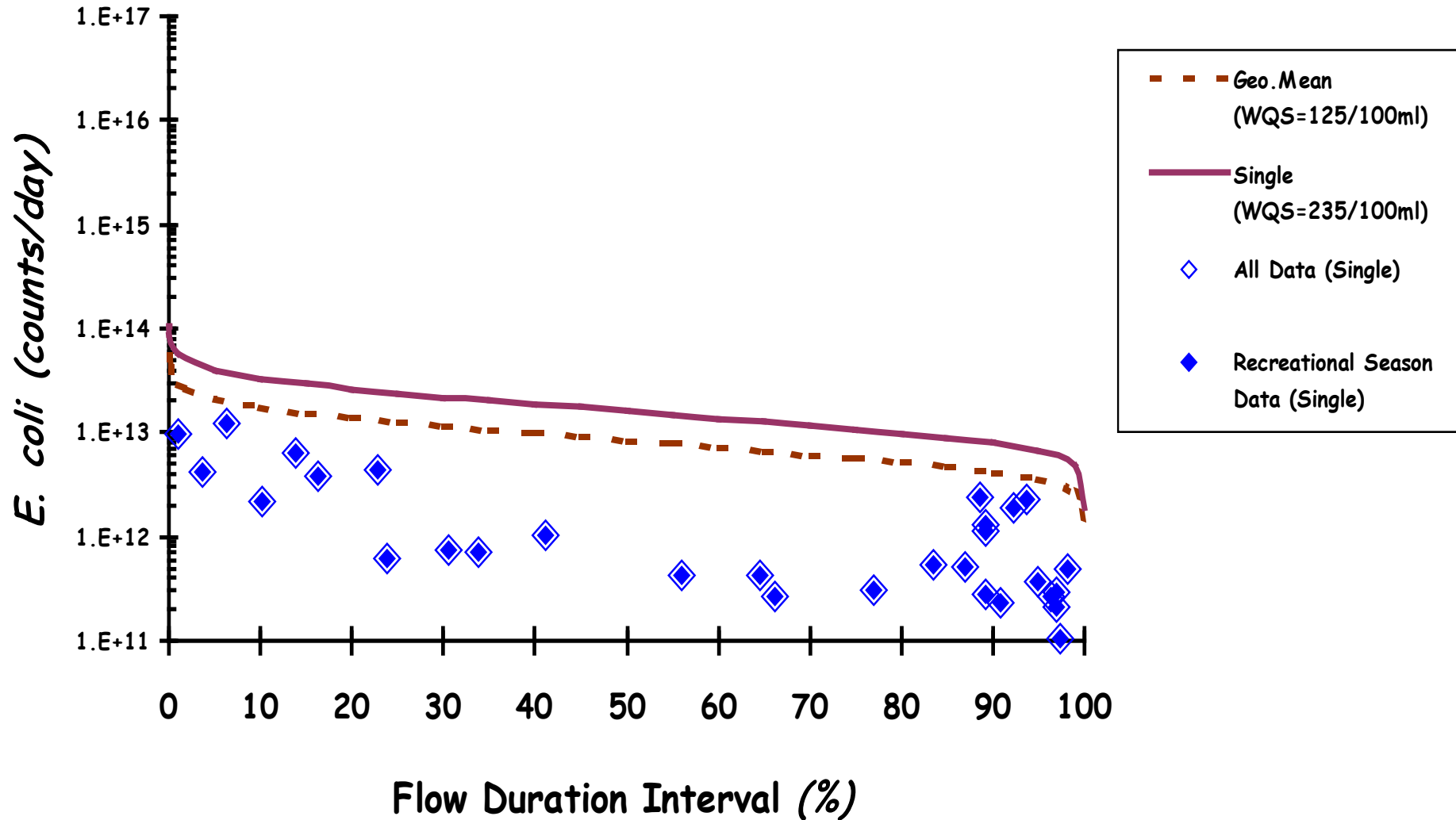
*Site: Twychkenham Dr near Veteran's Park*



# St. Joseph River

## Load Duration Curve (2002 Monitoring Data)

Site: Mishawaka WWTP



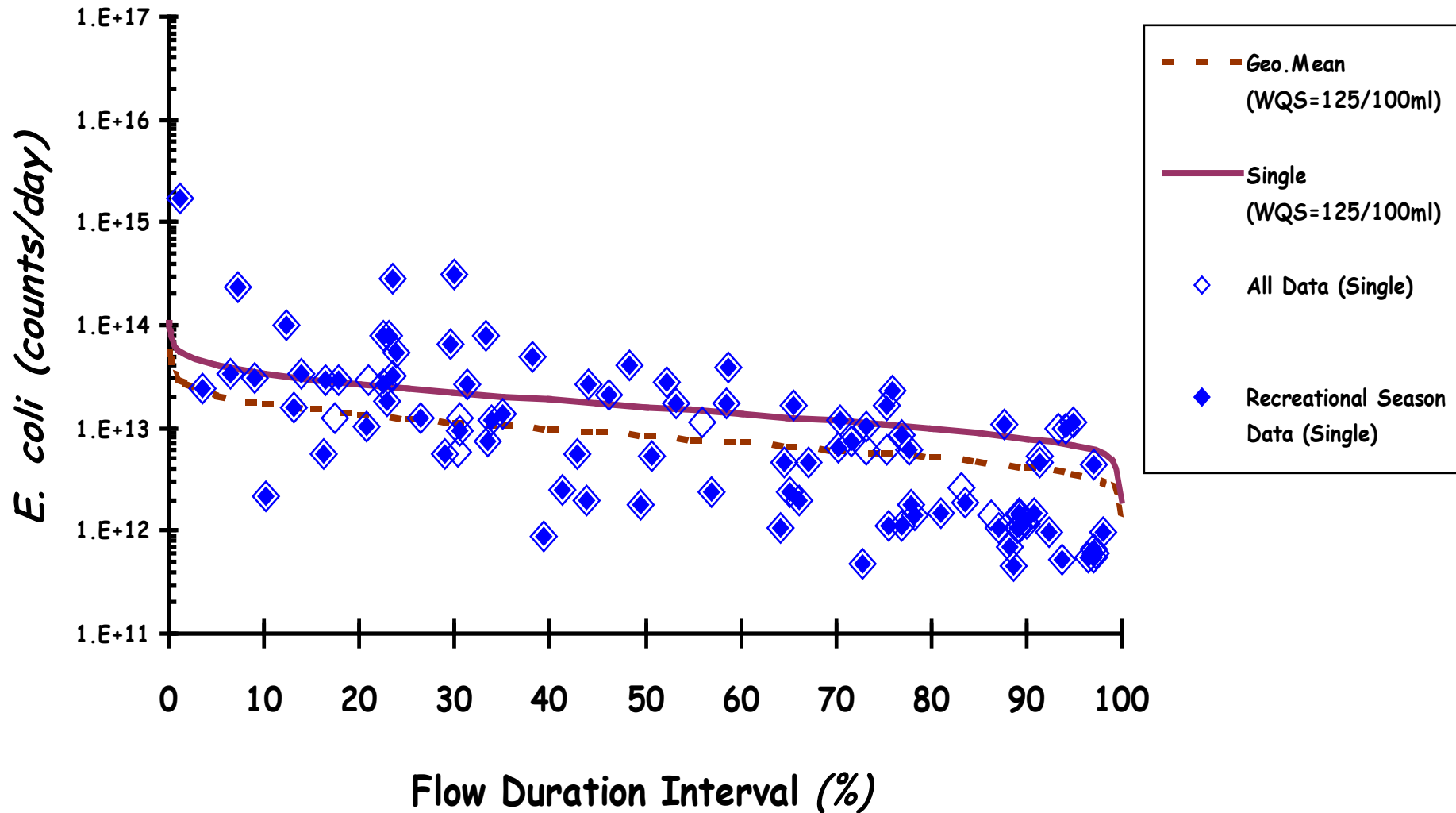
Mishawaka data & Elkhart Gage Duration Interval

3,370 square miles

# St. Joseph River

## Load Duration Curve (2000-2003 Monitoring Data)

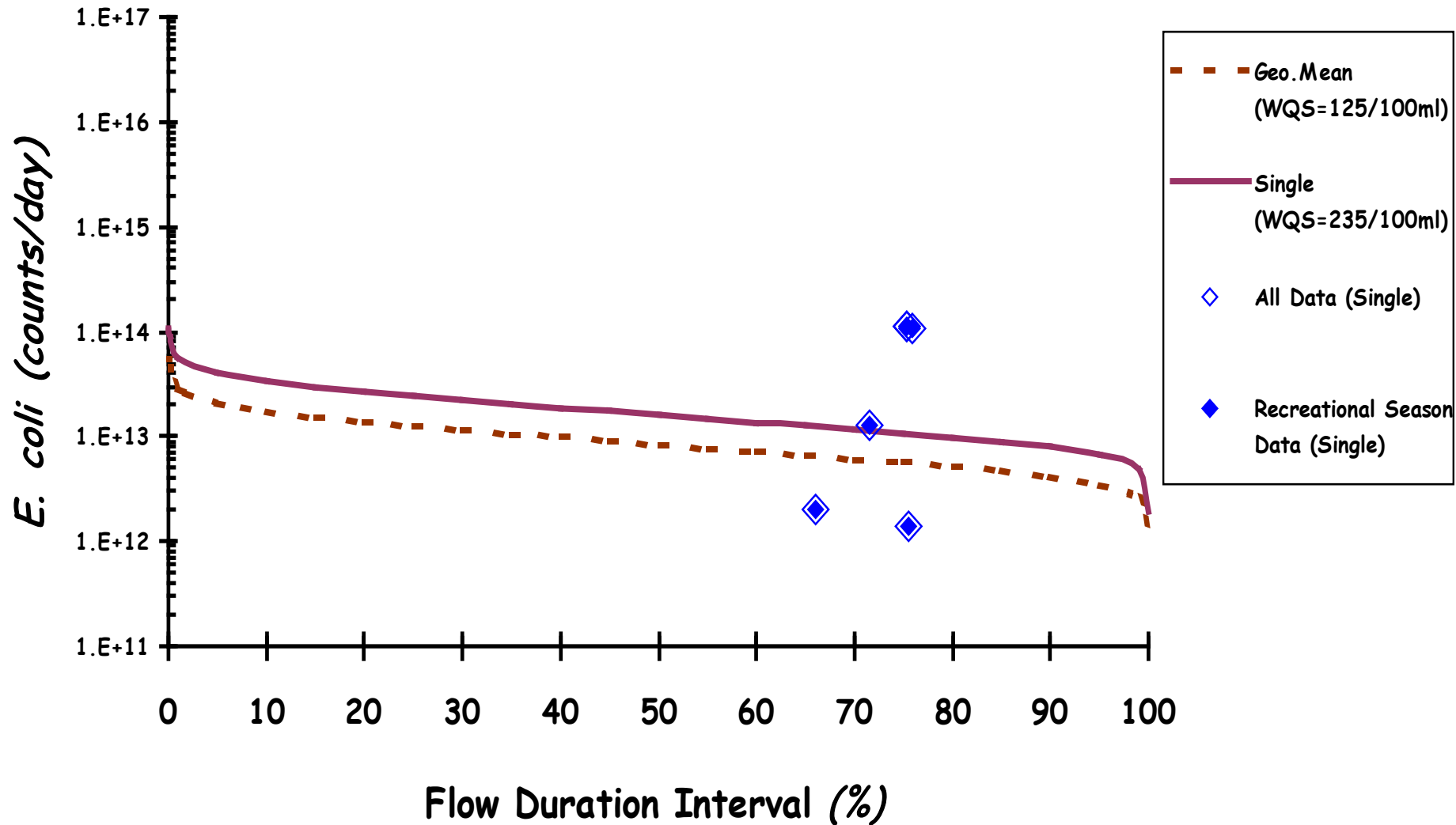
Site: Ironwood



# St. Joseph River

## Load Duration Curve (2000 Monitoring Data)

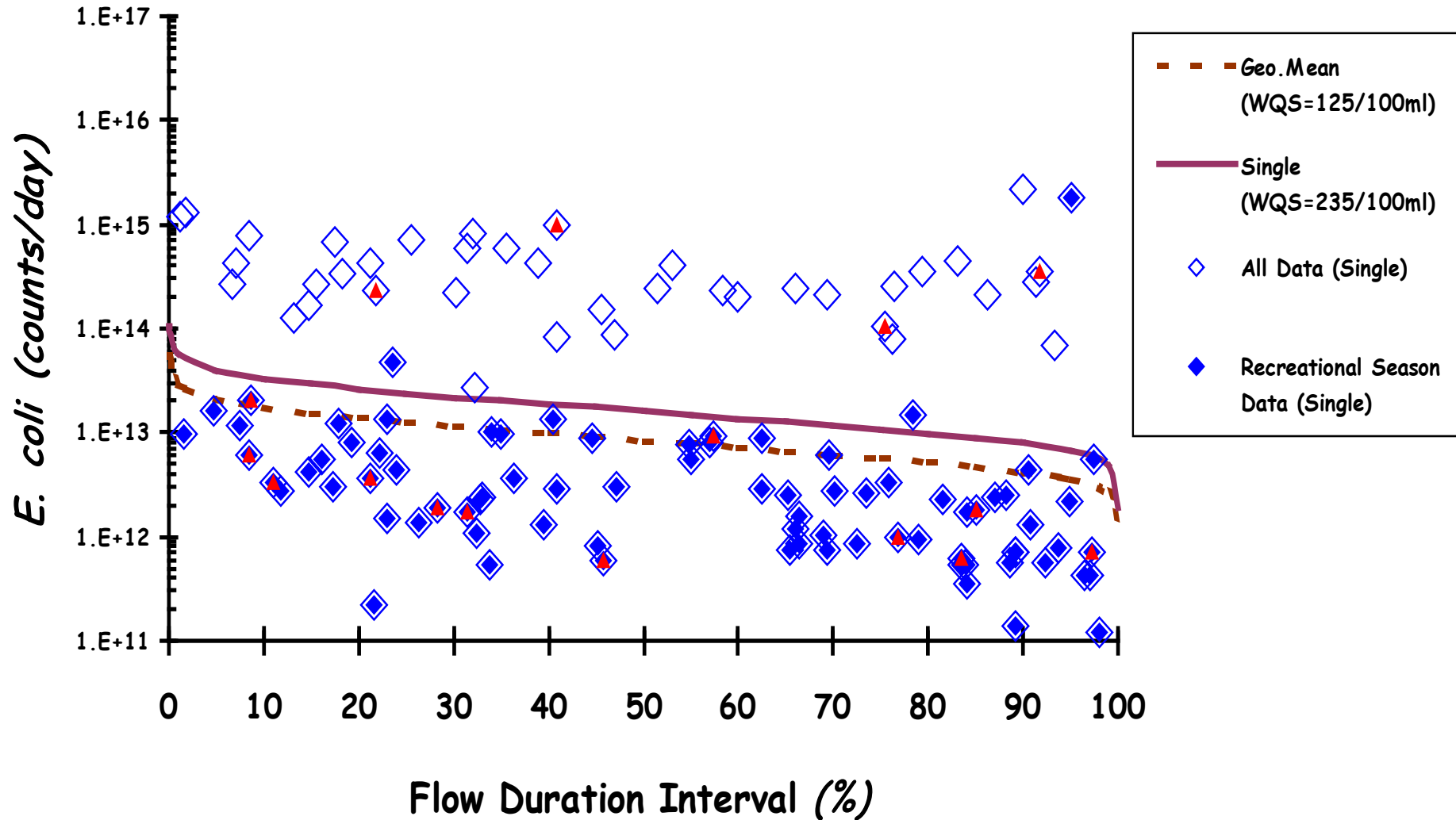
*Site: Riverside Dr at End of Race*



# St. Joseph River

## Load Duration Curve (2000-2003 Monitoring Data)

Site: South Bend WWTP



South Bend data & Elkhart Gage Duration Interval

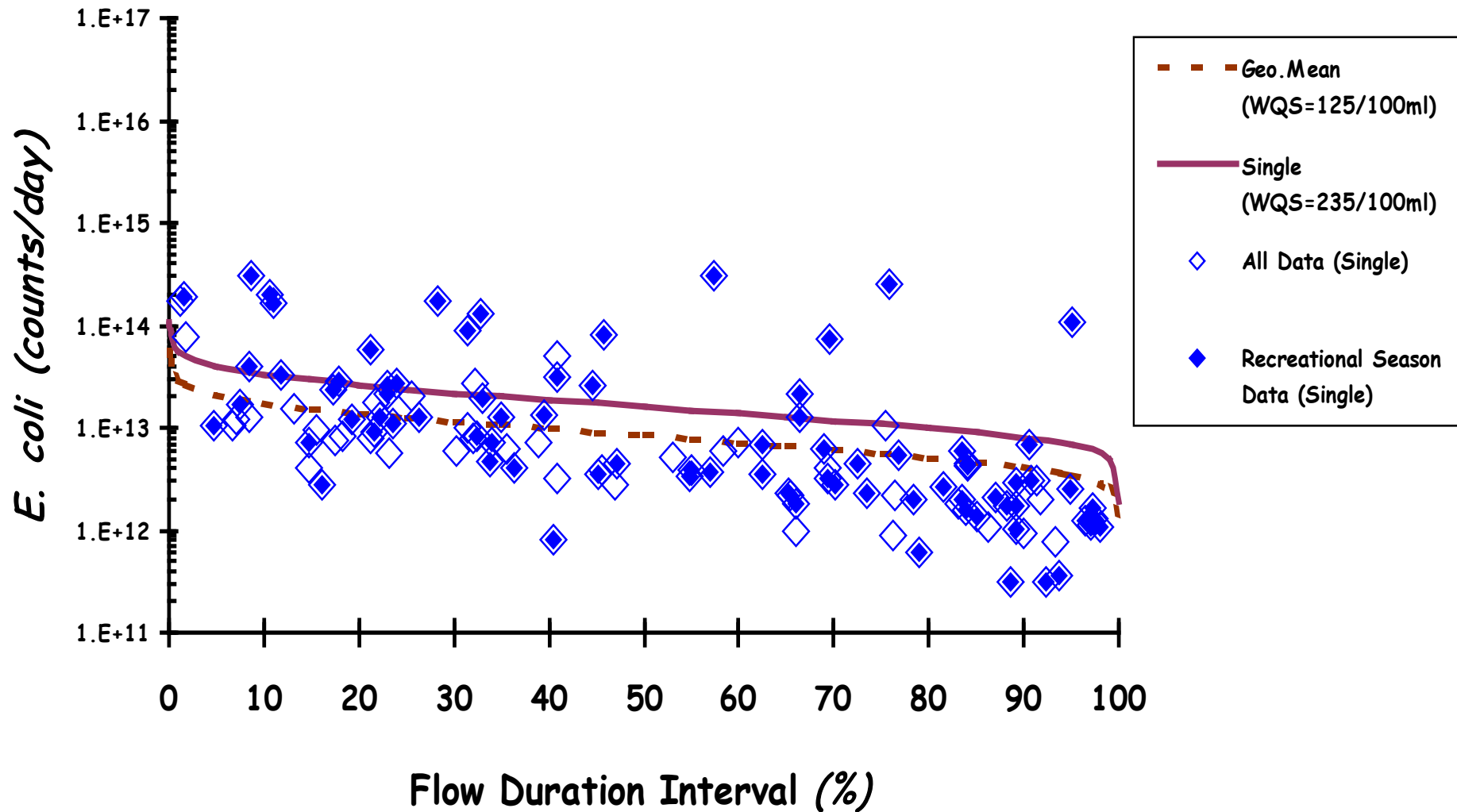
3,370 square miles



# St. Joseph River

## Load Duration Curve (2000-2003 Monitoring Data)

Site: Colfax



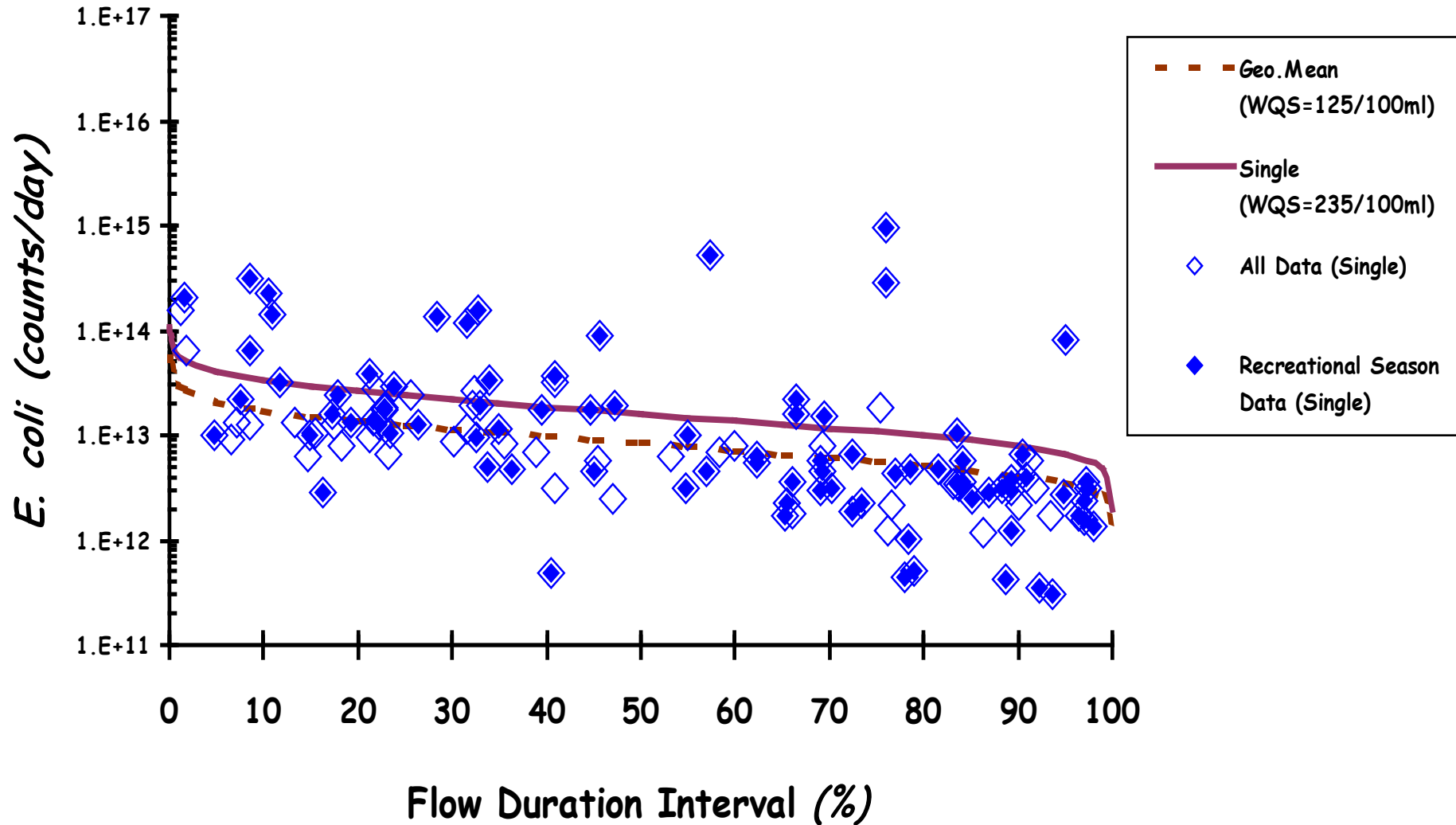
South Bend data & Elkhart Gage Duration Interval

3,370 square miles

# St. Joseph River

## Load Duration Curve (2000-2003 Monitoring Data)

*Site: Angela*



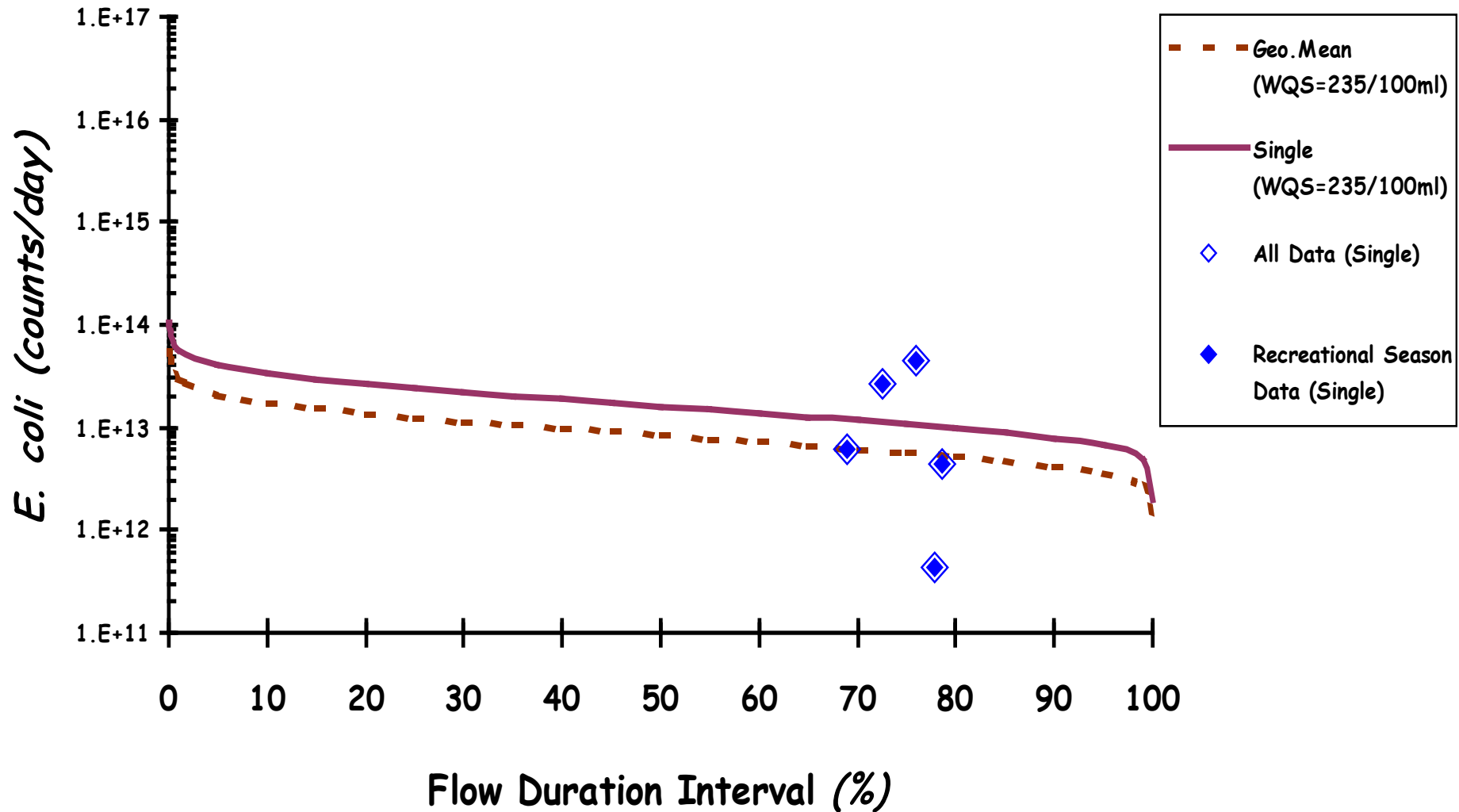
*South Bend data & IDEM & Elkhart Gage Duration Interval*

*3,370 square miles*

# St. Joseph River

## Load Duration Curve (2000 Monitoring Data)

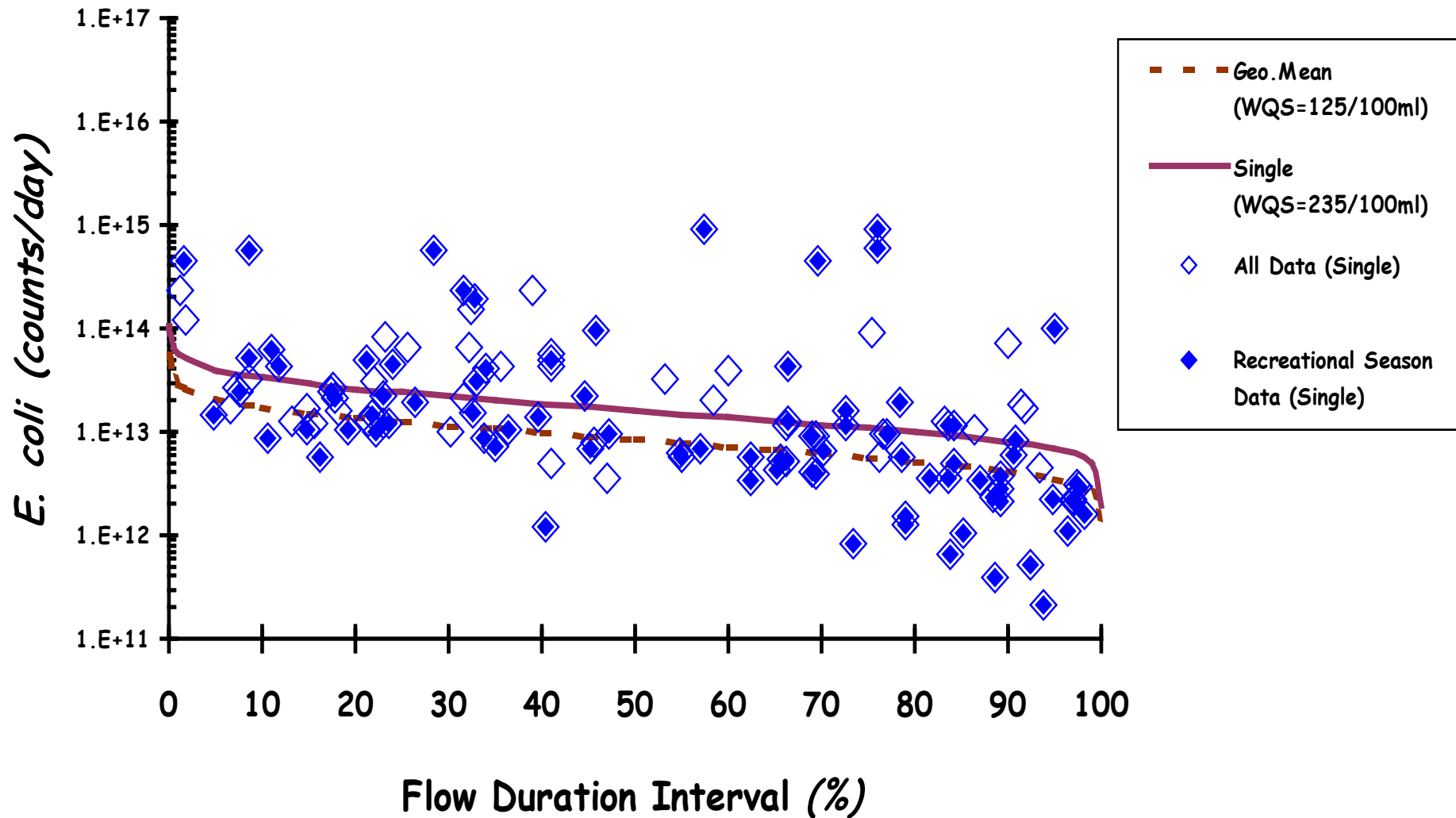
Site: Darden



# St. Joseph River

## Load Duration Curve (2000-2003 Monitoring Data)

Site: Auten Rd



South Bend & IDEM data & Elkhart Gage Duration Interval

3,370 square miles