Appendices to the Biological and Water Quality Study of the Tiffin River and Select Tributaries, 2012-2014.

Defiance, Fulton, Williams, and Henry Counties

Division of Surface Water
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Appendices to the Biological and Water Quality Study of the Tiffin River and Select Tributaries 2012-2014

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NOTICE TO USERS

Ohio EPA incorporated biological criteria into the Ohio Water Quality Standards (WQS; Ohio Administrative Code 3745-1) regulations in February 1990 (effective May 1990). These criteria consist of numeric values for the Index of Biotic Integrity (IBI) and Modified Index of Well-Being (MIwb), both of which are based on fish assemblage data, and the Invertebrate Community Index (ICI), which is based on macroinvertebrate assemblage data. Criteria for each index are specified for each of Ohio's five ecoregions (as described by Omernik and Gallant 1988), and are further organized by organism group, index, site type, and aquatic life use designation. These criteria, along with the existing chemical and whole effluent toxicity evaluation methods and criteria, figure prominently in the monitoring and assessment of Ohio's surface water resources.

The following documents support the use of biological criteria by outlining the rationale for using biological information, the methods by which the biocriteria were derived and calculated, the field methods by which sampling must be conducted, and the process for evaluating results:

Ohio Environmental Protection Agency. 1987a. Biological criteria for the protection of aquatic life: Volume I. The role of biological data in water quality assessment. Div. Water Qual. Monit. & Assess., Surface Water Section, Columbus, Ohio.

____. 1987b. Biological criteria for the protection of aquatic life: Volume II. Users manual for biological field assessment of Ohio surface waters. Div. Water Qual. Monit. & Assess., Surface Water Section, Columbus, Ohio.

____. 1989a. Addendum to Biological criteria for the protection of aquatic life: Volume II. Users manual for biological field assessment of Ohio surface waters. Div. Water Qual. Plan. & Assess., Ecological Assessment Section, Columbus, Ohio.

____. 1989b. Biological criteria for the protection of aquatic life: Volume III. Standardized biological field sampling and laboratory methods for assessing fish and macroinvertebrate communities. Div. Water Quality Plan. & Assess., Ecol. Assess. Sect., Columbus, Ohio.

____. 1990. The use of biological criteria in the Ohio EPA surface water monitoring and assessment program. Div. Water Qual. Plan. & Assess., Ecol. Assess. Sect., Columbus, Ohio.

Rankin, E.T. 1989. The qualitative habitat evaluation index (QHEI): rationale, methods, and application. Div. Water Qual. Plan. & Assess., Ecol. Assess. Sect., Columbus, Ohio.

Since the publication of the preceding guidance documents, the following new publications by the Ohio EPA have become available. These publications should also be consulted as they represent the latest information and analyses used by the Ohio EPA to implement the biological criteria.

DeShon, J.E. 1995. Development and application of the invertebrate community index (ICI), pp. 217-243. in W.S. Davis and T. Simon (eds.). Biological Assessment and Criteria: Tools for Risk-based Planning and Decision Making. Lewis Publishers, Boca Raton, FL.

Ohio Environmental Protection Agency. 2006. Methods for assessing habitat in flowing waters: Using the Qualitative Habitat Evaluation Index (QHEI). Ohio EPA Tech. Bull. EAS/2006-06-1. Revised by the Midwest Biodiversity Institute for Div. of Surface Water, Ecol. Assess. Sect., Groveport, Ohio.

____2015a. 2015 Updates to Biological criteria for the protection of aquatic life: Volume II and Volume II Addendum. Users manual for biological field assessment of Ohio surface waters. Division of Surface Water, Ecological Assessment Section, Columbus, Ohio. May 8, 2015.

____2015b. Biological criteria for the protection of aquatic life: Volume III. Standardized biological field sampling and laboratory methods for assessing fish and macroinvertebrate communities. Division of Surface Water, Ecological Assessment Section, Columbus, Ohio. September 23, 2015.

Rankin, E. T. 1995. The use of habitat assessments in water resource management programs, pp. 181-208. in W. Davis and T. Simon (eds.). Biological Assessment and Criteria: Tools for Water Resource Planning and Decision Making. Lewis Publishers, Boca Raton, FL.

Yoder, C.O. 1995. Policy issues and management applications for biological criteria, pp. 327-344. in W. Davis and T. Simon (eds.). Biological Assessment and Criteria: Tools for Water Resource Planning and Decision Making. Lewis Publishers, Boca Raton, FL.

Yoder, C.O. and E.T. Rankin. 1995a. Biological criteria program development and implementation in Ohio, pp. 109-144. in W. Davis and T. Simon (eds.). Biological Assessment and Criteria: Tools for Water Resource Planning and Decision Making. Lewis Publishers, Boca Raton, FL.

Yoder, C.O. and E.T. Rankin. 1995b. Biological response signatures and the area of degradation value: new tools for interpreting multimetric data, pp. 263-286. in W. Davis and T. Simon (eds.). Biological Assessment and Criteria: Tools for Water Resource Planning and Decision Making. Lewis Publishers, Boca Raton, FL.

Yoder, C.O. and E.T. Rankin. 1995c. The role of biological criteria in water quality monitoring, assessment, and regulation. Environmental Regulation in Ohio: How to Cope With the Regulatory Jungle. Inst. of Business Law, Santa Monica, CA. 54 pp.

Yoder, C.O. and M.A. Smith. 1999. Using fish assemblages in a State biological assessment and criteria program: essential concepts and considerations, pp. 17-63. in T. Simon (ed.). Assessing the Sustainability and Biological Integrity of Water Resources Using Fish Communities. CRC Press, Boca Raton, FL.

These documents and this report may be obtained by contacting:

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FOREWORD

What is a Biological and Water Quality Survey?

A biological and water quality survey, or "biosurvey", is an interdisciplinary monitoring effort coordinated on a waterbody specific or watershed scale. This effort may involve a relatively simple setting focusing on one or two small streams, one or two principal stressors, and a handful of sampling sites or a much more complex effort including entire drainage basins, multiple and overlapping stressors, and tens of sites. Each year the Ohio EPA conducts biosurveys in 4-5 watersheds study areas with an aggregate total of 250-300 sampling sites.

The Ohio EPA employs biological, chemical, and physical monitoring and assessment techniques in biosurveys in order to meet three major objectives: 1) determine the extent to which use designations assigned in the Ohio Water Quality Standards (WQS) are either attained or not attained; 2) determine if use designations assigned to a given water body are appropriate and attainable; and 3) determine if any changes in key ambient biological, chemical, or physical indicators have taken place over time, particularly before and after the implementation of point source pollution controls or best management practices. The data gathered by a biosurvey is processed, evaluated, and synthesized in a biological and water quality report. Each biological and water quality study contains a summary of major findings and recommendations for revisions to WQS, future monitoring needs, or other actions which may be needed to resolve existing impairment of designated uses. While the principal focus of a biosurvey is on the status of aquatic life uses, the status of other uses such as recreation and water supply, as well as human health concerns are also addressed.

The findings and conclusions of a biological and water quality study may factor into regulatory actions taken by the Ohio EPA (*e.g.,* NPDES permits, Director's Orders, the Ohio Water Quality Standards [OAC 3745-1], Water Quality Permit Support Documents [WQPSDs]), and are eventually incorporated into State Water Quality Management Plans, the Ohio Nonpoint Source Assessment, and the biennial Integrated Water Quality Monitoring and Assessment Report (305[b] and 303[d]).

Hierarchy of Indicators

A carefully conceived ambient monitoring approach, using cost-effective indicators consisting of ecological, chemical, and toxicological measures, can ensure that all relevant pollution sources are judged objectively on the basis of environmental results. Ohio EPA relies on a tiered approach in attempting to link the results of administrative activities with true environmental measures. This integrated approach includes a hierarchical continuum from administrative to true environmental indicators (Figure 1). The six "levels" of indicators include: 1) actions taken by regulatory agencies (permitting, enforcement, grants); 2) responses by the regulated community (treatment works, pollution prevention); 3) changes in discharged quantities (pollutant loadings); 4) changes in ambient conditions (water quality, habitat); 5) changes in uptake and/or assimilation (tissue contamination, biomarkers, wasteload allocation); and, 6) changes in health, ecology, or other effects (ecological condition, pathogens). The results of administrative activities (levels 1 and 2) can be linked to efforts to improve water quality (levels 3, 4, and 5) which should translate into the environmental "results" (level 6). Thus, the aggregate effect of billions of dollars spent on water pollution control since the early 1970s can now be determined with quantifiable measures of environmental condition.

Superimposed on this hierarchy is the concept of stressor, exposure, and response indicators. *Stressor* indicators generally include activities which have the potential to degrade the aquatic environment such as pollutant discharges (permitted and unpermitted), land use effects, and habitat modifications. *Exposure* indicators are those which measure the effects of stressors and can include whole effluent toxicity tests, tissue residues, and biomarkers, each of which provides evidence of biological exposure to

a stressor or bioaccumulative agent. *Response* indicators are generally composite measures of the cumulative effects of stress and exposure and include the more direct measures of community and population response that are represented here by the biological indices which comprise Ohio's biological criteria. Other response indicators could include target assemblages, *i.e.,* rare, threatened, endangered, special status, and declining species or bacterial levels which serve as surrogates for the recreational uses. These indicators represent the essential technical elements for watershed-based management approaches. The key, however, is to use the different indicators *within* the roles which are most appropriate for each.

Describing the causes and sources associated with observed impairments revealed by the biological criteria and linking this with pollution sources involves an interpretation of multiple lines of evidence including water chemistry data, sediment data, habitat data, effluent data, biomonitoring results, land use data, and biological response signatures within the biological data itself. Thus the assignment of principal causes and sources of impairment represents the association of impairments (defined by response indicators) with stressor and exposure indicators. The principal reporting venue for this process on a watershed or subbasin scale is a biological and water quality report. These reports then provide the foundation for aggregated assessments such as the Integrated Report, the Ohio Nonpoint Source Assessment, and other technical bulletins.

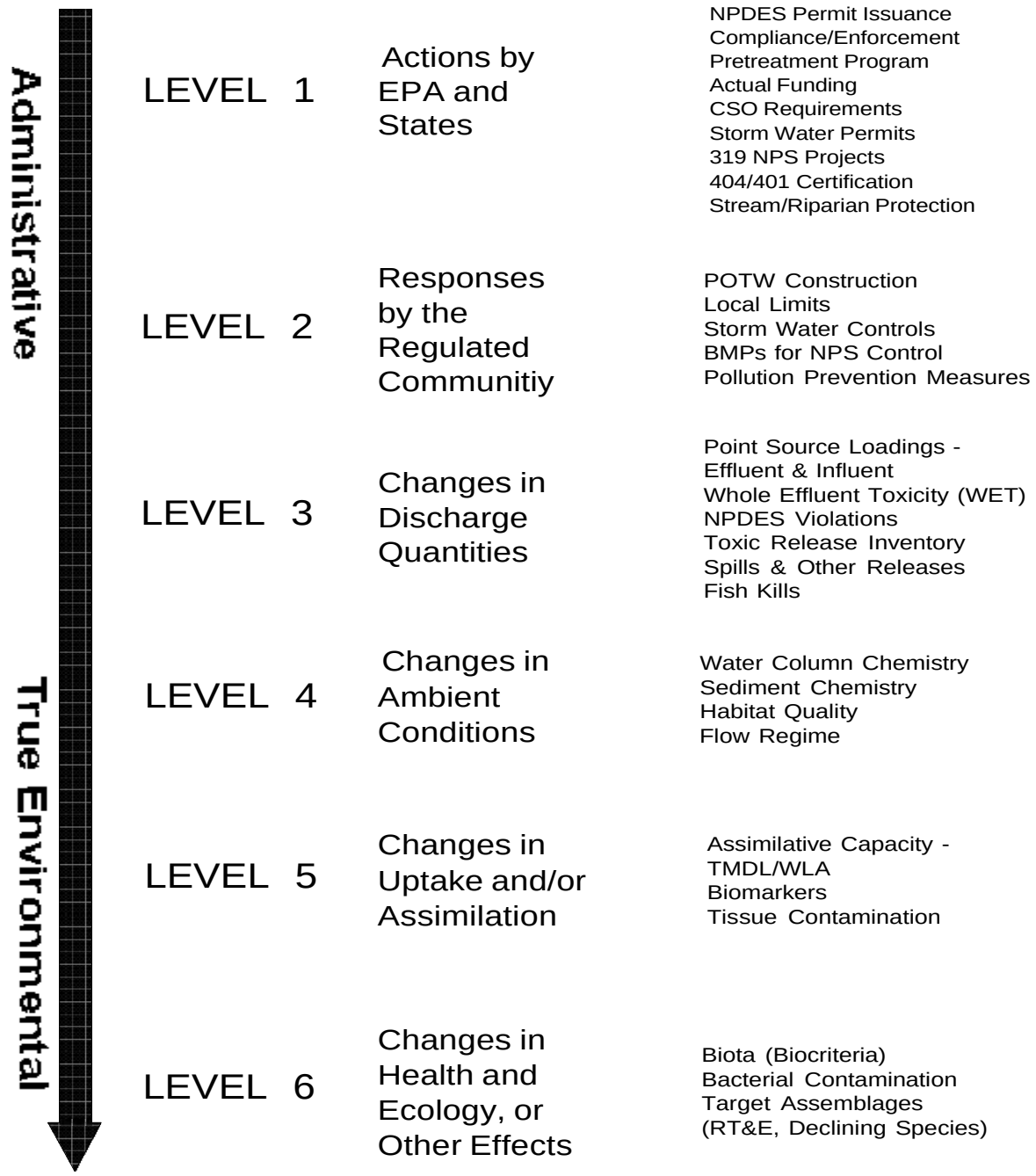

Figure 1. Hierarchy of administrative and environmental indicators which can be used for water quality management activities such as monitoring and assessment, reporting, and the evaluation of overall program effectiveness. This is patterned after a model developed by the U.S. EPA.

Ohio Water Quality Standards: Designated Aquatic Life Use

The Ohio Water Quality Standards (WQS; Ohio Administrative Code 3745-1) consist of designated uses and chemical, physical, and biological criteria designed to represent measurable properties of the environment that are consistent with the goals specified by each use designation. Use designations consist of two broad groups, aquatic life and non-aquatic life uses. In applications of the Ohio WQS to the management of water resource issues in Ohio's rivers and streams, the aquatic life use criteria frequently result in the most stringent protection and restoration requirements, hence their emphasis in biological and water quality reports. Also, an emphasis on protecting for aquatic life generally results in water quality suitable for all uses. The five different aquatic life uses currently defined in the Ohio WQS are described as follows:

1) *Warmwater Habitat (WWH)* - this use designation defines the "typical" warmwater assemblage of aquatic organisms for Ohio rivers and streams; *this use represents the principal restoration target for the majority of water resource management efforts in Ohio.*

2) *Exceptional Warmwater Habitat (EWH)* - this use designation is reserved for waters which support "unusual and exceptional" assemblages of aquatic organisms which are characterized by a high diversity of species, particularly those which are highly intolerant and/or rare, threatened, endangered, or special status (*i.e.,* declining species); *this designation represents a protection goal for water resource management efforts dealing with Ohio's best water resources.*

3) *Coldwater Habitat (CWH)* - this use is intended for waters which support assemblages of coldwater organisms and/or those which are stocked with salmonids with the intent of providing a put-and-take fishery on a year round basis which is further sanctioned by the Ohio DNR, Division of Wildlife; this use should not be confused with the Seasonal Salmonid Habitat (SSH) use which applies to the Lake Erie tributaries which support periodic "runs" of salmonids during the spring, summer, and/or fall.

4) *Modified Warmwater Habitat (MWH)* - this use applies to streams and rivers which have been subjected to extensive, maintained, and essentially permanent hydromodifications such that the biocriteria for the WWH use are not attainable *and where the activities have been sanctioned by state or federal law;* the representative aquatic assemblages are generally composed of species which are tolerant to low dissolved oxygen, silt, nutrient enrichment, and poor quality habitat.

5) *Limited Resource Water (LRW)* - this use applies to small streams (usually <3 mi^2 drainage area) and other water courses which have been irretrievably altered to the extent that no appreciable assemblage of aquatic life can be supported; such waterways generally include small streams in extensively urbanized areas, those which lie in watersheds with extensive drainage modifications, those which completely lack water on a recurring annual basis (*i.e.,* true ephemeral streams), or other irretrievably altered waterways.

Chemical, physical, and/or biological criteria are generally assigned to each use designation in accordance with the broad goals defined by each. As such the system of use designations employed in the Ohio WQS constitutes a "tiered" approach in that varying and graduated levels of protection are provided by each. This hierarchy is especially apparent for parameters such as dissolved oxygen, ammonia-nitrogen, temperature, and the biological criteria. For other parameters such as heavy metals,

the technology to construct an equally graduated set of criteria has been lacking, thus the same WQS criteria may apply to two or three different use designations.

Ohio Water Quality Standards: Non-Aquatic Life Uses

In addition to assessing the appropriateness and status of aquatic life uses, each biological and water quality survey also addresses non-aquatic life uses such as recreation, water supply, and human health concerns as appropriate. The recreation uses most applicable to rivers and streams are the Primary Contact Recreation (PCR) and Secondary Contact Recreation (SCR) uses. The criterion for designating the PCR use can be having a water depth of at least one meter over an area of at least 100 square feet or, lacking this, where frequent human contact is a reasonable expectation. If a water body does not meet either criterion, the SCR use applies. The attainment status of PCR and SCR is determined using bacterial indicators (*e.g.,* fecal coliform, *E. coli)* and the criteria for each are specified in the Ohio WQS.

Attainment of recreation uses are evaluated based on monitored bacteria levels. The Ohio Water Quality Standards state that all waters should be free from any public health nuisance associated with raw or poorly treated sewage (Administrative Code 3745-1-04, Part F). Additional criteria (Administrative Code 3745-1-07) apply to waters that are designated as suitable for full body contact such as swimming (PCR) or for partial body contact such as wading (SCR). These standards were developed to protect human health, because even though fecal coliform bacteria are relatively harmless in most cases, their presence indicates that the water has been contaminated with fecal matter.

Water supply uses include Public Water Supply (PWS), Agricultural Water Supply (AWS), and Industrial Water Supply (IWS). Public Water Supplies are simply defined as segments within 500 yards of a potable water supply or food processing industry intake. The Agricultural Water Supply (AWS) and Industrial Water Supply (IWS) use designations generally apply to all waters unless it can be clearly shown that they are not applicable. An example of this would be an urban area where livestock watering or pasturing does not take place, thus the AWS use would not apply. Chemical criteria are specified in the Ohio WQS for each use and attainment status is based primarily on chemical-specific indicators. Human health concerns are additionally addressed with fish tissue data, but any consumption advisories are issued by the Ohio Department of Health.

MECHANISMS FOR WATER QUALITY IMPAIRMENT

The following paragraphs are provided to present the varied causes of impairment that affect the resource quality of lotic systems in Ohio. While the various perturbations are presented under separate headings, it is important to remember that they are often interrelated and cumulative in terms of the detrimental impact that can result.

Habitat and Flow Alterations

Habitat alteration, such as channelization, negatively impacts biological communities directly by limiting the complexity of living spaces available to aquatic organisms. Consequently, fish and macroinvertebrate communities are not as diverse. Indirect impacts include the removal of riparian trees and field tiling to facilitate drainage. Following a rain event, most of the water is quickly removed from tiled fields rather than filtering through the soil, recharging ground water, and reaching the stream at a lower volume and more sustained rate. As a result, small streams more frequently go dry or become intermittent. Urbanization impacts include removal of riparian trees, influx of storm water runoff, straightening and piping of stream channels, and riparian vegetation removal.

Tree shade is important because it limits the energy input from the sun, moderates water temperature, and limits evaporation. Removal of the tree canopy further degrades conditions because it eliminates an important source of coarse organic matter essential for a balanced ecosystem. Riparian vegetation aids in nutrient uptake, may decrease runoff rate into streams, and helps keep soil in place. Erosion impacts channelized streams more severely due to the lack of a riparian buffer zone to slow runoff, trap sediment and stabilize banks. Additionally, deep trapezoidal channels lack a functioning flood plain and therefore cannot expel sediment as would occur during flood events along natural watercourses. The confinement of flow within an artificially deep channel accelerates the movement of water downstream, exacerbating flooding of neighboring properties.

The lack of water movement under low flow conditions can exacerbate impacts from organic loading and nutrient enrichment by limiting re-aeration of the stream. The amount of oxygen soluble in water decreases as temperature increases. This is one reason why tree shade is so important. The two main sources of oxygen in water are diffusion from the atmosphere and plant photosynthesis. Turbulence at the water surface is critical because it increases surface area and promotes diffusion, but channelization eliminates turbulence produced by riffles, meanders, and debris snags. Plant photosynthesis produces oxygen, but at night, respiration reverses the process and consumes oxygen. Conversely, oxygen concentrations can become supersaturated during the day, due to abnormally high amounts of photosynthesis, causing gas bubble stress to both fish and invertebrate communities. Oxygen is also used by bacteria that decay dead organic matter. Nutrient enrichment can promote the growth of nuisance algae that subsequently dies and serves as food for bacteria. Under these conditions, oxygen can be depleted unless it is replenished from the air.

Siltation and Sedimentation

Whenever the natural flow regime is altered to facilitate drainage, increased amounts of sediment are likely to enter streams either by overland transport or increased bank erosion. The removal of wooded riparian areas furthers the erosion process. Channelization keeps all but the highest flow events confined within the artificially high banks. As a result, areas that were formerly flood plains and allowed for the removal of sediment from the primary stream channel no longer serve this function. As water

levels fall following a rain event, interstitial spaces between larger rocks fill with sand and silt and the diversity of available habitat to support fish and macroinvertebrates is reduced. Silt also can clog the gills of both fish and macroinvertebrates, reduce visibility thereby excluding site feeding fish species, and smother the nests of lithophilic fishes. Lithophilic spawning fish require clean substrates with interstitial voids in which to deposit eggs. Conversely, pioneering species benefit. They are generalists and best suited for exploiting disturbed and less heterogeneous habitats. The net result is a lower diversity of aquatic species compared with a typical warmwater stream with natural habitats.

Sediment also impacts water quality, recreation, and drinking water. Nutrients absorbed to soil particles remain trapped in the watercourse. Likewise, bacteria, pathogens, and pesticides which also attach to suspended or bedload sediments become concentrated in waterways where the channel is functionally isolated from the landscape. Community drinking water systems address these issues with more costly advanced treatment technologies.

Nutrient Enrichment

The element of greatest concern is phosphorus because it is critical for plant growth and is often the limiting nutrient. The form that can be readily used by plants and therefore can stimulate nuisance algae blooms is orthophosphate (PO_4^{3-}). The amount of phosphorus tied up in the nucleic acids of food and waste is actually quite low. This organic material is eventually converted to orthophosphate by bacteria. The amount of orthophosphate contained in synthetic detergents is a great concern however. It was for this reason that the General Assembly of the State of Ohio enacted a law in 1990 to limit phosphorus content in household laundry detergents sold in the Lake Erie drainage basin to 0.5% by weight. Inputs of phosphorus originate from both point and nonpoint sources. Most of the phosphorus discharged by point sources is soluble. Another characteristic of point sources is they have a continuous impact and are human in origin, for instance, effluents from municipal sewage treatment plants. The contribution from failed on-lot septic systems can also be significant, especially if they are concentrated in a small area. The phosphorus concentration in raw waste water is generally 8-10 mg/l and after secondary treatment is generally 4-6 mg/l. Further removal requires the added cost of chemical addition. The most common methods use the addition of lime or alum to form a precipitate, so most phosphorus (80%) ends up in the sludge.

A characteristic of phosphorus discharged by nonpoint sources is that the impact is intermittent and associated with storm water runoff. Most of this phosphorus is bound tightly to soil particles and enters streams from erosion, although some comes from tile drainage. Urban storm water is more of a concern if combined sewer overflows are involved. The impact from rural storm water varies depending on land use and management practices and includes contributions from livestock feedlots and pastures and row crop agriculture. Crop fertilizer includes granular inorganic types and organic types such as manure or sewage sludge. Pasture land is especially a concern if the livestock have access to the stream. Large feedlots with manure storage lagoons create the potential for overflows and accidental spills. Land management is an issue because erosion is worse on streams without any riparian buffer zone to trap runoff. The impact is worse in streams that are channelized because they no longer have a functioning flood plain and cannot expel sediment during flooding. Oxygen levels must also be considered, because phosphorus is released from sediment at higher rates under anoxic conditions.

There is no numerical phosphorus criterion established in the Ohio Water Quality Standards, but there is a narrative criterion that states phosphorus should be limited to the extent necessary to prevent nuisance growths of algae and weeds (Administrative Code, 3745-1-04, Part E). Phosphorus loadings from large volume point source dischargers in the Lake Erie drainage basin are regulated by NPDES permit limits. The permit limit is a concentration of 1.0 mg/l in final effluent. Research conducted by the Ohio EPA indicates that a significant correlation exists between phosphorus and the health of aquatic communities (Miltner and Rankin, 1998). It was concluded that biological community performance in

headwater and wadeable streams was highest where phosphorus concentrations were lowest. It was also determined that the lowest phosphorus concentrations were associated with the highest quality habitats, supporting the notion that habitat is a critical component of stream function. The report recommends WWH total phosphorus targets of 0.08 mg/l in headwater streams (<20 mi^2 watershed size), 0.10 mg/l in wadeable streams (>20-200 mi^2) and 0.17 mg/l in small rivers (>200-1000 mi^2).

Organic Enrichment and Low Dissolved Oxygen

The amount of oxygen soluble in water is low and it decreases as temperature increases. This is one reason why tree shade is so important. The two main sources of oxygen in water are diffusion from the atmosphere and plant photosynthesis. Turbulence at the water surface is critical because it increases surface area and promotes diffusion. Drainage practices such as channelization eliminate turbulence produced by riffles, meanders, and debris snags. Although plant photosynthesis produces oxygen by day, it is consumed by the reverse process of respiration at night. Oxygen is also consumed by bacteria that decay organic matter, so it can be easily depleted unless it is replenished from the air. Sources of organic matter include poorly treated waste water, sewage bypasses, and dead plants and algae. Dissolved oxygen criteria are established in the Ohio Water Quality Standards to protect aquatic life. The minimum and average limits are tiered values and linked to use designations (Administrative Code 3745 -1-07, Table 7-1).

Ammonia

Ammonia enters streams as a component of fertilizer and manure run-off and wastewater effluent. Ammonia gas (NH_3) readily dissolves in water to form the compound ammonium hydroxide (NH_4OH). In aquatic ecosystems, equilibrium is established as ammonia shifts from a gas to undissociated ammonium hydroxide to the dissociated ammonium ion (NH_4+). Under normal conditions (neutral pH 7.0 and temperature 25°C), almost none of the total ammonia is present as gas, only 0.55% is present as ammonium hydroxide, and the rest is ammonium ion. Alkaline pH shifts the equation toward gaseous ammonia production, so the amount of ammonium hydroxide increases. This is important because while the ammonium ion is almost harmless to aquatic life, ammonium hydroxide is very toxic and can reduce growth and reproduction or cause mortality.

The concentration of ammonia in raw sewage is high, sometimes as much as 20-30 mg/l. Treatment to remove ammonia involves gaseous stripping to the atmosphere, biological nitrification and de-nitrification, and assimilation into plant and animal biomass. The nitrification process requires a long detention time and aerobic conditions like that provided in extended aeration treatment plants. Under these conditions, bacteria first convert ammonia to nitrite (*Nitrosomonas*) and then to nitrate (*Nitrobacter*). Nitrate can then be reduced by the de-nitrification process (*Pseudomonas*) and nitrogen gas and carbon dioxide are produced as by-products.

Ammonia criteria are established in the Ohio Water Quality Standards to protect aquatic life. The maximum and average limits are tiered values based on sample pH and temperature and linked to use designations (Administrative Code 3745-1-07, Tables 7-2 through 7-8).

Metals

Metals can be toxic to aquatic life and hazardous to human health. Although they are naturally occurring elements many are extensively used in manufacturing and are byproducts of human activity. Certain metals like copper and zinc are essential in the human diet, but excessive levels are usually detrimental. Lead and mercury are of particular concern because they often trigger fish consumption advisories. Mercury is used in the production of chlorine gas and caustic soda and in the manufacture of batteries and fluorescent light bulbs. In the environment it forms inorganic salts, but bacteria convert these to methyl-mercury and this organic form builds up in the tissues of fish. Extended exposure can damage

the brain, kidneys, and developing fetus. The Ohio Department of Health (ODH) issued a statewide fish consumption advisory in 1997 advising women of child bearing age and children six and under not to eat more than one meal per week of any species of fish from waters of the state because of mercury. Lead is used in batteries, pipes, and paints and is emitted from burning fossil fuels. It affects the central nervous system and damages the kidneys and reproductive system. Copper is mined extensively and used to manufacture wire, sheet metal, and pipes. Ingesting large amounts can cause liver and kidney damage. Zinc is a by-product of mining, steel production, and coal burning and used in alloys such as brass and bronze. Ingesting large amounts can cause stomach cramps, nausea, and vomiting.

Metals criteria are established in the Ohio Water Quality Standards to protect human health, wildlife, and aquatic life. Three levels of aquatic life standards are established (Administrative Code 3745-1-07, Table 7-1) and limits for some elements are based on water hardness (Administrative Code 3745-1-07, Table 7-9). Human health and wildlife standards are linked to either the Lake Erie (Administrative Code 3745-1-33, Table 33- 2) or Ohio River (Administrative Code 3745-1-34, Table 34-1) drainage basins. The drainage basins also have limits for additional elements not established elsewhere that are identified as Tier I and Tier II values.

Bacteria

High concentrations of either fecal coliform bacteria or *Escherichia coli* (*E. coli*) in a lake or stream may indicate contamination with human pathogens. People can be exposed to contaminated water while wading, swimming, and fishing. Fecal coliform bacteria are relatively harmless in most cases, but their presence indicates that the water has been contaminated with feces from a warm-blooded animal. Although intestinal organisms eventually die off outside the body, some will remain virulent for a period of time and may be dangerous sources of infection. This is especially a problem if the feces contained pathogens or disease producing bacteria and viruses. Reactions to exposure can range from an isolated illness such as skin rash, sore throat, or ear infection to a more serious wide spread epidemic. Some types of bacteria that are a concern include *Escherichia*, which cause diarrhea and urinary tract infections, *Salmonella*, which cause typhoid fever and gastroenteritis (food poisoning), and *Shigella*, which cause severe gastroenteritis or bacterial dysentery. Some types of viruses that are a concern include polio, hepatitis A, and encephalitis. Disease causing microorganisms such as cryptosporidium and giardia are also a concern.

Since fecal coliform bacteria are associated with warm-blooded animals, there are both human and animal sources. Human sources, including effluent from sewage treatment plants or discharges by on-lot septic systems, are a more continuous problem. Bacterial contamination from combined sewer overflows are associated with wet weather events. Animal sources are usually more intermittent and are also associated with rainfall, except when domestic livestock have access to the water. Large livestock farms store manure in holding lagoons and this creates the potential for an accidental spill. Liquid manure applied as fertilizer is a runoff problem if not managed properly and it sometimes seeps into field tiles.

Bacteria criteria for the recreational use are established in the Ohio Water Quality Standards to protect human health. The maximum and average limits are tiered *E. coli* values and linked to use designation, but only apply during the May 1-October 15 recreation season (Administrative Code 3745-1-07, Table 7-13). The standards also state that streams must be free of any public health nuisance associated with raw or poorly treated sewage during dry weather conditions (Administrative Code 3745-1-04, Part F).

Sediment Contamination

Chemical quality of sediment is a concern because many pollutants bind strongly to soil particles and are persistent in the environment. Some of these compounds accumulate in the aquatic food chain and trigger fish consumption advisories, but others are simply a contact hazard because they cause skin cancer and tumors. The physical and chemical nature of sediment is determined by local geology, land use, and contribution from manmade sources. As some materials enter the water column they are attracted to the surface electrical charges associated with suspended silt and clay particles. Others simply sink to the bottom due to their high specific gravity. Sediment layers form as suspended particles settle, accumulate, and combine with other organic and inorganic materials. Sediment is the most physically, chemically, and biologically reactive at the water interface because this is where it is affected by sunlight, current, wave action, and benthic organisms. Assessment of the chemical nature of this layer can be used to predict ecological impact.

Sediment data are evaluated using Ohio Sediment Reference Values (SRVs; Ohio EPA 2008), along with guidelines established in *Development and Evaluation of Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems* (MacDonald *et.al*. 2000), and *Ecological Screening Levels (ESLs)* (U.S. EPA 2003). The Ohio EPA system was derived from samples collected at ecoregional reference sites. Specific SRVs are site specific ecoregional based metals concentrations and are used to identify contaminated stream reaches. The MacDonald guidelines are consensus based using previously developed values. The system predicts that sediments below the threshold effect concentration (TEC) are absent of toxicity and those greater than the probable effect concentration (PEC) are toxic. ESL values, considered protective benchmarks, were derived by US EPA Region 5 using a variety of sources and methods.

Sediment samples collected by the Ohio EPA are measured for a number of physical and chemical properties. Physical attributes included percent particle size distribution (sand ≥60µ, silt 5-59µ, clay ≤4µ), percent solids, and percent organic carbon. Most locations sampled had an abundance of sediment, and no difficulties were experienced in locating ample volumes of sediment for analysis. Fine grained sediments are deposited in flood plains of natural streams during periods of high flow. This scenario changes if the stream is impounded by a dam or channelized. Chemical attributes included metals, volatile and semi-volatile organic compounds, pesticides, and polychlorinated biphenyls (PCBs).

MATERIALS and METHODS

All biological, chemical, and physical habitat data collection, processing, and analysis methods and procedures adhere to those specified in the Surface Water Field Sampling Manual for water column chemisty, bacteria and flows (Ohio EPA 2013), Biological Criteria for the Protection of Aquatic Life, Volumes II - III (Ohio EPA 1987b, 1989a, 1989b, 2015a, 2015b), and The Qualitative Habitat Evaluation Index (QHEI): Rationale, Methods, and Application (Rankin 1989).

Determining Use Attainment Status

Use attainment status is a term describing the degree to which environmental indicators are either above or below criteria specified by the Ohio Water Quality Standards (WQS; Ohio Administrative Code 3745-1). Assessing aquatic use attainment status involves a primary reliance on the Ohio EPA biological criteria (OAC 3745-1-07; Table 7-15). These are confined to ambient assessments and apply to rivers and streams outside of mixing zones. Numerical biological criteria are based on multimetric biological indices including the IBI and MIwb, indices measuring the response of the fish community, and the ICI, which indicates the response of the macroinvertebrate community. Three attainment status results are possible at each sampling location - full, partial, or non-attainment. Full attainment means that all of the applicable indices meet the biocriteria. Partial attainment means that one or more of the applicable indices fails to meet the biocriteria. Non-attainment means that none of the applicable indices meet the

biocriteria or one of the organism groups reflects poor or very poor performance. An aquatic life use attainment table is constructed based on the sampling results and is arranged from upstream to downstream and includes the sampling locations indicated by river mile, the applicable biological indices, the use attainment status (*i.e.,* full, partial, or non), the Qualitative Habitat Evaluation Index (QHEI), and a sampling location description.

Habitat Assessment

Physical habitat was evaluated using the QHEI developed by the Ohio EPA for streams and rivers in Ohio (Rankin 1989 and 1995, Ohio EPA 2006). Various attributes of the habitat are scored based on the overall importance of each to the maintenance of viable, diverse, and functional aquatic faunas. The type(s) and quality of substrates, amount and quality of instream cover, channel morphology, extent and quality of riparian vegetation, pool, run, and riffle development and quality, and gradient are some of the habitat characteristics used to determine the QHEI score which generally ranges from 20 to less than 100. The QHEI is used to evaluate the characteristics of a stream segment, as opposed to the characteristics of a single sampling site. As such, individual sites may have poorer physical habitat due to a localized disturbance yet still support aquatic communities closely resembling those sampled at adjacent sites with better habitat, provided water quality conditions are similar. QHEI scores from hundreds of segments around the state have indicated that values greater than 60 are *generally* conducive to the existence of warmwater faunas whereas scores less than 45 generally cannot support a warmwater assemblage consistent with the WWH biological criteria. Scores greater than 75 frequently reflect habitat conditions which have the ability to support exceptional warmwater faunas.

Sediment and Surface Water Assessment

Fine grain sediment samples were collected in the upper 4 inches of bottom material at each location using decontaminated stainless steel scoops and excavated using nitrile gloves. Decontamination of sediment sampling equipment followed the procedures outlined in the Ohio EPA sediment sampling guidance manual (Ohio EPA 2012). Sediment grab samples were homogenized in stainless steel pans (material for VOC analysis was not homogenized), transferred into glass jars with teflon® lined lids, placed on ice (to maintain 4°C) in a cooler, and shipped to Ohio EPA Division of Environmental Services. Sediment data is reported on a dry weight basis. Surface water samples were collected, preserved and delivered in appropriate containers to Ohio EPA Division of Environmental Services. Surface water samples were evaluated using comparisons to Ohio Water Quality Standards criteria, reference conditions, or published literature. Sediment evaluations were conducted using guidelines established in MacDonald et al. (2000), U.S. EPA (2003) and Ohio EPA (2008).

Recreation Use Assessment

Recreation use attainment was determined using the criteria established in OAC 3745-1-41:

1) *E. coli* is the only indicator organism used to evaluate recreation.
2) The recreation season extends from May 1 – Oct. 31.
3) Geometric mean content is computed on a seasonal basis.
4) Geometric mean content is the sole basis of use attainment status when 2 or more samples are taken.
5) Primary Contact Recreation (PCR) includes three separate categories each with specific numerical criteria: Class A – high use paddling streams, Class B – most typical streams and Class C – historically channelized streams that drain < 3.1 mi^2.

Macroinvertebrate Community Assessment

Macroinvertebrates were collected from artificial substrates and from the natural habitats. The artificial substrate collection provided quantitative data and consisted of a composite sample of five modified Hester-Dendy multiple-plate samplers colonized for six weeks. At the time of the artificial substrate

collection, a qualitative multihabitat composite sample was also collected. This sampling effort consisted of an inventory of all observed macroinvertebrate taxa from the natural habitats at each site with no attempt to quantify populations other than notations on the predominance of specific taxa or taxa groups within major macrohabitat types (e.g., riffle, run, pool, margin). Detailed discussion of macroinvertebrate field and laboratory procedures is contained in Biological Criteria for the Protection of Aquatic Life: Volume III, Standardized Biological Field Sampling and Laboratory Methods for Assessing Fish and Macroinvertebrate Communities (Ohio EPA 1989b, 2015b).

Fish Community Assessment

Fish were sampled using pulsed DC electrofishing methods. Fish were processed in the field, and included identifying each individual to species, counting, weighing, and recording any external abnormalities. Discussion of the fish community assessment methodology used in this report is contained in Biological Criteria for the Protection of Aquatic Life: Volume III, Standardized Biological Field Sampling and Laboratory Methods for Assessing Fish and Macroinvertebrate Communities (Ohio EPA 1989b, 2015b).

Causal Associations

Using the results, conclusions, and recommendations of this report requires an understanding of the methodology used to determine the use attainment status and assigning probable causes and sources of impairment. The identification of impairment in rivers and streams is straightforward - the numerical biological criteria are used to judge aquatic life use attainment and impairment (partial and non-attainment). The rationale for using the biological criteria, within a weight of evidence framework, has been extensively discussed elsewhere (Karr *et al.* 1986; Karr 1991; Ohio EPA 1987a, Ohio EPA 1987b; Yoder 1989; Miner and Borton 1991; Yoder 1991; Yoder 1995). Describing the causes and sources associated with observed impairments relies on an interpretation of multiple lines of evidence including water chemistry data, sediment data, habitat data, effluent data, land use data, and biological results (Yoder and Rankin 1995a, 1995b, and 1995c). Thus the assignment of principal causes and sources of impairment in this report represent the association of impairments (based on response indicators) with stressor and exposure indicators. The reliability of the identification of probable causes and sources is increased where many such prior associations have been identified, or have been experimentally or statistically linked together. The ultimate measure of success in water resource management is the restoration of lost or damaged ecosystem attributes including aquatic community structure and function. While there have been criticisms of misapplying the metaphor of ecosystem “health” compared to human patient “health” (Suter 1993), in this document we are referring to the process for evaluating biological integrity and causes or sources associated with observed impairments, not whether human health and ecosystem health are analogous concepts.

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Appendix A – Macroinvertebrate Collection Results

Station: P07K06 TIFFIN R. NW OF ARCHBOLD @ CO. RD. G

Rivercode: 04-600-000 River Mile: 47.54

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
53	22	22	0	65	5,651	23	50	N/A	1.70 NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	32
05900	Lirceus sp	1+
06810	Gammarus fasciatus	4+
08250	Orconectes (Procericambarus) rusticus	+
08601	Hydrachnidia	8
11130	Baetis intercalaris	483+
11150	Labiobaetis propinquus	+
11600	Paracloeodes fleeki	+
11650	Procloeon sp (w/ hindwing pads)	+
11670	Procloeon viridoculare	+
12200	Isonychia sp	49+
13000	Leucrocuta sp	1
13400	Stenacron sp	51+
13510	Maccaffertium exiguum	1,319+
13570	Maccaffertium terminatum	+
14950	Leptophlebia sp or Paraleptophlebia sp	+
16700	Tricorythodes sp	138+
17200	Caenis sp	+
17600	Baetisca sp	+
21200	Calopteryx sp	+
22300	Argia sp	1+
23909	Boyeria vinosa	+
24900	Gomphus sp	+
45400	Trichocorixa sp	+
50315	Chimarra obscura	+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	953+
52430	Ceratopsyche morosa group	21+
52520	Hydropsyche bidens	20+
52570	Hydropsyche simulans	953+
53501	Hydroptilidae	1
55520	Brachycentrus numerosus	1+
57900	Pycnopsyche sp	+
59407	Nectopsyche candida	+
60900	Peltodytes sp	+
63900	Laccophilus sp	+
66500	Enochrus sp	+
67500	Laccobius sp	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	171+
69400	Stenelmis sp	11
77120	Ablabesmyia mallochi	+
77750	Hayesomyia senata or Thienemannimyia norena	30
80370	Corynoneura lobata	8
80420	Cricotopus (C.) bicinctus	30
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	15
81825	Rheocricotopus (Psilocricotopus) robacki	238+
82121	Thienemanniella lobapodema	16
82141	Thienemanniella xena	16
82820	Cryptochironomus sp	+
83040	Dicrotendipes neomodestus	+
83820	Microtendipes caelum (sensu Simpson & Bode, 1980)	+
84450	Polypedilum (Uresipedilum) flavum	327+
84470	Polypedilum (P.) illinoense	+
84612	Saetheria tylus	+
85230	Cladotanytarsus mancus group	+
85625	Rheotanytarsus sp	327+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	386+
87540	Hemerodromia sp	40
95100	Physella sp	+
99180	Strophitus undulatus undulatus	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+
99860	Lampsilis radiata luteola	+

Station: 302205 TIFFIN R. AT LOCK PORT @ CO. RD. 22.75/CO. RD. I.25

Rivercode: 04-600-000 River Mile: 41.12

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
46	19	19	0	65	2,311	22	50	N/A	1.00 NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	20
01801	Turbellaria	12+
03600	Oligochaeta	8+
05900	Lirceus sp	1+
06810	Gammarus fasciatus	7+
08250	Orconectes (Procericambarus) rusticus	+
11130	Baetis intercalaris	26+
11150	Labiobaetis propinquus	+
11600	Paracloeodes fleeki	+
11620	Paracloeodes minutus	+
11670	Procloeon viridoculare	+
12200	Isonychia sp	2+
13000	Leucrocuta sp	2
13400	Stenacron sp	368+
13510	Maccaffertium exiguum	515+
14950	Leptophlebia sp or Paraleptophlebia sp	16
16700	Tricorythodes sp	22+
17600	Baetisca sp	+
22300	Argia sp	1+
23909	Boyeria vinosa	+
45400	Trichocorixa sp	+
45900	Notonecta sp	+
50315	Chimarra obscura	+
51206	Cyrnellus fraternus	+
51300	Neureclipsis sp	5+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	228+
52570	Hydropsyche simulans	105+
55520	Brachycentrus numerosus	+
57900	Pycnopsyche sp	+
59407	Nectopsyche candida	+
60900	Peltodytes sp	+
68700	Dubiraphia sp	16
68901	Macronychus glabratus	3+
69400	Stenelmis sp	4+
74100	Simulium sp	+
74501	Ceratopogonidae	4
77750	Hayesomyia senata or Thienemannimyia norena	16
80360	Corynoneura floridaensis	4
80370	Corynoneura lobata	24
80420	Cricotopus (C.) bicinctus	32+
80430	Cricotopus (C.) tremulus group	8
81631	Parakiefferiella n.sp 1	8
81825	Rheocricotopus (Psilocricotopus) robacki	40
82121	Thienemanniella lobapodema	68
82141	Thienemanniella xena	24
82730	Chironomus (C.) decorus group	+
83040	Dicrotendipes neomodestus	8+
84450	Polypedilum (Uresipedilum) flavum	63+
84460	Polypedilum (P.) fallax group	48
84470	Polypedilum (P.) illinoense	+
84520	Polypedilum (Tripodura) halterale group	+
84790	Tribelos fuscicorne	16
84800	Tribelos jucundum	32
85500	Paratanytarsus sp	63
85615	Rheotanytarsus pellucidus	8
85625	Rheotanytarsus sp	206+
85800	Tanytarsus sp	16+
85821	Tanytarsus glabrescens group sp 7	254+
85840	Tanytarsus sepp	8
95100	Physella sp	+
99120	Utterbackia imbecillis	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+
99860	Lampsilis radiata luteola	+

Station: P07K03 TIFFIN R. AT STRYKER @ ST. RT. 191

Rivercode: 04-600-000 River Mile: 35.28

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
42	13	15	0	62	2,194	16	32	N/A	0.32 NORMAL

	Taxa	Quant/Qual
03600	Oligochaeta	12+
06810	Gammarus fasciatus	5+
11130	Baetis intercalaris	+
11200	Callibaetis sp	+
11250	Neocloeon sp	+
11650	Procloeon sp (w/ hindwing pads)	+
11670	Procloeon viridoculare	+
13400	Stenacron sp	162+
13510	Maccaffertium exiguum	109+
16700	Tricorythodes sp	2+
17200	Caenis sp	4
22001	Coenagrionidae	+
22300	Argia sp	30+
23909	Boyeria vinosa	+
42700	Belostoma sp	+
43300	Ranatra sp	+
45300	Sigara sp	+
45400	Trichocorixa sp	+
45900	Notonecta sp	+
51300	Neureclipsis sp	+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	322+
52570	Hydropsyche simulans	147+
57900	Pycnopsyche sp	+
59407	Nectopsyche candida	1
60900	Peltodytes sp	+
68708	Dubiraphia vittata group	24+
68901	Macronychus glabratus	26+
74501	Ceratopogonidae	12
77115	Ablabesmyia janta	12
77750	Hayesomyia senata or Thienemannimyia norena	49+
78655	Procladius (Holotanypus) sp	+
80420	Cricotopus (C.) bicinctus	49
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	24
81240	Nanocladius (N.) distinctus	12
81631	Parakiefferiella n.sp 1	24
81825	Rheocricotopus (Psilocricotopus) robacki	34
82121	Thienemanniella lobapodema	52
82730	Chironomus (C.) decorus group	+
82885	Cryptotendipes pseudotener	12
83040	Dicrotendipes neomodestus	110
83050	Dicrotendipes lucifer	12
83410	Harnischia curtilamellata	+
84450	Polypedilum (Uresipedilum) flavum	98+
84460	Polypedilum (P.) fallax group	110
84470	Polypedilum (P.) illinoense	12+
84540	Polypedilum (Tripodura) scalaenum group	34
84700	Stenochironomus sp	+
84790	Tribelos fuscicorne	195+
84800	Tribelos jucundum	146
85500	Paratanytarsus sp	12
85625	Rheotanytarsus sp	12
85800	Tanytarsus sp	12
85821	Tanytarsus glabrescens group sp 7	232+
85840	Tanytarsus sepp	85
99100	Pyganodon grandis	+
99380	Quadrula pustulosa pustulosa	+
99400	Quadrula quadrula	+
99440	Fusconaia flava	+
99660	Truncilla truncata	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+

Station: 300020 TIFFIN R. W OF STRYKER @ CO. RD. F (CURTIS ST.)

Rivercode: 04-600-000 River Mile: 33.95

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
44	12	10	0	44		10		Marginally Good	NORMAL

	Taxa	Quant/Qual
00401	Spongillidae	+
01801	Turbellaria	+
03600	Oligochaeta	+
05900	Lirceus sp	+
06810	Gammarus fasciatus	+
08250	Orconectes (Procericambarus) rusticus	+
11130	Baetis intercalaris	+
11200	Callibaetis sp	+
11670	Procloeon viridoculare	+
13400	Stenacron sp	+
13510	Maccaffertium exiguum	+
22300	Argia sp	+
23909	Boyeria vinosa	+
24107	Nasiaeschna pentacantha	+
43300	Ranatra sp	+
51206	Cyrnellus fraternus	+
51300	Neureclipsis sp	+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	+
52520	Hydropsyche bidens	+
52570	Hydropsyche simulans	+
57900	Pycnopsyche sp	+
60900	Peltodytes sp	+
68201	Scirtidae	+
68601	Ancyronyx variegata	+
68901	Macronychus glabratus	+
69400	Stenelmis sp	+
70502	Limoniinae	+
72700	Anopheles sp	+
74501	Ceratopogonidae	+
78655	Procladius (Holotanypus) sp	+
81631	Parakiefferiella n.sp 1	+
82730	Chironomus (C.) decorus group	+
83300	Glyptotendipes (G.) sp	+
83410	Harnischia curtilamellata	+
84450	Polypedilum (Uresipedilum) flavum	+
84470	Polypedilum (P.) illinoense	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	+
99100	Pyganodon grandis	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+
99860	Lampsilis radiata luteola	+

Station: P07S07 TIFFIN R. DST. STRYKER @ OAK GROVE CHURCH RD.

Rivercode: 04-600-000 River Mile: 26.17

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
38	11	14	0	59	1,127	15	32	N/A	0.40 NORMAL

	Taxa	Quant/Qual
01200	Cordylophora lacustris	1+
01320	Hydra sp	2
01801	Turbellaria	79+
03600	Oligochaeta	26+
05900	Lirceus sp	1+
06810	Gammarus fasciatus	2+
11130	Baetis intercalaris	10+
11670	Procloeon viridoculare	+
13400	Stenacron sp	273+
13510	Maccaffertium exiguum	6+
16700	Tricorythodes sp	1
18700	Hexagenia sp	1
22300	Argia sp	19+
23909	Boyeria vinosa	+
45400	Trichocorixa sp	+
47600	Sialis sp	1
51206	Cyrnellus fraternus	+
51300	Neureclipsis sp	17+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	65+
52570	Hydropsyche simulans	8+
57900	Pycnopsyche sp	+
59407	Nectopsyche candida	+
60900	Peltodytes sp	+
68601	Ancyronyx variegata	+
68708	Dubiraphia vittata group	1+
68901	Macronychus glabratus	3+
69400	Stenelmis sp	+
74501	Ceratopogonidae	46
77750	Hayesomyia senata or Thienemannimyia norena	6
78450	Nilotanypus fimbriatus	4
80420	Cricotopus (C.) bicinctus	+
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	11
81825	Rheocricotopus (Psilocricotopus) robacki	+
82121	Thienemanniella lobapodema	52
82885	Cryptotendipes pseudotener	6
83040	Dicrotendipes neomodestus	6
83050	Dicrotendipes lucifer	6
83410	Harnischia curtilamellata	+
84450	Polypedilum (Uresipedilum) flavum	6
84460	Polypedilum (P.) fallax group	22
84470	Polypedilum (P.) illinoense	+
84520	Polypedilum (Tripodura) halterale group	22
84540	Polypedilum (Tripodura) scalaenum group	11+
84790	Tribelos fuscicorne	50
84800	Tribelos jucundum	218
85800	Tanytarsus sp	6+
85821	Tanytarsus glabrescens group sp 7	106
85840	Tanytarsus sepp	11
95100	Physella sp	+
98200	Pisidium sp	16
98600	Sphaerium sp	6
99380	Quadrula pustulosa pustulosa	+
99400	Quadrula quadrula	+
99480	Cyclonaias tuberculata	+
99660	Truncilla truncata	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+
99860	Lampsilis radiata luteola	+

Station: 302206 TIFFIN R. NEAR EVANSPORT @ CO. RD. 22/A

Rivercode: 04-600-000 River Mile: 19.72

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
40	10	12	0	59	1,483	14	42	N/A	0.50 NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	24
01801	Turbellaria	8+
03040	Fredericella sp	1
03600	Oligochaeta	6+
05900	Lirceus sp	11+
06810	Gammarus fasciatus	2+
08250	Orconectes (Procericambarus) rusticus	+
11130	Baetis intercalaris	30+
11670	Procloeon viridoculare	+
13400	Stenacron sp	425+
13510	Maccaffertium exiguum	197+
13570	Maccaffertium terminatum	+
16700	Tricorythodes sp	9+
18700	Hexagenia sp	1
22300	Argia sp	7+
45300	Sigara sp	+
45400	Trichocorixa sp	+
47600	Sialis sp	1
51300	Neureclipsis sp	8
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	92+
52570	Hydropsyche simulans	112+
59407	Nectopsyche candida	+
60900	Peltodytes sp	+
68201	Scirtidae	+
68601	Ancyronyx variegata	+
68708	Dubiraphia vittata group	10+
68901	Macronychus glabratus	1+
69400	Stenelmis sp	+
74501	Ceratopogonidae	26
77130	Ablabesmyia rhamphe group	+
77750	Hayesomyia senata or Thienemannimyia norena	5
78655	Procladius (Holotanypus) sp	9
80370	Corynoneura lobata	8
81631	Parakiefferiella n.sp 1	5
81825	Rheocricotopus (Psilocricotopus) robacki	5
82121	Thienemanniella lobapodema	62
82141	Thienemanniella xena	4
82885	Cryptotendipes pseudotener	+
83000	Dicrotendipes sp	5
83040	Dicrotendipes neomodestus	5
83410	Harnischia curtilamellata	+
84315	Phaenopsectra flavipes	+
84450	Polypedilum (Uresipedilum) flavum	14+
84460	Polypedilum (P.) fallax group	32+
84470	Polypedilum (P.) illinoense	+
84790	Tribelos fuscicorne	36
84800	Tribelos jucundum	113+
85625	Rheotanytarsus sp	9+
85720	Stempellinella fimbriata	3
85800	Tanytarsus sp	5+
85821	Tanytarsus glabrescens group sp 7	185
85840	Tanytarsus sepp	5
98600	Sphaerium sp	2+
99380	Quadrula pustulosa pustulosa	+
99400	Quadrula quadrula	+
99660	Truncilla truncata	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+

Station: 500300 TIFFIN R. AT EVANSPORT @ ST. RT. 191

Rivercode: 04-600-000 River Mile: 18.73

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
32	12	10	0	48	1,664	13	44	N/A	1.30 ABOVE NOR

	Taxa	Quant/Qual
01801	Turbellaria	7
03360	Plumatella sp	+
03600	Oligochaeta	1+
05800	Caecidotea sp	+
05900	Lirceus sp	+
06810	Gammarus fasciatus	9+
08250	Orconectes (Procericambarus) rusticus	1+
11130	Baetis intercalaris	159+
12200	Isonychia sp	5
13400	Stenacron sp	68+
13510	Maccaffertium exiguum	60+
13561	Maccaffertium pulchellum	140+
13570	Maccaffertium terminatum	21+
16700	Tricorythodes sp	+
22300	Argia sp	4+
23909	Boyeria vinosa	+
44501	Corixidae	1
45100	Palmacorixa sp	+
45400	Trichocorixa sp	+
50315	Chimarra obscura	13+
51300	Neureclipsis sp	18
51600	Polycentropus sp	+
52200	Cheumatopsyche sp	405+
52520	Hydropsyche bidens	101+
52570	Hydropsyche simulans	532+
59570	Oecetis nocturna	+
68601	Ancyronyx variegata	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	58+
69400	Stenelmis sp	4+
77750	Hayesomyia senata or Thienemannimyia norena	2
78450	Nilotanypus fimbriatus	1
78655	Procladius (Holotanypus) sp	+
80370	Corynoneura lobata	2
80420	Cricotopus (C.) bicinctus	1
81825	Rheocricotopus (Psilocricotopus) robacki	2
82101	Thienemanniella taurocapita	1
82600	Axarus sp	1
83040	Dicrotendipes neomodestus	1
83300	Glyptotendipes (G.) sp	1
84450	Polypedilum (Uresipedilum) flavum	39
85201	Cladotanytarsus species group A	+
85265	Cladotanytarsus vanderwulpi group sp 5	+
85625	Rheotanytarsus sp	2
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	4
98600	Sphaerium sp	+
99380	Quadrula pustulosa pustulosa	+

Station: P07K01 TIFFIN R. S OF EVANSPORT @ STEVER RD.

Rivercode: 04-600-000 River Mile: 14.00

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
49	11	17	0	64	1,856	21	46	N/A	0.80 NORMAL

	Taxa	Quant/Qual			
01320	Hydra sp	8	69400	Stenelmis sp	19+
01801	Turbellaria	54	71900	Tipula sp	+
01801	Turbellaria	8+	74100	Simulium sp	+
03360	Plumatella sp	25+	77130	Ablabesmyia rhamphe group	7
03360	Plumatella sp	1+	77750	Hayesomyia senata or Thienemannimyia norena	8
03600	Oligochaeta	4+	77750	Hayesomyia senata or Thienemannimyia norena	22+
03600	Oligochaeta	5+	78140	Labrundinia pilosella	4
05900	Lirceus sp	+	78450	Nilotanypus fimbriatus	4
05900	Lirceus sp	+	78450	Nilotanypus fimbriatus	2
06700	Crangonyx sp	+	78655	Procladius (Holotanypus) sp	2
06810	Gammarus fasciatus	33+	80360	Corynoneura floridaensis	13
06810	Gammarus fasciatus	5+	80370	Corynoneura lobata	13
08250	Orconectes (Procericambarus) rusticus	+	80370	Corynoneura lobata	14
08601	Hydrachnidia	4	81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	2
11130	Baetis intercalaris	89+	81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	4
11130	Baetis intercalaris	169+	81240	Nanocladius (N.) distinctus	2
11650	Procloeon sp (w/ hindwing pads)	+	81825	Rheocricotopus (Psilocricotopus) robacki	16
11670	Procloeon viridoculare	+	82121	Thienemanniella lobapodema	10
12200	Isonychia sp	7	82121	Thienemanniella lobapodema	4
12200	Isonychia sp	8	82141	Thienemanniella xena	25+
13000	Leucrocuta sp	5+	82141	Thienemanniella xena	4
13000	Leucrocuta sp	2+	82730	Chironomus (C.) decorus group	10
13400	Stenacron sp	106+	83040	Dicrotendipes neomodestus	24+
13400	Stenacron sp	258+	83050	Dicrotendipes lucifer	63
13510	Maccaffertium exiguum	28+	83300	Glyptotendipes (G.) sp	10
13510	Maccaffertium exiguum	282+	83310	Glyptotendipes (Heynotendipes) chelonia	2
13561	Maccaffertium pulchellum	84	84040	Parachironomus frequens	2
13570	Maccaffertium terminatum	90+	84040	Parachironomus frequens	7
13570	Maccaffertium terminatum	24+	84116	Paracladopelma nereis	+
16700	Tricorythodes sp	11+	84450	Polypedilum (Uresipedilum) flavum	19+
16700	Tricorythodes sp	32+	84450	Polypedilum (Uresipedilum) flavum	61+
22300	Argia sp	+	84460	Polypedilum (P.) fallax group	2+
22300	Argia sp	11+	84470	Polypedilum (P.) illinoense	+
45300	Sigara sp	+	84540	Polypedilum (Tripodura) scalaenum group	49+
45400	Trichocorixa sp	+	84790	Tribelos fuscicorne	15
51206	Cyrnellus fraternus	15+	84800	Tribelos jucundum	+
51300	Neureclipsis sp	63	85201	Cladotanytarsus species group A	+
51300	Neureclipsis sp	34+	85264	Cladotanytarsus vanderwulpi group sp 4	2
51400	Nyctiophylax sp	+	85265	Cladotanytarsus vanderwulpi group sp 5	+
52200	Cheumatopsyche sp	100+	85625	Rheotanytarsus sp	2
52200	Cheumatopsyche sp	517+	85625	Rheotanytarsus sp	12
52520	Hydropsyche bidens	23+	85800	Tanytarsus sp	+
52560	Hydropsyche orris	2	85821	Tanytarsus glabrescens group sp 7	8+
52570	Hydropsyche simulans	217+	85821	Tanytarsus glabrescens group sp 7	12
52570	Hydropsyche simulans	307+	85840	Tanytarsus sepp	6+
55520	Brachycentrus numerosus	1	85840	Tanytarsus sepp	5
59407	Nectopsyche candida	+	95100	Physella sp	8+
59730	Triaenodes melaca	+	98200	Pisidium sp	+
60900	Peltodytes sp	+	98600	Sphaerium sp	4+
68601	Ancyronyx variegata	+	98600	Sphaerium sp	+
68601	Ancyronyx variegata	+	99100	Pyganodon grandis	+
68708	Dubiraphia vittata group	1+	99380	Quadrula pustulosa pustulosa	+
68708	Dubiraphia vittata group	+	99400	Quadrula quadrula	+
68901	Macronychus glabratus	72+	99420	Amblema plicata plicata	+
68901	Macronychus glabratus	17+	99440	Fusconaia flava	+
69400	Stenelmis sp	+	99480	Cyclonaias tuberculata	+

Station: P07K01 TIFFIN R. S OF EVANSPORT @ STEVER RD.

Rivercode: 04-600-000 River Mile: 14.00

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
49	11	17	0	64	1,856	21	46	N/A	0.80 NORMAL

	Taxa	Quant/Qual
99660	Truncilla truncata	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+
99860	Lampsilis radiata luteola	+

Station: P07S05 TIFFIN R. NE OF DEFIANCE AIRPORT @ EVANSPORT RD.

Rivercode: 04-600-000 River Mile: 7.09

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
49	17	17	0	67	4,982	23	54	N/A	1.40 NORMAL

	Taxa	Quant/Qual			
01801	Turbellaria	131	54160	Ochrotrichia sp	5
01801	Turbellaria	53+	59400	Nectopsyche sp	8
03360	Plumatella sp	3	59407	Nectopsyche candida	+
03360	Plumatella sp	1	59407	Nectopsyche candida	+
03600	Oligochaeta	+	59970	Petrophila sp	+
03600	Oligochaeta	+	60900	Peltodytes sp	+
04686	Placobdella papillifera	+	67750	Sperchopsis tesselatus	+
04964	Erpobdella microstoma	+	68708	Dubiraphia vittata group	+
05900	Lirceus sp	+	68708	Dubiraphia vittata group	+
05900	Lirceus sp	+	68901	Macronychus glabratus	8
06700	Crangonyx sp	2+	68901	Macronychus glabratus	9
06810	Gammarus fasciatus	3+	69400	Stenelmis sp	10+
08250	Orconectes (Procericambarus) rusticus	+	69400	Stenelmis sp	36+
08250	Orconectes (Procericambarus) rusticus	+	72700	Anopheles sp	+
08601	Hydrachnidia	2	74100	Simulium sp	2
11130	Baetis intercalaris	168+	74100	Simulium sp	2+
11130	Baetis intercalaris	1,184+	77120	Ablabesmyia mallochi	+
11600	Paracloeodes fleeki	+	77750	Hayesomyia senata or Thienemannimyia norena	7+
11620	Paracloeodes minutus	+	77750	Hayesomyia senata or Thienemannimyia norena	9
11650	Procloeon sp (w/ hindwing pads)	+	78450	Nilotanypus fimbriatus	9
11650	Procloeon sp (w/ hindwing pads)	+	78655	Procladius (Holotanypus) sp	+
11651	Procloeon sp (w/o hindwing pads)	+	78655	Procladius (Holotanypus) sp	+
11670	Procloeon viridoculare	+	80360	Corynoneura floridaensis	2
12200	Isonychia sp	277+	80360	Corynoneura floridaensis	16
12200	Isonychia sp	244+	80370	Corynoneura lobata	32
13000	Leucrocuta sp	+	80370	Corynoneura lobata	14
13400	Stenacron sp	181+	80420	Cricotopus (C.) bicinctus	+
13400	Stenacron sp	103+	80420	Cricotopus (C.) bicinctus	3
13510	Maccaffertium exiguum	165+	80430	Cricotopus (C.) tremulus group	3
13510	Maccaffertium exiguum	431+	80430	Cricotopus (C.) tremulus group	7
13561	Maccaffertium pulchellum	287	81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	7
13570	Maccaffertium terminatum	105+	81825	Rheocricotopus (Psilocricotopus) robacki	24
13570	Maccaffertium terminatum	17+	82101	Thienemanniella taurocapita	52
16700	Tricorythodes sp	67+	82121	Thienemanniella lobapodema	14
16700	Tricorythodes sp	99+	82141	Thienemanniella xena	16
17200	Caenis sp	+	82141	Thienemanniella xena	4
18700	Hexagenia sp	+	82710	Chironomus (C.) sp	+
22300	Argia sp	3+	82820	Cryptochironomus sp	+
22300	Argia sp	3+	82885	Cryptotendipes pseudotener	+
23909	Boyeria vinosa	+	83040	Dicrotendipes neomodestus	+
23909	Boyeria vinosa	+	83040	Dicrotendipes neomodestus	3
24700	Dromogomphus sp	+	83300	Glyptotendipes (G.) sp	3
45300	Sigara sp	+	83410	Harnischia curtilamellata	+
47600	Sialis sp	+	84155	Paralauterborniella nigrohalteralis	+
50315	Chimarra obscura	89+	84450	Polypedilum (Uresipedilum) flavum	308+
50315	Chimarra obscura	+	84450	Polypedilum (Uresipedilum) flavum	133
51001	Polycentropodidae	2	84460	Polypedilum (P.) fallax group	7
51300	Neureclipsis sp	10	84470	Polypedilum (P.) illinoense	+
52200	Cheumatopsyche sp	1,752+	84520	Polypedilum (Tripodura) halterale group	+
52200	Cheumatopsyche sp	468+	84540	Polypedilum (Tripodura) scalaenum group	6+
52520	Hydropsyche bidens	62+	84540	Polypedilum (Tripodura) scalaenum group	10
52570	Hydropsyche simulans	36+	84700	Stenochironomus sp	+
52570	Hydropsyche simulans	188+	84800	Tribelos jucundum	+
53400	Protoptila sp	+	84800	Tribelos jucundum	3
53800	Hydroptila sp	6	85201	Cladotanytarsus species group A	+
53800	Hydroptila sp	78+	85264	Cladotanytarsus vanderwulpi group sp 4	+

Station: P07S05 TIFFIN R. NE OF DEFIANCE AIRPORT @ EVANSPORT RD.

Rivercode: 04-600-000 River Mile: 7.09

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
49	17	17	0	67	4,982	23	54	N/A	1.40 NORMAL

	Taxa	Quant/Qual
85265	Cladotanytarsus vanderwulpi group sp 5	+
85615	Rheotanytarsus pellucidus	3
85625	Rheotanytarsus sp	3
85720	Stempellinella fimbriata	4
85800	Tanytarsus sp	+
85800	Tanytarsus sp	3+
85821	Tanytarsus glabrescens group sp 7	72+
85821	Tanytarsus glabrescens group sp 7	3
85840	Tanytarsus sepp	21+
87540	Hemerodromia sp	1
93900	Elimia sp	3+
93900	Elimia sp	+
95100	Physella sp	+
98200	Pisidium sp	+
98200	Pisidium sp	+
98600	Sphaerium sp	1+
98600	Sphaerium sp	8+
99380	Quadrula pustulosa pustulosa	+
99440	Fusconaia flava	+
99660	Truncilla truncata	+
99680	Leptodea fragilis	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+
99860	Lampsilis radiata luteola	+

Station: 500160 TIFFIN R. NEAR DEFIANCE @ DEY RD.

Rivercode: 04-600-000 River Mile: 0.89

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
33	4	4	0	49	12,154	6	18	N/A	0.00 LOW

	Taxa	Quant/Qual
01801	Turbellaria	360+
03221	Pectinatella magnifica	23+
03451	Urnatella gracilis	1
03600	Oligochaeta	172+
08250	Orconectes (Procericambarus) rusticus	+
08601	Hydrachnidia	+
13400	Stenacron sp	26
16700	Tricorythodes sp	2
17200	Caenis sp	4+
22001	Coenagrionidae	1
22300	Argia sp	79+
24107	Nasiaeschna pentacantha	+
24900	Gomphus sp	+
27500	Somatochlora sp	+
28955	Plathemis lydia	+
43300	Ranatra sp	+
45400	Trichocorixa sp	+
51206	Cyrnellus fraternus	28
54200	Orthotrichia sp	12+
59300	Mystacides sp	+
59550	Oecetis inconspicua complex sp A (sensu Floyd, 1995)	2+
60300	Dineutus sp	+
60900	Peltodytes sp	+
63900	Laccophilus sp	+
66901	Helocombus bifidus	+
68300	Cyphon sp	+
69400	Stenelmis sp	28
77130	Ablabesmyia rhamphe group	207
78655	Procladius (Holotanypus) sp	20+
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	103
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
83040	Dicrotendipes neomodestus	103
83051	Dicrotendipes simpsoni	2,893
83300	Glyptotendipes (G.) sp	5,579+
83310	Glyptotendipes (Heynotendipes) chelonia	103+
84000	Parachironomus sp	+
84060	Parachironomus pectinatellae	1,033+
84520	Polypedilum (Tripodura) halterale group	+
84790	Tribelos fuscicorne	413
84800	Tribelos jucundum	103+
85821	Tanytarsus glabrescens group sp 7	103
93900	Elimia sp	2+
95100	Physella sp	324+
96120	Menetus (Micromenetus) dilatatus	395
96930	Laevapex fuscus	31+
98200	Pisidium sp	2
98600	Sphaerium sp	1
99001	Unionidae	1

Station: 302204 WEBB RUN NW OF DEFIANCE @ FLORY RD.

Rivercode: 04-602-000 River Mile: 2.99

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
28	4	0	0	28		0		Low Fair	NORMAL

	Taxa	Quant/Qual
03600	Oligochaeta	+
05900	Lirceus sp	+
08220	Orconectes (Gremicambarus) immunis	+
34500	Perlesta placida complex	+
45300	Sigara sp	+
52200	Cheumatopsyche sp	+
52530	Hydropsyche depravata group	+
53501	Hydroptilidae	+
60900	Peltodytes sp	+
71900	Tipula sp	+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	+
82141	Thienemanniella xena	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
83051	Dicrotendipes simpsoni	+
84210	Paratendipes albimanus or P. duplicatus	+
84470	Polypedilum (P.) illinoense	+
84520	Polypedilum (Tripodura) halterale group	+
84750	Stictochironomus sp	+
85500	Paratanytarsus sp	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
85840	Tanytarsus sepp	+
95100	Physella sp	+
96264	Planorbella (Pierosoma) pilsbryi	+
96900	Ferrissia sp	+
98600	Sphaerium sp	+

Station: P07K09 WEBB RUN N OF BRUNERSBURG, NEAR MOUTH, DST TANBY DITCH

Rivercode: 04-602-000 River Mile: 0.40

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
53	11	4	0	53		4		Marginally Good	NORMAL

	Taxa	Quant/Qual
00401	Spongillidae	+
01801	Turbellaria	+
03360	Plumatella sp	+
03600	Oligochaeta	+
04930	Erpobdella sp	+
05900	Lirceus sp	+
08250	Orconectes (Procericambarus) rusticus	+
11130	Baetis intercalaris	+
11250	Neocloeon sp	+
11651	Procloeon sp (w/o hindwing pads)	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
17200	Caenis sp	+
21001	Calopterygidae	+
22001	Coenagrionidae	+
22300	Argia sp	+
23909	Boyeria vinosa	+
52200	Cheumatopsyche sp	+
52530	Hydropsyche depravata group	+
55300	Ptilostomis sp	+
59100	Ceraclea sp	+
59730	Triaenodes melaca	+
60900	Peltodytes sp	+
67800	Tropisternus sp	+
68201	Scirtidae	+
71900	Tipula sp	+
72340	Dixella sp	+
72700	Anopheles sp	+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	+
77750	Hayesomyia senata or Thienemannimyia norena	+
82141	Thienemanniella xena	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
83051	Dicrotendipes simpsoni	+
83300	Glyptotendipes (G.) sp	+
84210	Paratendipes albimanus or P. duplicatus	+
84315	Phaenopsectra flavipes	+
84450	Polypedilum (Uresipedilum) flavum	+
84460	Polypedilum (P.) fallax group	+
84540	Polypedilum (Tripodura) scalaenum group	+
84750	Stictochironomus sp	+
84800	Tribelos jucundum	+
84888	Xenochironomus xenolabis	+
85201	Cladotanytarsus species group A	+
85230	Cladotanytarsus mancus group	+
85500	Paratanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	+
85840	Tanytarsus sepp	+
89001	Sciomyzidae	+
95100	Physella sp	+
96900	Ferrissia sp	+
98600	Sphaerium sp	+

Station: P07K11 BUCKSKIN CREEK NW OF BRUNERSBURG @ ST. RT. 15

Rivercode: 04-604-000 River Mile: 1.20

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
29	5	2	0	29		2		Fair	INTERSTITIA

	Taxa	Quant/Qual
04664	Helobdella stagnalis	+
05900	Lirceus sp	+
06201	Hyalella azteca	+
08200	Orconectes sp	+
11020	Acerpenna pygmaea	+
11200	Callibaetis sp	+
13521	Stenonema femoratum	+
22001	Coenagrionidae	+
23600	Aeshna sp	+
45300	Sigara sp	+
52200	Cheumatopsyche sp	+
53501	Hydroptilidae	+
60900	Peltodytes sp	+
65800	Berosus sp	+
78655	Procladius (Holotanypus) sp	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	+
84470	Polypedilum (P.) illinoense	+
84520	Polypedilum (Tripodura) halterale group	+
85201	Cladotanytarsus species group A	+
85702	Stempellina sp 2	+
85800	Tanytarsus sp	+
85840	Tanytarsus sepp	+
94400	Fossaria sp	+
95100	Physella sp	+
95907	Gyraulus (Torquis) parvus	+
96264	Planorbella (Pierosoma) pilsbryi	+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+

Station: P07W17 MUD CREEK N OF SHERWOOD @ COY RD.

Rivercode: 04-605-000 River Mile: 10.10

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
53	18	15	0	53		15		Good	NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	+
01801	Turbellaria	+
04930	Erpobdella sp	+
05900	Lirceus sp	+
08240	Orconectes (Crokerinus) propinquus	+
11120	Baetis flavistriga	+
11121	Labiobaetis sp	+
11130	Baetis intercalaris	+
11620	Paracloeodes minutus	+
11650	Procloeon sp (w/ hindwing pads)	+
13000	Leucrocuta sp	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
13570	Maccaffertium terminatum	+
16700	Tricorythodes sp	+
17200	Caenis sp	+
17600	Baetisca sp	+
21200	Calopteryx sp	+
22300	Argia sp	+
23909	Boyeria vinosa	+
50315	Chimarra obscura	+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	+
52430	Ceratopsyche morosa group	+
59310	Mystacides sepulchralis	+
59410	Nectopsyche diarina	+
60900	Peltodytes sp	+
68601	Ancyronyx variegata	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	+
72340	Dixella sp	+
77120	Ablabesmyia mallochi	+
77750	Hayesomyia senata or Thienemannimyia norena	+
77800	Helopelopia sp	+
78450	Nilotanypus fimbriatus	+
81690	Paratrichocladius sp	+
82824	Cryptochironomus ponderosus	+
83040	Dicrotendipes neomodestus	+
83820	Microtendipes caelum (sensu Simpson & Bode, 1980)	+
84450	Polypedilum (Uresipedilum) flavum	+
84470	Polypedilum (P.) illinoense	+
84520	Polypedilum (Tripodura) halterale group	+
84700	Stenochironomus sp	+
85201	Cladotanytarsus species group A	+
85230	Cladotanytarsus mancus group	+
85265	Cladotanytarsus vanderwulpi group sp 5	+
85500	Paratanytarsus sp	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	+
85840	Tanytarsus sepp	+
95100	Physella sp	+
99160	Anodontoides ferussacianus	+

Station: P07S04 MUD CREEK NW OF BRUNERSBURG @ TRINITY RD.

Rivercode: 04-605-000 River Mile: 1.50

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
57	15	13	0	74	1,551	16	44	N/A	0.20 NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	5
03360	Plumatella sp	1
03600	Oligochaeta	24+
05900	Lirceus sp	+
08250	Orconectes (Procericambarus) rusticus	+
11020	Acerpenna pygmaea	38+
11120	Baetis flavistriga	+
11130	Baetis intercalaris	22+
11600	Paracloeodes fleeki	+
11620	Paracloeodes minutus	+
11650	Procloeon sp (w/ hindwing pads)	+
12912	Heptagenia elegantula	12
13000	Leucrocuta sp	1
13400	Stenacron sp	479+
13510	Maccaffertium exiguum	1
13521	Stenonema femoratum	+
14950	Leptophlebia sp or Paraleptophlebia sp	8
16700	Tricorythodes sp	+
17200	Caenis sp	8+
17600	Baetisca sp	+
18700	Hexagenia sp	+
21200	Calopteryx sp	4+
22300	Argia sp	40+
23909	Boyeria vinosa	+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	26+
59300	Mystacides sp	+
67500	Laccobius sp	+
68130	Helichus sp	+
68601	Ancyronyx variegata	+
68901	Macronychus glabratus	19+
69400	Stenelmis sp	5+
71900	Tipula sp	+
71910	Tipula abdominalis	+
72700	Anopheles sp	+
77120	Ablabesmyia mallochi	+
77750	Hayesomyia senata or Thienemannimyia norena	17
78140	Labrundinia pilosella	20
78450	Nilotanypus fimbriatus	32
78655	Procladius (Holotanypus) sp	+
80360	Corynoneura floridaensis	16
80370	Corynoneura lobata	20
81229	Nanocladius (N.) crassicornus	68
81632	Parakiefferiella n.sp 2	+
81825	Rheocricotopus (Psilocricotopus) robacki	85+
82121	Thienemanniella lobapodema	188
82300	Xylotopus par	+
82820	Cryptochironomus sp	+
83040	Dicrotendipes neomodestus	26
84210	Paratendipes albimanus or P. duplicatus	+
84450	Polypedilum (Uresipedilum) flavum	17+
84460	Polypedilum (P.) fallax group	+
84470	Polypedilum (P.) illinoense	+
84540	Polypedilum (Tripodura) scalaenum group	9
84612	Saetheria tylus	+
84800	Tribelos jucundum	+
85230	Cladotanytarsus mancus group	+
85500	Paratanytarsus sp	68+
85625	Rheotanytarsus sp	17
85720	Stempellinella fimbriata	8+
85800	Tanytarsus sp	+
85818	Tanytarsus glabrescens group sp 4	+
85821	Tanytarsus glabrescens group sp 7	170+
85840	Tanytarsus sepp	60+
87540	Hemerodromia sp	4
95100	Physella sp	1+
96900	Ferrissia sp	32+
98200	Pisidium sp	+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+
99160	Anodontoides ferussacianus	+
99180	Strophitus undulatus undulatus	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+

Station: P07W19 LOST CREEK NE OF HICKSVILLE @ SEEVERS RD.

Rivercode: 04-606-000 River Mile: 8.97

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
36	8	8	0	36		8		Fair	NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	+
03040	Fredericella sp	+
03600	Oligochaeta	+
05900	Lirceus sp	+
08240	Orconectes (Crokerinus) propinquus	+
11120	Baetis flavistriga	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
21200	Calopteryx sp	+
23909	Boyeria vinosa	+
45300	Sigara sp	+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	+
52430	Ceratopsyche morosa group	+
52530	Hydropsyche depravata group	+
57900	Pycnopsyche sp	+
60900	Peltodytes sp	+
68130	Helichus sp	+
69200	Optioservus sp	+
74100	Simulium sp	+
82200	Tvetenia bavarica group	+
82730	Chironomus (C.) decorus group	+
83040	Dicrotendipes neomodestus	+
83820	Microtendipes caelum (sensu Simpson & Bode, 1980)	+
83840	Microtendipes pedellus group	+
84470	Polypedilum (P.) illinoense	+
84480	Polypedilum (P.) laetum group	+
84540	Polypedilum (Tripodura) scalaenum group	+
84750	Stictochironomus sp	+
85261	Cladotanytarsus venderwulpi	+
85500	Paratanytarsus sp	+
85625	Rheotanytarsus sp	+
96900	Ferrissia sp	+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+
99160	Anodontoides ferussacianus	+

Station: P07W18 LOST CREEK N OF SHERWOOD @ BEHNFELDT RD.

Rivercode: 04-606-000 River Mile: 1.41

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
68	16	11	0	78	4,728	13	44	N/A	0.20 NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	8
01801	Turbellaria	+
03600	Oligochaeta	16
05900	Lirceus sp	+
08240	Orconectes (Crokerinus) propinquus	+
08601	Hydrachnidia	16+
11120	Baetis flavistriga	40+
11130	Baetis intercalaris	+
11650	Procloeon sp (w/ hindwing pads)	+
13000	Leucrocuta sp	8
13400	Stenacron sp	76+
13521	Stenonema femoratum	8+
16700	Tricorythodes sp	+
17200	Caenis sp	8+
17600	Baetisca sp	+
21200	Calopteryx sp	3+
22001	Coenagrionidae	+
22300	Argia sp	9+
23909	Boyeria vinosa	+
24900	Gomphus sp	+
43300	Ranatra sp	+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	253+
52430	Ceratopsyche morosa group	+
53800	Hydroptila sp	19+
57900	Pycnopsyche sp	+
59310	Mystacides sepulchralis	+
59407	Nectopsyche candida	+
59410	Nectopsyche diarina	+
60900	Peltodytes sp	+
66500	Enochrus sp	+
68130	Helichus sp	+
68201	Scirtidae	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	2+
69400	Stenelmis sp	3
71900	Tipula sp	+
72501	Culicidae	+
74100	Simulium sp	+
74501	Ceratopogonidae	16
77120	Ablabesmyia mallochi	+
77500	Conchapelopia sp	+
77750	Hayesomyia senata or Thienemannimyia norena	+
77800	Helopelopia sp	35+
78140	Labrundinia pilosella	48+
78450	Nilotanypus fimbriatus	48
78655	Procladius (Holotanypus) sp	+
80370	Corynoneura lobata	176+
80420	Cricotopus (C.) bicinctus	35+
80430	Cricotopus (C.) tremulus group	35
81632	Parakiefferiella n.sp 2	+
81825	Rheocricotopus (Psilocricotopus) robacki	69
82121	Thienemanniella lobapodema	288
82130	Thienemanniella similis	16
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
83040	Dicrotendipes neomodestus	695+
83051	Dicrotendipes simpsoni	+
84450	Polypedilum (Uresipedilum) flavum	35+
84460	Polypedilum (P.) fallax group	+
84470	Polypedilum (P.) illinoense	35+
84520	Polypedilum (Tripodura) halterale group	+
84540	Polypedilum (Tripodura) scalaenum group	+
84612	Saetheria tylus	+
84800	Tribelos jucundum	+
85201	Cladotanytarsus species group A	+
85230	Cladotanytarsus mancus group	+
85265	Cladotanytarsus vanderwulpi group sp 5	+
85500	Paratanytarsus sp	417+
85615	Rheotanytarsus pellucidus	35+
85625	Rheotanytarsus sp	347+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	799+
85840	Tanytarsus sepp	1,112+
86100	Chrysops sp	+
95100	Physella sp	17+
96900	Ferrissia sp	1+

Station: 302202 DRY CREEK SE OF FARMER @ CO. RD. 124 (OPENLANDER RD.)

Rivercode: 04-608-000 River Mile: 3.76

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
43	7	0	0	43		0		Fair	NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	+
04664	Helobdella stagnalis	+
04935	Erpobdella punctata punctata	+
04964	Erpobdella microstoma	+
08220	Orconectes (Gremicambarus) immunis	+
08601	Hydrachnidia	+
11120	Baetis flavistriga	+
11200	Callibaetis sp	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
22001	Coenagrionidae	+
28955	Plathemis lydia	+
42700	Belostoma sp	+
45300	Sigara sp	+
52200	Cheumatopsyche sp	+
52530	Hydropsyche depravata group	+
53800	Hydroptila sp	+
60900	Peltodytes sp	+
68130	Helichus sp	+
69400	Stenelmis sp	+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	+
77800	Helopelopia sp	+
78655	Procladius (Holotanypus) sp	+
80420	Cricotopus (C.) bicinctus	+
80510	Cricotopus (Isocladius) sylvestris group	+
81631	Parakiefferiella n.sp 1	+
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
84210	Paratendipes albimanus or P. duplicatus	+
84300	Phaenopsectra obediens group	+
84470	Polypedilum (P.) illinoense	+
84520	Polypedilum (Tripodura) halterale group	+
84750	Stictochironomus sp	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
85840	Tanytarsus sepp	+
86900	Myxosargus sp	+
92516	Campeloma decisum	+
95100	Physella sp	+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+
99160	Anodontoides ferussacianus	+

Station: P07W20 LICK CREEK NW OF BRYAN @ CO. RD. 13

Rivercode: 04-609-000 River Mile: 21.77

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
42	5	2	2	42		2		Fair	ABOVE NOR

	Taxa	Quant/Qual
00556	Ephydatia fluviatilis	+
01801	Turbellaria	+
03040	Fredericella sp	+
03600	Oligochaeta	+
04930	Erpobdella sp	+
07860	Cambarus (Puncticambarus) robustus	+
11120	Baetis flavistriga	+
13521	Stenonema femoratum	+
23600	Aeshna sp	+
27500	Somatochlora sp	+
44501	Corixidae	+
49400	Sisyra sp	+
52200	Cheumatopsyche sp	+
52530	Hydropsyche depravata group	+
53800	Hydroptila sp	+
60900	Peltodytes sp	+
68201	Scirtidae	+
68707	Dubiraphia quadrinotata	+
69400	Stenelmis sp	+
71900	Tipula sp	+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	+
78140	Labrundinia pilosella	+
78655	Procladius (Holotanypus) sp	+
81650	Parametriocnemus sp	+
81825	Rheocricotopus (Psilocricotopus) robacki	+
82200	Tvetenia bavarica group	+
82730	Chironomus (C.) decorus group	+
83040	Dicrotendipes neomodestus	+
84210	Paratendipes albimanus or P. duplicatus	+
84450	Polypedilum (Uresipedilum) flavum	+
84470	Polypedilum (P.) illinoense	+
84475	Polypedilum (P.) ophioides	+
84480	Polypedilum (P.) laetum group	+
84750	Stictochironomus sp	+
85400	Micropsectra sp	+
85500	Paratanytarsus sp	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
94400	Fossaria sp	+
95100	Physella sp	+
98600	Sphaerium sp	+

Station: P07K13 LICK CREEK SW OF BRYAN @ CO. RD. 13

Rivercode: 04-609-000 River Mile: 17.66

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
65	13	7	0	76	3,211	8	36	N/A	0.30 NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	120
01801	Turbellaria	54+
03040	Fredericella sp	1+
03360	Plumatella sp	4+
03600	Oligochaeta	32+
04930	Erpobdella sp	+
05800	Caecidotea sp	+
06201	Hyalella azteca	+
08250	Orconectes (Procericambarus) rusticus	+
08601	Hydrachnidia	8+
11020	Acerpenna pygmaea	1
11120	Baetis flavistriga	10+
11130	Baetis intercalaris	1+
11200	Callibaetis sp	+
11650	Procloeon sp (w/ hindwing pads)	+
11670	Procloeon viridoculare	+
13400	Stenacron sp	22+
17200	Caenis sp	+
21200	Calopteryx sp	5+
22001	Coenagrionidae	+
22300	Argia sp	1+
23909	Boyeria vinosa	+
43300	Ranatra sp	+
43570	Neoplea sp	+
45400	Trichocorixa sp	+
50315	Chimarra obscura	+
52200	Cheumatopsyche sp	3+
52430	Ceratopsyche morosa group	+
52530	Hydropsyche depravata group	+
53800	Hydroptila sp	25+
59310	Mystacides sepulchralis	+
60900	Peltodytes sp	+
65800	Berosus sp	+
67300	Hydrochus sp	+
68601	Ancyronyx variegata	+
68708	Dubiraphia vittata group	8+
68901	Macronychus glabratus	3+
69400	Stenelmis sp	10+
72340	Dixella sp	+
72700	Anopheles sp	+
74100	Simulium sp	+
74501	Ceratopogonidae	8
77120	Ablabesmyia mallochi	251+
77500	Conchapelopia sp	31+
78140	Labrundinia pilosella	24
78450	Nilotanypus fimbriatus	192+
78655	Procladius (Holotanypus) sp	+
80370	Corynoneura lobata	40
80410	Cricotopus (C.) sp	31
80420	Cricotopus (C.) bicinctus	94
82121	Thienemanniella lobapodema	272
82820	Cryptochironomus sp	+
82885	Cryptotendipes pseudotener	+
83002	Dicrotendipes modestus	+
83040	Dicrotendipes neomodestus	125+
83158	Endochironomus nigricans	+
83840	Microtendipes pedellus group	+
84210	Paratendipes albimanus or P. duplicatus	+
84450	Polypedilum (Uresipedilum) flavum	251+
84460	Polypedilum (P.) fallax group	31
84470	Polypedilum (P.) illinoense	+
84540	Polypedilum (Tripodura) scalaenum group	+
84750	Stictochironomus sp	+
85201	Cladotanytarsus species group A	31
85230	Cladotanytarsus mancus group	+
85261	Cladotanytarsus venderwulpi	+
85500	Paratanytarsus sp	752+
85615	Rheotanytarsus pellucidus	31+
85625	Rheotanytarsus sp	31+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	533+
85840	Tanytarsus sepp	94
95100	Physella sp	+
96900	Ferrissia sp	81+
98200	Pisidium sp	+
98600	Sphaerium sp	+

Station: P07S36 LICK CREEK AT NEY @ THE BEND RD.

Rivercode: 04-609-000 River Mile: 10.05

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
45	5	4	0	56	5,221	5	32	N/A	0.10 NORMAL

	Taxa	Quant/Qual
00401	Spongillidae	+
01320	Hydra sp	24
01801	Turbellaria	59+
03040	Fredericella sp	+
03600	Oligochaeta	224+
04666	Helobdella papillata	+
04680	Placobdella sp	+
11120	Baetis flavistriga	+
11130	Baetis intercalaris	+
13400	Stenacron sp	8
21200	Calopteryx sp	3+
22001	Coenagrionidae	+
22300	Argia sp	2+
45300	Sigara sp	+
52200	Cheumatopsyche sp	107+
53800	Hydroptila sp	11+
57900	Pycnopsyche sp	+
68601	Ancyronyx variegata	9+
69400	Stenelmis sp	+
71900	Tipula sp	+
74501	Ceratopogonidae	8
77120	Ablabesmyia mallochi	53+
77130	Ablabesmyia rhamphe group	+
77750	Hayesomyia senata or Thienemannimyia norena	107+
78140	Labrundinia pilosella	80
78655	Procladius (Holotanypus) sp	+
80370	Corynoneura lobata	208
81250	Nanocladius (N.) minimus	53
81825	Rheocricotopus (Psilocricotopus) robacki	+
82121	Thienemanniella lobapodema	160
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
82885	Cryptotendipes pseudotener	+
83002	Dicrotendipes modestus	+
83040	Dicrotendipes neomodestus	267+
83051	Dicrotendipes simpsoni	267+
84000	Parachironomus sp	53
84210	Paratendipes albimanus or P. duplicatus	+
84450	Polypedilum (Uresipedilum) flavum	53+
84460	Polypedilum (P.) fallax group	374+
84470	Polypedilum (P.) illinoense	+
84540	Polypedilum (Tripodura) scalaenum group	160+
84800	Tribelos jucundum	53+
85201	Cladotanytarsus species group A	53
85500	Paratanytarsus sp	160+
85615	Rheotanytarsus pellucidus	160+
85625	Rheotanytarsus sp	267+
85720	Stempellinella fimbriata	32
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	1,871+
85840	Tanytarsus sepp	267+
93900	Elimia sp	12+
95100	Physella sp	48+
96900	Ferrissia sp	8
99100	Pyganodon grandis	+
99240	Lasmigona complanata	+

Station: 500310 LICK CREEK N OF OXBOW LAKE @ TRINITY RD.

Rivercode: 04-609-000 River Mile: 1.23

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
71	16	19	0	82	10,604	20	48	N/A	1.00 NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	32
01801	Turbellaria	64+
03360	Plumatella sp	+
03600	Oligochaeta	128+
04964	Erpobdella microstoma	+
08250	Orconectes (Procericambarus) rusticus	+
11130	Baetis intercalaris	830+
11200	Callibaetis sp	+
11600	Paracloeodes fleeki	+
11650	Procloeon sp (w/ hindwing pads)	+
11670	Procloeon viridoculare	+
12200	Isonychia sp	27+
13000	Leucrocuta sp	53+
13400	Stenacron sp	193+
13570	Maccaffertium terminatum	11+
16700	Tricorythodes sp	794+
17200	Caenis sp	+
18700	Hexagenia sp	+
21200	Calopteryx sp	+
22300	Argia sp	65+
24900	Gomphus sp	+
45300	Sigara sp	+
50315	Chimarra obscura	18+
52200	Cheumatopsyche sp	4,094+
52570	Hydropsyche simulans	6+
53800	Hydroptila sp	142+
59970	Petrophila sp	+
60900	Peltodytes sp	+
65800	Berosus sp	1+
67800	Tropisternus sp	+
68201	Scirtidae	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	2
69400	Stenelmis sp	5
71900	Tipula sp	+
72700	Anopheles sp	+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	+
77750	Hayesomyia senata or Thienemannimyia norena	182+
78450	Nilotanypus fimbriatus	96
78655	Procladius (Holotanypus) sp	+
80370	Corynoneura lobata	192
80420	Cricotopus (C.) bicinctus	45+
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	45+
81825	Rheocricotopus (Psilocricotopus) robacki	+
82141	Thienemanniella xena	32
82820	Cryptochironomus sp	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	+
83820	Microtendipes caelum (sensu Simpson & Bode, 1980)	+
84155	Paralauterborniella nigrohalteralis	+
84315	Phaenopsectra flavipes	+
84450	Polypedilum (Uresipedilum) flavum	364
84460	Polypedilum (P.) fallax group	45
84470	Polypedilum (P.) illinoense	+
84520	Polypedilum (Tripodura) halterale group	91+
84540	Polypedilum (Tripodura) scalaenum group	136+
84612	Saetheria tylus	+
84800	Tribelos jucundum	+
85230	Cladotanytarsus mancus group	45+
85500	Paratanytarsus sp	45
85625	Rheotanytarsus sp	2,457+
85720	Stempellinella fimbriata	32
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	273+
85840	Tanytarsus sepp	45+
86100	Chrysops sp	+
87400	Stratiomys sp	+
95100	Physella sp	+
96900	Ferrissia sp	1+
98200	Pisidium sp	9
98600	Sphaerium sp	4+
99160	Anodontoides ferussacianus	+
99240	Lasmigona complanata	+
99260	Lasmigona compressa	+
99380	Quadrula pustulosa pustulosa	+
99400	Quadrula quadrula	+
99440	Fusconaia flava	+
99660	Truncilla truncata	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+
99740	Toxolasma parvum	+

Station: P07S13 PRAIRIE CREEK DST. BRYAN WWTP, ADJ CR C

Rivercode: 04-609-001 River Mile: 9.80

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
41	2	0	0	41		0		Poor	NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	+
01900	Nemertea	+
03360	Plumatella sp	+
03600	Oligochaeta	+
04664	Helobdella stagnalis	+
04666	Helobdella papillata	+
04935	Erpobdella punctata punctata	+
08250	Orconectes (Procericambarus) rusticus	+
11130	Baetis intercalaris	+
11200	Callibaetis sp	+
21300	Hetaerina sp	+
22001	Coenagrionidae	+
22300	Argia sp	+
28955	Plathemis lydia	+
43570	Neoplea sp	+
44300	Pelocoris sp	+
45400	Trichocorixa sp	+
60900	Peltodytes sp	+
64050	Liodessus sp	+
65800	Berosus sp	+
67800	Tropisternus sp	+
68707	Dubiraphia quadrinotata	+
69400	Stenelmis sp	+
72700	Anopheles sp	+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	+
77500	Conchapelopia sp	+
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
83040	Dicrotendipes neomodestus	+
83300	Glyptotendipes (G.) sp	+
84450	Polypedilum (Uresipedilum) flavum	+
84470	Polypedilum (P.) illinoense	+
84540	Polypedilum (Tripodura) scalaenum group	+
94400	Fossaria sp	+
95100	Physella sp	+
96900	Ferrissia sp	+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+
99160	Anodontoides ferussacianus	+

Station: P07W12 PRAIRIE CREEK NE OF NEY @ FLICKINGER RD. (LOWER CROSSING)

Rivercode: 04-609-001 River Mile: 3.40

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
42	8	7	0	52	3,293	8	38	N/A	0.35 NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	352
01418	Craspedacusta sowerbyi	8
01801	Turbellaria	64+
03600	Oligochaeta	+
08250	Orconectes (Procericambarus) rusticus	+
11130	Baetis intercalaris	+
12200	Isonychia sp	1
16700	Tricorythodes sp	18+
17200	Caenis sp	8+
18700	Hexagenia sp	+
21200	Calopteryx sp	2+
22001	Coenagrionidae	+
22300	Argia sp	65+
44501	Corixidae	+
52200	Cheumatopsyche sp	2+
53800	Hydroptila sp	9
59310	Mystacides sepulchralis	+
59410	Nectopsyche diarina	+
59570	Oecetis nocturna	+
59970	Petrophila sp	+
60900	Peltodytes sp	+
65800	Berosus sp	3+
69400	Stenelmis sp	9+
77120	Ablabesmyia mallochi	31+
77740	Hayesomyia senata	155+
78655	Procladius (Holotanypus) sp	+
80370	Corynoneura lobata	16
82121	Thienemanniella lobapodema	16
82730	Chironomus (C.) decorus group	31
82824	Cryptochironomus ponderosus	+
83040	Dicrotendipes neomodestus	124+
83300	Glyptotendipes (G.) sp	31
84450	Polypedilum (Uresipedilum) flavum	62+
84470	Polypedilum (P.) illinoense	+
84540	Polypedilum (Tripodura) scalaenum group	310+
84750	Stictochironomus sp	+
84960	Pseudochironomus sp	+
85201	Cladotanytarsus species group A	+
85500	Paratanytarsus sp	31
85625	Rheotanytarsus sp	93+
85800	Tanytarsus sp	31+
85821	Tanytarsus glabrescens group sp 7	1,549+
85840	Tanytarsus sepp	248
95100	Physella sp	+
96900	Ferrissia sp	24+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+
99160	Anodontoides ferussacianus	+
99240	Lasmigona complanata	+
99260	Lasmigona compressa	+
99400	Quadrula quadrula	+
99740	Toxolasma parvum	+

Station: P07W22 L. LICK CREEK NW OF NEY @ BEHNFELDT RD.

Rivercode: 04-611-000 River Mile: 4.97

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
38	9	1	0	38		1		Fair	NORMAL

	Taxa	Quant/Qual
03360	Plumatella sp	+
03600	Oligochaeta	+
04664	Helobdella stagnalis	+
04930	Erpobdella sp	+
08220	Orconectes (Gremicambarus) immunis	+
11120	Baetis flavistriga	+
11651	Procloeon sp (w/o hindwing pads)	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
17200	Caenis sp	+
18708	Hexagenia bilineata	+
22001	Coenagrionidae	+
28955	Plathemis lydia	+
45300	Sigara sp	+
52200	Cheumatopsyche sp	+
52530	Hydropsyche depravata group	+
53800	Hydroptila sp	+
60900	Peltodytes sp	+
61400	Agabus sp	+
69400	Stenelmis sp	+
72340	Dixella sp	+
77120	Ablabesmyia mallochi	+
77500	Conchapelopia sp	+
78401	Natarsia species A (sensu Roback, 1978)	+
78655	Procladius (Holotanypus) sp	+
80420	Cricotopus (C.) bicinctus	+
83040	Dicrotendipes neomodestus	+
83840	Microtendipes pedellus group	+
84210	Paratendipes albimanus or P. duplicatus	+
84450	Polypedilum (Uresipedilum) flavum	+
84750	Stictochironomus sp	+
85201	Cladotanytarsus species group A	+
85625	Rheotanytarsus sp	+
85840	Tanytarsus sepp	+
95100	Physella sp	+
95907	Gyraulus (Torquis) parvus	+
96002	Helisoma anceps anceps	+
98600	Sphaerium sp	+

Station: P07S41 L. LICK CREEK AT NEY, UPST. OLD RR RIGHT-OF-WAY

Rivercode: 04-611-000 River Mile: 0.80

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
31	2	0	0	31		0		Poor	INTERMITTE

	Taxa	Quant/Qual
03600	Oligochaeta	+
04664	Helobdella stagnalis	+
04666	Helobdella papillata	+
04964	Erpobdella microstoma	+
11200	Callibaetis sp	+
22001	Coenagrionidae	+
22300	Argia sp	+
28500	Libellula sp	+
45300	Sigara sp	+
53800	Hydroptila sp	+
60900	Peltodytes sp	+
68201	Scirtidae	+
68708	Dubiraphia vittata group	+
72340	Dixella sp	+
72700	Anopheles sp	+
77120	Ablabesmyia mallochi	+
78655	Procladius (Holotanypus) sp	+
82730	Chironomus (C.) decorus group	+
82824	Cryptochironomus ponderosus	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	+
83051	Dicrotendipes simpsoni	+
83300	Glyptotendipes (G.) sp	+
84155	Paralauterborniella nigrohalteralis	+
84210	Paratendipes albimanus or P. duplicatus	+
84315	Phaenopsectra flavipes	+
84800	Tribelos jucundum	+
85500	Paratanytarsus sp	+
85800	Tanytarsus sp	+
95100	Physella sp	+
96900	Ferrissia sp	+

Station: P07K17 MILLER CREEK W OF BRYAN, ADJ. CO. RD. 309 / D

Rivercode: 04-612-000 River Mile: 0.50

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow	
52	16	13	1	75	2,392	19	46	N/A	0.25	NORMAL

	Taxa	Quant/Qual
00401	Spongillidae	+
01320	Hydra sp	8+
01801	Turbellaria	33+
03040	Fredericella sp	+
03600	Oligochaeta	24
06201	Hyalella azteca	+
08250	Orconectes (Procericambarus) rusticus	+
08601	Hydrachnidia	+
11020	Acerpenna pygmaea	1
11120	Baetis flavistriga	79+
11130	Baetis intercalaris	1+
11250	Neocloeon sp	+
11651	Procloeon sp (w/o hindwing pads)	6
11670	Procloeon viridoculare	+
13400	Stenacron sp	2+
13521	Stenonema femoratum	45+
17200	Caenis sp	+
21200	Calopteryx sp	19+
22300	Argia sp	+
50315	Chimarra obscura	1+
51400	Nyctiophylax sp	+
51600	Polycentropus sp	1+
52200	Cheumatopsyche sp	15+
52430	Ceratopsyche morosa group	5+
52530	Hydropsyche depravata group	+
53501	Hydroptilidae	+
59310	Mystacides sepulchralis	+
59730	Triaenodes melaca	+
68075	Psephenus herricki	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	8+
69225	Optioservus fastiditus	+
69400	Stenelmis sp	28+
70600	Antocha sp	40
72340	Dixella sp	+
77120	Ablabesmyia mallochi	55+
77800	Helopelopia sp	+
78140	Labrundinia pilosella	64+
78450	Nilotanypus fimbriatus	216
78655	Procladius (Holotanypus) sp	+
80370	Corynoneura lobata	152
80410	Cricotopus (C.) sp	28
80420	Cricotopus (C.) bicinctus	14
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	69
81650	Parametriocnemus sp	+
81690	Paratrichocladius sp	28
82121	Thienemanniella lobapodema	80
82820	Cryptochironomus sp	14+
83040	Dicrotendipes neomodestus	110
83820	Microtendipes caelum (sensu Simpson & Bode, 1980)	14+
83840	Microtendipes pedellus group	14
84210	Paratendipes albimanus or P. duplicatus	28
84300	Phaenopsectra obediens group	96+
84410	Polypedilum (Pentapedilum) tritum	14
84450	Polypedilum (Uresipedilum) flavum	55+
84460	Polypedilum (P.) fallax group	55
84470	Polypedilum (P.) illinoense	14+
84480	Polypedilum (P.) laetum group	+
84540	Polypedilum (Tripodura) scalaenum group	69
84700	Stenochironomus sp	+
84800	Tribelos jucundum	+
85201	Cladotanytarsus species group A	28+
85500	Paratanytarsus sp	386+
85625	Rheotanytarsus sp	69+
85702	Stempellina sp 2	8
85720	Stempellinella fimbriata	40
85800	Tanytarsus sp	69
85802	Tanytarsus n. sp. near curticornis	14
85821	Tanytarsus glabrescens group sp 7	138
85840	Tanytarsus sepp	110
95100	Physella sp	+
96900	Ferrissia sp	25+
98200	Pisidium sp	+
98600	Sphaerium sp	+
99860	Lampsilis radiata luteola	+

Station: 302201 DOTY RUN SW OF EVANSPORT, NEAR MOUTH @ EVANSPORT RD.

Rivercode: 04-613-000 River Mile: 0.63

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
29	2	0	1	29		0		Poor	INTERMITTE

	Taxa	Quant/Qual
05900	Lirceus sp	+
06700	Crangonyx sp	+
08220	Orconectes (Gremicambarus) immunis	+
13521	Stenonema femoratum	+
17200	Caenis sp	+
21200	Calopteryx sp	+
22001	Coenagrionidae	+
45300	Sigara sp	+
45400	Trichocorixa sp	+
60900	Peltodytes sp	+
68708	Dubiraphia vittata group	+
70501	Tipulidae	+
72700	Anopheles sp	+
72900	Culex sp	+
77120	Ablabesmyia mallochi	+
78140	Labrundinia pilosella	+
78655	Procladius (Holotanypus) sp	+
78680	Procladius (Psilotanypus) bellus	+
79400	Zavrelimyia sp	+
82730	Chironomus (C.) decorus group	+
83051	Dicrotendipes simpsoni	+
83590	Kiefferulus sp	+
84210	Paratendipes albimanus or P. duplicatus	+
84750	Stictochironomus sp	+
85500	Paratanytarsus sp	+
85800	Tanytarsus sp	+
95100	Physella sp	+
96264	Planorbella (Pierosoma) pilsbryi	+
96900	Ferrissia sp	+

Station: P07S22 BRUSH CREEK UPST. ARCHBOLD @ ARCHBOLD-LUTZ RD. (CR D)

Rivercode: 04-614-000 River Mile: 19.06

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
59	14	7	0	59		7		Good	NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	+
01900	Nemertea	+
03600	Oligochaeta	+
04666	Helobdella papillata	+
04687	Placobdella parasitica	+
04935	Erpobdella punctata punctata	+
04964	Erpobdella microstoma	+
05900	Lirceus sp	+
06700	Crangonyx sp	+
08220	Orconectes (Gremicambarus) immunis	+
08601	Hydrachnidia	+
11020	Acerpenna pygmaea	+
11130	Baetis intercalaris	+
11150	Labiobaetis propinquus	+
11200	Callibaetis sp	+
11670	Procloeon viridoculare	+
13000	Leucrocuta sp	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
17200	Caenis sp	+
21300	Hetaerina sp	+
22001	Coenagrionidae	+
22300	Argia sp	+
42700	Belostoma sp	+
43570	Neoplea sp	+
45400	Trichocorixa sp	+
50315	Chimarra obscura	+
52200	Cheumatopsyche sp	+
52530	Hydropsyche depravata group	+
53800	Hydroptila sp	+
59410	Nectopsyche diarina	+
60900	Peltodytes sp	+
63300	Hydroporini	+
65800	Berosus sp	+
68708	Dubiraphia vittata group	+
69275	Optioservus trivittatus	+
69400	Stenelmis sp	+
72700	Anopheles sp	+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	+
77500	Conchapelopia sp	+
78600	Pentaneura inconspicua	+
78655	Procladius (Holotanypus) sp	+
79020	Tanypus neopunctipennis	+
82141	Thienemanniella xena	+
84210	Paratendipes albimanus or P. duplicatus	+
84450	Polypedilum (Uresipedilum) flavum	+
84470	Polypedilum (P.) illinoense	+
84800	Tribelos jucundum	+
84960	Pseudochironomus sp	+
85500	Paratanytarsus sp	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	+
87400	Stratiomys sp	+
95100	Physella sp	+
96120	Menetus (Micromenetus) dilatatus	+
98200	Pisidium sp	+
98600	Sphaerium sp	+

Station: P07S20 BRUSH CREEK DST. ARCHBOLD @ CR 24

Rivercode: 04-614-000 River Mile: 13.28

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
39	3	0	0	50	3,397	0	12	N/A	0.26 NORMAL

	Taxa	Quant/Qual
00653	Eunapius fragilis	+
01320	Hydra sp	16
01801	Turbellaria	16+
03600	Oligochaeta	1,144+
04664	Helobdella stagnalis	+
04666	Helobdella papillata	+
04685	Placobdella ornata	+
04964	Erpobdella microstoma	+
06700	Crangonyx sp	8+
11200	Callibaetis sp	+
13400	Stenacron sp	+
21200	Calopteryx sp	1
22001	Coenagrionidae	+
22300	Argia sp	66+
28955	Plathemis lydia	+
43300	Ranatra sp	+
45400	Trichocorixa sp	+
52200	Cheumatopsyche sp	+
60800	Haliplus sp	+
60900	Peltodytes sp	+
67000	Helophorus sp	+
67800	Tropisternus sp	+
68708	Dubiraphia vittata group	1+
68901	Macronychus glabratus	+
74501	Ceratopogonidae	24
77130	Ablabesmyia rhamphe group	45+
77355	Clinotanypus pinguis	+
77750	Hayesomyia senata or Thienemannimyia norena	23
78655	Procladius (Holotanypus) sp	+
80370	Corynoneura lobata	16
82730	Chironomus (C.) decorus group	90
83002	Dicrotendipes modestus	225+
83040	Dicrotendipes neomodestus	23
83051	Dicrotendipes simpsoni	68+
83300	Glyptotendipes (G.) sp	180+
84470	Polypedilum (P.) illinoense	45+
84520	Polypedilum (Tripodura) halterale group	23+
84540	Polypedilum (Tripodura) scalaenum group	158+
84790	Tribelos fuscicorne	428
84800	Tribelos jucundum	180+
85500	Paratanytarsus sp	45+
85625	Rheotanytarsus sp	338+
85800	Tanytarsus sp	23
85821	Tanytarsus glabrescens group sp 7	68+
85840	Tanytarsus sepp	113
94400	Fossaria sp	+
95100	Physella sp	+
96264	Planorbella (Pierosoma) pilsbryi	+
96900	Ferrissia sp	24
98600	Sphaerium sp	6+

Station: P07W29 BRUSH CREEK SW OF ARCHBOLD @ CO RD 24.25

Rivercode: 04-614-000 River Mile: 9.11

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
33	5	0	0	52	2,759	1	44	N/A	0.70 NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	20
01801	Turbellaria	8+
03600	Oligochaeta	24+
04964	Erpobdella microstoma	+
05900	Lirceus sp	17+
06700	Crangonyx sp	+
08250	Orconectes (Procericambarus) rusticus	+
11130	Baetis intercalaris	1,299+
11200	Callibaetis sp	+
13400	Stenacron sp	264+
17200	Caenis sp	4+
22001	Coenagrionidae	+
22300	Argia sp	30+
23909	Boyeria vinosa	+
42700	Belostoma sp	+
51206	Cyrnellus fraternus	1
52200	Cheumatopsyche sp	501+
60900	Peltodytes sp	+
68201	Scirtidae	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	13+
72700	Anopheles sp	+
77500	Conchapelopia sp	5
77750	Hayesomyia senata or Thienemannimyia norena	27
77800	Helopelopia sp	5
78450	Nilotanypus fimbriatus	5
78655	Procladius (Holotanypus) sp	+
80370	Corynoneura lobata	44
80420	Cricotopus (C.) bicinctus	18
81825	Rheocricotopus (Psilocricotopus) robacki	5
82121	Thienemanniella lobapodema	12
82130	Thienemanniella similis	4
82141	Thienemanniella xena	91
82730	Chironomus (C.) decorus group	+
82885	Cryptotendipes pseudotener	+
83002	Dicrotendipes modestus	+
83158	Endochironomus nigricans	5
84155	Paralauterborniella nigrohalteralis	5+
84450	Polypedilum (Uresipedilum) flavum	105+
84460	Polypedilum (P.) fallax group	14
84470	Polypedilum (P.) illinoense	5+
84520	Polypedilum (Tripodura) halterale group	+
84540	Polypedilum (Tripodura) scalaenum group	5
84800	Tribelos jucundum	9+
85500	Paratanytarsus sp	9
85625	Rheotanytarsus sp	105+
85821	Tanytarsus glabrescens group sp 7	18
85840	Tanytarsus sepp	46
87540	Hemerodromia sp	16+
95100	Physella sp	+
96900	Ferrissia sp	20
98600	Sphaerium sp	+

Station: P07K19 BRUSH CREEK NE OF EVANSPORT @ CO RD. C

Rivercode: 04-614-000 River Mile: 5.76

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
39	7	3	0	52	3,088	4	36	N/A	0.29 NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	59
03040	Fredericella sp	+
03360	Plumatella sp	+
03600	Oligochaeta	24+
05900	Lirceus sp	1+
06201	Hyalella azteca	+
11670	Procloeon viridoculare	+
13400	Stenacron sp	89+
17200	Caenis sp	58+
18700	Hexagenia sp	1
22300	Argia sp	81+
42700	Belostoma sp	+
43300	Ranatra sp	+
44501	Corixidae	+
45900	Notonecta sp	+
51206	Cyrnellus fraternus	24+
51600	Polycentropus sp	8+
52200	Cheumatopsyche sp	10+
53800	Hydroptila sp	8
57900	Pycnopsyche sp	+
60900	Peltodytes sp	+
61100	Acilius sp	+
65800	Berosus sp	+
68601	Ancyronyx variegata	+
68708	Dubiraphia vittata group	88+
68901	Macronychus glabratus	1+
69400	Stenelmis sp	+
74501	Ceratopogonidae	16+
77120	Ablabesmyia mallochi	+
78655	Procladius (Holotanypus) sp	+
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	28
81250	Nanocladius (N.) minimus	28
82121	Thienemanniella lobapodema	8
82141	Thienemanniella xena	8
82730	Chironomus (C.) decorus group	113+
82820	Cryptochironomus sp	+
83040	Dicrotendipes neomodestus	959+
83300	Glyptotendipes (G.) sp	141+
83410	Harnischia curtilamellata	+
84315	Phaenopsectra flavipes	+
84790	Tribelos fuscicorne	28
84800	Tribelos jucundum	310
85201	Cladotanytarsus species group A	+
85500	Paratanytarsus sp	367+
85625	Rheotanytarsus sp	+
85720	Stempellinella fimbriata	16
85800	Tanytarsus sp	56+
85821	Tanytarsus glabrescens group sp 7	169
85840	Tanytarsus sepp	367+
95100	Physella sp	3+
96900	Ferrissia sp	16
98600	Sphaerium sp	3

Station: P07W15 BRUSH CREEK NEAR EVANSPORT AT CR 22-60

Rivercode: 04-614-000 River Mile: 1.05

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
50	8	10	0	62	1,282	11	36	N/A	1.10 NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	+
03040	Fredericella sp	+
05900	Lirceus sp	3+
06700	Crangonyx sp	+
08250	Orconectes (Procericambarus) rusticus	+
08601	Hydrachnidia	12+
11130	Baetis intercalaris	46+
11670	Procloeon viridoculare	+
13400	Stenacron sp	464+
17200	Caenis sp	+
18700	Hexagenia sp	+
21200	Calopteryx sp	+
22300	Argia sp	12+
44501	Corixidae	+
47600	Sialis sp	+
52200	Cheumatopsyche sp	42+
59310	Mystacides sepulchralis	+
59730	Triaenodes melaca	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	14+
69400	Stenelmis sp	2+
71900	Tipula sp	+
72700	Anopheles sp	+
74100	Simulium sp	4
74501	Ceratopogonidae	+
77120	Ablabesmyia mallochi	+
77750	Hayesomyia senata or Thienemannimyia norena	4
77800	Helopelopia sp	4
78450	Nilotanypus fimbriatus	1
78500	Paramerina fragilis	+
80370	Corynoneura lobata	104
80420	Cricotopus (C.) bicinctus	15
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	4
81250	Nanocladius (N.) minimus	+
81631	Parakiefferiella n.sp 1	61
81632	Parakiefferiella n.sp 2	+
81825	Rheocricotopus (Psilocricotopus) robacki	34+
82121	Thienemanniella lobapodema	87
82141	Thienemanniella xena	32
82300	Xylotopus par	+
82820	Cryptochironomus sp	+
83002	Dicrotendipes modestus	+
83040	Dicrotendipes neomodestus	8+
84450	Polypedilum (Uresipedilum) flavum	15+
84460	Polypedilum (P.) fallax group	4
84700	Stenochironomus sp	4+
84800	Tribelos jucundum	4+
85500	Paratanytarsus sp	11+
85625	Rheotanytarsus sp	19+
85720	Stempellinella fimbriata	1
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	203+
85840	Tanytarsus sepp	27+
96900	Ferrissia sp	41+
98600	Sphaerium sp	+
99160	Anodontoides ferussacianus	+
99240	Lasmigona complanata	+
99380	Quadrula pustulosa pustulosa	+
99400	Quadrula quadrula	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+
99860	Lampsilis radiata luteola	+

Station: P07S03 OWL CREEK SW OF ARCHBOLD @ CO. RD. 25

Rivercode: 04-615-000 River Mile: 0.07

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
32	4	0	0	32		0		Low Fair	LOW

	Taxa	Quant/Qual
01801	Turbellaria	+
03600	Oligochaeta	+
04935	Erpobdella punctata punctata	+
05900	Lirceus sp	+
08250	Orconectes (Procericambarus) rusticus	+
11200	Callibaetis sp	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
21200	Calopteryx sp	+
22001	Coenagrionidae	+
22300	Argia sp	+
52200	Cheumatopsyche sp	+
60900	Peltodytes sp	+
63300	Hydroporini	+
67000	Helophorus sp	+
68201	Scirtidae	+
68708	Dubiraphia vittata group	+
72700	Anopheles sp	+
78401	Natarsia species A (sensu Roback, 1978)	+
78655	Procladius (Holotanypus) sp	+
82820	Cryptochironomus sp	+
82885	Cryptotendipes pseudotener	+
84210	Paratendipes albimanus or P. duplicatus	+
84315	Phaenopsectra flavipes	+
84800	Tribelos jucundum	+
85821	Tanytarsus glabrescens group sp 7	+
95100	Physella sp	+
96002	Helisoma anceps anceps	+
96200	Planorbella sp	+
98200	Pisidium sp	+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+

Station: P07K24 COON CREEK E OF EVANSPORT @ CO. RD. 23

Rivercode: 04-616-000 River Mile: 0.62

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
33	3	0	1	33		0		Low Fair	NORMAL

	Taxa	Quant/Qual
03360	Plumatella sp	+
03600	Oligochaeta	+
05900	Lirceus sp	+
08220	Orconectes (Gremicambarus) immunis	+
11200	Callibaetis sp	+
17200	Caenis sp	+
22001	Coenagrionidae	+
23700	Anax sp	+
43570	Neoplea sp	+
45300	Sigara sp	+
52200	Cheumatopsyche sp	+
60900	Peltodytes sp	+
68707	Dubiraphia quadrinotata	+
68708	Dubiraphia vittata group	+
69400	Stenelmis sp	+
72700	Anopheles sp	+
77120	Ablabesmyia mallochi	+
78401	Natarsia species A (sensu Roback, 1978)	+
78500	Paramerina fragilis	+
78655	Procladius (Holotanypus) sp	+
78680	Procladius (Psilotanypus) bellus	+
79400	Zavrelimyia sp	+
80420	Cricotopus (C.) bicinctus	+
82824	Cryptochironomus ponderosus	+
83040	Dicrotendipes neomodestus	+
83051	Dicrotendipes simpsoni	+
84470	Polypedilum (P.) illinoense	+
85500	Paratanytarsus sp	+
85840	Tanytarsus sepp	+
95100	Physella sp	+
96900	Ferrissia sp	+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+

Station: P07P17 BEAVER CREEK SW OF WEST UNITY @ CO. RD. K

Rivercode: 04-617-000 River Mile: 17.12

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
57	15	6	0	57		6		Good	ABOVE NOR

	Taxa	Quant/Qual
01801	Turbellaria	+
03600	Oligochaeta	+
04930	Erpobdella sp	+
11120	Baetis flavistriga	+
11130	Baetis intercalaris	+
11200	Callibaetis sp	+
11670	Procloeon viridoculare	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
17200	Caenis sp	+
18708	Hexagenia bilineata	+
22001	Coenagrionidae	+
22300	Argia sp	+
28500	Libellula sp	+
42700	Belostoma sp	+
50315	Chimarra obscura	+
51400	Nyctiophylax sp	+
51600	Polycentropus sp	+
52200	Cheumatopsyche sp	+
52530	Hydropsyche depravata group	+
53501	Hydroptilidae	+
59410	Nectopsyche diarina	+
60900	Peltodytes sp	+
65800	Berosus sp	+
68201	Scirtidae	+
68708	Dubiraphia vittata group	+
69400	Stenelmis sp	+
72340	Dixella sp	+
74100	Simulium sp	+
74501	Ceratopogonidae	+
77750	Hayesomyia senata or Thienemannimyia norena	+
78500	Paramerina fragilis	+
80420	Cricotopus (C.) bicinctus	+
80510	Cricotopus (Isocladius) sylvestris group	+
80570	Doncricotopus bicaudatus	+
82730	Chironomus (C.) decorus group	+
82885	Cryptotendipes pseudotener	+
83002	Dicrotendipes modestus	+
83040	Dicrotendipes neomodestus	+
83820	Microtendipes caelum (sensu Simpson & Bode, 1980)	+
83900	Nilothauma sp	+
84210	Paratendipes albimanus or P. duplicatus	+
84450	Polypedilum (Uresipedilum) flavum	+
84470	Polypedilum (P.) illinoense	+
84520	Polypedilum (Tripodura) halterale group	+
84750	Stictochironomus sp	+
85230	Cladotanytarsus mancus group	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	+
85840	Tanytarsus sepp	+
86200	Tabanus sp	+
95100	Physella sp	+
98200	Pisidium sp	+
98600	Sphaerium sp	+
99160	Anodontoides ferussacianus	+
99740	Toxolasma parvum	+

Station: P07K25 BEAVER CREEK AT BEAVER CREEK WILDLIFE AREA @ CO. RD. 16

Rivercode: 04-617-000 River Mile: 12.66

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow	
69	17	18	0	85	10,995	22	48	N/A	0.35	NORMAL

	Taxa	Quant/Qual
00401	Spongillidae	+
01801	Turbellaria	+
03600	Oligochaeta	+
04964	Erpobdella microstoma	+
06201	Hyalella azteca	+
08250	Orconectes (Procericambarus) rusticus	+
11020	Acerpenna pygmaea	296
11120	Baetis flavistriga	278+
11130	Baetis intercalaris	167+
11250	Neocloeon sp	+
11650	Procloeon sp (w/ hindwing pads)	+
11651	Procloeon sp (w/o hindwing pads)	+
11670	Procloeon viridoculare	+
12200	Isonychia sp	2
13400	Stenacron sp	170+
13521	Stenonema femoratum	5+
13561	Maccaffertium pulchellum	134+
17200	Caenis sp	97+
21200	Calopteryx sp	30+
22001	Coenagrionidae	+
22300	Argia sp	+
50315	Chimarra obscura	+
51600	Polycentropus sp	+
52200	Cheumatopsyche sp	474+
52430	Ceratopsyche morosa group	+
52530	Hydropsyche depravata group	+
53800	Hydroptila sp	+
59300	Mystacides sp	+
59970	Petrophila sp	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	3+
69225	Optioservus fastiditus	+
69400	Stenelmis sp	+
70600	Antocha sp	8+
72340	Dixella sp	+
72700	Anopheles sp	+
72900	Culex sp	+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	40+
77500	Conchapelopia sp	119
77750	Hayesomyia senata or Thienemannimyia norena	+
77800	Helopelopia sp	40
78140	Labrundinia pilosella	32+
78450	Nilotanypus fimbriatus	256
78500	Paramerina fragilis	+
78655	Procladius (Holotanypus) sp	+
80351	Corynoneura caudicula	32
80363	Corynoneura sp. 12	+
80370	Corynoneura lobata	448
80400	Cricotopus sp	40
80420	Cricotopus (C.) bicinctus	+
80430	Cricotopus (C.) tremulus group	40
81465	Orthocladius (O.) carlatus	119
81690	Paratrichocladius sp	40
82101	Thienemanniella taurocapita	32
82121	Thienemanniella lobapodema	392
82141	Thienemanniella xena	64
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
83300	Glyptotendipes (G.) sp	+
83820	Microtendipes caelum (sensu Simpson & Bode, 1980)	40+
83840	Microtendipes pedellus group	80+
84210	Paratendipes albimanus or P. duplicatus	40+
84300	Phaenopsectra obediens group	+
84450	Polypedilum (Uresipedilum) flavum	1,234+
84460	Polypedilum (P.) fallax group	80
84470	Polypedilum (P.) illinoense	+
84490	Polypedilum (Cerobregma) ontario	+
84520	Polypedilum (Tripodura) halterale group	+
84540	Polypedilum (Tripodura) scalaenum group	80+
84700	Stenochironomus sp	+
84750	Stictochironomus sp	+
85265	Cladotanytarsus vanderwulpi group sp 5	+
85500	Paratanytarsus sp	119+
85625	Rheotanytarsus sp	4,855+
85720	Stempellinella fimbriata	40+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	756+
85840	Tanytarsus sepp	40+
86200	Tabanus sp	+
87540	Hemerodromia sp	8
96900	Ferrissia sp	265+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+
99180	Strophitus undulatus undulatus	+

Station: P07P14 BEAVER CREEK S OF PULASKI @ U.S. RT. 127

Rivercode: 04-617-000 River Mile: 7.52

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
68	23	20	0	90	5,790	27	46	N/A	0.40 NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	32
01801	Turbellaria	2+
03040	Fredericella sp	+
03600	Oligochaeta	224
04930	Erpobdella sp	+
08250	Orconectes (Procericambarus) rusticus	+
08601	Hydrachnidia	16+
11020	Acerpenna pygmaea	2
11120	Baetis flavistriga	17+
11130	Baetis intercalaris	+
11200	Callibaetis sp	+
11650	Procloeon sp (w/ hindwing pads)	+
11651	Procloeon sp (w/o hindwing pads)	15
11670	Procloeon viridoculare	+
13000	Leucrocuta sp	1+
13400	Stenacron sp	112+
13510	Maccaffertium exiguum	45+
13521	Stenonema femoratum	+
14950	Leptophlebia sp or Paraleptophlebia sp	8
16700	Tricorythodes sp	1+
17200	Caenis sp	16+
21200	Calopteryx sp	24+
22300	Argia sp	26+
23909	Boyeria vinosa	+
45900	Notonecta sp	+
50315	Chimarra obscura	+
51300	Neureclipsis sp	1
51400	Nyctiophylax sp	+
51600	Polycentropus sp	+
52200	Cheumatopsyche sp	147+
52430	Ceratopsyche morosa group	48+
52530	Hydropsyche depravata group	1+
53501	Hydroptilidae	+
57400	Neophylax sp	+
59310	Mystacides sepulchralis	+
59500	Oecetis sp	+
59700	Triaenodes sp	+
59730	Triaenodes melaca	+
59970	Petrophila sp	+
68075	Psephenus herricki	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	7+
69400	Stenelmis sp	1+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	+
77500	Conchapelopia sp	102+
77750	Hayesomyia senata or Thienemannimyia norena	51+
78140	Labrundinia pilosella	32
78450	Nilotanypus fimbriatus	80
80360	Corynoneura floridaensis	32
80363	Corynoneura sp. 12	32
80370	Corynoneura lobata	128
80410	Cricotopus (C.) sp	51
80420	Cricotopus (C.) bicinctus	51+
80430	Cricotopus (C.) tremulus group	153
81250	Nanocladius (N.) minimus	102
81825	Rheocricotopus (Psilocricotopus) robacki	+
82121	Thienemanniella lobapodema	576
82141	Thienemanniella xena	16
82600	Axarus sp	+
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	966+
83820	Microtendipes caelum (sensu Simpson & Bode, 1980)	+
83840	Microtendipes pedellus group	51
84210	Paratendipes albimanus or P. duplicatus	51+
84450	Polypedilum (Uresipedilum) flavum	254+
84460	Polypedilum (P.) fallax group	102+
84470	Polypedilum (P.) illinoense	+
84540	Polypedilum (Tripodura) scalaenum group	102+
84700	Stenochironomus sp	+
84750	Stictochironomus sp	+
85201	Cladotanytarsus species group A	+
85261	Cladotanytarsus venderwulpi	51
85265	Cladotanytarsus vanderwulpi group sp 5	+
85500	Paratanytarsus sp	407
85615	Rheotanytarsus pellucidus	51
85625	Rheotanytarsus sp	153
85720	Stempellinella fimbriata	96+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	1,068
85840	Tanytarsus sepp	254+
86200	Tabanus sp	+
96900	Ferrissia sp	32+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+
99240	Lasmigona complanata	+
99860	Lampsilis radiata luteola	+

Station: P07S01 BEAVER CREEK @ CO. RD. D

Rivercode: 04-617-000 River Mile: 2.90

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow	
65	17	14	0	84	1,815	19	48	N/A	0.20	NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	1+
03360	Plumatella sp	1
03600	Oligochaeta	+
04964	Erpobdella microstoma	+
06201	Hyalella azteca	+
08250	Orconectes (Procericambarus) rusticus	+
08601	Hydrachnidia	20+
11020	Acerpenna pygmaea	19
11120	Baetis flavistriga	1+
11130	Baetis intercalaris	96+
11650	Procloeon sp (w/ hindwing pads)	+
11651	Procloeon sp (w/o hindwing pads)	+
13400	Stenacron sp	125+
13561	Maccaffertium pulchellum	24+
17200	Caenis sp	+
18700	Hexagenia sp	+
21200	Calopteryx sp	1+
22001	Coenagrionidae	+
22300	Argia sp	41+
50315	Chimarra obscura	1+
50804	Lype diversa	+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	231+
52530	Hydropsyche depravata group	+
53501	Hydroptilidae	+
57900	Pycnopsyche sp	+
59300	Mystacides sp	+
59500	Oecetis sp	+
68130	Helichus sp	+
68601	Ancyronyx variegata	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	5+
69400	Stenelmis sp	+
74100	Simulium sp	+
77110	Ablabesmyia annulata	+
77120	Ablabesmyia mallochi	13
77500	Conchapelopia sp	+
77750	Hayesomyia senata or Thienemannimyia norena	13
77800	Helopelopia sp	+
78140	Labrundinia pilosella	16
78450	Nilotanypus fimbriatus	15
78655	Procladius (Holotanypus) sp	+
80360	Corynoneura floridaensis	16
80363	Corynoneura sp. 12	8
80370	Corynoneura lobata	120
80420	Cricotopus (C.) bicinctus	13
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	13
81825	Rheocricotopus (Psilocricotopus) robacki	193+
82121	Thienemanniella lobapodema	64
82141	Thienemanniella xena	16
82730	Chironomus (C.) decorus group	+
82824	Cryptochironomus ponderosus	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	13+
83820	Microtendipes caelum (sensu Simpson & Bode, 1980)	13
84155	Paralauterborniella nigrohalteralis	+
84210	Paratendipes albimanus or P. duplicatus	+
84315	Phaenopsectra flavipes	+
84450	Polypedilum (Uresipedilum) flavum	129+
84460	Polypedilum (P.) fallax group	39
84470	Polypedilum (P.) illinoense	64+
84540	Polypedilum (Tripodura) scalaenum group	+
84700	Stenochironomus sp	+
84750	Stictochironomus sp	+
84800	Tribelos jucundum	+
85230	Cladotanytarsus mancus group	+
85264	Cladotanytarsus vanderwulpi group sp 4	+
85500	Paratanytarsus sp	13+
85615	Rheotanytarsus pellucidus	13
85625	Rheotanytarsus sp	39
85800	Tanytarsus sp	13
85802	Tanytarsus n. sp. near curticornis	26
85821	Tanytarsus glabrescens group sp 7	309+
85840	Tanytarsus sepp	77+
95100	Physella sp	+
96900	Ferrissia sp	1+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+
99160	Anodontoides ferussacianus	+
99180	Strophitus undulatus undulatus	+
99240	Lasmigona complanata	+
99260	Lasmigona compressa	+
99420	Amblema plicata plicata	+
99860	Lampsilis radiata luteola	+

Station: P07P11 BEAVER CREEK NW OF EVANSPORT @ CO. RD. 20

Rivercode: 04-617-000 River Mile: 0.61

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
54	11	14	0	70	1,725	17	38	N/A	1.00 NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	71+
03600	Oligochaeta	16+
05900	Lirceus sp	25+
08200	Orconectes sp	+
08601	Hydrachnidia	4
11020	Acerpenna pygmaea	9+
11130	Baetis intercalaris	4+
11650	Procloeon sp (w/ hindwing pads)	+
12900	Heptagenia sp	1
13400	Stenacron sp	303+
13561	Maccaffertium pulchellum	109
14950	Leptophlebia sp or Paraleptophlebia sp	8
17200	Caenis sp	+
18750	Hexagenia limbata	+
21200	Calopteryx sp	1+
22300	Argia sp	5+
23909	Boyeria vinosa	+
50315	Chimarra obscura	2
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	49+
52570	Hydropsyche simulans	+
57900	Pycnopsyche sp	+
59001	Leptoceridae	+
68130	Helichus sp	+
68201	Scirtidae	+
68601	Ancyronyx variegata	1
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	12
71900	Tipula sp	+
71910	Tipula abdominalis	+
72700	Anopheles sp	+
77110	Ablabesmyia annulata	+
77120	Ablabesmyia mallochi	+
77800	Helopelopia sp	14
78655	Procladius (Holotanypus) sp	+
80360	Corynoneura floridaensis	4
80370	Corynoneura lobata	8
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	55
81825	Rheocricotopus (Psilocricotopus) robacki	345+
82121	Thienemanniella lobapodema	112
82300	Xylotopus par	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	+
83300	Glyptotendipes (G.) sp	14
83410	Harnischia curtilamellata	+
83840	Microtendipes pedellus group	28
84450	Polypedilum (Uresipedilum) flavum	28+
84460	Polypedilum (P.) fallax group	28
84470	Polypedilum (P.) illinoense	14+
84800	Tribelos jucundum	28
85500	Paratanytarsus sp	41+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	386+
86100	Chrysops sp	+
87400	Stratiomys sp	+
95100	Physella sp	+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+
99160	Anodontoides ferussacianus	+
99180	Strophitus undulatus undulatus	+
99240	Lasmigona complanata	+
99420	Amblema plicata plicata	+
99440	Fusconaia flava	+
99520	Pleurobema sintoxia	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+
99860	Lampsilis radiata luteola	+

Station: P07K27 LEATHERWOOD CREEK N OF STRYKER @ CO. RD. H

Rivercode: 04-619-000 River Mile: 1.15

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
47	8	1	0	47		1		Fair	NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	+
03600	Oligochaeta	+
04685	Placobdella ornata	+
05900	Lirceus sp	+
08240	Orconectes (Crokerinus) propinquus	+
11120	Baetis flavistriga	+
11130	Baetis intercalaris	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
17200	Caenis sp	+
18708	Hexagenia bilineata	+
21200	Calopteryx sp	+
22300	Argia sp	+
23909	Boyeria vinosa	+
43205	Nepa apiculata	+
45400	Trichocorixa sp	+
52200	Cheumatopsyche sp	+
57900	Pycnopsyche sp	+
60900	Peltodytes sp	+
67700	Paracymus sp	+
68130	Helichus sp	+
68707	Dubiraphia quadrinotata	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	+
69400	Stenelmis sp	+
78400	Natarsia sp	+
78655	Procladius (Holotanypus) sp	+
78680	Procladius (Psilotanypus) bellus	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	+
84450	Polypedilum (Uresipedilum) flavum	+
84460	Polypedilum (P.) fallax group	+
84470	Polypedilum (P.) illinoense	+
84601	Saetheria species 1 (sensu Jackson, 1977)	+
84612	Saetheria tylus	+
84700	Stenochironomus sp	+
84750	Stictochironomus sp	+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	+
85840	Tanytarsus sepp	+
86100	Chrysops sp	+
87400	Stratiomys sp	+
95100	Physella sp	+
96900	Ferrissia sp	+
98600	Sphaerium sp	+

Station: P07K28 FLAT RUN NE OF STRYKER @ CO. RD. 22.75

Rivercode: 04-620-000 River Mile: 0.40

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
37	4	0	0	37		0		Low Fair	NORMAL

	Taxa	Quant/Qual
00556	Ephydatia fluviatilis	+
01801	Turbellaria	+
02600	Nematomorpha	+
03600	Oligochaeta	+
05900	Lirceus sp	+
08220	Orconectes (Gremicambarus) immunis	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
17200	Caenis sp	+
22001	Coenagrionidae	+
43300	Ranatra sp	+
45400	Trichocorixa sp	+
48200	Chauliodes sp	+
52200	Cheumatopsyche sp	+
60900	Peltodytes sp	+
65800	Berosus sp	+
68201	Scirtidae	+
68708	Dubiraphia vittata group	+
77500	Conchapelopia sp	+
77750	Hayesomyia senata or Thienemannimyia norena	+
78655	Procladius (Holotanypus) sp	+
80420	Cricotopus (C.) bicinctus	+
82141	Thienemanniella xena	+
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
84450	Polypedilum (Uresipedilum) flavum	+
84470	Polypedilum (P.) illinoense	+
84520	Polypedilum (Tripodura) halterale group	+
84700	Stenochironomus sp	+
85500	Paratanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	+
85840	Tanytarsus sepp	+
95100	Physella sp	+
96900	Ferrissia sp	+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+

Station: P07K30 BATES CREEK E OF WEST UNITY @ CO. RD. 25-2

Rivercode: 04-622-000 River Mile: 1.65

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
30	8	0	0	30		0		Fair	NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	+
03600	Oligochaeta	+
05900	Lirceus sp	+
08200	Orconectes sp	+
11120	Baetis flavistriga	+
11130	Baetis intercalaris	+
12912	Heptagenia elegantula	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
18708	Hexagenia bilineata	+
21200	Calopteryx sp	+
22001	Coenagrionidae	+
22300	Argia sp	+
52200	Cheumatopsyche sp	+
53800	Hydroptila sp	+
60900	Peltodytes sp	+
68708	Dubiraphia vittata group	+
72340	Dixella sp	+
72700	Anopheles sp	+
81825	Rheocricotopus (Psilocricotopus) robacki	+
82141	Thienemanniella xena	+
83003	Dicrotendipes fumidus	+
83040	Dicrotendipes neomodestus	+
84210	Paratendipes albimanus or P. duplicatus	+
84450	Polypedilum (Uresipedilum) flavum	+
84750	Stictochironomus sp	+
85230	Cladotanytarsus mancus group	+
95100	Physella sp	+
96900	Ferrissia sp	+
98600	Sphaerium sp	+

Station: P07W25 MILL CREEK NE OF ALVORDTON @ CO. RD. S

Rivercode: 04-624-000 River Mile: 14.49

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
40	11	2	0	40		2		Marginally Good	NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	+
03600	Oligochaeta	+
04685	Placobdella ornata	+
08601	Hydrachnidia	+
11130	Baetis intercalaris	+
11200	Callibaetis sp	+
11650	Procloeon sp (w/ hindwing pads)	+
11670	Procloeon viridoculare	+
13400	Stenacron sp	+
17200	Caenis sp	+
22001	Coenagrionidae	+
45400	Trichocorixa sp	+
47600	Sialis sp	+
52200	Cheumatopsyche sp	+
52530	Hydropsyche depravata group	+
53800	Hydroptila sp	+
59570	Oecetis nocturna	+
59728	Triaenodes marginatus	+
60900	Peltodytes sp	+
65800	Berosus sp	+
68201	Scirtidae	+
68708	Dubiraphia vittata group	+
72700	Anopheles sp	+
78655	Procladius (Holotanypus) sp	+
82141	Thienemanniella xena	+
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
83040	Dicrotendipes neomodestus	+
83300	Glyptotendipes (G.) sp	+
84450	Polypedilum (Uresipedilum) flavum	+
84700	Stenochironomus sp	+
84750	Stictochironomus sp	+
85230	Cladotanytarsus mancus group	+
85500	Paratanytarsus sp	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
85840	Tanytarsus sepp	+
86200	Tabanus sp	+
95100	Physella sp	+

Station: P07W26 MILL CREEK SE OF ALVORDTON @ CO. RD. P

Rivercode: 04-624-000 River Mile: 11.90

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
55	10	4	0	55		4		Marginally Good	LOW

	Taxa	Quant/Qual
00401	Spongillidae	+
01801	Turbellaria	+
03360	Plumatella sp	+
04664	Helobdella stagnalis	+
04964	Erpobdella microstoma	+
05900	Lirceus sp	+
08601	Hydrachnidia	+
11120	Baetis flavistriga	+
11130	Baetis intercalaris	+
11200	Callibaetis sp	+
11650	Procloeon sp (w/ hindwing pads)	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
17200	Caenis sp	+
21200	Calopteryx sp	+
22001	Coenagrionidae	+
23600	Aeshna sp	+
23909	Boyeria vinosa	+
45100	Palmacorixa sp	+
45300	Sigara sp	+
49200	Climacia sp	+
52200	Cheumatopsyche sp	+
53800	Hydroptila sp	+
59300	Mystacides sp	+
68601	Ancyronyx variegata	+
68708	Dubiraphia vittata group	+
69400	Stenelmis sp	+
72700	Anopheles sp	+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	+
78500	Paramerina fragilis	+
78655	Procladius (Holotanypus) sp	+
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	+
83300	Glyptotendipes (G.) sp	+
84210	Paratendipes albimanus or P. duplicatus	+
84300	Phaenopsectra obediens group	+
84315	Phaenopsectra flavipes	+
84450	Polypedilum (Uresipedilum) flavum	+
84470	Polypedilum (P.) illinoense	+
84540	Polypedilum (Tripodura) scalaenum group	+
84888	Xenochironomus xenolabis	+
85201	Cladotanytarsus species group A	+
85230	Cladotanytarsus mancus group	+
85261	Cladotanytarsus venderwulpi	+
85500	Paratanytarsus sp	+
85615	Rheotanytarsus pellucidus	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	+
95100	Physella sp	+
96900	Ferrissia sp	+

Station: P07S32 MILL CREEK SE OF ALVORDTON @ CO. RD. 28

Rivercode: 04-624-000 River Mile: 7.92

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
43	14	10	0	43		10		Good	NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	+
03600	Oligochaeta	+
04964	Erpobdella microstoma	+
05900	Lirceus sp	+
06810	Gammarus fasciatus	+
08200	Orconectes sp	+
08601	Hydrachnidia	+
11120	Baetis flavistriga	+
11130	Baetis intercalaris	+
11650	Procloeon sp (w/ hindwing pads)	+
11651	Procloeon sp (w/o hindwing pads)	+
13000	Leucrocuta sp	+
13400	Stenacron sp	+
13521	Stenonema femoratum	+
17200	Caenis sp	+
21200	Calopteryx sp	+
45100	Palmacorixa sp	+
50315	Chimarra obscura	+
51600	Polycentropus sp	+
52200	Cheumatopsyche sp	+
52530	Hydropsyche depravata group	+
53800	Hydroptila sp	+
58505	Helicopsyche borealis	+
59970	Petrophila sp	+
68025	Ectopria sp	+
68075	Psephenus herricki	+
68700	Dubiraphia sp	+
69225	Optioservus fastiditus	+
69275	Optioservus trivittatus	+
69400	Stenelmis sp	+
72700	Anopheles sp	+
77120	Ablabesmyia mallochi	+
78655	Procladius (Holotanypus) sp	+
80370	Corynoneura lobata	+
82820	Cryptochironomus sp	+
84210	Paratendipes albimanus or P. duplicatus	+
84450	Polypedilum (Uresipedilum) flavum	+
84470	Polypedilum (P.) illinoense	+
84700	Stenochironomus sp	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	+
98600	Sphaerium sp	+

Station: P07S31 MILL CREEK S OF FAYETTE @ OLD ANGOLA RD.

Rivercode: 04-624-000 River Mile: 1.85

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
64	18	16	0	83	3,266	20	52	N/A	0.28 NORMAL

	Taxa	Quant/Qual
01801	Turbellaria	12+
03600	Oligochaeta	+
05900	Lirceus sp	1
06201	Hyalella azteca	+
06810	Gammarus fasciatus	+
08250	Orconectes (Procericambarus) rusticus	2+
11020	Acerpenna pygmaea	17
11130	Baetis intercalaris	1+
11200	Callibaetis sp	+
11650	Procloeon sp (w/ hindwing pads)	2+
11670	Procloeon viridoculare	+
13000	Leucrocuta sp	+
13400	Stenacron sp	306+
13510	Maccaffertium exiguum	7+
13540	Maccaffertium mediopunctatum	+
13561	Maccaffertium pulchellum	45
14950	Leptophlebia sp or Paraleptophlebia sp	96+
16700	Tricorythodes sp	8
17200	Caenis sp	2+
21200	Calopteryx sp	4
22001	Coenagrionidae	+
22300	Argia sp	2+
23909	Boyeria vinosa	+
50315	Chimarra obscura	+
51300	Neureclipsis sp	+
51600	Polycentropus sp	3+
52200	Cheumatopsyche sp	75+
52530	Hydropsyche depravata group	+
57900	Pycnopsyche sp	+
58505	Helicopsyche borealis	1+
59310	Mystacides sepulchralis	+
59570	Oecetis nocturna	1
64800	Uvarus sp	+
65800	Berosus sp	+
68130	Helichus sp	+
68601	Ancyronyx variegata	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	8+
69225	Optioservus fastiditus	+
69400	Stenelmis sp	1+
72340	Dixella sp	+
72700	Anopheles sp	+
77120	Ablabesmyia mallochi	28+
77750	Hayesomyia senata or Thienemannimyia norena	56+
77800	Helopelopia sp	28+
78101	Labrundinia becki	16
78140	Labrundinia pilosella	120
78450	Nilotanypus fimbriatus	80
80363	Corynoneura sp. 12	8
80370	Corynoneura lobata	88
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	28
82121	Thienemanniella lobapodema	176
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
82824	Cryptochironomus ponderosus	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	281
83300	Glyptotendipes (G.) sp	+
83840	Microtendipes pedellus group	28
84155	Paralauterborniella nigrohalteralis	+
84210	Paratendipes albimanus or P. duplicatus	+
84450	Polypedilum (Uresipedilum) flavum	224+
84460	Polypedilum (P.) fallax group	56
84470	Polypedilum (P.) illinoense	84+
84520	Polypedilum (Tripodura) halterale group	+
84540	Polypedilum (Tripodura) scalaenum group	28+
84700	Stenochironomus sp	+
84790	Tribelos fuscicorne	+
85201	Cladotanytarsus species group A	+
85264	Cladotanytarsus vanderwulpi group sp 4	+
85500	Paratanytarsus sp	309+
85625	Rheotanytarsus sp	56+
85720	Stempellinella fimbriata	24+
85800	Tanytarsus sp	56
85802	Tanytarsus n. sp. near curticornis	56
85821	Tanytarsus glabrescens group sp 7	673+
85840	Tanytarsus sepp	168
96900	Ferrissia sp	1+
98600	Sphaerium sp	+
99100	Pyganodon grandis	+
99160	Anodontoides ferussacianus	+
99240	Lasmigona complanata	+
99420	Amblema plicata plicata	+

Station: 500330 BEAN CREEK E OF POWERS @ U.S. RT. 20

Rivercode: 04-626-000 River Mile: 7.55

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
89	26	29	0	102	12,633	34	50	N/A	0.50 NORMAL

	Taxa	Quant/Qual
00401	Spongillidae	+
01320	Hydra sp	128
01801	Turbellaria	13+
03040	Fredericella sp	1+
03600	Oligochaeta	96
04760	Myzobdella reducta	+
05900	Lirceus sp	+
06810	Gammarus fasciatus	42+
08250	Orconectes (Procericambarus) rusticus	+
08601	Hydrachnidia	+
11130	Baetis intercalaris	101+
11150	Labiobaetis propinquus	+
11600	Paracloeodes fleeki	+
11650	Procloeon sp (w/ hindwing pads)	+
11670	Procloeon viridoculare	+
12200	Isonychia sp	+
13000	Leucrocuta sp	3
13100	Nixe sp	1+
13400	Stenacron sp	56+
13510	Maccaffertium exiguum	110+
13540	Maccaffertium mediopunctatum	13+
13570	Maccaffertium terminatum	1
16700	Tricorythodes sp	3,509+
17200	Caenis sp	+
18600	Ephemera sp	+
19102	Ephoron album	+
22001	Coenagrionidae	+
22300	Argia sp	8+
23909	Boyeria vinosa	+
24900	Gomphus sp	+
27500	Somatochlora sp	+
43570	Neoplea sp	+
45300	Sigara sp	+
50315	Chimarra obscura	+
51300	Neureclipsis sp	46+
51400	Nyctiophylax sp	1+
51600	Polycentropus sp	2+
52200	Cheumatopsyche sp	245+
52430	Ceratopsyche morosa group	76+
52520	Hydropsyche bidens	44
52530	Hydropsyche depravata group	8+
52570	Hydropsyche simulans	5+
53800	Hydroptila sp	272+
57900	Pycnopsyche sp	+
59001	Leptoceridae	64
59407	Nectopsyche candida	1+
59410	Nectopsyche diarina	+
60900	Peltodytes sp	+
65800	Berosus sp	+
67500	Laccobius sp	+
68130	Helichus sp	+
68601	Ancyronyx variegata	+
68700	Dubiraphia sp	32
68707	Dubiraphia quadrinotata	+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	69+
69400	Stenelmis sp	1+
74100	Simulium sp	+
77120	Ablabesmyia mallochi	259+
77500	Conchapelopia sp	259+
77800	Helopelopia sp	+
78655	Procladius (Holotanypus) sp	+
79085	Telopelopia okoboji	65
80370	Corynoneura lobata	64
80410	Cricotopus (C.) sp	+
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	65
82121	Thienemanniella lobapodema	160
82141	Thienemanniella xena	32
82730	Chironomus (C.) decorus group	65+
82820	Cryptochironomus sp	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	454+
83820	Microtendipes caelum (sensu Simpson & Bode, 1980)	+
84155	Paralauterborniella nigrohalteralis	+
84300	Phaenopsectra obediens group	65+
84450	Polypedilum (Uresipedilum) flavum	584+
84470	Polypedilum (P.) illinoense	+
84480	Polypedilum (P.) laetum group	+
84540	Polypedilum (Tripodura) scalaenum group	+
84612	Saetheria tylus	+
84700	Stenochironomus sp	+
84750	Stictochironomus sp	+
84790	Tribelos fuscicorne	+
84800	Tribelos jucundum	+
85230	Cladotanytarsus mancus group	+
85261	Cladotanytarsus venderwulpi	+
85265	Cladotanytarsus vanderwulpi group sp 5	+
85500	Paratanytarsus sp	259+
85615	Rheotanytarsus pellucidus	130
85625	Rheotanytarsus sp	1,556+
85800	Tanytarsus sp	65+
85821	Tanytarsus glabrescens group sp 7	2,075+
85840	Tanytarsus sepp	1,491+
94400	Fossaria sp	+
95100	Physella sp	+
96900	Ferrissia sp	37+
99100	Pyganodon grandis	+
99240	Lasmigona complanata	+
99420	Amblema plicata plicata	+
99440	Fusconaia flava	+
99700	Potamilus alatus	+
99860	Lampsilis radiata luteola	+

Station: P07S33 BEAN CREEK SE OF FAYETTE @ OLD ANGOLA RD.

Rivercode: 04-626-000 River Mile: 2.20

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
58	23	22	0	70	4,705	26	52	N/A	0.70 NORMAL

	Taxa	Quant/Qual
01320	Hydra sp	96
01801	Turbellaria	11+
03600	Oligochaeta	8
06810	Gammarus fasciatus	6+
08250	Orconectes (Procericambarus) rusticus	+
08601	Hydrachnidia	32
11130	Baetis intercalaris	480+
11620	Paracloeodes minutus	+
11670	Procloeon viridoculare	+
12200	Isonychia sp	6+
12912	Heptagenia elegantula	1
13000	Leucrocuta sp	256+
13400	Stenacron sp	36+
13510	Maccaffertium exiguum	322+
13540	Maccaffertium mediopunctatum	49
13561	Maccaffertium pulchellum	25
13570	Maccaffertium terminatum	31
16700	Tricorythodes sp	1,013+
17200	Caenis sp	1
22300	Argia sp	1+
23909	Boyeria vinosa	+
24900	Gomphus sp	+
34110	Acroneuria abnormis	+
50315	Chimarra obscura	2+
51300	Neureclipsis sp	1+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	728+
52430	Ceratopsyche morosa group	98+
52520	Hydropsyche bidens	+
52530	Hydropsyche depravata group	39+
52570	Hydropsyche simulans	61+
53800	Hydroptila sp	1+
55520	Brachycentrus numerosus	1+
57900	Pycnopsyche sp	+
59310	Mystacides sepulchralis	+
59407	Nectopsyche candida	+
59410	Nectopsyche diarina	+
68601	Ancyronyx variegata	1+
68708	Dubiraphia vittata group	+
68901	Macronychus glabratus	48+
69400	Stenelmis sp	+
74100	Simulium sp	9+
77500	Conchapelopia sp	+
78450	Nilotanypus fimbriatus	24
78600	Pentaneura inconspicua	13
80360	Corynoneura floridaensis	16
81231	Nanocladius (N.) crassicornus or N. (N.) rectinervis	13
81632	Parakiefferiella n.sp 2	+
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
82885	Cryptotendipes pseudotener	+
83040	Dicrotendipes neomodestus	+
83410	Harnischia curtilamellata	+
84116	Paracladopelma nereis	+
84155	Paralauterborniella nigrohalteralis	+
84300	Phaenopsectra obediens group	+
84450	Polypedilum (Uresipedilum) flavum	363+
84460	Polypedilum (P.) fallax group	13+
84540	Polypedilum (Tripodura) scalaenum group	+
85230	Cladotanytarsus mancus group	+
85625	Rheotanytarsus sp	847+
85800	Tanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	40+
85840	Tanytarsus sepp	13+
95100	Physella sp	+
98600	Sphaerium sp	+
99440	Fusconaia flava	+
99680	Leptodea fragilis	+
99700	Potamilus alatus	+
99860	Lampsilis radiata luteola	+

Station: P07W24 DEER CREEK DST. FAYETTE @ CO. RD. 23

Rivercode: 04-628-000 River Mile: 4.56

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
40	5	0	1	40		0		Low Fair	ABOVE NOR

	Taxa	Quant/Qual
01320	Hydra sp	+
01801	Turbellaria	+
03600	Oligochaeta	+
04664	Helobdella stagnalis	+
04935	Erpobdella punctata punctata	+
08240	Orconectes (Crokerinus) propinquus	+
11120	Baetis flavistriga	+
13521	Stenonema femoratum	+
21200	Calopteryx sp	+
22001	Coenagrionidae	+
52530	Hydropsyche depravata group	+
53501	Hydroptilidae	+
59500	Oecetis sp	+
60900	Peltodytes sp	+
69400	Stenelmis sp	+
72700	Anopheles sp	+
74100	Simulium sp	+
77500	Conchapelopia sp	+
78655	Procladius (Holotanypus) sp	+
78702	Psectrotanypus dyari	+
80420	Cricotopus (C.) bicinctus	+
80430	Cricotopus (C.) tremulus group	+
80740	Eukiefferiella claripennis group	+
82141	Thienemanniella xena	+
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
83040	Dicrotendipes neomodestus	+
83051	Dicrotendipes simpsoni	+
84210	Paratendipes albimanus or P. duplicatus	+
84315	Phaenopsectra flavipes	+
84450	Polypedilum (Uresipedilum) flavum	+
84460	Polypedilum (P.) fallax group	+
84470	Polypedilum (P.) illinoense	+
84750	Stictochironomus sp	+
85400	Micropsectra sp	+
85500	Paratanytarsus sp	+
85800	Tanytarsus sp	+
95100	Physella sp	+
96900	Ferrissia sp	+
98600	Sphaerium sp	+

Station: 302203 OLD BEAN CREEK NEAR THELMA @ CO. RD. 19

Rivercode: 04-632-000 River Mile: 6.22

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
39	6	2	1	39		2		Fair	ABOVE NOR

	Taxa	Quant/Qual
01801	Turbellaria	+
03600	Oligochaeta	+
05900	Lirceus sp	+
06810	Gammarus fasciatus	+
08250	Orconectes (Procericambarus) rusticus	+
11125	Labiobaetis frondalis	+
11200	Callibaetis sp	+
12912	Heptagenia elegantula	+
18708	Hexagenia bilineata	+
22001	Coenagrionidae	+
34500	Perlesta placida complex	+
45400	Trichocorixa sp	+
53800	Hydroptila sp	+
60900	Peltodytes sp	+
63300	Hydroporini	+
63900	Laccophilus sp	+
65800	Berosus sp	+
67800	Tropisternus sp	+
74501	Ceratopogonidae	+
77500	Conchapelopia sp	+
78500	Paramerina fragilis	+
79020	Tanypus neopunctipennis	+
80420	Cricotopus (C.) bicinctus	+
80510	Cricotopus (Isocladius) sylvestris group	+
82141	Thienemanniella xena	+
82730	Chironomus (C.) decorus group	+
82820	Cryptochironomus sp	+
84315	Phaenopsectra flavipes	+
84470	Polypedilum (P.) illinoense	+
84750	Stictochironomus sp	+
85400	Micropsectra sp	+
85625	Rheotanytarsus sp	+
85800	Tanytarsus sp	+
95100	Physella sp	+
96264	Planorbella (Pierosoma) pilsbryi	+
96900	Ferrissia sp	+
99100	Pyganodon grandis	+
99160	Anodontoides ferussacianus	+
99240	Lasmigona complanata	+

Station: P07S34 OLD BEAN CREEK SE OF FAYETTE @ OLD ANGOLA RD.

Rivercode: 04-632-000 River Mile: 1.85

Qual Taxa	Qual EPT	Qual Sensitive	Coldwater	Total Taxa	Total Number	Sensitive Taxa	ICI	Narrative	Flow
32	9	5	0	32		5		Fair	NORMAL

	Taxa	Quant/Qual
04686	Placobdella papillifera	+
05900	Lirceus sp	+
06810	Gammarus fasciatus	+
08200	Orconectes sp	+
11130	Baetis intercalaris	+
11670	Procloeon viridoculare	+
13400	Stenacron sp	+
13510	Maccaffertium exiguum	+
18750	Hexagenia limbata	+
21200	Calopteryx sp	+
22300	Argia sp	+
45400	Trichocorixa sp	+
47600	Sialis sp	+
50804	Lype diversa	+
51400	Nyctiophylax sp	+
52200	Cheumatopsyche sp	+
57900	Pycnopsyche sp	+
68901	Macronychus glabratus	+
77500	Conchapelopia sp	+
78655	Procladius (Holotanypus) sp	+
82885	Cryptotendipes pseudotener	+
83410	Harnischia curtilamellata	+
83840	Microtendipes pedellus group	+
84155	Paralauterborniella nigrohalteralis	+
84450	Polypedilum (Uresipedilum) flavum	+
84460	Polypedilum (P.) fallax group	+
84469	Polypedilum (P.) illinoense group	+
84790	Tribelos fuscicorne	+
84800	Tribelos jucundum	+
85625	Rheotanytarsus sp	+
85821	Tanytarsus glabrescens group sp 7	+
95100	Physella sp	+

Appendix B – Macroinvertebrate ICI and Metric Results

Table A . Invertebrate Community Index metrics for stations sampled in the

RM	Drainage Area (sq mi)	Number of Taxa: Total	Number of Taxa: Mayfly	Number of Taxa: Caddisfly	Number of Taxa: Dipteran	Percent Composition: Mayfly	Percent Composition: Caddisfly	Percent Composition: Tany-tarsini	Percent Composition: Other Dipt/NI	Percent Composition: Tolerant Organisms	QUAL EPT	Eco-region	ICI
04-600-000	**Tiffin River**												
47.54	337.0	30 (4)	6 (4)	6 (6)	11 (4)	36.1 (6)	34.5 (6)	12.6 (2)	13.5 (6)	0.5 (6)	22 (6)	ECBP	50
41.12	374.0	40 (6)	7 (4)	3 (4)	21 (6)	41.2 (6)	14.6 (4)	24.0 (4)	19.2 (6)	3.8 (4)	19 (6)	ECBP	50
35.28	407.0	35 (4)	4 (2)	3 (4)	23 (6)	12.6 (2)	21.4 (4)	16.1 (4)	46.2 (2)	8.9 (0)	13 (4)	ECBP	32
26.17	421.0	37 (6)	5 (2)	3 (4)	17 (6)	25.8 (4)	8.0 (2)	10.9 (2)	53.2 (0)	4.3 (4)	11 (2)	HELP	32
19.72	476.0	38 (6)	5 (2)	3 (4)	19 (6)	44.6 (6)	14.3 (4)	14.0 (2)	25.8 (4)	2.6 (6)	10 (2)	HELP	42
18.73	541.0	31 (4)	6 (4)	5 (4)	12 (4)	27.2 (4)	64.2 (6)	0.4 (2)	4.2 (6)	0.1 (6)	12 (4)	HELP	44
14.00	562.0	33 (4)	7 (4)	4 (4)	14 (6)	36.1 (6)	47.9 (6)	1.4 (2)	10.7 (6)	0.7 (6)	11 (2)	HELP	46
14.00	562.0	46 (6)	8 (4)	6 (6)	23 (6)	38.5 (6)	28.6 (6)	1.5 (2)	27.9 (4)	1.4 (6)	13 (4)	HELP	50
7.09	737.0	35 (6)	7 (4)	8 (6)	13 (6)	43.1 (6)	44.0 (6)	0.1 (2)	11.9 (6)	0.0 (6)	17 (6)	HELP	54
7.09	737.0	40 (6)	6 (4)	4 (4)	21 (6)	55.5 (6)	24.0 (4)	5.0 (2)	14.5 (6)	0.5 (6)	15 (4)	HELP	48
0.89	775.0	31 (4)	3 (2)	3 (4)	11 (4)	0.3 (2)	0.4 (0)	0.9 (2)	97.7 (0)	27.9 (0)	4 (0)	HELP	18
04-605-000	**Mud Creek**												
1.50	58.0	35 (4)	8 (6)	1 (2)	17 (4)	36.7 (6)	1.7 (2)	20.8 (4)	36.4 (4)	3.7 (6)	15 (6)	HELP	44
04-606-000	**Lost Creek**												
1.41	25.6	34 (4)	5 (4)	2 (4)	18 (4)	3.0 (2)	5.8 (4)	57.3 (6)	33.6 (4)	2.2 (6)	16 (6)	HELP	44
04-609-000	**Lick Creek**												
17.66	30.0	36 (4)	4 (2)	2 (4)	18 (4)	1.1 (2)	0.9 (2)	45.8 (6)	51.4 (2)	7.4 (4)	13 (6)	ECBP	36
10.05	58.5	33 (4)	1 (0)	2 (4)	21 (6)	0.2 (2)	2.3 (2)	53.8 (6)	43.5 (4)	17.6 (2)	5 (2)	HELP	32
1.23	105.0	36 (4)	6 (4)	4 (4)	16 (4)	18.0 (4)	40.2 (6)	27.3 (4)	13.8 (6)	2.1 (6)	16 (6)	HELP	48
04-609-001	**Prairie Creek**												
3.40	26.0	27 (4)	3 (2)	2 (4)	14 (4)	0.8 (2)	0.3 (2)	59.3 (6)	37.2 (4)	1.7 (6)	8 (4)	HELP	38
04-612-000	**Miller Creek**												
0.50	20.9	47 (6)	6 (4)	4 (6)	30 (6)	5.6 (2)	0.9 (2)	36.0 (6)	55.1 (2)	6.1 (6)	16 (6)	ECBP	46
04-614-000	**Brush Creek**												
13.28	34.6	28 (4)	0 (0)	0 (0)	19 (4)	0.0 (0)	0.0 (0)	17.3 (4)	80.7 (0)	40.4 (0)	3 (0)	HELP	12
9.11	54.0	34 (4)	3 (2)	2 (4)	22 (6)	56.8 (6)	18.2 (6)	6.5 (2)	17.0 (6)	2.9 (6)	5 (2)	HELP	44
5.76	62.0	31 (4)	3 (2)	4 (6)	15 (4)	4.8 (2)	1.6 (2)	31.6 (6)	56.5 (2)	5.1 (6)	7 (2)	HELP	36
1.05	65.0	30 (4)	2 (0)	1 (2)	21 (6)	39.8 (6)	3.3 (2)	20.4 (4)	34.4 (4)	4.7 (6)	8 (2)	HELP	36
04-617-000	**Beaver Creek**												
12.66	29.5	39 (6)	8 (6)	1 (2)	27 (6)	10.5 (2)	4.3 (4)	52.8 (6)	32.1 (4)	3.1 (6)	17 (6)	ECBP	48
7.52	36.0	48 (6)	9 (6)	4 (6)	26 (6)	3.8 (2)	3.4 (2)	35.9 (6)	55.9 (2)	7.1 (4)	23 (6)	ECBP	46
2.90	41.0	38 (6)	5 (2)	2 (4)	24 (6)	14.6 (4)	12.8 (6)	27.0 (4)	43.0 (4)	6.5 (6)	17 (6)	HELP	48
0.61	44.8	30 (4)	6 (4)	2 (4)	14 (4)	25.2 (4)	3.0 (2)	24.8 (4)	46.0 (2)	3.4 (6)	11 (4)	HELP	38
04-624-000	**Mill Creek**												
1.85	39.0	44 (6)	9 (6)	4 (6)	23 (6)	14.8 (4)	2.5 (2)	41.1 (6)	41.2 (4)	4.3 (6)	18 (6)	ECBP	52

Table A . Invertebrate Community Index metrics for stations sampled in the

RM	Drainage Area (sq mi)	Number of Taxa				Percent Composition					QUAL EPT	Eco-region	ICI
		Total	Mayfly	Caddisfly	Dipteran	Mayfly	Caddisfly	Tany-tarsini	Other Dipt/NI	Tolerant Organisms			
04-626-000 Bean Creek													
7.55	206.0	46 (6)	8 (4)	11 (6)	17 (4)	30.0 (4)	6.1 (2)	44.1 (6)	18.9 (6)	1.6 (6)	26 (6)	ECBP	50
2.20	246.0	37 (6)	11 (6)	8 (6)	10 (2)	47.2 (6)	19.8 (4)	19.1 (4)	12.8 (6)	0.5 (6)	23 (6)	ECBP	52

Appendix C – Fish Species and Abundance Results

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2013**
River Mile: **47.50**	Location: Co. Rd. G	Date Range: 07/31/2013
Time Fished: 2761 sec	Drainage: 337.0 sq mi	
Dist Fished: 0.50 km	Basin: Maumee River No of Passes: 1	Sampler Type: A

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		2	4.00	0.48	0.37	0.49	93.00
Redfin Pickerel		P	M	P	2	4.00	0.48	0.08	0.10	19.00
Northern Pike	F	P	M		2	4.00	0.48	0.23	0.30	56.50
Silver Redhorse	R	I	S	M	17	34.00	4.09	7.04	9.33	206.94
Golden Redhorse	R	I	S	M	64	128.00	15.38	7.62	10.10	59.54
Shorthead Redhorse	R	I	S	M	5	10.00	1.20	0.58	0.76	57.60
Northern Hog Sucker	R	I	S	M	17	34.00	4.09	1.00	1.33	29.47
White Sucker	W	O	S	T	1	2.00	0.24	0.35	0.46	175.00
Spotted Sucker	R	I	S		2	4.00	0.48	0.51	0.67	126.50
Common Carp	G	O	M	T	6	12.00	1.44	20.40	27.05	1,700.00
River Chub	N	I	N	I	2	4.00	0.48	0.15	0.20	37.00
Emerald Shiner	N	I	M		5	10.00	1.20	0.04	0.06	4.40
Redfin Shiner	N	I	N		8	16.00	1.92	0.03	0.04	1.71
Spotfin Shiner	N	I	M		144	288.00	34.62	0.49	0.65	1.70
Sand Shiner	N	I	M	M	7	14.00	1.68	0.02	0.03	1.43
Bluntnose Minnow	N	O	C	T	50	100.00	12.02	0.23	0.31	2.32
Channel Catfish	F		C		12	24.00	2.88	6.15	8.15	256.17
Black Crappie	S	I	C		1	2.00	0.24	0.03	0.04	14.00
Rock Bass	S	C	C		11	22.00	2.64	1.07	1.41	48.50
Smallmouth Bass	F	C	C	M	8	16.00	1.92	1.34	1.78	84.00
Green Sunfish	S	I	C	T	22	44.00	5.29	0.63	0.84	14.38
Bluegill Sunfish	S	I	C	P	1	2.00	0.24	0.02	0.03	10.00
Orangespotted Sunfish	S	I	C		2	4.00	0.48	0.05	0.07	13.00
Green Sf X Hybrid					1	2.00	0.24	0.08	0.10	38.00
Dusky Darter	D	I	S	M	5	10.00	1.20	0.09	0.12	8.80
Blackside Darter	D	I	S		10	20.00	2.40	0.09	0.12	4.60
Freshwater Drum			M	P	9	18.00	2.16	26.75	35.47	1,486.11
	Mile Total				416	832.00		75.42		
	Number of Species				26					
	Number of Hybrids				1					

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2013**
River Mile: **41.10**	Location: Co. Rd. 1-25 covered bridge	Date Range: 08/08/2013
Time Fished: 5168 sec	Drainage: 374.0 sq mi	Thru: 09/25/2013
Dist Fished: 1.00 km	Basin: Maumee River No of Passes: 2	Sampler Type: A

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		1	1.00	0.14	0.02	0.03	16.00
Northern Pike	F	P	M		1	1.00	0.14	0.05	0.09	50.00
Silver Redhorse	R	I	S	M	59	59.00	8.29	8.95	17.00	151.69
Golden Redhorse	R	I	S	M	117	117.00	16.43	10.37	19.70	88.61
Shorthead Redhorse	R	I	S	M	33	33.00	4.63	2.64	5.01	79.85
Northern Hog Sucker	R	I	S	M	20	20.00	2.81	1.07	2.03	53.50
White Sucker	W	O	S	T	2	2.00	0.28	0.43	0.81	212.50
Spotted Sucker	R	I	S		2	2.00	0.28	0.07	0.13	33.00
Common Carp	G	O	M	T	14	14.00	1.97	10.30	19.56	735.46
River Chub	N	I	N	I	3	3.00	0.42	0.11	0.21	37.33
Creek Chub	N	G	N	T	1	1.00	0.14	0.00	0.01	3.00
Suckermouth Minnow	N	I	S		5	5.00	0.70	0.01	0.02	2.40
Emerald Shiner	N	I	M		22	22.00	3.09	0.13	0.24	5.68
Rosyface Shiner	N	I	S	I	1	1.00	0.14	0.00	0.00	2.00
Redfin Shiner	N	I	N		11	11.00	1.54	0.02	0.03	1.45
Common Shiner	N	I	S		1	1.00	0.14	0.00	0.00	1.00
Spotfin Shiner	N	I	M		133	133.00	18.68	0.25	0.48	1.89
Sand Shiner	N	I	M	M	2	2.00	0.28	0.00	0.01	2.00
Bluntnose Minnow	N	O	C	T	152	152.00	21.35	0.45	0.85	2.95
Channel Catfish	F		C		38	38.00	5.34	5.15	9.78	135.53
Flathead Catfish	F	P	C		1	1.00	0.14	0.10	0.19	100.00
Stonecat Madtom		I	C	I	1	1.00	0.14	0.04	0.07	36.00
Brindled Madtom		I	C	I	3	3.00	0.42	0.01	0.02	3.33
Rock Bass	S	C	C		27	27.00	3.79	1.22	2.32	45.30
Smallmouth Bass	F	C	C	M	16	16.00	2.25	2.70	5.14	169.00
Largemouth Bass	F	C	C		1	1.00	0.14	0.01	0.02	9.00
Green Sunfish	S	I	C	T	13	13.00	1.83	0.14	0.27	11.00
Bluegill Sunfish	S	I	C	P	2	2.00	0.28	0.11	0.21	54.50
Orangespotted Sunfish	S	I	C		6	6.00	0.84	0.04	0.08	7.00
Dusky Darter	D	I	S	M	1	1.00	0.14	0.00	0.00	2.00
Blackside Darter	D	I	S		6	6.00	0.84	0.02	0.03	3.00
Johnny Darter	D	I	C		6	6.00	0.84	0.01	0.02	2.00
Freshwater Drum			M	P	11	11.00	1.54	8.23	15.63	747.73
	Mile Total				712	712.00		52.63		
	Number of Species				33					
	Number of Hybrids				0					

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2013**
River Mile: **35.20**	Location: St. Rt. 191 (Stryker)	Date Range: 07/19/2013
Time Fished: 5316 sec	Drainage: 407.0 sq mi	Thru: 09/20/2013
Dist Fished: 1.00 km	Basin: Maumee River No of Passes: 2	Sampler Type: A

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		6	6.00	0.90	1.01	0.95	167.50
Redfin Pickerel		P	M	P	4	4.00	0.60	0.06	0.06	15.50
Quillback	C	O	M		3	3.00	0.45	1.28	1.20	425.33
Silver Redhorse	R	I	S	M	69	69.00	10.31	30.78	28.98	446.09
Golden Redhorse	R	I	S	M	110	110.00	16.44	10.37	9.76	94.25
Shorthead Redhorse	R	I	S	M	9	9.00	1.35	1.11	1.05	123.67
Northern Hog Sucker	R	I	S	M	10	10.00	1.49	0.57	0.54	57.40
Spotted Sucker	R	I	S		13	13.00	1.94	0.46	0.44	35.64
Common Carp	G	O	M	T	13	13.00	1.94	36.53	34.39	2,809.62
Suckermouth Minnow	N	I	S		1	1.00	0.15	0.00	0.00	2.00
Emerald Shiner	N	I	M		5	5.00	0.75	0.04	0.03	7.40
Redfin Shiner	N	I	N		1	1.00	0.15	0.00	0.00	2.00
Spotfin Shiner	N	I	M		118	118.00	17.64	0.19	0.17	1.57
Sand Shiner	N	I	M	M	1	1.00	0.15	0.00	0.00	2.00
Fathead Minnow	N	O	C	T	1	1.00	0.15	0.00	0.00	2.00
Bluntnose Minnow	N	O	C	T	184	184.00	27.50	0.37	0.34	1.99
Channel Catfish	F		C		27	27.00	4.04	6.75	6.36	250.16
Flathead Catfish	F	P	C		4	4.00	0.60	4.98	4.68	1,243.75
Tadpole Madtom		I	C		1	1.00	0.15	0.00	0.00	4.00
White Crappie	S	I	C		1	1.00	0.15	0.60	0.56	600.00
Black Crappie	S	I	C		2	2.00	0.30	0.20	0.19	100.00
Rock Bass	S	C	C		6	6.00	0.90	0.18	0.17	30.00
Largemouth Bass	F	C	C		3	3.00	0.45	0.41	0.39	136.67
Green Sunfish	S	I	C	T	6	6.00	0.90	0.06	0.06	10.67
Bluegill Sunfish	S	I	C	P	16	16.00	2.39	0.51	0.48	31.69
Orangespotted Sunfish	S	I	C		33	33.00	4.93	0.27	0.26	8.21
Blackside Darter	D	I	S		12	12.00	1.79	0.06	0.06	5.08
Logperch	D	I	S	M	1	1.00	0.15	0.02	0.02	18.00
Johnny Darter	D	I	C		3	3.00	0.45	0.01	0.01	2.00
Freshwater Drum			M	P	6	6.00	0.90	9.40	8.85	1,566.67
	Mile Total				669	669.00		106.21		
	Number of Species				30					
	Number of Hybrids				0					

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2013**
River Mile: **34.00**	Location: Co. Rd. F	Date Range: 07/18/2013
Time Fished: 5523 sec	Drainage: 412.0 sq mi	Thru: 09/20/2013
Dist Fished: 1.00 km	Basin: Maumee River No of Passes: 2	Sampler Type: A

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	4	4.00	0.96	0.10	0.10	26.00
Bigmouth Buffalo	C	I	M		5	5.00	1.20	13.75	12.68	2,750.00
Quillback	C	O	M		6	6.00	1.44	4.85	4.47	808.33
Silver Redhorse	R	I	S	M	43	43.00	10.34	26.37	24.31	613.32
Golden Redhorse	R	I	S	M	47	47.00	11.30	8.35	7.70	177.62
Shorthead Redhorse	R	I	S	M	12	12.00	2.88	2.23	2.06	186.08
Spotted Sucker	R	I	S		19	19.00	4.57	1.66	1.53	87.44
Common Carp	G	O	M	T	10	10.00	2.40	28.20	26.00	2,820.00
Emerald Shiner	N	I	M		20	20.00	4.81	0.15	0.13	7.30
Redfin Shiner	N	I	N		3	3.00	0.72	0.01	0.01	4.00
Spotfin Shiner	N	I	M		42	42.00	10.10	0.14	0.13	3.24
Bluntnose Minnow	N	O	C	T	33	33.00	7.93	0.11	0.10	3.28
Common Carp X Goldfish	G	O		T	1	1.00	0.24	1.63	1.50	1,625.00
Channel Catfish	F		C		21	21.00	5.05	4.96	4.57	235.95
Yellow Bullhead		I	C	T	1	1.00	0.24	0.05	0.05	54.00
Flathead Catfish	F	P	C		4	4.00	0.96	0.64	0.59	158.75
Blackstripe Topminnow		I	M		2	2.00	0.48	0.01	0.00	2.50
White Crappie	S	I	C		1	1.00	0.24	0.13	0.12	125.00
Black Crappie	S	I	C		3	3.00	0.72	0.55	0.51	183.33
Rock Bass	S	C	C		12	12.00	2.88	1.15	1.06	95.83
Smallmouth Bass	F	C	C	M	1	1.00	0.24	0.08	0.07	75.00
Largemouth Bass	F	C	C		1	1.00	0.24	0.23	0.21	225.00
Green Sunfish	S	I	C	T	48	48.00	11.54	0.44	0.41	9.17
Bluegill Sunfish	S	I	C	P	33	33.00	7.93	1.21	1.11	36.58
Orangespotted Sunfish	S	I	C		22	22.00	5.29	0.95	0.87	43.12
Blackside Darter	D	I	S		5	5.00	1.20	0.04	0.03	7.00
Freshwater Drum			M	P	17	17.00	4.09	10.53	9.70	619.12
	Mile Total				416	416.00		108.48		
	Number of Species				26					
	Number of Hybrids				1					

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2013**
River Mile: **26.10**	Location: Oak Grove Church Rd.	Date Range: 08/07/2013
Time Fished: 5388 sec	Drainage: 421.0 sq mi	Thru: 09/25/2013
Dist Fished: 0.98 km	Basin: Maumee River No of Passes: 2	Sampler Type: A

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		9	8.66	1.40	0.56	0.42	65.67
Redfin Pickerel		P	M	P	1	0.94	0.15	0.01	0.01	10.00
Northern Pike	F	P	M		2	1.89	0.31	2.33	1.75	1,236.50
Bigmouth Buffalo	C	I	M		4	4.11	0.66	8.26	6.19	2,082.00
Smallmouth Buffalo	C	I	M		2	1.89	0.31	2.36	1.77	1,250.00
Quillback	C	O	M		1	0.94	0.15	0.78	0.58	825.00
Silver Redhorse	R	I	S	M	46	47.42	7.67	25.75	19.29	542.30
Golden Redhorse	R	I	S	M	49	51.26	8.29	6.09	4.56	117.76
Shorthead Redhorse	R	I	S	M	12	12.33	1.99	2.42	1.82	193.75
Spotted Sucker	R	I	S		37	38.26	6.19	2.76	2.07	72.30
Common Carp	G	O	M	T	24	24.99	4.04	45.43	34.04	1,798.83
Emerald Shiner	N	I	M		9	9.16	1.48	0.05	0.04	5.78
Redfin Shiner	N	I	N		2	2.05	0.33	0.01	0.00	3.00
Spotfin Shiner	N	I	M		101	107.69	17.43	0.20	0.15	1.84
Fathead Minnow	N	O	C	T	1	1.11	0.18	0.00	0.00	1.00
Bluntnose Minnow	N	O	C	T	83	86.86	14.06	0.19	0.14	2.16
Channel Catfish	F		C		67	68.07	11.02	8.88	6.65	126.80
Brindled Madtom		I	C	I	1	1.11	0.18	0.00	0.00	2.00
Tadpole Madtom		I	C		1	1.11	0.18	0.00	0.00	4.00
Black Crappie	S	I	C		2	1.89	0.31	0.08	0.06	41.00
Rock Bass	S	C	C		11	11.05	1.79	0.89	0.66	78.45
Green Sunfish	S	I	C	T	10	10.27	1.66	0.15	0.11	14.40
Bluegill Sunfish	S	I	C	P	52	52.91	8.56	2.00	1.50	37.44
Orangespotted Sunfish	S	I	C		8	8.22	1.33	0.06	0.04	7.25
Blackside Darter	D	I	S		10	10.78	1.74	0.04	0.03	3.30
Logperch	D	I	S	M	4	4.44	0.72	0.04	0.03	10.00
Johnny Darter	D	I	C		7	7.61	1.23	0.01	0.01	1.14
Sauger X Walleye	E	P			2	2.05	0.33	2.20	1.65	1,075.00
Freshwater Drum			M	P	38	38.87	6.29	21.94	16.44	564.28
	Mile Total				596	617.95		133.47		
	Number of Species				28					
	Number of Hybrids				1					

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2013**
River Mile: **19.70**	Location: Co. Rd. C	Date Range: 08/07/2013
Time Fished: 5426 sec	Drainage: 476.0 sq mi	Thru: 09/25/2013
Dist Fished: 1.00 km	Basin: Maumee River No of Passes: 2	Sampler Type: A

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		6	6.00	1.22	0.61	1.00	101.83
Silver Redhorse	R	I	S	M	6	6.00	1.22	7.05	11.58	1,175.00
Golden Redhorse	R	I	S	M	24	24.00	4.88	3.09	5.08	128.88
Shorthead Redhorse	R	I	S	M	7	7.00	1.42	0.56	0.92	80.29
Northern Hog Sucker	R	I	S	M	13	13.00	2.64	0.98	1.61	75.27
Spotted Sucker	R	I	S		21	21.00	4.27	0.97	1.60	46.38
Common Carp	G	O	M	T	7	7.00	1.42	13.33	21.89	1,903.57
Suckermouth Minnow	N	I	S		1	1.00	0.20	0.00	0.00	1.00
Emerald Shiner	N	I	M		17	17.00	3.46	0.10	0.16	5.76
Redfin Shiner	N	I	N		5	5.00	1.02	0.01	0.02	2.40
Spotfin Shiner	N	I	M		86	86.00	17.48	0.20	0.33	2.34
Mimic Shiner	N	I	M	I	1	1.00	0.20	0.00	0.00	2.00
Bluntnose Minnow	N	O	C	T	72	72.00	14.63	0.19	0.31	2.60
Channel Catfish	F		C		64	64.00	13.01	12.51	20.55	195.43
Flathead Catfish	F	P	C		3	3.00	0.61	0.31	0.51	104.00
Brindled Madtom		I	C	I	1	1.00	0.20	0.01	0.01	6.00
Tadpole Madtom		I	C		1	1.00	0.20	0.00	0.00	1.00
Blackstripe Topminnow		I	M		2	2.00	0.41	0.01	0.01	3.00
Black Crappie	S	I	C		3	3.00	0.61	0.31	0.51	103.67
Rock Bass	S	C	C		4	4.00	0.81	0.22	0.36	55.50
Green Sunfish	S	I	C	T	9	9.00	1.83	0.07	0.11	7.44
Bluegill Sunfish	S	I	C	P	36	36.00	7.32	1.24	2.04	34.45
Orangespotted Sunfish	S	I	C		48	48.00	9.76	0.32	0.52	6.58
Blackside Darter	D	I	S		5	5.00	1.02	0.03	0.06	6.80
Logperch	D	I	S	M	3	3.00	0.61	0.03	0.05	10.67
Johnny Darter	D	I	C		5	5.00	1.02	0.01	0.02	2.00
Freshwater Drum			M	P	42	42.00	8.54	18.70	30.73	445.33
	Mile Total				492	492.00		60.86		
	Number of Species				27					
	Number of Hybrids				0					

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2012**
River Mile: **18.70**	Location: St. Rt. 191 (evansport)	Date Range: 08/31/2012
Time Fished: 5710 sec	Drainage: 542.0 sq mi	Thru: 10/02/2012
Dist Fished: 0.40 km	Basin: Maumee River No of Passes: 2	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		15	11.25	4.16	0.18	0.47	16.27
Silver Redhorse	R	I	S	M	4	3.00	1.11	0.49	1.25	161.75
Shorthead Redhorse	R	I	S	M	3	2.25	0.83	0.57	1.47	254.00
Northern Hog Sucker	R	I	S	M	1	0.75	0.28	0.02	0.06	30.00
Spotted Sucker	R	I	S		7	5.25	1.94	0.88	2.27	168.14
Common Carp	G	O	M	T	10	7.50	2.77	19.51	50.19	2,600.70
Creek Chub	N	G	N	T	2	1.50	0.55	0.01	0.01	3.50
Emerald Shiner	N	I	M		94	70.50	26.04	0.23	0.59	3.23
Redfin Shiner	N	I	N		1	0.75	0.28	0.00	0.00	2.00
Spotfin Shiner	N	I	M		28	21.00	7.76	0.05	0.13	2.39
Sand Shiner	N	I	M	M	1	0.75	0.28	0.00	0.00	2.00
Ghost Shiner	N	I	M		4	3.00	1.11	0.01	0.02	2.00
Bluntnose Minnow	N	O	C	T	71	53.25	19.67	0.04	0.11	0.80
Channel Catfish	F		C		54	40.50	14.96	10.99	28.27	271.28
Flathead Catfish	F	P	C		6	4.50	1.66	3.05	7.86	678.33
Brindled Madtom		I	C	I	2	1.50	0.55	0.01	0.03	8.00
Tadpole Madtom		I	C		1	0.75	0.28	0.00	0.01	6.00
White Crappie	S	I	C		5	3.75	1.39	0.08	0.21	22.00
Rock Bass	S	C	C		2	1.50	0.55	0.07	0.19	49.00
Green Sunfish	S	I	C	T	3	2.25	0.83	0.04	0.10	17.67
Bluegill Sunfish	S	I	C	P	28	21.00	7.76	0.56	1.44	26.61
Orangespotted Sunfish	S	I	C		2	1.50	0.55	0.01	0.03	7.00
Dusky Darter	D	I	S	M	1	0.75	0.28	0.01	0.02	12.00
Blackside Darter	D	I	S		4	3.00	1.11	0.02	0.05	6.25
Johnny Darter	D	I	C		2	1.50	0.55	0.00	0.01	1.50
Freshwater Drum			M	P	10	7.50	2.77	2.03	5.22	270.50
	Mile Total				361	270.75		38.87		
	Number of Species				26					
	Number of Hybrids				0					

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2012**
River Mile: **14.00**	Location: Stever Rd. (Evansport)	Date Range: 08/31/2012
Time Fished: 3910 sec	Drainage: 562.0 sq mi	Thru: 10/02/2012
Dist Fished: 0.40 km	Basin: Maumee River No of Passes: 2	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		80	60.00	5.35	0.69	4.53	11.45
Silver Redhorse	R	I	S	M	1	0.75	0.07	0.38	2.52	510.00
Shorthead Redhorse	R	I	S	M	18	13.50	1.20	1.05	6.96	78.11
Northern Hog Sucker	R	I	S	M	17	12.75	1.14	0.50	3.28	38.94
White Sucker	W	O	S	T	1	0.75	0.07	0.01	0.04	7.00
Spotted Sucker	R	I	S		2	1.50	0.13	0.04	0.25	25.00
River Chub	N	I	N	I	1	0.75	0.07	0.04	0.23	47.00
Creek Chub	N	G	N	T	3	2.25	0.20	0.00	0.03	2.00
Suckermouth Minnow	N	I	S		4	3.00	0.27	0.02	0.11	5.25
Emerald Shiner	N	I	M		241	180.75	16.12	0.50	3.32	2.78
Redfin Shiner	N	I	N		3	2.25	0.20	0.00	0.03	1.67
Spotfin Shiner	N	I	M		437	327.75	29.23	0.62	4.10	1.90
Sand Shiner	N	I	M	M	174	130.50	11.64	0.19	1.23	1.43
Ghost Shiner	N	I	M		102	76.50	6.82	0.07	0.45	0.89
Bluntnose Minnow	N	O	C	T	200	150.00	13.38	0.23	1.53	1.54
Channel Catfish	F		C		57	42.75	3.81	5.50	36.28	128.61
Yellow Bullhead		I	C	T	2	1.50	0.13	0.05	0.35	35.00
Flathead Catfish	F	P	C		5	3.75	0.33	2.01	13.27	536.40
Brindled Madtom		I	C	I	7	5.25	0.47	0.02	0.10	2.86
Blackstripe Topminnow		I	M		2	1.50	0.13	0.00	0.02	1.50
Brook Silverside		I	M	M	13	9.75	0.87	0.01	0.08	1.23
White Crappie	S	I	C		3	2.25	0.20	0.35	2.30	154.67
Black Crappie	S	I	C		1	0.75	0.07	0.12	0.77	155.00
Largemouth Bass	F	C	C		1	0.75	0.07	0.09	0.62	125.00
Green Sunfish	S	I	C	T	7	5.25	0.47	0.15	1.00	28.89
Bluegill Sunfish	S	I	C	P	23	17.25	1.54	0.60	3.95	34.70
Orangespotted Sunfish	S	I	C		58	43.50	3.88	0.31	2.07	7.21
Dusky Darter	D	I	S	M	2	1.50	0.13	0.02	0.11	11.00
Blackside Darter	D	I	S		8	6.00	0.54	0.02	0.13	3.25
Logperch	D	I	S	M	9	6.75	0.60	0.03	0.19	4.33
Eastern Sand Darter [S]	D	I	S	R	1	0.75	0.07	0.00	0.01	2.00
Johnny Darter	D	I	C		1	0.75	0.07	0.00	0.01	2.00
Freshwater Drum			M	P	11	8.25	0.74	1.54	10.17	186.82
	Mile Total				1,495	1,121.25		15.16		
	Number of Species				33					
	Number of Hybrids				0					

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2013**
River Mile: **14.00**	Location: Stever Rd. (Evansport)	Date Range: 07/31/2013
Time Fished: 5341 sec	Drainage: 562.0 sq mi	Thru: 09/26/2013
Dist Fished: 0.80 km	Basin: Maumee River No of Passes: 2	Sampler Type: A

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		6	7.50	0.98	0.22	0.24	29.33
Silver Redhorse	R	I	S	M	6	7.50	0.98	9.84	10.57	1,312.50
Golden Redhorse	R	I	S	M	6	7.50	0.98	1.66	1.78	221.50
Shorthead Redhorse	R	I	S	M	22	27.50	3.59	1.22	1.31	44.32
Northern Hog Sucker	R	I	S	M	1	1.25	0.16	0.13	0.13	100.00
Spotted Sucker	R	I	S		6	7.50	0.98	0.49	0.52	64.83
Common Carp	G	O	M	T	12	15.00	1.96	17.73	19.04	1,182.08
Goldfish	G	O	M	T	1	1.25	0.16	0.02	0.02	12.00
Hornyhead Chub	N	I	N	I	2	2.50	0.33	0.02	0.02	9.00
Creek Chub	N	G	N	T	1	1.25	0.16	0.00	0.00	3.00
Suckermouth Minnow	N	I	S		4	5.00	0.65	0.03	0.03	5.75
Emerald Shiner	N	I	M		115	143.75	18.79	0.65	0.70	4.53
Redfin Shiner	N	I	N		3	3.75	0.49	0.01	0.02	3.67
Spotfin Shiner	N	I	M		101	126.25	16.50	0.33	0.35	2.61
Sand Shiner	N	I	M	M	6	7.50	0.98	0.01	0.01	1.50
Ghost Shiner	N	I	M		20	25.00	3.27	0.04	0.04	1.40
Silverjaw Minnow	N	I	M		1	1.25	0.16	0.00	0.00	2.00
Bluntnose Minnow	N	O	C	T	123	153.75	20.10	0.11	0.12	0.70
Central Stoneroller	N	H	N		2	2.50	0.33	0.01	0.01	3.00
Channel Catfish	F		C		72	90.00	11.76	19.61	21.06	217.92
Flathead Catfish	F	P	C		4	5.00	0.65	19.43	20.86	3,885.75
Brindled Madtom		I	C	I	1	1.25	0.16	0.00	0.00	2.00
Tadpole Madtom		I	C		1	1.25	0.16	0.00	0.00	2.00
Blackstripe Topminnow		I	M		1	1.25	0.16	0.00	0.00	1.00
White Crappie	S	I	C		2	2.50	0.33	0.49	0.53	197.50
Black Crappie	S	I	C		1	1.25	0.16	0.25	0.27	200.00
Rock Bass	S	C	C		1	1.25	0.16	0.01	0.01	10.00
Green Sunfish	S	I	C	T	6	7.50	0.98	0.11	0.11	14.00
Bluegill Sunfish	S	I	C	P	4	5.00	0.65	0.16	0.17	32.25
Orangespotted Sunfish	S	I	C		24	30.00	3.92	0.14	0.15	4.71
Redear Sunfish	E	I	C		1	1.25	0.16	0.03	0.03	24.00
Blackside Darter	D	I	S		2	2.50	0.33	0.02	0.02	7.00
Logperch	D	I	S	M	4	5.00	0.65	0.05	0.05	9.50
Johnny Darter	D	I	C		2	2.50	0.33	0.01	0.01	2.00
Greenside Darter	D	I	S	M	1	1.25	0.16	0.01	0.01	4.00
Freshwater Drum			M	P	47	58.75	7.68	20.31	21.81	345.74
	Mile Total				612	765.00		93.14		
	Number of Species				36					
	Number of Hybrids				0					

Species List

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2012**
River Mile: **7.10**	Location: Evansport Rd.	Date Range: 08/31/2012
Time Fished: 5846 sec	Drainage: 737.0 sq mi	Thru: 10/02/2012
Dist Fished: 0.45 km	Basin: Maumee River No of Passes: 2	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		212	134.70	9.19	1.60	10.96	11.86
Golden Redhorse	R	I	S	M	9	5.40	0.37	0.63	4.29	115.78
Shorthead Redhorse	R	I	S	M	6	4.50	0.31	0.06	0.38	12.17
Northern Hog Sucker	R	I	S	M	40	27.45	1.87	1.03	7.07	37.18
Spotted Sucker	R	I	S		2	1.20	0.08	0.03	0.21	25.50
Hornyhead Chub	N	I	N	I	29	19.80	1.35	0.14	0.93	6.79
River Chub	N	I	N	I	2	1.20	0.08	0.03	0.21	25.50
Creek Chub	N	G	N	T	1	0.75	0.05	0.01	0.06	12.00
Suckermouth Minnow	N	I	S		23	16.65	1.14	0.10	0.68	5.78
Emerald Shiner	N	I	M		138	92.25	6.30	0.33	2.27	3.58
Redfin Shiner	N	I	N		2	1.50	0.10	0.00	0.02	2.00
Common Shiner	N	I	S		1	0.60	0.04	0.00	0.02	4.00
Spotfin Shiner	N	I	M		133	94.80	6.47	0.21	1.42	2.22
Sand Shiner	N	I	M	M	132	95.70	6.53	0.15	1.00	1.51
Ghost Shiner	N	I	M		11	8.10	0.55	0.01	0.08	1.45
Fathead Minnow	N	O	C	T	1	0.60	0.04	0.00	0.01	2.00
Bluntnose Minnow	N	O	C	T	1,155	741.15	50.58	1.03	7.04	1.37
Channel Catfish	F		C		88	58.65	4.00	6.13	42.04	102.59
Yellow Bullhead		I	C	T	3	2.10	0.14	0.10	0.67	45.67
Flathead Catfish	F	P	C		5	3.30	0.23	0.30	2.08	89.80
Stonecat Madtom		I	C	I	6	4.05	0.28	0.04	0.25	8.67
Brindled Madtom		I	C	I	20	14.55	0.99	0.09	0.58	5.75
Blackstripe Topminnow		I	M		6	3.75	0.26	0.00	0.03	1.00
Brook Silverside		I	M	M	5	3.45	0.24	0.01	0.03	1.40
White Crappie	S	I	C		1	0.75	0.05	0.04	0.27	52.00
Black Crappie	S	I	C		6	4.05	0.28	0.36	2.44	92.17
Rock Bass	S	C	C		1	0.60	0.04	0.05	0.33	81.00
Smallmouth Bass	F	C	C	M	1	0.60	0.04	0.05	0.37	90.00
Green Sunfish	S	I	C	T	15	9.45	0.64	0.15	1.02	15.87
Bluegill Sunfish	S	I	C	P	3	1.80	0.12	0.12	0.82	66.67
Orangespotted Sunfish	S	I	C		85	59.25	4.04	0.29	1.99	4.93
Green Sf X Bluegill Sf					1	0.60	0.04	0.02	0.12	28.00
Blackside Darter	D	I	S		3	1.95	0.13	0.01	0.06	4.33
Logperch	D	I	S	M	60	40.05	2.73	0.22	1.52	5.53
Eastern Sand Darter [S]	D	I	S	R	2	1.50	0.10	0.00	0.02	2.00
Johnny Darter	D	I	C		2	1.35	0.09	0.00	0.02	2.00
Greenside Darter	D	I	S	M	7	4.50	0.31	0.03	0.20	6.71
Freshwater Drum			M	P	4	2.55	0.17	1.24	8.49	513.75
	Mile Total				2,221	1,465.20		14.57		
	Number of Species				37					
	Number of Hybrids				1					

Species List

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2013**
River Mile: **7.10**	Location: Evansport Rd.	Date Range: 08/08/2013
Time Fished: 3026 sec	Drainage: 737.0 sq mi	
Dist Fished: 0.60 km	Basin: Maumee River No of Passes: 1	Sampler Type: A

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		8	13.33	0.96	0.19	0.17	14.38
Silver Redhorse	R	I	S	M	2	3.33	0.24	0.25	0.22	75.00
Golden Redhorse	R	I	S	M	2	3.33	0.24	1.10	0.96	329.50
Shorthead Redhorse	R	I	S	M	14	23.33	1.68	0.62	0.54	26.57
Northern Hog Sucker	R	I	S	M	24	40.00	2.88	3.89	3.40	97.13
Spotted Sucker	R	I	S		7	11.67	0.84	0.51	0.44	43.43
Common Carp	G	O	M	T	13	21.67	1.56	41.24	36.09	1,903.54
Hornyhead Chub	N	I	N	I	6	10.00	0.72	0.05	0.05	5.33
Creek Chub	N	G	N	T	1	1.67	0.12	0.00	0.00	2.00
Suckermouth Minnow	N	I	S		21	35.00	2.52	0.09	0.08	2.47
Emerald Shiner	N	I	M		48	80.00	5.77	0.33	0.29	4.09
Redfin Shiner	N	I	N		6	10.00	0.72	0.02	0.02	1.83
Common Shiner	N	I	S		1	1.67	0.12	0.00	0.00	2.00
Spotfin Shiner	N	I	M		157	261.67	18.87	0.61	0.53	2.34
Sand Shiner	N	I	M	M	158	263.33	18.99	0.44	0.38	1.66
Ghost Shiner	N	I	M		38	63.33	4.57	0.05	0.04	0.81
Fathead Minnow	N	O	C	T	2	3.33	0.24	0.01	0.01	2.00
Bluntnose Minnow	N	O	C	T	99	165.00	11.90	0.27	0.23	1.61
Channel Catfish	F		C		60	100.00	7.21	17.08	14.94	170.77
Flathead Catfish	F	P	C		6	10.00	0.72	15.46	13.53	1,545.83
Stonecat Madtom		I	C	I	2	3.33	0.24	0.01	0.00	1.50
Brindled Madtom		I	C	I	1	1.67	0.12	0.00	0.00	1.00
Blackstripe Topminnow		I	M		2	3.33	0.24	0.01	0.01	2.00
Black Crappie	S	I	C		2	3.33	0.24	0.30	0.26	90.00
Rock Bass	S	C	C		3	5.00	0.36	0.40	0.35	79.00
Largemouth Bass	F	C	C		3	5.00	0.36	0.03	0.03	6.33
Green Sunfish	S	I	C	T	10	16.67	1.20	0.39	0.34	23.20
Bluegill Sunfish	S	I	C	P	4	6.67	0.48	0.14	0.13	21.50
Orangespotted Sunfish	S	I	C		74	123.33	8.89	0.51	0.44	4.11
Yellow Perch			M		1	1.67	0.12	0.01	0.01	4.00
Dusky Darter	D	I	S	M	1	1.67	0.12	0.02	0.02	12.00
Blackside Darter	D	I	S		4	6.67	0.48	0.04	0.03	5.75
Logperch	D	I	S	M	14	23.33	1.68	0.17	0.14	7.07
Johnny Darter	D	I	C		2	3.33	0.24	0.01	0.01	2.00
Greenside Darter	D	I	S	M	4	6.67	0.48	0.04	0.03	6.00
Sauger X Walleye	E	P			1	1.67	0.12	0.96	0.84	575.00
Freshwater Drum			M	P	31	51.67	3.73	29.08	25.45	562.90
	Mile Total				832	1,386.67		114.29		
	Number of Species				36					
	Number of Hybrids				1					

Species List

River Code: **04-600**	Stream: **Tiffin River**	Sample Date: **2012**
River Mile: **0.80**	Location: Dey Rd.	Date Range: 07/17/2012
Time Fished: 4878 sec	Drainage: 775.0 sq mi	Thru: 08/27/2012
Dist Fished: 1.00 km	Basin: Maumee River No of Passes: 2	Sampler Type: A

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		139	139.00	28.08	1.25	1.37	8.98
Bigmouth Buffalo	C	I	M		7	7.00	1.41	10.68	11.74	1,525.00
Smallmouth Buffalo	C	I	M		2	2.00	0.40	5.73	6.30	2,862.50
Quillback	C	O	M		1	1.00	0.20	0.04	0.04	40.00
Shorthead Redhorse	R	I	S	M	10	10.00	2.02	0.75	0.82	75.00
White Sucker	W	O	S	T	1	1.00	0.20	0.08	0.09	80.00
Spotted Sucker	R	I	S		37	37.00	7.47	1.28	1.41	34.65
Common Carp	G	O	M	T	17	17.00	3.43	55.54	61.07	3,266.81
Emerald Shiner	N	I	M		2	2.00	0.40	0.01	0.01	6.50
Redfin Shiner	N	I	N		18	18.00	3.64	0.03	0.04	1.83
Spotfin Shiner	N	I	M		64	64.00	12.93	0.18	0.19	2.75
Ghost Shiner	N	I	M		2	2.00	0.40	0.00	0.00	2.00
Bluntnose Minnow	N	O	C	T	19	19.00	3.84	0.04	0.04	1.84
Flathead Catfish	F	P	C		2	2.00	0.40	0.81	0.89	406.50
Blackstripe Topminnow		I	M		2	2.00	0.40	0.00	0.00	2.00
Brook Silverside		I	M	M	1	1.00	0.20	0.00	0.00	2.00
White Crappie	S	I	C		2	2.00	0.40	0.21	0.23	103.50
Largemouth Bass	F	C	C		7	7.00	1.41	0.63	0.69	89.43
Green Sunfish	S	I	C	T	29	29.00	5.86	0.57	0.62	19.57
Bluegill Sunfish	S	I	C	P	33	33.00	6.67	0.93	1.02	28.06
Orangespotted Sunfish	S	I	C		63	63.00	12.73	0.37	0.41	5.94
Green Sf X Bluegill Sf					2	2.00	0.40	0.11	0.12	56.50
Logperch	D	I	S	M	19	19.00	3.84	0.09	0.09	4.47
Freshwater Drum			M	P	16	16.00	3.23	11.63	12.79	726.88
	Mile Total				495	495.00		90.94		
	Number of Species				23					
	Number of Hybrids				1					

Species List

River Code: **04-602**	Stream: **Webb Run**	Sample Date: **2013**
River Mile: **3.00**	Location:	Date Range: 08/27/2013
Time Fished: 743 sec	Drainage: 9.3 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	53	106.00	12.65			
Common Carp	G	O	M	T	16	32.00	3.82			
Golden Shiner	N	I	M	T	16	32.00	3.82			
Western Blacknose Dace	N	G	S	T	1	2.00	0.24			
Creek Chub	N	G	N	T	33	66.00	7.88			
Redfin Shiner	N	I	N		9	18.00	2.15			
Common Shiner	N	I	S		28	56.00	6.68			
Spotfin Shiner	N	I	M		10	20.00	2.39			
Sand Shiner	N	I	M	M	3	6.00	0.72			
Fathead Minnow	N	O	C	T	23	46.00	5.49			
Bluntnose Minnow	N	O	C	T	71	142.00	16.95			
Central Stoneroller	N	H	N		6	12.00	1.43			
Yellow Bullhead		I	C	T	24	48.00	5.73			
Blackstripe Topminnow		I	M		5	10.00	1.19			
Largemouth Bass	F	C	C		1	2.00	0.24			
Green Sunfish	S	I	C	T	61	122.00	14.56			
Orangespotted Sunfish	S	I	C		18	36.00	4.30			
Green Sf X Hybrid					3	6.00	0.72			
Blackside Darter	D	I	S		1	2.00	0.24			
Johnny Darter	D	I	C		37	74.00	8.83			
	Mile Total				419	838.00				
	Number of Species				19					
	Number of Hybrids				1					

Species List

River Code: **04-602**	Stream: **Webb Run**	Sample Date: **2013**
River Mile: **0.40**	Location: near mouth, dst. Tanby Ditch	Date Range: 08/21/2013
Time Fished: 1090 sec	Drainage: 19.3 sq mi	
Dist Fished: 0.20 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	7	10.50	1.22	0.04	2.43	4.17
Common Carp	G	O	M	T	15	22.50	2.61	0.07	3.76	3.00
Western Blacknose Dace	N	G	S	T	21	31.50	3.66	0.07	3.82	2.19
Creek Chub	N	G	N	T	77	115.50	13.41	0.47	26.00	4.07
Suckermouth Minnow	N	I	S		1	1.50	0.17	0.00	0.17	2.00
Redfin Shiner	N	I	N		26	39.00	4.53	0.08	4.15	1.92
Common Shiner	N	I	S		1	1.50	0.17	0.00	0.17	2.00
Spotfin Shiner	N	I	M		1	1.50	0.17	0.00	0.17	2.00
Fathead Minnow	N	O	C	T	1	1.50	0.17	0.00	0.11	1.00
Bluntnose Minnow	N	O	C	T	220	330.00	38.33	0.38	21.13	1.16
Central Stoneroller	N	H	N		68	102.00	11.85	0.14	7.58	1.34
Yellow Bullhead		I	C	T	11	16.50	1.92	0.04	1.94	2.09
Largemouth Bass	F	C	C		6	9.00	1.05	0.05	2.93	5.83
Green Sunfish	S	I	C	T	67	100.50	11.67	0.38	20.74	3.73
Orangespotted Sunfish	S	I	C		4	6.00	0.70	0.05	2.65	8.00
Johnny Darter	D	I	C		48	72.00	8.36	0.04	2.43	0.60
	Mile Total				574	861.00		1.81		
	Number of Species				16					
	Number of Hybrids				0					

Species List

River Code: **04-604**	Stream: **Buckskin Creek**	Sample Date: **2013**
River Mile: **1.20**	Location: St. Rt. 15	Date Range: 07/15/2013
Time Fished: 1818 sec	Drainage: 6.0 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	4	8.00	0.41			
Spotted Sucker	R	I	S		1	2.00	0.10			
Common Carp	G	O	M	T	5	10.00	0.51			
Western Blacknose Dace	N	G	S	T	2	4.00	0.21			
Creek Chub	N	G	N	T	101	202.00	10.37			
Suckermouth Minnow	N	I	S		1	2.00	0.10			
Redfin Shiner	N	I	N		7	14.00	0.72			
Striped Shiner	N	I	S		1	2.00	0.10			
Spotfin Shiner	N	I	M		2	4.00	0.21			
Sand Shiner	N	I	M	M	3	6.00	0.31			
Fathead Minnow	N	O	C	T	9	18.00	0.92			
Bluntnose Minnow	N	O	C	T	727	1,454.00	74.64			
Central Stoneroller	N	H	N		9	18.00	0.92			
Yellow Bullhead		I	C	T	1	2.00	0.10			
Blackstripe Topminnow		I	M		18	36.00	1.85			
White Crappie	S	I	C		1	2.00	0.10			
Green Sunfish	S	I	C	T	18	36.00	1.85			
Bluegill Sunfish	S	I	C	P	5	10.00	0.51			
Longear Sunfish	S	I	C	M	2	4.00	0.21			
Green Sf X Hybrid					7	14.00	0.72			
Blackside Darter	D	I	S		1	2.00	0.10			
Johnny Darter	D	I	C		49	98.00	5.03			
	Mile Total				974	1,948.00				
	Number of Species				21					
	Number of Hybrids				1					

Species List

River Code: **04-605**	Stream: **Mud Creek**	Sample Date: **2013**
River Mile: **10.10**	Location: Coy Rd.	Date Range: 07/29/2013
Time Fished: 5616 sec	Drainage: 47.0 sq mi	Thru: 09/23/2013
Dist Fished: 0.36 km	Basin: Maumee River No of Passes: 2	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Northern Hog Sucker	R	I	S	M	12	10.00	1.20	0.71	6.89	77.88
White Sucker	W	O	S	T	77	59.86	7.17	1.78	17.27	28.35
Common Carp	G	O	M	T	46	38.29	4.59	0.58	5.66	13.37
Hornyhead Chub	N	I	N	I	4	3.71	0.44	0.02	0.17	4.50
Western Blacknose Dace	N	G	S	T	32	29.14	3.49	0.05	0.51	1.84
Creek Chub	N	G	N	T	140	100.00	11.98	1.50	14.63	15.04
Suckermouth Minnow	N	I	S		3	2.71	0.33	0.01	0.14	5.00
Redfin Shiner	N	I	N		7	5.00	0.60	0.01	0.08	1.71
Striped Shiner	N	I	S		9	9.00	1.08	0.07	0.72	8.22
Common Shiner	N	I	S		66	47.71	5.72	0.38	3.69	8.00
Spotfin Shiner	N	I	M		21	15.29	1.83	0.03	0.34	2.27
Sand Shiner	N	I	M	M	24	17.14	2.05	0.03	0.27	1.61
Silverjaw Minnow	N	I	M		36	26.29	3.15	0.06	0.58	2.26
Fathead Minnow	N	O	C	T	5	4.71	0.56	0.01	0.07	1.60
Bluntnose Minnow	N	O	C	T	161	121.57	14.56	0.25	2.44	2.00
Central Stoneroller	N	H	N		1	1.00	0.12	0.00	0.01	1.00
Channel Catfish	F		C		2	1.43	0.17	1.03	10.02	721.00
Yellow Bullhead		I	C	T	25	21.57	2.58	0.96	9.35	47.24
Brown Bullhead		I	C	T	1	0.71	0.09	0.08	0.78	112.00
Black Bullhead		I	C	P	1	1.00	0.12	0.06	0.62	64.00
Stonecat Madtom		I	C	I	3	2.14	0.26	0.03	0.24	11.67
Tadpole Madtom		I	C		3	2.71	0.33	0.02	0.21	8.33
Blackstripe Topminnow		I	M		1	1.00	0.12	0.00	0.04	4.00
Green Sunfish	S	I	C	T	258	210.86	25.26	2.35	22.84	10.65
Bluegill Sunfish	S	I	C	P	1	1.00	0.12	0.01	0.05	5.00
Orangespotted Sunfish	S	I	C		11	8.71	1.04	0.04	0.38	4.79
Green Sf X Hybrid					3	2.14	0.26	0.01	0.08	4.00
Blackside Darter	D	I	S		31	24.14	2.89	0.08	0.76	3.13
Logperch	D	I	S	M	14	10.00	1.20	0.01	0.07	0.71
Johnny Darter	D	I	C		55	50.43	6.04	0.08	0.73	1.43
Greenside Darter	D	I	S	M	7	5.57	0.67	0.03	0.34	6.43
	Mile Total				1,060	834.86		10.28		
	Number of Species				30					
	Number of Hybrids				1					

Species List

River Code: **04-605**	Stream: **Mud Creek**	Sample Date: **2013**
River Mile: **1.50**	Location: Trinity Rd.	Date Range: 08/13/2013
Time Fished: 5400 sec	Drainage: 55.0 sq mi	Thru: 09/11/2013
Dist Fished: 0.33 km	Basin: Maumee River No of Passes: 2	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Golden Redhorse	R	I	S	M	1	1.00	0.15	0.01	0.29	10.00
Northern Hog Sucker	R	I	S	M	12	11.00	1.65	0.12	3.55	10.42
White Sucker	W	O	S	T	8	7.83	1.17	0.13	3.74	16.50
Spotted Sucker	R	I	S		3	3.00	0.45	0.07	1.96	22.33
Hornyhead Chub	N	I	N	I	34	28.33	4.24	0.11	3.14	3.79
River Chub	N	I	N	I	39	39.00	5.84	0.10	2.78	2.44
Western Blacknose Dace	N	G	S	T	3	3.00	0.45	0.00	0.09	1.00
Creek Chub	N	G	N	T	47	44.50	6.67	0.15	4.28	3.27
Suckermouth Minnow	N	I	S		9	8.67	1.30	0.01	0.25	1.00
Emerald Shiner	N	I	M		5	5.00	0.75	0.02	0.56	3.80
Redfin Shiner	N	I	N		31	30.17	4.52	0.03	0.77	0.87
Striped Shiner	N	I	S		22	21.33	3.20	0.05	1.37	2.20
Spotfin Shiner	N	I	M		15	14.33	2.15	0.03	0.80	1.93
Sand Shiner	N	I	M	M	126	121.17	18.15	0.12	3.39	0.96
Silverjaw Minnow	N	I	M		16	15.50	2.32	0.03	0.92	2.19
Bluntnose Minnow	N	O	C	T	141	135.17	20.25	0.16	4.53	1.15
Central Stoneroller	N	H	N		11	9.83	1.47	0.01	0.35	1.27
Yellow Bullhead		I	C	T	9	8.33	1.25	0.29	8.59	34.22
Brindled Madtom		I	C	I	31	28.33	4.24	0.24	7.01	8.52
Blackstripe Topminnow		I	M		2	2.00	0.30	0.00	0.12	2.00
Green Sunfish	S	I	C	T	51	46.83	7.02	1.45	42.32	31.27
Bluegill Sunfish	S	I	C	P	6	5.50	0.82	0.03	0.99	6.17
Orangespotted Sunfish	S	I	C		36	33.33	4.99	0.16	4.60	4.79
Pumpkinseed Sunfish	S	I	C	P	1	0.83	0.12	0.01	0.37	15.00
Green Sf X Bluegill Sf					3	2.50	0.37	0.02	0.48	6.67
Blackside Darter	D	I	S		13	12.00	1.80	0.03	0.86	2.54
Logperch	D	I	S	M	2	2.00	0.30	0.02	0.56	9.50
Eastern Sand Darter [S]	D	I	S	R	2	1.83	0.27	0.00	0.13	2.50
Johnny Darter	D	I	C		22	19.67	2.95	0.03	0.75	1.29
Greenside Darter	D	I	S	M	6	5.50	0.82	0.02	0.45	2.83
	Mile Total				707	667.50		3.42		
	Number of Species				29					
	Number of Hybrids				1					

Species List

River Code: **04-606**	Stream: **Lost Creek**	Sample Date: **2013**
River Mile: **9.00**	Location: Seevers Rd.	Date Range: 08/26/2013
Time Fished: 1800 sec	Drainage: 12.6 sq mi	
Dist Fished: 0.14 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Northern Hog Sucker	R	I	S	M	1	2.14	0.21			
White Sucker	W	O	S	T	43	92.14	9.17			
Common Carp	G	O	M	T	1	2.14	0.21			
Western Blacknose Dace	N	G	S	T	169	362.14	36.03			
Creek Chub	N	G	N	T	147	315.00	31.34			
Common Shiner	N	I	S		16	34.29	3.41			
Fathead Minnow	N	O	C	T	3	6.43	0.64			
Bluntnose Minnow	N	O	C	T	12	25.71	2.56			
Central Stoneroller	N	H	N		30	64.29	6.40			
Yellow Bullhead		I	C	T	2	4.29	0.43			
Black Bullhead		I	C	P	3	6.43	0.64			
White Crappie	S	I	C		1	2.14	0.21			
Green Sunfish	S	I	C	T	18	38.57	3.84			
Orangespotted Sunfish	S	I	C		1	2.14	0.21			
Blackside Darter	D	I	S		7	15.00	1.49			
Johnny Darter	D	I	C		14	30.00	2.99			
Greenside Darter	D	I	S	M	1	2.14	0.21			
	Mile Total				469	1,005.00				
	Number of Species				17					
	Number of Hybrids				0					

Species List

River Code: **04-606**	Stream: **Lost Creek**	Sample Date: **2013**
River Mile: **1.40**	Location: Behnfeldt Rd.	Date Range: 07/29/2013
Time Fished: 4951 sec	Drainage: 25.6 sq mi	Thru: 09/23/2013
Dist Fished: 0.39 km	Basin: Maumee River No of Passes: 2	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Quillback	C	O	M		13	9.29	1.03	0.03	0.21	3.69
Northern Hog Sucker	R	I	S	M	29	22.14	2.46	2.06	12.65	93.35
White Sucker	W	O	S	T	148	114.88	12.78	4.82	29.51	41.55
Common Carp	G	O	M	T	33	25.36	2.82	0.21	1.26	7.82
Hornyhead Chub	N	I	N	I	6	4.52	0.50	0.04	0.25	9.00
Western Blacknose Dace	N	G	S	T	12	9.64	1.07	0.02	0.11	1.83
Creek Chub	N	G	N	T	240	181.67	20.21	3.40	20.84	18.86
Redfin Shiner	N	I	N		7	5.71	0.64	0.01	0.08	2.14
Striped Shiner	N	I	S		12	10.00	1.11	0.15	0.93	15.25
Common Shiner	N	I	S		86	65.60	7.30	0.59	3.60	8.87
Spotfin Shiner	N	I	M		8	6.43	0.72	0.02	0.14	3.50
Sand Shiner	N	I	M	M	9	7.14	0.79	0.01	0.08	1.89
Silverjaw Minnow	N	I	M		22	16.55	1.84	0.04	0.23	2.31
Fathead Minnow	N	O	C	T	30	23.69	2.64	0.04	0.23	1.59
Bluntnose Minnow	N	O	C	T	180	141.67	15.76	0.48	2.92	3.28
Central Stoneroller	N	H	N		46	37.02	4.12	0.39	2.37	10.17
Channel Catfish	F		C		1	0.71	0.08	0.04	0.26	60.00
Yellow Bullhead		I	C	T	22	16.43	1.83	1.19	7.30	72.91
Black Bullhead		I	C	P	2	1.67	0.19	0.10	0.62	60.50
Stonecat Madtom		I	C	I	1	0.71	0.08	0.00	0.01	3.00
Blackstripe Topminnow		I	M		5	3.81	0.42	0.01	0.05	2.00
White Crappie	S	I	C		2	1.55	0.17	0.25	1.54	162.50
Green Sunfish	S	I	C	T	187	141.79	15.78	2.28	14.00	16.01
Bluegill Sunfish	S	I	C	P	3	2.50	0.28	0.02	0.14	9.00
Orangespotted Sunfish	S	I	C		4	3.10	0.34	0.03	0.17	8.75
Blackside Darter	D	I	S		2	1.67	0.19	0.01	0.05	5.00
Johnny Darter	D	I	C		55	43.45	4.84	0.07	0.44	1.63
	Mile Total				1,165	898.69		16.31		
	Number of Species				27					
	Number of Hybrids				0					

Species List

River Code: **04-608**	Stream: **Dry Creek**	Sample Date: **2013**
River Mile: **3.80**	Location:	Date Range: 08/26/2013
Time Fished: 1800 sec	Drainage: 11.0 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	62	124.00	6.26			
Common Carp	G	O	M	T	3	6.00	0.30			
Goldfish	G	O	M	T	13	26.00	1.31			
Western Blacknose Dace	N	G	S	T	12	24.00	1.21			
Creek Chub	N	G	N	T	130	260.00	13.13			
Redfin Shiner	N	I	N		38	76.00	3.84			
Common Shiner	N	I	S		155	310.00	15.66			
Silverjaw Minnow	N	I	M		1	2.00	0.10			
Fathead Minnow	N	O	C	T	251	502.00	25.35			
Bluntnose Minnow	N	O	C	T	41	82.00	4.14			
Central Stoneroller	N	H	N		40	80.00	4.04			
Yellow Bullhead		I	C	T	40	80.00	4.04			
Stonecat Madtom		I	C	I	8	16.00	0.81			
Blackstripe Topminnow		I	M		55	110.00	5.56			
Green Sunfish	S	I	C	T	87	174.00	8.79			
Orangespotted Sunfish	S	I	C		3	6.00	0.30			
Blackside Darter	D	I	S		10	20.00	1.01			
Logperch	D	I	S	M	1	2.00	0.10			
Johnny Darter	D	I	C		40	80.00	4.04			
	Mile Total				990	1,980.00				
	Number of Species				19					
	Number of Hybrids				0					

Species List

River Code: **04-609**	Stream: **Lick Creek**	Sample Date: **2013**
River Mile: **21.80**	Location: Co. Rd. 13	Date Range: 08/27/2013
Time Fished: 1808 sec	Drainage: 5.8 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	25	50.00	5.12			
Common Carp	G	O	M	T	1	2.00	0.20			
Western Blacknose Dace	N	G	S	T	74	148.00	15.16			
Creek Chub	N	G	N	T	94	188.00	19.26			
Common Shiner	N	I	S		26	52.00	5.33			
Silverjaw Minnow	N	I	M		2	4.00	0.41			
Fathead Minnow	N	O	C	T	1	2.00	0.20			
Bluntnose Minnow	N	O	C	T	48	96.00	9.84			
Central Stoneroller	N	H	N		107	214.00	21.93			
Green Sunfish	S	I	C	T	55	110.00	11.27			
Johnny Darter	D	I	C		32	64.00	6.56			
Mottled Sculpin		I	C		23	46.00	4.71			
	Mile Total				488	976.00				
	Number of Species				12					
	Number of Hybrids				0					

Species List

River Code: **04-609**	Stream: **Lick Creek**	Sample Date: **2013**
River Mile: **17.70**	Location:	Date Range: 07/17/2013
Time Fished: 5925 sec	Drainage: 39.0 sq mi	Thru: 08/28/2013
Dist Fished: 0.40 km	Basin: Maumee River No of Passes: 2	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Northern Hog Sucker	R	I	S	M	57	42.75	1.31	3.32	13.98	77.66
White Sucker	W	O	S	T	267	200.25	6.14	3.49	14.68	17.40
Common Carp	G	O	M	T	6	4.50	0.14	0.18	0.76	40.33
Western Blacknose Dace	N	G	S	T	172	129.00	3.95	0.25	1.05	1.94
Creek Chub	N	G	N	T	440	330.00	10.11	5.19	21.87	15.74
Suckermouth Minnow	N	I	S		7	5.25	0.16	0.05	0.21	9.43
Redfin Shiner	N	I	N		94	70.50	2.16	0.11	0.47	1.58
Common Shiner	N	I	S		193	144.75	4.44	0.98	4.14	6.80
Silverjaw Minnow	N	I	M		59	44.25	1.36	0.12	0.52	2.81
Fathead Minnow	N	O	C	T	1	0.75	0.02	0.00	0.01	2.00
Bluntnose Minnow	N	O	C	T	1,251	938.25	28.75	1.75	7.38	1.87
Central Stoneroller	N	H	N		992	744.00	22.80	5.07	21.36	6.82
Yellow Bullhead		I	C	T	5	3.75	0.11	0.03	0.13	8.40
Brown Bullhead		I	C	T	1	0.75	0.02	0.04	0.15	48.00
Rock Bass	S	C	C		53	39.75	1.22	1.11	4.66	27.80
Largemouth Bass	F	C	C		4	3.00	0.09	0.03	0.11	9.00
Green Sunfish	S	I	C	T	156	117.00	3.59	0.89	3.76	7.63
Bluegill Sunfish	S	I	C	P	28	21.00	0.64	0.10	0.44	4.96
Green Sf X Hybrid					19	14.25	0.44	0.20	0.83	13.89
Blackside Darter	D	I	S		26	19.50	0.60	0.07	0.30	3.66
Logperch	D	I	S	M	11	8.25	0.25	0.07	0.31	8.91
Johnny Darter	D	I	C		197	147.75	4.53	0.20	0.86	1.38
Greenside Darter	D	I	S	M	1	0.75	0.02	0.00	0.02	6.00
Fantail Darter	D	I	C		271	203.25	6.23	0.34	1.44	1.68
Mottled Sculpin		I	C		40	30.00	0.92	0.13	0.56	4.44
	Mile Total				4,351	3,263.25		23.75		
	Number of Species				24					
	Number of Hybrids				1					

Species List

River Code: **04-609**	Stream: **Lick Creek**	Sample Date: **2013**
River Mile: **10.00**	Location:	Date Range: 08/13/2013
Time Fished: 5400 sec	Drainage: 58.5 sq mi	Thru: 09/11/2013
Dist Fished: 0.30 km	Basin: Maumee River No of Passes: 2	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Golden Redhorse	R	I	S	M	3	3.00	0.46	0.72	12.22	240.00
Northern Hog Sucker	R	I	S	M	2	2.00	0.31	0.01	0.08	2.50
White Sucker	W	O	S	T	3	3.00	0.46	0.14	2.36	46.33
Spotted Sucker	R	I	S		1	1.00	0.15	0.18	3.06	180.00
Common Carp	G	O	M	T	5	5.00	0.77	0.49	8.32	98.00
River Chub	N	I	N	I	1	1.00	0.15	0.01	0.24	14.00
Western Blacknose Dace	N	G	S	T	21	21.00	3.23	0.03	0.46	1.29
Creek Chub	N	G	N	T	44	44.00	6.77	0.71	12.04	16.10
Suckermouth Minnow	N	I	S		2	2.00	0.31	0.01	0.08	2.50
Redfin Shiner	N	I	N		65	65.00	10.00	0.11	1.79	1.62
Striped Shiner	N	I	S		15	15.00	2.31	0.12	2.00	7.87
Spotfin Shiner	N	I	M		6	6.00	0.92	0.01	0.19	1.83
Sand Shiner	N	I	M	M	110	110.00	16.92	0.28	4.67	2.50
Silverjaw Minnow	N	I	M		8	8.00	1.23	0.01	0.20	1.50
Bluntnose Minnow	N	O	C	T	34	34.00	5.23	0.08	1.32	2.29
Central Stoneroller	N	H	N		11	11.00	1.69	0.02	0.34	1.82
Yellow Bullhead		I	C	T	9	9.00	1.38	0.68	11.56	75.67
Stonecat Madtom		I	C	I	1	1.00	0.15	0.00	0.02	1.00
Tadpole Madtom		I	C		1	1.00	0.15	0.01	0.15	9.00
Blackstripe Topminnow		I	M		2	2.00	0.31	0.00	0.05	1.50
Black Crappie	S	I	C		1	1.00	0.15	0.03	0.46	27.00
Rock Bass	S	C	C		12	12.00	1.85	0.57	9.74	47.80
Green Sunfish	S	I	C	T	89	89.00	13.69	0.86	14.57	9.65
Bluegill Sunfish	S	I	C	P	4	4.00	0.62	0.02	0.41	6.00
Orangespotted Sunfish	S	I	C		25	25.00	3.85	0.11	1.87	4.41
Green Sf X Bluegill Sf					4	4.00	0.62	0.09	1.47	21.67
Hybrid X Sunfish					6	6.00	0.92	0.21	3.63	35.67
Blackside Darter	D	I	S		17	17.00	2.62	0.03	0.58	2.00
Logperch	D	I	S	M	1	1.00	0.15	0.01	0.15	9.00
Johnny Darter	D	I	C		91	91.00	14.00	0.10	1.68	1.09
Greenside Darter	D	I	S	M	45	45.00	6.92	0.23	3.90	5.10
Fantail Darter	D	I	C		6	6.00	0.92	0.01	0.15	1.50
Mottled Sculpin		I	C		5	5.00	0.77	0.02	0.25	3.00
	Mile Total				650	650.00		5.89		
	Number of Species				31					
	Number of Hybrids				2					

Species List

River Code: **04-609**	Stream: **Lick Creek**	Sample Date: **2013**
River Mile: **1.20**	Location: Trinity Rd.	Date Range: 07/30/2013
Time Fished: 5719 sec	Drainage: 105.0 sq mi	Thru: 09/12/2013
Dist Fished: 0.38 km	Basin: Maumee River No of Passes: 2	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		4	3.33	0.46	0.07	0.52	21.25
Golden Redhorse	R	I	S	M	5	3.83	0.53	0.18	1.32	46.40
Shorthead Redhorse	R	I	S	M	4	3.08	0.43	0.14	1.01	44.25
White Sucker	W	O	S	T	4	3.00	0.42	0.03	0.20	9.00
Common Carp	G	O	M	T	1	0.75	0.10	0.60	4.40	800.00
Goldfish	G	O	M	T	21	15.83	2.20	0.10	0.71	6.00
Hornyhead Chub	N	I	N	I	2	1.50	0.21	0.02	0.14	13.00
Western Blacknose Dace	N	G	S	T	1	0.83	0.12	0.00	0.01	2.00
Creek Chub	N	G	N	T	15	12.08	1.68	0.04	0.26	2.87
Suckermouth Minnow	N	I	S		12	9.83	1.37	0.03	0.22	3.00
Emerald Shiner	N	I	M		6	4.92	0.68	0.02	0.15	4.17
Redfin Shiner	N	I	N		10	7.75	1.08	0.01	0.09	1.60
Spotfin Shiner	N	I	M		28	21.58	3.00	0.05	0.35	2.19
Sand Shiner	N	I	M	M	132	103.42	14.36	0.14	1.01	1.31
Silverjaw Minnow	N	I	M		9	7.00	0.97	0.01	0.08	1.56
Fathead Minnow	N	O	C	T	1	0.75	0.10	0.00	0.01	2.00
Bluntnose Minnow	N	O	C	T	372	293.50	40.75	0.47	3.48	1.61
Central Stoneroller	N	H	N		2	1.67	0.23	0.01	0.04	3.00
Channel Catfish	F		C		35	27.33	3.80	4.89	35.82	180.65
Yellow Bullhead		I	C	T	8	6.33	0.88	0.23	1.66	37.50
Flathead Catfish	F	P	C		3	2.25	0.31	0.43	3.12	189.00
Brindled Madtom		I	C	I	1	0.75	0.10	0.00	0.03	5.00
Blackstripe Topminnow		I	M		8	6.42	0.89	0.01	0.05	1.13
White Crappie	S	I	C		4	3.33	0.46	0.01	0.05	2.25
Rock Bass	S	C	C		1	0.75	0.10	0.00	0.03	5.00
Largemouth Bass	F	C	C		3	2.50	0.35	0.10	0.73	40.00
Green Sunfish	S	I	C	T	126	97.75	13.57	0.82	6.03	8.29
Bluegill Sunfish	S	I	C	P	24	18.33	2.55	0.09	0.67	4.91
Orangespotted Sunfish	S	I	C		28	21.25	2.95	0.08	0.60	3.86
Green Sf X Hybrid					16	12.00	1.67	0.16	1.20	13.67
Hybrid X Sunfish					1	0.83	0.12	0.01	0.05	9.00
Blackside Darter	D	I	S		3	2.33	0.32	0.01	0.08	4.33
Logperch	D	I	S	M	5	3.83	0.53	0.04	0.30	10.60
Eastern Sand Darter [S]	D	I	S	R	1	0.83	0.12	0.00	0.02	3.00
Johnny Darter	D	I	C		19	14.83	2.06	0.02	0.12	1.10
Greenside Darter	D	I	S	M	1	0.83	0.12	0.00	0.02	3.00
Freshwater Drum			M	P	4	3.00	0.42	4.84	35.44	1,612.50
	Mile Total				920	720.17		13.65		
	Number of Species				35					
	Number of Hybrids				2					

Species List

River Code: **04-611**	Stream: **Little Lick Creek**	Sample Date: **2013**
River Mile: **5.00**	Location:	Date Range: 08/26/2013
Time Fished: 2700 sec	Drainage: 10.7 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	69	138.00	6.93			
Common Carp	G	O	M	T	1	2.00	0.10			
Western Blacknose Dace	N	G	S	T	63	126.00	6.33			
Suckermouth Minnow	N	I	S		268	536.00	26.93			
Redfin Shiner	N	I	N		3	6.00	0.30			
Common Shiner	N	I	S		120	240.00	12.06			
Silverjaw Minnow	N	I	M		5	10.00	0.50			
Fathead Minnow	N	O	C	T	3	6.00	0.30			
Bluntnose Minnow	N	O	C	T	70	140.00	7.04			
Central Stoneroller	N	H	N		129	258.00	12.96			
Yellow Bullhead		I	C	T	7	14.00	0.70			
Blackstripe Topminnow		I	M		28	56.00	2.81			
Green Sunfish	S	I	C	T	37	74.00	3.72			
Johnny Darter	D	I	C		183	366.00	18.39			
Orangethroat Darter	D	I	S		9	18.00	0.90			
	Mile Total				995	1,990.00				
	Number of Species				15					
	Number of Hybrids				0					

Species List

River Code: **04-611**	Stream: **Little Lick Creek**	Sample Date: **2013**
River Mile: **0.80**	Location:	Date Range: 08/13/2013
Time Fished: 5400 sec	Drainage: 23.3 sq mi	Thru: 09/11/2013
Dist Fished: 0.38 km	Basin: Maumee River No of Passes: 2	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Golden Redhorse	R	I	S	M	4	3.25	0.14	0.66	3.47	201.25
White Sucker	W	O	S	T	72	57.50	2.45	1.76	9.30	30.63
Spotted Sucker	R	I	S		5	4.00	0.17	0.69	3.66	175.00
Common Carp	G	O	M	T	30	24.08	1.03	1.59	8.39	66.25
Golden Shiner	N	I	M	T	24	18.67	0.80	0.12	0.62	6.33
Creek Chub	N	G	N	T	162	129.33	5.51	1.43	7.57	11.05
Suckermouth Minnow	N	I	S		3	2.33	0.10	0.01	0.03	2.33
Emerald Shiner	N	I	M		1	0.75	0.03	0.00	0.02	6.00
Redfin Shiner	N	I	N		137	108.67	4.63	0.20	1.07	1.86
Striped Shiner	N	I	S		75	59.58	2.54	0.46	2.41	7.69
Fathead Minnow	N	O	C	T	49	38.50	1.64	0.10	0.55	2.71
Bluntnose Minnow	N	O	C	T	1,166	958.67	40.83	2.40	12.68	2.63
Central Stoneroller	N	H	N		98	79.83	3.40	0.47	2.50	5.92
Channel Catfish	F		C		1	0.83	0.04	0.11	0.59	135.00
Yellow Bullhead		I	C	T	44	34.42	1.47	1.61	8.49	46.36
Black Bullhead		I	C	P	13	10.00	0.43	0.57	2.99	57.69
Tadpole Madtom		I	C		24	18.83	0.80	0.10	0.54	5.50
Blackstripe Topminnow		I	M		19	15.25	0.65	0.02	0.12	1.56
White Crappie	S	I	C		1	0.83	0.04	0.01	0.05	12.00
Black Crappie	S	I	C		1	0.83	0.04	0.01	0.05	12.00
Rock Bass	S	C	C		1	0.83	0.04	0.08	0.40	90.00
Largemouth Bass	F	C	C		9	7.42	0.32	0.04	0.22	5.67
Green Sunfish	S	I	C	T	655	516.42	21.99	4.71	24.87	9.09
Bluegill Sunfish	S	I	C	P	15	11.83	0.50	0.11	0.57	9.01
Orangespotted Sunfish	S	I	C		59	46.58	1.98	0.20	1.08	4.41
Hybrid X Sunfish					179	143.00	6.09	1.39	7.34	9.74
Blackside Darter	D	I	S		17	12.92	0.55	0.03	0.18	2.63
Johnny Darter	D	I	C		55	42.75	1.82	0.05	0.27	1.22
	Mile Total				2,919	2,347.92		18.96		
	Number of Species				27					
	Number of Hybrids				1					

Species List

River Code: **04-612**	Stream: **Miller Creek**	Sample Date: **2013**
River Mile: **0.50**	Location:	Date Range: 07/17/2013
Time Fished: 7012 sec	Drainage: 20.9 sq mi	Thru: 08/28/2013
Dist Fished: 0.40 km	Basin: Maumee River No of Passes: 2	Sampler Type: E D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Northern Hog Sucker	R	I	S	M	28	21.00	1.36	0.85	1.89	40.39
White Sucker	W	O	S	T	64	48.00	3.10	1.66	3.70	34.66
Spotted Sucker	R	I	S		1	0.75	0.05	0.02	0.05	28.00
Common Carp	G	O	M	T	36	27.00	1.75	35.40	78.83	1,311.23
Western Blacknose Dace	N	G	S	T	160	120.00	7.76	0.23	0.51	1.91
Creek Chub	N	G	N	T	130	97.50	6.30	0.90	2.00	9.24
Suckermouth Minnow	N	I	S		5	3.75	0.24	0.02	0.05	6.27
Redfin Shiner	N	I	N		65	48.75	3.15	0.08	0.18	1.63
Common Shiner	N	I	S		20	15.00	0.97	0.11	0.25	7.63
Silverjaw Minnow	N	I	M		80	60.00	3.88	0.14	0.32	2.39
Bluntnose Minnow	N	O	C	T	416	312.00	20.17	0.68	1.51	2.17
Central Stoneroller	N	H	N		211	158.25	10.23	0.65	1.46	4.13
Yellow Bullhead		I	C	T	9	6.75	0.44	0.31	0.69	45.89
Tadpole Madtom		I	C		1	0.75	0.05	0.01	0.03	17.00
White Crappie	S	I	C		1	0.75	0.05	0.02	0.05	27.00
Rock Bass	S	C	C		41	30.75	1.99	0.70	1.55	22.65
Largemouth Bass	F	C	C		1	0.75	0.05	0.02	0.05	32.00
Warmouth Sunfish	S	C	C		6	4.50	0.29	0.21	0.48	47.67
Green Sunfish	S	I	C	T	284	213.00	13.77	1.59	3.53	7.44
Bluegill Sunfish	S	I	C	P	75	56.25	3.64	0.35	0.77	6.16
Orangespotted Sunfish	S	I	C		1	0.75	0.05	0.00	0.01	6.00
Green Sf X Hybrid					50	37.50	2.42	0.38	0.84	10.12
Blackside Darter	D	I	S		18	13.50	0.87	0.06	0.12	4.11
Logperch	D	I	S	M	1	0.75	0.05	0.02	0.04	22.00
Johnny Darter	D	I	C		104	78.00	5.04	0.10	0.23	1.34
Fantail Darter	D	I	C		205	153.75	9.94	0.21	0.46	1.34
Mottled Sculpin		I	C		49	36.75	2.38	0.18	0.40	4.95
	Mile Total				2,062	1,546.50		44.91		
	Number of Species				26					
	Number of Hybrids				1					

Species List

River Code: **04-613**	Stream: **Dotty Creek**	Sample Date: **2013**
River Mile: **0.60**	Location:	Date Range: 08/27/2013
Time Fished: 1216 sec	Drainage: 5.3 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	3	6.00	1.27			
Common Carp	G	O	M	T	8	16.00	3.38			
Goldfish	G	O	M	T	37	74.00	15.61			
Golden Shiner	N	I	M	T	1	2.00	0.42			
Western Blacknose Dace	N	G	S	T	1	2.00	0.42			
Creek Chub	N	G	N	T	42	84.00	17.72			
Redfin Shiner	N	I	N		2	4.00	0.84			
Spotfin Shiner	N	I	M		1	2.00	0.42			
Silverjaw Minnow	N	I	M		1	2.00	0.42			
Fathead Minnow	N	O	C	T	3	6.00	1.27			
Bluntnose Minnow	N	O	C	T	93	186.00	39.24			
Stonecat Madtom		I	C	I	1	2.00	0.42			
White Crappie	S	I	C		4	8.00	1.69			
Largemouth Bass	F	C	C		4	8.00	1.69			
Green Sunfish	S	I	C	T	23	46.00	9.70			
Bluegill Sunfish	S	I	C	P	2	4.00	0.84			
Johnny Darter	D	I	C		11	22.00	4.64			
	Mile Total				237	474.00				
	Number of Species				17					
	Number of Hybrids				0					

Species List

River Code: **04-614**	Stream: **Brush Creek**	Sample Date: **2013**
River Mile: **19.10**	Location: Archbold-Lutz Rd.	Date Range: 08/27/2013
Time Fished: 1500 sec	Drainage: 17.0 sq mi	
Dist Fished: 0.20 km	Basin: Maumee River No of Passes: 1	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	132	198.00	3.08			
Western Blacknose Dace	N	G	S	T	71	106.50	1.66			
Creek Chub	N	G	N	T	210	315.00	4.91			
Suckermouth Minnow	N	I	S		1	1.50	0.02			
Common Shiner	N	I	S		266	399.00	6.22			
Silverjaw Minnow	N	I	M		608	912.00	14.21			
Fathead Minnow	N	O	C	T	49	73.50	1.15			
Bluntnose Minnow	N	O	C	T	795	1,192.50	18.58			
Central Stoneroller	N	H	N		829	1,243.50	19.37			
Yellow Bullhead		I	C	T	71	106.50	1.66			
Western Banded Killifish [E]		I	M	S	52	78.00	1.22			
Blackstripe Topminnow		I	M		173	259.50	4.04			
Green Sunfish	S	I	C	T	12	18.00	0.28			
Johnny Darter	D	I	C		1,010	1,515.00	23.60			
	Mile Total				4,279	6,418.50				
	Number of Species				14					
	Number of Hybrids				0					

Species List

River Code: **04-614**	Stream: **Brush Creek**	Sample Date: **2013**
River Mile: **13.30**	Location: Twp. Rd. 24	Date Range: 08/14/2013
Time Fished: 4131 sec	Drainage: 38.0 sq mi	Thru: 10/02/2013
Dist Fished: 0.31 km	Basin: Maumee River No of Passes: 2	Sampler Type: D E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	7	6.69	2.47	0.88	8.85	131.43
Spotted Sucker	R	I	S		3	3.00	1.11	0.47	4.71	156.67
Common Carp	G	O	M	T	4	3.81	1.41	2.20	22.05	557.50
Goldfish	G	O	M	T	1	1.00	0.37	0.09	0.90	90.00
Golden Shiner	N	I	M	T	55	53.44	19.73	0.59	5.89	10.91
Creek Chub	N	G	N	T	2	1.88	0.69	0.10	1.03	55.00
Redfin Shiner	N	I	N		24	22.88	8.44	0.05	0.48	2.10
Common Shiner	N	I	S		2	2.00	0.74	0.01	0.06	3.00
Spotfin Shiner	N	I	M		4	4.00	1.48	0.01	0.12	3.00
Bluntnose Minnow	N	O	C	T	18	17.00	6.28	0.10	1.02	6.00
Central Stoneroller	N	H	N		2	2.00	0.74	0.01	0.08	4.00
Common Carp X Goldfish	G	O		T	15	14.06	5.19	0.17	1.73	12.27
Yellow Bullhead		I	C	T	46	44.06	16.27	3.31	33.22	75.65
Black Bullhead		I	C	P	1	1.00	0.37	0.09	0.91	91.00
Tadpole Madtom		I	C		3	2.88	1.06	0.03	0.27	9.33
Blackstripe Topminnow		I	M		1	1.00	0.37	0.00	0.01	1.00
Western Mosquitofish	E	I	N		1	0.94	0.35	0.00	0.04	4.00
Largemouth Bass	F	C	C		4	3.81	1.41	0.28	2.78	73.75
Green Sunfish	S	I	C	T	64	61.63	22.75	1.33	13.37	21.84
Bluegill Sunfish	S	I	C	P	8	7.56	2.79	0.23	2.28	30.25
Blackside Darter	D	I	S		1	1.00	0.37	0.00	0.03	3.00
Johnny Darter	D	I	C		16	15.25	5.63	0.02	0.17	1.06
	Mile Total				282	270.88		9.97		
	Number of Species				21					
	Number of Hybrids				1					

Species List

River Code: **04-614**	Stream: **Brush Creek**	Sample Date: **2013**
River Mile: **9.10**	Location: Co. Rd. 24.25	Date Range: 10/02/2013
Time Fished: 3100 sec	Drainage: 54.0 sq mi	
Dist Fished: 0.20 km	Basin: Maumee River No of Passes: 1	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		4	6.00	1.33	1.53	4.70	255.00
White Sucker	W	O	S	T	26	39.00	8.67	8.70	26.72	223.08
Spotted Sucker	R	I	S		5	7.50	1.67	0.95	2.92	126.60
Common Carp	G	O	M	T	1	1.50	0.33	2.96	9.08	1,971.00
Goldfish	G	O	M	T	5	7.50	1.67	0.36	1.11	48.00
Golden Shiner	N	I	M	T	9	13.50	3.00	0.15	0.45	10.78
Redfin Shiner	N	I	N		1	1.50	0.33	0.15	0.45	98.00
Striped Shiner	N	I	S		31	46.50	10.33	0.07	0.20	1.40
Fathead Minnow	N	O	C	T	2	3.00	0.67	0.01	0.02	2.00
Yellow Bullhead		I	C	T	54	81.00	18.00	8.40	25.81	103.74
Black Bullhead		I	C	P	11	16.50	3.67	2.36	7.26	143.18
Blackstripe Topminnow		I	M		4	6.00	1.33	0.01	0.02	1.25
Western Mosquitofish	E	I	N		1	1.50	0.33	0.00	0.01	1.00
Brook Silverside		I	M	M	5	7.50	1.67	0.01	0.02	1.00
White Crappie	S	I	C		7	10.50	2.33	1.33	4.08	126.50
Black Crappie	S	I	C		3	4.50	1.00	0.01	0.03	2.00
Largemouth Bass	F	C	C		2	3.00	0.67	1.57	4.82	523.00
Green Sunfish	S	I	C	T	82	123.00	27.33	3.01	9.25	24.49
Bluegill Sunfish	S	I	C	P	31	46.50	10.33	0.82	2.51	17.59
Orangespotted Sunfish	S	I	C		9	13.50	3.00	0.17	0.51	12.25
Green Sf X Bluegill Sf					1	1.50	0.33	0.01	0.02	5.00
Johnny Darter	D	I	C		6	9.00	2.00	0.01	0.03	1.17
	Mile Total				300	450.00		32.56		
	Number of Species				21					
	Number of Hybrids				1					

Species List

River Code: **04-614**	Stream: **Brush Creek**	Sample Date: **2013**
River Mile: **5.80**	Location: Co. Rd. C	Date Range: 08/14/2013
Time Fished: 5408 sec	Drainage: 61.0 sq mi	Thru: 10/02/2013
Dist Fished: 0.36 km	Basin: Maumee River No of Passes: 2	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	42	34.13	1.85	0.51	3.96	14.20
Common Carp	G	O	M	T	23	17.25	0.94	0.38	2.97	22.18
Goldfish	G	O	M	T	92	69.00	3.75	0.86	6.64	12.39
Golden Shiner	N	I	M	T	4	3.00	0.16	0.01	0.09	3.75
Creek Chub	N	G	N	T	84	65.25	3.54	0.46	3.60	6.58
Suckermouth Minnow	N	I	S		8	7.13	0.39	0.01	0.11	2.00
Redfin Shiner	N	I	N		633	569.44	30.92	0.83	6.42	1.53
Spotfin Shiner	N	I	M		51	41.25	2.24	0.09	0.67	2.08
Fathead Minnow	N	O	C	T	1	0.94	0.05	0.00	0.03	5.00
Bluntnose Minnow	N	O	C	T	607	537.38	29.18	1.08	8.37	2.02
Central Stoneroller	N	H	N		4	3.75	0.20	0.01	0.06	2.00
Common Carp X Goldfish	G	O		T	91	85.31	4.63	0.65	5.08	7.67
Channel Catfish	F		C		9	7.88	0.43	1.67	12.93	207.78
Yellow Bullhead		I	C	T	41	34.13	1.85	2.99	23.22	87.83
Tadpole Madtom		I	C		18	15.19	0.82	0.11	0.86	7.17
Blackstripe Topminnow		I	M		9	7.69	0.42	0.02	0.12	2.00
Largemouth Bass	F	C	C		9	7.31	0.40	0.07	0.51	9.44
Green Sunfish	S	I	C	T	197	158.63	8.61	2.08	16.16	12.55
Bluegill Sunfish	S	I	C	P	37	30.94	1.68	0.68	5.28	21.60
Orangespotted Sunfish	S	I	C		30	26.06	1.42	0.15	1.18	5.77
Green Sf X Bluegill Sf					1	0.75	0.04	0.08	0.64	110.00
Blackside Darter	D	I	S		11	9.19	0.50	0.04	0.32	4.64
Johnny Darter	D	I	C		125	107.81	5.85	0.09	0.73	0.87
Greenside Darter	D	I	S	M	3	2.25	0.12	0.00	0.03	1.67
	Mile Total				2,130	1,841.63		12.88		
	Number of Species				22					
	Number of Hybrids				2					

Species List

River Code: **04-614**	Stream: **Brush Creek**	Sample Date: **2013**
River Mile: **1.00**	Location: Co. Rd. 22/60	Date Range: 08/14/2013
Time Fished: 4685 sec	Drainage: 65.0 sq mi	Thru: 10/03/2013
Dist Fished: 0.32 km	Basin: Maumee River No of Passes: 2	Sampler Type: D E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Northern Pike	F	P	M		1	1.00	0.11	0.20	1.32	200.00
White Sucker	W	O	S	T	3	2.76	0.31	0.29	1.94	108.67
Spotted Sucker	R	I	S		1	0.88	0.10	0.07	0.44	75.00
Common Carp	G	O	M	T	4	3.53	0.40	2.63	17.34	744.50
Goldfish	G	O	M	T	40	35.29	3.97	0.60	3.98	17.11
Golden Shiner	N	I	M	T	1	0.88	0.10	0.00	0.02	4.00
Western Blacknose Dace	N	G	S	T	1	1.00	0.11	0.00	0.02	3.00
Creek Chub	N	G	N	T	2	1.76	0.20	0.01	0.07	6.00
Suckermouth Minnow	N	I	S		6	5.88	0.66	0.01	0.08	2.00
Emerald Shiner	N	I	M		1	1.00	0.11	0.01	0.07	10.00
Redfin Shiner	N	I	N		176	160.35	18.06	0.17	1.14	1.07
Spotfin Shiner	N	I	M		100	99.06	11.16	0.19	1.27	1.94
Sand Shiner	N	I	M	M	1	1.00	0.11	0.00	0.01	2.00
Fathead Minnow	N	O	C	T	2	1.76	0.20	0.00	0.03	2.50
Bluntnose Minnow	N	O	C	T	234	225.18	25.36	0.46	3.06	2.06
Central Stoneroller	N	H	N		4	3.88	0.44	0.01	0.05	2.00
Channel Catfish	F		C		24	22.12	2.49	4.94	32.62	231.25
Yellow Bullhead		I	C	T	21	19.94	2.25	1.68	11.05	85.38
Stonecat Madtom		I	C	I	1	1.00	0.11	0.02	0.11	16.00
Brindled Madtom		I	C	I	6	6.00	0.68	0.06	0.38	9.67
Tadpole Madtom		I	C		5	4.88	0.55	0.02	0.16	4.80
Blackstripe Topminnow		I	M		17	15.35	1.73	0.03	0.18	1.76
White Crappie	S	I	C		1	1.00	0.11	0.01	0.05	7.00
Largemouth Bass	F	C	C		3	2.88	0.32	0.03	0.19	10.33
Green Sunfish	S	I	C	T	133	123.00	13.85	2.62	17.29	21.54
Bluegill Sunfish	S	I	C	P	35	32.65	3.68	0.72	4.73	21.71
Orangespotted Sunfish	S	I	C		60	52.94	5.96	0.27	1.81	5.18
Blackside Darter	D	I	S		4	3.65	0.41	0.02	0.14	5.75
Logperch	D	I	S	M	1	1.00	0.11	0.00	0.00	0.49
Johnny Darter	D	I	C		26	24.47	2.76	0.03	0.22	1.35
Greenside Darter	D	I	S	M	32	31.88	3.59	0.04	0.24	1.16
	Mile Total				946	888.00		15.16		
	Number of Species				31					
	Number of Hybrids				0					

Species List

River Code: **04-615**	Stream: **Owl Creek**	Sample Date: **2013**
River Mile: **0.10**	Location: Co. Rd. 25	Date Range: 09/11/2013
Time Fished: 1800 sec	Drainage: 9.9 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	3	6.00	2.21			
Common Carp	G	O	M	T	1	2.00	0.74			
Creek Chub	N	G	N	T	2	4.00	1.47			
Fathead Minnow	N	O	C	T	1	2.00	0.74			
Yellow Bullhead		I	C	T	4	8.00	2.94			
Tadpole Madtom		I	C		1	2.00	0.74			
Western Mosquitofish	E	I	N		8	16.00	5.88			
Largemouth Bass	F	C	C		5	10.00	3.68			
Green Sunfish	S	I	C	T	99	198.00	72.79			
Bluegill Sunfish	S	I	C	P	3	6.00	2.21			
Johnny Darter	D	I	C		9	18.00	6.62			
	Mile Total				136	272.00				
	Number of Species				11					
	Number of Hybrids				0					

Species List

River Code: **04-616**	Stream: **Coon Creek**	Sample Date: **2013**
River Mile: **0.60**	Location:	Date Range: 08/15/2013
Time Fished: 2700 sec	Drainage: 9.3 sq mi	
Dist Fished: 0.20 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Bigmouth Buffalo	C	I	M		1	1.50	0.27			
White Sucker	W	O	S	T	5	7.50	1.34			
Common Carp	G	O	M	T	12	18.00	3.23			
Golden Shiner	N	I	M	T	3	4.50	0.81			
Western Blacknose Dace	N	G	S	T	5	7.50	1.34			
Creek Chub	N	G	N	T	35	52.50	9.41			
Suckermouth Minnow	N	I	S		2	3.00	0.54			
Redfin Shiner	N	I	N		4	6.00	1.08			
Common Shiner	N	I	S		5	7.50	1.34			
Spotfin Shiner	N	I	M		1	1.50	0.27			
Fathead Minnow	N	O	C	T	16	24.00	4.30			
Bluntnose Minnow	N	O	C	T	177	265.50	47.58			
Central Stoneroller	N	H	N		18	27.00	4.84			
Yellow Bullhead		I	C	T	12	18.00	3.23			
Black Bullhead		I	C	P	1	1.50	0.27			
Tadpole Madtom		I	C		1	1.50	0.27			
Western Mosquitofish	E	I	N		3	4.50	0.81			
Black Crappie	S	I	C		4	6.00	1.08			
Largemouth Bass	F	C	C		1	1.50	0.27			
Green Sunfish	S	I	C	T	40	60.00	10.75			
Bluegill Sunfish	S	I	C	P	1	1.50	0.27			
Orangespotted Sunfish	S	I	C		2	3.00	0.54			
Green Sf X Hybrid					1	1.50	0.27			
Johnny Darter	D	I	C		22	33.00	5.91			
	Mile Total				372	558.00				
	Number of Species				23					
	Number of Hybrids				1					

Species List

River Code: **04-617**	Stream: **Beaver Creek**	Sample Date: **2013**
River Mile: **17.10**	Location:	Date Range: 07/16/2013
Time Fished: 2590 sec	Drainage: 14.9 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	12	24.00	1.61			
Western Blacknose Dace	N	G	S	T	7	14.00	0.94			
Creek Chub	N	G	N	T	83	166.00	11.16			
Suckermouth Minnow	N	I	S		4	8.00	0.54			
Redfin Shiner	N	I	N		15	30.00	2.02			
Common Shiner	N	I	S		5	10.00	0.67			
Silverjaw Minnow	N	I	M		7	14.00	0.94			
Bluntnose Minnow	N	O	C	T	148	296.00	19.89			
Central Stoneroller	N	H	N		48	96.00	6.45			
Yellow Bullhead		I	C	T	20	40.00	2.69			
Green Sunfish	S	I	C	T	264	528.00	35.48			
Bluegill Sunfish	S	I	C	P	1	2.00	0.13			
Green Sf X Hybrid					73	146.00	9.81			
Blackside Darter	D	I	S		1	2.00	0.13			
Johnny Darter	D	I	C		54	108.00	7.26			
Greenside Darter	D	I	S	M	2	4.00	0.27			
	Mile Total				744	1,488.00				
	Number of Species				15					
	Number of Hybrids				1					

Species List

River Code: **04-617**	Stream: **Beaver Creek**	Sample Date: **2013**
River Mile: **12.60**	Location:	Date Range: 08/21/2013
Time Fished: 5479 sec	Drainage: 28.0 sq mi	Thru: 09/12/2013
Dist Fished: 0.40 km	Basin: Maumee River No of Passes: 2	Sampler Type: E D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Northern Pike	F	P	M		3	2.25	0.15	4.24	18.91	1,883.33
Golden Redhorse	R	I	S	M	16	12.00	0.78	1.39	6.19	115.50
Northern Hog Sucker	R	I	S	M	57	42.75	2.79	1.77	7.88	41.32
White Sucker	W	O	S	T	52	39.00	2.54	0.60	2.68	15.39
Spotted Sucker	R	I	S		1	0.75	0.05	0.05	0.23	70.00
Common Carp	G	O	M	T	5	3.75	0.24	3.94	17.57	1,050.00
Hornyhead Chub	N	I	N	I	13	9.75	0.64	0.06	0.26	5.85
Western Blacknose Dace	N	G	S	T	59	44.25	2.89	0.14	0.61	3.09
Creek Chub	N	G	N	T	261	195.75	12.76	0.78	3.48	3.98
Suckermouth Minnow	N	I	S		14	10.50	0.68	0.10	0.42	9.00
Redfin Shiner	N	I	N		96	72.00	4.69	0.17	0.77	2.41
Striped Shiner	N	I	S		134	100.50	6.55	0.42	1.87	4.16
Common Shiner	N	I	S		135	101.25	6.60	0.42	1.85	4.11
Silverjaw Minnow	N	I	M		41	30.75	2.00	0.62	2.78	20.28
Bluntnose Minnow	N	O	C	T	250	187.50	12.22	0.48	2.14	2.56
Central Stoneroller	N	H	N		312	234.00	15.26	0.91	4.06	3.89
Channel Catfish	F		C		3	2.25	0.15	1.00	4.48	445.67
Yellow Bullhead		I	C	T	6	4.50	0.29	0.46	2.07	103.00
Brown Bullhead		I	C	T	6	4.50	0.29	0.44	1.95	97.17
Black Bullhead		I	C	P	1	0.75	0.05	0.05	0.23	70.00
Green Sunfish	S	I	C	T	353	264.75	17.26	2.93	13.09	11.08
Bluegill Sunfish	S	I	C	P	13	9.75	0.64	0.26	1.14	26.15
Orangespotted Sunfish	S	I	C		20	15.00	0.98	0.13	0.58	8.60
Green Sf X Bluegill Sf					11	8.25	0.54	0.28	1.26	34.29
Green Sf X Hybrid					29	21.75	1.42	0.45	2.03	20.90
Blackside Darter	D	I	S		22	16.50	1.08	0.06	0.28	3.82
Logperch	D	I	S	M	3	2.25	0.15	0.04	0.18	17.67
Johnny Darter	D	I	C		88	66.00	4.30	0.12	0.53	1.80
Greenside Darter	D	I	S	M	25	18.75	1.22	0.07	0.32	3.76
Fantail Darter	D	I	C		16	12.00	0.78	0.04	0.17	3.07
	Mile Total				2,045	1,533.75		22.41		
	Number of Species				28					
	Number of Hybrids				2					

Species List

River Code: **04-617**	Stream: **Beaver Creek**	Sample Date: **2013**
River Mile: **7.50**	Location:	Date Range: 08/21/2013
Time Fished: 6972 sec	Drainage: 36.0 sq mi	Thru: 09/12/2013
Dist Fished: 0.42 km	Basin: Maumee River No of Passes: 2	Sampler Type: E D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Golden Redhorse	R	I	S	M	2	1.50	0.10	0.53	1.93	350.00
Northern Hog Sucker	R	I	S	M	36	25.91	1.66	1.99	7.33	77.66
White Sucker	W	O	S	T	69	50.18	3.22	2.11	7.78	41.79
Common Carp	G	O	M	T	2	1.36	0.09	4.64	17.07	3,400.00
Hornyhead Chub	N	I	N	I	3	2.25	0.14	0.01	0.04	5.00
Western Blacknose Dace	N	G	S	T	23	16.50	1.06	0.05	0.18	2.96
Creek Chub	N	G	N	T	156	113.73	7.30	1.12	4.12	9.76
Suckermouth Minnow	N	I	S		12	8.86	0.57	0.08	0.28	8.50
Redfin Shiner	N	I	N		95	71.05	4.56	0.12	0.46	1.75
Striped Shiner	N	I	S		225	168.75	10.83	4.64	17.07	27.48
Common Shiner	N	I	S		83	56.59	3.63	0.32	1.17	5.63
Spotfin Shiner	N	I	M		2	1.43	0.09	0.00	0.01	2.50
Sand Shiner	N	I	M	M	1	0.75	0.05	0.00	0.01	2.00
Silverjaw Minnow	N	I	M		43	32.11	2.06	0.11	0.42	3.56
Bluntnose Minnow	N	O	C	T	350	257.66	16.54	2.89	10.63	11.05
Central Stoneroller	N	H	N		188	138.27	8.87	2.34	8.62	16.66
Channel Catfish	F		C		3	2.25	0.14	0.26	0.96	116.00
Yellow Bullhead		I	C	T	4	3.00	0.19	0.25	0.94	84.75
Stonecat Madtom		I	C	I	14	10.02	0.64	0.34	1.24	33.00
Rock Bass	S	C	C		95	68.39	4.39	2.08	7.65	30.16
Smallmouth Bass	F	C	C	M	1	0.75	0.05	0.06	0.23	82.00
Green Sunfish	S	I	C	T	179	129.14	8.29	1.94	7.15	15.13
Bluegill Sunfish	S	I	C	P	1	0.75	0.05	0.01	0.02	7.00
Orangespotted Sunfish	S	I	C		1	0.75	0.05	0.00	0.01	4.00
Green Sf X Bluegill Sf					8	6.00	0.39	0.19	0.68	31.00
Green Sf X Hybrid					5	3.41	0.22	0.11	0.39	31.00
Blackside Darter	D	I	S		22	16.02	1.03	0.07	0.25	4.31
Logperch	D	I	S	M	18	13.23	0.85	0.14	0.52	10.56
Johnny Darter	D	I	C		71	51.00	3.27	0.09	0.33	1.78
Greenside Darter	D	I	S	M	242	172.84	11.09	0.48	1.78	2.80
Fantail Darter	D	I	C		185	133.57	8.57	0.20	0.72	1.47
	Mile Total				2,139	1,558.02		27.16		
	Number of Species				29					
	Number of Hybrids				2					

Species List

River Code: **04-617**	Stream: **Beaver Creek**	Sample Date: **2013**
River Mile: **2.90**	Location:	Date Range: 08/13/2013
Time Fished: 4500 sec	Drainage: 43.0 sq mi	Thru: 09/12/2013
Dist Fished: 0.27 km	Basin: Maumee River No of Passes: 2	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Golden Redhorse	R	I	S	M	1	1.07	0.22	0.55	3.77	515.00
Northern Hog Sucker	R	I	S	M	1	1.07	0.22	0.02	0.15	20.00
Common Carp	G	O	M	T	2	2.31	0.47	4.41	30.15	1,912.50
Western Blacknose Dace	N	G	S	T	1	1.07	0.22	0.00	0.01	2.00
Creek Chub	N	G	N	T	38	41.95	8.63	0.22	1.49	5.16
Suckermouth Minnow	N	I	S		1	1.07	0.22	0.00	0.01	2.00
Redfin Shiner	N	I	N		14	15.08	3.10	0.02	0.16	1.57
Striped Shiner	N	I	S		15	16.81	3.46	0.23	1.59	13.88
Spotfin Shiner	N	I	M		11	12.03	2.48	0.03	0.24	2.82
Bluntnose Minnow	N	O	C	T	106	115.30	23.72	0.31	2.12	2.71
Central Stoneroller	N	H	N		20	21.92	4.51	0.04	0.28	1.90
Channel Catfish	F		C		10	11.04	2.27	5.33	36.44	467.00
Yellow Bullhead		I	C	T	5	5.44	1.12	0.09	0.63	16.40
Stonecat Madtom		I	C	I	1	1.15	0.24	0.06	0.44	56.00
Brindled Madtom		I	C	I	1	1.07	0.22	0.01	0.06	9.00
Tadpole Madtom		I	C		3	3.30	0.68	0.02	0.15	6.67
Blackstripe Topminnow		I	M		2	2.23	0.46	0.01	0.04	2.50
White Crappie	S	I	C		1	1.07	0.22	0.00	0.02	3.00
Rock Bass	S	C	C		14	15.33	3.15	0.33	2.26	21.64
Largemouth Bass	F	C	C		2	2.31	0.47	0.02	0.12	7.50
Green Sunfish	S	I	C	T	67	74.34	15.29	1.83	12.47	24.65
Bluegill Sunfish	S	I	C	P	11	11.95	2.46	0.24	1.62	19.82
Green Sf X Bluegill Sf					7	7.50	1.54	0.20	1.37	26.67
Hybrid X Sunfish					7	8.08	1.66	0.34	2.35	42.57
Blackside Darter	D	I	S		22	24.15	4.97	0.07	0.47	2.86
Logperch	D	I	S	M	3	3.38	0.70	0.04	0.24	10.33
Johnny Darter	D	I	C		42	46.15	9.49	0.08	0.56	1.76
Greenside Darter	D	I	S	M	34	37.91	7.80	0.12	0.79	3.06
	Mile Total				442	486.10		14.64		
	Number of Species				26					
	Number of Hybrids				2					

Species List

River Code: **04-617**	Stream: **Beaver Creek**	Sample Date: **2013**
River Mile: **0.60**	Location:	Date Range: 08/14/2013
Time Fished: 4996 sec	Drainage: 44.8 sq mi	Thru: 10/02/2013
Dist Fished: 0.40 km	Basin: Maumee River No of Passes: 2	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Northern Pike	F	P	M		2	1.50	0.17	0.34	4.47	224.50
Golden Redhorse	R	I	S	M	7	5.25	0.61	0.24	3.14	45.00
Northern Hog Sucker	R	I	S	M	9	6.75	0.78	0.18	2.45	27.33
White Sucker	W	O	S	T	13	9.75	1.13	0.41	5.46	42.15
Spotted Sucker	R	I	S		9	6.75	0.78	0.87	11.55	128.89
Common Carp	G	O	M	T	2	1.50	0.17	0.11	1.47	74.00
Goldfish	G	O	M	T	1	0.75	0.09	0.10	1.29	130.00
Golden Shiner	N	I	M	T	4	3.00	0.35	0.00	0.06	1.50
Western Blacknose Dace	N	G	S	T	3	2.25	0.26	0.00	0.04	1.33
Creek Chub	N	G	N	T	112	84.00	9.76	0.69	9.15	8.20
Suckermouth Minnow	N	I	S		25	18.75	2.18	0.02	0.27	1.04
Emerald Shiner	N	I	M		13	9.75	1.13	0.05	0.65	5.00
Redfin Shiner	N	I	N		86	64.50	7.50	0.09	1.25	1.45
Striped Shiner	N	I	S		5	3.75	0.44	0.01	0.11	2.20
Spotfin Shiner	N	I	M		102	76.50	8.89	0.12	1.56	1.54
Sand Shiner	N	I	M	M	6	4.50	0.52	0.01	0.09	1.33
Silverjaw Minnow	N	I	M		4	3.00	0.35	0.01	0.08	2.00
Bluntnose Minnow	N	O	C	T	357	267.75	31.12	0.48	6.32	1.78
Central Stoneroller	N	H	N		87	65.25	7.59	0.08	1.06	1.21
Channel Catfish	F		C		27	20.25	2.35	1.31	17.33	64.44
Yellow Bullhead		I	C	T	5	3.75	0.44	0.22	2.96	59.40
Stonecat Madtom		I	C	I	2	1.50	0.17	0.00	0.06	3.00
Brindled Madtom		I	C	I	13	9.75	1.13	0.06	0.74	5.67
Tadpole Madtom		I	C		1	0.75	0.09	0.00	0.05	5.00
Blackstripe Topminnow		I	M		2	1.50	0.17	0.00	0.03	1.50
Black Crappie	S	I	C		1	0.75	0.09	0.04	0.48	48.00
Rock Bass	S	C	C		21	15.75	1.83	0.79	10.53	50.33
Largemouth Bass	F	C	C		5	3.75	0.44	0.22	2.98	59.80
Green Sunfish	S	I	C	T	42	31.50	3.66	0.22	2.95	7.06
Bluegill Sunfish	S	I	C	P	27	20.25	2.35	0.36	4.71	17.53
Orangespotted Sunfish	S	I	C		37	27.75	3.23	0.27	3.53	9.57
Hybrid X Sunfish					5	3.75	0.44	0.09	1.25	25.00
Blackside Darter	D	I	S		43	32.25	3.75	0.06	0.82	1.91
Logperch	D	I	S	M	5	3.75	0.44	0.02	0.29	5.60
Johnny Darter	D	I	C		31	23.25	2.70	0.03	0.33	1.06
Greenside Darter	D	I	S	M	33	24.75	2.88	0.04	0.57	1.73
	Mile Total				1,147	860.25		7.53		
	Number of Species				35					
	Number of Hybrids				1					

Species List

River Code: **04-619**	Stream: **Leatherwood Creek**	Sample Date: **2013**
River Mile: **1.20**	Location:	Date Range: 08/27/2013
Time Fished: 1379 sec	Drainage: 9.8 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	3	6.00	0.59			
Northern Pike	F	P	M		9	18.00	1.78			
Northern Hog Sucker	R	I	S	M	2	4.00	0.40			
White Sucker	W	O	S	T	38	76.00	7.52			
Spotted Sucker	R	I	S		3	6.00	0.59			
Golden Shiner	N	I	M	T	3	6.00	0.59			
Western Blacknose Dace	N	G	S	T	2	4.00	0.40			
Creek Chub	N	G	N	T	26	52.00	5.15			
Suckermouth Minnow	N	I	S		1	2.00	0.20			
Common Shiner	N	I	S		3	6.00	0.59			
Spotfin Shiner	N	I	M		44	88.00	8.71			
Silverjaw Minnow	N	I	M		1	2.00	0.20			
Fathead Minnow	N	O	C	T	5	10.00	0.99			
Bluntnose Minnow	N	O	C	T	227	454.00	44.95			
Central Stoneroller	N	H	N		2	4.00	0.40			
Yellow Bullhead		I	C	T	7	14.00	1.39			
Tadpole Madtom		I	C		1	2.00	0.20			
Blackstripe Topminnow		I	M		4	8.00	0.79			
White Crappie	S	I	C		1	2.00	0.20			
Black Crappie	S	I	C		5	10.00	0.99			
Largemouth Bass	F	C	C		1	2.00	0.20			
Green Sunfish	S	I	C	T	39	78.00	7.72			
Green Sf X Hybrid					1	2.00	0.20			
Blackside Darter	D	I	S		10	20.00	1.98			
Johnny Darter	D	I	C		67	134.00	13.27			
	Mile Total				505	1,010.00				
	Number of Species				24					
	Number of Hybrids				1					

Species List

River Code: **04-620**	Stream: **Flat Run**	Sample Date: **2013**
River Mile: **0.40**	Location:	Date Range: 08/28/2013
Time Fished: 2748 sec	Drainage: 10.2 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	1	2.00	0.23			
Northern Pike	F	P	M		1	2.00	0.23			
White Sucker	W	O	S	T	10	20.00	2.34			
Spotted Sucker	R	I	S		1	2.00	0.23			
Common Carp	G	O	M	T	46	92.00	10.77			
Goldfish	G	O	M	T	6	12.00	1.41			
Golden Shiner	N	I	M	T	31	62.00	7.26			
Creek Chub	N	G	N	T	2	4.00	0.47			
Common Shiner	N	I	S		6	12.00	1.41			
Fathead Minnow	N	O	C	T	5	10.00	1.17			
Bluntnose Minnow	N	O	C	T	45	90.00	10.54			
Channel Catfish	F		C		1	2.00	0.23			
Yellow Bullhead		I	C	T	48	96.00	11.24			
Black Bullhead		I	C	P	17	34.00	3.98			
Tadpole Madtom		I	C		19	38.00	4.45			
Blackstripe Topminnow		I	M		15	30.00	3.51			
White Crappie	S	I	C		11	22.00	2.58			
Largemouth Bass	F	C	C		3	6.00	0.70			
Green Sunfish	S	I	C	T	100	200.00	23.42			
Bluegill Sunfish	S	I	C	P	11	22.00	2.58			
Orangespotted Sunfish	S	I	C		14	28.00	3.28			
Johnny Darter	D	I	C		34	68.00	7.96			
	Mile Total				427	854.00				
	Number of Species				22					
	Number of Hybrids				0					

Species List

River Code: **04-622**	Stream: **Bates Creek**	Sample Date: **2013**
River Mile: **1.70**	Location: Co. Rd. 25-2	Date Range: 08/28/2013
Time Fished: 2186 sec	Drainage: 11.8 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	43	86.00	8.83			
Common Carp	G	O	M	T	2	4.00	0.41			
Golden Shiner	N	I	M	T	9	18.00	1.85			
Western Blacknose Dace	N	G	S	T	1	2.00	0.21			
Creek Chub	N	G	N	T	38	76.00	7.80			
Redfin Shiner	N	I	N		7	14.00	1.44			
Common Shiner	N	I	S		64	128.00	13.14			
Spotfin Shiner	N	I	M		9	18.00	1.85			
Fathead Minnow	N	O	C	T	10	20.00	2.05			
Bluntnose Minnow	N	O	C	T	75	150.00	15.40			
Yellow Bullhead		I	C	T	29	58.00	5.95			
Brown Bullhead		I	C	T	31	62.00	6.37			
Stonecat Madtom		I	C	I	3	6.00	0.62			
Blackstripe Topminnow		I	M		20	40.00	4.11			
White Crappie	S	I	C		1	2.00	0.21			
Green Sunfish	S	I	C	T	144	288.00	29.57			
Johnny Darter	D	I	C		1	2.00	0.21			
	Mile Total				487	974.00				
	Number of Species				17					
	Number of Hybrids				0					

Species List

River Code: **04-624**	Stream: **Mill Creek**	Sample Date: **2013**
River Mile: **14.50**	Location:	Date Range: 08/13/2013
Time Fished: 1434 sec	Drainage: 12.9 sq mi	
Dist Fished: 0.20 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Central Mudminnow		I	C	T	17	25.50	2.44	0.14	2.11	5.29
White Sucker	W	O	S	T	48	72.00	6.90	2.02	31.61	28.04
Common Carp	G	O	M	T	4	6.00	0.57	1.33	20.81	221.50
Western Blacknose Dace	N	G	S	T	33	49.50	4.74	0.09	1.46	1.88
Creek Chub	N	G	N	T	160	240.00	22.99	0.58	9.10	2.42
Common Shiner	N	I	S		2	3.00	0.29	0.05	0.78	16.50
Silverjaw Minnow	N	I	M		1	1.50	0.14	0.01	0.09	4.00
Bluntnose Minnow	N	O	C	T	218	327.00	31.32	0.63	9.86	1.93
Central Stoneroller	N	H	N		23	34.50	3.30	0.08	1.22	2.25
Yellow Bullhead		I	C	T	11	16.50	1.58	0.07	1.03	4.00
Black Bullhead		I	C	P	2	3.00	0.29	0.15	2.30	49.00
Largemouth Bass	F	C	C		1	1.50	0.14	0.68	10.62	452.00
Green Sunfish	S	I	C	T	29	43.50	4.17	0.31	4.82	7.07
Bluegill Sunfish	S	I	C	P	8	12.00	1.15	0.02	0.36	1.88
Johnny Darter	D	I	C		139	208.50	19.97	0.25	3.85	1.18
	Mile Total				696	1,044.00		6.39		
	Number of Species				15					
	Number of Hybrids				0					

Species List

River Code: **04-624**	Stream: **Mill Creek**	Sample Date: **2013**
River Mile: **11.90**	Location: Co. Rd. P	Date Range: 08/13/2013
Time Fished: 3840 sec	Drainage: 23.7 sq mi	Thru: 09/13/2013
Dist Fished: 0.35 km	Basin: Maumee River No of Passes: 2	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M		1	0.75	0.05	0.04	0.29	59.00
Central Mudminnow		I	C	T	1	0.75	0.05	0.00	0.01	2.00
White Sucker	W	O	S	T	262	215.75	13.22	4.79	31.46	21.25
Common Carp	G	O	M	T	1	0.75	0.05	0.02	0.14	28.00
Western Blacknose Dace	N	G	S	T	34	28.25	1.73	0.04	0.25	1.34
Creek Chub	N	G	N	T	404	341.50	20.93	3.22	21.14	9.26
Striped Shiner	N	I	S		27	27.00	1.65	0.06	0.37	2.08
Common Shiner	N	I	S		11	8.25	0.51	0.02	0.15	2.82
Silverjaw Minnow	N	I	M		70	55.25	3.39	0.18	1.18	3.24
Fathead Minnow	N	O	C	T	3	2.50	0.15	0.01	0.04	2.33
Bluntnose Minnow	N	O	C	T	413	342.25	20.98	1.04	6.81	3.02
Central Stoneroller	N	H	N		236	194.00	11.89	0.52	3.38	2.66
Channel Catfish	F		C		2	1.75	0.11	0.09	0.61	54.50
Yellow Bullhead		I	C	T	36	32.75	2.01	1.29	8.47	38.47
Brown Bullhead		I	C	T	1	1.00	0.06	0.11	0.72	110.00
Black Bullhead		I	C	P	21	17.75	1.09	1.14	7.51	64.12
Black Crappie	S	I	C		2	1.75	0.11	0.06	0.42	36.00
Green Sunfish	S	I	C	T	188	167.50	10.27	2.14	14.04	13.16
Bluegill Sunfish	S	I	C	P	5	4.25	0.26	0.26	1.68	58.40
Blackside Darter	D	I	S		3	2.50	0.15	0.01	0.04	2.33
Johnny Darter	D	I	C		213	185.25	11.35	0.20	1.29	1.09
	Mile Total				1,934	1,631.50		15.22		
	Number of Species				21					
	Number of Hybrids				0					

Species List

River Code: **04-624**	Stream: **Mill Creek**	Sample Date: **2013**
River Mile: **7.90**	Location: Co. Rd. 22	Date Range: 08/13/2013
Time Fished: 4632 sec	Drainage: 32.7 sq mi	Thru: 09/13/2013
Dist Fished: 0.35 km	Basin: Maumee River No of Passes: 2	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	40	31.00	1.88	0.22	1.03	7.09
Common Carp	G	O	M	T	7	6.25	0.38	15.02	69.33	2,403.57
Western Blacknose Dace	N	G	S	T	24	20.00	1.22	0.06	0.26	2.92
Creek Chub	N	G	N	T	158	133.00	8.08	0.52	2.38	4.07
Striped Shiner	N	I	S		1	1.00	0.06	0.00	0.00	1.00
Common Shiner	N	I	S		2	1.50	0.09	0.00	0.01	2.00
Silverjaw Minnow	N	I	M		2	1.75	0.11	0.00	0.02	2.50
Bluntnose Minnow	N	O	C	T	538	403.50	24.53	0.75	3.47	1.86
Central Stoneroller	N	H	N		718	549.75	33.41	0.64	2.98	1.14
Channel Catfish	F		C		2	1.75	0.11	1.45	6.69	825.00
Yellow Bullhead		I	C	T	57	49.25	2.99	1.15	5.31	23.91
Green Sunfish	S	I	C	T	150	137.50	8.36	1.32	6.09	9.85
Bluegill Sunfish	S	I	C	P	6	5.75	0.35	0.08	0.37	13.83
Blackside Darter	D	I	S		9	6.75	0.41	0.03	0.14	4.33
Johnny Darter	D	I	C		361	296.50	18.02	0.42	1.92	1.43
	Mile Total				2,075	1,645.25		21.66		
	Number of Species				15					
	Number of Hybrids				0					

Species List

River Code: **04-624**	Stream: **Mill Creek**	Sample Date: **2013**
River Mile: **1.90**	Location:	Date Range: 08/13/2013
Time Fished: 5631 sec	Drainage: 39.5 sq mi	Thru: 09/13/2013
Dist Fished: 0.38 km	Basin: Maumee River No of Passes: 2	Sampler Type: E D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Northern Pike	F	P	M		1	0.75	0.05	0.10	0.48	132.00
Golden Redhorse	R	I	S	M	5	4.08	0.28	0.27	1.28	65.00
Shorthead Redhorse	R	I	S	M	4	3.17	0.22	0.30	1.42	92.75
Northern Hog Sucker	R	I	S	M	29	21.75	1.49	1.11	5.33	50.89
White Sucker	W	O	S	T	64	50.75	3.47	2.60	12.51	52.00
Spotted Sucker	R	I	S		7	5.42	0.37	1.44	6.94	263.57
Golden Shiner	N	I	M	T	2	1.50	0.10	0.00	0.01	1.00
River Chub	N	I	N	I	1	0.75	0.05	0.03	0.14	40.00
Western Blacknose Dace	N	G	S	T	1	0.83	0.06	0.00	0.00	1.00
Creek Chub	N	G	N	T	233	184.33	12.59	1.49	7.15	8.02
Suckermouth Minnow	N	I	S		3	2.25	0.15	0.00	0.01	1.33
Redfin Shiner	N	I	N		22	16.50	1.13	0.02	0.10	1.27
Striped Shiner	N	I	S		26	21.67	1.48	0.02	0.08	0.81
Common Shiner	N	I	S		52	39.00	2.66	0.14	0.65	3.46
Spotfin Shiner	N	I	M		81	62.92	4.30	0.16	0.79	2.58
Sand Shiner	N	I	M	M	13	10.17	0.69	0.02	0.08	1.54
Silverjaw Minnow	N	I	M		39	30.75	2.10	0.03	0.16	1.08
Bluntnose Minnow	N	O	C	T	724	588.50	40.19	7.11	34.21	11.87
Central Stoneroller	N	H	N		29	22.75	1.55	0.04	0.21	1.90
Striped Sh X Common Sh		I			2	1.50	0.10	0.01	0.03	3.50
Channel Catfish	F		C		5	3.75	0.26	1.88	9.03	500.00
Yellow Bullhead		I	C	T	18	14.42	0.98	1.18	5.70	81.61
Stonecat Madtom		I	C	I	1	0.83	0.06	0.05	0.22	55.00
Rock Bass	S	C	C		4	3.08	0.21	0.21	1.03	69.50
Smallmouth Bass	F	C	C	M	1	0.83	0.06	0.11	0.51	126.00
Largemouth Bass	F	C	C		11	8.42	0.57	0.86	4.16	99.55
Green Sunfish	S	I	C	T	123	98.00	6.69	0.99	4.75	10.13
Bluegill Sunfish	S	I	C	P	17	13.50	0.92	0.19	0.93	14.47
Orangespotted Sunfish	S	I	C		3	2.42	0.17	0.01	0.05	4.33
Dusky Darter	D	I	S	M	1	0.83	0.06	0.01	0.02	6.00
Blackside Darter	D	I	S		46	36.50	2.49	0.14	0.66	3.80
Logperch	D	I	S	M	1	0.75	0.05	0.02	0.07	20.00
Johnny Darter	D	I	C		201	163.08	11.14	0.17	0.82	1.06
Greenside Darter	D	I	S	M	50	39.75	2.71	0.08	0.39	2.04
Fantail Darter	D	I	C		11	8.92	0.61	0.02	0.08	1.91
	Mile Total				1,831	1,464.42		20.77		
	Number of Species				34					
	Number of Hybrids				1					

River Code: **04-626**	Stream: **Bean Creek**	Sample Date: **2013**
River Mile: **7.50**	Location:	Date Range: 08/14/2013
Time Fished: 5457 sec	Drainage: 206.0 sq mi	Thru: 09/25/2013
Dist Fished: 0.40 km	Basin: Maumee River No of Passes: 2	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Amer Brook Lamprey		F	N	R	2	1.50	0.10	0.03	0.06	19.00
Gizzard Shad		O	M		3	2.25	0.16	0.35	0.75	156.67
Northern Pike	F	P	M		2	1.50	0.10	1.44	3.05	957.00
Quillback	C	O	M		12	9.00	0.63	1.76	3.75	195.83
Silver Redhorse	R	I	S	M	20	15.00	1.04	2.65	5.63	176.76
Golden Redhorse	R	I	S	M	208	156.00	10.87	18.55	39.41	118.88
Shorthead Redhorse	R	I	S	M	22	16.50	1.15	2.35	5.00	142.68
Northern Hog Sucker	R	I	S	M	76	57.00	3.97	2.96	6.29	51.91
White Sucker	W	O	S	T	19	14.25	0.99	1.28	2.72	89.95
Spotted Sucker	R	I	S		1	0.75	0.05	0.00	0.01	4.00
Common Carp	G	O	M	T	3	2.25	0.16	4.65	9.88	2,066.67
River Chub	N	I	N	I	122	91.50	6.37	1.90	4.03	20.74
Western Blacknose Dace	N	G	S	T	1	0.75	0.05	0.00	0.00	2.00
Creek Chub	N	G	N	T	7	5.25	0.37	0.07	0.15	13.14
Emerald Shiner	N	I	M		25	18.75	1.31	0.11	0.23	5.80
Rosyface Shiner	N	I	S	I	73	54.75	3.81	0.14	0.29	2.50
Striped Shiner	N	I	S		11	8.25	0.57	0.16	0.34	19.45
Common Shiner	N	I	S		25	18.75	1.31	0.36	0.77	19.20
Spotfin Shiner	N	I	M		302	226.50	15.78	0.50	1.05	2.19
Sand Shiner	N	I	M	M	448	336.00	23.41	0.63	1.35	1.89
Silverjaw Minnow	N	I	M		54	40.50	2.82	0.14	0.29	3.39
Bluntnose Minnow	N	O	C	T	223	167.25	11.65	0.69	1.47	4.14
Central Stoneroller	N	H	N		10	7.50	0.52	0.02	0.05	3.20
Striped Sh X Rosyface Sh		I			1	0.75	0.05	0.00	0.01	5.00
Channel Catfish	F		C		16	12.00	0.84	0.94	1.99	78.13
Yellow Bullhead		I	C	T	15	11.25	0.78	0.54	1.15	48.20
Stonecat Madtom		I	C	I	5	3.75	0.26	0.16	0.34	42.60
Tadpole Madtom		I	C		1	0.75	0.05	0.01	0.01	8.00
Blackstripe Topminnow		I	M		5	3.75	0.26	0.01	0.01	1.60
Rock Bass	S	C	C		71	53.25	3.71	1.97	4.18	36.94
Smallmouth Bass	F	C	C	M	20	15.00	1.04	2.13	4.53	142.02
Largemouth Bass	F	C	C		1	0.75	0.05	0.01	0.01	8.00
Green Sunfish	S	I	C	T	16	12.00	0.84	0.38	0.80	31.44
Bluegill Sunfish	S	I	C	P	1	0.75	0.05	0.02	0.03	20.00
Dusky Darter	D	I	S	M	10	7.50	0.52	0.04	0.07	4.60
Blackside Darter	D	I	S		8	6.00	0.42	0.02	0.03	2.50
Logperch	D	I	S	M	1	0.75	0.05	0.01	0.02	12.00
Johnny Darter	D	I	C		35	26.25	1.83	0.05	0.12	2.06
Greenside Darter	D	I	S	M	31	23.25	1.62	0.03	0.07	1.39
Mottled Sculpin		I	C		8	6.00	0.42	0.02	0.04	3.13
	Mile Total				1,914	1,435.50		47.06		
	Number of Species				39					
	Number of Hybrids				1					

River Code: **04-626**	Stream: **Bean Creek**	Sample Date: **2013**
River Mile: **2.20**	Location: Old Angola Rd.	Date Range: 08/12/2013
Time Fished: 5465 sec	Drainage: 246.0 sq mi	Thru: 09/25/2013
Dist Fished: 0.40 km	Basin: Maumee River No of Passes: 2	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Amer Brook Lamprey		F	N	R	2	1.50	0.19	0.02	0.12	16.00
Northern Pike	F	P	M		2	1.50	0.19	1.71	8.33	1,142.50
Quillback	C	O	M		3	2.25	0.29	1.46	7.11	650.00
Silver Redhorse	R	I	S	M	10	7.50	0.96	0.93	4.50	123.40
Golden Redhorse	R	I	S	M	47	35.25	4.51	1.38	6.68	39.00
Shorthead Redhorse	R	I	S	M	19	14.25	1.82	0.56	2.73	39.36
Northern Hog Sucker	R	I	S	M	67	50.25	6.43	1.73	8.39	34.37
Spotted Sucker	R	I	S		2	1.50	0.19	0.43	2.07	284.00
Common Carp	G	O	M	T	3	2.25	0.29	3.79	18.40	1,683.33
River Chub	N	I	N	I	36	27.00	3.45	0.46	2.24	17.06
Western Blacknose Dace	N	G	S	T	1	0.75	0.10	0.00	0.00	1.00
Creek Chub	N	G	N	T	7	5.25	0.67	0.03	0.16	6.33
Suckermouth Minnow	N	I	S		10	7.50	0.96	0.02	0.10	2.75
Emerald Shiner	N	I	M		14	10.50	1.34	0.05	0.23	4.46
Redfin Shiner	N	I	N		1	0.75	0.10	0.00	0.01	2.00
Striped Shiner	N	I	S		1	0.75	0.10	0.03	0.15	42.00
Common Shiner	N	I	S		7	5.25	0.67	0.01	0.04	1.43
Spotfin Shiner	N	I	M		266	199.50	25.53	0.17	0.85	0.87
Sand Shiner	N	I	M	M	114	85.50	10.94	0.16	0.78	1.88
Silverjaw Minnow	N	I	M		33	24.75	3.17	0.07	0.33	2.74
Bluntnose Minnow	N	O	C	T	122	91.50	11.71	0.35	1.69	3.80
Central Stoneroller	N	H	N		4	3.00	0.38	0.01	0.04	2.50
Channel Catfish	F		C		21	15.75	2.02	2.30	11.19	146.19
Yellow Bullhead		I	C	T	9	6.75	0.86	0.47	2.30	70.00
Stonecat Madtom		I	C	I	2	1.50	0.19	0.08	0.36	50.00
Brindled Madtom		I	C	I	7	5.25	0.67	0.06	0.29	11.29
Blackstripe Topminnow		I	M		3	2.25	0.29	0.00	0.01	1.33
White Crappie	S	I	C		1	0.75	0.10	0.00	0.01	2.00
Black Crappie	S	I	C		1	0.75	0.10	0.19	0.91	250.00
Rock Bass	S	C	C		43	32.25	4.13	1.36	6.60	42.09
Smallmouth Bass	F	C	C	M	17	12.75	1.63	1.96	9.54	154.00
Green Sunfish	S	I	C	T	46	34.50	4.41	0.48	2.32	13.81
Orangespotted Sunfish	S	I	C		2	1.50	0.19	0.01	0.05	6.50
Green Sf X Hybrid					1	0.75	0.10	0.04	0.17	47.00
Dusky Darter	D	I	S	M	29	21.75	2.78	0.14	0.68	6.45
Blackside Darter	D	I	S		34	25.50	3.26	0.06	0.31	2.47
Johnny Darter	D	I	C		17	12.75	1.63	0.02	0.09	1.47
Greenside Darter	D	I	S	M	38	28.50	3.65	0.05	0.26	1.84
	Mile Total				1,042	781.50		20.58		
	Number of Species				37					
	Number of Hybrids				1					

River Code: **04-628**	Stream: **Deer Creek**	Sample Date: **2013**
River Mile: **4.60**	Location: Co. Rd. 23	Date Range: 08/13/2013
Time Fished: 1697 sec	Drainage: 10.4 sq mi	
Dist Fished: 0.20 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Golden Redhorse	R	I	S	M	2	3.00	0.13	0.21	0.87	71.00
Northern Hog Sucker	R	I	S	M	2	3.00	0.13	0.31	1.25	102.50
White Sucker	W	O	S	T	137	205.50	8.75	9.26	37.74	45.07
Western Blacknose Dace	N	G	S	T	121	181.50	7.73	0.65	2.66	3.59
Creek Chub	N	G	N	T	668	1,002.00	42.66	9.95	40.55	9.93
Suckermouth Minnow	N	I	S		10	15.00	0.64	0.13	0.54	8.89
Redfin Shiner	N	I	N		2	3.00	0.13	0.01	0.04	3.00
Common Shiner	N	I	S		107	160.50	6.83	0.64	2.60	3.97
Silverjaw Minnow	N	I	M		32	48.00	2.04	0.17	0.69	3.53
Fathead Minnow	N	O	C	T	12	18.00	0.77	0.06	0.26	3.50
Bluntnose Minnow	N	O	C	T	246	369.00	15.71	0.82	3.32	2.21
Central Stoneroller	N	H	N		107	160.50	6.83	1.38	5.61	8.58
Yellow Bullhead		I	C	T	6	9.00	0.38	0.17	0.69	18.83
Blackstripe Topminnow		I	M		2	3.00	0.13	0.01	0.03	2.50
Green Sunfish	S	I	C	T	14	21.00	0.89	0.47	1.89	22.14
Blackside Darter	D	I	S		2	3.00	0.13	0.04	0.14	11.50
Johnny Darter	D	I	C		93	139.50	5.94	0.26	1.06	1.86
Brook Stickleback		I	C		3	4.50	0.19	0.02	0.07	3.67
	Mile Total				1,566	2,349.00		24.55		
	Number of Species				18					
	Number of Hybrids				0					

River Code: **04-632**	Stream: **Old Bean Creek**	Sample Date: **2013**
River Mile: **6.20**	Location:	Date Range: 08/14/2013
Time Fished: 2294 sec	Drainage: 14.6 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River No of Passes: 1	Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	11	22.00	1.72	0.65	7.84	29.64
Northern Pike	F	P	M		8	16.00	1.25	1.32	15.89	82.63
Northern Hog Sucker	R	I	S	M	2	4.00	0.31	0.18	2.14	44.50
White Sucker	W	O	S	T	4	8.00	0.62	0.29	3.49	36.25
Spotted Sucker	R	I	S		1	2.00	0.16	0.05	0.58	24.00
Golden Shiner	N	I	M	T	2	4.00	0.31	0.01	0.10	2.00
Creek Chub	N	G	N	T	20	40.00	3.12	1.23	14.78	30.74
Redfin Shiner	N	I	N		23	46.00	3.59	0.10	1.23	2.22
Spotfin Shiner	N	I	M		74	148.00	11.54	0.36	4.30	2.42
Sand Shiner	N	I	M	M	2	4.00	0.31	0.01	0.14	3.00
Silverjaw Minnow	N	I	M		3	6.00	0.47	0.01	0.17	2.33
Bluntnose Minnow	N	O	C	T	276	552.00	43.06	1.45	17.40	2.62
Central Stoneroller	N	H	N		2	4.00	0.31	0.01	0.10	2.00
Yellow Bullhead		I	C	T	36	72.00	5.62	1.73	20.77	24.00
Tadpole Madtom		I	C		3	6.00	0.47	0.08	0.91	12.67
Blackstripe Topminnow		I	M		72	144.00	11.23	0.33	4.00	2.31
Largemouth Bass	F	C	C		1	2.00	0.16	0.02	0.24	10.00
Green Sunfish	S	I	C	T	5	10.00	0.78	0.22	2.60	21.60
Bluegill Sunfish	S	I	C	P	2	4.00	0.31	0.01	0.14	3.00
Johnny Darter	D	I	C		75	150.00	11.70	0.15	1.85	1.03
Greenside Darter	D	I	S	M	19	38.00	2.96	0.11	1.32	2.89
	Mile Total				641	1,282.00		8.32		
	Number of Species				21					
	Number of Hybrids				0					

River Code: **04-632**	Stream: **Old Bean Creek**	Sample Date: **2013**
River Mile: **1.90**	Location:	Date Range: 08/12/2013
Time Fished: 4626 sec	Drainage: 25.4 sq mi	Thru: 10/03/2013
Dist Fished: 0.40 km	Basin: Maumee River No of Passes: 2	Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	29	21.75	3.61	0.38	2.58	17.24
Northern Pike	F	P	M		3	2.25	0.37	1.02	6.98	451.33
Silver Redhorse	R	I	S	M	1	0.75	0.12	1.14	7.86	1,525.00
Golden Redhorse	R	I	S	M	1	0.75	0.12	0.05	0.36	70.00
White Sucker	W	O	S	T	9	6.75	1.12	0.17	1.18	25.44
Spotted Sucker	R	I	S		3	2.25	0.37	0.42	2.87	185.67
Common Carp	G	O	M	T	3	2.25	0.37	4.84	33.26	2,150.00
Golden Shiner	N	I	M	T	4	3.00	0.50	0.01	0.04	2.00
Redfin Shiner	N	I	N		10	7.50	1.24	0.02	0.11	2.10
Spotfin Shiner	N	I	M		219	164.25	27.24	0.15	1.06	0.94
Sand Shiner	N	I	M	M	5	3.75	0.62	0.01	0.04	1.60
Bluntnose Minnow	N	O	C	T	228	171.00	28.36	0.25	1.73	1.47
Yellow Bullhead		I	C	T	48	36.00	5.97	1.99	13.71	55.40
Black Bullhead		I	C	P	49	36.75	6.09	1.74	11.98	47.41
Tadpole Madtom		I	C		1	0.75	0.12	0.00	0.02	4.00
Blackstripe Topminnow		I	M		23	17.25	2.86	0.02	0.14	1.17
Black Crappie	S	I	C		3	2.25	0.37	0.07	0.46	30.00
Rock Bass	S	C	C		6	4.50	0.75	0.11	0.73	23.67
Largemouth Bass	F	C	C		5	3.75	0.62	0.03	0.22	8.60
Green Sunfish	S	I	C	T	111	83.25	13.81	1.79	12.32	21.51
Bluegill Sunfish	S	I	C	P	8	6.00	1.00	0.26	1.76	42.63
Green Sf X Hybrid					1	0.75	0.12	0.03	0.21	40.00
Dusky Darter	D	I	S	M	2	1.50	0.25	0.01	0.06	6.00
Blackside Darter	D	I	S		12	9.00	1.49	0.03	0.21	3.33
Johnny Darter	D	I	C		17	12.75	2.11	0.02	0.11	1.18
Greenside Darter	D	I	S	M	3	2.25	0.37	0.00	0.02	1.33
	Mile Total				804	603.00		14.55		
	Number of Species				25					
	Number of Hybrids				1					

Appendix D – Fish Metric, IBI, and MIwb Results

Boat

River Mile	Type	Date	Drainage area (sq mi)	Number of: Total species	Sunfish species	Sucker species	Intolerant species	Percent of Individuals: Rnd-bodied suckers	Simple Lithophils	Tolerant fishes	Omni-vores	Top carnivores	Insect-ivores	DELT anomalies	Rel.No. minus tolerants /(1.0 km)	IBI	Modified Iwb
Tiffin River - (04-600)																	
Year: 2013																	
47.50	A	07/31/2013	337	25(5)	5(5)	6(5)	1(1)	25(3)	29(3)	19(3)	14(5)	6(3)	75(5)	0.0(5)	674(5)	48	9.5
41.10	A	08/08/2013	374	25(5)	4(5)	6(5)	0(1)	35(3)	36(3)	15(5)	13(5)	10(3)	67(5)	0.0(5)	538(5)	50	9.7
41.10	A	09/25/2013	374	26(5)	3(3)	6(5)	4(5)	31(3)	34(3)	34(1)	32(1)	4(1)	59(5)	0.3(5)	522(5)	42	9.3
35.20	A	07/19/2013	407	22(5)	4(5)	6(5)	0(1)	35(3)	37(3)	27(3)	27(3)	1(1)	66(5)	0.0(5)	358(3)	42	9.0
35.20	A	09/20/2013	407	27(5)	6(5)	6(5)	0(1)	30(3)	32(3)	33(1)	33(1)	3(1)	59(5)	0.2(5)	572(5)	40	9.5
34.00	A	07/18/2013	412	21(5)	5(5)	5(3)	0(1)	28(3)	29(3)	29(1)	16(5)	6(3)	73(5)	0.0(5)	294(3)	42	9.4
34.00	A	09/20/2013	412	23(5)	6(5)	6(5)	0(1)	30(3)	31(3)	15(3)	8(5)	5(1)	74(5)	0.0(5)	352(3)	44	10.2
26.10	A	08/07/2013	421	22(5)	4(5)	5(3)	1(1)	24(3)	28(3)	21(3)	20(3)	2(1)	64(5)	0.3(5)	580(5)	42	9.7
26.10	A	09/25/2013	421	23(5)	5(5)	7(5)	0(1)	24(3)	25(3)	18(3)	19(3)	4(1)	55(5)	0.0(5)	409(3)	42	10.1
19.70	A	08/07/2013	476	24(5)	5(5)	5(3)	1(1)	13(1)	16(1)	21(3)	20(3)	2(1)	62(5)	0.0(5)	450(5)	38	9.5
19.70	A	09/25/2013	476	19(3)	4(5)	5(3)	1(1)	16(1)	16(1)	14(5)	14(5)	0(1)	57(5)	0.5(5)	358(3)	38	9.1
14.00	A	07/31/2013	562	22(5)	3(3)	4(3)	0(1)	5(1)	7(1)	16(3)	15(5)	1(1)	61(5)	1.1(3)	560(5)	36	9.2
14.00	A	09/26/2013	562	31(5)	6(5)	5(3)	2(3)	8(1)	10(1)	29(1)	29(1)	1(1)	52(3)	0.3(5)	613(5)	34	9.5
7.10	A	08/08/2013	736	35(5)	5(5)	5(3)	3(3)	6(1)	11(1)	15(3)	15(5)	2(1)	73(5)	0.6(3)	1179(5)	40	10.0
Year: 2012																	
0.80	A	07/17/2012	775	17(3)	4(5)	3(3)	0(1)	5(1)	11(1)	12(5)	39(1)	3(1)	54(5)	0.0(5)	412(3)	34	8.6
0.80	A	08/27/2012	775	20(3)	4(5)	5(3)	0(1)	13(1)	15(1)	14(5)	33(1)	1(1)	63(5)	0.4(5)	446(5)	36	8.1

♦ - IBI is low end adjusted.
* - < 200 Total individuals in sample
** - < 50 Total individuals in sample

Wading

River Mile	Type	Date	Drainage area (sq mi)	Number of: Total species	Sunfish species	Sucker species	Intolerant species	Darter species	Percent of Individuals: Simple Lithophils	Tolerant fishes	Omni-vores	Top carnivores	Insect-ivores	DELT anomalies	Rel.No. minus tolerants /(0.3km)	IBI	Modified Iwb
Tiffin River - (04600)																	
Year: 2012																	
18.70	D	08/31/2012	542	18(3)	5(5)	3(3)	1(1)	1(1)	5(1)	10(5)	15(5)	3.3(3)	62(5)	0.7(5)	204(3)	40	7.7
18.70	D	10/02/2012	542	23(5)	4(5)	4(3)	1(1)	3(1)	6(1)	34(1)	35(1)	1.4(3)	47(3)	0.0(5)	209(3)	32	7.9
14.00	D	08/31/2012	562	28(5)	5(5)	4(3)	2(1)	2(1)	4(1)	13(5)	18(5)	0.4(1)	75(5)	0.0(5)	918(5)	42	9.1
14.00	D	10/02/2012	562	28(5)	4(5)	4(3)	2(1)	5(3)	4(1)	15(3)	19(3)	0.4(1)	77(5)	0.0(5)	1005(5)	40	9.1
7.10	D	08/31/2012	736	32(5)	5(5)	3(3)	4(3)	4(3)	5(1)	63(1)	75(1)	0.4(1)	21(1)	0.0(5)	587(3)	32	8.3
7.10	D	10/02/2012	736	29(5)	4(5)	2(1)	4(3)	5(3)	9(1)	37(1)	42(1)	0.2(1)	53(3)	0.0(5)	836(5)	34	8.8
Mill Creek - (04624)																	
Year: 2013																	
11.90	E	08/13/2013	23	18(5)	3(3)	1(1)	0(1)	2(3)	18(3)	69(1)	39(1)	0.0(1)	24(1)	0.0(5)	555(3)	28	7.7
11.90	E	09/13/2013	23	17(3)	3(3)	1(1)	0(1)	2(3)	16(1)	69(1)	29(3)	0.0(1)	39(3)	0.0(5)	442(3)	28	7.5
7.90	E	08/13/2013	32	13(3)	2(3)	1(1)	0(1)	2(1)	4(1)	45(3)	34(3)	0.0(1)	21(1)	0.0(5)	1421(5)	28	7.3
7.90	E	09/13/2013	32	12(3)	2(3)	1(1)	0(1)	1(1)	2(1)	80(1)	56(1)	0.0(1)	30(3)	0.0(5)	312(3)	24	5.8
1.90	E	08/13/2013	39	29(5)	4(5)	5(5)	1(1)	5(5)	23(3)	53(1)	28(3)	1.8(3)	51(3)	0.1(5)	521(3)	42	9.4
1.90	D	09/13/2013	39	26(5)	4(5)	5(5)	1(1)	5(5)	12(1)	70(1)	52(1)	0.4(1)	36(3)	0.3(3)	550(3)	34	8.5
New Bean Creek - (04626)																	
Year: 2013																	
7.50	D	08/14/2013	206	33(5)	3(3)	5(5)	4(3)	5(3)	25(3)	16(5)	14(5)	3.8(3)	79(5)	0.0(5)	966(5)	50	10.1
7.50	D	09/25/2013	206	31(5)	2(3)	7(5)	3(3)	4(3)	27(3)	14(5)	13(5)	5.7(5)	80(5)	0.0(5)	1479(5)	52	9.8
2.20	D	08/12/2013	246	31(5)	3(3)	6(5)	3(3)	4(3)	24(3)	18(3)	13(5)	4.0(3)	80(5)	0.2(5)	854(5)	48	10.2
2.20	D	09/25/2013	246	28(5)	4(5)	5(5)	4(3)	4(3)	28(3)	17(5)	11(5)	9.9(5)	76(5)	0.0(5)	428(3)	52	9.4
Old Bean Creek - (04632)																	
Year: 2013																	
1.90	D	08/12/2013	25	22(5)	4(5)	3(5)	0(1)	3(3)	4(1)	59(1)	23(3)	7.1(5)	69(5)	0.3(5)	216(3)	42	7.5

na - Qualitative data, Modified Iwb not applicable.

♦ - IBI is low end adjusted.

* - < 200 Total individuals in sample

** - < 50 Total individuals in sample

● - One or more species excluded from IBI calculation.

Wading

				Number of					Percent of Individuals								
River Mile	Type	Date	Drainage area (sq mi)	Total species	Sunfish species	Sucker species	Intolerant species	Darter species	Simple Lithophils	Tolerant fishes	Omni-vores	Top carnivores	Insect-ivores	DELT anomalies	Rel.No. minus tolerants /(0.3km)	IBI	Modified Iwb
1.90	D	10/03/2013	25	21(5)	3(3)	3(5)	0(1)	4(5)	4(1)	43(3)	35(1)	4.0(3)	61(5)	0.0(5)	386(3)	40	7.5

na - Qualitative data, Modified Iwb not applicable.
♦ - IBI is low end adjusted.
* - < 200 Total individuals in sample
** - < 50 Total individuals in sample
● - One or more species excluded from IBI calculation.

Wading

				Number of					Percent of Individuals								
River Mile	Type	Date	Drainage area (sq mi)	Total species	Sunfish species	Sucker species	Intolerant species	Darter species	Simple Lithophils	Tolerant fishes	Omni-vores	Top carnivores	Insect-ivores	DELT anomalies	Rel.No. minus tolerants /(0.3km)	IBI	Modified Iwb
Brush Creek - (04614)																	
Year: 2013																	
13.30	D	08/14/2013	38	11(3)	2(3)	1(1)	0(1)	1(1)	3(1)	76(1)	22(3)	1.7(3)	75(5)	0.0(5)	81(1)	28	6.3
13.30	E	10/02/2013	38	17(3)	2(3)	2(3)	0(1)	2(1)	8(1)	74(1)	6(5)	1.0(1)	91(5)	0.0(5)	54(1)	30	6.1
9.10	D	10/02/2013	54	18(3)	5(5)	2(3)	0(1)	1(1)	21(3)	60(1)	13(5)	0.7(3)	86(5)	0.0(5)	182(1)	36	8.1
5.80	D	08/14/2013	61	18(3)	3(3)	1(1)	0(1)	2(1)	2(1)	49(1)	42(1)	0.2(1)	56(5)	0.1(5)	1256(5)	28	8.3
5.80	D	10/02/2013	61	18(3)	3(3)	1(1)	0(1)	3(3)	4(1)	50(1)	28(3)	0.6(1)	64(5)	0.0(5)	818(5)	32	8.2
1.00	D	08/14/2013	65	21(3)	3(5)	2(3)	0(1)	3(3)	2(1)	45(1)	25(3)	0.2(1)	71(5)	0.0(5)	482(3)	34	8.3
1.00	E	10/03/2013	65	24(5)	3(3)	1(1)	2(1)	4(3)	9(1)	49(1)	35(1)	0.7(1)	61(5)	0.0(5)	464(3)	30	7.9
Beaver Creek - (04617)																	
Year: 2013																	
12.60	E	08/21/2013	28	23(5)	3(3)	3(3)	1(1)	5(5)	24(3)	55(1)	20(3)	0.1(1)	50(3)	0.0(5)	722(3)	36	9.2
12.60	D	09/12/2013	28	25(5)	3(3)	4(5)	1(1)	5(5)	24(3)	38(3)	9(5)	0.2(1)	59(5)	0.1(5)	1023(5)	46	9.8
7.50	E	08/21/2013	36	19(5)	2(3)	2(3)	1(1)	5(5)	40(5)	34(3)	14(5)	6.2(5)	64(5)	0.0(5)	611(3)	48	8.4
7.50	D	09/12/2013	36	27(5)	4(5)	3(3)	2(3)	5(5)	31(3)	38(3)	22(3)	3.7(3)	55(5)	0.0(5)	1362(5)	48	10.1
2.90	E	08/13/2013	43	19(3)	3(3)	0(1)	1(1)	4(3)	24(3)	46(3)	15(5)	4.0(3)	60(5)	0.0(5)	189(1)	36	7.7
2.90	E	09/12/2013	43	23(5)	4(5)	2(3)	1(1)	4(3)	14(1)	51(1)	29(3)	3.5(3)	50(3)	0.0(5)	302(3)	36	8.2
0.60	D	08/14/2013	44	29(5)	4(5)	4(5)	1(1)	4(3)	13(1)	48(1)	35(1)	1.9(3)	44(3)	0.1(5)	650(3)	36	9.4
0.60	D	10/02/2013	44	29(5)	5(5)	4(5)	1(1)	4(3)	14(1)	43(3)	26(3)	3.9(3)	47(3)	0.0(5)	263(3)	40	9.0

na - Qualitative data, Modified Iwb not applicable.
♦ - IBI is low end adjusted.
* - < 200 Total individuals in sample
** - < 50 Total individuals in sample
● - One or more species excluded from IBI calculation.

Wading

River Mile	Type	Date	Drainage area (sq mi)	Number of: Total species	Sunfish species	Sucker species	Intolerant species	Darter species	Percent of Individuals: Simple Lithophils	Tolerant fishes	Omni-vores	Top carnivores	Insect-ivores	DELT anomalies	Rel.No. minus tolerants /(0.3km)	IBI	Modified Iwb
Lick Creek - (04609)																	
Year: 2013																	
17.70	D	07/17/2013	39	23(5)	3(3)	2(3)	0(1)	5(5)	20(3)	42(3)	24(3)	1.7(3)	34(3)	0.0(5)	1338(5)	42	9.4
17.70	D	08/28/2013	39	20(5)	3(3)	2(3)	0(1)	4(3)	12(1)	54(1)	35(1)	1.2(3)	24(1)	0.0(5)	1742(5)	32	9.3
10.00	E	08/13/2013	58	25(5)	4(5)	3(3)	1(1)	4(3)	19(3)	35(3)	13(5)	1.9(3)	74(5)	0.0(5)	420(3)	44	8.5
10.00	E	09/11/2013	58	26(5)	5(5)	2(3)	1(1)	5(5)	14(1)	45(1)	19(3)	1.7(3)	65(5)	0.0(5)	378(3)	40	8.5
1.20	E	07/30/2013	105	26(5)	4(5)	3(3)	2(1)	3(3)	3(1)	58(1)	41(1)	0.7(1)	50(3)	0.0(5)	342(3)	32	8.3
1.20	E	09/12/2013	105	26(5)	4(5)	2(1)	1(1)	5(3)	5(1)	63(1)	49(1)	0.8(1)	42(3)	0.0(5)	222(3)	30	7.2
Little Lick Creek - (04611)																	
Year: 2013																	
0.80	D	08/13/2013	23	25(5)	6(5)	3(5)	0(1)	2(3)	5(1)	79(1)	57(1)	0.5(1)	28(3)	0.3(5)	652(3)	34	8.1
0.80	D	09/11/2013	23	22(5)	3(3)	3(5)	0(1)	2(3)	8(1)	68(1)	22(3)	0.1(1)	62(5)	0.0(5)	489(3)	36	8.3
Miller Creek - (04612)																	
Year: 2013																	
0.50	E	07/17/2013	20	21(5)	4(5)	3(5)	0(1)	3(3)	20(3)	54(1)	22(3)	2.0(3)	44(3)	0.0(5)	725(3)	40	8.9
0.50	D	08/28/2013	20	22(5)	5(5)	2(3)	0(1)	4(5)	9(1)	54(1)	29(3)	2.7(3)	46(3)	0.1(5)	684(3)	38	7.4
Prairie Creek - (04633)																	
Year: 2013																	
3.40	E	07/30/2013	26	24(5)	4(5)	2(3)	0(1)	2(3)	5(1)	81(1)	71(1)	0.0(1)	20(1)	0.2(3)	310(3)	28	7.7
3.40	D	09/23/2013	26	25(5)	4(5)	2(3)	1(1)	1(1)	6(1)	66(1)	52(1)	0.1(1)	39(3)	0.0(5)	501(3)	30	9.1

na - Qualitative data, Modified Iwb not applicable.
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● - One or more species excluded from IBI calculation.

Wading

River Mile	Type	Date	Drainage area (sq mi)	Number of: Total species	Sunfish species	Sucker species	Intolerant species	Darter species	Percent of Individuals: Simple Lithophils	Tolerant fishes	Omni-vores	Top carnivores	Insect-ivores	DELT anomalies	Rel.No. minus tolerants /(0.3km)	IBI	Modified Iwb
Mud Creek - (04605)																	
Year: 2013																	
10.10	E	07/29/2013	47	25(5)	2(3)	2(3)	2(1)	4(3)	23(3)	70(1)	28(3)	0.0(1)	52(3)	0.1(5)	339(3)	34	8.3
10.10	E	09/23/2013	47	23(5)	3(3)	2(3)	1(1)	3(3)	18(3)	78(1)	17(5)	0.0(1)	51(3)	0.0(5)	162(1)	34	6.6
1.50	E	08/13/2013	55	27(5)	3(3)	4(5)	3(3)	5(5)	12(1)	38(3)	24(3)	0.0(1)	68(5)	0.0(5)	582(3)	42	8.4
1.50	E	09/11/2013	55	22(5)	4(5)	2(3)	3(3)	4(3)	9(1)	32(3)	15(5)	0.0(1)	75(5)	0.0(5)	280(3)	42	7.4
Lost Creek - (04606)																	
Year: 2013																	
1.40	E	07/29/2013	25	22(5)	3(3)	2(3)	2(3)	2(3)	26(3)	76(1)	28(3)	0.0(1)	44(3)	0.0(5)	207(3)	36	7.5
1.40	E	09/23/2013	25	23(5)	4(5)	2(3)	1(1)	2(3)	26(3)	70(1)	40(1)	0.0(1)	37(3)	0.0(5)	280(3)	34	8.2

na - Qualitative data, Modified Iwb not applicable.
♦ - IBI is low end adjusted.
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** - < 50 Total individuals in sample
● - One or more species excluded from IBI calculation.

Headwater

				Number of						Percent of Individuals						
River Mile	Type	Date	Drainage area (sq mi)	Total species	Minnow species	Headwater species	Sensitive species	Darter & Sculpin species	Simple Lithophils	Tolerant fishes	Omni-vores	Pioneering fishes	Insect-ivores	DELT anomalies	Rel.No. minus tolerants /(0.3km)	IBI
Bates Creek - (04-622)																
Year: 2013																
1.70	D	08/28/2013	11.8	16(5)	8(5)	1(1)	1(1)	1(1)	3(1)	78(1)	27(3)	55(3)	65(5)	0.0(5)	210(3)	34
Mill Creek - (04-624)																
Year: 2013																
14.50	E	08/13/2013	12.9	14(3)	6(3)	1(1)	0(1)	1(1)	3(1)	75(1)	39(1)	79(1)	30(3)	0.0(5)	264(3)	24
Deer Creek - (04-628)																
Year: 2013																
4.60	E	08/13/2013	10.4	18(5)	9(5)	2(3)	2(1)	2(3)	7(5)	77(1)	25(3)	68(1)	18(1)	0.1(5)	543(3)	36
Old Bean Creek - (04-632)																
Year: 2013																
6.20	E	08/14/2013	14.6	21(5)	8(5)	0(1)	3(3)	2(1)	4(3)	54(3)	44(1)	59(1)	50(5)	0.0(5)	596(3)	36

♦ - IBI is low end adjusted.

* - < 200 Total individuals in sample

** - < 50 Total individuals in sample

● - One or more species excluded from IBI calculation.

Headwater

River Mile	Type	Date	Drainage area (sq mi)	Number of: Total species	Minnow species	Headwater species	Sensitive species	Darter & Sculpin species	Simple Lithophils	Percent of Individuals: Tolerant fishes	Omni-vores	Pioneering fishes	Insect-ivores	DELT anomalies	Rel.No. minus tolerants /(0.3km)	IBI
Brush Creek - (04-614)																
Year: 2013																
19.10	D	08/27/2013	17.0	13(3)	8(5)	1(1)	0(1)	1(1)	4(3)	31(3)	23(3)	63(1)	51(5)	0.0(5)	4409(5)	36
Owl Creek - (04-615)																
Year: 2013																
0.10	E	09/11/2013	9.9	9(3)	2(1)	0(1)	0(1)	1(1)	1(1)	81(1)	4(5)	82(1)	91(5)	0.0(5)	52(1)	26
Coon Creek - (04-616)																
Year: 2013																
0.60	E	08/15/2013	9.3	21(5)	10(5)	1(1)	0(1)	1(1)	4(3)	82(1)	57(1)	78(1)	27(3)	0.0(5)	101(1)	28
Beaver Creek - (04-617)																
Year: 2013																
17.10	E	07/16/2013	14.9	15(3)	8(5)	1(1)	1(1)	3(3)	6(3)	72(1)	21(3)	75(1)	51(5)	0.0(5)	420(3)	34
Leatherwood Creek - (04-619)																
Year: 2013																
1.20	D	08/27/2013	9.8	25(5)	11(5)	1(1)	1(1)	2(3)	7(5)	68(1)	53(1)	72(1)	37(3)	0.0(5)	322(3)	34
Flat Run - (04-620)																
Year: 2013																
0.40	D	08/28/2013	10.2	20(5)	5(3)	0(1)	0(1)	1(1)	3(3)	69(1)	26(3)	44(3)	72(5)	0.0(5)	264(3)	34

◆ - IBI is low end adjusted.

* - < 200 Total individuals in sample

** - < 50 Total individuals in sample

● - One or more species excluded from IBI calculation.

Headwater

River Mile	Type	Date	Drainage area (sq mi)	Number of: Total species	Minnow species	Headwater species	Sensitive species	Darter & Sculpin species	Simple Lithophils	Percent of Individuals: Tolerant fishes	Omni-vores	Pioneering fishes	Insect-ivores	DELT anomalies	Rel.No. minus tolerants /(0.3km)	IBI
Dry Creek - (04-608)																
Year: 2013																
3.80	E	08/26/2013	11.0	17(5)	8(5)	1(1)	2(1)	3(3)	5(3)	65(1)	37(1)	56(1)	44(5)	0.2(3)	702(3)	32
Lick Creek - (04-609)																
Year: 2013																
21.80	E	08/27/2013	5.8	11(3)	7(5)	2(3)	0(1)	2(3)	3(3)	61(1)	15(3)	48(3)	28(3)	0.0(5)	380(3)	36
Little Lick Creek - (04-611)																
Year: 2013																
5.00	E	08/26/2013	10.7	15(5)	9(5)	1(1)	0(1)	2(3)	5(3)	52(3)	14(5)	58(1)	40(3)	0.0(5)	956(5)	40
Doty Creek - (04-613)																
Year: 2013																
0.60	E	08/27/2013	5.3	15(5)	8(5)	1(1)	1(1)	1(1)	2(1)	89(1)	61(1)	73(1)	19(3)	0.0(5)	52(1)	26
Prairie Creek - (04-633)																
Year: 2013																
9.80	E	08/27/2013	8.7	16(5)	9(5)	1(1)	1(1)	1(1)	4(3)	86(1)	43(1)	62(1)	42(3)	0.0(5)	112(1)	28

♦ - IBI is low end adjusted.

* - < 200 Total individuals in sample

** - < 50 Total individuals in sample

● - One or more species excluded from IBI calculation.

Headwater

				Number of						Percent of Individuals					Rel.No. minus tolerants /(0.3km)	
River Mile	Type	Date	Drainage area (sq mi)	Total species	Minnow species	Headwater species	Sensitive species	Darter & Sculpin species	Simple Lithophils	Tolerant fishes	Omni-vores	Pioneering fishes	Insect-ivores	DELT anomalies		IBI
Webb Run - (04-602)																
Year: 2013																
3.00	E	08/27/2013	9.3	18(5)	10(5)	1(1)	1(1)	2(3)	4(3)	71(1)	39(1)	54(3)	51(5)	0.0(5)	242(3)	36
0.40	E	08/21/2013	19.3	15(3)	9(5)	1(1)	0(1)	1(1)	4(3)	73(1)	42(1)	72(1)	28(3)	0.0(5)	233(3)	28
Buckskin Creek - (04-604)																
Year: 2013																
1.20	E	07/15/2013	6.0	21(5)	10(5)	1(1)	1(1)	2(3)	6(5)	89(1)	78(1)	91(1)	11(1)	0.0(5)	222(3)	32
Lost Creek - (04-606)																
Year: 2013																
9.00	E	08/26/2013	12.6	16(5)	6(3)	1(1)	2(1)	3(3)	6(3)	84(1)	13(5)	41(3)	14(1)	0.0(5)	159(1)	32

◆ - IBI is low end adjusted.

* - < 200 Total individuals in sample

** - < 50 Total individuals in sample

● - One or more species excluded from IBI calculation.

Appendix E – QHEI Scores and Attribute Matrix

QHEI Attributes: **Tiffin River Basin 2012-2013 TMDL**

Key QHEI Components

River Mile	QHEI	Gradient (ft/mi)	Not Channelized or Recovered	Boulder/Cobble/Gravel Substrates	Silt Free Substrates	Good/Excellent Development	Moderate/High Sinuosity	Extensive/Moderate Cover	Fast Current/Eddies	Low/Normal Embeddedness	Max Depth>40cm	Low/Normal Riffle Embeddedness	WWH Attributes	Channelized/No Recovery	Silt/Muck Substrates	No Sinuosity	Sparse/No Cover	Max Depth <40cm	High-influence Modified Attributes	Recovering Channel	Heavy/Moderate Silt Cover	Sand Substrates (Boat)	Hardpan Substrate Origin	Fair/Poor Development	Low Sinuosity	Only 1 or 2 Cover Types	Intermittent/Poor Pools	No Fast Current	High/Moderate Embeddedness	High/Mod. Riffle Embeddedness	No Riffle	M.I. Modified Attributes	MWH H.I.+1/WWH+1 Ratio	MWH M.I./WWH Ratio
			WWH Attributes											MWH Attributes																				
														High Influence						Moderate Influence														
04-600-000			**Tiffin River**																															
Year:		**2012**																																
18.7	56.0	1.07	X	X				X			X		4		X				1	X	X			X	X			X	X	X		7	0.60	1.80
14.0	70.5	0.47	X	X		X		X	X		X		6						0		X				X				X	X		4	0.14	0.86
7.1	75.3	0.47	X	X		X	X	X	X		X		7						0		X				X				X	X		4	0.13	0.75
0.8	49.8	0.10	X					X			X		3		X	X			2		X			X				X	X		X	5	0.75	1.75
Year:		**2013**																																
47.5	61.3	0.58	X					X			X		3						0	X	X	X		X	X			X	X	X		8	0.50	2.25
41.1	66.8	0.58	X				X	X			X	X	5						0	X	X	X		X				X	X	X		7	0.33	1.33
35.2	41.0	0.64						X			X		2	X	X		X		3		X			X	X			X	X		X	6	1.33	2.67
34.0	49.8	0.64					X	X			X		3	X	X				2	X	X			X				X	X		X	6	0.75	2.00
26.1	64.8	0.83	X	X			X	X			X	X	6						0	X	X			X				X	X			5	0.29	1.00
19.7	57.5	1.07	X	X			X	X			X	X	6				X		1	X	X			X	X			X	X	X		7	0.43	1.29
14.0	65.0	0.47	X	X			X	X	X		X	X	7						0	X	X			X	X				X			5	0.25	0.88
7.1	76.0	0.47	X	X		X	X	X	X	X	X		8						0	X	X			X	X				X	X		6	0.22	0.89
04-602-000			**Webb Run**																															
Year:		**2013**																																
3.0	40.8	4.24	X								X		2				X		1					X	X	X	X	X	X		X	7	0.67	3.00
0.4	51.3	11.63	X	X						X			3				X	X	2		X			X	X	X		X	X		X	7	0.75	2.00
04-604-000			**Buckskin Creek**																															
Year:		**2013**																																
1.2	42.0	11.90						X			X		2	X		X	X		3		X		X	X	X		X	X	X	X	X	9	1.33	3.67
04-605-000			**Mud Creek**																															
Year:		**2013**																																
10.1	60.0	3.73						X	X	X	X	X	5				X		1	X				X	X							3	0.50	0.83
1.5	50.0	2.66									X		1				X		1	X	X			X	X			X	X	X		7	1.50	4.50
04-606-000			**Lost Creek**																															
Year:		**2013**																																
9.0	71.5	11.63	X	X				X		X	X	X	6				X		1					X	X			X	X	X	X	6	0.29	1.14
1.4	64.0	4.81	X				X	X	X	X	X	X	7						0		X		X	X	X							4	0.13	0.75

Report Date: 3/09/2015

QHEI Attributes: **Tiffin River Basin 2012-2013 TMDL**

Key QHEI Components

River Mile	QHEI	Gradient (ft/mi)	Not Channelized or Recovered	Boulder/Cobble/Gravel Substrates	Silt Free Substrates	Good/Excellent Development	Moderate/High Sinuosity	Extensive/Moderate Cover	Fast Current/Eddies	Low/Normal Embeddedness	Max Depth>40cm	Low/Normal Riffle Embeddedness	WWH Attributes	Channelized/No Recovery	Silt/Muck Substrates	No Sinuosity	Sparse/No Cover	Max Depth <40cm	High-influence Modified Attributes	Recovering Channel	Heavy/Moderate Silt Cover	Sand Substrates (Boat)	Hardpan Substrate Origin	Fair/Poor Development	Low Sinuosity	Only 1 or 2 Cover Types	Intermittent/Poor Pools	No Fast Current	High/Moderate Embeddedness	High/Mod. Riffle Embeddedness	No Riffle	M.I. Modified Attributes	MWH H.I.+1/WWH+1 Ratio	MWH M.I./WWH Ratio
			WWH Attributes											MWH Attributes																				
														High Influence						Moderate Influence														
04-608-000			**Dry Creek**																															
Year:		**2013**																																
3.8	36.3	5.75						X			X		2	X	X	X			3		X			X	X		X	X	X		X	7	1.33	3.00
04-609-000			**Lick Creek**																															
Year:		**2013**																																
21.8	61.5	13.16	X	X			X	X		X	X	X	7				X		1		X			X				X		X	X	5	0.25	0.88
17.7	67.3	14.93	X	X			X	X	X	X	X	X	8				X		1					X	X		X		X			4	0.22	0.67
10.0	56.5	1.89	X	X			X	X			X		5						0	X			X	X	X			X	X	X		7	0.33	1.33
1.2	52.8	1.70	X							X	X		3				X		1	X	X		X	X	X			X	X	X		8	0.75	2.50
04-609-001			**Prairie Creek**																															
Year:		**2013**																																
9.8	35.8	2.92		X							X		2	X		X	X		3		X		X	X	X	X	X	X	X	X	X	10	1.33	4.00
3.4	64.0	6.41					X	X	X		X		4						0	X	X		X	X					X	X		6	0.40	1.60
04-611-000			**Little Lick Creek**																															
Year:		**2013**																																
5.0	49.8	10.20		X				X		X	X	X	5			X	X		2	X			X	X	X		X	X	X	X	X	9	0.67	1.83
0.8	57.3	3.68		X				X			X		3						0	X	X		X	X	X			X	X	X		8	0.50	2.50
04-612-000			**Miller Creek**																															
Year:		**2013**																																
0.5	71.5	10.42	X	X		X	X	X	X	X	X	X	9				X		1					X	X		X			X		4	0.20	0.60
04-613-000			**Dotty Creek**																															
Year:		**2013**																																
0.6	42.8	10.64	X	X						X			3				X	X	2				X	X	X		X	X			X	6	0.75	2.00
04-614-000			**Brush Creek**																															
Year:		**2013**																																
19.1	31.3	5.95											0	X	X	X	X	X	5		X		X	X	X	X		X	X	X	X	9	6.00	11.00
13.3	47.5	2.17						X			X		2		X				1	X	X		X	X	X			X	X	X		8	1.00	3.00
9.1	25.5	1.48									X		1	X	X	X	X		4		X			X	X	X		X	X		X	7	2.50	4.00
5.8	40.0	1.20					X	X			X		3		X				1	X	X		X	X	X			X	X	X		8	0.75	2.25
1.0	42.0	2.13						X			X		2		X				1	X	X		X	X	X			X	X		X	8	1.00	3.00

Report Date: 3/09/2015

QHEI Attributes: **Tiffin River Basin 2012-2013 TMDL**

Key QHEI Components

River Mile	QHEI	Gradient (ft/mi)	Not Channelized or Recovered	Boulder/Cobble/Gravel Substrates	Silt Free Substrates	Good/Excellent Development	Moderate/High Sinuosity	Extensive/Moderate Cover	Fast Current/Eddies	Low/Normal Embeddedness	Max Depth>40cm	Low/Normal Riffle Embeddedness	WWH Attributes	Channelized/No Recovery	Silt/Muck Substrates	No Sinuosity	Sparse/No Cover	Max Depth <40cm	High-influence Modified Attributes	Recovering Channel	Heavy/Moderate Silt Cover	Sand Substrates (Boat)	Hardpan Substrate Origin	Fair/Poor Development	Low Sinuosity	Only 1 or 2 Cover Types	Intermittent/Poor Pools	No Fast Current	High/Moderate Embeddedness	High/Mod. Riffle Embeddedness	No Riffle	M.I. Modified Attributes	MWH M.I.+1/WWH+1 Ratio	MWH M.I./WWH Ratio
			WWH Attributes											MWH Attributes																				
														High Influence						*Moderate Influence*														
04-615-000			**Owl Creek**																															
Year:		**2013**																																
0.1	26.0	3.76											0		X		X	X	3	X	X		X	X	X		X	X	X		X	9	5.00	10.00
04-616-000			**Coon Creek**																															
Year:		**2013**																																
0.6	46.3	3.94	X	X							X		3				X		1		X			X	X		X	X	X		X	7	0.50	2.00
04-617-000			**Beaver Creek**																															
Year:		**2013**																																
17.1	54.5	5.68									X		1	X		X	X		3	X	X			X	X			X	X	X		7	2.00	4.50
12.6	70.5	10.87	X	X			X	X			X		5				X		1		X			X				X	X	X		5	0.33	1.17
7.5	66.5	4.10	X	X			X	X	X	X	X	X	8				X		1		X			X					X	X		4	0.22	0.56
2.9	59.3	5.81	X			X	X	X			X		5						0	X			X	X	X			X	X	X		7	0.33	1.50
0.6	56.3	4.03	X				X	X		X	X		5				X		1	X	X		X	X	X			X	X	X		8	0.50	1.67
04-619-000			**Leatherwood Creek**																															
Year:		**2013**																																
1.2	57.5	5.75	X				X				X		3				X		1		X		X	X				X	X	X		6	0.50	2.00
04-620-000			**Flat Run**																															
Year:		**2013**																																
0.4	40.0	2.77						X			X		2	X	X	X	X		4		X		X	X				X	X	X	X	7	1.67	3.00
04-622-000			**Bates Creek**																															
Year:		**2013**																																
1.7	51.3	5.38						X			X		2						0	X	X		X	X	X			X	X	X	X	9	0.67	3.67
04-624-000			**Mill Creek**																															
Year:		**2013**																																
14.5	30.3	6.02											0	X	X	X	X	X	5		X			X				X	X		X	5	6.00	6.00
11.9	61.0	6.02						X			X		2						0	X	X			X	X			X	X	X	X	8	0.67	3.33
7.9	58.5	4.95	X	X							X		3				X		1					X	X			X	X	X		5	0.50	1.75
1.9	63.0	3.50					X	X			X	X	4						0	X	X			X				X	X			5	0.40	1.40

Report Date: 3/09/2015

QHEI Attributes: **Tiffin River Basin 2012-2013 TMDL**

Key QHEI Components

			WWH Attributes																																		

Appendix F – Surface Water Chemical Sampling Results

River Code:	**04-600-000**	Stream:	**Tiffin River**
River Mile:	**47.54**	Location:	TIFFIN R. NW OF ARCHBOLD @ CO. RD. G
Basin:	Maumee River	Drainage:	337.0 sq mi

Sample Type: Inorganic	01-10-2013	03-13-2013	04-08-2014	04-16-2014	04-24-2013	05-01-2014	05-15-2014	05-21-2014	05-22-2013	06-12-2014	06-25-2013	07-10-2013	07-24-2013	07-31-2013	08-01-2013	08-06-2013	08-21-2013	09-11-2013	12-18-2012
Alkalinity (mg/L)					165				245		188	186	257			220	258	281	
Aluminum (ug/L)	< 200	3810	3560		1220				447		1480	2710	555		436	507	401	563	< 200
Ammonia (mg/L)	.203	.089	.065	< .05	.067	< .05	.176	< .05	.105	.292	.088	.069	1.62		< .05	< .05	.064	< .05	.06
Arsenic (ug/L)	< 2	< 2	< 2		< 2				< 2		< 2	2.1	2.5		< 2	< 2	< 2	2.1	< 2
Barium (ug/L)	84	61	59		52				76		68	74	71		74	80	81	84	86
Cadmium (ug/L)	< .2	< .2	< .2		< .2				< .2		< .2	< .2	< .2		< .2	< .2	< .2	< .2	< .2
Calcium (mg/L)	91	57	62.8		68				90		76	76	83		86	93	87	86	91
CBOD20 (mg/L)	3.7	7.7	6.9		6.6				5.6		6.7	7.9	4.7		5.2	< 3	3	5.5	< 3
Chloride (mg/L)	48.2	24.9	28.3		22.2				32.4		27.5	27.2	35.5		38.1	36.3	36.7	32.9	34.5
Chlorophyll_a (ug/L)														8.1					
Chromium (ug/L)	< 2	3.4	3.2		< 2				< 2		< 2	2.3	< 2		< 2	< 2	< 2	< 2	< 2
COD, Chemical Oxygen Demand (mg/L)					23				< 20		< 20	22	< 20			< 20	< 20	< 20	
Conductivity (umhos/cm)					486				659		576	546	646			685	669	649	
Copper, Low Level (ug/L)	< 2	4.7	4.2		3.4				2		3.5	4.5	2.3		< 2	< 2	< 2	< 2	< 2
Hardness, Total (mg/L)	347	204	224		240				328		280	276	306		322	348	333	322	347
Iron (ug/L)	330	5140	4640		1790				922		2330	4010	894		714	873	701	902	329
Lead (ug/L)	< 2	2.6	2.4		< 2				< 2		< 2	2	< 2		< 2	< 2	< 2	< 2	< 2
Magnesium (mg/L)	29	15	16.2		17				25		22	21	24		26	28	28	26	29
Manganese (ug/L)	36	87	69		39				83		102	119	90		100	124	134	91	31
Nickel (ug/L)	2.2	5.7	5.2		3.9				3.9		4.3	5.1	3.3		3.2	3.2	3	3.2	2.3
Nitrate+Nitrite (mg/L)	1.06	7.56	5.21	2.51	5.33	1.92	2.58	2.4	1.46	7.09	9.21	6.46	2.32		.42	.41	.23	.27	.75
Nitrite (mg/L)	< .02	< .02	.024		.036				.041		.127	.095	.033		< .02	< .02	< .02	< .02	.02
Orthophosphate, dissolved (mg/L)	.019	.073	.068		.031				.014		.04	.071	.295		.035	.029	.046	.019	< .01
Pheophytin_a (ug/L)														2.6					
Potassium (mg/L)	3	5	4.1		4				3		4	5	4		4	4	4	4	3
Selenium (ug/L)	< 2	< 2	< 2		< 2				< 2		< 2	< 2	< 2		< 2	< 2	< 2	< 2	< 2
Sodium (mg/L)	31	8	9.1		9				17		13	13	19		21	23	23	19	23
Solids, Total Dissolved (mg/L)	458	316	320		318				388		426	374	410		402	444	420	384	416
Strontium (ug/L)	1370	264	294		360				818		606	548	822		1010	1120	1160	1060	1330
Sulfate (mg/L)	79	43.9	39.1		43.8				59.6		58.1	6.8	57.3		63.3	63.5	61.3	56	75.1
TKN (mg/L)	.65	1.41	.72		.92				.61		1.14	1.01	3.5		.52	.42	.4	.38	.37
Total Phosphorus (mg/L)	.067	.263	.144		.089				.023		.051	.154	.425		.062	.042	.041	.085	.017
Total Suspended Solids (mg/L)	< 5	47	56		22				26		68	110	17		16	23	17	27	< 5
Zinc (ug/L)	< 10	21	< 10		< 10				< 10		< 10	18	11		< 10	< 10	< 10	< 10	< 10
CorrectedConductance(umhos/cm)			461.7	640	452.2			753	665	692	553	529	621			671	659	641	
DissolvedOxygen(mg/L)			10.6	11.62	10.87			87.5	7.61	6.9	6.63	6.64	9.24			9.9	7.41	7.01	
GageHeight(ft)					8.04				14.73		14.74	11.91	15			15.59	15.8	15.42	
pH(su)			7.87	8.08	7.85			7.96	8.01	7.75	7.92	7.97	8.03			8.08	8.07	8.23	
Saturation(percent)			87.1	96.7	97.2			87.5	86.1	75	79.2	77	105			108.1	85.5	82.6	
Temperature(deg C)			6.8	7.4	10.3			17.9	21.4	19.3	24.2	22.6	21.6			19.6	22.4	23.5	
UncorrectedConductance(umhos/cm)				424.3	325.4			652	619	617	545	505	580			601	627	623	

River Code:	**04-600-000**	Stream:	**Tiffin River**
River Mile:	**41.12**	Location:	TIFFIN R. AT LOCK PORT @ CO. RD. 22.75/CO. RD. I.25
Basin:	Maumee River	Drainage:	374.0 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-24-2013**	**07-31-2013**	**08-01-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	173	197	257			223	255	295
Aluminum (ug/L)					925			
Ammonia (mg/L)	.103	< .05	< .05		.119	< .05	.052	.064
Arsenic (ug/L)					2			
Barium (ug/L)					73			
Cadmium (ug/L)					< .2			
Calcium (mg/L)					84			
CBOD20 (mg/L)					5.1			
Chloride (mg/L)	27.1	28.3	38.7		38.7	43.3	37.1	32.4
Chlorophyll_a (ug/L)				8.5				
Chromium (ug/L)					< 2			
COD, Chemical Oxygen Demand (mg/L)	< 20	24	< 20			< 20	< 20	< 20
Conductivity (umhos/cm)	556	527	643			719	665	657
Copper, Low Level (ug/L)					2			
Hardness, Total (mg/L)					313			
Iron (ug/L)					1480			
Lead (ug/L)					< 2			
Magnesium (mg/L)					25			
Manganese (ug/L)					108			
Nickel (ug/L)					3.8			
Nitrate+Nitrite (mg/L)	9.31	5.19	1.99		.54	.43	.24	.27
Nitrite (mg/L)	.141	.04	< .02		< .02	< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)					.041			
Pheophytin_a (ug/L)				3.6				
Potassium (mg/L)					4			
Selenium (ug/L)					< 2			
Sodium (mg/L)					21			
Solids, Total Dissolved (mg/L)	418	368	414		396	464	418	406
Strontium (ug/L)					932			
Sulfate (mg/L)	54.7	11	51.1		59.7	63.6	58.3	54.3
TKN (mg/L)	1.23	1.12	.72		.7	.44	.37	.4
Total Phosphorus (mg/L)	.067	.202	.103		.146	.089	.074	.076
Total Suspended Solids (mg/L)	85	93	37		39	22	16	22
Zinc (ug/L)					< 10			
CorrectedConductance(umhos/cm)	534	509	617			676	657	648
DissolvedOxygen(mg/L)	6.48	6.56	9.01			9.64	6.51	6.95
pH(su)	7.94	7.74	7.94			8.63	8.02	8.17
Saturation(percent)	77.6	76	101.8			105.8	74.2	81.7
Temperature(deg C)	24.4	22.6	21.3			19.8	21.8	23.4
UncorrectedConductance(umhos/cm)	528	485.7	573			609	616	628

River Code:	**04-600-000**	Stream:	**Tiffin River**
River Mile:	**35.28**	Location:	TIFFIN R. AT STRYKER @ ST. RT. 191
Basin:	Maumee River	Drainage:	407.0 sq mi

Sample Type: Inorganic	**06-27-2013**	**07-15-2013**	**07-29-2013**	**08-08-2013**	**08-26-2013**	**09-16-2013**
Alkalinity (mg/L)	106	268	276	225	260	240
Aluminum (ug/L)	8280	1070	1320	1190	1110	802
Ammonia (mg/L)	.276	< .05	< .05	.059	.071	< .05
Arsenic (ug/L)	2.7	< 2	2.5	2.4	2.7	2.3
Barium (ug/L)	92	71	75	82	83	69
Cadmium (ug/L)	.24	< .2	< .2	< .2	< .2	< .2
Calcium (mg/L)	49	99	87	94	86	73
Chloride (mg/L)	21.6	34.9	42.5	45.9	42.7	25.9
Chromium (ug/L)	9	< 2	< 2	< 2	< 2	< 2
COD, Chemical Oxygen Demand (mg/L)	< 20	< 20	< 20	< 20	< 20	< 20
Conductivity (umhos/cm)	370	693	673	721	692	538
Copper, Low Level (ug/L)	9.2	2.6	2.6	2.4	2.3	2.2
Hardness, Total (mg/L)	184	354	324	354	334	265
Iron (ug/L)	11600	1770	2050	1990	1730	1330
Lead (ug/L)	7.2	< 2	< 2	< 2	< 2	< 2
Magnesium (mg/L)	15	26	26	29	29	20
Manganese (ug/L)	239	87	142	141	142	80
Nickel (ug/L)	12.7	4.2	4.2	4.1	4	3.5
Nitrate+Nitrite (mg/L)	9.81	4.92	.61	.36	.22	.54
Nitrite (mg/L)	.141	.026	< .02	< .02	< .02	< .02
Potassium (mg/L)	6	4	4	4	4	4
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2
Sodium (mg/L)	9	18	23	30	29	14
Solids, Total Dissolved (mg/L)	260	460	404	414	424	322
Strontium (ug/L)	311	699	927	1140	1240	755
Sulfate (mg/L)	43	54.5	55.8	62.6	56.3	37.6
TKN (mg/L)	.96	.93	.59	.52	.32	.39
Total Phosphorus (mg/L)	.326	.098	.11	.124	.097	.098
Total Suspended Solids (mg/L)	358	49	57	52	43	33
Zinc (ug/L)	43	< 10	< 10	10	< 10	< 10
CorrectedConductance(umhos/cm)	347.9	679	653	701	682	524
DissolvedOxygen(mg/L)	6.11	6.24	6.86	8.88	5.25	8.39
pH(su)	7.68	7.86	7.87	7.9	7.9	7.98
Saturation(percent)	69.8	72.9	73.1	100.4	59.6	83.9
Temperature(deg C)	21.9	23.1	18.3	21.3	21.5	15.3
UncorrectedConductance(umhos/cm)	327.5	654	570	651	636	426.9

River Code:	**04-600-000**	Stream:	**Tiffin River**
River Mile:	**33.95**	Location:	TIFFIN R. W OF STRYKER @ CO. RD. F (CURTIS ST.)
Basin:	Maumee River	Drainage:	412.0 sq mi

Sample Type: Inorganic	**01-10-2013**	**03-07-2013**	**03-12-2013**	**04-08-2014**	**04-24-2013**	**05-22-2013**	**06-05-2013**	**06-12-2014**	**06-27-2013**	**07-02-2014**	**07-15-2013**	**07-17-2014**	**07-29-2013**	**07-31-2013**	**08-01-2013**	**08-08-2013**	**08-26-2013**	**09-16-2013**	**09-17-2014**	**09-19-2013**	**09-25-2014**	**10-14-2014**	**11-14-2013**	**11-25-2014**	**12-18-2012**
Alkalinity (mg/L)		199			152	254	236	217	104		279		278			228	250	236		278	243	273	279	167	
Aluminum (ug/L)	< 200	605	9410	3100	1360	680	1200	1880	9300	1290	1140	1050	1630		1330	1270	1140	1040	1140	1020	1190	926	< 200		223
Ammonia (mg/L)	.053	.078	.155	.05	.054	.098	.114	.681	.3	< .05	< .05	< .05	< .05		< .05	.083	.104	< .05	< .05	< .05	.05	< .05	< .05	.094	.064
Arsenic (ug/L)	< 2	< 2	2.6	< 2	< 2	2	< 2	2.3	2.7	2.2	2	2.8	2.5		2.4	2.4	3	2.3	2.1	2.3	2.1	< 2	< 2		< 2
Barium (ug/L)	83	58	98	53	50	75	67	71	101	75	67	79	78		81	82	84	69	79	77	83	85	70		85
Cadmium (ug/L)	< .2	< .2	.21	< .2	< .2	< .2	< .2	< .2	.25	< .2	< .2	< .2	< .2		< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2		< .2
Calcium (mg/L)	95	94	58	61	66	92	95	82.4	53	93.8	93	87.6	89		92	94	84	71	75.6	82	81.3	84.8	97		89
CBOD20 (mg/L)	< 3		8.3	6.7	7.2	5.5			8.3	5.4	4.9	5.6	4.6		5.5	4.7	5.3	4	4.6						< 3
Chloride (mg/L)	48.2	45.1	33.6	28.8	21.2	35.3	34.4	40.6	21.5	35	34.8	43.2	42.8		45.4	42.8	57	25.9	55	29.5	42	47.4	35.1	63.2	39.6
Chlorophyll_a (ug/L)												35.9		10.2											
Chromium (ug/L)	< 2	< 2	< 10	3.3	< 2	< 2	< 2	2.2	9.3	< 2	< 2	< 2	< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2
COD, Chemical Oxygen Demand (mg/L)		< 20			27	< 20	< 20	20	21		20		< 20			21	< 20	22		20	< 20	< 20	< 20	28	
Conductivity (umhos/cm)		708			464	673	682	653	378		692		665			703	738	527		616	675	717	713	654	
Copper, Low Level (ug/L)	< 2	2	< 10	4.3	3.5	2.2	3	3.8	9.3	2.9	2.8	2.2	3		2.3	2.5	2.7	2.4	2.2	< 2	2.3	2.1	< 2		< 2
Hardness, Total (mg/L)	361	338	215	217	231	333	344	303	198	343	331	330	329		341	350	329	260	280	299	312	327	349		342
Iron (ug/L)	273	906	12300	3990	1800	1230	1810	2620	13300	2000	1900	1770	2440		2100	2060	1810	1730	1700	1700	1800	1480	241		468
Lead (ug/L)	< 2	< 2	6	2.2	< 2	< 2	< 2	< 2	7.4	< 2	< 2	< 2	< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2
Magnesium (mg/L)	30	25	17	15.8	16	25	26	23.7	16	26.3	24	27.1	26		27	28	29	20	22.2	23	26.4	28	26		29
Manganese (ug/L)	20	42	190	49	30	86	77	93	268	102	87	145	158		152	144	156	91	95	90	101	82	28		24
Mercury (ug/L)																									
Nickel (ug/L)	2.6	3.4	11.7	5.4	3.7	4.3	4.4	4.9	12.4	4.1	4.5	4.3	4.4		4.6	4.2	4.2	3.8	3.9	3.8	4.4	4.3	2.5		2.4
Nitrate+Nitrite (mg/L)	.94	6.37	9.45	5.23	5.6	1.43	10.8	7.9	9.83	2.42	4.85	.33	.62		.42	.35	.26	.52	1.06	.84	.19	< .1	.71	6.99	.65
Nitrite (mg/L)	< .02	.02	< .02	.027	.038	.025	.125	.189	.145	.022	.025	< .02	< .02		< .02	< .02	< .02	< .02	< .02	< .02	< .02	< .02	< .02	.04	.02
Orthophosphate, dissolved (mg/L)	.024	.025	.097	.075	.039	.028	.045	.122	.151	.063	.057	.064	.068		.086	.07	.111	.058	.064	.065	.056	.037	.023	.144	.021
Pheophytin_a (ug/L)												8.8		4.1											
Potassium (mg/L)	3	3	6	3.9	4	3	3	3.8	6	3.6	4	3.5	4		4	4	5	4	4.2	4	4.1	4.4	4		3
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2
Sodium (mg/L)	29	21	10	9.8	8	19	15	19.3	8	18	17	25.2	24		25	28	38	14	30.7	17	26.5	30	19		27
Solids, Total Dissolved (mg/L)	704	438	354	320	296	394	446	404	264	416	468	404	404		430	412	448	328	390	372	400	420	424	438	424
Strontium (ug/L)	1370	674	303	285	311	817	604	696	328	766	652	973	933		1010	1120	1280	741	1160	902	1300	1390	948		1410
Sulfate (mg/L)	82.3	77.1	46.9	36.1	37.5	59.3	57.3	41.7	43.4	48.2	54	45.6	57.4		62.2	61.8	56.4	37	56.5	47.9	57.5	56.8	61.7	49.1	75.4
TKN (mg/L)	.26	.59	1.15	.69	.84	.61	4.15	1.32	1.12	.39	.97	.4	.78		.46	.63	.48	.42	.41	.54	.39	.4	.52	.85	.27
Total Phosphorus (mg/L)	.028	.06	.334	.141	.119	.07	.085	.192	.357	.106	.104	.11	.135		.08	.126	.121	.105	.113	.106	.102	.062	.035	.181	.051
Total Suspended Solids (mg/L)	< 5	11	193	30	13	43	57	66	382	68	58	45	64		61	60	43	52	50	49	52	35	< 5	23	< 5
Zinc (ug/L)	< 10	< 10	46	< 10	< 10	< 10	10	< 10	52	12	< 10	< 10	13		10	11	< 10	< 10	< 10	< 10	< 10	< 10	< 10		< 10
Corrected Conductance(umhos/cm)																									

CorrectedConductance(umhos/cm)		675.7		448.1	429.7	682	656	710	356	655	678		654			691	715	517		667	822	798	759	718	
Dissolved Oxygen (DO)(mg/L)																									
DissolvedOxygen(mg/L)		16.06		9.85	10.64	6.77	7.62	6.36	6.37	6.55	6.55		6.72			8.83	5.69	8.36		8.12	8.82	9.15	13.61	12.24	
Flow(cfs)		252			1970	87	216	207	864		157		41			40	22	53		40	34	50	70	436	
Gage Height(ft)																									
GageHeight(ft)		5.04			12.69	3.25	4.62	4.53	9.41		4.04		2.37			2.29	1.77	2.61		2.29	2.08	2.45	3.15	6.51	
pH(su)		7.96		7.93	7.8	7.95	7.82	7.76	7.66	7.81	7.9		7.88			7.9	7.92	7.97		8.15	7.99	8	8.19	7.84	
Saturation(percent)		116.3		80.1	95.7	77.4	80	69.5	72.9	78.3	77.2		71.7			99.9	65.3	84		84.1	88.1	86.5	99.8	93.5	
Specific Conductance(umhos/cm)																									
Temperature(deg C)		1.98		6.4	10.6	21.9	17.6	19.6	22	24.3	23.5		18.4			21.3	22	15.5		17	15.2	12.8	2.4	4	
Temperature, water(deg C)																									
UncorrectedConductance(umhos/cm)		378.6			311.4	642	564	636	335.4		658		572			643	674	423.4		565	669	611	432.2	429.8	

River Code:	**04-600-000**	Stream:	**Tiffin River**
River Mile:	**26.17**	Location:	TIFFIN R. DST. STRYKER @ OAK GROVE CHURCH RD.
Basin:	Maumee River	Drainage:	421.0 sq mi

Sample Type: Inorganic	**06-27-2013**	**07-15-2013**	**07-29-2013**	**08-01-2013**	**08-08-2013**	**08-26-2013**	**09-16-2013**
Alkalinity (mg/L)	131	264	278		228	245	218
Aluminum (ug/L)	12900	1030	1780	1540	1240	1350	1220
Ammonia (mg/L)	.171	< .05	< .05	< .05	.054	.052	.05
Arsenic (ug/L)	3.1	< 2	2.6	2.4	2.5	2.8	2.2
Barium (ug/L)	128	68	79	78	83	79	66
Cadmium (ug/L)	.33	< .2	< .2	< .2	< .2	< .2	< .2
Calcium (mg/L)	60	97	91	92	100	82	65
CBOD20 (mg/L)				5.3			
Chloride (mg/L)	24.5	36.2	43.6	44.6	41.3	45.4	23.7
Chlorophyll_a (ug/L)				6.8			
Chromium (ug/L)	13.9	< 2	< 2	< 2	< 2	< 2	< 2
COD, Chemical Oxygen Demand (mg/L)	20	< 20	20		< 20	< 20	20
Conductivity (umhos/cm)	417	705	699		716	681	484
Copper, Low Level (ug/L)	12.8	2.9	2.7	2.3	2.2	2.5	2.5
Hardness, Total (mg/L)	228	345	334	341	369	316	236
Iron (ug/L)	19100	1660	2680	2360	2000	2040	1970
Lead (ug/L)	9.7	< 2	< 2	< 2	< 2	< 2	< 2
Magnesium (mg/L)	19	25	26	27	29	27	18
Manganese (ug/L)	376	79	155	144	145	149	96
Nickel (ug/L)	19.6	4.5	4.7	4.8	4.3	4.3	3.9
Nitrate+Nitrite (mg/L)	7.09	5.5	.86	.48	.39	.22	.69
Nitrite (mg/L)	.073	.025	< .02	< .02	< .02	< .02	.02
Orthophosphate, dissolved (mg/L)				.077			
Pheophytin_a (ug/L)				2.2			
Potassium (mg/L)	6	4	4	4	4	4	5
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Sodium (mg/L)	11	18	24	24	27	30	12
Solids, Total Dissolved (mg/L)	298	468	420	422	420	418	304
Strontium (ug/L)	442	657	892	952	1090	1130	685
Sulfate (mg/L)	46.4	52.7	54.6	56.9	59.9	49.1	33.7
TKN (mg/L)	.79	.84	.61	.49	.51	.39	.46
Total Phosphorus (mg/L)	.339	.104	.154	.141	.14	.098	.106
Total Suspended Solids (mg/L)	566	55	11	68	53	41	54
Zinc (ug/L)	65	14	10	< 10	15	< 10	< 10
CorrectedConductance(umhos/cm)	396.5	687	675		699	668	474.6
DissolvedOxygen(mg/L)	6.34	6.44	6.71		8.15	5.16	8.01
pH(su)	7.8	7.83	7.87		7.85	7.99	7.98
Saturation(percent)	74.1	74.9	72		92.5	59.2	81.2
Temperature(deg C)	23.1	22.8	18.6		21.5	22.1	16
UncorrectedConductance(umhos/cm)	382	659	593		652	631	392.9

River Code:	**04-600-000**	Stream:	**Tiffin River**
River Mile:	**19.72**	Location:	TIFFIN R. NEAR EVANSPORT @ CO. RD. 22/A
Basin:	Maumee River	Drainage:	476.0 sq mi

Sample Type: Inorganic	**06-27-2013**	**07-15-2013**	**07-29-2013**	**07-31-2013**	**08-01-2013**	**08-08-2013**	**08-26-2013**	**09-16-2013**
Alkalinity (mg/L)	178	276	269			272	256	199
Aluminum (ug/L)					1730			
Ammonia (mg/L)	.066	< .05	< .05		< .05	.062	< .05	< .05
Arsenic (ug/L)					2.5			
Barium (ug/L)					76			
Cadmium (ug/L)					< .2			
Calcium (mg/L)					88			
CBOD20 (mg/L)					5			
Chloride (mg/L)	31.1	35.5	43.4		44.3	41.5	47	23.5
Chlorophyll_a (ug/L)				12.2				
Chromium (ug/L)					2.1			
COD, Chemical Oxygen Demand (mg/L)	< 20	< 20	< 20			< 20	< 20	143
Conductivity (umhos/cm)	552	694	687			708	709	455
Copper, Low Level (ug/L)					2.9			
Hardness, Total (mg/L)					327			
Iron (ug/L)					2670			
Lead (ug/L)					< 2			
Magnesium (mg/L)					26			
Manganese (ug/L)					142			
Nickel (ug/L)					5.4			
Nitrate+Nitrite (mg/L)	7.43	5.73	.99		.55	.42	.2	.68
Nitrite (mg/L)	.061	.026	< .02		< .02	< .02	< .02	.023
Orthophosphate, dissolved (mg/L)					.082			
Pheophytin_a (ug/L)				3.2				
Potassium (mg/L)					4			
Selenium (ug/L)					< 2			
Sodium (mg/L)					24			
Solids, Total Dissolved (mg/L)	368	476	414		420	412	430	278
Strontium (ug/L)					915			
Sulfate (mg/L)	55.1	53	53.8		56.2	59	51.4	32.3
TKN (mg/L)	.76	.81	.63		.55	.4	.47	.33
Total Phosphorus (mg/L)	.192	.113	.149		.148	.13	.124	.118
Total Suspended Solids (mg/L)	225	66	75		84	60	72	64
Zinc (ug/L)					13			
CorrectedConductance(umhos/cm)	535	679	663			694	696	447.4
DissolvedOxygen(mg/L)	6.2	6.75	7.03			9.04	6.44	8.21
pH(su)	7.99	7.88	7.98			7.9	8.05	8.01
Saturation(percent)	73.8	78.7	75.3			102.7	73.4	83.9
Temperature(deg C)	24	22.9	18.6			21.6	21.7	16.3
UncorrectedConductance(umhos/cm)	525	652	583			648	653	373.5

River Code:	**04-600-000**	Stream:	**Tiffin River**
River Mile:	**18.73**	Location:	TIFFIN R. AT EVANSPORT @ ST. RT. 191
Basin:	Maumee River	Drainage:	541.0 sq mi

Sample Type: Inorganic	**06-13-2012**	**07-11-2012**	**07-25-2012**	**08-06-2012**	**08-08-2012**	**08-22-2012**	**09-12-2012**
Alkalinity (mg/L)	266	254	141	192		228	231
Aluminum (ug/L)	995	1330	1340	1570		902	1070
Ammonia (mg/L)	< .05	< .05	.113	.067		< .05	< .05
Arsenic (ug/L)	3.1	6.9	3	3.5		2.6	2.6
Barium (ug/L)	75	85	66	72		73	76
Cadmium (ug/L)	< .2	< .2	< .2	< .2		< .2	< .2
Calcium (mg/L)	90	89	58	75		71	70
Chloride (mg/L)	42	64.2	34.9	101		54.5	61.7
Chlorophyll_a (ug/L)					20.1		
Chromium (ug/L)	< 2	< 2	< 2	2.3		< 2	< 2
COD, Chemical Oxygen Demand (mg/L)	< 20	< 20	< 20	20		< 20	< 20
Conductivity (umhos/cm)	711	765	540	826		724	703
Copper, Low Level (ug/L)	4	2.7	3	3.9		2.3	2.1
Hardness, Total (mg/L)	340	342	223	261		280	278
Iron (ug/L)	1510	1960	2040	2430		1370	1620
Lead (ug/L)	< 2	< 2	< 2	< 2		< 2	< 2
Magnesium (mg/L)	28	29	19	18		25	25
Manganese (ug/L)	131	195	130	164		105	99
Nickel (ug/L)	5.5	5.8	4.9	7.1		4.2	4.5
Nitrate+Nitrite (mg/L)	.45	.19	4.94	1.67		.35	.28
Nitrite (mg/L)	< .02	.027	.167	.039		< .02	.02
Pheophytin_a (ug/L)					11.3		
Potassium (mg/L)	5	6	6	17		5	7
Selenium (ug/L)	< 2	< 2	< 2	< 2		< 2	< 2
Sodium (mg/L)	27	39	23	64		34	40
Solids, Total Dissolved (mg/L)	416	454	352	488		406	404
Strontium (ug/L)	1020	1160	857	801		1270	1340
Sulfate (mg/L)	58.5	43.9	58.6	72		63.9	58.4
TKN (mg/L)	.62	.76	1.06	.88		.5	.42
Total Phosphorus (mg/L)	.16	.259	.16	.218		.14	.137
Total Suspended Solids (mg/L)	42	51	48	64		34	44
Zinc (ug/L)	< 10	< 10	< 10	< 10		< 10	< 10
Corrected Conductance(umhos/cm)	458	752	523	823		692	702
Dissolved Oxygen (DO)(mg/L)	6.34	4.97	5.15	5.65		7.05	7.45
pH(su)	7.76	7.81	7.64	7.8		8	7.99
Saturation(percent)	71.3	59.6	62.1	66.6		77.8	79.7
Specific Conductance(umhos/cm)	424	742	521	799		626	615
Temperature, water(deg C)	21.08	24.34	24.77	23.47		20.07	18.55

River Code:	**04-600-000**	**Stream:**	**Tiffin River**
River Mile:	**14.00**	Location:	TIFFIN R. S OF EVANSPORT @ STEVER RD.
Basin:	Maumee River	Drainage:	562.0 sq mi

Sample Type: Inorganic	**06-13-2012**	**06-27-2013**	**07-11-2012**	**07-15-2013**	**07-25-2012**	**07-29-2013**	**08-06-2012**	**08-08-2012**	**08-08-2013**	**08-22-2012**	**08-26-2013**	**09-12-2012**	**09-16-2013**
Alkalinity (mg/L)	274	171	259	263	147	267	217		253	223	261	222	198
Aluminum (ug/L)	1100		1900		1370		1710			1350		1400	
Ammonia (mg/L)	< .05	.051	< .05	< .05	.119	< .05	< .05		< .05	< .05	< .05	< .05	< .05
Arsenic (ug/L)	3		7		3.4		4.4			2.6		2.6	
Barium (ug/L)	77		88		64		81			78		73	
Cadmium (ug/L)	< .2		< .2		< .2		< .2			< .2		< .2	
Calcium (mg/L)	94		92		57		75			74		66	
Chloride (mg/L)	40.8	30.2	56.4	35.3	33.8	55.2	59.7		45.2	56	69.4	61.3	34.9
Chlorophyll_a (ug/L)								7.5					
Chromium (ug/L)	< 2		2		< 2		2.4			< 2		< 2	
COD, Chemical Oxygen Demand (mg/L)	21	142	< 20	< 20	< 20	< 20	< 20		< 20	25	< 20	20	< 20
Conductivity (umhos/cm)	713	548	743	692	528	700	681		698	725	784	678	492
Copper, Low Level (ug/L)	2.5		3		2.9		3.4			2.8		2.7	
Hardness, Total (mg/L)	354		349		216		282			292		255	
Iron (ug/L)	1630		2830		2010		2470			2010		2110	
Lead (ug/L)	< 2		< 2		< 2		< 2			< 2		< 2	
Magnesium (mg/L)	29		29		18		23			26		22	
Manganese (ug/L)	128		254		149		181			125		109	
Nickel (ug/L)	5.3		6.4		4.9		5.8			5.2		5.1	
Nitrate+Nitrite (mg/L)	.44	6.29	.14	6.38	4.24	1.66	.29		.44	.53	.17	.37	.84
Nitrite (mg/L)	< .02	.065	.032	.028	.15	< .02	< .02		< .02	< .02	< .02	.021	.022
Pheophytin_a (ug/L)								4.8					
Potassium (mg/L)	5		6		5		7			5		8	
Selenium (ug/L)	< 2		< 2		< 2		< 2			< 2		< 2	
Sodium (mg/L)	27		35		21		37			35		38	
Solids, Total Dissolved (mg/L)	416	354	446	486	358	436	400		408	404	476	378	296
Strontium (ug/L)	1040		1130		807		1010			1270		1170	

Sulfate (mg/L)	58.5	50.9	41.4	52.7	53.6	55.3	60.6		56.1	70.6	52.7	58.1	33.6
TKN (mg/L)	.69	.84	.62	.89	1.02	.68	.45		.49	.66	.68	.68	.32
Total Phosphorus (mg/L)	.165	.123	.287	.11	.178	.184	.191		.146	.139	.175	.142	.105
Total Suspended Solids (mg/L)	45	85	82	48	55	65	69		50	56	56	60	53
Zinc (ug/L)	< 10		< 10		< 10		< 10			< 10		< 10	
Corrected Conductance(umhos/cm)	592		735		516		674			691		673	
CorrectedConductance(umhos/cm)		523		677		680			684		770		480.7
Dissolved Oxygen (DO)(mg/L)	5.77		5.21		5.41		5.78			7.04		7.28	
DissolvedOxygen(mg/L)		5.94		6.61		7.06			8.76		6.62		7.98
pH(su)	7.88	7.9	7.84	7.94	7.68	7.97	7.85		7.88	7.96	8.03	7.92	8.01
Saturation(percent)	64.6	70.8	62.1	77.5	65.2	76.5	67.7		99.1	77.1	75.9	77.4	81.9
Specific Conductance(umhos/cm)	545		722		513		650			620		586	
Temperature(deg C)		24.1		23.2		19.2			21.4		22		16.6
Temperature, water(deg C)	20.87		24.06		24.67		23.12			19.68		18.23	
UncorrectedConductance(umhos/cm)		514		654		604			637		726		403.3

River Code:	**04-600-000**	Stream:	**Tiffin River**
River Mile:	**7.09**	Location:	TIFFIN R. NE OF DEFIANCE AIRPORT @ EVANSPORT RD.
Basin:	Maumee River	Drainage:	737.0 sq mi

Sample Type: Inorganic	**06-13-2012**	**06-27-2013**	**07-11-2012**	**07-15-2013**	**07-25-2012**	**07-29-2013**	**08-06-2012**	**08-08-2012**	**08-08-2013**	**08-22-2012**	**08-26-2013**	**09-12-2012**	**09-16-2013**
Alkalinity (mg/L)	257	223	249	252	181	273	172		245	206	254	230	260
Aluminum (ug/L)	675		1070		1190		1330			1380		1440	
Ammonia (mg/L)	< .05	.055	< .05	< .05	.078	< .05	.074		< .05	< .05	< .05	< .05	< .05
Arsenic (ug/L)	2.8		6.6		4		3.3			2.7		2.7	
Barium (ug/L)	75		88		74		72			78		78	
Cadmium (ug/L)	< .2		< .2		< .2		< .2			< .2		< .2	
Calcium (mg/L)	91		87		65		58			68		64	
Chloride (mg/L)	54.8	45.2	73.8	31.1	57.3	48.3	61.7		60.6	69.2	60	66.8	48.5
Chlorophyll_a (ug/L)								15.3					
Chromium (ug/L)	< 2		< 2		< 2		< 2			< 2		< 2	
COD, Chemical Oxygen Demand (mg/L)	< 20	< 20	20	20	< 20	< 20	< 20		< 20	23	< 20	21	< 20
Conductivity (umhos/cm)	774	675	838	656	655	689	639		747	769	753	702	666
Copper, Low Level (ug/L)	2.4		3.6		3		3.6			3		3.1	
Hardness, Total (mg/L)	351		345		257		231			273		250	
Iron (ug/L)	994		1600		1710		1970			1960		2040	
Lead (ug/L)	< 2		< 2		< 2		< 2			< 2		< 2	
Magnesium (mg/L)	30		31		23		21			25		22	
Manganese (ug/L)	77		170		141		111			108		103	
Nickel (ug/L)	5.1		6.5		5		4.8			5.2		5.3	
Nitrate+Nitrite (mg/L)	.66	3.72	.27	6.16	1.15	1.42	1.19		.63	1.05	.27	.37	.51
Nitrite (mg/L)	< .02	< .02	.029	.028	.023	< .02	.022		< .02	< .02	< .02	< .02	< .02
Pheophytin_a (ug/L)								10.6					
Potassium (mg/L)	5		7		5		6			5		6	
Selenium (ug/L)	< 2		< 2		< 2		< 2			< 2		< 2	
Sodium (mg/L)	38		52		41		42			45		41	
Solids, Total Dissolved (mg/L)	446	444	490	474	378	438	374		446	416	476	400	404
Strontium (ug/L)	1230		1470		1200		1210			1380		1290	

Sulfate (mg/L)	55.7	67.4	47.3	53.6	63.9	56.3	63.4		67.5	75.4	57.5	59.6	47.3
TKN (mg/L)	.91	.47	.56	1.03	.73	.7	.52		.59	.69	.41	.54	.3
Total Phosphorus (mg/L)	.144	.112	.22	.141	.178	.139	.137		.095	.129	.083	.133	.119
Total Suspended Solids (mg/L)	24	69	42	63	38	40	44		23	53	36	57	43
Zinc (ug/L)	< 10		< 10		< 10		< 10			< 10		< 10	
Corrected Conductance(umhos/cm)	646		816		639		638			732		693	
CorrectedConductance(umhos/cm)		647		641		672			740		739		652
Dissolved Oxygen (DO)(mg/L)	6.32		5.83		6.25		6.23			7.52		7.8	
DissolvedOxygen(mg/L)		6.41		6.68		7.3			9.5		7.14		8.27
pH(su)	7.91	7.98	7.93	7.9	7.81	7.95	7.87		7.97	7.99	8.08	7.96	8.06
Saturation(percent)	70.2	76.2	68.8	77.7	74.6	79.4	72.2		108	82.4	81.6	82.8	85.5
Specific Conductance(umhos/cm)	590		794		630		609			658		603	
Temperature(deg C)		23.9		22.8		19.3			21.6		21.8		16.9
Temperature, water(deg C)	20.42		23.57		24.23		22.63			19.73		18.15	
UncorrectedConductance(umhos/cm)		634		615		599			692		694		551

River Code:	**04-600-000**	Stream:	**Tiffin River**
River Mile:	**0.89**	Location:	TIFFIN R. NEAR DEFIANCE @ DEY RD.
Basin:	Maumee River	Drainage:	775.0 sq mi

Sample Type: Inorganic	**03-13-2013**	**03-21-2012**	**04-18-2012**	**05-10-2012**	**06-13-2012**	**07-11-2012**	**07-18-2012**	**07-25-2012**	**08-06-2012**	**08-08-2012**	**08-22-2012**	**09-12-2012**	**10-02-2012**
Alkalinity (mg/L)	103	233	262		294	253		190	185		179	195	
Aluminum (ug/L)	9360	1570	305	1740	326	552		910	816		800	813	535
Ammonia (mg/L)	.129	< .05	< .05	.378	< .05	< .05		.118	.064		< .05	< .05	< .05
Arsenic (ug/L)	2.6	< 2	< 2	< 2	2.6	6.7		4.7	3.1		2.4	2.4	2.1
Barium (ug/L)	97	56	60	60	71	75		64	68		69	67	71
Cadmium (ug/L)	.2	< .2	< .2	< .2	< .2	< .2		< .2	< .2		< .2	< .2	< .2
Calcium (mg/L)	60	81	94	70	93	87		63	62		62	54	66
CBOD20 (mg/L)	8.4	3	4.5	5.2	< 3	5.4		4.5	4.5		3.8	3.8	4.1
Chloride (mg/L)	39.7	29	37.1	30.5	52	72.1		53.4	66.5		63.1	59.7	74.4
Chlorophyll_a (ug/L)							18.1			14.1			
Chromium (ug/L)	< 20	2.1	< 2	2.2	< 2	< 2		< 2	< 2		< 2	< 2	< 2
COD, Chemical Oxygen Demand (mg/L)	30	20	< 20		< 20	< 20		< 20	< 20		20	< 20	
Conductivity (umhos/cm)	452	571	638		756	823		651	675		703	636	
Copper, Low Level (ug/L)	< 20	3.5	2	4.3	2.3	2.5		2.5	2.9		2.5	2.7	2.4
Hardness, Total (mg/L)	220	289	354	257	356	345		244	245		250	221	272
Iron (ug/L)	12200	2320	576	2520	473	792		1270	1170		1070	1140	733
Lead (ug/L)	6.3	< 2	< 2	< 2	< 2	< 2		< 2	< 2		< 2	< 2	< 2
Magnesium (mg/L)	17	21	29	20	30	31		21	22		23	21	26
Manganese (ug/L)	161	71	41	81	71	177		94	94		66	59	49
Nickel (ug/L)	< 20	5.3	3.5	5.2	4.6	5.2		4.4	4.4		4.4	3.9	4
Nitrate+Nitrite (mg/L)	9.23	2.88	1.41	7.63	.66	< .1		.56	.64		.93	1.15	.31
Nitrite (mg/L)	< .02	.057	.031	.131	< .02	.024		< .02	< .02		< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)	.096	.039	.014	.062	.097	.189		.148	.077		.067	.064	.045
Pheophytin_a (ug/L)							9.5			6.8			
Potassium (mg/L)	6	3	3	4	5	6		5	7		5	5	7
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2		< 2	< 2	< 2
Sodium (mg/L)	14	14	23	14	36	50		35	46		40	41	52

Solids, Total Dissolved (mg/L)	406	376	384	362	444	470		372	404		388	354	436
Strontium (ug/L)	342	487	887	546	1180	1380		992	1100		1250	1320	1500
Sulfate (mg/L)	52.3	55.2	59	6.4	57.6	45.5		54.4	77.9		69.8	51.8	62.1
TKN (mg/L)	1.25	.69	.62	1.96	.68	.54		.81	.71		.69	.48	.56
Total Phosphorus (mg/L)	.335	.1	.034	.138	.132	.228		.205	.124		.103	.096	.103
Total Suspended Solids (mg/L)	155	49	10	65	10	19		25	31		17	25	18
Zinc (ug/L)	45	11	< 10	< 10	< 10	< 10		< 10	< 10		< 10	< 10	< 10
Corrected Conductance(umhos/cm)		613	648		635	803		634	678		671	628	
CorrectedConductance(umhos/cm)	428.1												
Dissolved Oxygen (DO)(mg/L)		9.07	10.29		5.42	5.28		5.39	4.86		6.35	6.84	
DissolvedOxygen(mg/L)	13.93												
Flow(cfs)	1000	429	164		32	21		20	28		15	22	
Gage Height(ft)		6.54	4.2		2.11	1.75		1.71	1.96		1.52	1.77	
GageHeight(ft)	10.47												
pH(su)	7.54	7.82	8.1		7.9	7.91		7.79	7.82		7.85	7.93	
Saturation(percent)	105.6	92.3	98.3		62.9	65.1		66	58.8		71	74.2	
Specific Conductance(umhos/cm)		509	502		606	817		640	677		617	559	
Temperature(deg C)	3.71												
Temperature, water(deg C)		16.12	13.17		22.63	25.88		25.51	24.9		20.74	19.27	
UncorrectedConductance(umhos/cm)	254												

River Code:	**04-632-000**	Stream:	**Old Bean Creek**
River Mile:	**6.22**	Location:	OLD BEAN CREEK NEAR THELMA @ CO. RD. 19
Basin:	Maumee River	Drainage:	14.6 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	193	217	226	175	213	230
Ammonia (mg/L)	.067	< .05	< .05	.066	.292	.085
Chloride (mg/L)	30.9	30.4	32.5	28	28.6	27.9
COD, Chemical Oxygen Demand (mg/L)	< 20	< 20	< 20	< 20	< 20	< 20
Conductivity (umhos/cm)	648	702	682	660	644	638
Nitrate+Nitrite (mg/L)	7.21	12.2	4.13	2.5	1.56	1.38
Nitrite (mg/L)	.106	.069	.11	.111	.085	.13
Solids, Total Dissolved (mg/L)	454	438	432	442	440	418
Sulfate (mg/L)	81.9	72.6	96.6	98	93.7	91.6
TKN (mg/L)	.95	1.26	.78	.58	.75	.51
Total Phosphorus (mg/L)	.019	.042	.036	.033	.046	.053
Total Suspended Solids (mg/L)	11	7	5	7	7	< 5
CorrectedConductance(umhos/cm)	618	674	648	644	634	631
DissolvedOxygen(mg/L)	7.45	6.18	12.39	8.85	8.59	6.51
pH(su)	7.81	7.49	7.92	7.83	7.91	7.83
Saturation(percent)	84.2	68.5	131.9	93.2	94.4	73.9
Temperature(deg C)	21.3	20.3	18.3	17.7	19.9	21.5
UncorrectedConductance(umhos/cm)	574	613	564	555	572	590

River Code:	**04-632-000**	Stream:	**Old Bean Creek**
River Mile:	**1.85**	Location:	OLD BEAN CREEK SE OF FAYETTE @ OLD ANGOLA RD.
Basin:	Maumee River	Drainage:	25.0 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-24-2013**	**07-30-2013**	**08-01-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	214	220	241			177	202	217
Aluminum (ug/L)					415			
Ammonia (mg/L)	.09	< .05	< .05		< .05	< .05	.054	.099
Arsenic (ug/L)					2.4			
Barium (ug/L)					63			
Cadmium (ug/L)					< .2			
Calcium (mg/L)					93			
CBOD20 (mg/L)					5.3			
Chloride (mg/L)	30.9	30.4	33.1		31.1	29.4	28.1	29.2
Chlorophyll_a (ug/L)				1.5				
Chromium (ug/L)					< 2			
COD, Chemical Oxygen Demand (mg/L)	< 20	< 20	< 20			< 20	< 20	< 20
Conductivity (umhos/cm)	660	664	673			644	643	626
Copper, Low Level (ug/L)					< 2			
Hardness, Total (mg/L)					327			
Iron (ug/L)					826			
Lead (ug/L)					< 2			
Magnesium (mg/L)					23			
Manganese (ug/L)					83			
Nickel (ug/L)					3.7			
Nitrate+Nitrite (mg/L)	6.11	9.68	3.35		2.26	1.95	1.43	1.27
Nitrite (mg/L)	.081	.055	.045		.034	.021	.027	.036
Orthophosphate, dissolved (mg/L)					.023			
Pheophytin_a (ug/L)				2				
Potassium (mg/L)					6			
Selenium (ug/L)					< 2			
Sodium (mg/L)					11			
Solids, Total Dissolved (mg/L)	402	420	428		400	432	408	422
Strontium (ug/L)					255			
Sulfate (mg/L)	77	62.5	84		91.3	89.3	89.8	86.4
TKN (mg/L)	.85	.93	.77		.63	.49	.44	.53
Total Phosphorus (mg/L)	.069	.054	.055		.051	.062	.061	.051
Total Suspended Solids (mg/L)	24	20	14		20	25	18	27
Zinc (ug/L)					< 10			
CorrectedConductance(umhos/cm)	629	638	647			630	624	612
DissolvedOxygen(mg/L)	6.08	6.03	8.93			9.11	6.93	5.63
pH(su)	7.85	7.66	7.87			7.9	7.89	7.78
Saturation(percent)	71.7	68.2	98.6			97.6	78	65.2
Temperature(deg C)	23.5	21.3	20.1			18.6	21.1	22.6
UncorrectedConductance(umhos/cm)	611	593	587			553	578	584

River Code:	**04-628-000**	Stream:	**Deer Creek**
River Mile:	**4.56**	Location:	DEER CREEK DST. FAYETTE @ CO. RD. 23
Basin:	Maumee River	Drainage:	9.9 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-17-2014**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	277	169		295	273	322	345
Aluminum (ug/L)	315	2780	< 200	215	< 200	< 200	< 200
Ammonia (mg/L)	.836	.216	2.24	.589	2.23	.292	.865
Arsenic (ug/L)	< 2	< 2	2.3	2.1	< 2	< 2	< 2
Barium (ug/L)	91	71	116	95	111	116	127
Cadmium (ug/L)	< .2	< .2	< .2	< .2	< .2	< .2	< .2
Calcium (mg/L)	93	67	91.8	80	92	93	88
CBOD20 (mg/L)			11				
Chloride (mg/L)	50.9	29.4	74.6	93.8	58.7	41	38.3
Chlorophyll_a (ug/L)			41.7				
Chromium (ug/L)	< 2	2.4	< 2	< 2	< 2	< 2	< 2
COD, Chemical Oxygen Demand (mg/L)	< 20	31		28	21	< 20	23
Conductivity (umhos/cm)	799	520		914	879	810	816
Copper, Low Level (ug/L)	< 2	5.1	< 2	< 2	< 2	< 2	< 2
Hardness, Total (mg/L)	356	241	385	332	374	393	372
Iron (ug/L)	592	3630	765	589	449	290	301
Lead (ug/L)	< 2	2	< 2	< 2	< 2	< 2	< 2
Magnesium (mg/L)	30	18	37.9	32	35	39	37
Manganese (ug/L)	37	62	114	68	115	53	57
Nickel (ug/L)	2.9	4.9	2.5	2.6	2.5	2.1	2.3
Nitrate+Nitrite (mg/L)	6.06	10.3	.39	.37	.29	.51	.54
Nitrite (mg/L)	.303	.396	.109	.084	.092	.077	.079
Orthophosphate, dissolved (mg/L)			.414				
Pheophytin_a (ug/L)			33.9				
Potassium (mg/L)	3	6	4.8	5	4	3	4
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Sodium (mg/L)	35	15	63.5	69	49	37	36
Solids, Total Dissolved (mg/L)	546	382	526	516	512	482	484
Strontium (ug/L)	2600	716	3720	3380	3780	3740	3810
Sulfate (mg/L)	65.2	9.2	64.5	74.6	76.2	79.7	73.4
TKN (mg/L)	1.65	1.66	3.06	1.99	3.06	.68	1.23
Total Phosphorus (mg/L)	.097	.264	.603	.569	.526	.19	.192
Total Suspended Solids (mg/L)	10	46	7	13	< 5	< 5	5
Zinc (ug/L)	< 10	18	< 10	< 10	< 10	< 10	< 10
CorrectedConductance(umhos/cm)	763	500	897	874	854	795	801
DissolvedOxygen(mg/L)	5.83	7.2	4.66	8.31	5.22	5.92	5.33
pH(su)	7.75	7.67	7.88	7.91	7.84	7.93	7.95
Saturation(percent)	63.5	81.1	49.3	87.7	54.5	63.4	59.8
Temperature(deg C)	19.4	21.1	16.81	17.8	17.4	18.6	20.9
UncorrectedConductance(umhos/cm)	682	463.1		755	730	698	738

River Code:	**04-626-000**	Stream:	**Bean Creek**
River Mile:	**7.55**	Location:	BEAN CREEK E OF POWERS @ U.S. RT. 20
Basin:	Maumee River	Drainage:	206.0 sq mi

Sample Type: Inorganic	**01-10-2013**	**03-07-2013**	**03-12-2013**	**04-08-2014**	**04-24-2013**	**05-22-2013**	**06-05-2013**	**06-12-2014**	**06-25-2013**	**07-10-2013**	**07-24-2013**	**07-31-2013**	**08-01-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**	**09-17-2014**	**09-19-2013**	**09-25-2014**	**10-14-2014**	**11-14-2013**	**11-25-2014**	**12-19-2012**
Alkalinity (mg/L)		216			167	251	256	255	218	239	255			232	266	297		297	257	276	290	178	
Aluminum (ug/L)	< 200	427	4170	2470	1410	< 200	266	365	1370	1720	359		203	249	< 200	473	< 200	258	< 200	< 200	< 200		< 200
Ammonia (mg/L)	.065	.064	.092	< .05	.061	.075	.067	.07	.09	< .05	< .05		< .05	< .05	.067	< .05	< .05	< .05	< .05	< .05	< .05	< .05	.064
Arsenic (ug/L)	< 2	< 2	2.4	< 2	< 2	< 2	< 2	< 2	< 2	2	2		< 2	< 2	< 2	2	< 2	< 2	< 2	< 2	< 2		< 2
Barium (ug/L)	89	68	72	54	61	75	73	73	74	81	75		77	83	83	93	82	82	87	85	77		95
Cadmium (ug/L)	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2		< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2		< .2
Calcium (mg/L)	97	99	57	62.2	77	92	94	88	83	91	82		89	96	89	89	81.9	90	84.3	88.2	99		96
CBOD20 (mg/L)	< 3		8.2	7.2	6.4	5.1			5.8	5.5	5		5.4	< 3	< 3	4.2	< 3						4.5
Chloride (mg/L)	36.5	34.8	22.1	22.6	19.3	30	29.7	27.6	26.1	32.2	34.2		35.8	35.5	39.1	35.5	42.8	28.8	39.9	41.4	31.2	43.3	39.1
Chlorophyll_a (ug/L)												3.6			3.5								
Chromium (ug/L)	< 2	< 2	4.2	2.4	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2
COD, Chemical Oxygen Demand (mg/L)		20			28	< 20	< 20	< 20	< 20	20	< 20			< 20	< 20	< 20		< 20	< 20	< 20	< 20	23	
Conductivity (umhos/cm)		691			481	653	668	626	598	633	611			705	688	674		650	684	709	715	598	
Copper, Low Level (ug/L)	< 2	< 2	6.5	3.8	3.5	< 2	< 2	2	3.5	3.2	< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2
Hardness, Total (mg/L)	362	354	204	220	266	329	334	318	294	326	295		329	351	333	333	309	324	318	330	358		363
Iron (ug/L)	348	731	6320	3500	2270	374	480	707	2110	2330	536		303	394	321	835	301	528	245	300	480		311
Lead (ug/L)	< 2	< 2	4.3	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2
Magnesium (mg/L)	29	26	15	15.7	18	24	24	23.9	21	24	22		26	27	27	27	25.3	24	26.1	26.6	27		30
Manganese (ug/L)	27	51	169	70	74	64	57	64	87	70	64		52	73	77	62	40	49	39	57	42		25
Mercury (ug/L)																							
Nickel (ug/L)	2.3	3.3	7.6	4.7	4.1	3.6	3.2	2.9	4.5	4.2	2.7		2.8	2.8	2.7	3.1	2.9	2.7	2.9	4	2.6		2.1
Nitrate+Nitrite (mg/L)	.9	3.48	6.33	3.63	3.38	1.16	3.72	1.62	7.82	4.74	.74		.25	.31	.55	.34	.76	.49	.28	< .1	.6	6.17	.51
Nitrite (mg/L)	< .02	< .02	< .02	< .02	.024	< .02	.034	.025	.135	.033	< .02		< .02	< .02	< .02	< .02	< .02	< .02	< .02	< .02	< .02	.031	< .02
Orthophosphate, dissolved (mg/L)	< .01	< .01	.063	.047	.015	< .01	.039	.031	.046	.054	.023		.011	.01	.013	.02	.015	.017	< .01	.013	< .01	.046	< .01
Pheophytin_a (ug/L)												1.6			< 1.5								
Potassium (mg/L)	2	3	5	3.8	4	3	3	2.8	4	4	3		3	3	3	3	3.9	3	3.2	3.8	3		3
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2
Sodium (mg/L)	23	16	7	7.6	8	15	15	14.8	13	17	19		20	21	23	22	26.2	16	24.6	25.5	17		27
Solids, Total Dissolved (mg/L)	448	450	296	288	298	380	444	384	438	418	388		404	444	438	408	406	382	408	416	422	394	430
Strontium (ug/L)	1230	700	238	281	357	745	719	780	606	715	742		876	964	981	1130	1080	882	1190	1180	904		1310
Sulfate (mg/L)	77.6	87.5	39.3	32.8	46.7	56.6	63	44.1	55.6	19.7	53.8		62.4	62.6	60.7	45.9	54.7	50.1	50.7	50.3	57.6	48.7	70.1
TKN (mg/L)	< .2	1.28	1.08	.6	.94	.69	.79	.47	1.06	.99	.56		.46	.34	.4	.37	.36	.52	.38	.37	.56	.82	.32
Total Phosphorus (mg/L)	.018	.087	.237	.094	.089	.024	.039	.043	.052	.09	.037		.021	.014	.016	.046	.018	.033	.011	.022	.023	.086	.02
Total Suspended Solids (mg/L)	< 5	8	201	75	62	10	12	29	56	42	18		8	11	8	24	6	12	< 5	5	6	36	< 5
Zinc (ug/L)	< 10	< 10	28	< 10	< 10	< 10	< 10	< 10	< 10	12	< 10		< 10	45	< 10	< 10	< 10	< 10	< 10	< 10	< 10		< 10
Corrected Conductance(umhos/cm)																							
CorrectedConductance(umhos/cm)		659.3		439.6	447.3	658	638	689	575	611	586			682	678	662	675	704	824	787	760	664	
Dissolved Oxygen (DO)(mg/L)																							
DissolvedOxygen(mg/L)		15.89		10.79	12.26	8.79	8.82	7.74	7.54	7.58	11.69			9.76	7.58	7.96	12.13	9.52	12.88	10.11	14.73	12.89	

Flow(cfs)		113			860	71	34	79	27	54	46			20	11			42	22	31	57	211	
Gage Height(ft)																							
GageHeight(ft)		9.07			12.38	8.77	8.76	8.83	8.66	8.98	8.45			8.11	7.98			8.35	8.19	8.3	8.6	9.66	
pH(su)		7.92		7.91	8.04	8.06	8	7.95	8.02	7.92	8.16			8.13	7.99	8.19	8.25	8.12	8.19	8.14	8.42	7.91	
Saturation(percent)		116.9		89.2	109.2	97.4	91.2	83.5	86.8	87.5	129.6			105.2	84.8	90	123.9	97.7	133.6	99.8	104.9	97.8	
Specific Conductance(umhos/cm)																							
SpecificConductance(umhos/cm)																							
Temperature(deg C)		2.56		7.1	10.2	20.3	16.9	19	22.3	22.4	20.3			18.9	20.7	21.3	16.3	16.5	17	14.7	1.4	3.7	
Temperature, water(deg C)																							
UncorrectedConductance(umhos/cm)		376.7			320.6	598	539	610	545	582	534			602	623	615		590	698	632	416.6	394.5	

River Code:	**04-626-000**	Stream:	**Bean Creek**
River Mile:	**2.20**	Location:	BEAN CREEK SE OF FAYETTE @ OLD ANGOLA RD.
Basin:	Maumee River	Drainage:	246.0 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	216	204	259	225	264	294
Ammonia (mg/L)	.108	.063	< .05	< .05	.085	.062
Chloride (mg/L)	27.5	29.4	38.9	37.5	38.3	36.2
COD, Chemical Oxygen Demand (mg/L)	< 20	25	< 20	< 20	< 20	< 20
Conductivity (umhos/cm)	610	578	648	697	688	675
Nitrate+Nitrite (mg/L)	7.87	7.51	.71	.3	.2	.42
Nitrite (mg/L)	.156	.13	< .02	< .02	< .02	< .02
Solids, Total Dissolved (mg/L)	394	410	404	446	406	418
Sulfate (mg/L)	55.2	12	57.1	63.8	60	51.5
TKN (mg/L)	1.04	1.25	.58	.46	.4	.37
Total Phosphorus (mg/L)	.103	.147	.058	.047	.052	.055
Total Suspended Solids (mg/L)	63	58	20	15	15	33
CorrectedConductance(umhos/cm)	582	558	623	682	678	666
DissolvedOxygen(mg/L)	7.52	6.94	9.89	9.39	7.4	7.48
pH(su)	7.97	7.91	8.03	8.01	8.02	8.05
Saturation(percent)	86.7	79.6	108.2	101.7	84.4	85
Temperature(deg C)	22.3	22.1	19.6	19.1	21.7	21.6
UncorrectedConductance(umhos/cm)	552	528	559	605	635	622

River Code:	**04-624-000**	Stream:	**Mill Creek**
River Mile:	**14.49**	Location:	MILL CREEK NE OF ALVORDTON @ CO. RD. S
Basin:	Maumee River	Drainage:	12.9 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-17-2014**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	136	130		318	256	312	321
Aluminum (ug/L)			< 200				
Ammonia (mg/L)	.243	< .05	< .05	< .05	< .05	.062	.112
Arsenic (ug/L)			3				
Barium (ug/L)			45				
Cadmium (ug/L)			< .2				
Calcium (mg/L)			108				
CBOD20 (mg/L)			6.2				
Chloride (mg/L)	18.6	15.6	37.1	45.7	35	36.9	44.1
Chlorophyll_a (ug/L)			23.2				
Chromium (ug/L)			< 2				
COD, Chemical Oxygen Demand (mg/L)	42	36		36	23	20	21
Conductivity (umhos/cm)	516	369		800	789	768	769
Copper, Low Level (ug/L)			< 2				
Hardness, Total (mg/L)			392				
Iron (ug/L)			250				
Lead (ug/L)			< 2				
Magnesium (mg/L)			29.6				
Manganese (ug/L)			310				
Nickel (ug/L)			3.7				
Nitrate+Nitrite (mg/L)	11.3	5.54	< .1	1.14	.3	.15	.15
Nitrite (mg/L)	.538	.079	< .02	< .02	< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)			.043				
Pheophytin_a (ug/L)			4.8				
Potassium (mg/L)			2.7				
Selenium (ug/L)			< 2				
Sodium (mg/L)			18				
Solids, Total Dissolved (mg/L)	384	290	490	580	550	480	464
Strontium (ug/L)			357				
Sulfate (mg/L)	72.6	11.3	68.8	87.4	80.9	73.6	61.2
TKN (mg/L)	2.17	1.39	.89	1.29	.86	.62	.7
Total Phosphorus (mg/L)	.216	.303	.098	.139	.084	.133	.164
Total Suspended Solids (mg/L)	21	33	14	12	< 5	10	45
Zinc (ug/L)			< 10				
CorrectedConductance(umhos/cm)	493	355	746	770	771	758	758
DissolvedOxygen(mg/L)	4.4	4.33	5.31	6.86	6.25	3.65	3.6
pH(su)	7.41	7.18	7.44	7.51	7.64	7.52	7.74
Saturation(percent)	51	49.3	54.7	72.4	66.4	39.9	41.1
Temperature(deg C)	22.6	21.7	15.6	17.9	18.2	19.6	21.8
UncorrectedConductance(umhos/cm)	470.9	332.5		665	671	680	711

River Code:	**04-624-000**	Stream:	**Mill Creek**
River Mile:	**11.90**	Location:	MILL CREEK SE OF ALVORDTON @ CO. RD. P
Basin:	Maumee River	Drainage:	23.4 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-17-2014**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	146	135		282	250	255	299
Aluminum (ug/L)			357				
Ammonia (mg/L)	.149	< .05	< .05	< .05	< .05	< .05	.122
Arsenic (ug/L)			3.6				
Barium (ug/L)			43				
Cadmium (ug/L)			< .2				
Calcium (mg/L)			104				
CBOD20 (mg/L)			5.4				
Chloride (mg/L)	19.3	17.9	50.3	56.8	49.6	55.9	55.1
Chlorophyll_a (ug/L)			6.4				
Chromium (ug/L)			< 2				
COD, Chemical Oxygen Demand (mg/L)	169	34		35	< 20	21	29
Conductivity (umhos/cm)	517	407		776	815	755	775
Copper, Low Level (ug/L)			< 2				
Hardness, Total (mg/L)			385				
Iron (ug/L)			636				
Lead (ug/L)			< 2				
Magnesium (mg/L)			30.4				
Manganese (ug/L)			199				
Nickel (ug/L)			4.4				
Nitrate+Nitrite (mg/L)	11.1	8.73	< .1	2.2	.54	.13	< .1
Nitrite (mg/L)	.526	.097	< .02	< .02	< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)			.093				
Pheophytin_a (ug/L)			3.9				
Potassium (mg/L)			3				
Selenium (ug/L)			< 2				
Sodium (mg/L)			23.6				
Solids, Total Dissolved (mg/L)	398	332	514	534	568	508	440
Strontium (ug/L)			348				
Sulfate (mg/L)	68.4	15.4	69.4	75.9	93	73.9	58.4
TKN (mg/L)	1.81	1.17	.61	1.31	.85	.65	.83
Total Phosphorus (mg/L)	.198	.273	.105	.125	.072	.069	.147
Total Suspended Solids (mg/L)	22	42	39	6	< 5	8	13
Zinc (ug/L)			< 10				
CorrectedConductance(umhos/cm)	494.1	391.1	731	746	791	743	761
DissolvedOxygen(mg/L)	5.3	5.39	6.2	9.21	8.75	6.21	5.02
pH(su)	7.54	7.28	7.91	7.88	7.89	7.89	7.85
Saturation(percent)	62.5	61.3	65.2	99.4	93.2	68.4	58.3
Temperature(deg C)	23.6	21.7	16.53	18.9	18.3	20	22.7
UncorrectedConductance(umhos/cm)	480.4	366.5		660	690	672	727

River Code:	**04-624-000**	Stream:	**Mill Creek**
River Mile:	**7.92**	Location:	MILL CREEK SE OF ALVORDTON @ CO. RD. 28
Basin:	Maumee River	Drainage:	32.8 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-17-2014**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	136	137		276	236	242	293
Aluminum (ug/L)			< 200				
Ammonia (mg/L)	.101	< .05	< .05	< .05	< .05	< .05	.131
Arsenic (ug/L)			4.3				
Barium (ug/L)			51				
Cadmium (ug/L)			< .2				
Calcium (mg/L)			79.2				
CBOD20 (mg/L)			4.9				
Chloride (mg/L)	19	18	39.7	48.6	40.2	43.8	34.9
Chlorophyll_a (ug/L)			6				
Chromium (ug/L)			< 2				
COD, Chemical Oxygen Demand (mg/L)	37	39		34	21	< 20	21
Conductivity (umhos/cm)	510	407		752	755	730	694
Copper, Low Level (ug/L)			< 2				
Hardness, Total (mg/L)			334				
Iron (ug/L)			379				
Lead (ug/L)			< 2				
Magnesium (mg/L)			33.1				
Manganese (ug/L)			101				
Nickel (ug/L)			3.1				
Nitrate+Nitrite (mg/L)	13.3	7.49	< .1	3.67	.18	< .1	< .1
Nitrite (mg/L)	.444	.061	< .02	< .02	< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)			.122				
Pheophytin_a (ug/L)			4.8				
Potassium (mg/L)			2.9				
Selenium (ug/L)			< 2				
Sodium (mg/L)			29.4				
Solids, Total Dissolved (mg/L)	456	324	428	516	494	434	410
Strontium (ug/L)			1920				
Sulfate (mg/L)	63	14.7	63.9	83.8	93.4	83	65.7
TKN (mg/L)	2	1.56	.55	1.22	.7	.56	.54
Total Phosphorus (mg/L)	.201	.33	.154	.148	.059	.067	.084
Total Suspended Solids (mg/L)	47	99	5	< 5	< 5	13	8
Zinc (ug/L)			< 10				
CorrectedConductance(umhos/cm)	491.4	393.7	684	725	749	714	678
DissolvedOxygen(mg/L)	6.71	6.32	8.96	10.99	8.39	4.33	3.89
pH(su)	7.69	7.38	8.14	8.09	7.96	7.76	7.87
Saturation(percent)	77.9	72.2	97.6	121.3	89.7	47.9	45.7
Temperature(deg C)	22.7	21.9	18.26	20.1	18.5	20.2	23.3
UncorrectedConductance(umhos/cm)	470.1	370.5		657	655	649	656

River Code:	**04-624-000**	Stream:	**Mill Creek**
River Mile:	**1.85**	Location:	MILL CREEK S OF FAYETTE @ OLD ANGOLA RD.
Basin:	Maumee River	Drainage:	39.0 sq mi

Sample Type: Inorganic	**01-10-2013**	**03-12-2013**	**04-08-2014**	**04-24-2013**	**05-22-2013**	**06-25-2013**	**07-02-2014**	**07-10-2013**	**07-17-2014**	**07-24-2013**	**07-31-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**	**12-19-2012**
Alkalinity (mg/L)				113	187	124		153		210		204	270	300	
Aluminum (ug/L)	< 200	7040	5670	5020	< 200	299	291	1320	< 200	365		333	256	208	< 200
Ammonia (mg/L)	.095	.145	.114	.216	.113	.06	< .05	< .05	< .05	< .05		< .05	.083	< .05	.075
Arsenic (ug/L)	< 2	2.2	< 2	2.1	< 2	< 2	< 2	< 2	2.1	< 2		< 2	< 2	< 2	< 2
Barium (ug/L)	113	78	68	71	81	48	76	51	100	66		100	114	135	114
Cadmium (ug/L)	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2		< .2	< .2	< .2	< .2
Calcium (mg/L)	73	53	51.9	59	67	60	73.8	63	78.6	71		77	81	80	70
CBOD20 (mg/L)	< 3	7.9	7.7	8	7.4	8.6	5.2	12	5	5.2		4.4	< 3	5.7	4.8
Chloride (mg/L)	31.9	29.4	26.9	23.1	30.6	28.3	34.6	21.5	32.5	25		26.9	28.9	29.8	28.9
Chlorophyll_a (ug/L)									5.2		5.8				
Chromium (ug/L)	< 2	< 20	5.1	5.2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2	< 2
COD, Chemical Oxygen Demand (mg/L)				32	20	47		37		23		< 20	< 20	< 20	
Conductivity (umhos/cm)				423	568	537		476		549		603	643	663	
Copper, Low Level (ug/L)	< 2	< 20	5.7	6.6	2	2.2	< 2	3.6	< 2	2.4		< 2	< 2	< 2	< 2
Hardness, Total (mg/L)	298	194	188	213	262	240	287	231	314	268		295	322	319	286
Iron (ug/L)	496	8810	7230	6350	415	476	507	1920	433	597		684	541	439	384
Lead (ug/L)	< 2	4.5	4	3.9	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2	< 2
Magnesium (mg/L)	28	15	14.2	16	23	22	25	18	28.5	22		25	29	29	27
Manganese (ug/L)	32	125	102	106	55	44	60	72	81	61		74	100	85	21
Nickel (ug/L)	< 2	< 20	7.4	7.6	2.9	2.7	2.5	4	2.5	3		2.7	2.2	2.1	< 2
Nitrate+Nitrite (mg/L)	.42	9.8	5.83	8.61	2.25	9.48	2.84	7.01	.7	3.57		.98	.17	.11	.23
Nitrite (mg/L)	< .02	< .02	.023	.074	.061	.156	.023	.098	< .02	.022		< .02	< .02	< .02	.02
Orthophosphate, dissolved (mg/L)	< .01	.172	.114	.098	.013	< .01	.048	< .01	.062	.046		.035	.025	.051	.011
Pheophytin_a (ug/L)									3.2		2.3				
Potassium (mg/L)	3	6	4.5	5	3	4	3.8	5	3.2	5		4	3	3	3
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2	< 2
Sodium (mg/L)	23	9	7.8	8	16	14	18.1	10	22.3	14		19	23	25	22

Solids, Total Dissolved (mg/L)	368	364	334	354	336	396	378	330	376	368		378	380	396	350
Strontium (ug/L)	1730	259	237	303	1030	554	1030	409	1800	738		1470	1970	2370	1550
Sulfate (mg/L)	52.1	47.8	52.8	48.2	64.5	67.4	57.1	< 5	50.8	53.2		51.6	48.6	47.9	47.1
TKN (mg/L)	.4	1.37	1.35	1.39	.93	1.47	.91	1.32	.58	1.1		.54	1.05	.33	.56
Total Phosphorus (mg/L)	.036	.381	.264	.234	.057	.018	.076	.071	.094	.083		.056	.05	.078	.04
Total Suspended Solids (mg/L)	< 5	76	99	52	6	17	8	71	< 5	12		11	7	7	< 5
Zinc (ug/L)	< 10	35	18	23	< 10	< 10	< 10	28	< 10	< 10		< 10	< 10	< 10	< 10
CorrectedConductance(umhos/cm)			399.1	396.4	568	517	578	456.4	641	525		587	632	656	
DissolvedOxygen(mg/L)			11.5	12.9	6.58	6.55	6.79	7.18	8.63	9.06		9.36	7.09	5.76	
GageHeight(ft)				12.43	15.27	14.4	15.2	12.52		15.17		15.45	15.52	15.52	
pH(su)			7.9	7.91	7.77	7.93	7.73	8.17	8.04	7.88		7.92	8.02	7.92	
Saturation(percent)			94	113.2	73.3	79.3	78.7	85.8	95.2	101.7		99.4	77.7	65.5	
Temperature(deg C)			6.6	9.5	20.6	25	22.6	24.3	18.94	20.9		18.2	19.7	21.6	
UncorrectedConductance(umhos/cm)				279.3	520	517		449.9		484.5		510	568	614	

River Code:	**04-622-000**	Stream:	**Bates Creek**
River Mile:	**1.65**	Location:	BATES CREEK E OF WEST UNITY @ CO. RD. 25-2
Basin:	Maumee River	Drainage:	11.8 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-17-2014**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	273	205		280	228	272	309
Aluminum (ug/L)			384				
Ammonia (mg/L)	.142	.055	.109	< .05	.079	.151	.15
Arsenic (ug/L)			5.9				
Barium (ug/L)			61				
Cadmium (ug/L)			< .2				
Calcium (mg/L)			83.8				
CBOD20 (mg/L)			7.3				
Chloride (mg/L)	62.1	33.2	92	62.2	70.3	68.2	67.7
Chlorophyll_a (ug/L)			1.7				
Chromium (ug/L)			< 2				
COD, Chemical Oxygen Demand (mg/L)	< 20	25		27	< 20	< 20	30
Conductivity (umhos/cm)	817	581		761	804	779	798
Copper, Low Level (ug/L)			< 2				
Hardness, Total (mg/L)			347				
Iron (ug/L)			632				
Lead (ug/L)			< 2				
Magnesium (mg/L)			33.5				
Manganese (ug/L)			182				
Nickel (ug/L)			3.2				
Nitrate+Nitrite (mg/L)	4.48	8.1	.26	3.96	.78	.35	< .1
Nitrite (mg/L)	.074	.047	.026	.04	.032	.045	.027
Orthophosphate, dissolved (mg/L)			.133				
Pheophytin_a (ug/L)			1.7				
Potassium (mg/L)			4.6				
Selenium (ug/L)			< 2				
Sodium (mg/L)			67.7				
Solids, Total Dissolved (mg/L)	578	408	516	488	502	448	462
Strontium (ug/L)			2060				
Sulfate (mg/L)	73.7	10.8	47.6	50.3	63.2	51.2	33.4
TKN (mg/L)	.98	1.07	.64	1.15	.62	.8	.79
Total Phosphorus (mg/L)	.051	.196	.167	.226	.082	.177	.259
Total Suspended Solids (mg/L)	16	45	5	19	7	21	24
Zinc (ug/L)			< 10				
CorrectedConductance(umhos/cm)	783	559	908	730	780	767	779
DissolvedOxygen(mg/L)	5.79	7.16	4.76	9.5	8.64	4.54	2.8
pH(su)	7.93	7.78	7.94	7.89	7.96	7.97	7.87
Saturation(percent)	68.3	81.6	51.2	101.7	93.4	50.2	32
Temperature(deg C)	23.6	21.8	17.56	18.5	19	20.2	21.9
UncorrectedConductance(umhos/cm)	762	525		640	691	696	733

River Code:	**04-620-000**	Stream:	**Flat Run**
River Mile:	**0.40**	Location:	FLAT RUN NE OF STRYKER @ CO. RD. 22.75
Basin:	Maumee River	Drainage:	10.2 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-17-2014**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	211	226		270	147	172	182
Aluminum (ug/L)			797				
Ammonia (mg/L)	.073	.138	< .05	.062	.062	.147	.199
Arsenic (ug/L)			4.1				
Barium (ug/L)			69				
Cadmium (ug/L)			< .2				
Calcium (mg/L)			76.9				
CBOD20 (mg/L)			8.1				
Chloride (mg/L)	89.4	43.5	251	93.2	123	126	107
Chlorophyll_a (ug/L)			9.2				
Chromium (ug/L)			< 2				
COD, Chemical Oxygen Demand (mg/L)	< 20	21		22	< 20	< 20	< 20
Conductivity (umhos/cm)	775	668		860	861	849	767
Copper, Low Level (ug/L)			3.4				
Hardness, Total (mg/L)			332				
Iron (ug/L)			1100				
Lead (ug/L)			< 2				
Magnesium (mg/L)			33.9				
Manganese (ug/L)			97				
Nickel (ug/L)			4.9				
Nitrate+Nitrite (mg/L)	2.58	9.76	< .1	1.58	.13	.12	.5
Nitrite (mg/L)	.084	.122	< .02	.081	< .02	.02	.023
Orthophosphate, dissolved (mg/L)			.057				
Pheophytin_a (ug/L)			7				
Potassium (mg/L)			4.9				
Selenium (ug/L)			< 2				
Sodium (mg/L)			131				
Solids, Total Dissolved (mg/L)	536	426	744	522	544	522	386
Strontium (ug/L)			981				
Sulfate (mg/L)	56.7	40.5	65.1	63	67.9	55	57.2
TKN (mg/L)	1.14	1.16	.78	1.12	.68	.88	.76
Total Phosphorus (mg/L)	.059	.157	.094	.193	.115	.122	.135
Total Suspended Solids (mg/L)	42	15	16	32	41	23	45
Zinc (ug/L)			< 10				
CorrectedConductance(umhos/cm)	744	644	1032	825	832	830	744
DissolvedOxygen(mg/L)	6.64	6.14		7.4	8.6	6.63	4.78
pH(su)	8	7.62	7.44	7.86	8.37	7.92	7.87
Saturation(percent)	79.6	70.2		82	94.7	75	56.4
Temperature(deg C)	24.4	21.9	16.8	20.3	19.9	21.3	23.6
UncorrectedConductance(umhos/cm)	734	606		751	752	771	724

River Code:	**04-619-000**	Stream:	**Leatherwood Creek**
River Mile:	**1.15**	Location:	LEATHERWOOD CREEK N OF STRYKER @ CO. RD. H
Basin:	Maumee River	Drainage:	9.8 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	274	246	260	243	274	335
Ammonia (mg/L)	.078	< .05	< .05	< .05	< .05	.087
Chloride (mg/L)	28.9	24.7	37.8	37.4	30.6	26.5
COD, Chemical Oxygen Demand (mg/L)	< 20	32	< 20	< 20	< 20	< 20
Conductivity (umhos/cm)	765	660	683	787	759	807
Nitrate+Nitrite (mg/L)	4.09	12.9	4.59	.17	.1	.14
Nitrite (mg/L)	.059	.039	.027	< .02	< .02	.023
Solids, Total Dissolved (mg/L)	520	436	440	482	462	484
Sulfate (mg/L)	91.5	45.7	57.1	102	96.7	102
TKN (mg/L)	.58	1.2	.76	.25	.38	.35
Total Phosphorus (mg/L)	.082	.141	.117	.065	.044	.032
Total Suspended Solids (mg/L)	29	38	19	13	7	25
CorrectedConductance(umhos/cm)	732	639	651	766	743	783
DissolvedOxygen(mg/L)	7.51	7.9	9.85	11.83	9.46	7.5
pH(su)	8.07	7.75	7.93	8.89	8.21	8.2
Saturation(percent)	88.5	88.1	107.6	128.9	106.7	88.1
Temperature(deg C)	23.5	20.6	19.6	19.4	21.2	23.3
UncorrectedConductance(umhos/cm)	711	585	584	685	689	758

River Code:	**04-617-000**	Stream:	**Beaver Creek**
River Mile:	**17.12**	Location:	BEAVER CREEK SW OF WEST UNITY @ CO. RD. K
Basin:	Maumee River	Drainage:	14.9 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	259	162	227	215	268	297
Ammonia (mg/L)	.073	< .05	< .05	< .05	.053	.056
Chloride (mg/L)	46	30.7	47.1	61.4	52.5	51.5
COD, Chemical Oxygen Demand (mg/L)	21	35	33	< 20	< 20	< 20
Conductivity (umhos/cm)	780	476	663	803	814	818
Nitrate+Nitrite (mg/L)	2.52	5.78	1.29	< .1	< .1	< .1
Nitrite (mg/L)	.031	.057	< .02	< .02	< .02	< .02
Solids, Total Dissolved (mg/L)	542	364	448	528	494	500
Sulfate (mg/L)	105	14.6	80.2	102	106	99.9
TKN (mg/L)	.93	1.47	1.11	.56	.46	.38
Total Phosphorus (mg/L)	.024	.191	.09	.036	.028	.041
Total Suspended Solids (mg/L)	5	26	5	< 5	5	< 5
CorrectedConductance(umhos/cm)	750	460.6	639	790	806	807
DissolvedOxygen(mg/L)	9.14	6.08	10.34	10.3	8.42	8.6
pH(su)	7.97	7.46	7.83	8.51	7.98	8.06
Saturation(percent)	111.8	71.3	117.7	117.8	98.8	105.9
Temperature(deg C)	25.5	23.2	21.7	21.9	23.3	25.9
UncorrectedConductance(umhos/cm)	758	444.7	599	743	779	820

River Code:	**04-617-000**	Stream:	**Beaver Creek**
River Mile:	**12.66**	Location:	BEAVER CREEK AT BEAVER CREEK WILDLIFE AREA @ CO. RD. 16
Basin:	Maumee River	Drainage:	29.5 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	240	167	190	215	263	283
Ammonia (mg/L)	.073	.122	.104	< .05	< .05	.07
Chloride (mg/L)	42.6	41.2	53.8	49.4	54.1	51.8
COD, Chemical Oxygen Demand (mg/L)	< 20	37	44	< 20	< 20	< 20
Conductivity (umhos/cm)	693	551	599	761	756	772
Nitrate+Nitrite (mg/L)	1.25	5.97	1.58	.48	.29	.27
Nitrite (mg/L)	.028	.084	.033	< .02	< .02	< .02
Solids, Total Dissolved (mg/L)	488	392	390	458	448	456
Sulfate (mg/L)	86.2	11	55.9	85.6	74.5	65.9
TKN (mg/L)	.91	1.6	1.39	1.02	.54	.57
Total Phosphorus (mg/L)	.032	.195	.136	.078	.079	.115
Total Suspended Solids (mg/L)	8	87	27	5	5	5
CorrectedConductance(umhos/cm)	669	532	571	743	747	750
DissolvedOxygen(mg/L)	6.62	6.98	9.26	10.2	7.69	6.17
pH(su)	7.89	7.76	7.84	8.72	8.09	8.15
Saturation(percent)	79.7	82.2	104.9	114.5	89.4	73.6
Temperature(deg C)	24.6	23.4	21.5	21	22.7	24.1
UncorrectedConductance(umhos/cm)	664	515	533	686	715	737

River Code:	**04-617-000**	Stream:	**Beaver Creek**
River Mile:	**7.52**	Location:	BEAVER CREEK S OF PULASKI @ U.S. RT. 127
Basin:	Maumee River	Drainage:	36.0 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-25-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	251	127	226	232	269	307
Ammonia (mg/L)	.06	.106	< .05	< .05	< .05	.101
Chloride (mg/L)	37.7	22.4	53.3	41.2	39.9	35.6
COD, Chemical Oxygen Demand (mg/L)	< 20	29	28	< 20	< 20	< 20
Conductivity (umhos/cm)	689	402	635	746	734	713
Nitrate+Nitrite (mg/L)	1.38	8.33	1.53	.21	.12	.13
Nitrite (mg/L)	< .02	.249	< .02	< .02	< .02	< .02
Solids, Total Dissolved (mg/L)	416	308	386	436	432	426
Sulfate (mg/L)	75.3	13.6	56.9	76.2	62.1	61.4
TKN (mg/L)	.71	1.47	.96	.44	.4	.39
Total Phosphorus (mg/L)	.049	.26	.113	.061	.051	.088
Total Suspended Solids (mg/L)	46	121	20	20	6	24
CorrectedConductance(umhos/cm)	652	385.9	606	729	720	700
DissolvedOxygen(mg/L)	6.5	7.55	6.87	6.77	7.46	5.65
pH(su)	7.87	7.55	7.77	8	8.09	7.92
Saturation(percent)	74.5	84.5	73.8	73.6	86.1	65.6
Temperature(deg C)	22	20.8	18.7	19.3	22.4	22.7
UncorrectedConductance(umhos/cm)	615	355.1	534	650	685	669

River Code:	**04-617-000**	Stream:	**Beaver Creek**
River Mile:	**2.90**	Location:	BEAVER CREEK @ CO. RD. D
Basin:	Maumee River	Drainage:	41.0 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-25-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	249	128	232	236	270	287
Ammonia (mg/L)	< .05	.097	< .05	< .05	< .05	< .05
Chloride (mg/L)	45.3	22.9	55	43.9	49.9	54
COD, Chemical Oxygen Demand (mg/L)	22	38	27	< 20	< 20	21
Conductivity (umhos/cm)	721	410	647	751	735	733
Nitrate+Nitrite (mg/L)	1.7	8.83	1.72	.32	.25	.16
Nitrite (mg/L)	< .02	.239	< .02	< .02	< .02	< .02
Solids, Total Dissolved (mg/L)	448	306	428	442	436	430
Sulfate (mg/L)	74.3	12.8	53.4	71.3	54.6	57.9
TKN (mg/L)	.76	1.33	1	.49	.46	.42
Total Phosphorus (mg/L)	.06	.232	.144	.144	.102	.123
Total Suspended Solids (mg/L)	43	136	19	10	7	< 5
CorrectedConductance(umhos/cm)	686	393.8	622	733	736	723
DissolvedOxygen(mg/L)	6.91	7.22	6.67	6.23	6.56	4.74
pH(su)	7.98	7.57	8.1	8	7.92	7.73
Saturation(percent)	80.6	81.2	73.6	68.7	74.9	54.4
Temperature(deg C)	22.9	21	20.1	20.1	21.8	22.1
UncorrectedConductance(umhos/cm)	659	363.9	564	664	692	683

River Code:	**04-617-000**	Stream:	**Beaver Creek**
River Mile:	**0.61**	Location:	BEAVER CREEK NW OF EVANSPORT @ CO. RD. 20
Basin:	Maumee River	Drainage:	44.8 sq mi

Sample Type: Inorganic	**01-10-2013**	**03-13-2013**	**04-08-2014**	**04-24-2013**	**05-22-2013**	**06-26-2013**	**07-11-2013**	**07-25-2013**	**08-01-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**	**12-18-2012**
Alkalinity (mg/L)				147	270	247	116	228		238	270	286	
Aluminum (ug/L)	< 200	6290	7010	4610	503	885	4390	756	572	406	425	557	< 200
Ammonia (mg/L)	.06	.1	< .05	.084	.157	< .05	.112	< .05	< .05	< .05	< .05	< .05	.057
Arsenic (ug/L)	< 2	2	2.2	< 2	< 2	< 2	2.1	2.5	2.3	2.4	2.4	3.7	< 2
Barium (ug/L)	94	72	80	67	81	76	69	66	72	77	75	76	96
Cadmium (ug/L)	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2
Calcium (mg/L)	83	58	52	63	89	87	54	73	82	85	70	67	77
CBOD20 (mg/L)	< 3	7.5	8.9	7.4	5.5	7.5	9.4	4.9	5	5	4.7	7.1	< 3
Chloride (mg/L)	55	38	35.5	33.3	46.4	43.4	20.1	51.3	51.3	42.8	50	58.3	38
Chlorophyll_a (ug/L)									8.7				
Chromium (ug/L)	< 2	< 20	6.6	5.3	< 2	< 2	3.9	< 2	< 2	< 2	< 2	< 2	< 2
COD, Chemical Oxygen Demand (mg/L)				26	< 20	21	26	28		< 20	< 20	20	
Conductivity (umhos/cm)				507	767	720	391	636		741	743	740	
Copper, Low Level (ug/L)	< 2	< 20	8	6.4	2.4	2.9	6.9	3.5	2.8	2.1	2.4	2.3	< 2
Hardness, Total (mg/L)	368	211	190	231	354	328	188	277	312	344	298	291	357
Iron (ug/L)	221	7480	9690	5900	882	1310	6310	1130	865	655	602	836	234
Lead (ug/L)	< 2	4.6	5.5	3.4	< 2	< 2	3.9	< 2	< 2	< 2	< 2	< 2	< 2
Magnesium (mg/L)	39	16	14.7	18	32	27	13	23	26	32	30	30	40
Manganese (ug/L)	< 10	89	171	78	98	58	127	58	66	67	66	104	12
Nickel (ug/L)	2.2	< 20	9.4	8	4	3.9	6.9	3.4	3.6	3.1	3	3.2	< 2
Nitrate+Nitrite (mg/L)	1.2	8.76	3.81	7.44	1.04	2.51	9.36	2.23	.55	.21	.13	< .1	.13
Nitrite (mg/L)	.025	< .02	< .02	.038	.065	< .02	.237	< .02	< .02	< .02	< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)	< .01	.083	.091	.079	.034	.025	.146	.088	.069	.073	.07	.093	.018
Pheophytin_a (ug/L)									3				
Potassium (mg/L)	3	4	4.1	4	3	4	5	5	5	4	4	5	3
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Sodium (mg/L)	47	15	14.2	18	33	29	11	30	34	38	41	45	44

Solids, Total Dissolved (mg/L)	536	386	304	368	438	448	302	424	430	446	432	438	466
Strontium (ug/L)	3570	382	342	535	2050	1500	327	1170	1600	2270	2310	2430	4120
Sulfate (mg/L)	108	54.9	32.8	51.3	79.5	71.7	12.6	55.8	60.6	69.6	56.1	59.8	89
TKN (mg/L)	< .2	1.54	.67	1.1	.73	.85	1.38	.89	.66	.43	.52	.46	< .2
Total Phosphorus (mg/L)	.022	.254	.223	.193	.075	.074	.265	.116	.101	.102	.089	.132	.036
Total Suspended Solids (mg/L)	< 5	47	188	68	28	43	148	18	19	13	12	20	< 5
Zinc (ug/L)	< 10	29	26	19	< 10	< 10	26	< 10	< 10	< 10	< 10	< 10	< 10
CorrectedConductance(umhos/cm)			384.5	472.1	776	683	373.7	622		727	733	729	
DissolvedOxygen(mg/L)			11.29	12.12	6.08	6.35	6.95	7.15		6.47	6.21	4.69	
GageHeight(ft)				7.03	13.94	13.99	8.5	13.87		14.16	14.26	14.27	
pH(su)			8.04	7.84	7.85	7.85	7.53	8.05		8.01	8.04	7.75	
Saturation(percent)			92.1	106.6	68.6	73.6	78.1	78.7		71.2	69.8	53.9	
Temperature(deg C)			6.5	9.6	21.2	22.7	21	20		20	21	22.2	
UncorrectedConductance(umhos/cm)				333.7	719	652	345.1	562		657	677	689	

River Code:	**04-615-000**	Stream:	**Owl Creek**
River Mile:	**0.07**	Location:	OWL CREEK SW OF ARCHBOLD @ CO. RD. 25
Basin:	Maumee River	Drainage:	10.3 sq mi

Sample Type: Inorganic	**06-27-2013**	**07-15-2013**	**07-29-2013**	**08-08-2013**	**08-19-2014**	**08-26-2013**	**09-16-2013**
Alkalinity (mg/L)	173	274	280	281		159	260
Aluminum (ug/L)					873		
Ammonia (mg/L)	.071	.062	.076	.114	.177	.4	.128
Arsenic (ug/L)					4.2		
Barium (ug/L)					86		
Cadmium (ug/L)					< .2		
Calcium (mg/L)					114		
CBOD20 (mg/L)					10		
Chloride (mg/L)	29.2	29	51.3	64.8	81.7	39.9	92.6
Chromium (ug/L)					< 2		
COD, Chemical Oxygen Demand (mg/L)	< 20	< 20	23	21		21	34
Conductivity (umhos/cm)	548	751	799	876		504	767
Copper, Low Level (ug/L)					4.3		
Hardness, Total (mg/L)					402		
Iron (ug/L)					1570		
Lead (ug/L)					< 2		
Magnesium (mg/L)					28.4		
Manganese (ug/L)					317		
Nickel (ug/L)					6.6		
Nitrate+Nitrite (mg/L)	7.76	10.3	1.57	.25	< .1	.11	< .1
Nitrite (mg/L)	.058	.045	< .02	< .02	< .02	.033	.027
Orthophosphate, dissolved (mg/L)					.09		
Potassium (mg/L)					9.9		
Selenium (ug/L)					< 2		
Sodium (mg/L)					42.1		
Solids, Total Dissolved (mg/L)	340	492	544	526	616	322	450
Strontium (ug/L)					995		
Sulfate (mg/L)	52.8	73.3	105	95.8	138	43.2	39.1
TKN (mg/L)	.7	1.13	.87	1.06	1.92	1.34	.87
Total Phosphorus (mg/L)	.071	.151	.117	.14	.245	.176	.164
Total Suspended Solids (mg/L)	14	43	16	48	8	38	52
Zinc (ug/L)					< 10		
CorrectedConductance(umhos/cm)	522	735	768	860	899	493.1	756
DissolvedOxygen(mg/L)	6.39	6.92	8.27	9.14	6.28	2.54	6.26
pH(su)	7.82	7.9	7.78	7.71	7.77	7.67	7.72
Saturation(percent)	74.5	81.4	84	102.2	74.6	28.4	62.5
Temperature(deg C)	22.9	23.3	16	20.7	23.9	20.8	15.2
UncorrectedConductance(umhos/cm)	501	712	636	790		453.3	615

River Code:	**04-614-000**	Stream:	**Brush Creek**
River Mile:	**19.06**	Location:	BRUSH CREEK UPST. ARCHBOLD @ ARCHBOLD-LUTZ RD. (CR D)
Basin:	Maumee River	Drainage:	19.7 sq mi

Sample Type: Inorganic	**06-25-2013**	**07-10-2013**	**07-24-2013**	**08-06-2013**	**08-21-2013**	**09-11-2013**
Alkalinity (mg/L)	190	250	219	156	151	146
Ammonia (mg/L)	< .05	< .05	< .05	.224	.193	< .05
Chloride (mg/L)	47.6	53.9	74.6	82.5	71.6	79
Chlorophyll_a (ug/L)					7.7	
COD, Chemical Oxygen Demand (mg/L)	< 20	20	21	< 20	< 20	21
Conductivity (umhos/cm)	621	784	743	692	614	622
Nitrate+Nitrite (mg/L)	6.7	7.02	4.08	.32	.14	< .1
Nitrite (mg/L)	.141	.067	.054	.025	.022	< .02
Pheophytin_a (ug/L)					2.1	
Solids, Total Dissolved (mg/L)	418	498	478	450	366	368
Sulfate (mg/L)	57.4	76	59.8	52.5	53.7	49.2
TKN (mg/L)	.73	1.08	.96	1.11	.79	.77
Total Phosphorus (mg/L)	.017	.183	.029	.063	.062	.058
Total Suspended Solids (mg/L)	< 5	8	6	8	7	8
CorrectedConductance(umhos/cm)	596	758	711	675	603	606
DissolvedOxygen(mg/L)	12.3	8.94	16.84	8.01	8.17	9.84
pH(su)	8.38	8.24	8.32	7.81	8.05	8.46
Saturation(percent)	152.3	105.4	191	90	97	119.8
Temperature(deg C)	26.2	23.5	21.5	21	23.9	25.3
UncorrectedConductance(umhos/cm)	610	736	663	623	590	609

River Code:	**04-614-000**	Stream:	**Brush Creek**
River Mile:	**15.25**	Location:	BRUSH CREEK AT ARCHBOLD @ ST. RT. 66
Basin:	Maumee River	Drainage:	32.9 sq mi

Sample Type: Inorganic	**05-01-2014**	**07-17-2014**	**08-18-2014**	**08-19-2014**
Aluminum (ug/L)	398	< 200	1510	
Ammonia (mg/L)	.065	.088	.185	
Arsenic (ug/L)	< 2	3.7	3.4	
Barium (ug/L)	50	52	87	
Cadmium (ug/L)	< .2	< .2	< .2	
Calcium (mg/L)	84.1	57.6	89.1	
CBOD20 (mg/L)	6.6	7	7.2	
Chloride (mg/L)	66.4	88.7	147	
Chlorophyll_a (ug/L)		6.5		
Chromium (ug/L)	< 2	< 2	< 2	
Copper, Low Level (ug/L)	2.9	< 2	4.2	
Hardness, Total (mg/L)	305	247	340	
Iron (ug/L)	613	503	2200	
Lead (ug/L)	< 2	< 2	< 2	
Magnesium (mg/L)	23	25.1	28.6	
Manganese (ug/L)	34	170	176	
Nickel (ug/L)	3.2	3.1	5.6	
Nitrate+Nitrite (mg/L)	8.32	< .1	.13	
Nitrite (mg/L)	.065	< .02	< .02	
Orthophosphate, dissolved (mg/L)	.021	.126		.06
Pheophytin_a (ug/L)		2.5		
Potassium (mg/L)	4.7	6	8.2	
Selenium (ug/L)	< 2	< 2	< 2	
Sodium (mg/L)	29	46.6	88.1	
Solids, Total Dissolved (mg/L)	452	424	618	
Strontium (ug/L)	489	680	1420	
Sulfate (mg/L)	60.4	54	88.2	
TKN (mg/L)	.73	.73	1.35	
Total Phosphorus (mg/L)	.034	.177	.186	
Total Suspended Solids (mg/L)	13	< 5	101	
Zinc (ug/L)	< 10	< 10	20	
CorrectedConductance(umhos/cm)		680		
CorrectedConductance(uS/cm)	711			
DissolvedOxygen(mg/L)	7.96	5.68		
pH(su)	7.86	7.67		
Saturation(percent)	73.7	62.1		
Temperature(deg C)	11.8	18.42		

River Code:	**04-614-000**	Stream:	**Brush Creek**
River Mile:	**13.90**	Location:	ARCHBOLD WWTP 001 OUTFALL TO BRUSH CREEK
Basin:	Maumee River	Drainage:	34.2 sq mi

Sample Type: Inorganic	**05-01-2014**
Aluminum (ug/L)	< 200
Ammonia (mg/L)	2
Arsenic (ug/L)	< 2
Barium (ug/L)	< 15
Cadmium (ug/L)	< .2
Calcium (mg/L)	76.2
CBOD20 (mg/L)	47
Chloride (mg/L)	247
Chromium (ug/L)	< 2
Copper, Low Level (ug/L)	5.6
Hardness, Total (mg/L)	264
Iron (ug/L)	1370
Lead (ug/L)	< 2
Magnesium (mg/L)	17.9
Manganese (ug/L)	112
Nickel (ug/L)	5.1
Nitrate+Nitrite (mg/L)	.14
Nitrite (mg/L)	< .02
Orthophosphate, dissolved (mg/L)	.884
Potassium (mg/L)	36.1
Selenium (ug/L)	3.4
Sodium (mg/L)	123
Solids, Total Dissolved (mg/L)	718
Strontium (ug/L)	789
Sulfate (mg/L)	68.8
TKN (mg/L)	4.57
Total Phosphorus (mg/L)	1.49
Total Suspended Solids (mg/L)	19
Zinc (ug/L)	47
CorrectedConductance(uS/cm)	1060
DissolvedOxygen(mg/L)	6.03
pH(su)	7.44
Saturation(percent)	65.7
Temperature(deg C)	19.4

River Code:	**04-614-000**	Stream:	**Brush Creek**
River Mile:	**13.28**	Location:	BRUSH CREEK DST. ARCHBOLD @ CR 24
Basin:	Maumee River	Drainage:	34.6 sq mi

Sample Type: Inorganic	**05-01-2014**	**06-27-2013**	**07-02-2014**	**07-15-2013**	**07-17-2014**	**07-29-2013**	**08-01-2013**	**08-08-2013**	**08-18-2014**	**08-19-2014**	**08-26-2013**	**09-16-2013**
Alkalinity (mg/L)		93.4		250		207		129			221	130
Aluminum (ug/L)	449	8610	561	563	213	649	201	395	1220		292	957
Ammonia (mg/L)	.283	.619	.1	.134	.134	.148	.773	.3	.874		.416	.142
Arsenic (ug/L)	< 2	2.6	< 2	< 2	2.6	< 2	2.6	2.3	2.1		2.6	< 2
Barium (ug/L)	45	93	51	60	33	47	38	31	39		30	31
Cadmium (ug/L)	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2		< .2	< .2
Calcium (mg/L)	81.1	52	89.2	97	86.3	72	84	53	90		82	47
CBOD20 (mg/L)	9		5.4		8.4		7.4		7.2			
Chloride (mg/L)	81.3	31.5	121	65.2	199	74.6	126	81.3	221		162	74.8
Chlorophyll_a (ug/L)					3.9		5.5					
Chromium (ug/L)	< 2	8.8	< 2	< 2	< 2	< 2	< 2	< 2	2.1		< 2	< 2
COD, Chemical Oxygen Demand (mg/L)		20		< 20		20		< 20			< 20	< 20
Conductivity (umhos/cm)		415		822		712		643			1090	557
Copper, Low Level (ug/L)	3.2	9.1	3.2	3.7	3.4	3	2.4	2.4	5.4		2.9	3.8
Hardness, Total (mg/L)	293	187	311	345	291	258	292	186	279		275	163
Iron (ug/L)	782	10700	840	851	524	926	512	701	1860		563	1510
Lead (ug/L)	< 2	6	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2
Magnesium (mg/L)	22	14	21.5	25	18.3	19	20	13	13.3		17	11
Manganese (ug/L)	44	159	68	45	197	69	131	104	110		153	71
Nickel (ug/L)	3.3	12	4	4.4	5.5	3.3	3.9	3.1	6.4		4.2	3.5
Nitrate+Nitrite (mg/L)	7.65	14.4	3.18	9.39	< .1	3.89	.44	.36	4.89		3.18	1.78
Nitrite (mg/L)	.072	.241	.059	.07	< .02	.068	.052	.033	.061		.06	.035
Orthophosphate, dissolved (mg/L)	.107		.164		.147		.275			.185		
Pheophytin_a (ug/L)					< 1.4		< 1.5					
Potassium (mg/L)	7	9	13.5	9	19.7	10	16	11	19.3		21	9
Selenium (ug/L)	< 2	< 2	< 2	< 2	3.8	< 2	< 2	< 2	3.7		< 2	< 2
Sodium (mg/L)	37.2	14	70.1	35	110	44	77	49	116		109	43

Solids, Total Dissolved (mg/L)	458	334	552	544	638	454	558	358	672		620	320
Strontium (ug/L)	553	289	677	665	746	826	917	648	892		821	686
Sulfate (mg/L)	59.8	47.7	65.7	70.4	63.4	63.9	79	49.1	71.9		63.9	39.9
TKN (mg/L)	1.02	1.47	1.03	1.32	1.01	1.2	2.15	.92	2.02		1.43	.67
Total Phosphorus (mg/L)	.15	.359	.216	.144	.211	.183	.401	.267	.268		.367	.216
Total Suspended Solids (mg/L)	16	218	24	20	7	14	165	12	132		12	40
Zinc (ug/L)	10	45	12	15	12	< 10	< 10	10	31		10	17
CorrectedConductance(umhos/cm)		389.4	902	804	1091	696		632	1121		1069	548
CorrectedConductance(uS/cm)	755											
DissolvedOxygen(mg/L)	7.14	5.86	5.14	5.45	4.69	5.21		6.56	1.33		2.44	6.12
pH(su)	7.66	7.43	7.59	7.67	7.4	7.56		7.34	7.27		7.51	7.68
Saturation(percent)		67.1	62.6	65.3	53.4	55.5		76.5	16.7		28.6	63.5
Temperature(deg C)	14.1	22	25.3	24.4	20.32	18.3		22.9	25.71		23.2	17.1
UncorrectedConductance(umhos/cm)		366.8		794		607		606			1032	465.5

River Code:	**04-614-000**	Stream:	**Brush Creek**
River Mile:	**11.66**	Location:	BRUSH CREEK SW OF ARCHBOLD @ COUNTY LINE RD.
Basin:	Maumee River	Drainage:	36.0 sq mi

Sample Type: Inorganic	**08-18-2014**	**08-19-2014**
Aluminum (ug/L)	3440	
Ammonia (mg/L)	.144	
Arsenic (ug/L)	3	
Barium (ug/L)	67	
Cadmium (ug/L)	< .2	
Calcium (mg/L)	93	
CBOD20 (mg/L)	7	
Chloride (mg/L)	234	
Chromium (ug/L)	5.3	
Copper, Low Level (ug/L)	8	
Hardness, Total (mg/L)	303	
Iron (ug/L)	4770	
Lead (ug/L)	3.3	
Magnesium (mg/L)	17.1	
Manganese (ug/L)	192	
Nickel (ug/L)	11.2	
Nitrate+Nitrite (mg/L)	3.1	
Nitrite (mg/L)	.021	
Orthophosphate, dissolved (mg/L)		.1
Potassium (mg/L)	19.2	
Selenium (ug/L)	3.4	
Sodium (mg/L)	130	
Solids, Total Dissolved (mg/L)	700	
Strontium (ug/L)	1010	
Sulfate (mg/L)	76.4	
TKN (mg/L)	.97	
Total Phosphorus (mg/L)	.297	
Total Suspended Solids (mg/L)	88	
Zinc (ug/L)	43	
CorrectedConductance(umhos/cm)	1181	
DissolvedOxygen(mg/L)	6.78	
pH(su)	7.52	
Saturation(percent)	82.2	
Temperature(deg C)	23.85	

River Code:	**04-614-000**	Stream:	**Brush Creek**
River Mile:	**9.11**	Location:	BRUSH CREEK SW OF ARCHBOLD @ CO RD 24.25
Basin:	Maumee River	Drainage:	54.0 sq mi

Sample Type: Inorganic	**06-27-2013**	**07-15-2013**	**07-29-2013**	**08-08-2013**	**08-19-2014**	**08-26-2013**	**09-16-2013**
Alkalinity (mg/L)	133	259	176	232		217	158
Aluminum (ug/L)					670		
Ammonia (mg/L)	.133	.062	.083	.168	.128	.389	.102
Arsenic (ug/L)					3.7		
Barium (ug/L)					61		
Cadmium (ug/L)					< .2		
Calcium (mg/L)					87.9		
CBOD20 (mg/L)					5.9		
Chloride (mg/L)	72	59.3	59.6	131	233	135	111
Chromium (ug/L)					< 2		
COD, Chemical Oxygen Demand (mg/L)	< 20	< 20	< 20	20		23	< 20
Conductivity (umhos/cm)	599	803	585	1020		959	723
Copper, Low Level (ug/L)					3.2		
Hardness, Total (mg/L)					290		
Iron (ug/L)					1010		
Lead (ug/L)					< 2		
Magnesium (mg/L)					17.1		
Manganese (ug/L)					194		
Nickel (ug/L)					5		
Nitrate+Nitrite (mg/L)	2.17	8.61	1.73	.48	.17	.43	.19
Nitrite (mg/L)	.039	.049	.035	.044	< .02	.059	.028
Orthophosphate, dissolved (mg/L)					.176		
Potassium (mg/L)					18.8		
Selenium (ug/L)					3.4		
Sodium (mg/L)					130		
Solids, Total Dissolved (mg/L)	374	522	368	576	692	560	402
Strontium (ug/L)					975		
Sulfate (mg/L)	57.4	67.8	55.2	79.1	78.8	55.7	37.7
TKN (mg/L)	.72	1.15	.85	1.34	.93	1.39	.62
Total Phosphorus (mg/L)	.173	.159	.245	.343	.275	.389	.345
Total Suspended Solids (mg/L)	19	31	23	19	22	44	66
Zinc (ug/L)					11		
CorrectedConductance(umhos/cm)	576	785	568	989	1219	942	710
DissolvedOxygen(mg/L)	4.61	5.49	6.05	6.73	3.81	4.76	6.84
pH(su)	7.63	7.82	7.63	7.67	7.58	7.64	7.72
Saturation(percent)	54.6	65.8	63.8	78.6	44.8	54.3	69.1
Temperature(deg C)	23.8	24.3	17.8	23	22.3	21.7	15.8
UncorrectedConductance(umhos/cm)	563	775	490.5	951		883	585

River Code:	**04-614-000**	Stream:	**Brush Creek**
River Mile:	**5.76**	Location:	BRUSH CREEK NE OF EVANSPORT @ CO RD. C
Basin:	Maumee River	Drainage:	62.0 sq mi

Sample Type: Inorganic	**06-27-2013**	**07-15-2013**	**07-29-2013**	**08-08-2013**	**08-19-2014**	**08-26-2013**	**09-16-2013**
Alkalinity (mg/L)	185	265	140	186		228	183
Aluminum (ug/L)					1670		
Ammonia (mg/L)	.251	< .05	< .05	< .05	.105	.099	.054
Arsenic (ug/L)					3.8		
Barium (ug/L)					71		
Cadmium (ug/L)					< .2		
Calcium (mg/L)					92.7		
CBOD20 (mg/L)					5.9		
Chloride (mg/L)	81.7	54.5	49.7	101	162	180	114
Chromium (ug/L)					< 2		
COD, Chemical Oxygen Demand (mg/L)	< 20	< 20	< 20	< 20		< 20	23
Conductivity (umhos/cm)	748	794	491	809		1130	778
Copper, Low Level (ug/L)					3.9		
Hardness, Total (mg/L)					320		
Iron (ug/L)					2250		
Lead (ug/L)					< 2		
Magnesium (mg/L)					21.6		
Manganese (ug/L)					275		
Nickel (ug/L)					6.3		
Nitrate+Nitrite (mg/L)	4.65	8.24	1.36	2.01	.17	.47	.21
Nitrite (mg/L)	.087	.025	.023	< .02	< .02	.023	.027
Orthophosphate, dissolved (mg/L)					.144		
Potassium (mg/L)					14.9		
Selenium (ug/L)					2		
Sodium (mg/L)					99.7		
Solids, Total Dissolved (mg/L)	486	538	298	482	656	676	440
Strontium (ug/L)					1080		
Sulfate (mg/L)	67.1	64	46.6	64.9	92.6	59.8	47.5
TKN (mg/L)	1.15	1.17	.68	1.02	.93	.88	.59
Total Phosphorus (mg/L)	.198	.157	.205	.268	.231	.223	.259
Total Suspended Solids (mg/L)	42	27	23	28	32	28	76
Zinc (ug/L)					16		
CorrectedConductance(umhos/cm)	721	780	475.3	805	1072	1106	759
DissolvedOxygen(mg/L)	5.26	6.03	6.83	8.25	4.63	5.07	6.15
pH(su)	7.74	7.85	7.77	7.83	7.64	7.87	7.78
Saturation(percent)	62.7	72.5	72.6	94.6	53.9	57.6	61.6
Temperature(deg C)	24	24.5	18.2	22	21.76	21.5	15.4
UncorrectedConductance(umhos/cm)	707	773	414	759		1031	619

River Code:	**04-614-000**	Stream:	**Brush Creek**
River Mile:	**1.05**	Location:	BRUSH CREEK NEAR EVANSPORT AT CR 22-60
Basin:	Maumee River	Drainage:	65.0 sq mi

Sample Type: Inorganic	**01-10-2013**	**03-13-2013**	**04-08-2014**	**04-24-2013**	**05-01-2014**	**05-22-2013**	**06-27-2013**	**07-02-2014**	**07-15-2013**	**07-17-2014**	**07-29-2013**	**07-31-2013**	**08-01-2013**	**08-08-2013**	**08-19-2014**	**08-21-2013**	**08-26-2013**	**09-16-2013**	**09-17-2014**	**12-18-2012**
Alkalinity (mg/L)				179		217	221		254		174			153			207	217		
Aluminum (ug/L)	262	7630	7030	2000	686	833	789	1110	766	722	1330		699	579	1080		670	564	686	< 200
Ammonia (mg/L)	.095	.161	.208	.13	.06	.095	.052	< .05	.317	< .05	< .05		< .05	< .05	< .05		< .05	< .05	< .05	.266
Arsenic (ug/L)	< 2	2.2	2	< 2	< 2	2.2	< 2	2	< 2	2.7	2.3		2.3	3.2	2.7		3	2.7	2	< 2
Barium (ug/L)	47	82	73	49	40	61	52	59	56	59	45		42	43	58		58	57	49	34
Cadmium (ug/L)	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2		< .2	< .2	< .2		< .2	< .2	< .2	< .2
Calcium (mg/L)	93	71	55.1	81	67.3	90	87	100	97	93.3	60		63	67	78.6		78	77	78.7	75
CBOD20 (mg/L)	4.9	9.4	8.1	6.3	6.3	5.6	4.6	5.2	4.8	6.1	5.4		5.8	5.1	7.1		5.3	5.7	5	5.1
Chloride (mg/L)	194	52.6	40	42.3	66	103	63.3	68.4	51.9	133	68		60.7	75.2	109		149	169	101	103
Chlorophyll_a (ug/L)										3.7		5.5				5.4				
Chromium (ug/L)	< 2	< 10	8.4	2.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2		< 2	< 2	< 2	< 2
COD, Chemical Oxygen Demand (mg/L)				20		< 20	< 20		< 20		< 20			26			< 20	< 20		
Conductivity (umhos/cm)				647		895	744		776		617			671			1010	1080		
Copper, Low Level (ug/L)	3.8	< 10	7.6	4.4	3.6	3.5	3.1	3.2	3.3	2.8	3.5		3	2.6	3.3		3.7	2.7	2.9	2.7
Hardness, Total (mg/L)	339	264	203	293	246	328	316	356	337	333	220		227	237	274		277	258	276	278
Iron (ug/L)	357	8850	8920	2560	1040	1210	1030	1370	1080	996	1780		970	862	1420		939	801	943	205
Lead (ug/L)	< 2	4.4	4.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2		< 2	< 2	< 2	< 2
Magnesium (mg/L)	26	21	16	22	19	25	24	25.8	23	24.4	17		17	17	18.8		20	16	19.2	22
Manganese (ug/L)	14	78	90	38	27	71	44	59	43	70	53		52	68	114		78	59	53	14
Nickel (ug/L)	3.4	10.5	10.5	4.9	3.3	5.2	4.3	4.2	4.5	5	4.2		3.7	3.5	4.8		5.5	5.4	4.2	2.8
Nitrate+Nitrite (mg/L)	11.4	13.1	6.38	9.93	5.76	1.52	5.28	5.2	8.7	.97	1.6		1.06	.24	.38		1.37	1.45	2.18	5.31
Nitrite (mg/L)	.214	.039	.037	.083	.073	.022	< .02	< .02	.022	< .02	.024		< .02	< .02	< .02		.029	.026	.02	.107
Orthophosphate, dissolved (mg/L)	.042	.149	.145	.076	.079	.164	.124	.131	.119	.101	.194		.154	.195	.097		.146	.097	.113	.041
Pheophytin_a (ug/L)										2.3		< 1.5				2.1				
Potassium (mg/L)	12	7	5.1	5	4.9	12	7	8.1	7	10.6	9		7	10	11		18	22	10.4	15
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2		< 2	< 2	< 2	< 2
Sodium (mg/L)	113	19	13.5	20	30.4	57	34	34.9	26	76.5	42		34	52	67.3		96	104	63.7	72
Solids, Total Dissolved (mg/L)	524	488	396	418	372	500	458	498	498	614	372		362	384	492		600	612	506	512
Strontium (ug/L)	933	369	282	415	541	638	530	609	551	690	570		591	625	917		785	731	906	892
Sulfate (mg/L)	104	61.6	47.4	60.6	56.5	81.4	71.8	63.9	62.7	68.2	58		53.3	48.1	74.8		64.5	71.2	67.7	74
TKN (mg/L)	.91	2.11	.74	1.06	.67	.85	.82	.93	1.19	.77	.8		.78	.64	.78		.92	.91	.82	1.14
Total Phosphorus (mg/L)	.062	.386	.258	.158	.096	.169	.158	.171	.159	.142	.233		.203	.241	.174		.148	.139	.148	.075
Total Suspended Solids (mg/L)	< 5	39	75	31	20	34	30	32	20	21	27		15	15	33		16	13	15	< 5
Zinc (ug/L)	< 10	36	23	< 10	< 10	< 10	< 10	< 10	12	< 10	10		< 10	< 10	< 10		< 10	< 10	< 10	< 10
CorrectedConductance(umhos/cm)			440.4	602		903	712	787	754	958	597			660	814		987	1045		
CorrectedConductance(uS/cm)					629															
DissolvedOxygen(mg/L)			9.95	10.87	6.98	5.77	6.1	6.39	6.58	7.08	6.87			8.84	5.64		6.03	7.81		
GageHeight(ft)				9.86		17.75	17.2	17.29	17.18	17.96	17.07			17.89			18	17.98		
pH(su)			7.86	7.85	7.88	7.76	7.9	7.94	7.89	7.99	7.78			7.87	7.53		7.87	7.86		
Saturation(percent)			82.3	97.5	67.9	66.4	72.6	77	78.6	76.5	73.7			100.5	64.1		67.9	78.1		
Temperature(deg C)			7.1	10.4	14	22.2	24	24.7	24.2	17.81	18.7			21.6	20.63		21	15.3		
UncorrectedConductance(umhos/cm)				434.6		856	698		742		525			617			912	851		

River Code:	**04-616-000**	Stream:	**Coon Creek**
River Mile:	**0.62**	Location:	COON CREEK E OF EVANSPORT @ CO. RD. 23
Basin:	Maumee River	Drainage:	9.3 sq mi

Sample Type: Inorganic	**06-27-2013**	**07-15-2013**	**07-29-2013**	**08-08-2013**	**08-26-2013**	**09-16-2013**
Alkalinity (mg/L)	204	178	183	189	215	243
Ammonia (mg/L)	.07	< .05	< .05	< .05	< .05	< .05
Chloride (mg/L)	53	23.6	46.3	42.6	46.3	49.1
COD, Chemical Oxygen Demand (mg/L)	< 20	27	44	36	29	33
Conductivity (umhos/cm)	644	482	516	550	611	656
Nitrate+Nitrite (mg/L)	3.22	5.18	.53	< .1	< .1	< .1
Nitrite (mg/L)	.05	.062	< .02	< .02	< .02	< .02
Solids, Total Dissolved (mg/L)	420	366	344	346	404	408
Sulfate (mg/L)	55.9	40	42.9	46.1	46.2	59.7
TKN (mg/L)	.86	.98	1.27	.95	.74	.62
Total Phosphorus (mg/L)	.068	.118	.163	.029	.019	.032
Total Suspended Solids (mg/L)	60	24	17	11	15	15
CorrectedConductance(umhos/cm)	616	473.4	498.9	536	619	643
DissolvedOxygen(mg/L)	6.23	5.98	7.09	11.22	4.67	5.88
pH(su)	7.9	7.83	7.76	8.07	7.94	7.88
Saturation(percent)	72.5	70.4	76.4	127.1	52.6	59.2
Temperature(deg C)	22.9	23.5	18.9	21.5	21.1	15.6
UncorrectedConductance(umhos/cm)	591	459.5	440.7	499.3	574	528

River Code:	**04-613-000**	Stream:	**Dotty Run**
River Mile:	**0.63**	Location:	DOTY RUN SW OF EVANSPORT, NEAR MOUTH @ EVANSPORT RD.
Basin:	Maumee River	Drainage:	5.3 sq mi

Sample Type: Inorganic	**06-27-2013**	**07-15-2013**	**07-29-2013**	**08-08-2013**	**08-26-2013**	**09-16-2013**
Alkalinity (mg/L)	182	143	167	147	218	259
Ammonia (mg/L)	< .05	.087	< .05	.126	.195	.096
Chloride (mg/L)	46.4	13.6	27.7	29.2	41.5	47.4
COD, Chemical Oxygen Demand (mg/L)	27	29	54	32	24	25
Conductivity (umhos/cm)	551	349	407	447	578	615
Nitrate+Nitrite (mg/L)	3.23	2.09	.27	.17	.25	.34
Nitrite (mg/L)	.16	.042	< .02	< .02	.029	.035
Solids, Total Dissolved (mg/L)	354	276	290	300	384	376
Sulfate (mg/L)	36.2	32.2	36.1	33.3	26.9	32.3
TKN (mg/L)	1	.89	1.22	1.09	.87	.67
Total Phosphorus (mg/L)	.08	.12	.159	.113	.099	.096
Total Suspended Solids (mg/L)	38	34	15	8	94	45
CorrectedConductance(umhos/cm)	526	341.1	393.1	440.4	568	600
DissolvedOxygen(mg/L)	3.37	6.36	6.53	7.06	4.66	5.79
pH(su)	7.64	7.81	7.78	7.73	8.01	7.91
Saturation(percent)	38.5	75.2	67	76.5	50	56.6
Temperature(deg C)	21.8	23.7	16.6	19.2	18.7	14.3
UncorrectedConductance(umhos/cm)	494.3	332.6	329.7	392	499.6	476.8

River Code:	**04-612-000**	Stream:	**Miller Creek**
River Mile:	**0.50**	Location:	MILLER CREEK W OF BRYAN, ADJ. CO. RD. 309 / D
Basin:	Maumee River	Drainage:	20.9 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-25-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	303	107	278	254	313	378
Ammonia (mg/L)	.064	.135	< .05	< .05	< .05	.11
Chloride (mg/L)	59.3	18.2	43.3	50.7	47.7	51.7
COD, Chemical Oxygen Demand (mg/L)	29	30	27	< 20	< 20	20
Conductivity (umhos/cm)	882	343	729	892	912	927
Nitrate+Nitrite (mg/L)	.39	5.22	.72	.3	.23	.1
Nitrite (mg/L)	< .02	.092	< .02	< .02	< .02	< .02
Solids, Total Dissolved (mg/L)	574	270	494	582	568	576
Sulfate (mg/L)	114	12.1	91.6	114	112	116
TKN (mg/L)	1	1.39	1.32	.5	.72	.48
Total Phosphorus (mg/L)	.161	.208	.105	.085	.09	.179
Total Suspended Solids (mg/L)	14	69	5	< 5	< 5	6
CorrectedConductance(umhos/cm)	839	328	713	869	895	920
DissolvedOxygen(mg/L)	5.48	7.03	7.62	7.3	6.66	1.27
pH(su)	7.74	7.46	7.81	7.9	7.95	7.76
Saturation(percent)	61.5	77.5	80.5	78.9	74.6	14.1
Temperature(deg C)	20.9	20.1	17.9	19	20.8	20.4
UncorrectedConductance(umhos/cm)	774	297.4	616	770	824	840

River Code: **04-611-000**	Stream: **Little Lick Creek**
River Mile: **4.97**	Location: L. LICK CREEK NW OF NEY @ BEHNFELDT RD.
Basin: Maumee River	Drainage: 7.5 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-17-2014**	**07-25-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	235	152		307	222	264	315
Aluminum (ug/L)			2390				
Ammonia (mg/L)	.066	.103	< .05	< .05	< .05	< .05	.125
Arsenic (ug/L)			3.6				
Barium (ug/L)			89				
Cadmium (ug/L)			< .2				
Calcium (mg/L)			72.5				
CBOD20 (mg/L)			6.2				
Chloride (mg/L)	41.4	17.9	45.2	53	48.8	43.8	44.3
Chlorophyll_a (ug/L)			12.6				
Chromium (ug/L)			3.1				
COD, Chemical Oxygen Demand (mg/L)	< 20	26		< 20	< 20	< 20	30
Conductivity (umhos/cm)	660	454		764	738	692	677
Copper, Low Level (ug/L)			5.1				
Hardness, Total (mg/L)			338				
Iron (ug/L)			3870				
Lead (ug/L)			3.1				
Magnesium (mg/L)			38.1				
Manganese (ug/L)			180				
Nickel (ug/L)			7.1				
Nitrate+Nitrite (mg/L)	3.73	8.83	< .1	2.99	.29	.12	.12
Nitrite (mg/L)	.035	.066	< .02	< .02	< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)			.046				
Pheophytin_a (ug/L)			9.7				
Potassium (mg/L)			3.7				
Selenium (ug/L)			< 2				
Sodium (mg/L)			42.8				
Solids, Total Dissolved (mg/L)	426	318	410	480	432	410	396
Strontium (ug/L)			2090				
Sulfate (mg/L)	54.2	7.5	47.5	61.6	73	44.5	29.2
TKN (mg/L)	.8	1.14	.43	.74	.57	.47	.75
Total Phosphorus (mg/L)	.1	.171	.077	.073	.043	.048	.199
Total Suspended Solids (mg/L)	28	46	62	9	11	12	18
Zinc (ug/L)			17				
CorrectedConductance(umhos/cm)	632	438.1	697	737	722	683	673
DissolvedOxygen(mg/L)	6.81	7.36	9.81	8.08	6.83	8.19	1.47
pH(su)	7.84	7.32	8.21	7.99	8.01	7.97	7.75
Saturation(percent)	77.2	80.3	112.1	85.7	76.5	99.7	16.7
Temperature(deg C)	21.5	19.6	20.65	18.1	20.8	25.3	21.8
UncorrectedConductance(umhos/cm)	589	392.5		640	664	687	632

River Code:	**04-611-000**	Stream:	**Little Lick Creek**
River Mile:	**0.80**	Location:	L. LICK CREEK AT NEY, UPST. OLD RR RIGHT-OF-WAY
Basin:	Maumee River	Drainage:	23.3 sq mi

Sample Type: Inorganic	**05-01-2014**	**06-26-2013**	**07-11-2013**	**07-17-2014**	**07-25-2013**	**07-31-2013**	**08-01-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)		241	80.2		259			195	270	341
Aluminum (ug/L)	< 200			668			527			
Ammonia (mg/L)	< .05	.8	.104	< .05	.093		< .05	.082	< .05	.476
Arsenic (ug/L)	< 2			4.2			< 2			
Barium (ug/L)	50			53			59			
Cadmium (ug/L)	< .2			< .2			< .2			
Calcium (mg/L)	77.3			80.9			85			
CBOD20 (mg/L)	5.7			6.7			5.9			
Chloride (mg/L)	47.3	34	7.6	42.7	37.7		37.2	41.9	34	65
Chlorophyll_a (ug/L)				38.8		2.1				
Chromium (ug/L)	< 2			< 2			< 2			
COD, Chemical Oxygen Demand (mg/L)		< 20	24		< 20			< 20	20	20
Conductivity (umhos/cm)		699	245		678			671	733	901
Copper, Low Level (ug/L)	< 2			< 2			2.1			
Hardness, Total (mg/L)	309			325			332			
Iron (ug/L)	300			1070			731			
Lead (ug/L)	< 2			< 2			< 2			
Magnesium (mg/L)	28.2			29.8			29			
Manganese (ug/L)	27			165			48			
Nickel (ug/L)	2.6			4.1			3.5			
Nitrate+Nitrite (mg/L)	1.94	1.52	6.35	< .1	3.85		.6	.38	.1	.55
Nitrite (mg/L)	.024	.052	.092	< .02	< .02		< .02	< .02	< .02	.057
Orthophosphate, dissolved (mg/L)	.011			.131			.057			
Pheophytin_a (ug/L)				11.6		< 1.5				
Potassium (mg/L)	2.4			3			3			
Selenium (ug/L)	< 2			< 2			< 2			
Sodium (mg/L)	25.4			29.6			24			
Solids, Total Dissolved (mg/L)	400	452	216	408	456		446	420	430	588
Strontium (ug/L)	1320			1410			1450			

Sulfate (mg/L)	77.3	80.8	13.7	35.9	66.8		93	79.7	77.4	86.7
TKN (mg/L)	.65	1.45	1.15	.38	1.02		.62	.57	.73	1.2
Total Phosphorus (mg/L)	.019	.108	.256	.17	.081		.08	.12	.119	.248
Total Suspended Solids (mg/L)	< 5	23	41	176	26		24	6	6	8
Zinc (ug/L)	< 10			< 10			< 10			
CorrectedConductance(umhos/cm)		671	235.4	683	665			678	728	890
CorrectedConductance(uS/cm)	680									
DissolvedOxygen(mg/L)	8.52	3.6	5.62	4.22	6.07			4.8	3.69	2.7
pH(su)	8.11	7.62	7.29	7.75	8.04			7.87	7.8	7.71
Saturation(percent)	81.6	41.6	62.8	45.8	65.5			53.2	40.5	30.4
Temperature(deg C)	13.3	22.5	20.8	18.11	19			20.4	19.8	21
UncorrectedConductance(umhos/cm)		638	216.5		588			618	655	822

River Code:	**04-609-001**	Stream:	**Prairie Creek**
River Mile:	**11.20**	Location:	PRAIRIE CREEK UPST. BRYAN WWTP, UPST. PIGEON RUN
Basin:	Maumee River	Drainage:	4.7 sq mi

Sample Type: Inorganic	**08-19-2014**
Aluminum (ug/L)	418
Ammonia (mg/L)	< .05
Arsenic (ug/L)	2.4
Barium (ug/L)	243
Cadmium (ug/L)	< .2
Calcium (mg/L)	75.1
CBOD20 (mg/L)	5.1
Chloride (mg/L)	99.3
Chromium (ug/L)	< 2
Copper, Low Level (ug/L)	2.2
Hardness, Total (mg/L)	362
Iron (ug/L)	573
Lead (ug/L)	< 2
Magnesium (mg/L)	42.4
Manganese (ug/L)	43
Nickel (ug/L)	2.5
Nitrate+Nitrite (mg/L)	< .1
Nitrite (mg/L)	< .02
Orthophosphate, dissolved (mg/L)	.052
Potassium (mg/L)	2.9
Selenium (ug/L)	< 2
Sodium (mg/L)	48.3
Solids, Total Dissolved (mg/L)	538
Strontium (ug/L)	4560
Sulfate (mg/L)	44.5
TKN (mg/L)	1.79
Total Phosphorus (mg/L)	.071
Total Suspended Solids (mg/L)	7
Zinc (ug/L)	< 10
CorrectedConductance(umhos/cm)	847
DissolvedOxygen(mg/L)	8.34
pH(su)	8.03
Saturation(percent)	98.2
Temperature(deg C)	22.39

River Code:	**04-609-001**	Stream:	**Prairie Creek**
River Mile:	**9.80**	Location:	PRAIRIE CREEK DST. BRYAN WWTP, ADJ CR C
Basin:	Maumee River	Drainage:	9.8 sq mi

Sample Type: Inorganic	**05-01-2014**	**06-26-2013**	**07-02-2014**	**07-11-2013**	**07-17-2014**	**07-25-2013**	**08-07-2013**	**08-18-2014**	**08-19-2014**	**08-20-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)		164		123		280	210				276	117
Aluminum (ug/L)	382	885	1130	3190	665	896	2130	1050			488	1210
Ammonia (mg/L)	< .05	.089	< .05	.135	.077	< .05	.164	.078			.128	.118
Arsenic (ug/L)	< 2	< 2	2.1	2	< 2	< 2	2.5	2.6			< 2	< 2
Barium (ug/L)	185	106	167	62	253	167	240	258			253	95
Cadmium (ug/L)	< .2	< .2	< .2	< .2	< .2	< .2	< .2	< .2			< .2	< .2
Calcium (mg/L)	86	52	83.5	48	77.1	87	89	84.6			77	37
CBOD20 (mg/L)	7.3		9.7		7.6			8.6				
Chloride (mg/L)	286	120	161	33.4	331	190	291	319			336	80.6
Chlorophyll_a (ug/L)					9.4					3.9		
Chromium (ug/L)	< 2	< 2	< 2	3.9	< 2	< 2	3.1	2			< 2	2.2
COD, Chemical Oxygen Demand (mg/L)		29		< 20		< 20	< 20				< 20	29
Conductivity (umhos/cm)		839		427		1270	1570				1760	580
Copper, Low Level (ug/L)	6.2	5.6	7.5	6.4	8.7	6.4	11	9.9			8.2	7.9
Hardness, Total (mg/L)	372	212	349	173	381	361	403	393			378	154
Iron (ug/L)	555	1200	1540	4280	972	1130	3550	1490			656	1850
Lead (ug/L)	< 2	< 2	< 2	3.1	< 2	< 2	3.4	< 2			< 2	2
Magnesium (mg/L)	38.1	20	34.2	13	45.7	35	44	44.2			45	15
Manganese (ug/L)	55	44	45	67	39	32	115	54			22	57
Nickel (ug/L)	5.1	3.7	5	6.3	4.9	4.7	8.8	8.8			5	3.9
Nitrate+Nitrite (mg/L)	8.57	4.07	5.89	7.73	10.4	8.26	9.18	9.56			10.4	1.8
Nitrite (mg/L)	.055	.06	.04	.104	.096	.027	.07	.04			.074	.036
Orthophosphate, dissolved (mg/L)	< .01		.028		.095				.1			
Pheophytin_a (ug/L)					4.6					3		
Potassium (mg/L)	6.8	5	6.5	4	8.6	7	10	8.6			10	4
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2			< 2	< 2
Sodium (mg/L)	164	89	119	19	225	132	197	195			203	56

Solids, Total Dissolved (mg/L)	856	488	666	308	994	750	916	950			1020	334
Strontium (ug/L)	3180	1810	2770	486	4870	2830	4150	4610			5000	1430
Sulfate (mg/L)	97.6	60.1	85.3	13.2	100	91.2	106	96.6			97	42.8
TKN (mg/L)	.84	1.1	.74	.96	.85	.71	1.08	.83			1.13	.59
Total Phosphorus (mg/L)	.037	.127	.077	.189	.13	.08	.24	.153			.162	.129
Total Suspended Solids (mg/L)	20	29	47	80	27	29	160	69			18	47
Zinc (ug/L)	18	19	18	21	20	12	34	31			12	26
CorrectedConductance(umhos/cm)		796	1130	411.6	1716	1228	1536	1696			1746	558
CorrectedConductance(uS/cm)	1499											
DissolvedOxygen(mg/L)	11.34	6.73	12.35	6.3	7.8	8.17	6.05	6.54			6.16	5.69
pH(su)	8	7.8	8.19	7.45	7.75	8.28	7.97	7.73			7.86	7.82
Saturation(percent)	105.5	76.9	153	71.3	88.5	90.9	69.2	76.8			72.2	66
Temperature(deg C)	11.9	21.9	26.1	21.4	20.1	20.4	21.7	22.19			23	22.6
UncorrectedConductance(umhos/cm)		748		383.1		1120	1440				1679	533

River Code:	**04-609-001**	Stream:	**Prairie Creek**
River Mile:	**6.62**	Location:	PRAIRIE CREEK SE OF BRYAN @ COUNTY LINE RD.
Basin:	Maumee River	Drainage:	16.5 sq mi

Sample Type: Inorganic	**08-18-2014**	**08-19-2014**
Aluminum (ug/L)	562	
Ammonia (mg/L)	.06	
Arsenic (ug/L)	2.9	
Barium (ug/L)	227	
Cadmium (ug/L)	< .2	
Calcium (mg/L)	76.2	
CBOD20 (mg/L)	7.3	
Chloride (mg/L)	331	
Chromium (ug/L)	< 2	
Copper, Low Level (ug/L)	8.5	
Hardness, Total (mg/L)	362	
Iron (ug/L)	697	
Lead (ug/L)	< 2	
Magnesium (mg/L)	41.6	
Manganese (ug/L)	25	
Nickel (ug/L)	5.2	
Nitrate+Nitrite (mg/L)	9.8	
Nitrite (mg/L)	.058	
Orthophosphate, dissolved (mg/L)		.093
Potassium (mg/L)	9.3	
Selenium (ug/L)	< 2	
Sodium (mg/L)	213	
Solids, Total Dissolved (mg/L)	974	
Strontium (ug/L)	4260	
Sulfate (mg/L)	103	
TKN (mg/L)	1.37	
Total Phosphorus (mg/L)	.128	
Total Suspended Solids (mg/L)	22	
Zinc (ug/L)	18	
CorrectedConductance(umhos/cm)	1688	
DissolvedOxygen(mg/L)	10.55	
pH(su)	8.25	
Saturation(percent)	125.6	
Temperature(deg C)	22.85	

River Code:	**04-609-001**	Stream:	**Prairie Creek**
River Mile:	**3.40**	Location:	PRAIRIE CREEK NE OF NEY @ FLICKINGER RD. (LOWER CROSSING)
Basin:	Maumee River	Drainage:	26.0 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-25-2013**	**08-07-2013**	**08-19-2014**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	91.1	105	263	189		250	324
Aluminum (ug/L)					1020		
Ammonia (mg/L)	.171	.099	< .05	< .05	.072	< .05	.066
Arsenic (ug/L)					3.1		
Barium (ug/L)					226		
Cadmium (ug/L)					< .2		
Calcium (mg/L)					78.8		
CBOD20 (mg/L)					6		
Chloride (mg/L)	66.1	19	121	299	356	261	318
Chromium (ug/L)					< 2		
COD, Chemical Oxygen Demand (mg/L)	< 20	28	140	< 20		< 20	< 20
Conductivity (umhos/cm)	475	326	978	1530		1440	1700
Copper, Low Level (ug/L)					8		
Hardness, Total (mg/L)					372		
Iron (ug/L)					1310		
Lead (ug/L)					< 2		
Magnesium (mg/L)					42.5		
Manganese (ug/L)					40		
Nickel (ug/L)					5.8		
Nitrate+Nitrite (mg/L)	2.39	6.39	5.14	7.73	9.49	7.54	1.46
Nitrite (mg/L)	.042	.089	< .02	.047	.056	.062	< .02
Orthophosphate, dissolved (mg/L)					.047		
Potassium (mg/L)					9.5		
Selenium (ug/L)					< 2		
Sodium (mg/L)					221		
Solids, Total Dissolved (mg/L)	288	244	586	874	1000	808	940
Strontium (ug/L)					4190		
Sulfate (mg/L)	37.1	17.8	76.5	112	104	91.1	114
TKN (mg/L)	.9	1.02	.77	1.5	.96	1.02	.81
Total Phosphorus (mg/L)	.153	.361	.07	.073	.091	.052	.112
Total Suspended Solids (mg/L)	66	164	15	17	26	11	22
Zinc (ug/L)					16		
CorrectedConductance(umhos/cm)	444.4	308	948	1501	1731	1396	1673
DissolvedOxygen(mg/L)	6.29	6.24	9.48	14.21	6.21	7.73	7
pH(su)	7.79	7.41	8.46	8.66	8.02	8.14	8
Saturation(percent)	72.8	69.8	109.3	165	71.7	90.7	82.7
Temperature(deg C)	22.6	20.8	22.3	22.6	21.21	23.1	23.5
UncorrectedConductance(umhos/cm)	423.6	283.5	899	1431		1347	1624

River Code:	**04-609-002**	Stream:	**Pigeon Run**
River Mile:	**0.06**	Location:	PIGEON RUN JUST UPST. BRYAN WWTP 002
Basin:	Maumee River	Drainage :	3.3 sq mi

Sample Type: Inorganic	**08-19-2014**
Aluminum (ug/L)	< 200
Ammonia (mg/L)	< .05
Arsenic (ug/L)	< 2
Barium (ug/L)	250
Cadmium (ug/L)	< .2
Calcium (mg/L)	76.6
CBOD20 (mg/L)	6.1
Chloride (mg/L)	69.1
Chromium (ug/L)	< 2
Copper, Low Level (ug/L)	5.6
Hardness, Total (mg/L)	373
Iron (ug/L)	207
Lead (ug/L)	< 2
Magnesium (mg/L)	44.2
Manganese (ug/L)	13
Nickel (ug/L)	< 2
Nitrate+Nitrite (mg/L)	.1
Nitrite (mg/L)	< .02
Orthophosphate, dissolved (mg/L)	.017
Potassium (mg/L)	2.5
Selenium (ug/L)	< 2
Sodium (mg/L)	55.6
Solids, Total Dissolved (mg/L)	516
Strontium (ug/L)	4640
Sulfate (mg/L)	73.8
TKN (mg/L)	.21
Total Phosphorus (mg/L)	.058
Total Suspended Solids (mg/L)	< 5
Zinc (ug/L)	18
DissolvedOxygen(mg/L)	10.49
pH(su)	8.13
Saturation(percent)	120.4
Temperature(deg C)	21.12

River Code:	**04-609-002**	Stream:	**Pigeon Run**
River Mile:	**0.05**	Location:	BRYAN WWTP 002 OUTFALL TO PIGEON RUN
Basin:	Maumee River	Drainage :	3.3 sq mi

Sample Type: Inorganic	**05-01-2014**	**08-19-2014**
Aluminum (ug/L)	304	
Ammonia (mg/L)	.061	
Arsenic (ug/L)	< 2	
Barium (ug/L)	225	
Cadmium (ug/L)	< .2	
Calcium (mg/L)	85	
CBOD20 (mg/L)	8.8	
Chloride (mg/L)	373	
Chromium (ug/L)	< 2	
Copper, Low Level (ug/L)	8.5	
Hardness, Total (mg/L)	380	
Iron (ug/L)	53	
Lead (ug/L)	< 2	
Magnesium (mg/L)	40.7	
Manganese (ug/L)	< 10	
Nickel (ug/L)	5.7	
Nitrate+Nitrite (mg/L)	11.1	
Nitrite (mg/L)	< .02	
Orthophosphate, dissolved (mg/L)	< .01	.174
Potassium (mg/L)	10.3	
Selenium (ug/L)	< 2	
Sodium (mg/L)	226	
Solids, Total Dissolved (mg/L)	1050	
Strontium (ug/L)	3950	
Sulfate (mg/L)	116	
TKN (mg/L)	1.65	
Total Phosphorus (mg/L)	.092	
Total Suspended Solids (mg/L)	5	
Zinc (ug/L)	32	
CorrectedConductance(uS/cm)	1833	
DissolvedOxygen(mg/L)	8.4	
pH(su)	7.86	
Saturation(percent)	81.9	
Temperature(deg C)	13.9	

River Code:	**04-609-000**	Stream:	**Lick Creek**
River Mile:	**21.77**	Location:	LICK CREEK NW OF BRYAN @ CO. RD. 13
Basin:	Maumee River	Drainage:	6.2 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-17-2014**	**07-25-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	244	142		272	250	307	288
Aluminum (ug/L)			< 200				
Ammonia (mg/L)	< .05	.165	.065	< .05	.086	.102	.116
Arsenic (ug/L)			< 2				
Barium (ug/L)			54				
Cadmium (ug/L)			< .2				
Calcium (mg/L)			98.4				
CBOD20 (mg/L)			6.9				
Chloride (mg/L)	62	12.6	53.7	39.2	71	150	275
Chlorophyll_a (ug/L)			3				
Chromium (ug/L)			< 2				
COD, Chemical Oxygen Demand (mg/L)	23	29		21	< 20	< 20	< 20
Conductivity (umhos/cm)	818	423		711	928	1350	1610
Copper, Low Level (ug/L)			< 2				
Hardness, Total (mg/L)			395				
Iron (ug/L)			397				
Lead (ug/L)			< 2				
Magnesium (mg/L)			36.3				
Manganese (ug/L)			80				
Nickel (ug/L)			3.5				
Nitrate+Nitrite (mg/L)	3.34	7.48	.63	.91	.46	4.73	4.14
Nitrite (mg/L)	.046	.151	< .02	< .02	< .02	.045	.065
Orthophosphate, dissolved (mg/L)			.024				
Pheophytin_a (ug/L)			< 1.4				
Potassium (mg/L)			3.8				
Selenium (ug/L)			< 2				
Sodium (mg/L)			39.1				
Solids, Total Dissolved (mg/L)	540	322	524	446	552	816	954
Strontium (ug/L)			2150				
Sulfate (mg/L)	97	12.4	94.3	83.8	117	141	150
TKN (mg/L)	.88	.93	.51	.82	.63	1.02	.86
Total Phosphorus (mg/L)	.114	.182	.056	.096	.065	.519	.554
Total Suspended Solids (mg/L)	43	94	< 5	10	< 5	< 5	< 5
Zinc (ug/L)			< 10				
CorrectedConductance(umhos/cm)	777	407.8	832	710	912	1395	1616
DissolvedOxygen(mg/L)	4.91	7.95	6.53	7.14	6.51	11.95	3.29
pH(su)	7.65	7.52	7.6	7.73	7.66	7.97	7.58
Saturation(percent)	54.7	87.1	69.1	74.7	70	136.7	37
Temperature(deg C)	20.6	19.8	16.84	17.5	18.8	21.8	20.9
UncorrectedConductance(umhos/cm)	711	367		608	804	1309	1490

River Code:	**04-609-000**	Stream:	**Lick Creek**
River Mile:	**17.66**	Location:	LICK CREEK SW OF BRYAN @ CO. RD. 13
Basin:	Maumee River	Drainage:	30.0 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-17-2014**	**07-25-2013**	**08-01-2013**	**08-07-2013**	**08-20-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	275	113		260		233		328	358
Aluminum (ug/L)			206		< 200				
Ammonia (mg/L)	.194	.102	< .05	< .05	< .05	.056		< .05	.072
Arsenic (ug/L)			3.4		< 2				
Barium (ug/L)			77		71				
Cadmium (ug/L)			< .2		< .2				
Calcium (mg/L)			88.5		89				
CBOD20 (mg/L)			5.5		4.9				
Chloride (mg/L)	48.3	16.4	86.4	50.6	42.8	40.7		35.2	33.6
Chlorophyll_a (ug/L)			13.1		10.7		18.7		
Chromium (ug/L)			< 2		< 2				
COD, Chemical Oxygen Demand (mg/L)	< 20	31		25		< 20		< 20	< 20
Conductivity (umhos/cm)	801	341		724		817		833	807
Copper, Low Level (ug/L)			< 2		< 2				
Hardness, Total (mg/L)			415		375				
Iron (ug/L)			510		359				
Lead (ug/L)			< 2		< 2				
Magnesium (mg/L)			47.2		37				
Manganese (ug/L)			60		47				
Nickel (ug/L)			2.8		3.2				
Nitrate+Nitrite (mg/L)	1.52	4.92	.24	1.39	.17	.11		< .1	< .1
Nitrite (mg/L)	.035	.098	< .02	< .02	< .02	< .02		< .02	< .02
Orthophosphate, dissolved (mg/L)			.14		.03				
Pheophytin_a (ug/L)			5.4		3.2		2.7		
Potassium (mg/L)			4.6		4				
Selenium (ug/L)			< 2		< 2				
Sodium (mg/L)			79.5		34				
Solids, Total Dissolved (mg/L)	482	260	590	498	514	500		508	480
Strontium (ug/L)			3260		2400				

Sulfate (mg/L)	97.1	13.8	93.2	87.1	119	123		87.3	83.3
TKN (mg/L)	1.12	1.09	.87	1.28	.53	.63		.32	.25
Total Phosphorus (mg/L)	.113	.21	.195	.088	.045	.054		.064	.054
Total Suspended Solids (mg/L)	29	109	11	15	6	11		7	13
Zinc (ug/L)			< 10		< 10				
CorrectedConductance(umhos/cm)	765	327.6	916	686		793		822	800
DissolvedOxygen(mg/L)	5.79	7.26	9.48	7.25		7.31		6.18	5.14
pH(su)	7.79	7.44	8.16	7.88		7.95		7.91	7.79
Saturation(percent)	65.8	80.5	104.5	77.1		79.6		69.7	57.8
Temperature(deg C)	21.6	20.4	18.82	18.3		19.4		21.1	21
UncorrectedConductance(umhos/cm)	716	298.7		598		708		761	739

River Code:	**04-609-000**	Stream:	**Lick Creek**
River Mile:	**10.05**	Location:	LICK CREEK AT NEY @ THE BEND RD.
Basin:	Maumee River	Drainage:	58.5 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-17-2014**	**07-25-2013**	**07-31-2013**	**08-01-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	245	76.2		254			240	298	355
Aluminum (ug/L)			731			691			
Ammonia (mg/L)	.379	.053	< .05	< .05		< .05	.061	< .05	< .05
Arsenic (ug/L)			3.6			2.1			
Barium (ug/L)			73			65			
Cadmium (ug/L)			< .2			< .2			
Calcium (mg/L)			86.4			88			
CBOD20 (mg/L)			6.4			5.1			
Chloride (mg/L)	39.7	10.6	79.3	37		42.8	44.2	40.9	41
Chlorophyll_a (ug/L)			19.5		8.3				
Chromium (ug/L)			< 2			< 2			
COD, Chemical Oxygen Demand (mg/L)	< 20	24		< 20			< 20	< 20	< 20
Conductivity (umhos/cm)	733	219		661			801	819	829
Copper, Low Level (ug/L)			2.6			2.2			
Hardness, Total (mg/L)			368			343			
Iron (ug/L)			1200			1030			
Lead (ug/L)			< 2			< 2			
Magnesium (mg/L)			36.9			30			
Manganese (ug/L)			105			64			
Nickel (ug/L)			4.2			4.1			
Nitrate+Nitrite (mg/L)	2	4.12	.21	1.8		.35	.35	.13	.11
Nitrite (mg/L)	.083	.082	< .02	< .02		< .02	< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)			.098			.067			
Pheophytin_a (ug/L)			7.5		1.5				
Potassium (mg/L)			4.6			4			
Selenium (ug/L)			< 2			< 2			
Sodium (mg/L)			62.4			30			
Solids, Total Dissolved (mg/L)	462	182	540	448		468	500	498	488
Strontium (ug/L)			2200			1670			

Sulfate (mg/L)	83.1	18.8	68.7	66		89.6	104	91	77.9
TKN (mg/L)	1.23	.92	.57	.84		.6	.51	.44	.64
Total Phosphorus (mg/L)	.203	.263	.138	.106		.07	.124	.096	.127
Total Suspended Solids (mg/L)	32	132	34	32		24	12	12	8
Zinc (ug/L)			< 10			13			
CorrectedConductance(umhos/cm)	702	208	877	634			784	812	814
DissolvedOxygen(mg/L)	3.9	5.98	6.36	6.77			5.63	5.92	4.78
pH(su)	7.65	7.41	7.89	8			8.08	8.04	7.87
Saturation(percent)	45.3	67.3	68.7	75.1			62.7	68	55.4
Temperature(deg C)	22.7	21.1	17.82	20.4			20.5	22.2	22.6
UncorrectedConductance(umhos/cm)	671	192.7		578			717	768	777

River Code:	**04-609-000**	Stream:	**Lick Creek**
River Mile:	**1.23**	Location:	LICK CREEK N OF OXBOW LAKE @ TRINITY RD.
Basin:	Maumee River	Drainage:	105.0 sq mi

Sample Type: Inorganic	**01-10-2013**	**03-13-2013**	**04-08-2014**	**04-24-2013**	**05-22-2013**	**06-26-2013**	**07-02-2014**	**07-11-2013**	**07-17-2014**	**07-25-2013**	**07-31-2013**	**08-01-2013**	**08-07-2013**	**08-21-2013**	**08-22-2013**	**09-12-2013**	**09-17-2014**	**12-18-2012**
Alkalinity (mg/L)				109	266	225		68.9		241			192		246	285		
Aluminum (ug/L)	1090	6820	12300	13500	282	1710	751	4930	< 200	612		< 200	< 200		257	528	1090	464
Ammonia (mg/L)	.197	.169	< .05	.204	.066	.059	< .05	< .05	< .05	< .05		< .05	< .05		.117	.053	< .05	.11
Arsenic (ug/L)	< 2	2.2	2.8	3.3	2.1	2.4	< 2	< 2	2.3	2.2		< 2	< 2		< 2	2.9	< 2	< 2
Barium (ug/L)	112	77	108	126	99	134	57	54	79	64		69	77		107	143	69	113
Cadmium (ug/L)	< .2	< .2	.33	.4	< .2	.29	< .2	< .2	< .2	< .2		< .2	< .2		< .2	< .2	< .2	< .2
Calcium (mg/L)	81	61	49.3	52	87	73	61.4	29	60.4	79		72	73		63	58	60	65
CBOD20 (mg/L)	8.9	7.2	10	11	8	7.3	6.1	8.7	11	3.9		7.6	11		5	7.6	5.8	5.3
Chloride (mg/L)	165	50.6	34	32.8	160	236	53.6	11.2	162	58.3		104	104		193	300	75.9	134
Chlorophyll_a (ug/L)									95.6		84			13.4				
Chromium (ug/L)	< 2	6.3	11.9	< 20	< 2	2.3	< 2	4.7	< 2	< 2		< 2	< 2		< 2	< 2	< 2	< 2
COD, Chemical Oxygen Demand (mg/L)				29	< 20	< 20		144		20			23		< 20	< 20		
Conductivity (umhos/cm)				350	1200	1370		203		688			896		1300	1570		
Copper, Low Level (ug/L)	4.5	7.1	11.8	< 20	4.8	7.5	3.9	6	4.8	3.6		3.6	3.8		6	6.5	4	3.3
Hardness, Total (mg/L)	363	222	184	196	374	343	235	101	283	292		295	314		318	318	225	290
Iron (ug/L)	1320	8610	16500	18100	493	2540	1000	6600	146	844		142	120		328	709	1450	560
Lead (ug/L)	< 2	4	9	11.4	< 2	< 2	< 2	3.2	< 2	< 2		< 2	< 2		< 2	< 2	< 2	< 2
Magnesium (mg/L)	39	17	14.9	16	38	39	19.9	7	32	23		28	32		39	42	18.2	31
Manganese (ug/L)	50	97	224	230	68	64	36	84	46	37		24	39		34	60	44	32
Nickel (ug/L)	4.3	9.1	16	24.2	5.3	6.5	3.5	7.2	4.2	3.7		3.9	3.9		5.5	6.1	4.1	3.1
Nitrate+Nitrite (mg/L)	13.4	8.14	3.68	4.87	2.39	6.65	4.96	4.11	.53	2.17		1.65	1.21		4.63	.78	3.26	2.6
Nitrite (mg/L)	.028	.025	< .02	< .02	.035	.027	.034	.061	< .02	< .02		< .02	.023		.042	< .02	< .02	.028
Orthophosphate, dissolved (mg/L)	.054	.092	.106	.139	< .01	.041	.068	.17	< .01	.093		.012	< .01		.029	.027	.067	.014
Pheophytin_a (ug/L)									17		< 15			3.2				
Potassium (mg/L)	6	5	5.3	6	6	8	4.4	5	5.6	5		5	6		8	9	4.4	5
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2		< 2	< 2	< 2	< 2
Sodium (mg/L)	114	21	12.5	13	111	161	33.1	5	115	38		68	78		139	195	48	107
Solids, Total Dissolved (mg/L)	730	416	340	328	674	774	370	190	590	464		530	520		722	872	402	568
Strontium (ug/L)	2650	463	324	368	2360	3010	995	181	2140	1120		1580	1950		2840	3590	1140	2700
Sulfate (mg/L)	109	60.7	41.4	44.9	100	99	45	20.8	65.6	62.7		82.1	90.1		96	109	53.9	80
TKN (mg/L)	1.59	1.57	.82	.99	1.12	1	.78	.85	.73	.64		.78	1.16		1.07	.73	.54	.82
Total Phosphorus (mg/L)	.137	.282	.337	.483	.06	.106	.085	.272	.032	.309		.033	.068		.04	.054	.098	.046
Total Suspended Solids (mg/L)	14	75	269	380	16	88	20	94	8	16		6	9		7	22	22	8
Zinc (ug/L)	10	33	53	72	< 10	16	< 10	25	< 10	< 10		< 10	< 10		< 10	< 10	< 10	< 10
CorrectedConductance(umhos/cm)			334	324.6	1208	1296	579	189.8	1021	676			874		1273	1557	674	
DissolvedOxygen(mg/L)			10.81	12.28	8.9	7.23	8.65	5.02	8.99	8.21			11.03		6.14	6.98	9.52	
Flow(cfs)							23											
GageHeight(ft)				8.78	14.2	16.74	17.16	5.33		17.1			17.34		17.46	17.18		
pH(su)			7.87	7.88	8.12	8.02	8.09	7.38	8.41	8.22			8.5		7.85	8.1	8.06	
Saturation(percent)			87.8	107.1	102.6	85.3	105.6	57.1	96	93			126.2		70.7	82	96	
Temperature(deg C)			6.4	9.3	22.2	23.4	25.4	21.7	17.25	21.4			21.9		22.1	23.1	15.7	
UncorrectedConductance(umhos/cm)				227.1	1144	1257		177.7		630			822		1203	1501		

River Code:	**04-608-000**	Stream:	**Dry Creek**
River Mile:	**3.76**	Location:	DRY CREEK SE OF FARMER @ CO. RD. 124 (OPENLANDER RD.)
Basin:	Maumee River	Drainage:	11.0 sq mi

Sample Type: Inorganic	**05-01-2014**	**06-26-2013**	**07-11-2013**	**07-17-2014**	**07-25-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)		152	99.4		272	217	263	262
Aluminum (ug/L)	< 200			595				
Ammonia (mg/L)	< .05	.854	.068	.1	.07	.37	.088	.061
Arsenic (ug/L)	< 2			7.1				
Barium (ug/L)	52			56				
Cadmium (ug/L)	< .2			< .2				
Calcium (mg/L)	80.3			78.3				
CBOD20 (mg/L)	6.7			6.3				
Chloride (mg/L)	36.9	20.9	8.4	42.3	44.3	35.2	30.3	32.6
Chlorophyll_a (ug/L)				2.8				
Chromium (ug/L)	< 2			< 2				
COD, Chemical Oxygen Demand (mg/L)		24	23		< 20	< 20	< 20	33
Conductivity (umhos/cm)		512	323		704	715	686	634
Copper, Low Level (ug/L)	< 2			< 2				
Hardness, Total (mg/L)	315			336				
Iron (ug/L)	233			893				
Lead (ug/L)	< 2			< 2				
Magnesium (mg/L)	27.8			34.2				
Manganese (ug/L)	21			54				
Nickel (ug/L)	2.3			3.7				
Nitrate+Nitrite (mg/L)	3.54	10.4	8.72	< .1	1.41	.13	< .1	< .1
Nitrite (mg/L)	.059	.178	.071	< .02	.02	< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)	.012			.216				
Pheophytin_a (ug/L)				4				
Potassium (mg/L)	2.1			4.2				
Selenium (ug/L)	< 2			< 2				
Sodium (mg/L)	17.8			29.3				
Solids, Total Dissolved (mg/L)	398	354	244	422	450	438	414	378
Strontium (ug/L)	1320			1900				

Sulfate (mg/L)	83.6	51.3	10.7	43.1	78.5	86	63.9	54.1
TKN (mg/L)	1.26	2.75	1.16	.6	.73	.73	.62	1.02
Total Phosphorus (mg/L)	.031	.223	.213	.269	.142	.251	.15	.391
Total Suspended Solids (mg/L)	< 5	36	29	16	27	11	8	< 5
Zinc (ug/L)	< 10			< 10				
CorrectedConductance(umhos/cm)		484.1	300.7	634	688	701	686	626
CorrectedConductance(uS/cm)	654							
DissolvedOxygen(mg/L)	11.47	5.8	5.58	6.63	5.89	4.11	3.96	1.07
pH(su)	8.2	7.57	7.33	8.11	7.92	7.75	7.79	7.67
Saturation(percent)	107.4	65	61.5	74.7	63.6	46.4	48.3	12.5
Temperature(deg C)	12.3	20.9	20.1	19.93	19	21.3	25.4	23.2
UncorrectedConductance(umhos/cm)		446.2	272.4		609	652	690	604

River Code:	**04-606-000**	Stream:	**Lost Creek**
River Mile:	**8.97**	Location:	LOST CREEK NE OF HICKSVILLE @ SEEVERS RD.
Basin:	Maumee River	Drainage:	14.4 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-17-2014**	**07-25-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	191	104		272	254	304	328
Aluminum (ug/L)			< 200				
Ammonia (mg/L)	.094	.095	.076	.05	.067	< .05	.052
Arsenic (ug/L)			< 2				
Barium (ug/L)			76				
Cadmium (ug/L)			< .2				
Calcium (mg/L)			89.9				
CBOD20 (mg/L)			4.6				
Chloride (mg/L)	33.6	9.7	13.5	16.8	14	12.5	11.7
Chlorophyll_a (ug/L)			2.4				
Chromium (ug/L)			< 2				
COD, Chemical Oxygen Demand (mg/L)	35	33		26	< 20	< 20	< 20
Conductivity (umhos/cm)	707	289		668	745	736	732
Copper, Low Level (ug/L)			< 2				
Hardness, Total (mg/L)			391				
Iron (ug/L)			400				
Lead (ug/L)			< 2				
Magnesium (mg/L)			40.4				
Manganese (ug/L)			88				
Nickel (ug/L)			2.4				
Nitrate+Nitrite (mg/L)	1.78	3.38	.54	.96	.54	.46	.36
Nitrite (mg/L)	.049	.052	< .02	< .02	< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)			.014				
Pheophytin_a (ug/L)			3				
Potassium (mg/L)			2.3				
Selenium (ug/L)			< 2				
Sodium (mg/L)			16.7				
Solids, Total Dissolved (mg/L)	498	238	456	492	474	460	454
Strontium (ug/L)			2570				
Sulfate (mg/L)	159	15.7	80.9	101	104	90.6	92.9
TKN (mg/L)	1.2	1.29	.3	.78	.47	.26	.2
Total Phosphorus (mg/L)	.125	.29	.034	.071	.029	.022	.034
Total Suspended Solids (mg/L)	45	114	8	16	8	< 5	< 5
Zinc (ug/L)			< 10				
CorrectedConductance(umhos/cm)	665	278.1	718	644	737	726	721
DissolvedOxygen(mg/L)	7.02	6.91	8.02	6.92	6.29	8.3	6.63
pH(su)	7.76	7.36	7.82	7.93	7.79	7.94	7.78
Saturation(percent)	79.8	76.9	82.9	72.9	64.3	89	72.1
Temperature(deg C)	21.6	20.5	16.24	17.8	16.3	18.6	19.3
UncorrectedConductance(umhos/cm)	621	254.3		555	615	638	643

River Code:	**04-606-000**	Stream:	**Lost Creek**
River Mile:	**1.41**	Location:	LOST CREEK N OF SHERWOOD @ BEHNFELDT RD.
Basin:	Maumee River	Drainage:	25.6 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-25-2013**	**07-31-2013**	**08-01-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	217	119	238			232	276	277
Aluminum (ug/L)					299			
Ammonia (mg/L)	.056	.051	< .05		< .05	< .05	.086	< .05
Arsenic (ug/L)					< 2			
Barium (ug/L)					74			
Cadmium (ug/L)					< .2			
Calcium (mg/L)					95			
CBOD20 (mg/L)					5.4			
Chloride (mg/L)	17.2	9.7	17.1		16.4	14.3	13.3	12.7
Chlorophyll_a (ug/L)				9.8				
Chromium (ug/L)					< 2			
COD, Chemical Oxygen Demand (mg/L)	< 20	26	30			< 20	< 20	< 20
Conductivity (umhos/cm)	644	317	600			697	711	686
Copper, Low Level (ug/L)					< 2			
Hardness, Total (mg/L)					373			
Iron (ug/L)					486			
Lead (ug/L)					< 2			
Magnesium (mg/L)					33			
Manganese (ug/L)					53			
Nickel (ug/L)					3.7			
Nitrate+Nitrite (mg/L)	6.24	4.17	.76		.23	.32	.1	.2
Nitrite (mg/L)	.042	.039	< .02		< .02	< .02	< .02	< .02
Orthophosphate, dissolved (mg/L)					.023			
Pheophytin_a (ug/L)				6.1				
Potassium (mg/L)					3			
Selenium (ug/L)					< 2			
Sodium (mg/L)					14			
Solids, Total Dissolved (mg/L)	420	246	444		474	486	444	438
Strontium (ug/L)					1750			
Sulfate (mg/L)	87.5	13.7	99.7		117	111	104	97.8
TKN (mg/L)	.6	1.02	1.2		.54	.36	.32	< .2
Total Phosphorus (mg/L)	.15	.274	.065		.04	.043	.029	.074
Total Suspended Solids (mg/L)	229	150	12		9	< 5	< 5	29
Zinc (ug/L)					< 10			
CorrectedConductance(umhos/cm)	610	301.8	639			681	700	670
DissolvedOxygen(mg/L)	8.05	7.06	8.54			8.45	8.48	6.17
pH(su)	7.9	7.36	8.25			8.22	8.13	8.01
Saturation(percent)	90.4	78.5	92			93.3	97.2	71.1
Temperature(deg C)	20.9	20.6	18.9			20.1	22	22.2
UncorrectedConductance(umhos/cm)	563	276.2	564			618	660	634

River Code:	**04-605-000**	Stream:	**Mud Creek**
River Mile:	**10.10**	Location:	MUD CREEK N OF SHERWOOD @ COY RD.
Basin:	Maumee River	Drainage:	47.3 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-25-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	222	80.6	236	220	258	296
Ammonia (mg/L)	.085	< .05	< .05	< .05	< .05	< .05
Chloride (mg/L)	21.2	8	21.8	16	13.5	17.8
COD, Chemical Oxygen Demand (mg/L)	< 20	24	26	< 20	< 20	< 20
Conductivity (umhos/cm)	642	240	658	687	702	694
Nitrate+Nitrite (mg/L)	3.22	4.36	.94	.27	< .1	.36
Nitrite (mg/L)	.027	.054	< .02	< .02	< .02	< .02
Solids, Total Dissolved (mg/L)	462	204	462	464	442	448
Sulfate (mg/L)	96.7	15.2	101	109	103	101
TKN (mg/L)	.74	.83	.82	.41	.28	< .2
Total Phosphorus (mg/L)	.193	.285	.068	.045	.04	.081
Total Suspended Solids (mg/L)	248	85	11	7	< 5	18
CorrectedConductance(umhos/cm)	614	218.3	636	671	689	686
DissolvedOxygen(mg/L)	7.5	5.25	8.21	8.06	8.1	6.66
pH(su)	7.95	7.3	8.22	8.29	8.21	8.03
Saturation(percent)	85.7	58.6	89.4	89.9	93.3	76.4
Temperature(deg C)	21.8	20.7	19.4	20.6	22.3	22.1
UncorrectedConductance(umhos/cm)	577	200.5	567	615	653	648

River Code:	**04-605-000**	Stream:	**Mud Creek**
River Mile:	**1.50**	Location:	MUD CREEK NW OF BRUNERSBURG @ TRINITY RD.
Basin:	Maumee River	Drainage:	58.0 sq mi

Sample Type: Inorganic	**01-10-2013**	**03-13-2013**	**04-08-2014**	**04-24-2013**	**05-01-2014**	**05-22-2013**	**06-26-2013**	**07-02-2014**	**07-11-2013**	**07-17-2014**	**07-25-2013**	**07-31-2013**	**08-01-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**	**09-17-2014**	**12-18-2012**
Alkalinity (mg/L)				78.3		243	240		74.8		247			222	263	282		
Aluminum (ug/L)	369	7570	11900	14200	< 200	255	980	1130	5870	466	1400		673	563	373	430	1010	< 200
Ammonia (mg/L)	.25	.171	.051	.23	< .05	.111	< .05	< .05	.067	< .05	< .05		< .05	< .05	< .05	< .05	< .05	.082
Arsenic (ug/L)	< 2	2.1	2.8	3.1	< 2	< 2	< 2	2.4	2.4	2.6	2.4		< 2	< 2	< 2	2	< 2	< 2
Barium (ug/L)	69	87	109	126	54	67	67	66	64	64	64		62	68	63	68	63	65
Cadmium (ug/L)	< .2	< .2	.28	.35	< .2	< .2	< .2	< .2	< .2	< .2	< .2		< .2	< .2	< .2	< .2	< .2	< .2
Calcium (mg/L)	90	65	41.5	48	83	95	96	87.2	31	86	86		92	101	86	85	74.9	84
CBOD20 (mg/L)	4.9	8.3	11	12	6.3	5.8	7	4.4	9.3	5.8	4.6		4.8	< 3	< 3	6.6	3	< 3
Chloride (mg/L)	32.1	28.3	20.7	25.3	24.8	23.1	22.6	25.7	8.2	20.2	24.5		20	18.5	15.1	14.5	23.7	21.2
Chlorophyll_a (ug/L)										3.8		6.4						
Chromium (ug/L)	< 2	< 20	11.5	17	< 2	< 2	< 2	< 2	6.4	< 2	< 2		< 2	< 2	< 2	< 2	< 2	< 2
COD, Chemical Oxygen Demand (mg/L)				37		< 20	< 20		21		26			32	< 20	< 20		
Conductivity (umhos/cm)				305		729	698		205		611			700	700	698		
Copper, Low Level (ug/L)	< 2	< 20	12	16.8	2.3	2.2	2.7	2.4	7.6	< 2	3.3		2.2	2.3	2	< 2	3.2	< 2
Hardness, Total (mg/L)	398	232	153	186	323	373	363	348	110	359	314		349	392	355	360	278	358
Iron (ug/L)	507	9220	15900	18800	354	455	1400	1430	8450	666	1900		883	817	473	597	1420	253
Lead (ug/L)	< 2	4.2	8.3	9.9	< 2	< 2	< 2	< 2	4.7	< 2	< 2		< 2	< 2	< 2	< 2	< 2	< 2
Magnesium (mg/L)	42	17	12.1	16	28.2	33	30	31.7	8	35.1	24		29	34	34	36	22.1	36
Manganese (ug/L)	54	111	230	249	50	84	65	101	156	101	75		54	60	58	82	66	23
Nickel (ug/L)	2.6	< 20	15.7	25.5	2.9	4.4	4.3	3.9	9.7	3.5	4.8		4.5	4.1	3.3	3.1	4.9	2.3
Nitrate+Nitrite (mg/L)	1.42	10	3.61	5.61	.65	.53	1.65	.7	3.32	< .1	.85		.27	.16	< .1	< .1	3.6	5.57
Nitrite (mg/L)	< .02	.027	< .02	< .02	< .02	< .02	< .02	< .02	.039	< .02	< .02		< .02	< .02	< .02	< .02	.048	.089
Orthophosphate, dissolved (mg/L)	.01	.116	.15	.143	< .01	.018	.036	.086	.167	.061	.086		.059	.046	.036	.047	.063	.011
Pheophytin_a (ug/L)										2.2		< 1.5						
Potassium (mg/L)	3	6	6	7	2.6	3	3	3.9	6	3.2	5		4	4	3	4	6.2	3
Selenium (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2		< 2	< 2	< 2	< 2	< 2	< 2
Sodium (mg/L)	28	8	< 5	6	14.3	16	15	18	< 5	18.7	15		14	17	16	17	12.9	21
Solids, Total Dissolved (mg/L)	480	422	282	326	394	444	468	422	176	422	430		460	462	430	428	406	422
Strontium (ug/L)	2330	371	203	286	1190	1490	1270	1580	152	1770	990		1300	1630	1670	1910	952	2040
Sulfate (mg/L)	114	64.3	36.5	43.8	99	115	103	86.6	21	85	86.7		106	112	101	105	90	97.9
TKN (mg/L)	.58	1.71	.86	1.16	.58	.54	1.19	.49	.81	.35	.81		.63	.32	.29	< .2	.98	.59
Total Phosphorus (mg/L)	.064	.348	.399	.514	.023	.044	.092	.102	.35	.086	.122		.052	.054	.05	.061	.089	.03
Total Suspended Solids (mg/L)	< 5	89	446	456	5	12	38	27	224	15	41		18	16	16	15	20	< 5
Zinc (ug/L)	< 10	34	48	74	< 10	< 10	< 10	< 10	28	< 10	< 10		< 10	< 10	< 10	< 10	< 10	< 10
CorrectedConductance(umhos/cm)			247.2	283.7		740	664	664	190.1		598			685	687	692	572.3	
CorrectedConductance(uS/cm)					643													
DissolvedOxygen(mg/L)			11.3	12.13	10.06	6.03	6.28	6.85	6.03		7.48			7.34	7.21	5.58	8.28	
GageHeight(ft)				10.73		15.99	15.98	16.04	8.29		15.98			16.09	16.14	16.12		
pH(su)			7.83	7.78	8.17	7.89	7.97	8.04	7.4		8.22			8.18	7.95	7.93	7.8	
Saturation(percent)			90.7	106.3	96.3	68.8	73.5	81.2	68.3		81.9			82.1	82	64.5	80.6	
Temperature(deg C)			5.9	9.5	13.3	21.8	23.1	23.8	21.5		19.7			20.8	21.6	22.5	14.1	
UncorrectedConductance(umhos/cm)				199.7		694	639		177.4		537			630	642	659		

River Code:	**04-604-000**	Stream:	**Buckskin Creek**
River Mile:	**1.20**	Location:	BUCKSKIN CREEK NW OF BRUNERSBURG @ ST. RT. 15
Basin:	Maumee River	Drainage:	6.1 sq mi

Sample Type: Inorganic	**06-26-2013**	**07-11-2013**	**07-25-2013**	**08-07-2013**	**08-22-2013**	**09-12-2013**
Alkalinity (mg/L)	122	66.9	132	181	134	175
Ammonia (mg/L)	.051	< .05	.075	.065	.096	.175
Chloride (mg/L)	67.1	9.7	27.5	70.2	407	110
COD, Chemical Oxygen Demand (mg/L)	41	41	65	44	36	40
Conductivity (umhos/cm)	572	178	362	796	1740	838
Nitrate+Nitrite (mg/L)	.34	1.63	.58	.1	.13	< .1
Nitrite (mg/L)	< .02	.048	.024	< .02	< .02	< .02
Solids, Total Dissolved (mg/L)	348	218	336	556	1050	560
Sulfate (mg/L)	70.7	22.8	47.5	120	150	104
TKN (mg/L)	1.35	1.16	1.94	1.13	1.32	1.03
Total Phosphorus (mg/L)	.094	.399	.308	.113	.058	.084
Total Suspended Solids (mg/L)	29	77	11	< 5	17	110
CorrectedConductance(umhos/cm)	570	170.2	349.5	796	1705	821
DissolvedOxygen(mg/L)	5.5	7.05	6.27	3.59	3.62	4.38
pH(su)	7.7	7.48	7.93	7.72	7.4	7.71
Saturation(percent)	63.2	80.6	70.8	40.4	40.8	50
Temperature(deg C)	22.2	22	21.3	21.1	20.9	21.8
UncorrectedConductance(umhos/cm)	540	160.4	324.5	737	1571	771

River Code:	**04-602-000**	Stream:	**Webb Run**
River Mile:	**2.99**	Location:	WEBB RUN NW OF DEFIANCE @ FLORY RD.
Basin:	Maumee River	Drainage:	9.3 sq mi

Sample Type: Inorganic	**06-27-2013**	**07-15-2013**	**07-29-2013**	**08-08-2013**	**08-26-2013**
Alkalinity (mg/L)	184	160	195	134	209
Ammonia (mg/L)	.115	.136	< .05	.835	.151
Chloride (mg/L)	34.4	21.8	36.6	36.2	35.7
COD, Chemical Oxygen Demand (mg/L)	< 20	25	31	31	25
Conductivity (umhos/cm)	546	470	536	505	602
Nitrate+Nitrite (mg/L)	1.38	4.38	.39	.89	.16
Nitrite (mg/L)	.175	.056	< .02	.153	< .02
Solids, Total Dissolved (mg/L)	352	346	366	320	420
Sulfate (mg/L)	51	50.6	61.3	53.1	60.2
TKN (mg/L)	2.19	1.02	1.07	2.08	.74
Total Phosphorus (mg/L)	.606	.099	.149	.318	.064
Total Suspended Solids (mg/L)	23	23	22	41	51
CorrectedConductance(umhos/cm)	522	459.6	518	491.2	589
DissolvedOxygen(mg/L)	5.89	6.15	7.26	6.51	3.34
pH(su)	7.82	7.76	7.87	7.61	7.93
Saturation(percent)	69.7	73.3	75.5	72.5	37.5
Temperature(deg C)	23.7	24.1	17.2	20.6	20.9
UncorrectedConductance(umhos/cm)	509	451.7	440.5	449.9	543

River Code:	**04-602-000**	Stream:	**Webb Run**
River Mile:	**0.40**	Location:	WEBB RUN N OF BRUNERSBURG, NEAR MOUTH, DST TANBY DITCH
Basin:	Maumee River	Drainage:	20.0 sq mi

Sample Type: Inorganic	**06-27-2013**	**07-15-2013**	**07-29-2013**	**08-26-2013**	**09-16-2013**
Alkalinity (mg/L)	152	172	191	136	168
Ammonia (mg/L)	< .05	< .05	< .05	< .05	< .05
Chloride (mg/L)	28.5	19.7	32.5	35.9	35.3
COD, Chemical Oxygen Demand (mg/L)	22	27	39	24	36
Conductivity (umhos/cm)	447	468	504	473	487
Nitrate+Nitrite (mg/L)	1.32	4.79	.37	< .1	< .1
Nitrite (mg/L)	< .02	.029	< .02	< .02	< .02
Solids, Total Dissolved (mg/L)	304	334	346	328	306
Sulfate (mg/L)	43.1	44.6	59.5	50.1	51.2
TKN (mg/L)	.73	1.08	.94	.88	.67
Total Phosphorus (mg/L)	.044	.087	.103	.027	.035
Total Suspended Solids (mg/L)	20	15	9	13	14
CorrectedConductance(umhos/cm)	427	455.9	486.4	461.9	475.2
DissolvedOxygen(mg/L)	9.1	8.3	11.01	7.5	6.78
pH(su)	8.11	8.07	8.14	8.11	7.91
Saturation(percent)	109.7	100.4	116.1	85.5	68.1
Temperature(deg C)	24.8	24.9	17.8	21.8	15.6
UncorrectedConductance(umhos/cm)	425	455.2	419.9	433.9	389.8

Organics – BNA Chemistry Results

PRAIRIE CREEK DST. BRYAN WWTP, ADJ CR C Date Collected 6/26/13

Parameter (BNA)	MDL ug/l	Result ug/l
Acenaphthene	5.3	<5.5
Acenaphthylene	5.3	<5.5
Anthracene	2.1	<2.2
Benzo[a]anthracene	2.1	<2.2
Benzo[a]pyrene	2.1	<2.2
Benzo[b]fluoranthene	2.1	<2.2
Benzo[g,h,i]perylene	2.1	<2.2
Benzo[k]fluoranthene	2.1	<2.2
bis(2-Chloroethoxy)methane	5.3	<5.5
bis(2-Chloroethyl)ether	2.1	<2.2
bis(2-Chloroisopropyl)ether	2.1	<2.2
bis(2-Ethylhexyl)phthalate	10.5	<11.0
4-Bromophenyl-phenylether	5.3	<5.5
Butylbenzylphthalate	2.1	<2.2
4-Chloro-3-methylphenol	10.5	<11.0
2-Chloronaphthalene	5.3	<5.5
2-Chlorophenol	2.1	<2.2
4-Chlorophenyl-phenylether	2.1	<2.2
Chrysene	2.1	<2.2
Di-n-butylphthalate	5.3	<5.5
Di-n-octylphthalate	2.1	<2.2
Dibenz[a,h]anthracene	2.1	<2.2
1,3-Dichlorobenzene	2.1	<2.2
1,4-Dichlorobenzene	2.1	<2.2
1,2-Dichlorobenzene	2.1	<2.2
2,4-Dichlorophenol	2.1	<2.2

Parameter (BNA)	MDL ug/l	Result ug/l
Diethylphthalate	5.3	<5.5
2,4-Dimethylphenol	10.5	<11.0
Dimethylphthalate	5.3	<5.5
4,6-Dinitro-2-methylphenol	5.3	<5.5
2,4-Dinitrophenol	21.1	<22.1
2,6-Dinitrotoluene	2.1	<2.2
2,4-Dinitrotoluene	2.1	<2.2
Fluoranthene	2.1	<2.2
Fluorene	2.1	<2.2
Hexachlorobenzene	2.1	<2.2
Hexachlorobutadiene	2.1	<2.2
Hexachlorocyclopentadiene	2.1	<2.2
Hexachloroethane	5.3	<5.5
Indeno[1,2,3-cd]pyrene	2.1	<2.2
Isophorone	2.1	<2.2
N-Nitroso-di-n-propylamine	2.1	<2.2
N-Nitrosodiphenylamine	5.3	<5.5
Naphthalene	2.1	<2.2
Nitrobenzene	2.1	<2.2
2-Nitrophenol	2.1	<2.2
4-Nitrophenol	21.1	<22.1
Pentachlorophenol	10.5	<11.0
Phenanthrene	2.1	<2.2
Phenol	2.1	<2.2
Pyrene	2.1	<2.2
1,2,4-Trichlorobenzene	2.1	<2.2
2,4,6-Trichlorophenol	5.3	<5.5

TIFFIN R. DST. STRYKER @ OAK GROVE CHURCH RD. Date Collected 6/27/13

Parameter (BNA)	MDL ug/l	Result ug/l
Acenaphthene	5.3	<5.4
Acenaphthylene	5.3	<5.4
Anthracene	2.1	<2.2
Benzo[a]anthracene	2.1	<2.2
Benzo[a]pyrene	2.1	<2.2
Benzo[b]fluoranthene	2.1	<2.2
Benzo[g,h,i]perylene	2.1	<2.2
Benzo[k]fluoranthene	2.1	<2.2
bis(2-Chloroethoxy)methane	5.3	<5.4
bis(2-Chloroethyl)ether	2.1	<2.2
bis(2-Chloroisopropyl)ether	2.1	<2.2
bis(2-Ethylhexyl)phthalate	10.5	<10.9
4-Bromophenyl-phenylether	5.3	<5.4
Butylbenzylphthalate	2.1	<2.2
4-Chloro-3-methylphenol	10.5	<10.9
2-Chloronaphthalene	5.3	<5.4
2-Chlorophenol	2.1	<2.2
4-Chlorophenyl-phenylether	2.1	<2.2
Chrysene	2.1	<2.2
Di-n-butylphthalate	5.3	<5.4
Di-n-octylphthalate	2.1	<2.2
Dibenz[a,h]anthracene	2.1	<2.2
1,3-Dichlorobenzene	2.1	<2.2
1,4-Dichlorobenzene	2.1	<2.2
1,2-Dichlorobenzene	2.1	<2.2
2,4-Dichlorophenol	2.1	<2.2

Parameter (BNA)	MDL ug/l	Result ug/l
Diethylphthalate	5.3	<5.4
2,4-Dimethylphenol	10.5	<10.9
Dimethylphthalate	5.3	<5.4
4,6-Dinitro-2-methylphenol	5.3	<5.4
2,4-Dinitrophenol	21.1	<21.7
2,6-Dinitrotoluene	2.1	<2.2
2,4-Dinitrotoluene	2.1	<2.2
Fluoranthene	2.1	<2.2
Fluorene	2.1	<2.2
Hexachlorobenzene	2.1	<2.2
Hexachlorobutadiene	2.1	<2.2
Hexachlorocyclopentadiene	2.1	<2.2
Hexachloroethane	5.3	<5.4
Indeno[1,2,3-cd]pyrene	2.1	<2.2
Isophorone	2.1	<2.2
N-Nitroso-di-n-propylamine	2.1	<2.2
N-Nitrosodiphenylamine	5.3	<5.4
Naphthalene	2.1	<2.2
Nitrobenzene	2.1	<2.2
2-Nitrophenol	2.1	<2.2
4-Nitrophenol	21.1	<21.7
Pentachlorophenol	10.5	<10.9
Phenanthrene	2.1	<2.2
Phenol	2.1	<2.2
Pyrene	2.1	<2.2
1,2,4-Trichlorobenzene	2.1	<2.2
2,4,6-Trichlorophenol	5.3	<5.4

Appendix G – Sediment Chemistry Results

(P07K06) TIFFIN R. NW OF ARCHBOLD @ CO. RD. G, RM 47.54 Date Collected 8/28/13

Parameter (Sediment)	Analysis	Units	MDL	Result	
% Solids	ORGPREP	%		68.7	
Acenaphthene	BNA	mg/kg	0.58	<0.58	
Acenaphthylene	BNA	mg/kg	0.58	<0.58	
Acetophenone	BNA	mg/kg	0.58	<0.58	
2-Acetylaminofluorene	BNA	mg/kg	0.58	<0.58	
Aniline	BNA	mg/kg	2.9	<2.9	
Anthracene	BNA	mg/kg	0.58	<0.58	
Benz[a]anthracene	BNA	mg/kg	0.58	<0.58	
Benzo[a]pyrene	BNA	mg/kg	0.58	<0.58	
Benzo[b]fluoranthene	BNA	mg/kg	0.58	<0.58	
Benzo[g,h,i]perylene	BNA	mg/kg	0.58	<0.58	
Benzo[k]fluoranthene	BNA	mg/kg	0.58	<0.58	
Benzyl alcohol	BNA	mg/kg	0.58	<0.58	
bis(2-Chloroethoxy)methane	BNA	mg/kg	0.58	<0.58	
bis(2-Chloroethyl)ether	BNA	mg/kg	0.58	<0.58	
bis(2-Chloroisopropyl)ether	BNA	mg/kg	0.58	<0.58	
bis(2-Ethylhexyl)phthalate	BNA	mg/kg	0.58	<0.58	
4-Bromophenyl-phenylether	BNA	mg/kg	0.58	<0.58	
Butylbenzylphthalate	BNA	mg/kg	0.58	<0.58	
4-Chloro-3-methylphenol	BNA	mg/kg	0.58	<0.58	
2-Chloronaphthalene	BNA	mg/kg	0.58	<0.58	
2-Chlorophenol	BNA	mg/kg	0.58	<0.58	
4-Chlorophenyl-phenylether	BNA	mg/kg	0.58	<0.58	
Chrysene	BNA	mg/kg	0.58	<0.58	
Di-n-butylphthalate	BNA	mg/kg	0.58	<0.58	
Di-n-octylphthalate	BNA	mg/kg	0.58	<0.58	
Dibenz[a,h]anthracene	BNA	mg/kg	0.58	<0.58	
Dibenzofuran	BNA	mg/kg	0.58	<0.58	
1,3-Dichlorobenzene	BNA	mg/kg	0.58	<0.58	
1,4-Dichlorobenzene	BNA	mg/kg	0.58	<0.58	
1,2-Dichlorobenzene	BNA	mg/kg	0.58	<0.58	
3,3'-Dichlorobenzidine	BNA	mg/kg	2.9	<2.9	
2,6-Dichlorophenol	BNA	mg/kg	0.58	<0.58	
2,4-Dichlorophenol	BNA	mg/kg	0.58	<0.58	
Diethylphthalate	BNA	mg/kg	0.58	<0.58	
p-Dimethylaminoazobenzene	BNA	mg/kg	0.58	<0.58	
7,12-Dimethylbenz[a]anthracene	BNA	mg/kg	2.9	<2.9	
2,4-Dimethylphenol	BNA	mg/kg	0.58	<0.58	
Dimethylphthalate	BNA	mg/kg	0.58	<0.58	

4,6-Dinitro-2-methylphenol	BNA	mg/kg	0.58	<0.58	
1,3-Dinitrobenzene	BNA	mg/kg	0.58	<0.58	
2,4-Dinitrophenol	BNA	mg/kg	2.9	<2.9	
2,6-Dinitrotoluene	BNA	mg/kg	0.58	<0.58	
2,4-Dinitrotoluene	BNA	mg/kg	0.58	<0.58	
Dinoseb	BNA	mg/kg	0.58	<0.58	
Diphenylamine	BNA	mg/kg	0.58	<0.58	
Ethyl methanesulfonate	BNA	mg/kg	0.58	<0.58	
Fluoranthene	BNA	mg/kg	0.58	<0.58	
Fluorene	BNA	mg/kg	0.58	<0.58	
Hexachlorobenzene	BNA	mg/kg	0.58	<0.58	
Hexachlorobutadiene	BNA	mg/kg	0.58	<0.58	
Hexachlorocyclopentadiene	BNA	mg/kg	0.58	<0.58	
Hexachloroethane	BNA	mg/kg	0.58	<0.58	
Hexachloropropene	BNA	mg/kg	0.58	<0.58	
Indeno[1,2,3-cd]pyrene	BNA	mg/kg	0.58	<0.58	
Isophorone	BNA	mg/kg	0.58	<0.58	
Methyl methanesulfonate	BNA	mg/kg	0.58	<0.58	
3-Methylcholanthrene	BNA	mg/kg	0.58	<0.58	
2-Methylnaphthalene	BNA	mg/kg	0.58	<0.58	
3&4-Methylphenol	BNA	mg/kg	0.58	<0.58	
2-Methylphenol	BNA	mg/kg	0.58	<0.58	
N-Nitroso-di-n-butylamine	BNA	mg/kg	0.58	<0.58	
N-Nitroso-di-n-propylamine	BNA	mg/kg	0.58	<0.58	
N-Nitrosomorpholine	BNA	mg/kg	0.58	<0.58	
N-Nitrosopiperidine	BNA	mg/kg	0.58	<0.58	
N-Nitrosopyrrolidine	BNA	mg/kg	0.58	<0.58	
Naphthalene	BNA	mg/kg	0.58	<0.58	
1,4-Naphthoquinone	BNA	mg/kg	0.58	<0.58	
2-Nitroaniline	BNA	mg/kg	0.58	<0.58	
4-Nitroaniline	BNA	mg/kg	0.58	<0.58	
Nitrobenzene	BNA	mg/kg	0.58	<0.58	
4-Nitrophenol	BNA	mg/kg	2.9	<2.9	
2-Nitrophenol	BNA	mg/kg	0.58	<0.58	
Pentachlorobenzene	BNA	mg/kg	0.58	<0.58	
Pentachlorophenol	BNA	mg/kg	0.58	<0.58	UJ
Phenacetin	BNA	mg/kg	0.58	<0.58	
Phenanthrene	BNA	mg/kg	0.58	<0.58	
Phenol	BNA	mg/kg	0.58	<0.58	
2-Picoline	BNA	mg/kg	0.58	<0.58	
Pronamide	BNA	mg/kg	0.58	<0.58	

Pyrene	BNA	mg/kg	0.58	<0.58	
Safrole	BNA	mg/kg	0.58	<0.58	
1,2,4,5-Tetrachlorobenzene	BNA	mg/kg	0.58	<0.58	
2,3,4,6-Tetrachlorophenol	BNA	mg/kg	0.58	<0.58	
1,2,4-Trichlorobenzene	BNA	mg/kg	0.58	<0.58	
2,4,6-Trichlorophenol	BNA	mg/kg	0.58	<0.58	
2,4,5-Trichlorophenol	BNA	mg/kg	0.58	<0.58	
% Solids	DEMAND	%		61.3	
TOC	DEMAND	%	0.1	1.8	
Cadmium	METALS	mg/kg	0.114	0.353	
Copper	METALS	mg/kg	1.14	6.63	
Lead	METALS	mg/kg	1.14	4.70	
Nickel	METALS	mg/kg	1.14	9.26	
Silver	METALS	mg/kg	0.57	<0.570	UJ
Zinc	METALS	mg/kg	11.4	50.6	
Mercury	METALS	mg/kg	0.028	0.028	
Total Phosphorus	NUTRIENTS	mg/kg	26.1	431	J

(P07K03) TIFFIN R. AT STRYKER @ ST. RT. 191, RM 35.28 Date Collected 8/28/13

Parameter (Sediment)	Analysis	Units	MDL	Result	
% Solids	ORGPREP	%		57.4	
Acenaphthene	BNA	mg/kg	0.69	<0.69	
Acenaphthylene	BNA	mg/kg	0.69	<0.69	
Acetophenone	BNA	mg/kg	0.69	<0.69	
2-Acetylaminofluorene	BNA	mg/kg	0.69	<0.69	
Aniline	BNA	mg/kg	3.5	<3.5	
Anthracene	BNA	mg/kg	0.69	<0.69	
Benz[a]anthracene	BNA	mg/kg	0.69	<0.69	
Benzo[a]pyrene	BNA	mg/kg	0.69	<0.69	
Benzo[b]fluoranthene	BNA	mg/kg	0.69	<0.69	
Benzo[g,h,i]perylene	BNA	mg/kg	0.69	<0.69	
Benzo[k]fluoranthene	BNA	mg/kg	0.69	<0.69	
Benzyl alcohol	BNA	mg/kg	0.69	<0.69	
bis(2-Chloroethoxy)methane	BNA	mg/kg	0.69	<0.69	
bis(2-Chloroethyl)ether	BNA	mg/kg	0.69	<0.69	
bis(2-Chloroisopropyl)ether	BNA	mg/kg	0.69	<0.69	
bis(2-Ethylhexyl)phthalate	BNA	mg/kg	0.69	<0.69	
4-Bromophenyl-phenylether	BNA	mg/kg	0.69	<0.69	
Butylbenzylphthalate	BNA	mg/kg	0.69	<0.69	
4-Chloro-3-methylphenol	BNA	mg/kg	0.69	<0.69	

2-Chloronaphthalene	BNA	mg/kg	0.69	<0.69	
2-Chlorophenol	BNA	mg/kg	0.69	<0.69	
4-Chlorophenyl-phenylether	BNA	mg/kg	0.69	<0.69	
Chrysene	BNA	mg/kg	0.69	<0.69	
Di-n-butylphthalate	BNA	mg/kg	0.69	<0.69	
Di-n-octylphthalate	BNA	mg/kg	0.69	<0.69	
Dibenz[a,h]anthracene	BNA	mg/kg	0.69	<0.69	
Dibenzofuran	BNA	mg/kg	0.69	<0.69	
1,3-Dichlorobenzene	BNA	mg/kg	0.69	<0.69	
1,4-Dichlorobenzene	BNA	mg/kg	0.69	<0.69	
1,2-Dichlorobenzene	BNA	mg/kg	0.69	<0.69	
3,3'-Dichlorobenzidine	BNA	mg/kg	3.5	<3.5	
2,6-Dichlorophenol	BNA	mg/kg	0.69	<0.69	
2,4-Dichlorophenol	BNA	mg/kg	0.69	<0.69	
Diethylphthalate	BNA	mg/kg	0.69	<0.69	
p-Dimethylaminoazobenzene	BNA	mg/kg	0.69	<0.69	
7,12-Dimethylbenz[a]anthracene	BNA	mg/kg	3.5	<3.5	
2,4-Dimethylphenol	BNA	mg/kg	0.69	<0.69	
Dimethylphthalate	BNA	mg/kg	0.69	<0.69	
4,6-Dinitro-2-methylphenol	BNA	mg/kg	0.69	<0.69	
1,3-Dinitrobenzene	BNA	mg/kg	0.69	<0.69	
2,4-Dinitrophenol	BNA	mg/kg	3.5	<3.5	
2,6-Dinitrotoluene	BNA	mg/kg	0.69	<0.69	
2,4-Dinitrotoluene	BNA	mg/kg	0.69	<0.69	
Dinoseb	BNA	mg/kg	0.69	<0.69	
Diphenylamine	BNA	mg/kg	0.69	<0.69	
Ethyl methanesulfonate	BNA	mg/kg	0.69	<0.69	
Fluoranthene	BNA	mg/kg	0.69	<0.69	
Fluorene	BNA	mg/kg	0.69	<0.69	
Hexachlorobenzene	BNA	mg/kg	0.69	<0.69	
Hexachlorobutadiene	BNA	mg/kg	0.69	<0.69	
Hexachlorocyclopentadiene	BNA	mg/kg	0.69	<0.69	
Hexachloroethane	BNA	mg/kg	0.69	<0.69	
Hexachloropropene	BNA	mg/kg	0.69	<0.69	
Indeno[1,2,3-cd]pyrene	BNA	mg/kg	0.69	<0.69	
Isophorone	BNA	mg/kg	0.69	<0.69	
Methyl methanesulfonate	BNA	mg/kg	0.69	<0.69	
3-Methylcholanthrene	BNA	mg/kg	0.69	<0.69	
2-Methylnaphthalene	BNA	mg/kg	0.69	<0.69	
3&4-Methylphenol	BNA	mg/kg	0.69	<0.69	
2-Methylphenol	BNA	mg/kg	0.69	<0.69	

N-Nitroso-di-n-butylamine	BNA	mg/kg	0.69	<0.69	
N-Nitroso-di-n-propylamine	BNA	mg/kg	0.69	<0.69	
N-Nitrosomorpholine	BNA	mg/kg	0.69	<0.69	
N-Nitrosopiperidine	BNA	mg/kg	0.69	<0.69	
N-Nitrosopyrrolidine	BNA	mg/kg	0.69	<0.69	
Naphthalene	BNA	mg/kg	0.69	<0.69	
1,4-Naphthoquinone	BNA	mg/kg	0.69	<0.69	
2-Nitroaniline	BNA	mg/kg	0.69	<0.69	
4-Nitroaniline	BNA	mg/kg	0.69	<0.69	
Nitrobenzene	BNA	mg/kg	0.69	<0.69	
4-Nitrophenol	BNA	mg/kg	3.5	<3.5	
2-Nitrophenol	BNA	mg/kg	0.69	<0.69	
Pentachlorobenzene	BNA	mg/kg	0.69	<0.69	
Pentachlorophenol	BNA	mg/kg	0.69	<0.69	UJ
Phenacetin	BNA	mg/kg	0.69	<0.69	
Phenanthrene	BNA	mg/kg	0.69	<0.69	
Phenol	BNA	mg/kg	0.69	<0.69	
2-Picoline	BNA	mg/kg	0.69	<0.69	
Pronamide	BNA	mg/kg	0.69	<0.69	
Pyrene	BNA	mg/kg	0.69	<0.69	
Safrole	BNA	mg/kg	0.69	<0.69	
1,2,4,5-Tetrachlorobenzene	BNA	mg/kg	0.69	<0.69	
2,3,4,6-Tetrachlorophenol	BNA	mg/kg	0.69	<0.69	
1,2,4-Trichlorobenzene	BNA	mg/kg	0.69	<0.69	
2,4,6-Trichlorophenol	BNA	mg/kg	0.69	<0.69	
2,4,5-Trichlorophenol	BNA	mg/kg	0.69	<0.69	
% Solids	DEMAND	%		50.1	
TOC	DEMAND	%	0.1	2.4	
Cadmium	METALS	mg/kg	0.143	0.659	
Copper	METALS	mg/kg	1.43	13.6	
Lead	METALS	mg/kg	1.43	10.9	
Nickel	METALS	mg/kg	1.43	18.1	
Silver	METALS	mg/kg	0.714	<0.714	UJ
Zinc	METALS	mg/kg	14.3	88.3	
Mercury	METALS	mg/kg	0.045	0.049	
Total Phosphorus	NUTRIENTS	mg/kg	28.2	735	

(P07S07) TIFFIN R. DST. STRYKER @ OAK GROVE CHURCH RD., RM 26.17 Date Collected 8/28/13

Parameter (Sediment)	Analysis	Units	MDL	Result	
% Solids	ORGPREP	%		43.8	
Acenaphthene	BNA	mg/kg	0.91	<0.91	
Acenaphthylene	BNA	mg/kg	0.91	<0.91	
Acetophenone	BNA	mg/kg	0.91	<0.91	
2-Acetylaminofluorene	BNA	mg/kg	0.91	<0.91	
Aniline	BNA	mg/kg	4.6	<4.6	
Anthracene	BNA	mg/kg	0.91	<0.91	
Benz[a]anthracene	BNA	mg/kg	0.91	<0.91	
Benzo[a]pyrene	BNA	mg/kg	0.91	<0.91	
Benzo[b]fluoranthene	BNA	mg/kg	0.91	<0.91	
Benzo[g,h,i]perylene	BNA	mg/kg	0.91	<0.91	
Benzo[k]fluoranthene	BNA	mg/kg	0.91	<0.91	
Benzyl alcohol	BNA	mg/kg	0.91	<0.91	
bis(2-Chloroethoxy)methane	BNA	mg/kg	0.91	<0.91	
bis(2-Chloroethyl)ether	BNA	mg/kg	0.91	<0.91	
bis(2-Chloroisopropyl)ether	BNA	mg/kg	0.91	<0.91	
bis(2-Ethylhexyl)phthalate	BNA	mg/kg	0.91	<0.91	
4-Bromophenyl-phenylether	BNA	mg/kg	0.91	<0.91	
Butylbenzylphthalate	BNA	mg/kg	0.91	<0.91	
4-Chloro-3-methylphenol	BNA	mg/kg	0.91	<0.91	
2-Chloronaphthalene	BNA	mg/kg	0.91	<0.91	
2-Chlorophenol	BNA	mg/kg	0.91	<0.91	
4-Chlorophenyl-phenylether	BNA	mg/kg	0.91	<0.91	
Chrysene	BNA	mg/kg	0.91	<0.91	
Di-n-butylphthalate	BNA	mg/kg	0.91	<0.91	
Di-n-octylphthalate	BNA	mg/kg	0.91	<0.91	
Dibenz[a,h]anthracene	BNA	mg/kg	0.91	<0.91	
Dibenzofuran	BNA	mg/kg	0.91	<0.91	
1,3-Dichlorobenzene	BNA	mg/kg	0.91	<0.91	
1,4-Dichlorobenzene	BNA	mg/kg	0.91	<0.91	
1,2-Dichlorobenzene	BNA	mg/kg	0.91	<0.91	
3,3'-Dichlorobenzidine	BNA	mg/kg	4.6	<4.6	
2,6-Dichlorophenol	BNA	mg/kg	0.91	<0.91	
2,4-Dichlorophenol	BNA	mg/kg	0.91	<0.91	
Diethylphthalate	BNA	mg/kg	0.91	<0.91	
p-Dimethylaminoazobenzene	BNA	mg/kg	0.91	<0.91	
7,12-Dimethylbenz[a]anthracene	BNA	mg/kg	4.6	<4.6	
2,4-Dimethylphenol	BNA	mg/kg	0.91	<0.91	
Dimethylphthalate	BNA	mg/kg	0.91	<0.91	

4,6-Dinitro-2-methylphenol	BNA	mg/kg	0.91	<0.91	
1,3-Dinitrobenzene	BNA	mg/kg	0.91	<0.91	
2,4-Dinitrophenol	BNA	mg/kg	4.6	<4.6	
2,6-Dinitrotoluene	BNA	mg/kg	0.91	<0.91	
2,4-Dinitrotoluene	BNA	mg/kg	0.91	<0.91	
Dinoseb	BNA	mg/kg	0.91	<0.91	
Diphenylamine	BNA	mg/kg	0.91	<0.91	
Ethyl methanesulfonate	BNA	mg/kg	0.91	<0.91	
Fluoranthene	BNA	mg/kg	0.91	<0.91	
Fluorene	BNA	mg/kg	0.91	<0.91	
Hexachlorobenzene	BNA	mg/kg	0.91	<0.91	
Hexachlorobutadiene	BNA	mg/kg	0.91	<0.91	
Hexachlorocyclopentadiene	BNA	mg/kg	0.91	<0.91	
Hexachloroethane	BNA	mg/kg	0.91	<0.91	
Hexachloropropene	BNA	mg/kg	0.91	<0.91	
Indeno[1,2,3-cd]pyrene	BNA	mg/kg	0.91	<0.91	
Isophorone	BNA	mg/kg	0.91	<0.91	
Methyl methanesulfonate	BNA	mg/kg	0.91	<0.91	
3-Methylcholanthrene	BNA	mg/kg	0.91	<0.91	
2-Methylnaphthalene	BNA	mg/kg	0.91	<0.91	
3&4-Methylphenol	BNA	mg/kg	0.91	<0.91	
2-Methylphenol	BNA	mg/kg	0.91	<0.91	
N-Nitroso-di-n-butylamine	BNA	mg/kg	0.91	<0.91	
N-Nitroso-di-n-propylamine	BNA	mg/kg	0.91	<0.91	
N-Nitrosomorpholine	BNA	mg/kg	0.91	<0.91	
N-Nitrosopiperidine	BNA	mg/kg	0.91	<0.91	
N-Nitrosopyrrolidine	BNA	mg/kg	0.91	<0.91	
Naphthalene	BNA	mg/kg	0.91	<0.91	
1,4-Naphthoquinone	BNA	mg/kg	0.91	<0.91	
2-Nitroaniline	BNA	mg/kg	0.91	<0.91	
4-Nitroaniline	BNA	mg/kg	0.91	<0.91	
Nitrobenzene	BNA	mg/kg	0.91	<0.91	
4-Nitrophenol	BNA	mg/kg	4.6	<4.6	
2-Nitrophenol	BNA	mg/kg	0.91	<0.91	
Pentachlorobenzene	BNA	mg/kg	0.91	<0.91	
Pentachlorophenol	BNA	mg/kg	0.91	<0.91	UJ
Phenacetin	BNA	mg/kg	0.91	<0.91	
Phenanthrene	BNA	mg/kg	0.91	<0.91	
Phenol	BNA	mg/kg	0.91	<0.91	
2-Picoline	BNA	mg/kg	0.91	<0.91	
Pronamide	BNA	mg/kg	0.91	<0.91	

Pyrene	BNA	mg/kg	0.91	<0.91	
Safrole	BNA	mg/kg	0.91	<0.91	
1,2,4,5-Tetrachlorobenzene	BNA	mg/kg	0.91	<0.91	
2,3,4,6-Tetrachlorophenol	BNA	mg/kg	0.91	<0.91	
1,2,4-Trichlorobenzene	BNA	mg/kg	0.91	<0.91	
2,4,6-Trichlorophenol	BNA	mg/kg	0.91	<0.91	
2,4,5-Trichlorophenol	BNA	mg/kg	0.91	<0.91	
% Solids	DEMAND	%		40.7	
TOC	DEMAND	%	0.1	3.3	
Cadmium	METALS	mg/kg	0.166	0.921	
Copper	METALS	mg/kg	8.31	20.5	
Lead	METALS	mg/kg	1.66	14.8	
Nickel	METALS	mg/kg	8.31	26.1	
Silver	METALS	mg/kg	0.831	<0.831	UJ
Zinc	METALS	mg/kg	16.6	116	
Mercury	METALS	mg/kg	0.041	0.057	
Total Phosphorus	NUTRIENTS	mg/kg	40.3	1040	

(P07S05) TIFFIN R. NE OF DEFIANCE AIRPORT @ EVANSPORT RD., RM 7.09 Date Collected 8/28/13

Parameter (Sediment)	Analysis	Units	MDL	Result	
% Solids	ORGPREP	%		58.6	
Acenaphthene	BNA	mg/kg	0.68	<0.68	
Acenaphthylene	BNA	mg/kg	0.68	<0.68	
Acetophenone	BNA	mg/kg	0.68	<0.68	
2-Acetylaminofluorene	BNA	mg/kg	0.68	<0.68	
Aniline	BNA	mg/kg	3.4	<3.4	
Anthracene	BNA	mg/kg	0.68	<0.68	
Benz[a]anthracene	BNA	mg/kg	0.68	<0.68	
Benzo[a]pyrene	BNA	mg/kg	0.68	<0.68	
Benzo[b]fluoranthene	BNA	mg/kg	0.68	<0.68	
Benzo[g,h,i]perylene	BNA	mg/kg	0.68	<0.68	
Benzo[k]fluoranthene	BNA	mg/kg	0.68	<0.68	
Benzyl alcohol	BNA	mg/kg	0.68	<0.68	
bis(2-Chloroethoxy)methane	BNA	mg/kg	0.68	<0.68	
bis(2-Chloroethyl)ether	BNA	mg/kg	0.68	<0.68	
bis(2-Chloroisopropyl)ether	BNA	mg/kg	0.68	<0.68	
bis(2-Ethylhexyl)phthalate	BNA	mg/kg	0.68	<0.68	
4-Bromophenyl-phenylether	BNA	mg/kg	0.68	<0.68	
Butylbenzylphthalate	BNA	mg/kg	0.68	<0.68	
4-Chloro-3-methylphenol	BNA	mg/kg	0.68	<0.68	

2-Chloronaphthalene	BNA	mg/kg	0.68	<0.68	
2-Chlorophenol	BNA	mg/kg	0.68	<0.68	
4-Chlorophenyl-phenylether	BNA	mg/kg	0.68	<0.68	
Chrysene	BNA	mg/kg	0.68	<0.68	
Di-n-butylphthalate	BNA	mg/kg	0.68	<0.68	
Di-n-octylphthalate	BNA	mg/kg	0.68	<0.68	
Dibenz[a,h]anthracene	BNA	mg/kg	0.68	<0.68	
Dibenzofuran	BNA	mg/kg	0.68	<0.68	
1,3-Dichlorobenzene	BNA	mg/kg	0.68	<0.68	
1,4-Dichlorobenzene	BNA	mg/kg	0.68	<0.68	
1,2-Dichlorobenzene	BNA	mg/kg	0.68	<0.68	
3,3'-Dichlorobenzidine	BNA	mg/kg	3.4	<3.4	
2,6-Dichlorophenol	BNA	mg/kg	0.68	<0.68	
2,4-Dichlorophenol	BNA	mg/kg	0.68	<0.68	
Diethylphthalate	BNA	mg/kg	0.68	<0.68	
p-Dimethylaminoazobenzene	BNA	mg/kg	0.68	<0.68	
7,12-Dimethylbenz[a]anthracene	BNA	mg/kg	3.4	<3.4	
2,4-Dimethylphenol	BNA	mg/kg	0.68	<0.68	
Dimethylphthalate	BNA	mg/kg	0.68	<0.68	
4,6-Dinitro-2-methylphenol	BNA	mg/kg	0.68	<0.68	
1,3-Dinitrobenzene	BNA	mg/kg	0.68	<0.68	
2,4-Dinitrophenol	BNA	mg/kg	3.4	<3.4	
2,6-Dinitrotoluene	BNA	mg/kg	0.68	<0.68	
2,4-Dinitrotoluene	BNA	mg/kg	0.68	<0.68	
Dinoseb	BNA	mg/kg	0.68	<0.68	
Diphenylamine	BNA	mg/kg	0.68	<0.68	
Ethyl methanesulfonate	BNA	mg/kg	0.68	<0.68	
Fluoranthene	BNA	mg/kg	0.68	<0.68	
Fluorene	BNA	mg/kg	0.68	<0.68	
Hexachlorobenzene	BNA	mg/kg	0.68	<0.68	
Hexachlorobutadiene	BNA	mg/kg	0.68	<0.68	
Hexachlorocyclopentadiene	BNA	mg/kg	0.68	<0.68	
Hexachloroethane	BNA	mg/kg	0.68	<0.68	
Hexachloropropene	BNA	mg/kg	0.68	<0.68	
Indeno[1,2,3-cd]pyrene	BNA	mg/kg	0.68	<0.68	
Isophorone	BNA	mg/kg	0.68	<0.68	
Methyl methanesulfonate	BNA	mg/kg	0.68	<0.68	
3-Methylcholanthrene	BNA	mg/kg	0.68	<0.68	
2-Methylnaphthalene	BNA	mg/kg	0.68	<0.68	
3&4-Methylphenol	BNA	mg/kg	0.68	<0.68	
2-Methylphenol	BNA	mg/kg	0.68	<0.68	

N-Nitroso-di-n-butylamine	BNA	mg/kg	0.68	<0.68	
N-Nitroso-di-n-propylamine	BNA	mg/kg	0.68	<0.68	
N-Nitrosomorpholine	BNA	mg/kg	0.68	<0.68	
N-Nitrosopiperidine	BNA	mg/kg	0.68	<0.68	
N-Nitrosopyrrolidine	BNA	mg/kg	0.68	<0.68	
Naphthalene	BNA	mg/kg	0.68	<0.68	
1,4-Naphthoquinone	BNA	mg/kg	0.68	<0.68	
2-Nitroaniline	BNA	mg/kg	0.68	<0.68	
4-Nitroaniline	BNA	mg/kg	0.68	<0.68	
Nitrobenzene	BNA	mg/kg	0.68	<0.68	
4-Nitrophenol	BNA	mg/kg	3.4	<3.4	
2-Nitrophenol	BNA	mg/kg	0.68	<0.68	
Pentachlorobenzene	BNA	mg/kg	0.68	<0.68	
Pentachlorophenol	BNA	mg/kg	0.68	<0.68	UJ
Phenacetin	BNA	mg/kg	0.68	<0.68	
Phenanthrene	BNA	mg/kg	0.68	<0.68	
Phenol	BNA	mg/kg	0.68	<0.68	
2-Picoline	BNA	mg/kg	0.68	<0.68	
Pronamide	BNA	mg/kg	0.68	<0.68	
Pyrene	BNA	mg/kg	0.68	<0.68	
Safrole	BNA	mg/kg	0.68	<0.68	
1,2,4,5-Tetrachlorobenzene	BNA	mg/kg	0.68	<0.68	
2,3,4,6-Tetrachlorophenol	BNA	mg/kg	0.68	<0.68	
1,2,4-Trichlorobenzene	BNA	mg/kg	0.68	<0.68	
2,4,6-Trichlorophenol	BNA	mg/kg	0.68	<0.68	
2,4,5-Trichlorophenol	BNA	mg/kg	0.68	<0.68	
% Solids	DEMAND	%		51.7	
TOC	DEMAND	%	0.1	3.3	
Cadmium	METALS	mg/kg	0.146	0.524	
Copper	METALS	mg/kg	1.46	11.3	
Lead	METALS	mg/kg	1.46	8.21	
Nickel	METALS	mg/kg	1.46	14.9	
Silver	METALS	mg/kg	0.73	<0.730	UJ
Zinc	METALS	mg/kg	14.6	50.4	
Mercury	METALS	mg/kg	0.025	0.031	
Total Phosphorus	NUTRIENTS	mg/kg	25.9	653	

(P07S20) BRUSH CREEK DST. ARCHBOLD @ CR 24, RM 9.11 Date Collected 8/28/13

Parameter (Sediment)	Analysis	Units	MDL	Result	
% Solids	ORGPREP	%		42.6	
Acenaphthene	BNA	mg/kg	0.94	<0.94	
Acenaphthylene	BNA	mg/kg	0.94	<0.94	
Acetophenone	BNA	mg/kg	0.94	<0.94	
2-Acetylaminofluorene	BNA	mg/kg	0.94	<0.94	
Aniline	BNA	mg/kg	4.7	<4.7	
Anthracene	BNA	mg/kg	0.94	<0.94	
Benz[a]anthracene	BNA	mg/kg	0.94	<0.94	
Benzo[a]pyrene	BNA	mg/kg	0.94	<0.94	
Benzo[b]fluoranthene	BNA	mg/kg	0.94	<0.94	
Benzo[g,h,i]perylene	BNA	mg/kg	0.94	<0.94	
Benzo[k]fluoranthene	BNA	mg/kg	0.94	<0.94	
Benzyl alcohol	BNA	mg/kg	0.94	<0.94	
bis(2-Chloroethoxy)methane	BNA	mg/kg	0.94	<0.94	
bis(2-Chloroethyl)ether	BNA	mg/kg	0.94	<0.94	
bis(2-Chloroisopropyl)ether	BNA	mg/kg	0.94	<0.94	
bis(2-Ethylhexyl)phthalate	BNA	mg/kg	0.94	<0.94	
4-Bromophenyl-phenylether	BNA	mg/kg	0.94	<0.94	
Butylbenzylphthalate	BNA	mg/kg	0.94	<0.94	
4-Chloro-3-methylphenol	BNA	mg/kg	0.94	<0.94	
2-Chloronaphthalene	BNA	mg/kg	0.94	<0.94	
2-Chlorophenol	BNA	mg/kg	0.94	<0.94	
4-Chlorophenyl-phenylether	BNA	mg/kg	0.94	<0.94	
Chrysene	BNA	mg/kg	0.94	<0.94	
Di-n-butylphthalate	BNA	mg/kg	0.94	<0.94	
Di-n-octylphthalate	BNA	mg/kg	0.94	<0.94	
Dibenz[a,h]anthracene	BNA	mg/kg	0.94	<0.94	
Dibenzofuran	BNA	mg/kg	0.94	<0.94	
1,3-Dichlorobenzene	BNA	mg/kg	0.94	<0.94	
1,4-Dichlorobenzene	BNA	mg/kg	0.94	<0.94	
1,2-Dichlorobenzene	BNA	mg/kg	0.94	<0.94	
3,3'-Dichlorobenzidine	BNA	mg/kg	4.7	<4.7	
2,6-Dichlorophenol	BNA	mg/kg	0.94	<0.94	
2,4-Dichlorophenol	BNA	mg/kg	0.94	<0.94	
Diethylphthalate	BNA	mg/kg	0.94	<0.94	
p-Dimethylaminoazobenzene	BNA	mg/kg	0.94	<0.94	
7,12-Dimethylbenz[a]anthracene	BNA	mg/kg	4.7	<4.7	
2,4-Dimethylphenol	BNA	mg/kg	0.94	<0.94	
Dimethylphthalate	BNA	mg/kg	0.94	<0.94	

4,6-Dinitro-2-methylphenol	BNA	mg/kg	0.94	<0.94	
1,3-Dinitrobenzene	BNA	mg/kg	0.94	<0.94	
2,4-Dinitrophenol	BNA	mg/kg	4.7	<4.7	
2,6-Dinitrotoluene	BNA	mg/kg	0.94	<0.94	
2,4-Dinitrotoluene	BNA	mg/kg	0.94	<0.94	
Dinoseb	BNA	mg/kg	0.94	<0.94	
Diphenylamine	BNA	mg/kg	0.94	<0.94	
Ethyl methanesulfonate	BNA	mg/kg	0.94	<0.94	
Fluoranthene	BNA	mg/kg	0.94	<0.94	
Fluorene	BNA	mg/kg	0.94	<0.94	
Hexachlorobenzene	BNA	mg/kg	0.94	<0.94	
Hexachlorobutadiene	BNA	mg/kg	0.94	<0.94	
Hexachlorocyclopentadiene	BNA	mg/kg	0.94	<0.94	
Hexachloroethane	BNA	mg/kg	0.94	<0.94	
Hexachloropropene	BNA	mg/kg	0.94	<0.94	
Indeno[1,2,3-cd]pyrene	BNA	mg/kg	0.94	<0.94	
Isophorone	BNA	mg/kg	0.94	<0.94	
Methyl methanesulfonate	BNA	mg/kg	0.94	<0.94	
3-Methylcholanthrene	BNA	mg/kg	0.94	<0.94	
2-Methylnaphthalene	BNA	mg/kg	0.94	<0.94	
3&4-Methylphenol	BNA	mg/kg	0.94	<0.94	
2-Methylphenol	BNA	mg/kg	0.94	<0.94	
N-Nitroso-di-n-butylamine	BNA	mg/kg	0.94	<0.94	
N-Nitroso-di-n-propylamine	BNA	mg/kg	0.94	<0.94	
N-Nitrosomorpholine	BNA	mg/kg	0.94	<0.94	
N-Nitrosopiperidine	BNA	mg/kg	0.94	<0.94	
N-Nitrosopyrrolidine	BNA	mg/kg	0.94	<0.94	
Naphthalene	BNA	mg/kg	0.94	<0.94	
1,4-Naphthoquinone	BNA	mg/kg	0.94	<0.94	
2-Nitroaniline	BNA	mg/kg	0.94	<0.94	
4-Nitroaniline	BNA	mg/kg	0.94	<0.94	
Nitrobenzene	BNA	mg/kg	0.94	<0.94	
4-Nitrophenol	BNA	mg/kg	4.7	<4.7	
2-Nitrophenol	BNA	mg/kg	0.94	<0.94	
Pentachlorobenzene	BNA	mg/kg	0.94	<0.94	
Pentachlorophenol	BNA	mg/kg	0.94	<0.94	UJ
Phenacetin	BNA	mg/kg	0.94	<0.94	
Phenanthrene	BNA	mg/kg	0.94	<0.94	
Phenol	BNA	mg/kg	0.94	<0.94	
2-Picoline	BNA	mg/kg	0.94	<0.94	
Pronamide	BNA	mg/kg	0.94	<0.94	

Pyrene	BNA	mg/kg	0.94	<0.94	
Safrole	BNA	mg/kg	0.94	<0.94	
1,2,4,5-Tetrachlorobenzene	BNA	mg/kg	0.94	<0.94	
2,3,4,6-Tetrachlorophenol	BNA	mg/kg	0.94	<0.94	
1,2,4-Trichlorobenzene	BNA	mg/kg	0.94	<0.94	
2,4,6-Trichlorophenol	BNA	mg/kg	0.94	<0.94	
2,4,5-Trichlorophenol	BNA	mg/kg	0.94	<0.94	
% Solids	DEMAND	%		39.6	
TOC	DEMAND	%	0.1	2.8	
Cadmium	METALS	mg/kg	0.164	0.752	
Copper	METALS	mg/kg	1.64	24.0	
Lead	METALS	mg/kg	1.64	13.4	
Nickel	METALS	mg/kg	1.64	20.4	
Silver	METALS	mg/kg	0.819	<0.819	UJ
Zinc	METALS	mg/kg	16.4	154	
Mercury	METALS	mg/kg	0.05	0.052	
Total Phosphorus	NUTRIENTS	mg/kg	36.7	1210	

(P07S13) PRAIRIE CREEK DST. BRYAN WWTP, ADJ CR C, RM 9.80 Date Collected 8/28/13

Parameter (Sediment)	Analysis	Units	MDL	Result	
% Solids	ORGPREP	%		55.6	
Acenaphthene	BNA	mg/kg	0.72	<0.72	
Acenaphthylene	BNA	mg/kg	0.72	<0.72	
Acetophenone	BNA	mg/kg	0.72	<0.72	
2-Acetylaminofluorene	BNA	mg/kg	0.72	<0.72	
Aniline	BNA	mg/kg	3.6	<3.6	
Anthracene	BNA	mg/kg	0.72	<0.72	
Benz[a]anthracene	BNA	mg/kg	0.72	0.91	
Benzo[a]pyrene	BNA	mg/kg	0.72	1.34	
Benzo[b]fluoranthene	BNA	mg/kg	0.72	1.21	
Benzo[g,h,i]perylene	BNA	mg/kg	0.72	0.92	
Benzo[k]fluoranthene	BNA	mg/kg	0.72	0.99	
Benzyl alcohol	BNA	mg/kg	0.72	<0.72	
bis(2-Chloroethoxy)methane	BNA	mg/kg	0.72	<0.72	
bis(2-Chloroethyl)ether	BNA	mg/kg	0.72	<0.72	
bis(2-Chloroisopropyl)ether	BNA	mg/kg	0.72	<0.72	
bis(2-Ethylhexyl)phthalate	BNA	mg/kg	0.72	<0.72	
4-Bromophenyl-phenylether	BNA	mg/kg	0.72	<0.72	
Butylbenzylphthalate	BNA	mg/kg	0.72	<0.72	
4-Chloro-3-methylphenol	BNA	mg/kg	0.72	<0.72	

2-Chloronaphthalene	BNA	mg/kg	0.72	<0.72	
2-Chlorophenol	BNA	mg/kg	0.72	<0.72	
4-Chlorophenyl-phenylether	BNA	mg/kg	0.72	<0.72	
Chrysene	BNA	mg/kg	0.72	1.28	
Di-n-butylphthalate	BNA	mg/kg	0.72	<0.72	
Di-n-octylphthalate	BNA	mg/kg	0.72	<0.72	
Dibenz[a,h]anthracene	BNA	mg/kg	0.72	<0.72	
Dibenzofuran	BNA	mg/kg	0.72	<0.72	
1,3-Dichlorobenzene	BNA	mg/kg	0.72	<0.72	
1,4-Dichlorobenzene	BNA	mg/kg	0.72	<0.72	
1,2-Dichlorobenzene	BNA	mg/kg	0.72	<0.72	
3,3'-Dichlorobenzidine	BNA	mg/kg	3.6	<3.6	
2,6-Dichlorophenol	BNA	mg/kg	0.72	<0.72	
2,4-Dichlorophenol	BNA	mg/kg	0.72	<0.72	
Diethylphthalate	BNA	mg/kg	0.72	<0.72	
p-Dimethylaminoazobenzene	BNA	mg/kg	0.72	<0.72	
7,12-Dimethylbenz[a]anthracene	BNA	mg/kg	3.6	<3.6	
2,4-Dimethylphenol	BNA	mg/kg	0.72	<0.72	
Dimethylphthalate	BNA	mg/kg	0.72	<0.72	
4,6-Dinitro-2-methylphenol	BNA	mg/kg	0.72	<0.72	
1,3-Dinitrobenzene	BNA	mg/kg	0.72	<0.72	
2,4-Dinitrophenol	BNA	mg/kg	3.6	<3.6	
2,6-Dinitrotoluene	BNA	mg/kg	0.72	<0.72	
2,4-Dinitrotoluene	BNA	mg/kg	0.72	<0.72	
Dinoseb	BNA	mg/kg	0.72	<0.72	
Diphenylamine	BNA	mg/kg	0.72	<0.72	
Ethyl methanesulfonate	BNA	mg/kg	0.72	<0.72	
Fluoranthene	BNA	mg/kg	0.72	2.04	
Fluorene	BNA	mg/kg	0.72	<0.72	
Hexachlorobenzene	BNA	mg/kg	0.72	<0.72	
Hexachlorobutadiene	BNA	mg/kg	0.72	<0.72	
Hexachlorocyclopentadiene	BNA	mg/kg	0.72	<0.72	
Hexachloroethane	BNA	mg/kg	0.72	<0.72	
Hexachloropropene	BNA	mg/kg	0.72	<0.72	
Indeno[1,2,3-cd]pyrene	BNA	mg/kg	0.72	0.82	
Isophorone	BNA	mg/kg	0.72	<0.72	
Methyl methanesulfonate	BNA	mg/kg	0.72	<0.72	
3-Methylcholanthrene	BNA	mg/kg	0.72	<0.72	
2-Methylnaphthalene	BNA	mg/kg	0.72	<0.72	
3&4-Methylphenol	BNA	mg/kg	0.72	1.76	
2-Methylphenol	BNA	mg/kg	0.72	<0.72	

N-Nitroso-di-n-butylamine	BNA	mg/kg	0.72	<0.72	
N-Nitroso-di-n-propylamine	BNA	mg/kg	0.72	<0.72	
N-Nitrosomorpholine	BNA	mg/kg	0.72	<0.72	
N-Nitrosopiperidine	BNA	mg/kg	0.72	<0.72	
N-Nitrosopyrrolidine	BNA	mg/kg	0.72	<0.72	
Naphthalene	BNA	mg/kg	0.72	<0.72	
1,4-Naphthoquinone	BNA	mg/kg	0.72	<0.72	
2-Nitroaniline	BNA	mg/kg	0.72	<0.72	
4-Nitroaniline	BNA	mg/kg	0.72	<0.72	
Nitrobenzene	BNA	mg/kg	0.72	<0.72	
4-Nitrophenol	BNA	mg/kg	3.6	<3.6	
2-Nitrophenol	BNA	mg/kg	0.72	<0.72	
Pentachlorobenzene	BNA	mg/kg	0.72	<0.72	
Pentachlorophenol	BNA	mg/kg	0.72	<0.72	UJ
Phenacetin	BNA	mg/kg	0.72	<0.72	
Phenanthrene	BNA	mg/kg	0.72	0.98	
Phenol	BNA	mg/kg	0.72	<0.72	
2-Picoline	BNA	mg/kg	0.72	<0.72	
Pronamide	BNA	mg/kg	0.72	<0.72	
Pyrene	BNA	mg/kg	0.72	1.92	
Safrole	BNA	mg/kg	0.72	<0.72	
1,2,4,5-Tetrachlorobenzene	BNA	mg/kg	0.72	<0.72	
2,3,4,6-Tetrachlorophenol	BNA	mg/kg	0.72	<0.72	
1,2,4-Trichlorobenzene	BNA	mg/kg	0.72	<0.72	
2,4,6-Trichlorophenol	BNA	mg/kg	0.72	<0.72	
2,4,5-Trichlorophenol	BNA	mg/kg	0.72	<0.72	
% Solids	DEMAND	%		48.7	
TOC	DEMAND	%	0.1	2.9	
Cadmium	METALS	mg/kg	0.139	0.692	
Copper	METALS	mg/kg	1.39	22.1	
Lead	METALS	mg/kg	1.39	16.7	
Nickel	METALS	mg/kg	1.39	17.5	
Silver	METALS	mg/kg	0.697	<0.697	UJ
Zinc	METALS	mg/kg	13.9	100	
Mercury	METALS	mg/kg	0.031	0.071	
Total Phosphorus	NUTRIENTS	mg/kg	28.6	653	

	Above Threshold Effect Concentration (TEC)
	Above Probable Effect Concentration (PEC)

Appendix H – Continuous Water Quality Sonde Chemistry Results

			Survey Number*					
Stream Name	RM	Station	1	2	3	4	5	6
Tiffin River	47.54	P07K06			x	x		
Tiffin River	41.14	302205			x			
Tiffin River	33.95	300020			x	x		
Tiffin River	26.17	P07S07			x			
Tiffin River	19.72	302206			x			
Tiffin River	18.7	500300	x	x				
Tiffin River	14.1	P07K01	x	x				
Tiffin River	7	P07S05	x	x				
Tiffin River	0.9	500160	x	x				
Old Bean Creek	1.85	P07S34			x			
Deer Creek	4.56	P07W24					x	
Bean Creek	7.55	500330			x	x		
Mill Creek	14.49	P07W25					x	x
Mill Creek	11.9	P07W26					x	x
Mill Creek	7.92	P07S32					x	x
Mill Creek	1.85	P07S31			x		x	
Bates Creek	1.65	P07K30					x	
Flat Run	0.4	P07K28					x	x
Beaver Creek	0.61	P07P11			x	x		
Brush Creek	19.06	P07S22				x		
Brush Creek	13.28	P07S20			x	x	x	x
Brush Creek	9.11	P07W29						x

Brush Creek	5.76	P07K19						x
Brush Creek	1.05	P07W15			x	x	x	x
Little Lick Creek	4.97	P07W22					x	x
Little Lick Creek	0.8	P07S41			x		x	x
Prairie Creek	9.8	P07S13				x	x	x
Prairie Creek	3.4	P07W12						x
Lick Creek	21.77	P07W20					x	
Lick Creek	17.66	P07K13			x		x	
Lick Creek	10.05	P07S36			x	x	x	
Lick Creek	1.23	500310			x	x	x	
Dry Creek	3.76	302202					x	x
Lost Creek	8.97	P07W19					x	
Lost Creek	1.41	P07W18			x			
Mud Creek	1.5	P07S04			x			

*Survey dates: (1) 7/17/12 – 7/19/12; (2) 8/7/12 – 8/9/12; (3) 7/30/13 – 8/1/13; (4) 8/20/13 – 8/22/13; (5) 7/15/14 – 7/17/14; (6) 8/15/14 – 8/19/14

Sonde Survey 1: 7/17/12 – 7/19/12

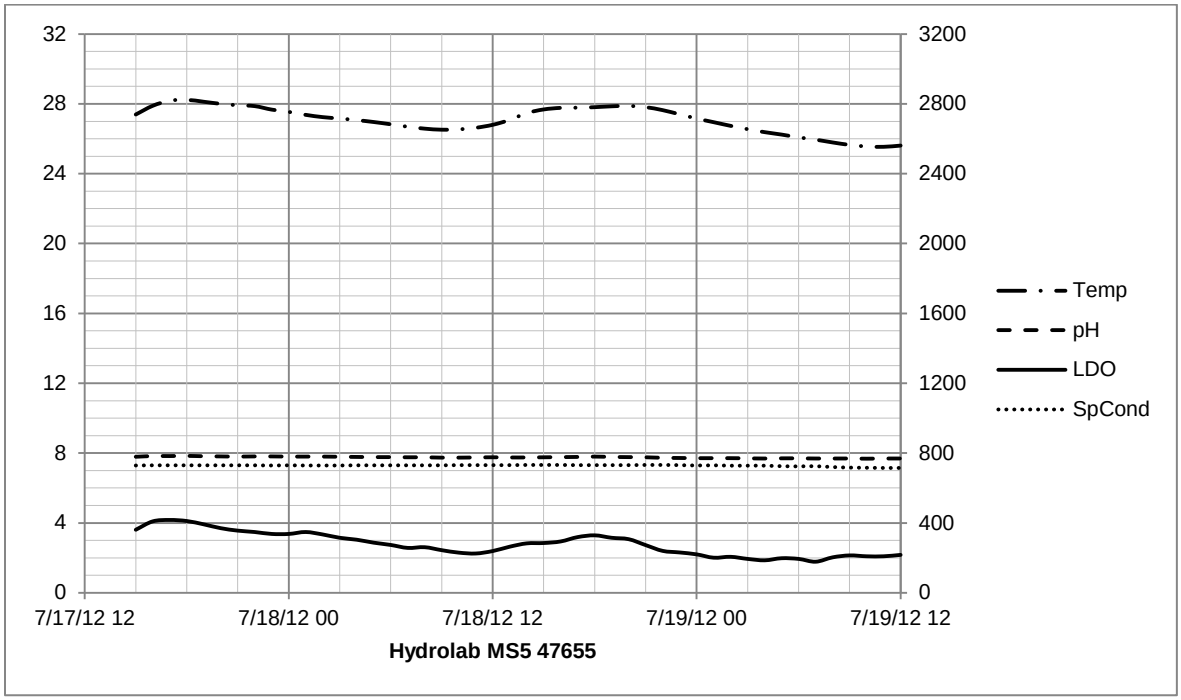

Figure 1: Plot of hourly data collected by a water quality sonde on Tiffin River at Evansport @ SR 191 (RM 18.73; STORET: 500300). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/17/12 – 7/19/12.

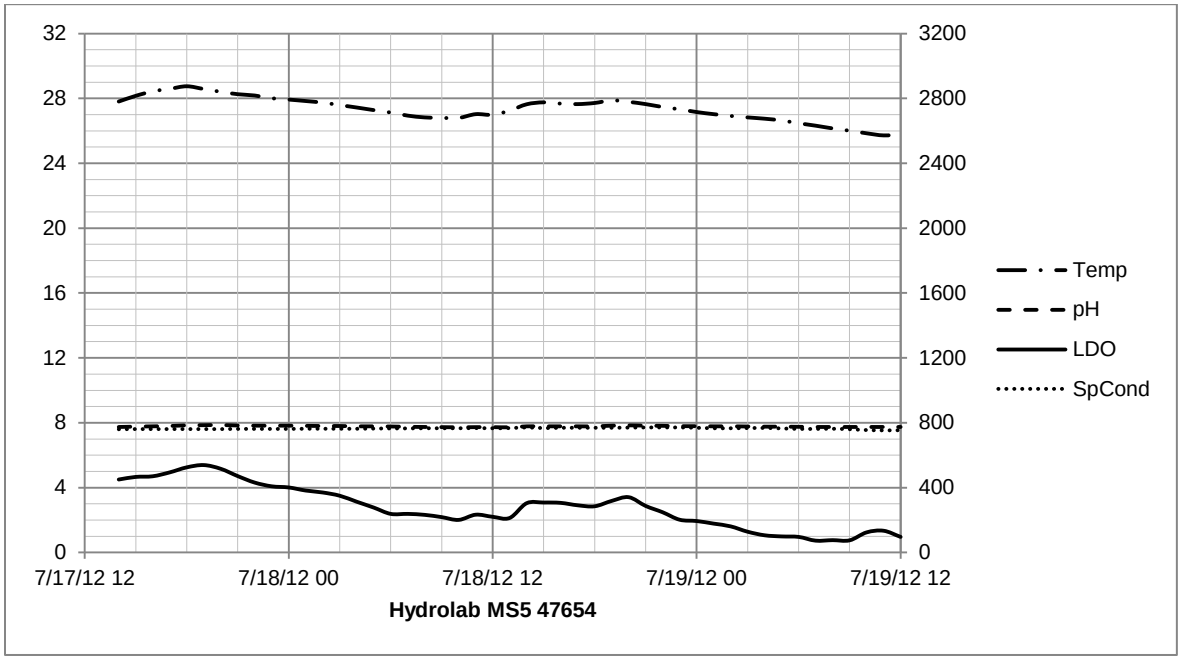

Figure 2: Plot of hourly data collected by a water quality sonde on Tiffin River south of Evansport @ Stever Rd (RM 14.00; STORET: P07K01). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/17/12 – 7/19/12.

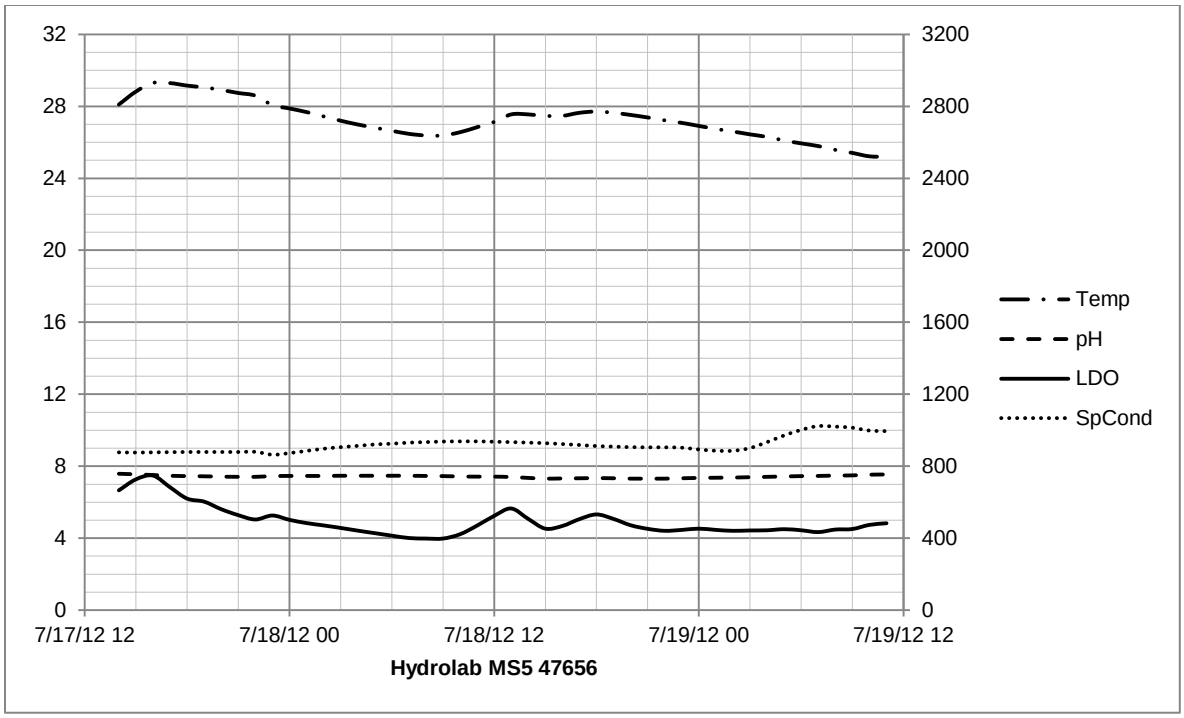

Figure 3: Plot of hourly data collected by a water quality sonde on Tiffin River northeast of Defiance Airport @ Evansport Rd (RM 7.09; STORET: P07S05). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/17/12 – 7/19/12.

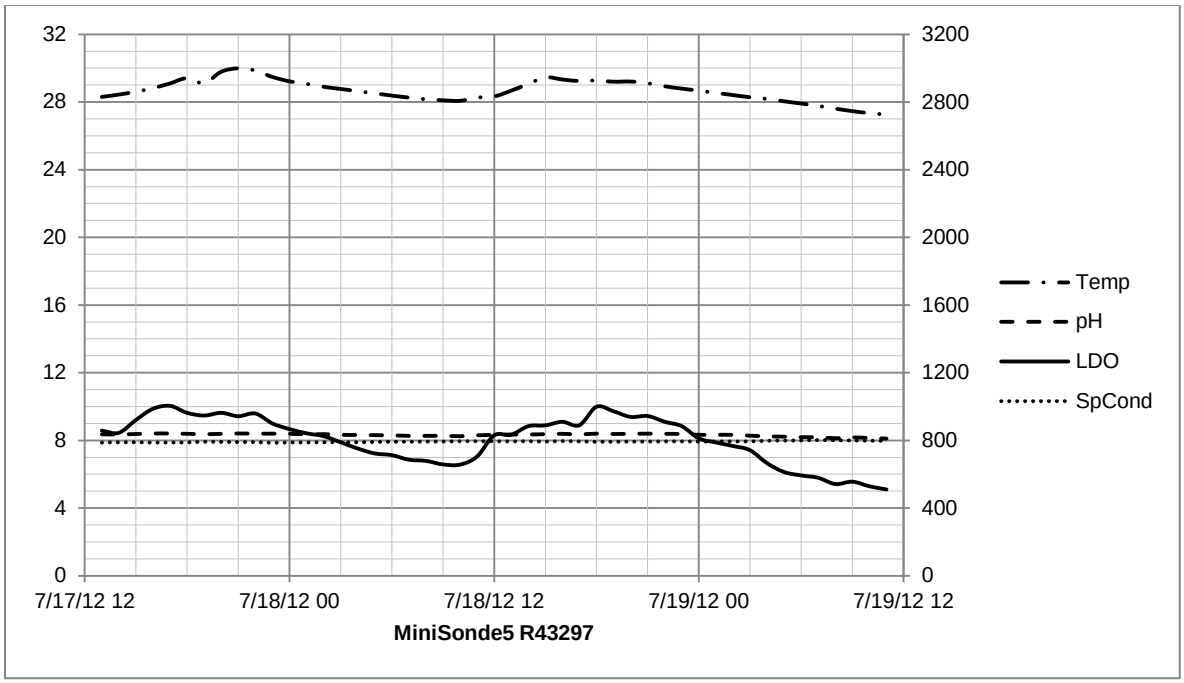

Figure 4: Plot of hourly data collected by a water quality sonde on Tiffin River near Defiance @ Dey Rd (RM 0.89; STORET: 500160). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/17/12 – 7/19/12.

Sonde Survey 2: 8/7/12 – 8/9/12

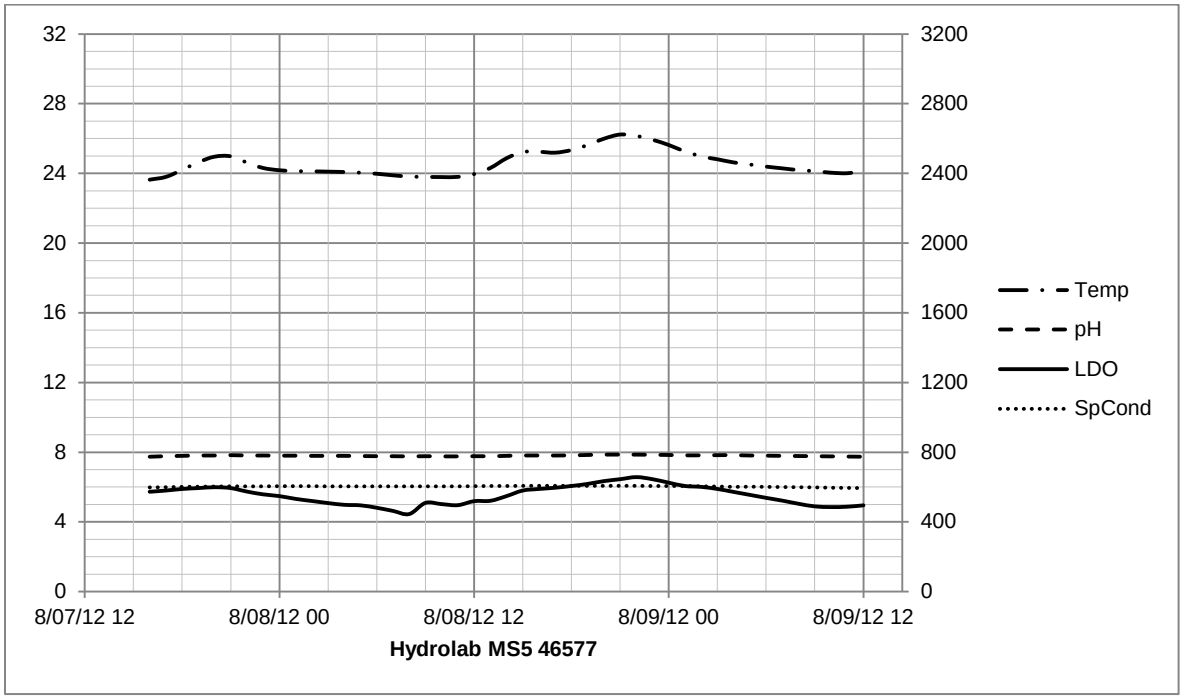

Figure 5: Plot of hourly data collected by a water quality sonde on Tiffin River at Evansport @ SR 191 (RM 18.73; STORET: 500300). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/7/12 – 8/9/12.

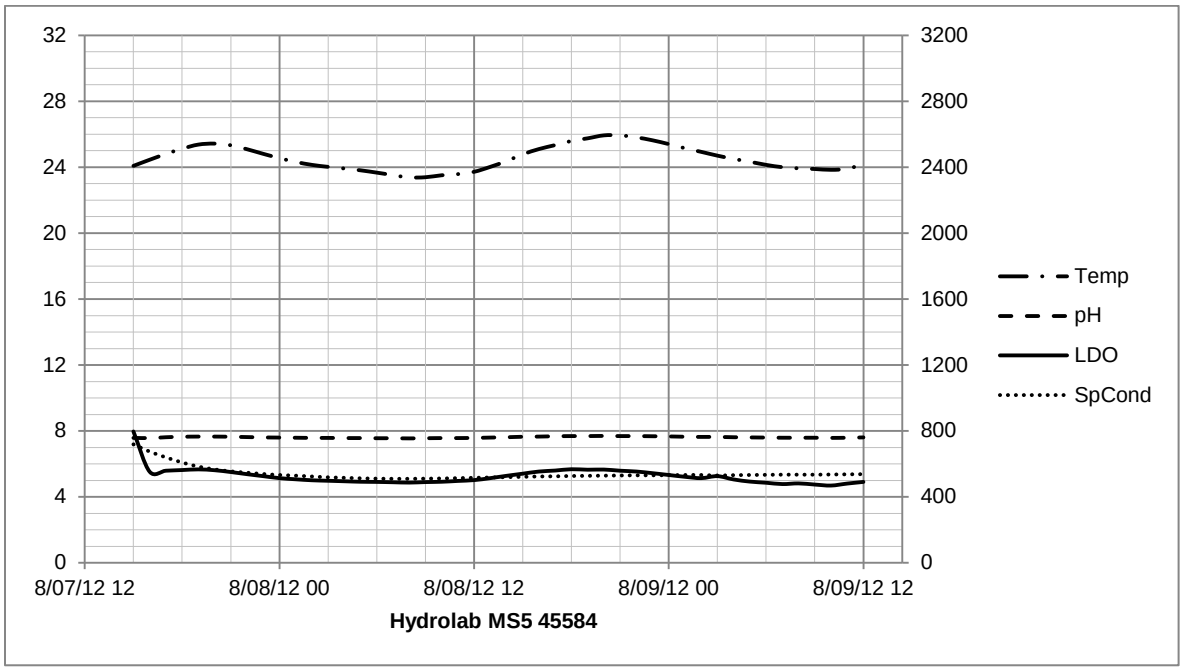

Figure 6: Plot of hourly data collected by a water quality sonde on Tiffin River south of Evansport @ Stever Rd (RM 14.00; STORET: P07K01). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/7/12 – 8/9/12.

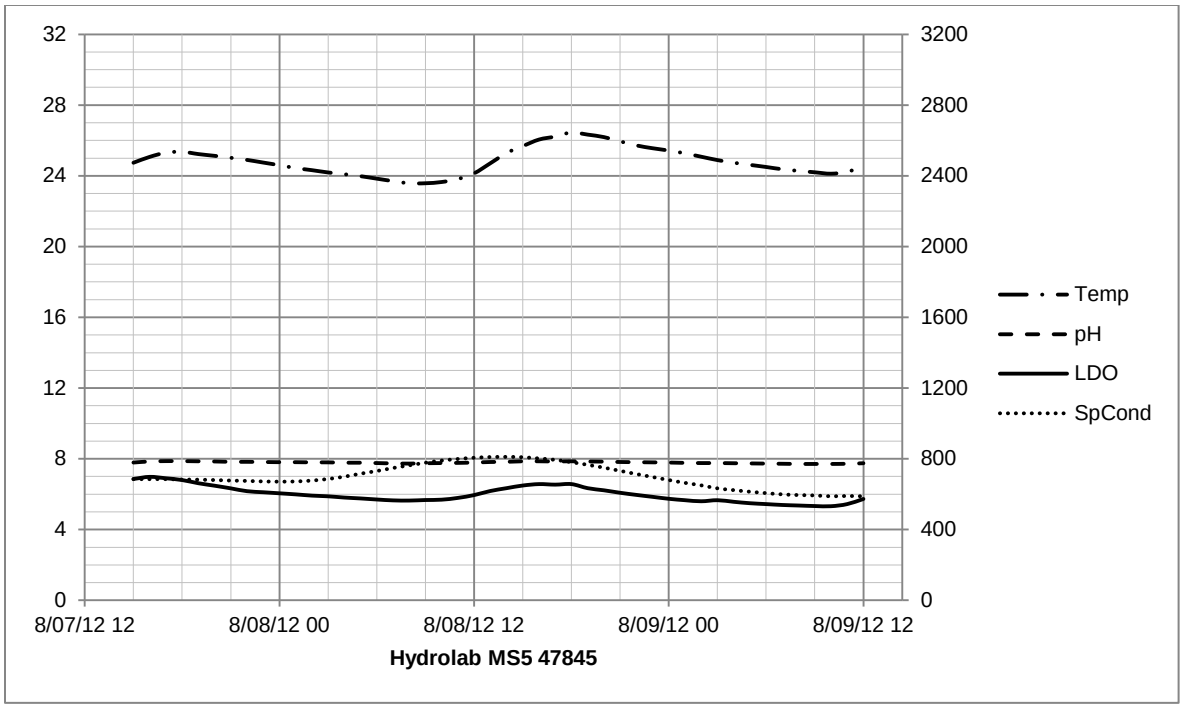

Figure 7: Plot of hourly data collected by a water quality sonde Tiffin River northeast of Defiance Airport @ Evansport Rd (RM 7.09; STORET: P07S05). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/7/12 – 8/9/12.

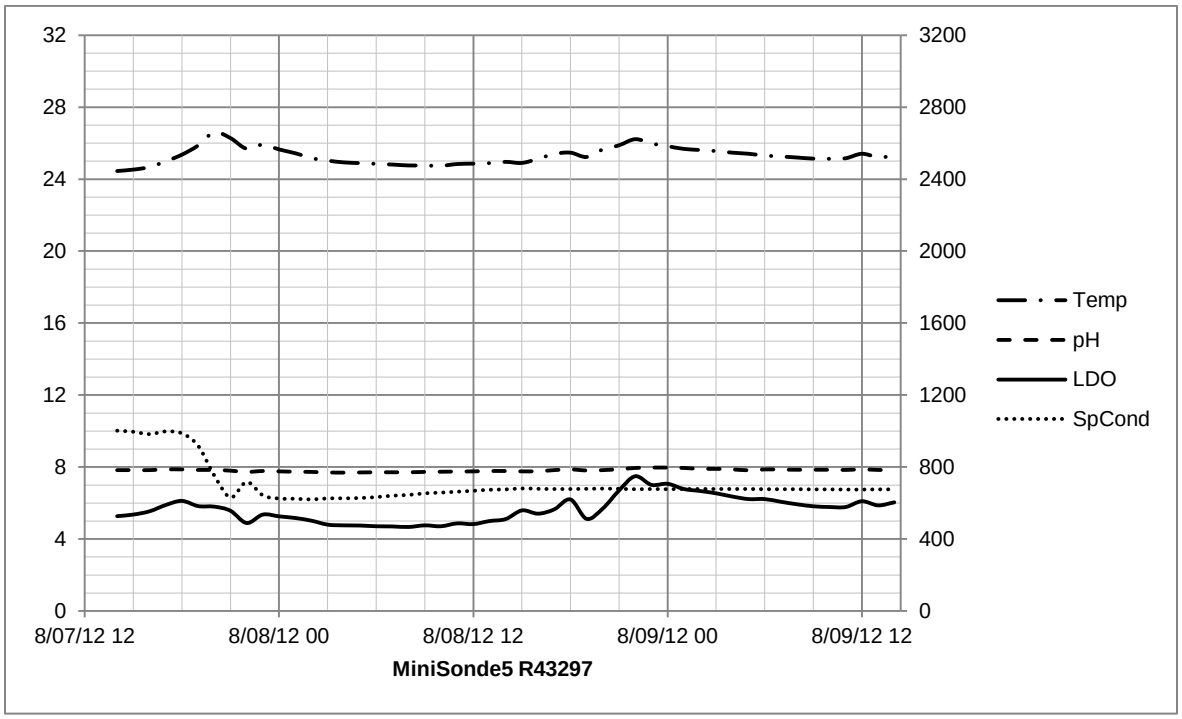

Figure 8: Plot of hourly data collected by a water quality sonde on Tiffin River near Defiance @ Dey Rd (RM 0.89; STORET: 500160). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/7/12 – 8/9/12.

Sonde Survey 3: 7/30/13 – 8/1/13

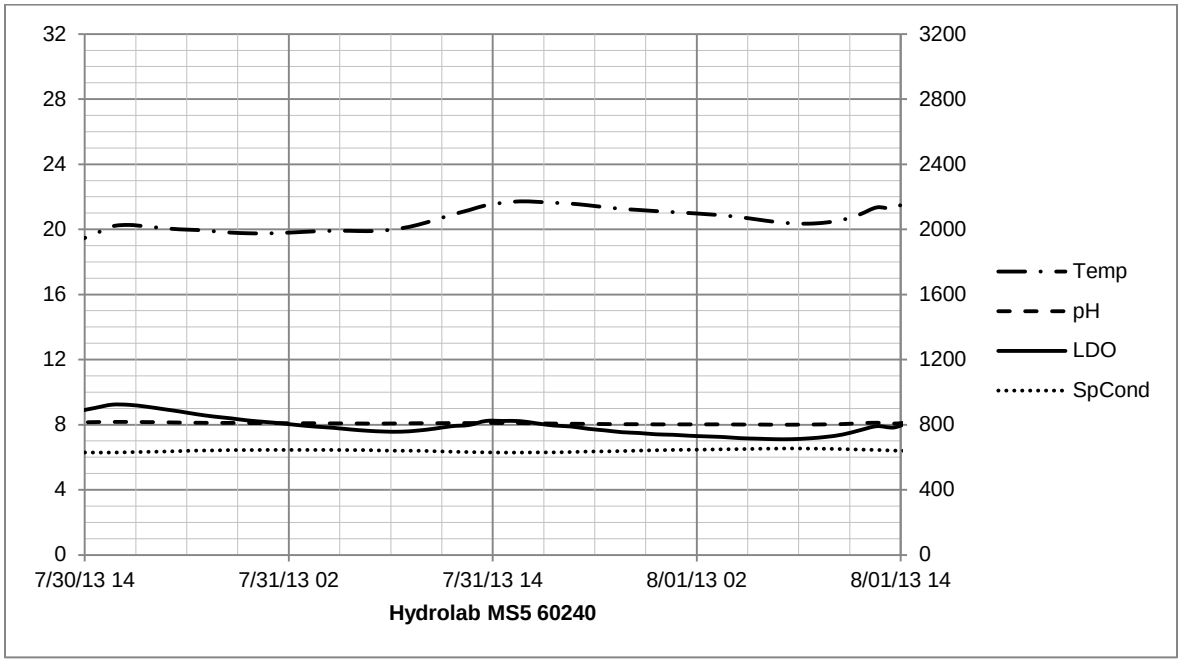

Figure 9: Plot of hourly data collected by a water quality sonde on Tiffin River northwest of Archbold @ CR-G (RM 47.54; STORET: P07K06). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

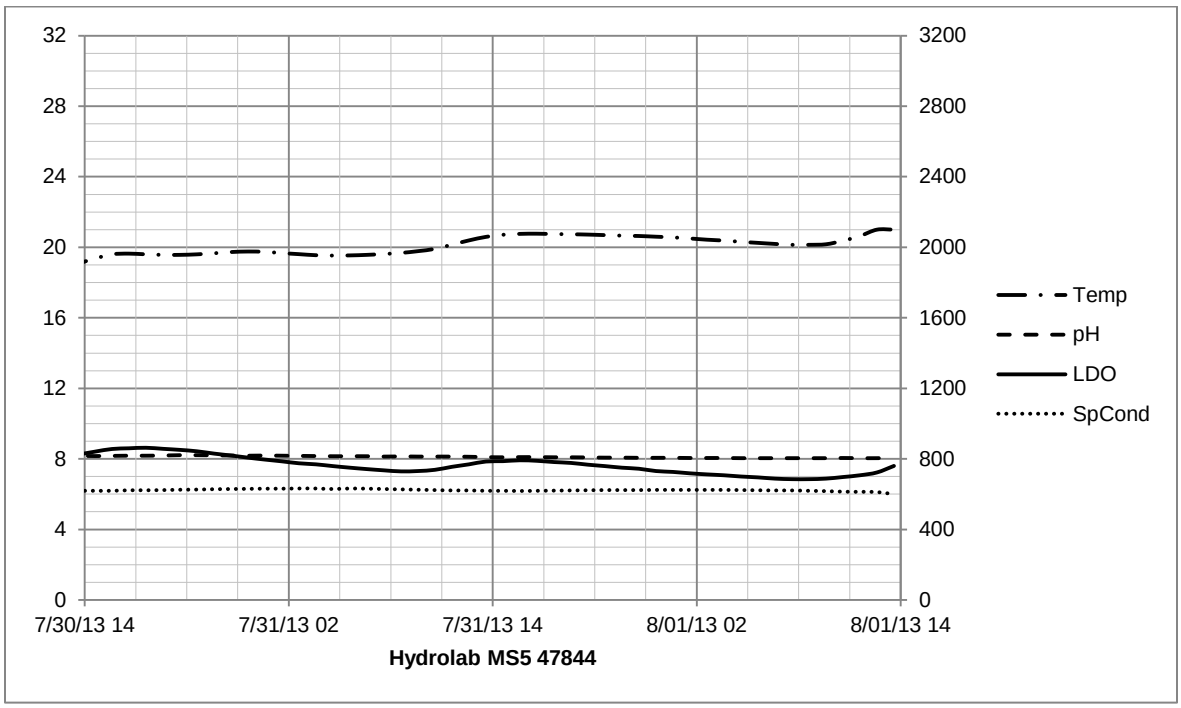

Figure 10: Plot of hourly data collected by a water quality sonde on Tiffin River at Lockport @ CR I-25 (RM 41.12; STORET: 302205). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

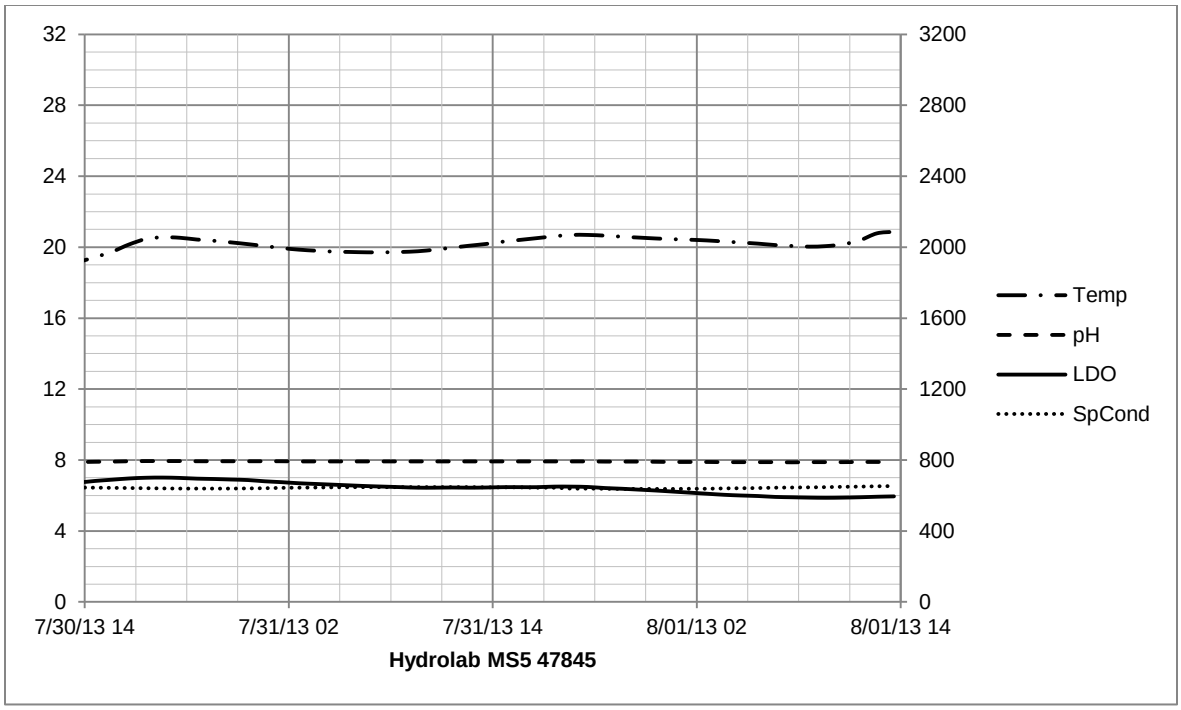

Figure 11: Plot of hourly data collected by a water quality sonde on Tiffin River west of Stryker @ CR-F (Curtis St) (RM 33.95; STORET: 300020). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

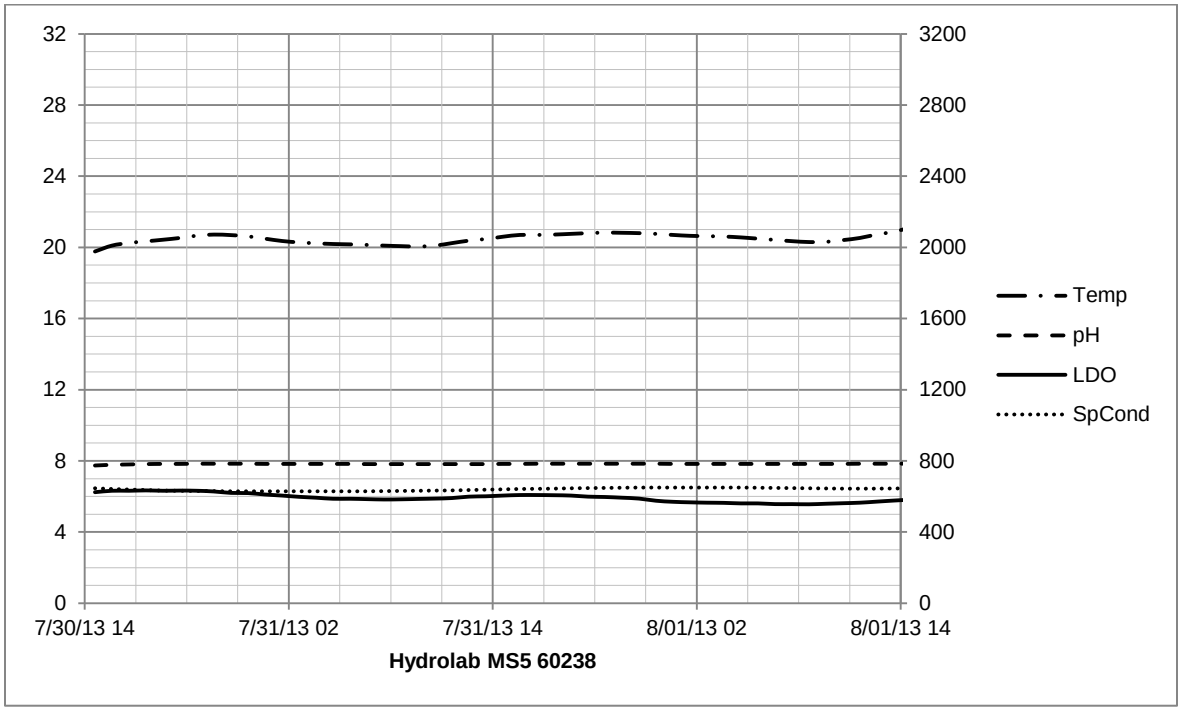

Figure 12: Plot of hourly data collected by a water quality sonde on Tiffin River dst Stryker @ Oak Grove Church Rd (RM 26.17; STORET: P07S07). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

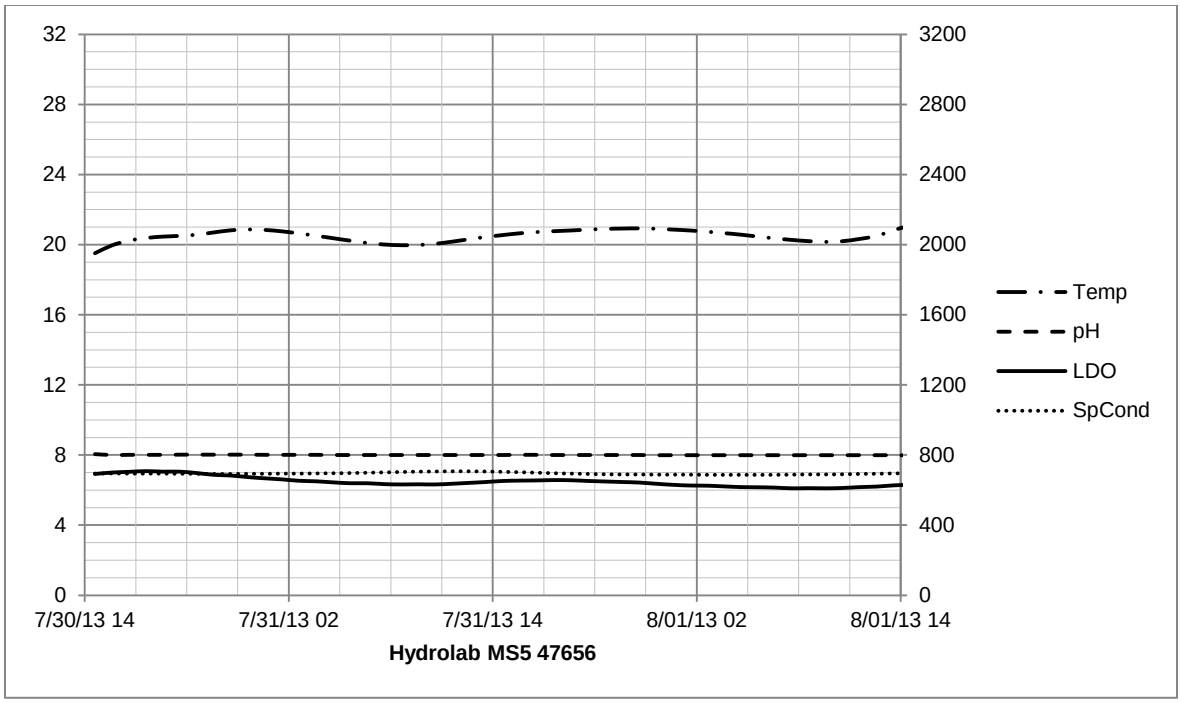

Figure 13: Plot of hourly data collected by a water quality sonde on Tiffin River near Evansport @ CR 22/A (RM 19.72; STORET: 302206). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

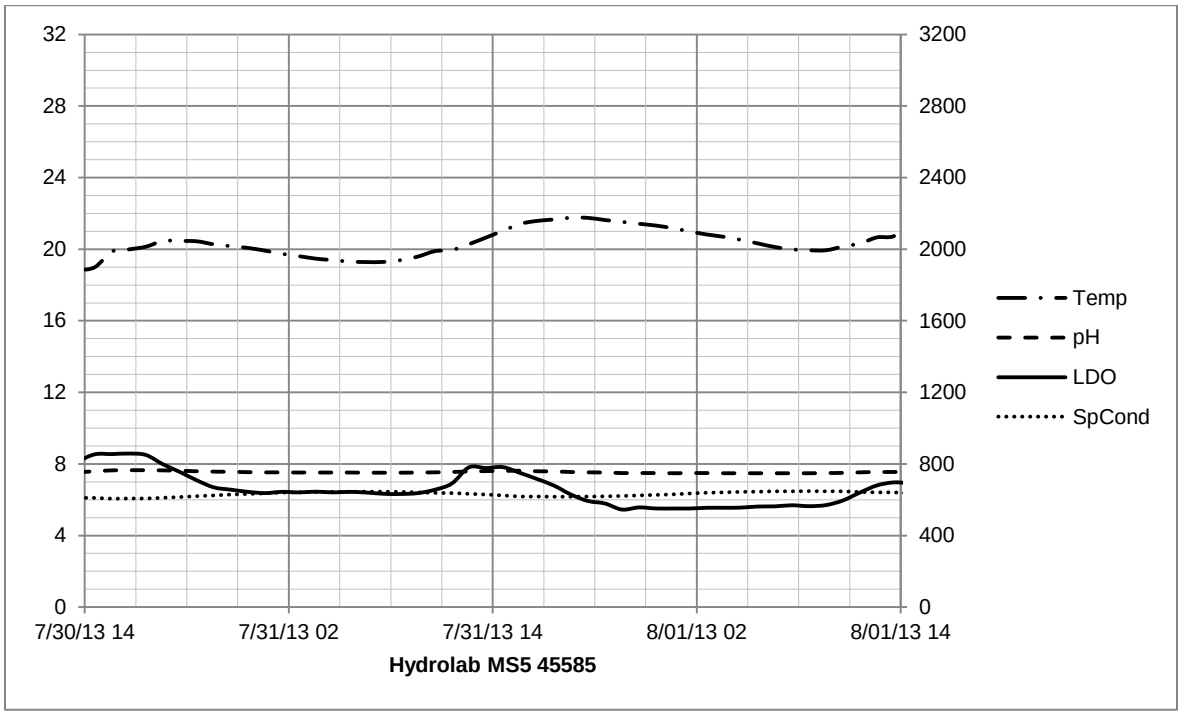

Figure 14: Plot of hourly data collected by a water quality sonde on Old Bean Creek southeast of Fayette @ Old Angola Rd (RM 1.85; STORET: P07S34). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

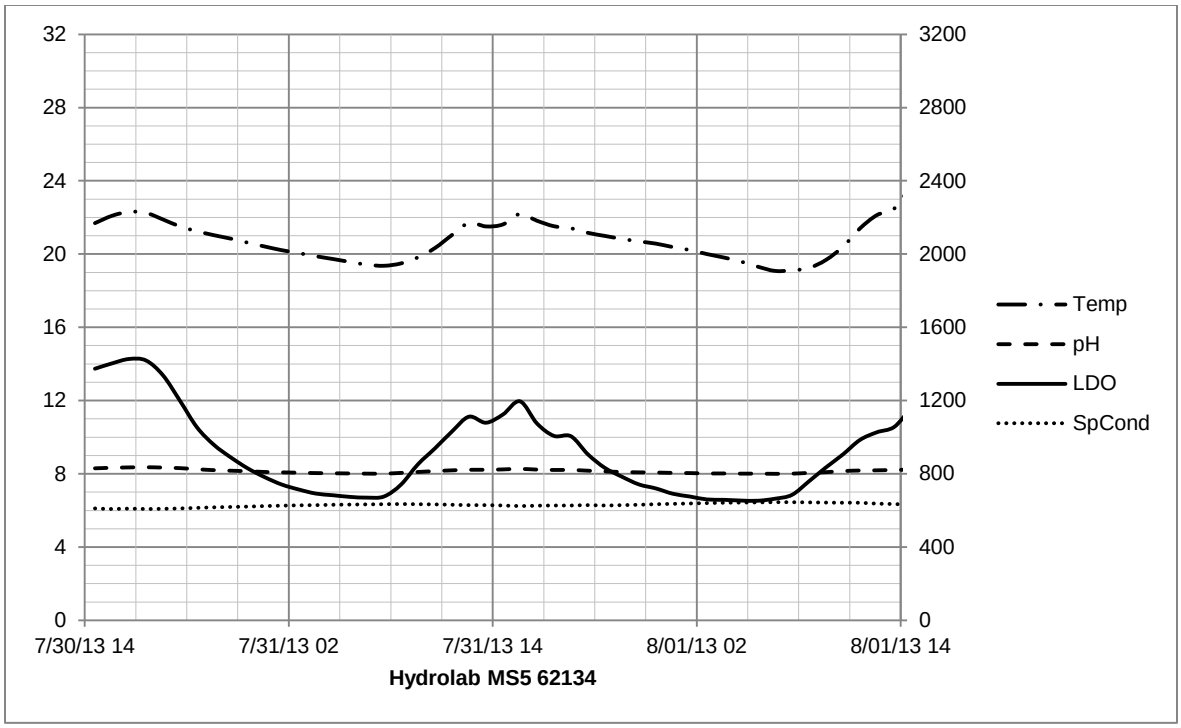

Figure 15: Plot of hourly data collected by a water quality sonde on Bean Creek east of Powers @ US 20 (RM 7.55; STORET: 500330). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

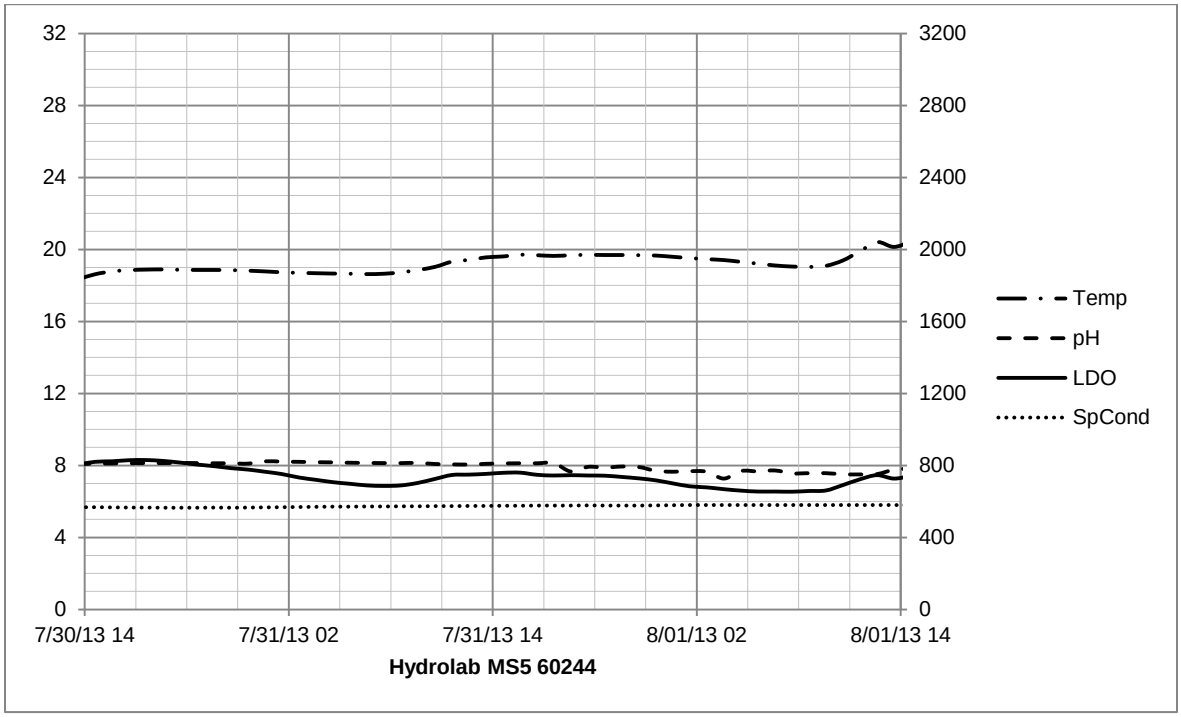

Figure 16: Plot of hourly data collected by a water quality sonde on Mill Creek south of Fayette @ Old Angola Rd (RM 1.85; STORET: P07S31). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

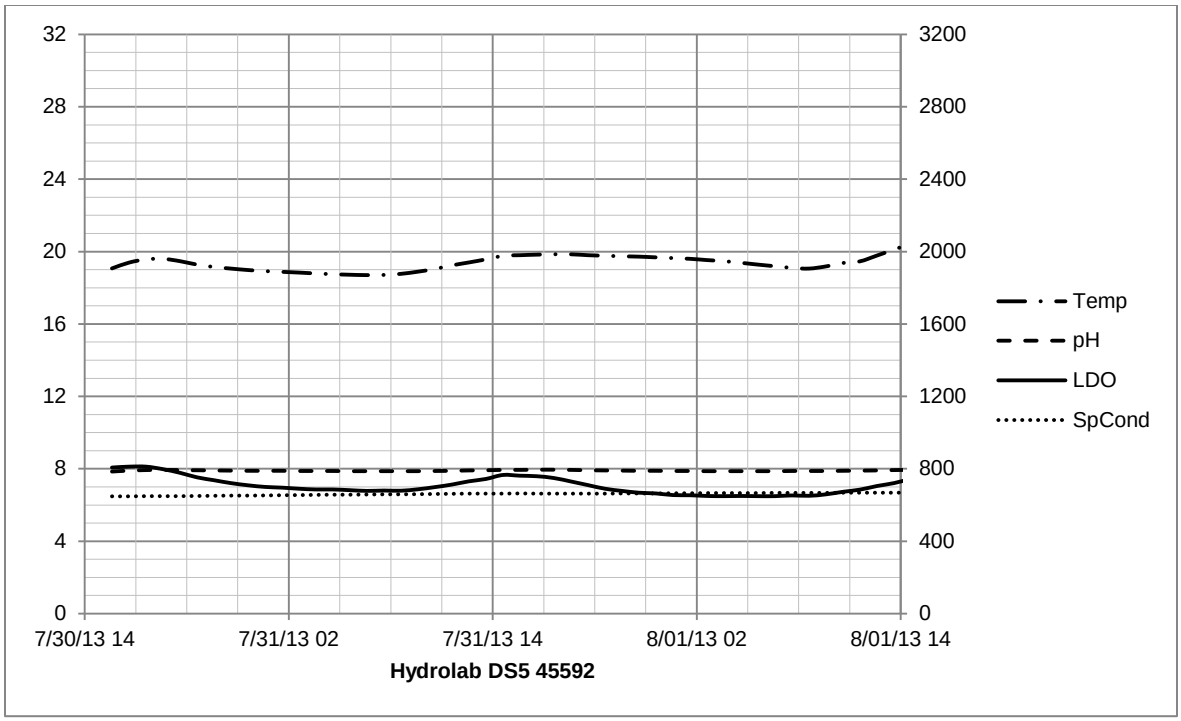

Figure 17: Plot of hourly data collected by a water quality sonde on Beaver Creek northwest of Evansport @ CR 20 (RM 0.61; STORET: P07P11). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

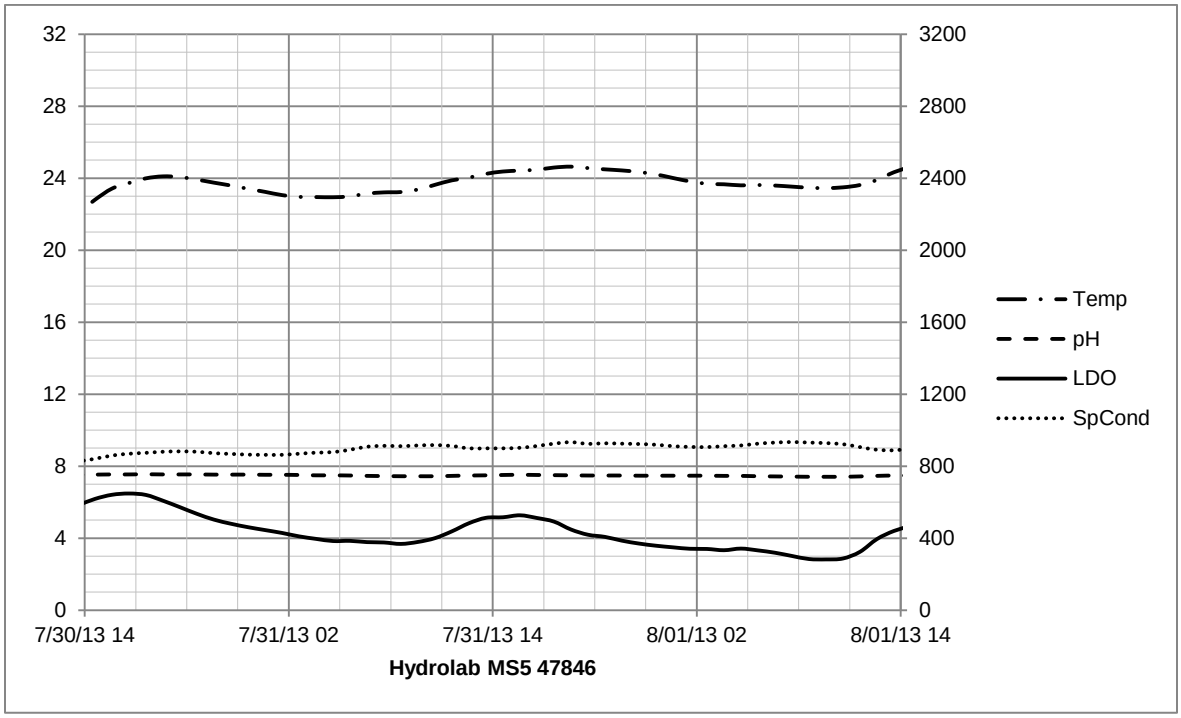

Figure 18: Plot of hourly data collected by a water quality sonde on Brush Creek dst Archbold @ CR 24 (RM 13.28; STORET: P07S20). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

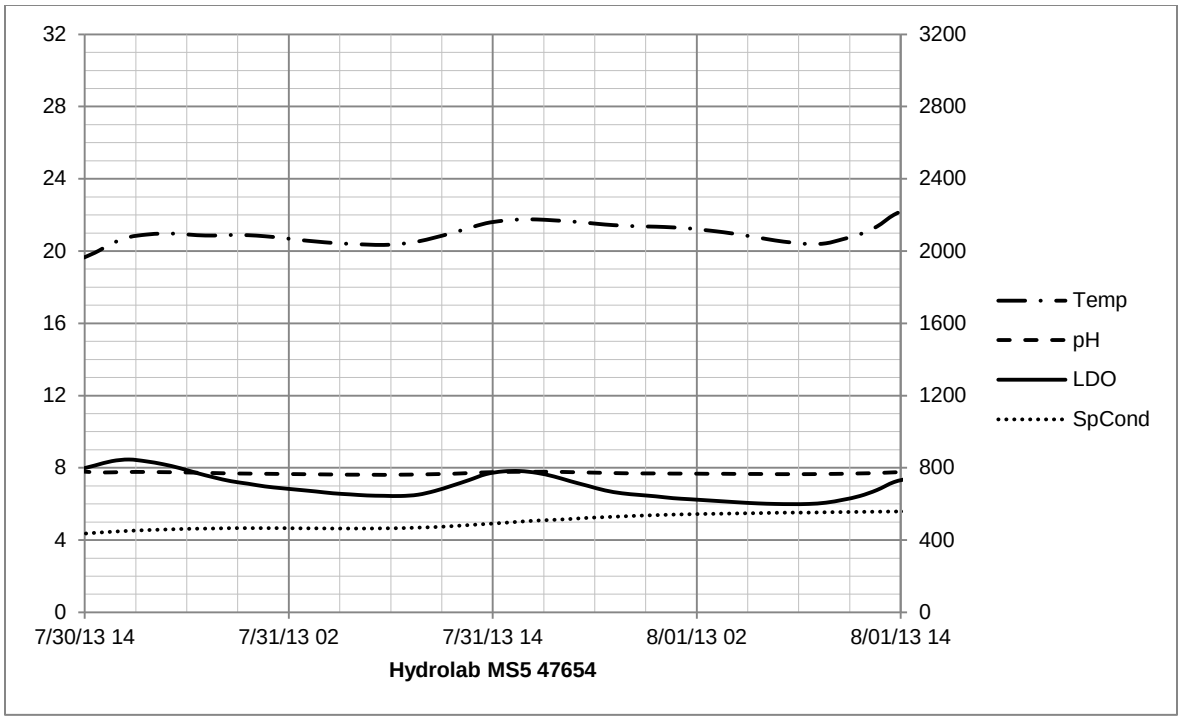

Figure 19: Plot of hourly data collected by a water quality sonde on Brush Creek near Evansport @ CR 22-6 (RM 1.05; STORET: P07W15). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

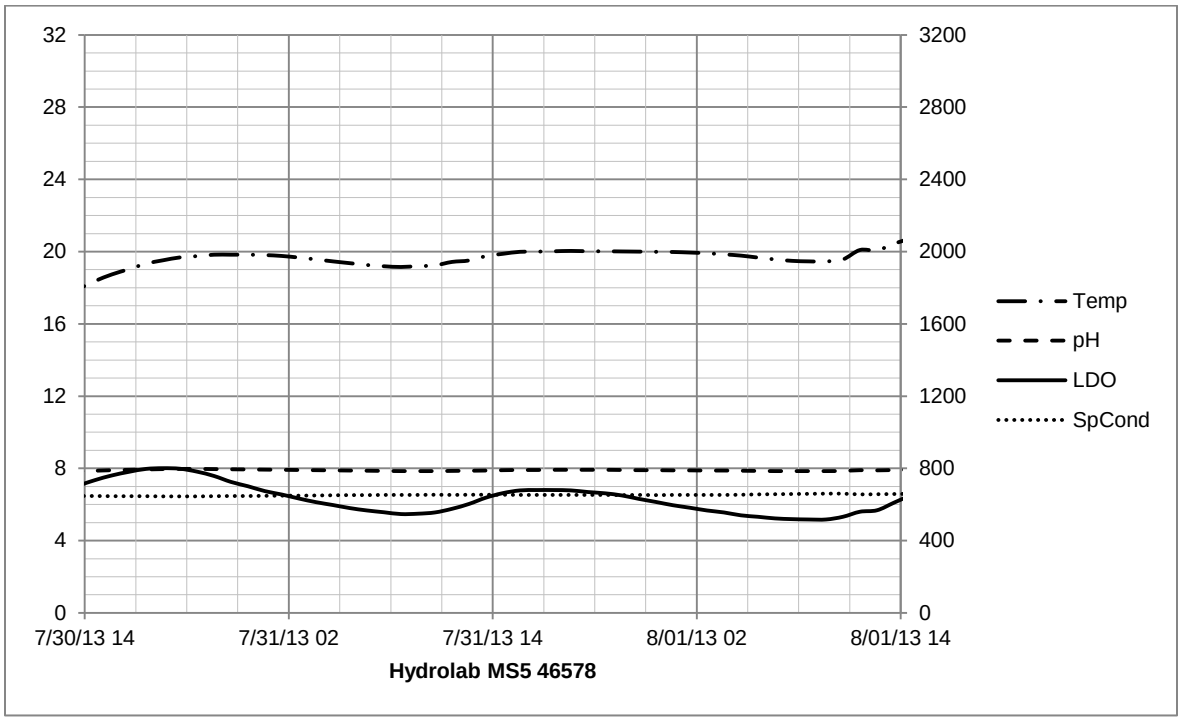

Figure 20: Plot of hourly data collected by a water quality sonde on Little Lick Creek upst Ney upst railroad (RM 0.8; STORET: P07S41). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

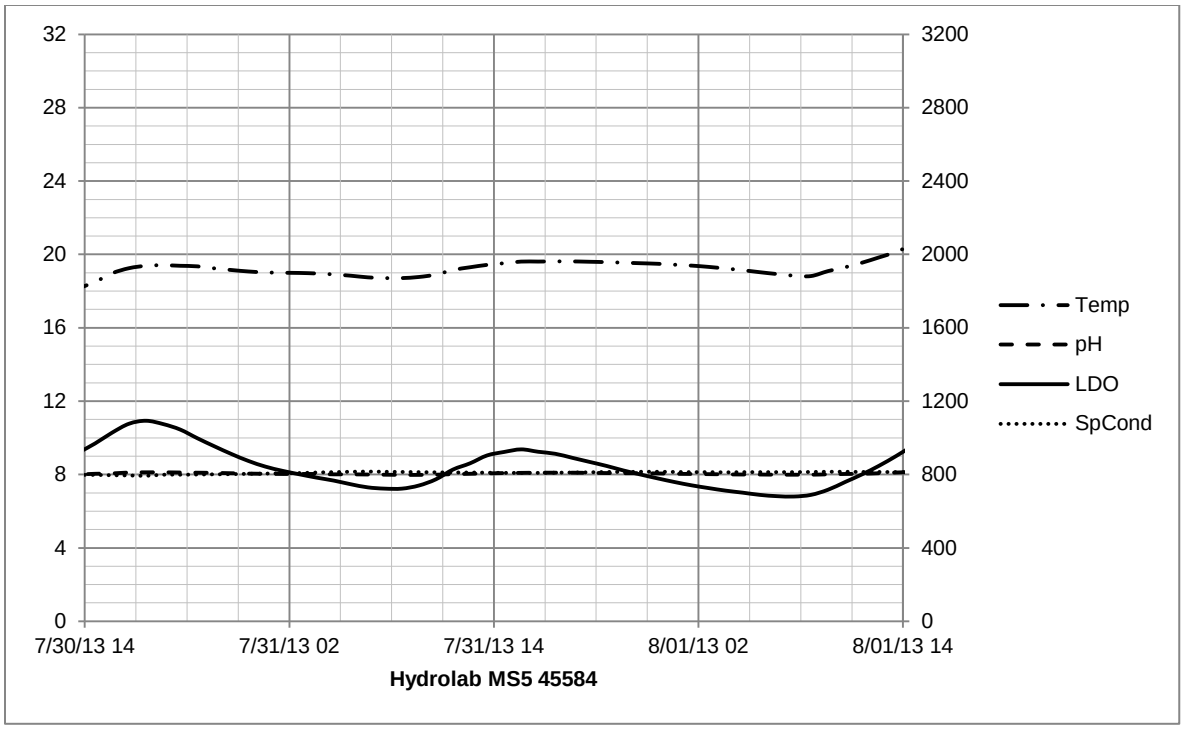

Figure 21: Plot of hourly data collected by a water quality sonde on Lick Creek southwest of Bryan @ CR 13 (RM 17.66; STORET: P07K13). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

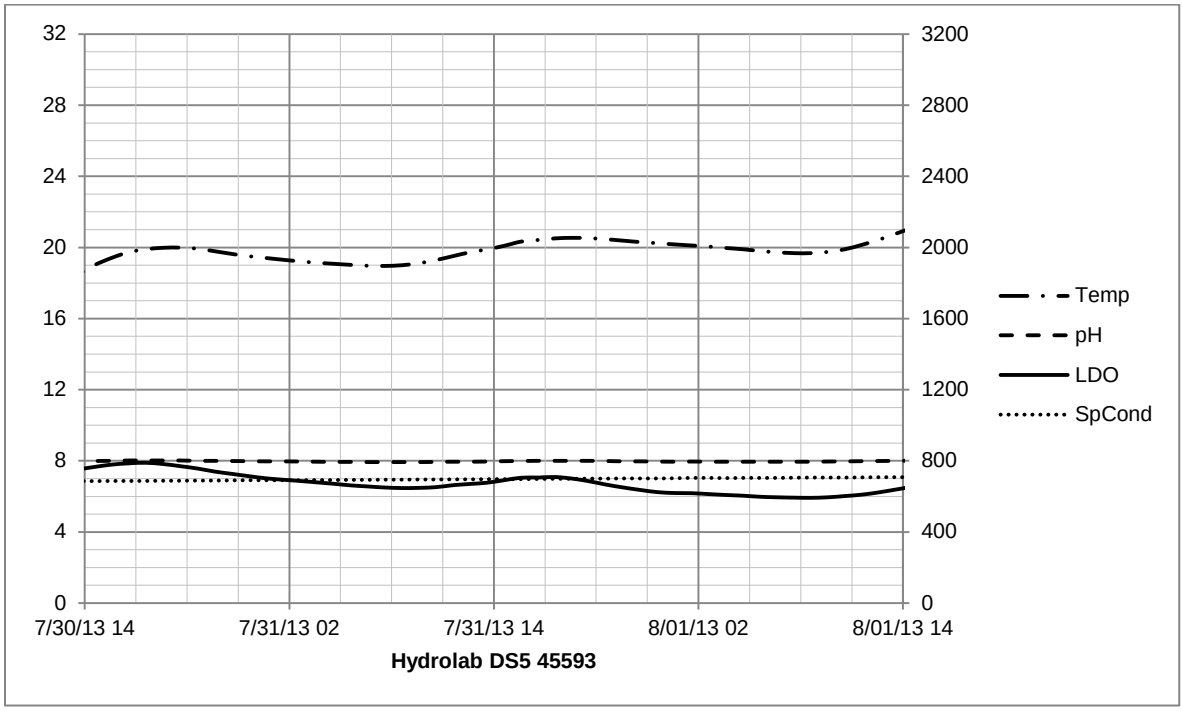

Figure 22: Plot of hourly data collected by a water quality sonde on Lick Creek at Ney @ The Bend Rd (RM 10.05; STORET: P07S36). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

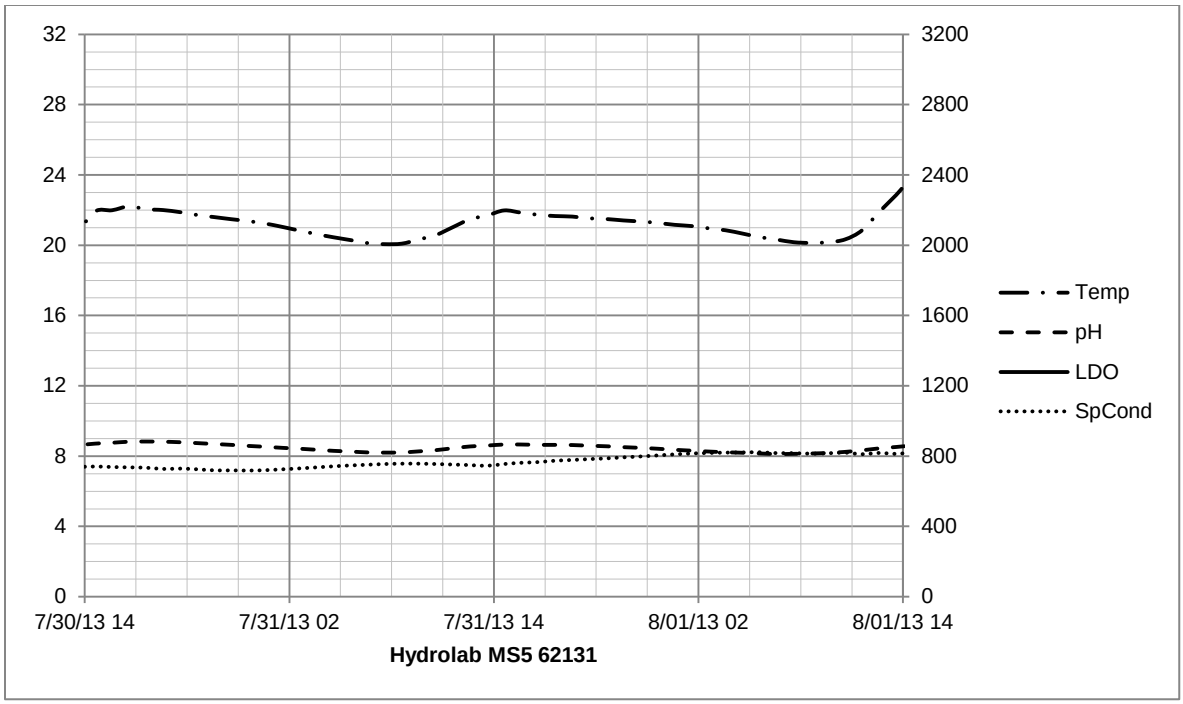

Figure 23: Plot of hourly data collected by a water quality sonde on Lick Creek north of Oxbow Lake @ Trinity Rd (RM 1.23; STORET: 500310). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

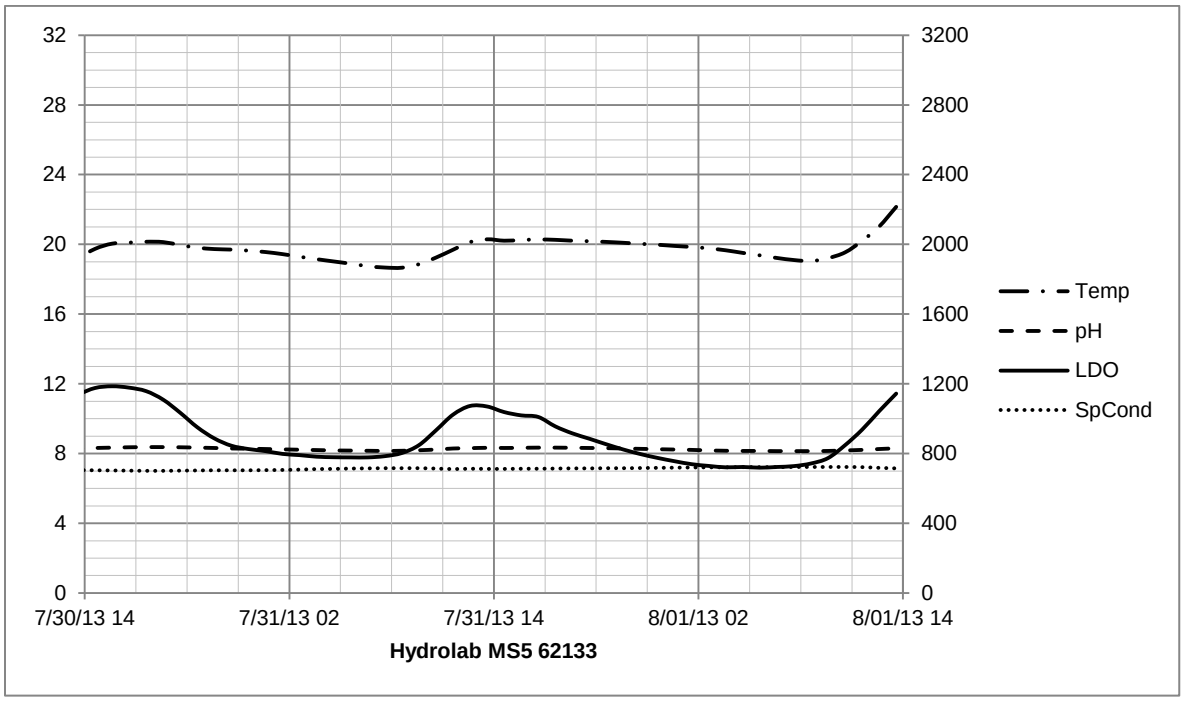

Figure 24: Plot of hourly data collected by a water quality sonde on Lost Creek north of Sherwood @ Behnfeldt Rd (RM 1.41; STORET: P07W18). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

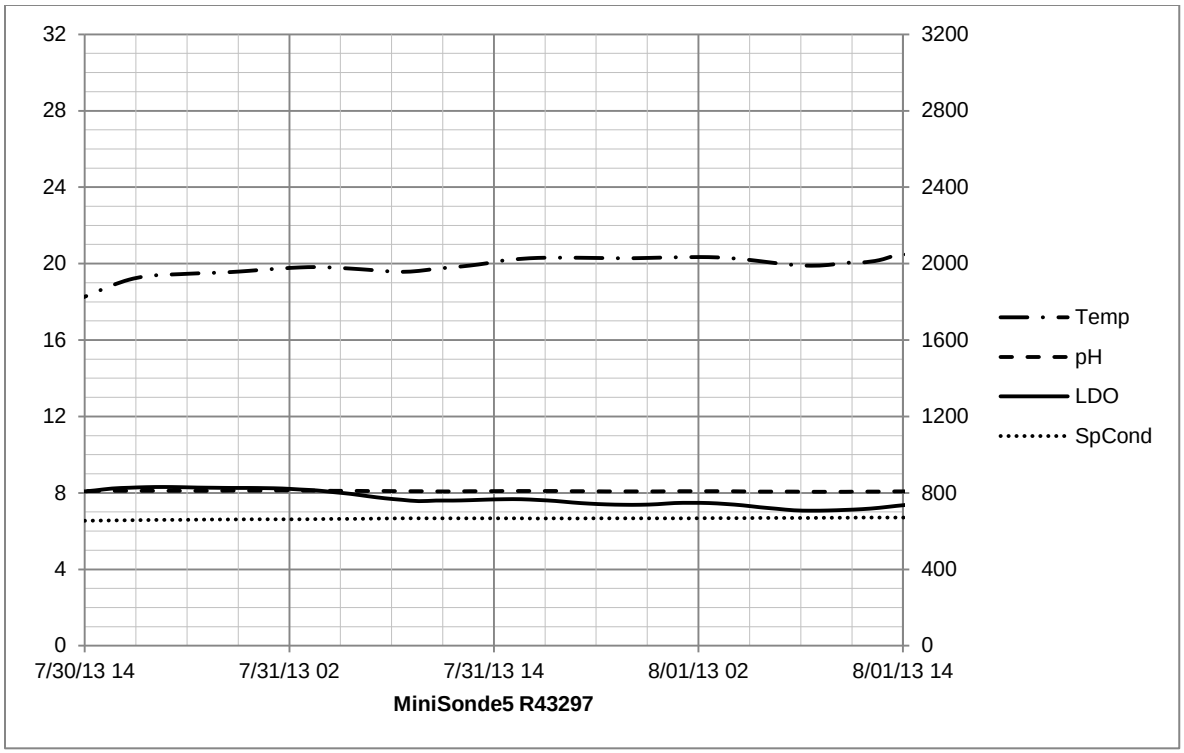

Figure 25: Plot of hourly data collected by a water quality sonde on Mud Creek northwest of Brunersburg @ Trinity Rd (RM 1.5; STORET: P07S04). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/30/13 – 8/1/13.

Sonde Survey 4: 8/20/13 – 8/22/13

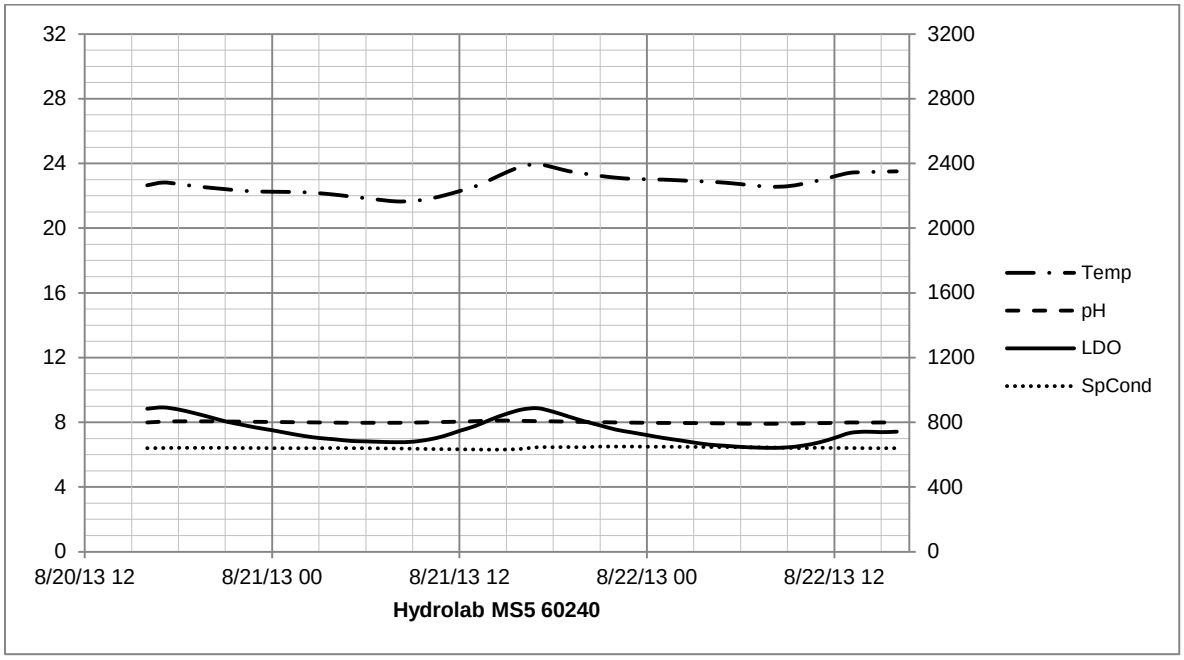

Figure 26: Plot of hourly data collected by a water quality sonde on Tiffin River northwest of Archbold @ CR G (RM 47.54; STORET: P07K06). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/20/13 – 8/22/13.

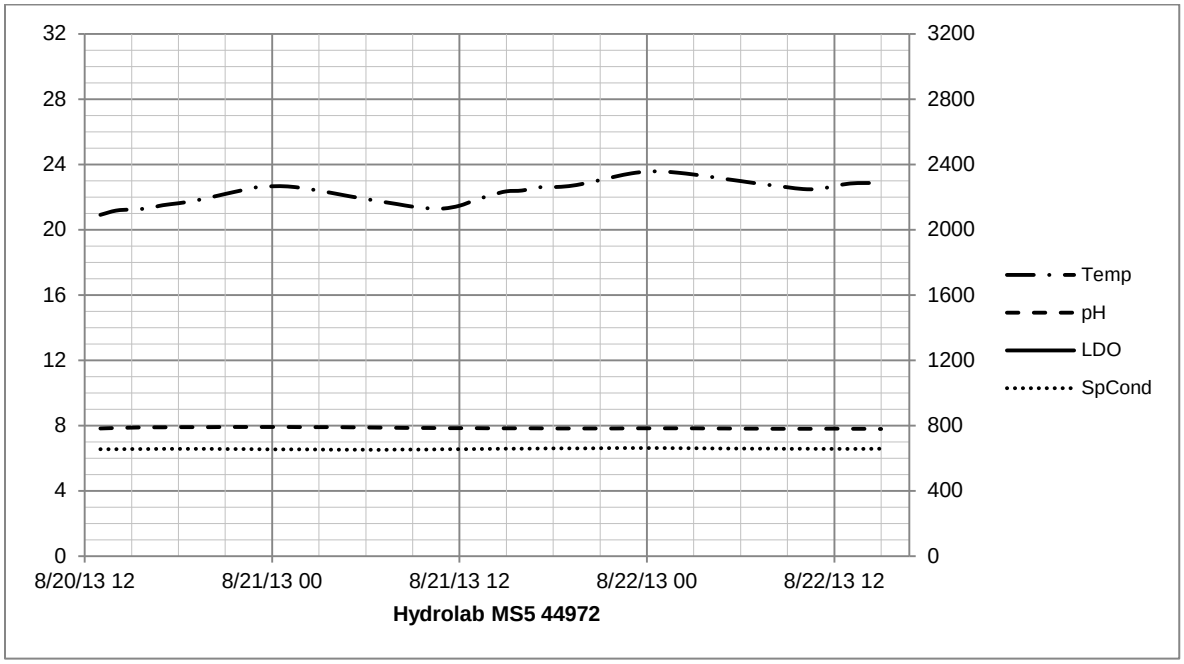

Figure 27: Plot of hourly data collected by a water quality sonde on Tiffin River west of Stryker @ CR F (Curtis St) (RM 33.95; STORET: 300020). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/20/13 – 8/22/13.

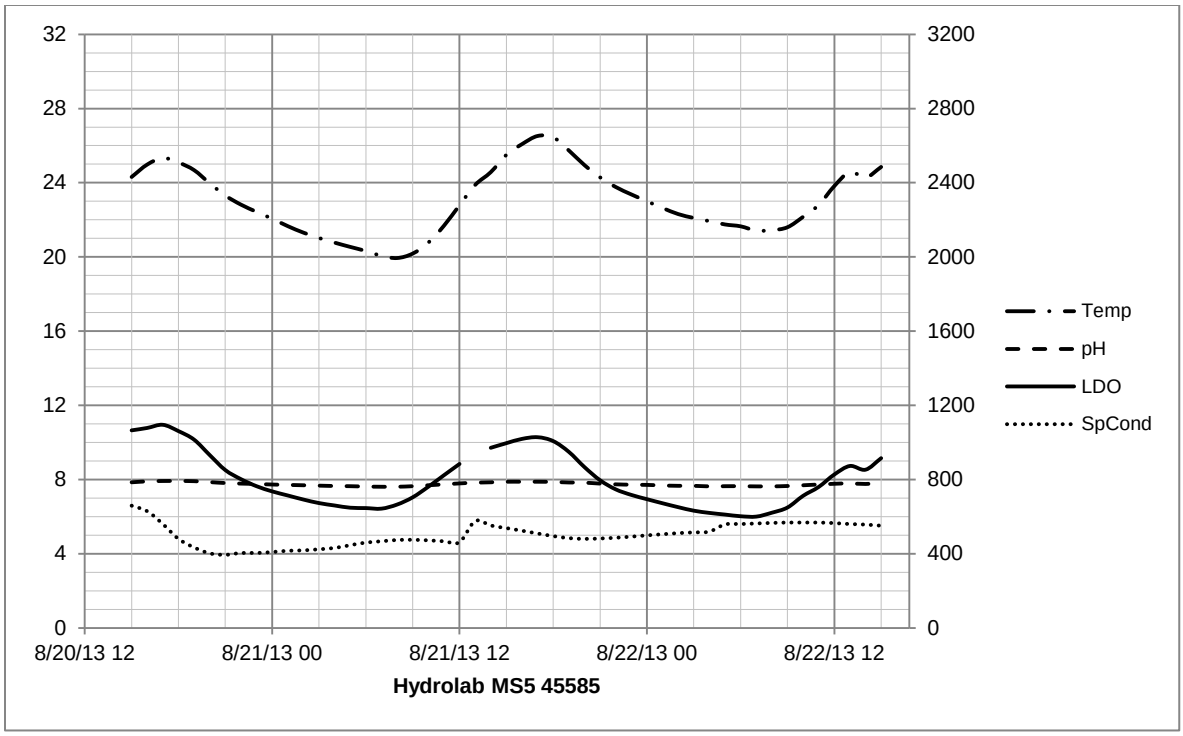

Figure 28: Plot of hourly data collected by a water quality sonde on Bean Creek east of Powers @ US 20 (RM 7.55; STORET: 500330). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/20/13 – 8/22/13.

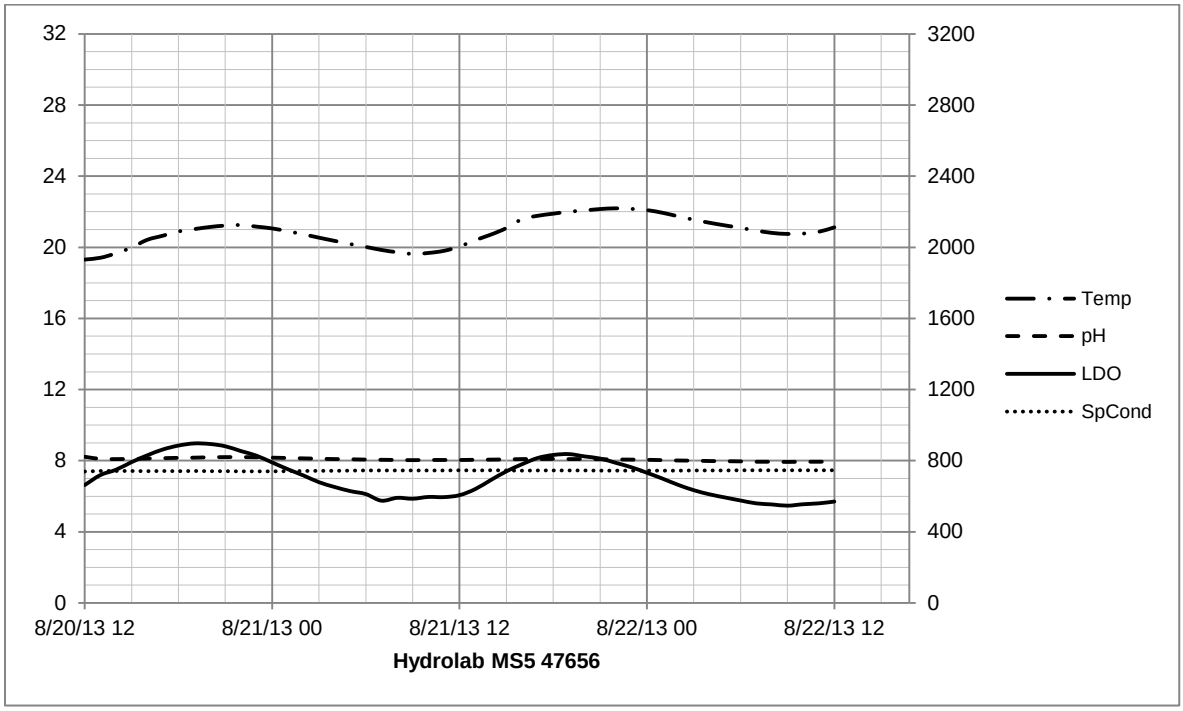

Figure 29: Plot of hourly data collected by a water quality sonde on Beaver Creek northwest of Evansport @ CR 20 (RM 0.61; STORET: P07P11). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/20/13 – 8/22/13.

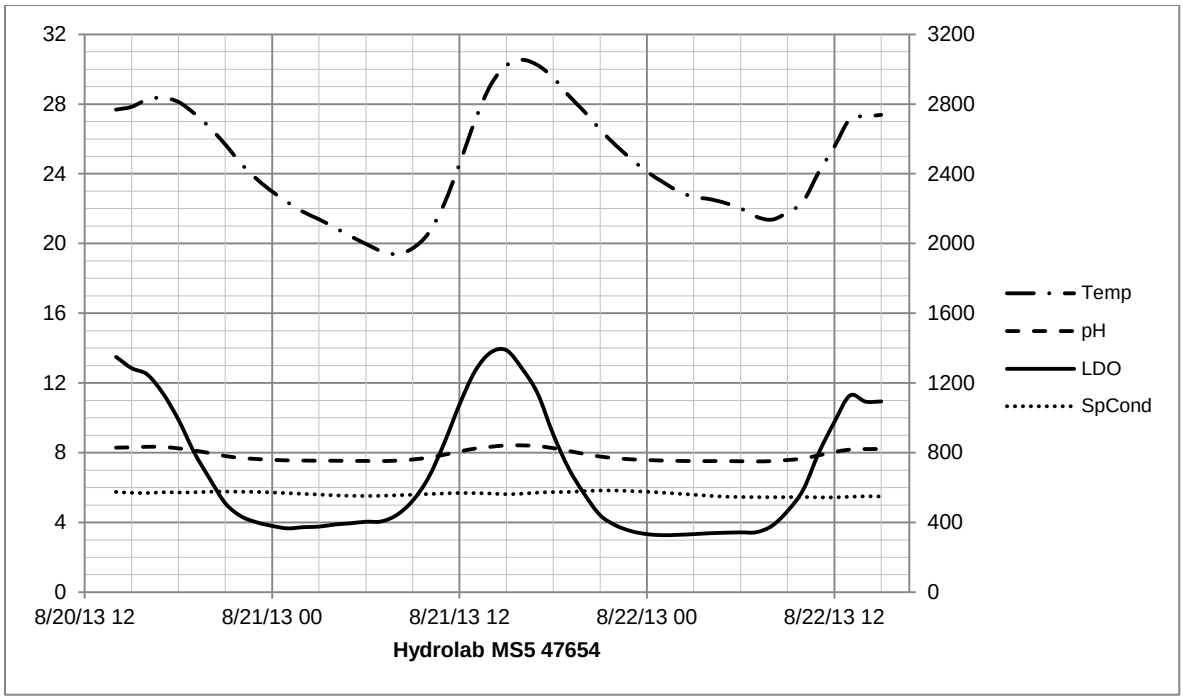

Figure 30: Plot of hourly data collected by a water quality sonde on Brush Creek upst Archbold @ Archbold Lutz Rd (CR D) (RM 19.06; STORET: P07S22). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/20/13 – 8/22/13.

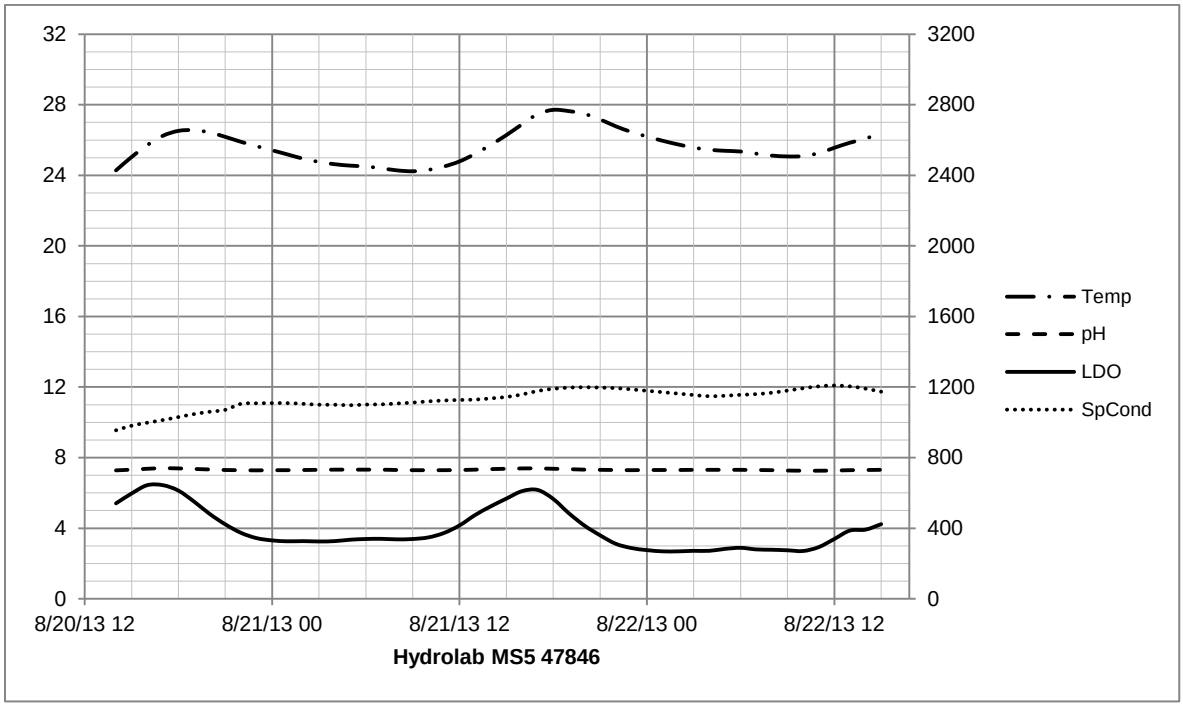

Figure 31: Plot of hourly data collected by a water quality sonde on Brush Creek dst Archbold @ CR 24 (CR D) (RM 13.28; STORET: P07S20). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/20/13 – 8/22/13.

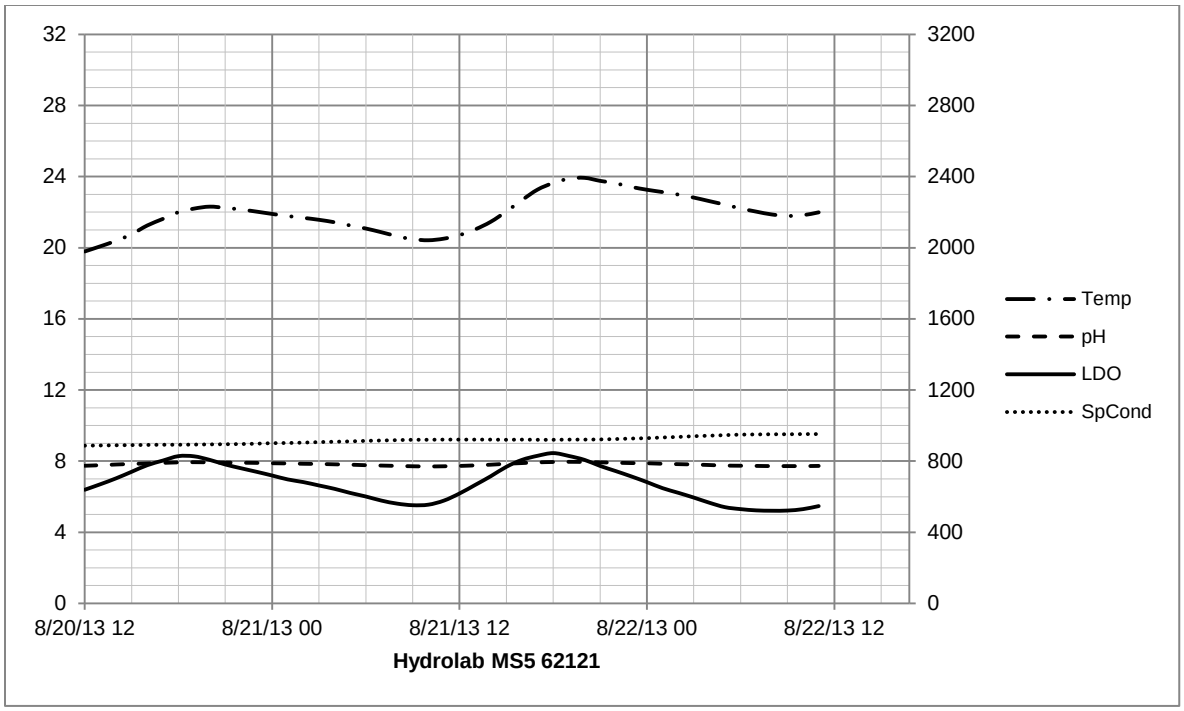

Figure 32: Plot of hourly data collected by a water quality sonde on Brush Creek near Evansport @ CR 22-60 (RM 1.05; STORET: P07W15). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/20/13 – 8/22/13.

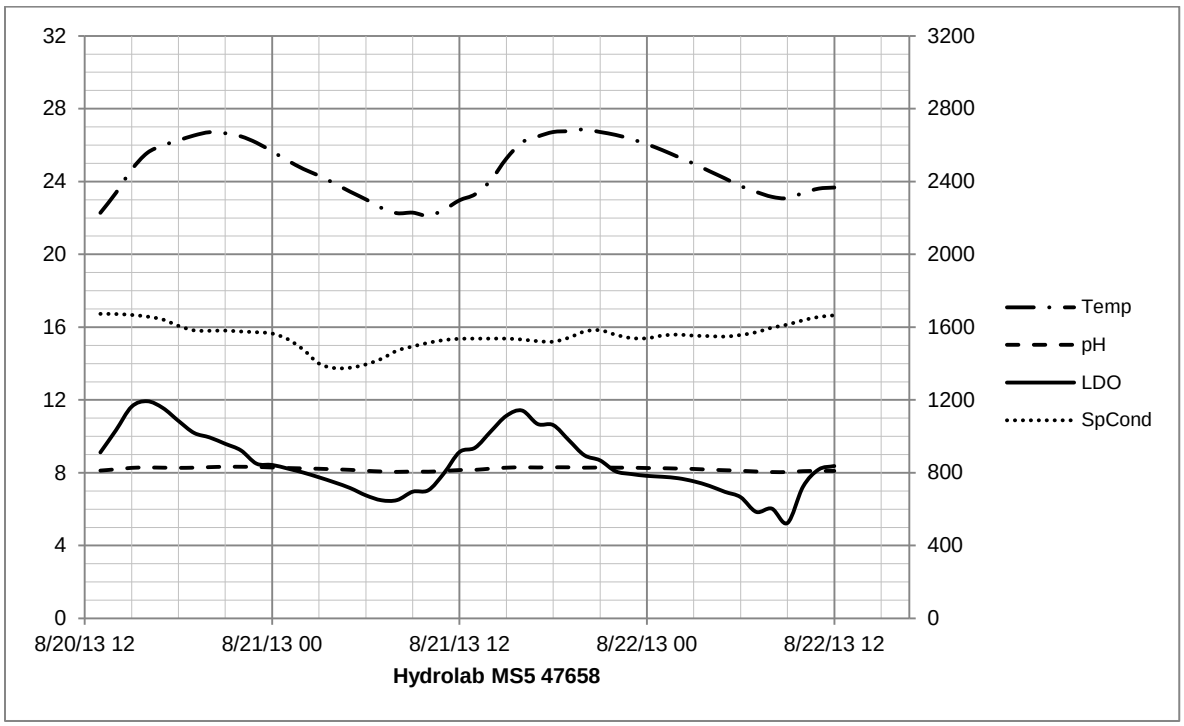

Figure 33: Plot of hourly data collected by a water quality sonde on Prairie Creek dst Bryan WWTP adj CR C (RM 9.8; STORET: P07S13). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/20/13 – 8/22/13.

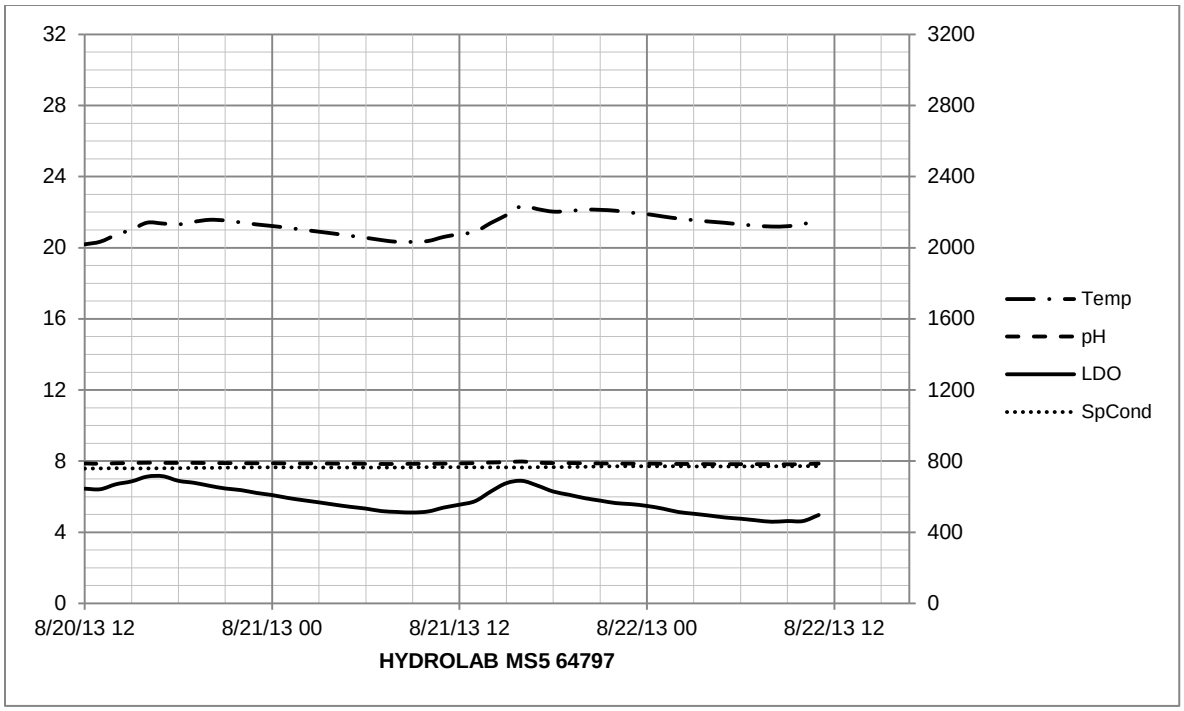

Figure 34: Plot of hourly data collected by a water quality sonde on Lick Creek at Ney @ The Bend Rd (RM 10.05; STORET: P07S36). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/20/13 – 8/22/13.

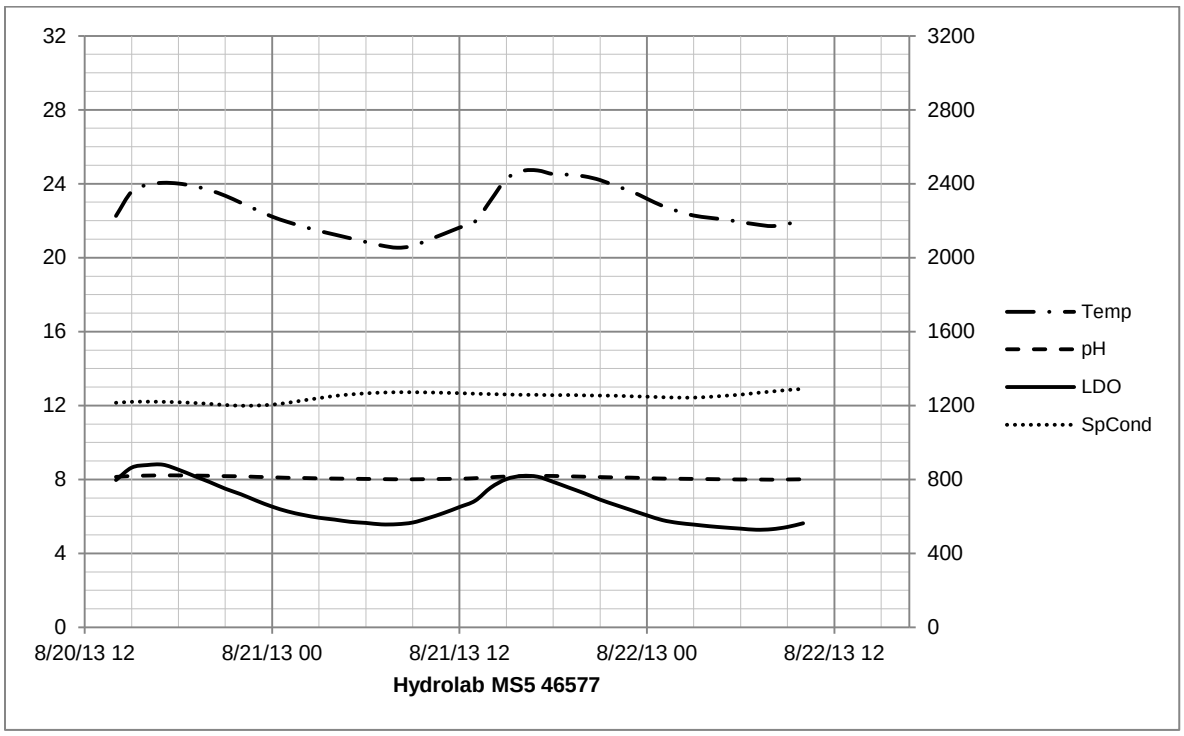

Figure 35: Plot of hourly data collected by a water quality sonde on Lick Creek north of Oxbow Lake at Trinity Rd (RM 1.23; STORET: 500310). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/20/13 – 8/22/13.

Sonde Survey 5: 7/15/14 – 7/17/14

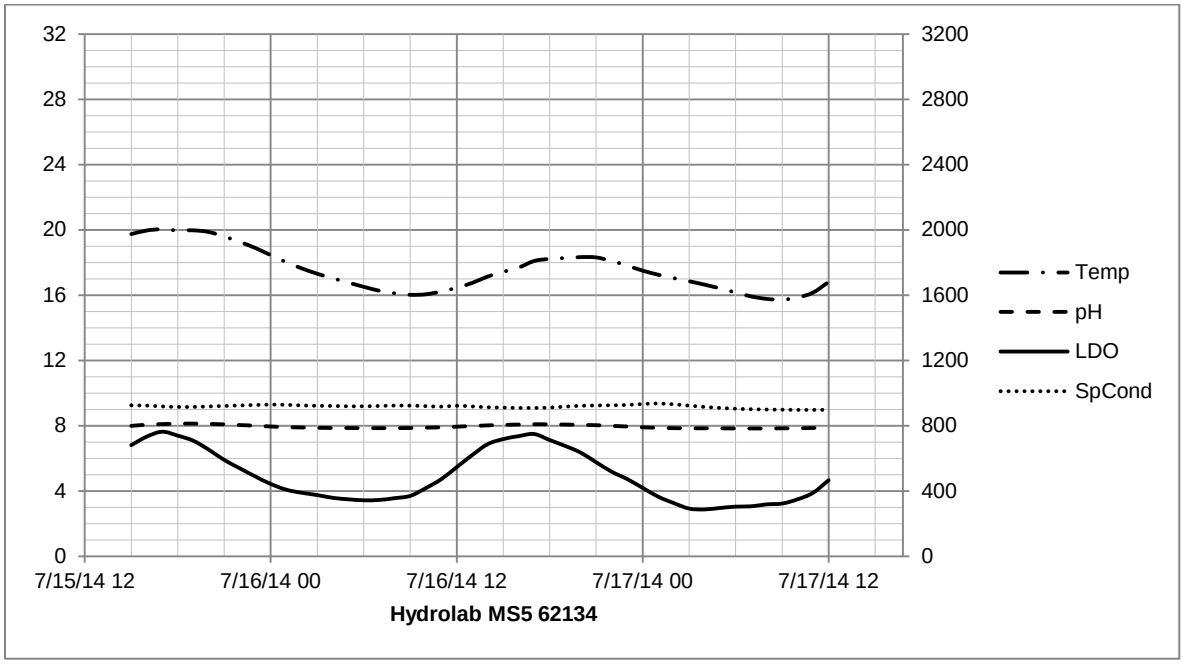

Figure 36: Plot of hourly data collected by a water quality sonde on Deer Creek dst Fayette @ CR 23 (RM 4.56; STORET: P07W24). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

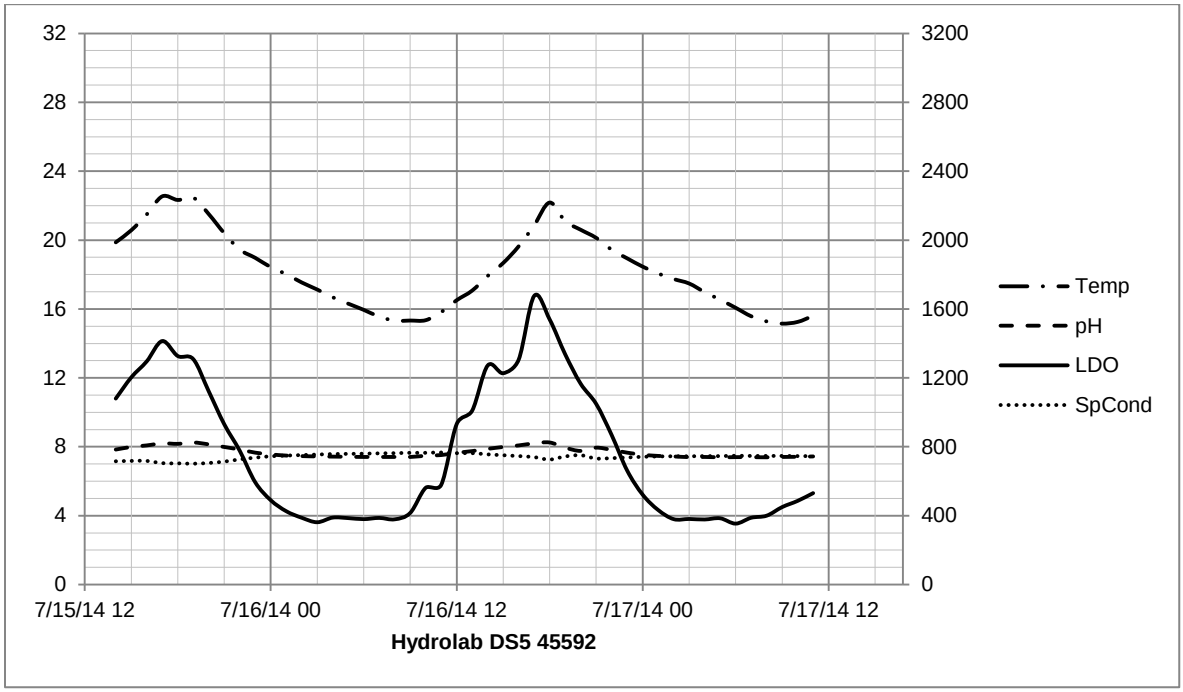

Figure 37: Plot of hourly data collected by a water quality sonde on Mill Creek upst Alvordton trib @ CR S (RM 14.49; STORET: P07W25). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

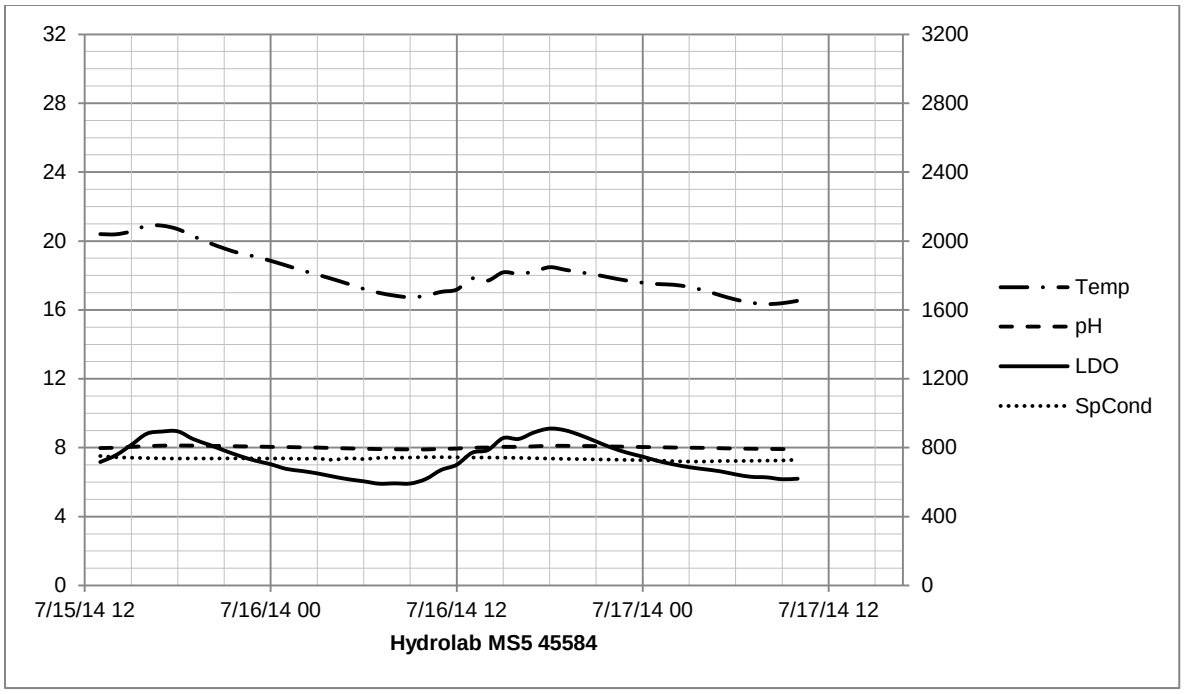

Figure 38: Plot of hourly data collected by a water quality sonde on Mill Creek southeast of Alvordton @ CR P (RM 11.9; STORET: P07W26). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

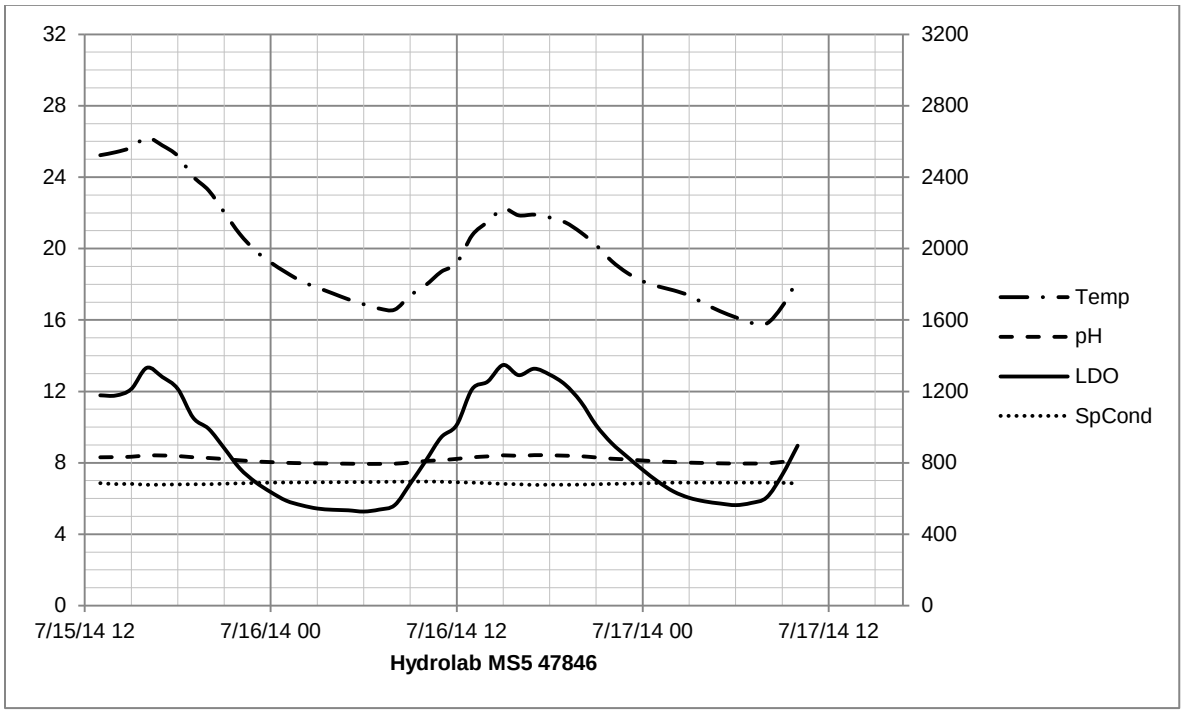

Figure 39: Plot of hourly data collected by a water quality sonde on Mill Creek southeast of Alvordton @ CR 28 (RM 7.92; STORET: P07S32). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

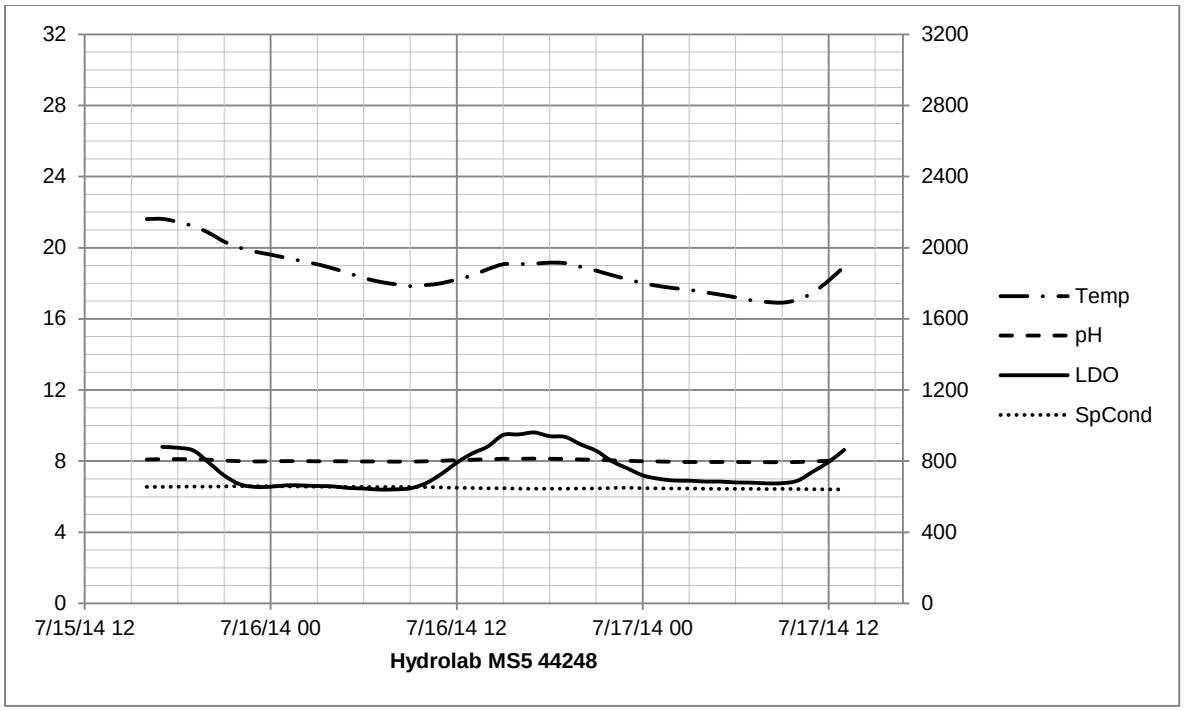

Figure 40: Plot of hourly data collected by a water quality sonde on Mill Creek south of Fayette @ Old Angola Rd (RM 1.85; STORET: P07S31). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

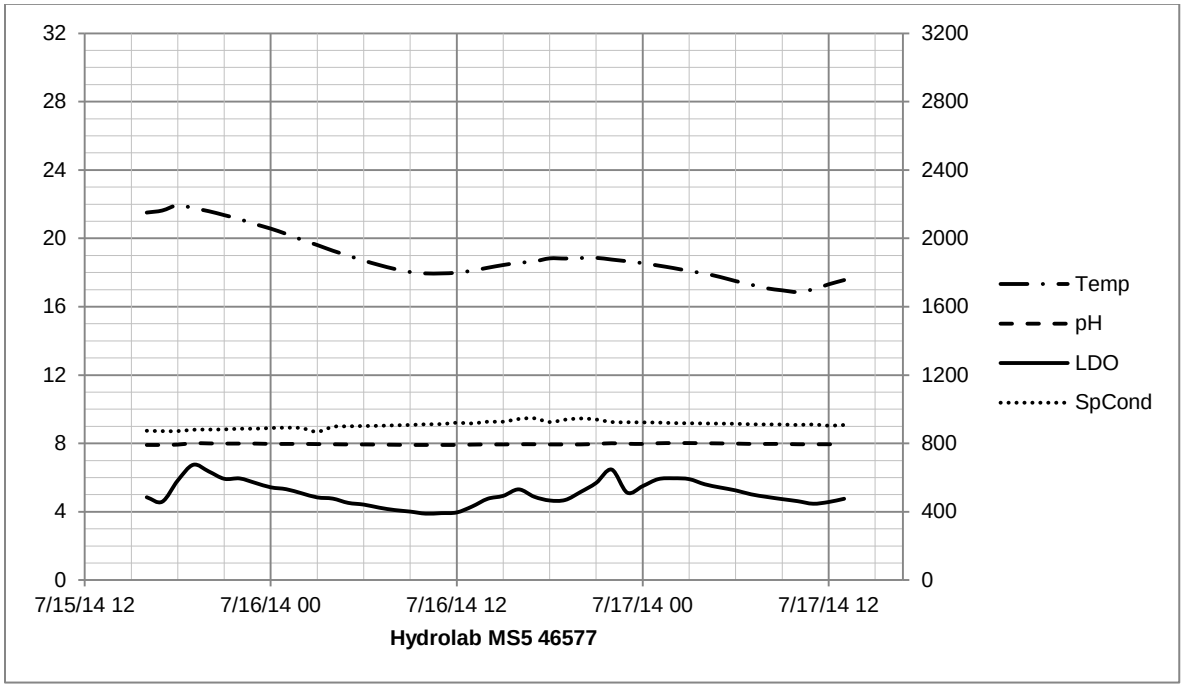

Figure 41: Plot of hourly data collected by a water quality sonde on Bates Creek east of West Unity @ CR 25-2 (RM 1.65; STORET: P07K30). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

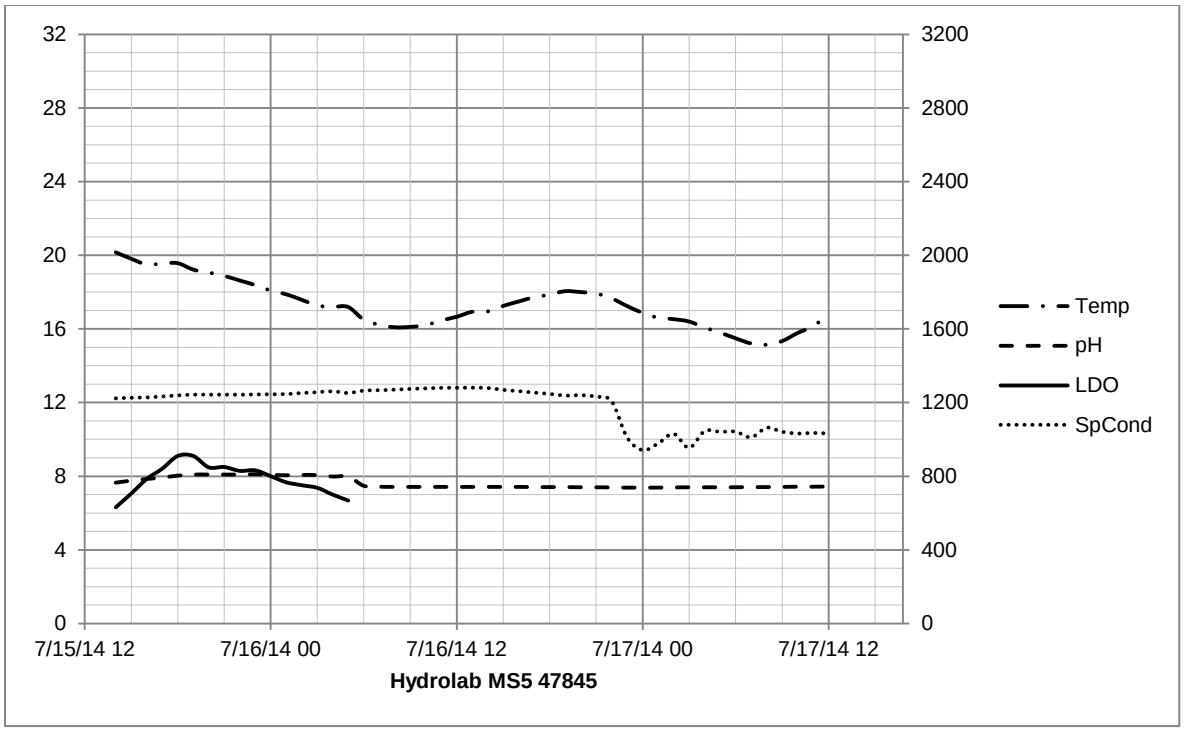

Figure 42: Plot of hourly data collected by a water quality sonde on Flat Run northeast of Stryker @ CR 22.75 (RM 0.4; STORET: P07K28). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

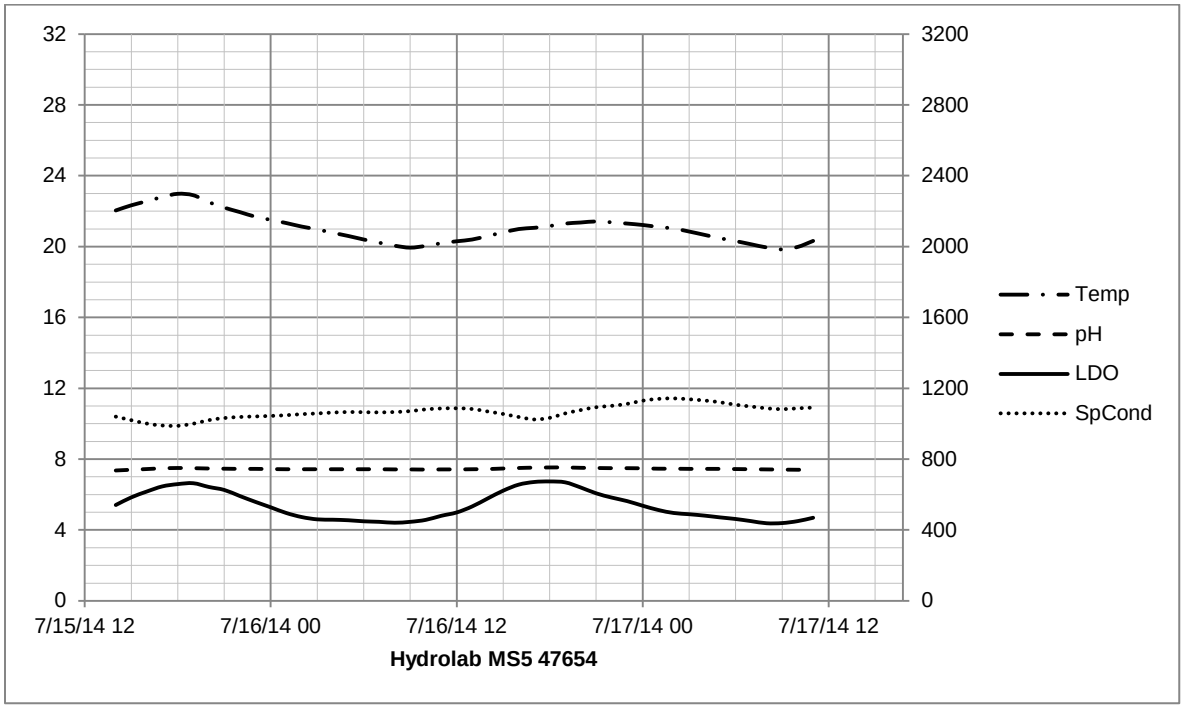

Figure 43: Plot of hourly data collected by a water quality sonde on Brush Creek dst Archbold @ CR 24 (RM 13.28; STORET: P07S20). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

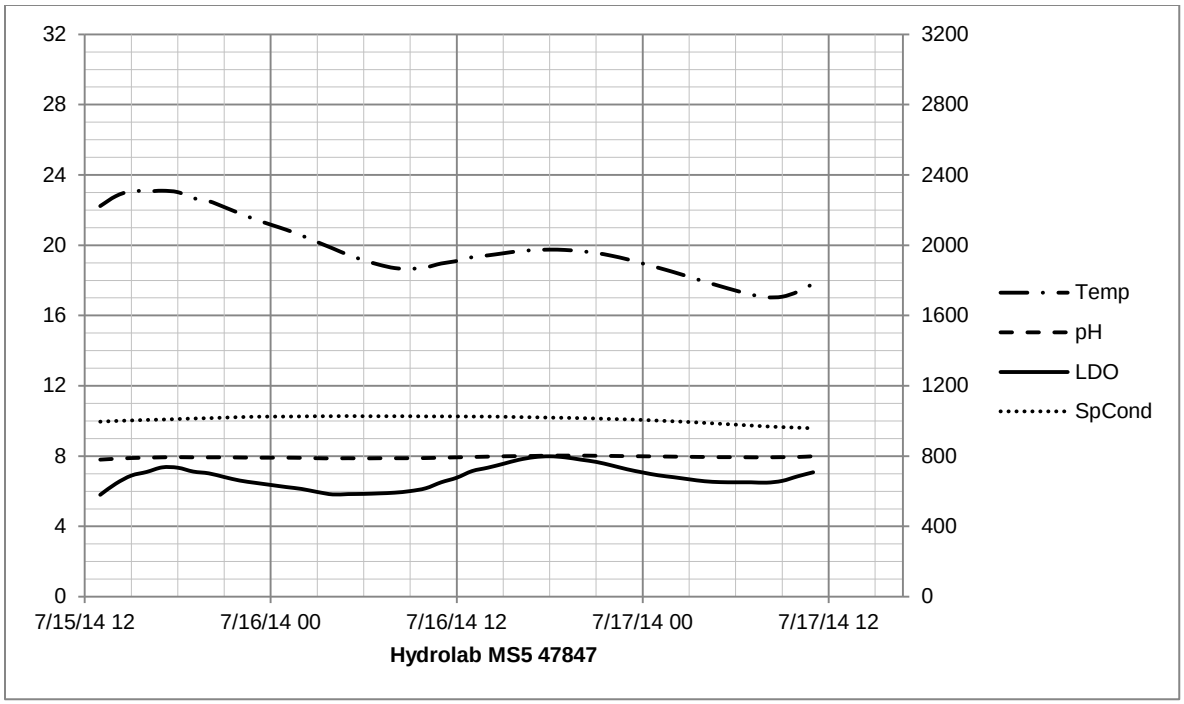

Figure 44: Plot of hourly data collected by a water quality sonde on Brush Creek near Evansport @ CR 22-60 (RM 1.05; STORET: P07W15). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

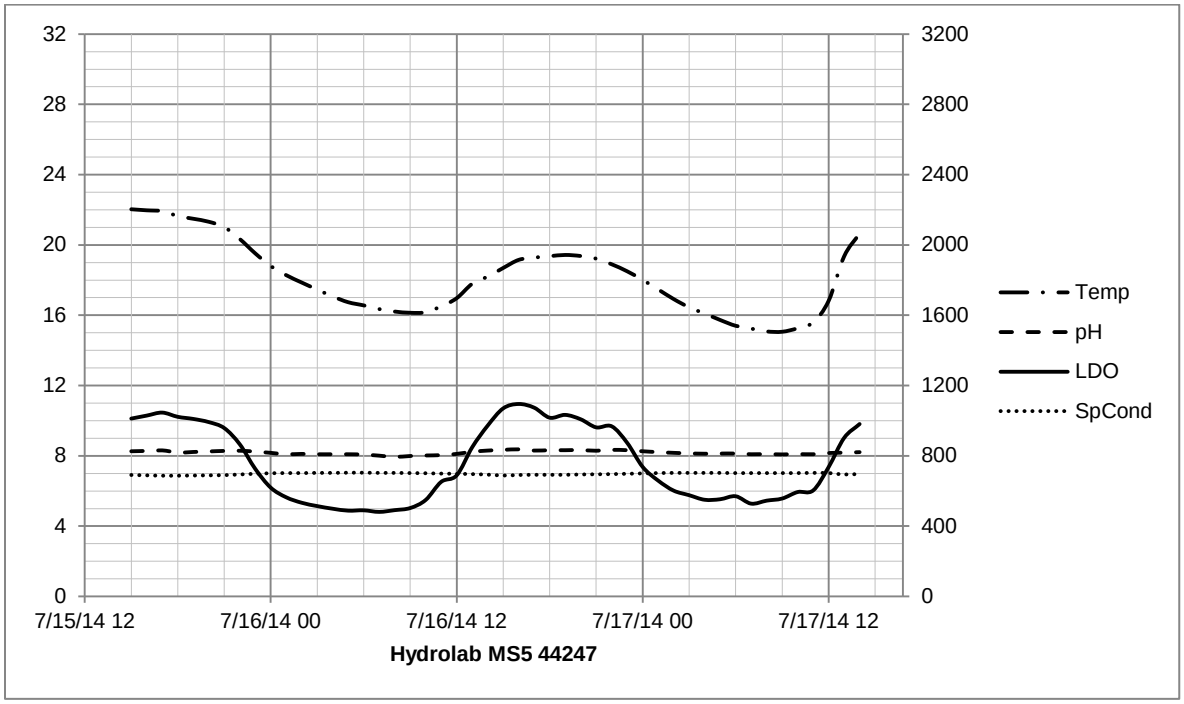

Figure 45: Plot of hourly data collected by a water quality sonde on Little Lick Creek northwest of Ney @ Behnfeldt Rd (RM 4.97; STORET: P07W22). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

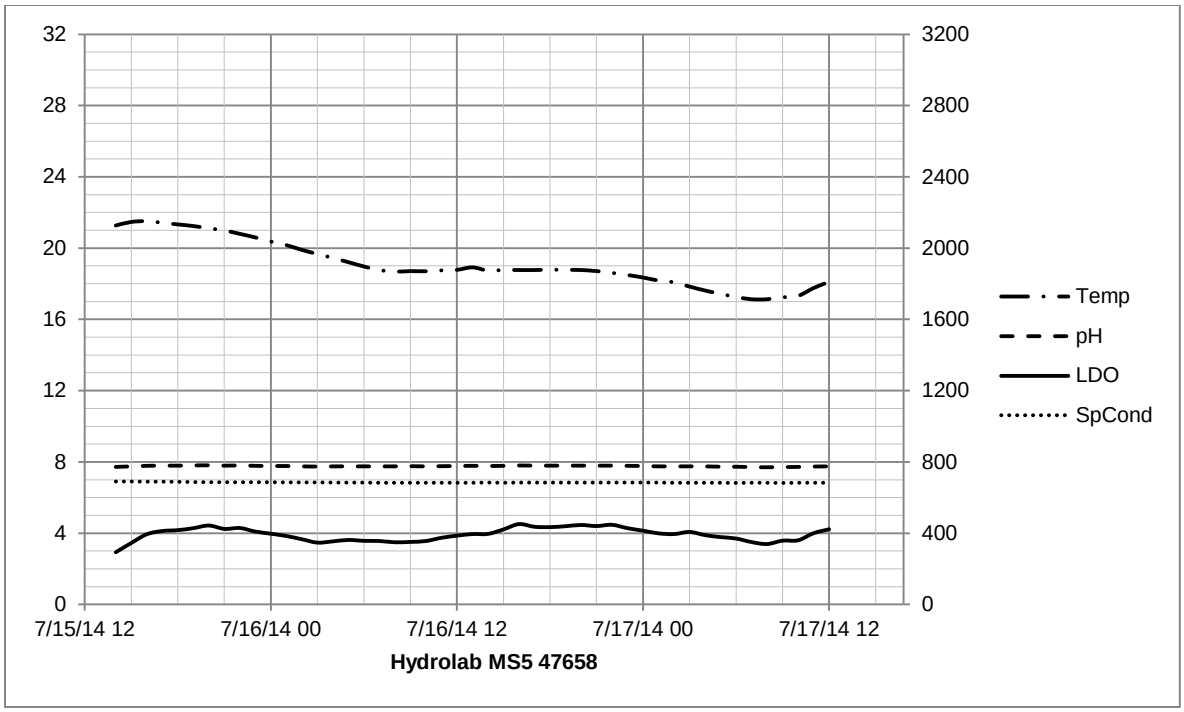

Figure 46: Plot of hourly data collected by a water quality sonde on Little Lick Creek upst Ney upst railroad (RM 0.8; STORET: P07S41). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

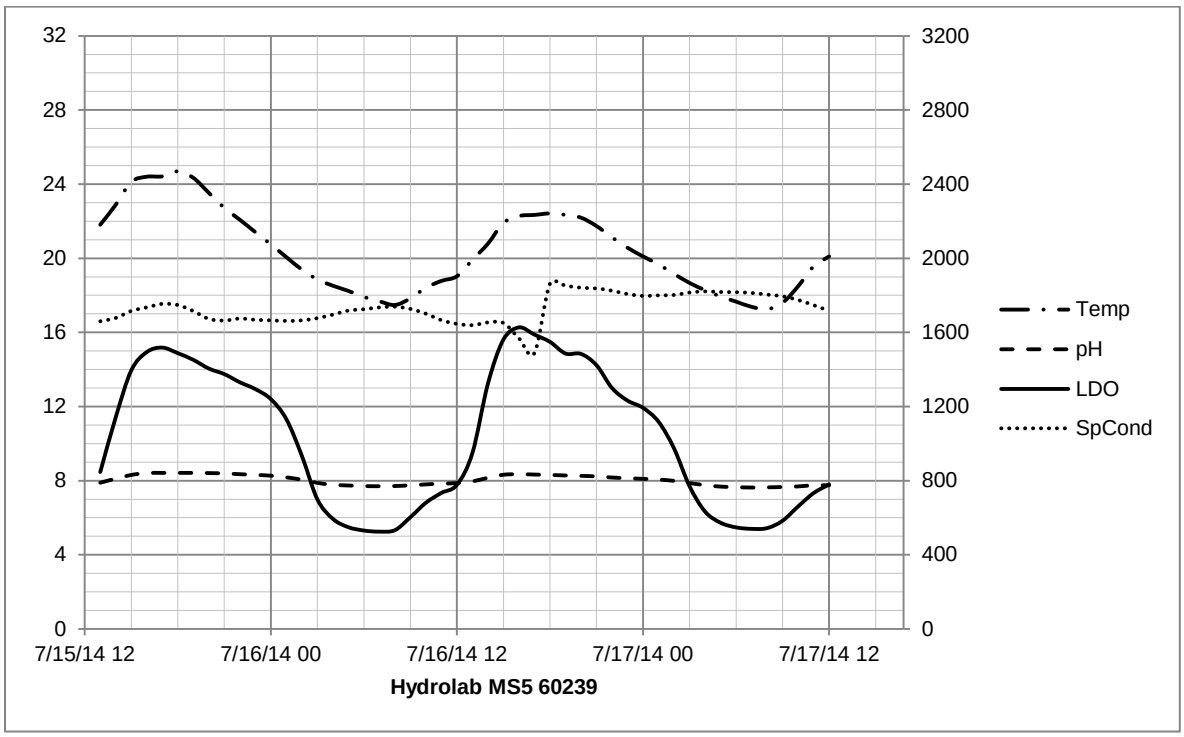

Figure 47: Plot of hourly data collected by a water quality sonde on Prairie Creek dst Bryan WWTP adj CR C (RM 9.8; STORET: P07S13). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

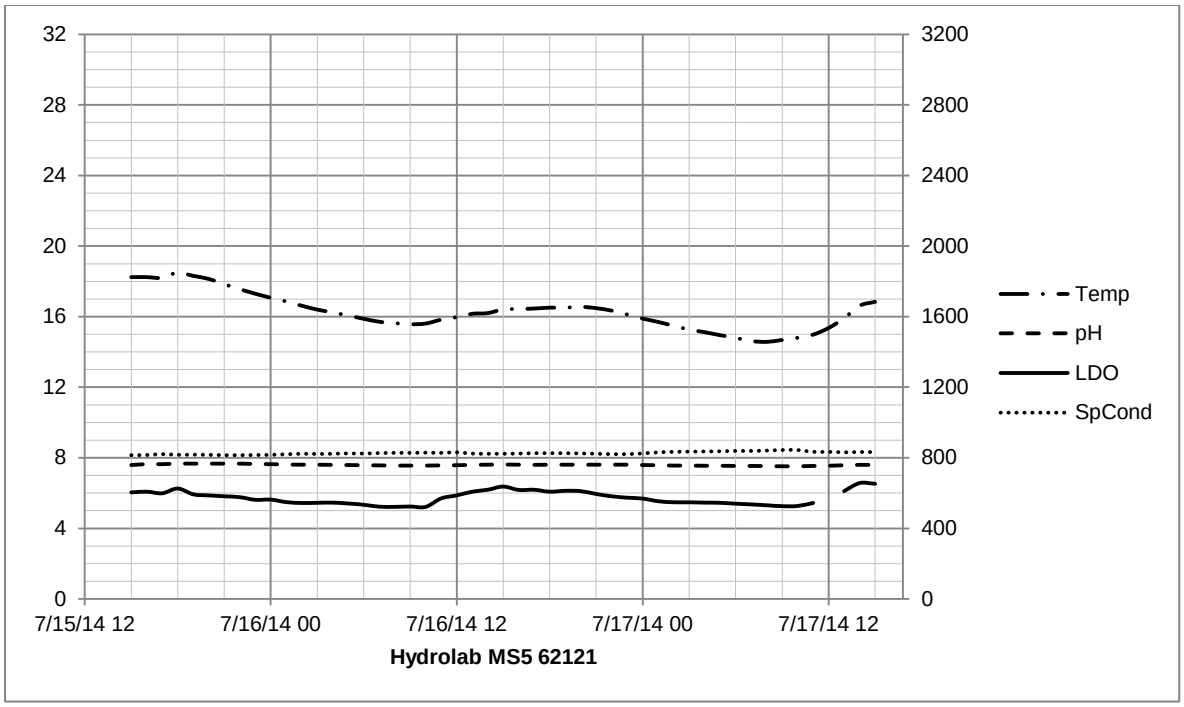

Figure 48: Plot of hourly data collected by a water quality sonde on Lick Creek northwest of Bryan @ CR 13 (RM 21.77; STORET: P07W20). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

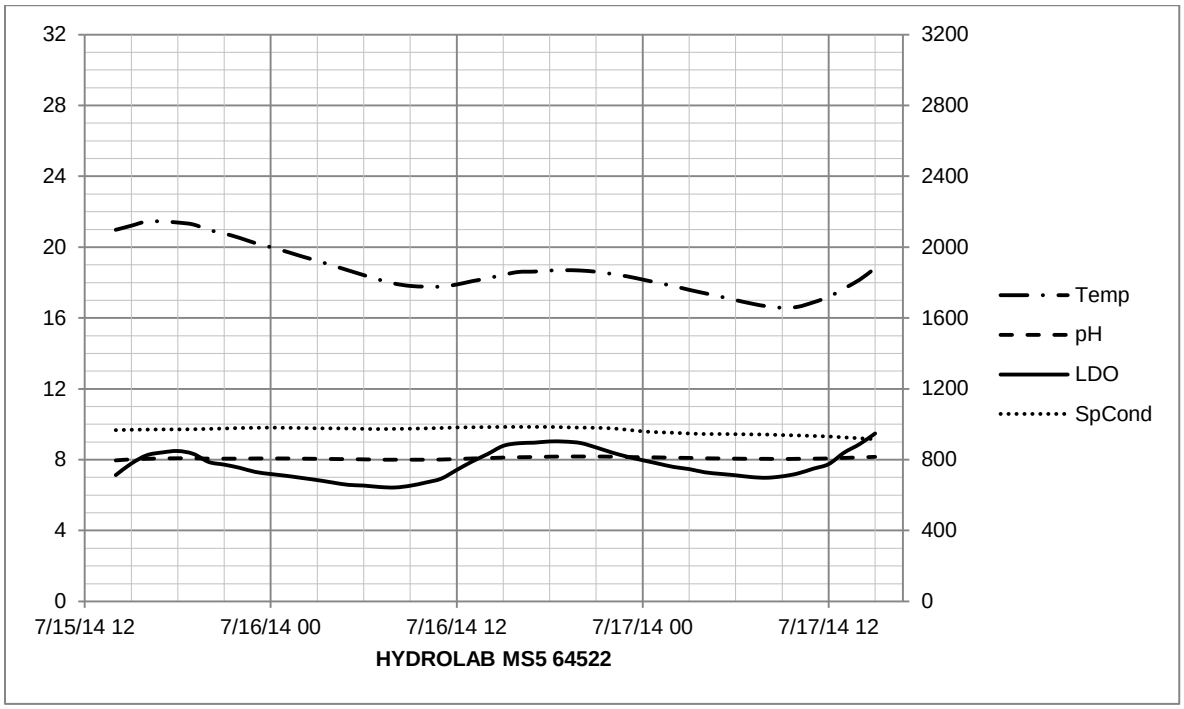

Figure 49: Plot of hourly data collected by a water quality sonde on Lick Creek southwest of Bryan @ CR 13 (RM 17.66; STORET: P07K13). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

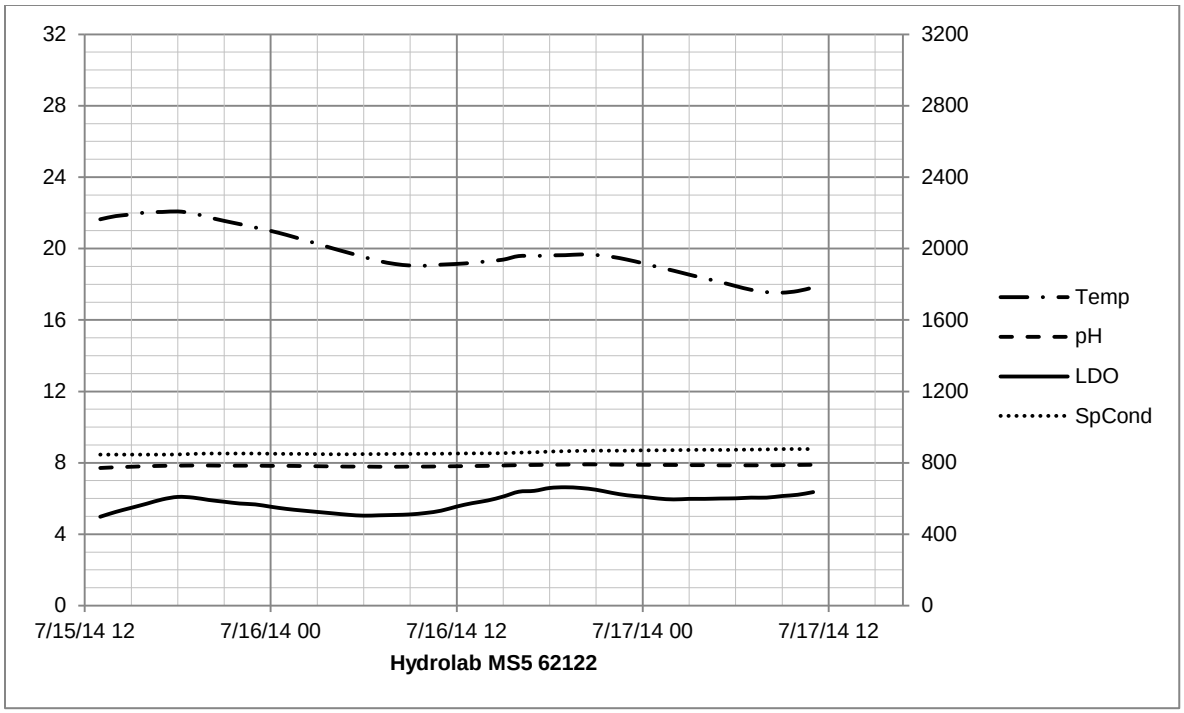

Figure 50: Plot of hourly data collected by a water quality sonde on Lick Creek at Ney @ The Bend Rd (RM 10.05; STORET: P07S36). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

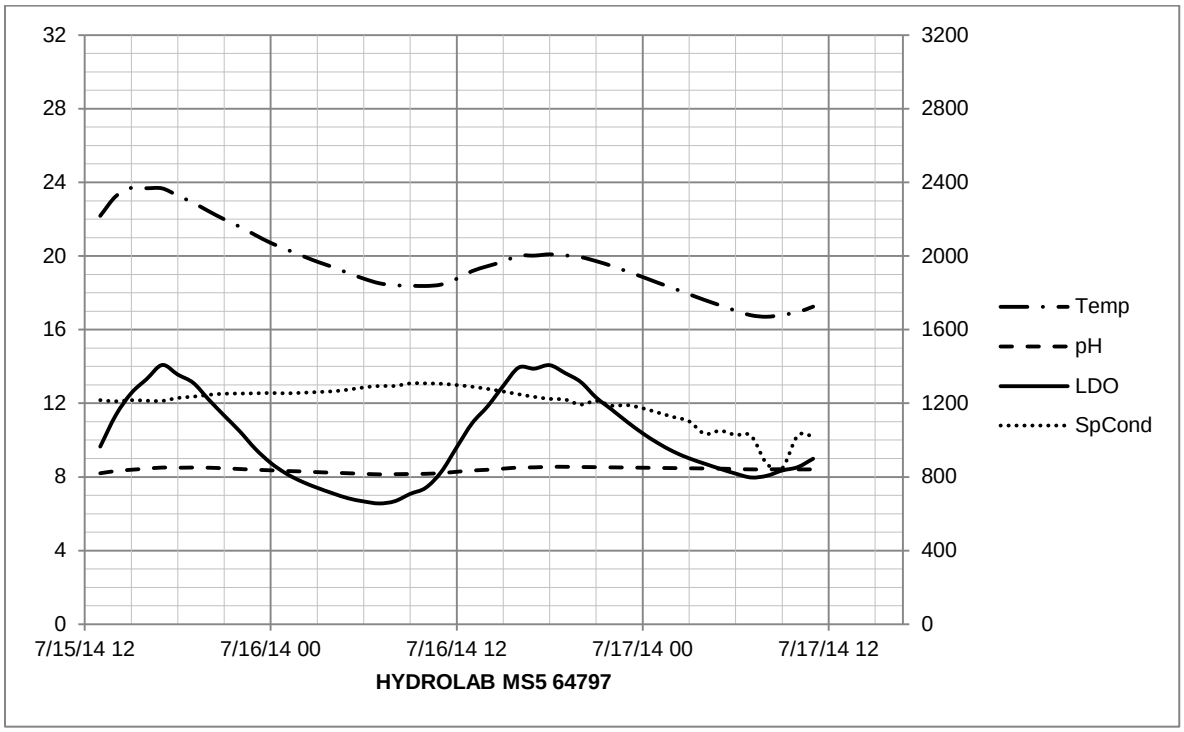

Figure 51: Plot of hourly data collected by a water quality sonde on Lick Creek north of Oxbow Lake @ Trinity Rd (RM 1.23; STORET: 500310). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

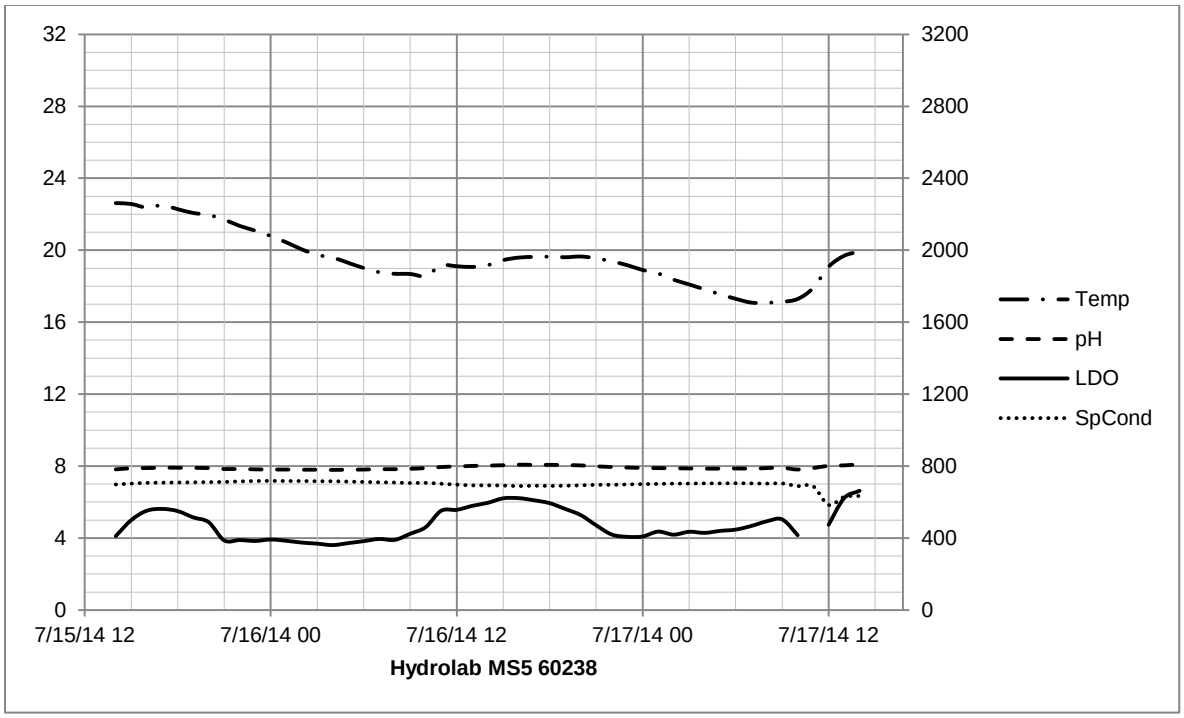

Figure 52: Plot of hourly data collected by a water quality sonde on Dry Creek southeast of Farmer @ CR 124 (Openlander Rd) (RM 3.76; STORET: 302202). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

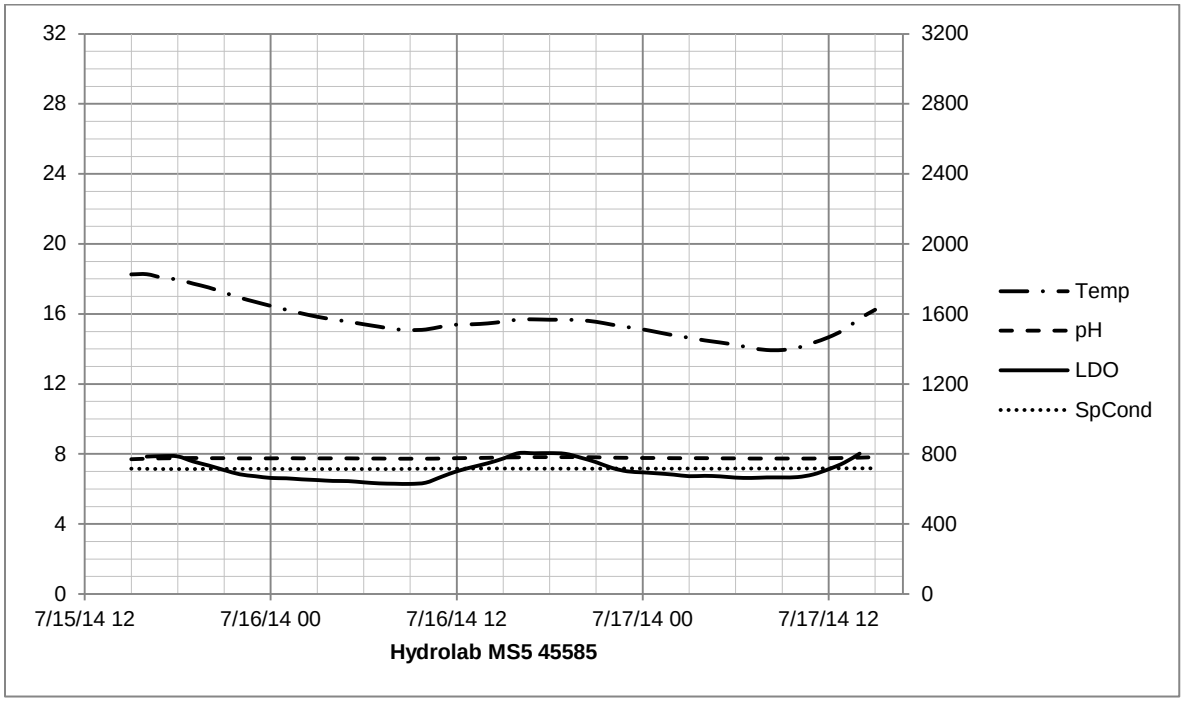

Figure 53: Plot of hourly data collected by a water quality sonde on Lost Creek northeast of Hicksville @ Seevers Rd (RM 8.97; STORET: P07W19). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 7/15/14 – 7/17/14.

Sonde Survey 6: 8/15/14 – 8/19/14

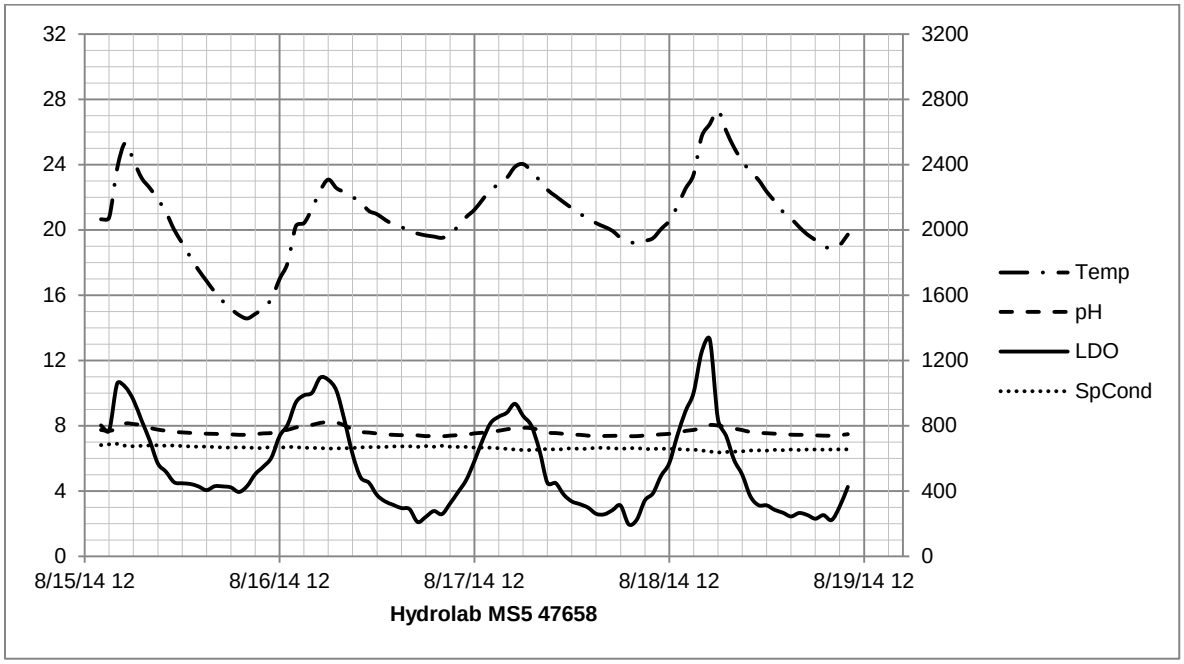

Figure 54: Plot of hourly data collected by a water quality sonde on Mill Creek upst Alvordton trib @ CR S (RM 14.49; STORET: P07W25). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

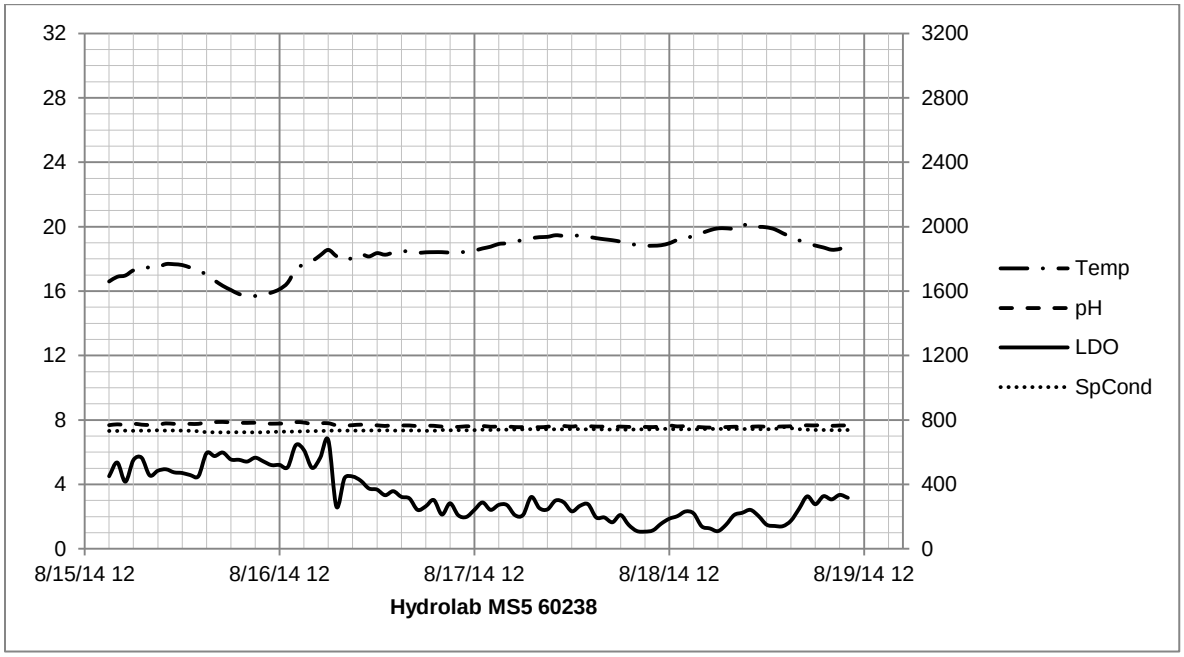

Figure 55: Plot of hourly data collected by a water quality sonde on Mill Creek southeast of Alvordton @ CR P (RM 11.9; STORET: P07W26). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

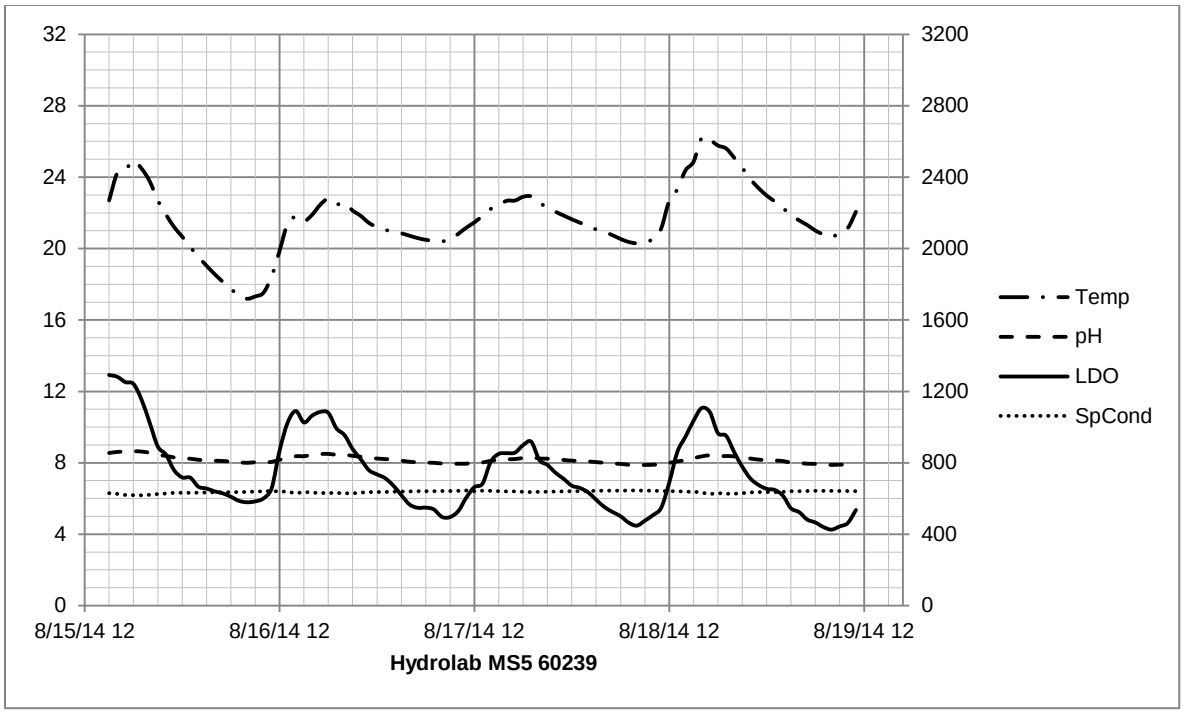

Figure 56: Plot of hourly data collected by a water quality sonde on Mill Creek southeast of Alvordton @ CR 28 (RM 7.92; STORET: P07S32). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

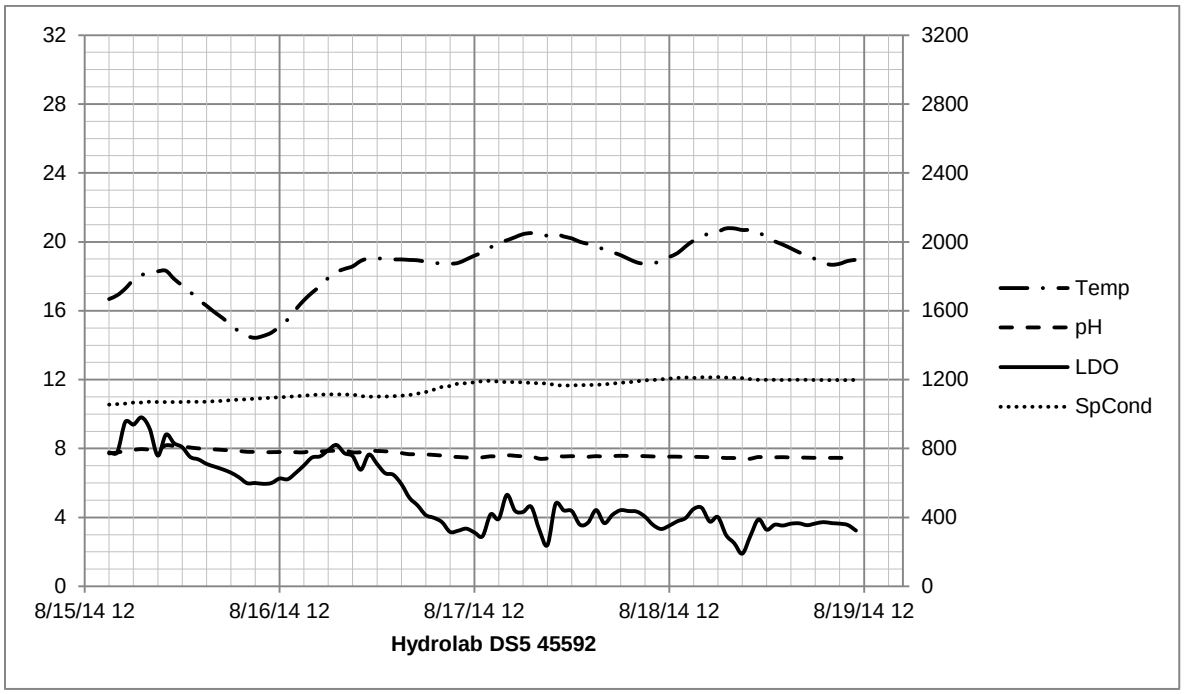

Figure 57: Plot of hourly data collected by a water quality sonde on Flat Run northeast of Stryker @ CR 22.75 (RM 0.4; STORET: P07K28). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

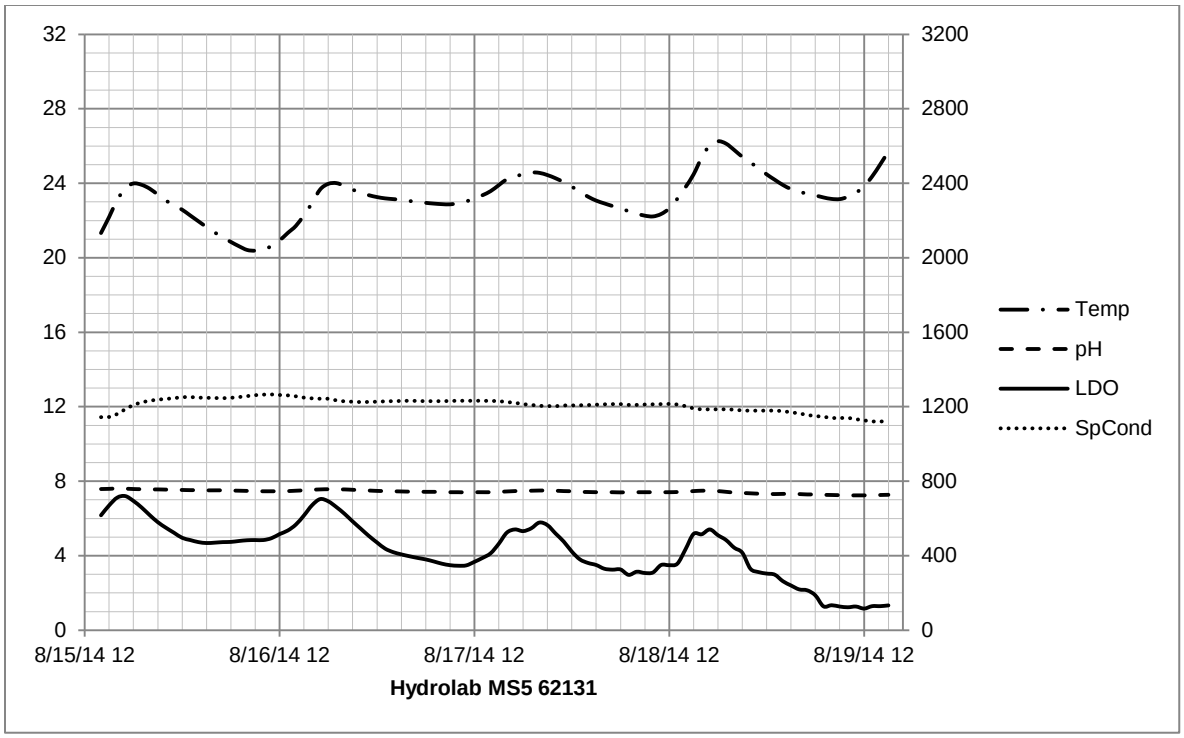

Figure 58: Plot of hourly data collected by a water quality sonde on Brush Creek dst Archbold @ CR 24 (RM 13.28; STORET: P07S20). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

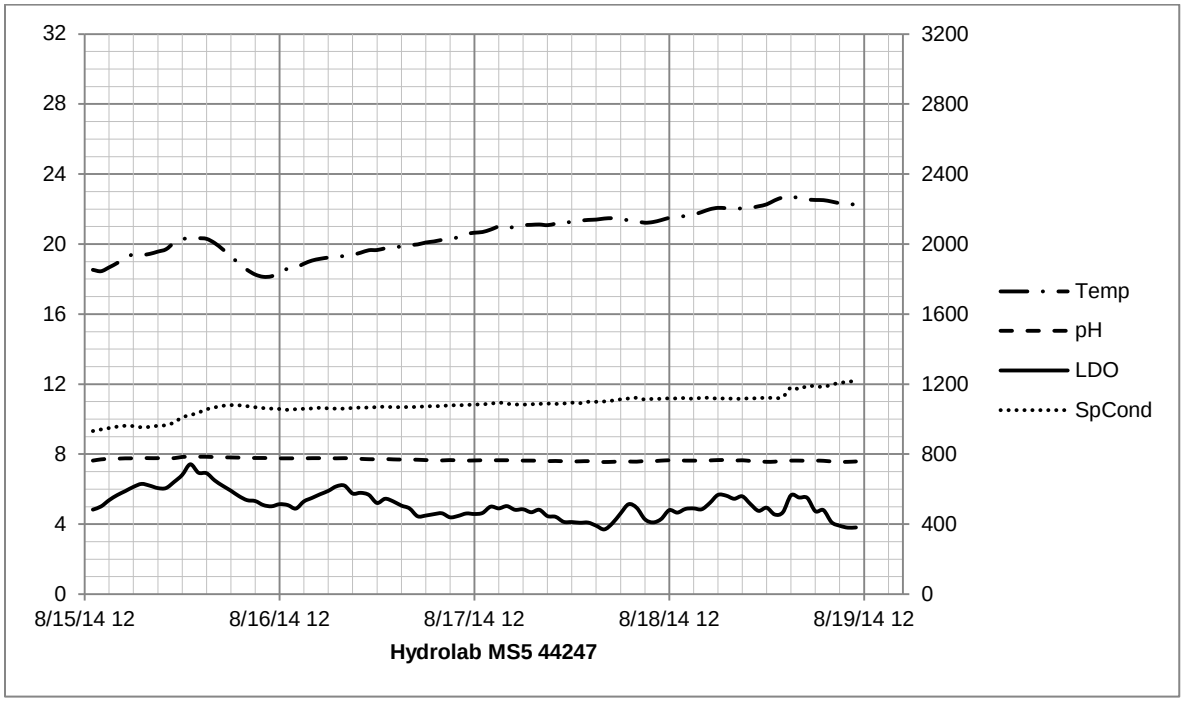

Figure 59: Plot of hourly data collected by a water quality sonde on Brush Creek southwest of Archbold @ CR 24.25 (RM 9.11; STORET: P07W29). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

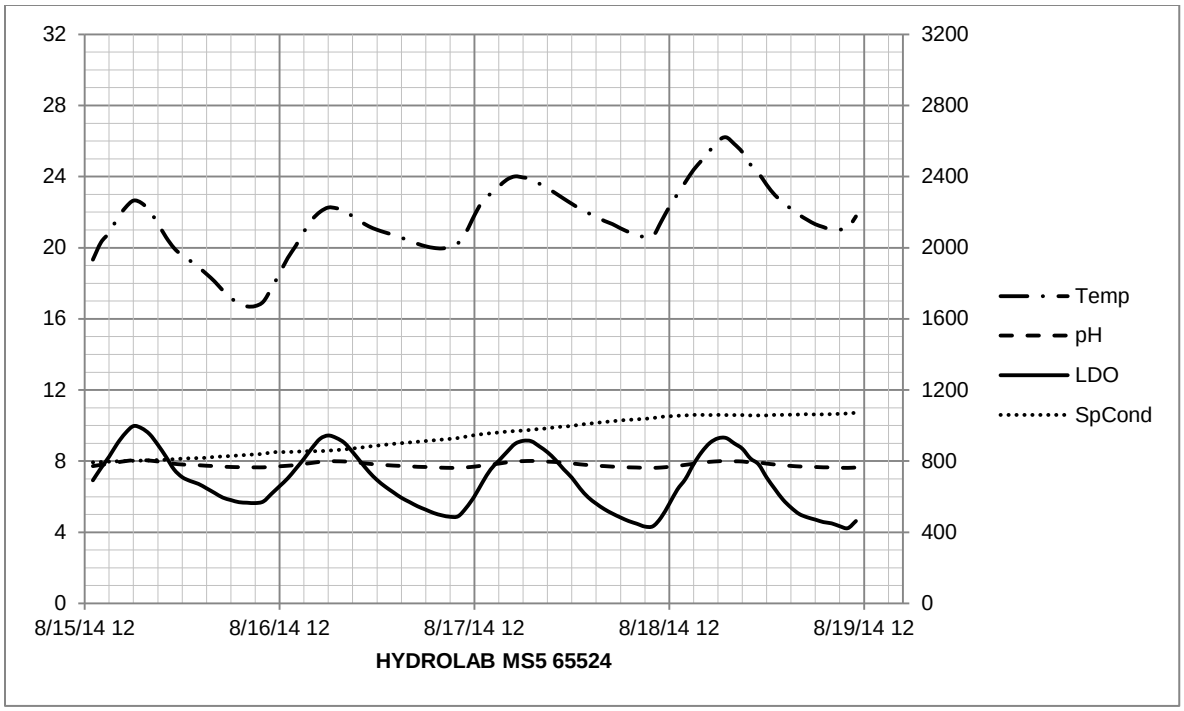

Figure 60: Plot of hourly data collected by a water quality sonde on Brush Creek northeast of Evansport @ CR C (RM 5.76; STORET: P07K19). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

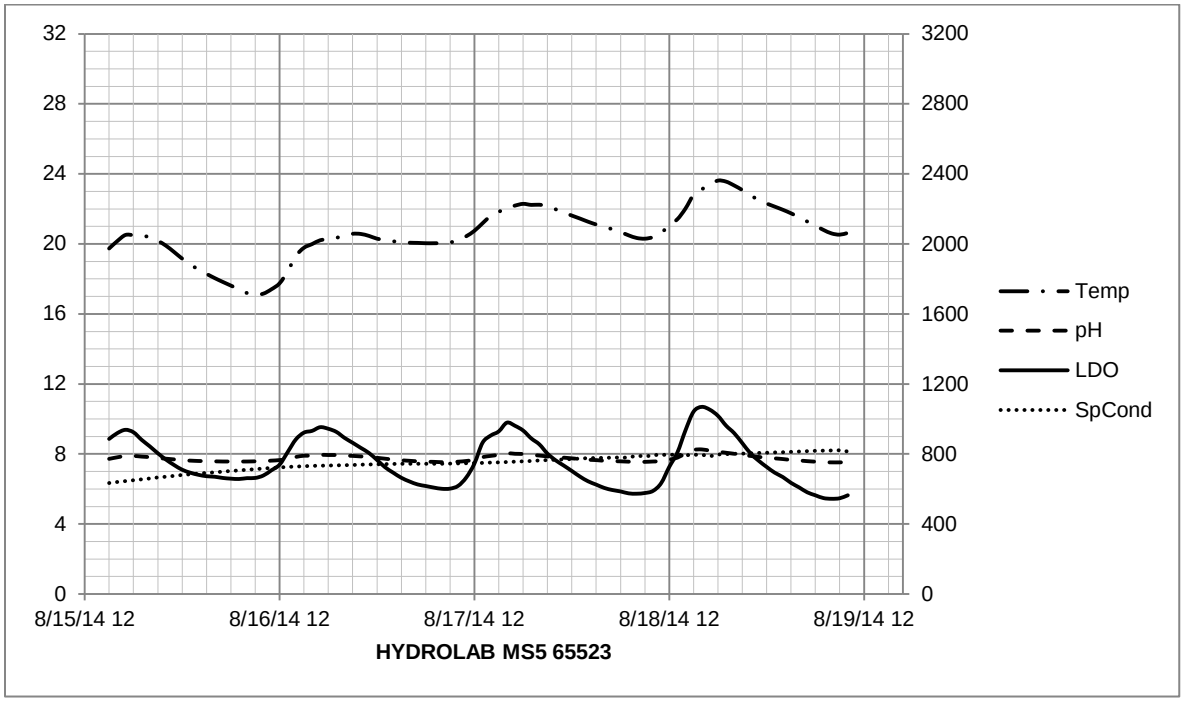

Figure 61: Plot of hourly data collected by a water quality sonde on Brush Creek near Evansport @ CR 22-60 (RM 1.05; STORET: P07W15). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

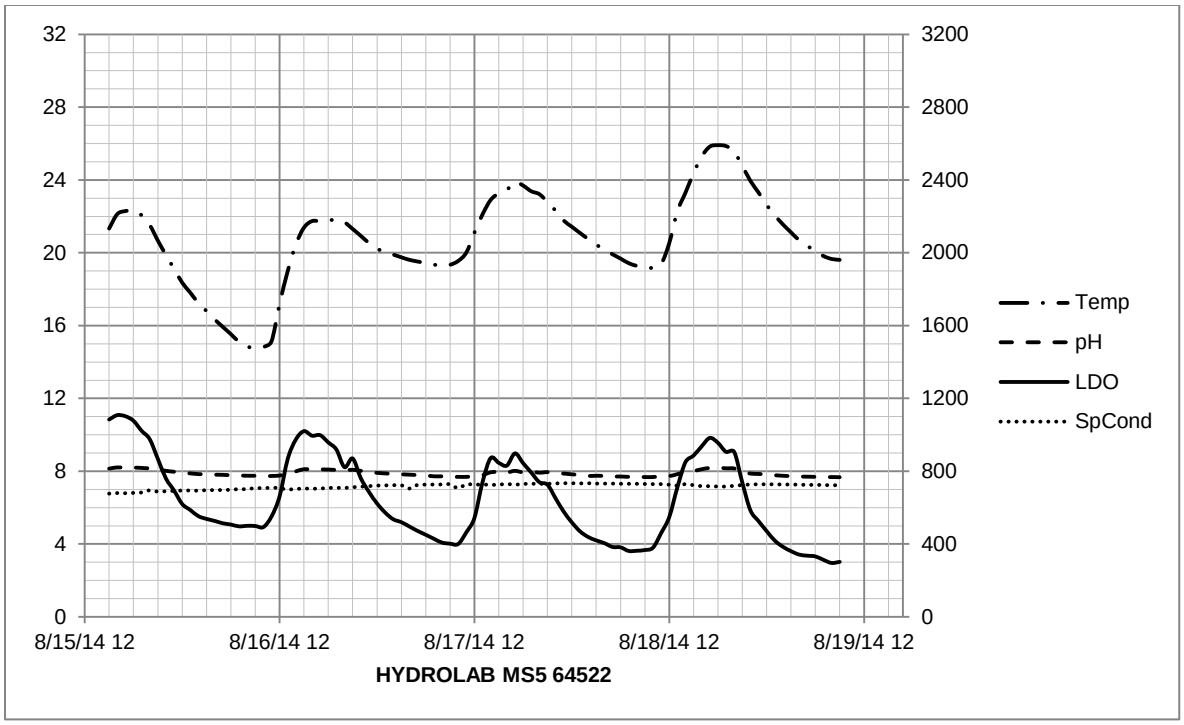

Figure 62: Plot of hourly data collected by a water quality sonde on Little Lick Creek northwest of Ney @ Behnfeldt Rd (RM 4.97; STORET: P07W22). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

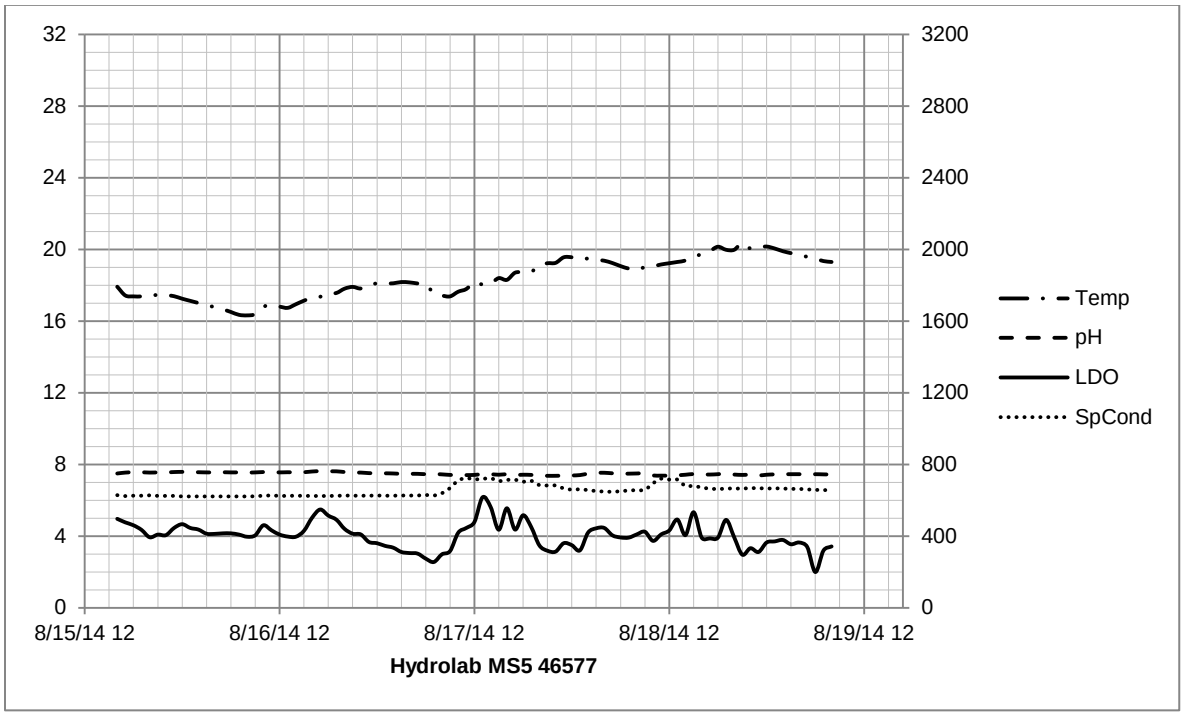

Figure 63: Plot of hourly data collected by a water quality sonde on Little Lick Creek upst Ney upst railroad (RM 0.8; STORET: P07S41). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

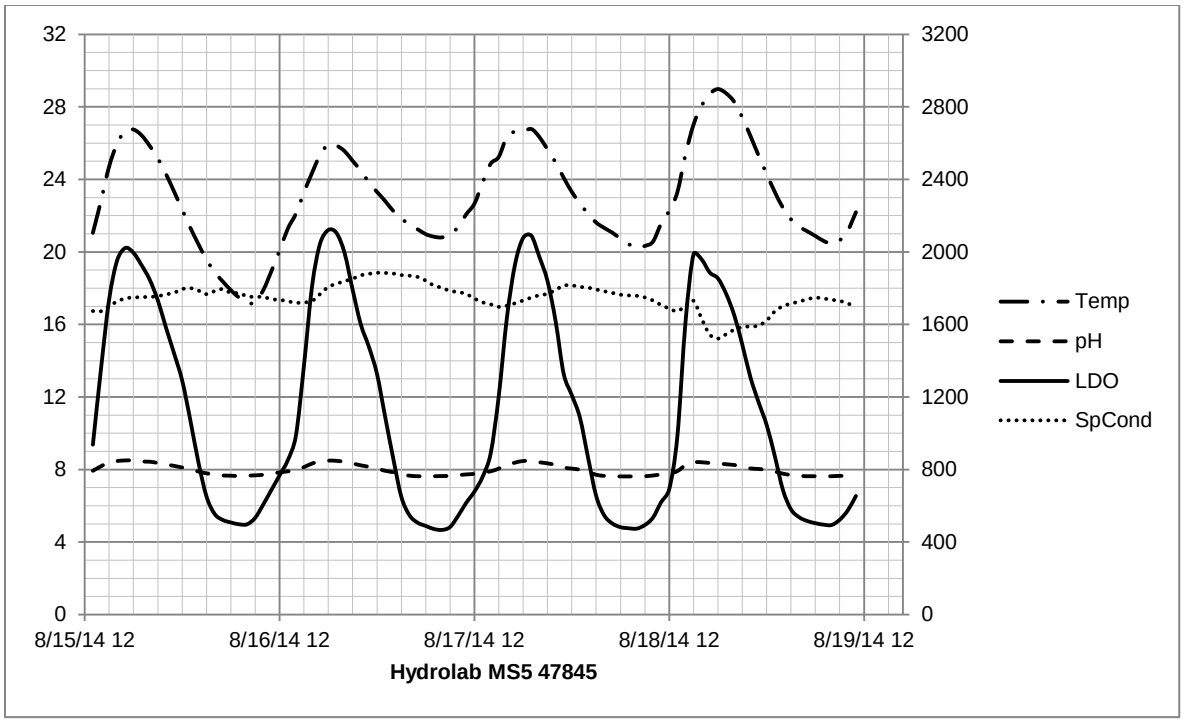

Figure 64: Plot of hourly data collected by a water quality sonde on Prairie Creek dst Bryan WWTP adj CR C (RM 9.8; STORET: P07S13). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

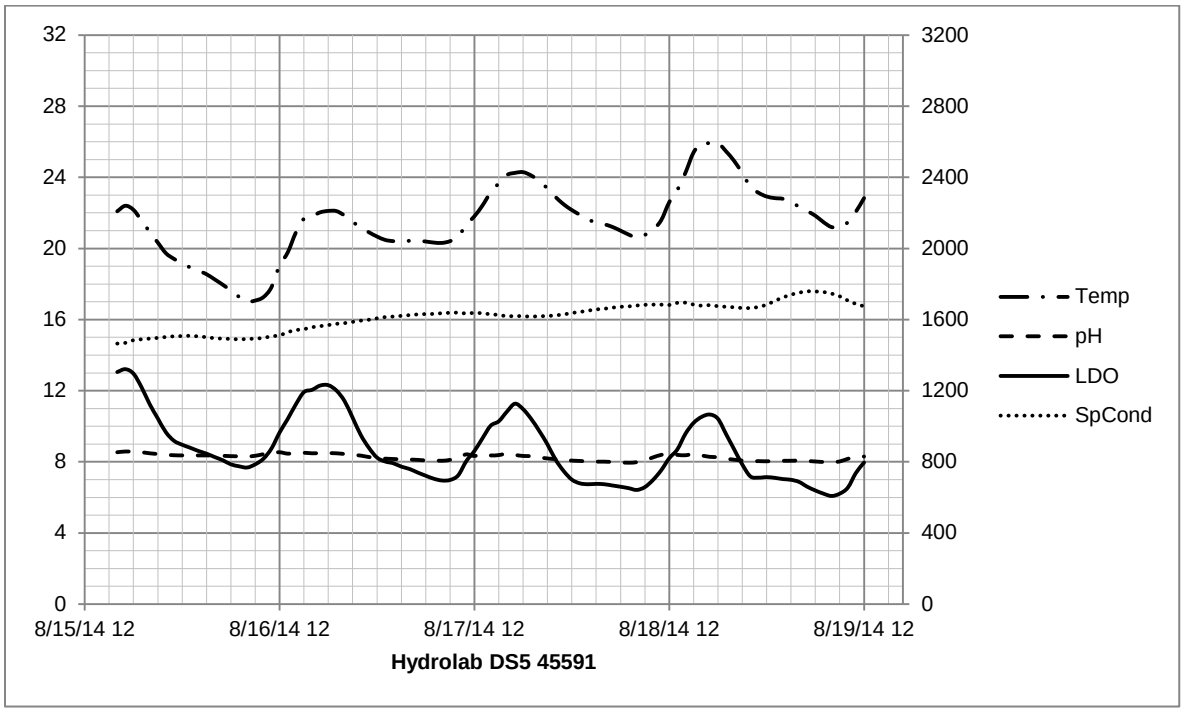

Figure 65: Plot of hourly data collected by a water quality sonde on Prairie Creek northeast of Ney @ Flickinger Rd (lower crossing) (RM 3.4; STORET: P07W12). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

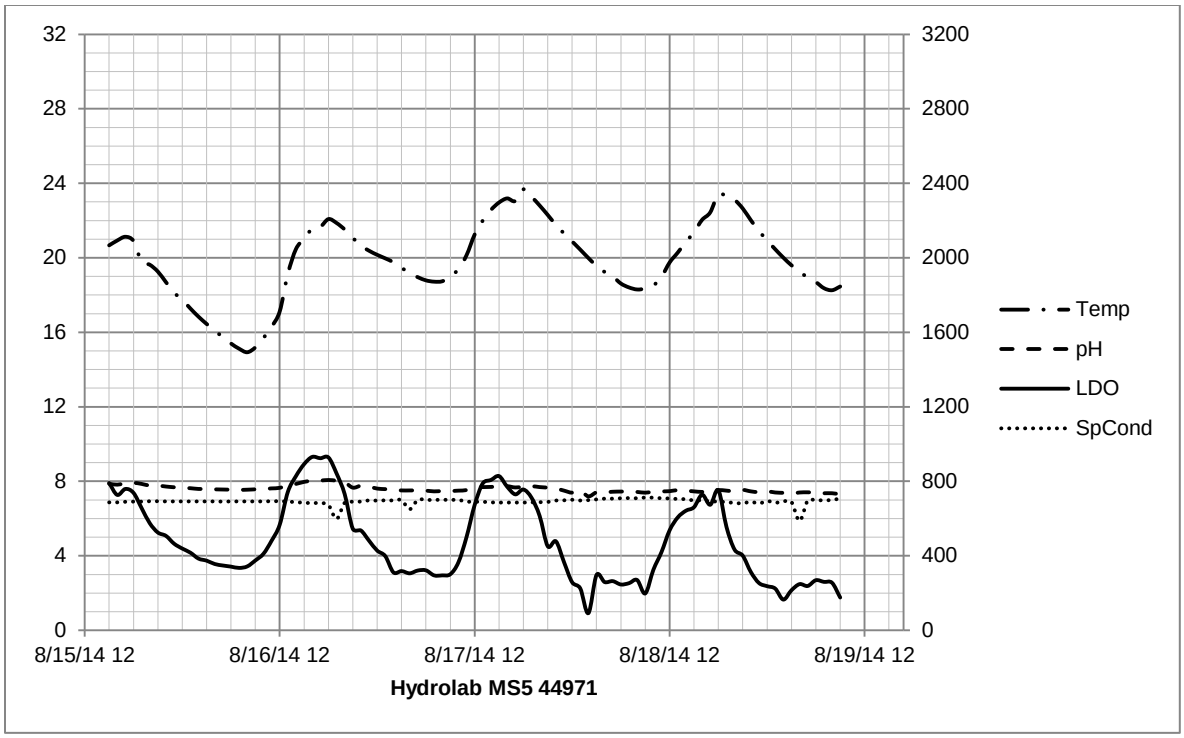

Figure 66: Plot of hourly data collected by a water quality sonde on Dry Creek southeast of Farmer @ CR 124 (Openlander Rd) (RM 3.76; STORET: 302202). Temperature (^{o}C), luminescent dissolved oxygen (mg/L), pH (S.U.), and specific conductance (µS/cm) are included; all are referenced to the primary (left) axis except specific conductance. The data was collected from 8/15/14 – 8/19/14.

Appendix I - Bacteriological Sampling Results

2013 E. coli sampling Results

Station I.D.	Sample Location	Geomean	5/29/12	5/30/12	6/18/12	6/19/12	7/15/12	7/17/12	7/18/12	8/14/12	8/15/12	9/4/12	9/5/12	Recreation Use Designation
P07S20	BRUSH CREEK DST. ARCHBOLD @ CR 24	695	1500		630			690		420		590		B
P07S22	BRUSH CREEK UPST. ARCHBOLD @ ARCHBOLD-LUTZ RD. (CR D)	603	460		1200			1600		600		150		B
P07K03	TIFFIN R. AT STRYKER @ ST. RT. 191	220	270		410			70		170		390		A
P07K27	LEATHERWOOD CREEK N OF STRYKER @ CO. RD. H	749	300		1200			650		1600		630		Secondary
302205	TIFFIN R. @ CR 22.75 / CR I.25	283	350		700			380		150		130		A
P07K28	FLAT RUN NE OF STRYKER @ CO. RD. 22.75	1090	2000		2600			520		1900		300		B
P07K30	BATES CREEK E OF WEST UNITY @ CO. RD. 25-2	745	590		1200			1200		1000		270		B
P07K06	TIFFIN R. NW OF ARCHBOLD @ CO. RD. G	440	670		510			490		200		490		A
P07S31	MILL CREEK S OF FAYETTE @ OLD ANGOLA RD.	665	600		390			760		1200		610		B
P07S33	BEAN CREEK SE OF FAYETTE @ OLD ANGOLA RD.	471	260		1400			220		580		500		B
P07S34	OLD BEAN CREEK SE OF FAYETTE @ OLD ANGOLA RD.	669	490		390			740		1300		730		Secondary
500330	BEAN CREEK E OF POWERS @ U.S. RT. 20	177	190		490			5		630		600		B

P07W24	DEER CREEK DST. FAYETTE @ CO. RD. 23	**1293**	**630**		**10000**			**2200**		**420**		**620**		B
P07S32	MILL CREEK SE OF ALVORDTON @ CO. RD. 28	**330**	**230**		**470**			**400**		**910**		**100**		B
P07W26	MILL CREEK SE OF ALVORDTON @ CO. RD. P	**363**	**240**		**270**			**800**		**550**		**220**		B
P07K24	COON CREEK E OF EVANSPORT @ CO. RD. 23	**531**		**3200**			**720**		**1100**		**520**		**32**	B
P07W15	BRUSH CREEK NEAR EVANSPORT AT CR 22-60	**468**		**610**		**310**			**430**		**510**		**540**	B
302206	TIFFIN R. @ CO. RD. 22/A	**322**		**370**		**380**			**290**		**230**		**370**	A
P07S07	TIFFIN R. DST. STRYKER @ OAK GROVE CHURCH RD.	**415**		**400**		**520**			**310**		**480**		**400**	A
P07S08	TIFFIN R. SW OF STRYKER @ ST. RT. 34	**372**		**130**		**650**			**410**		**380**		**540**	A
P07K25	BEAVER CREEK AT BEAVER CREEK WILDLIFE AREA @ CO. RD. 16	**406**		**1200**			**170**		**480**		**470**		**240**	B
P07K17	MILLER CREEK W OF BRYAN, ADJ. CO. RD. 309 / D	**304**		**230**		**600**			**1400**		**90**		**150**	B
P07P14	BEAVER CREEK S OF PULASKI @ U.S. RT. 127	**1413**		**2000**		**1000**			**2700**		**580**		**1800**	B
P07S13	PRAIRIE CREEK DST. BRYAN WWTP, ADJ CR C	**790**		**1200**			**760**		**1300**		**500**		**520**	B
302202	DRY CREEK @ CO. RD. 124 (OPENLANDER RD.)	**346**		**610**		**600**			**1400**		**510**		**19**	B

P07W18	LOST CREEK N OF SHERWOOD @ BEHNFELDT RD.	**778**		**480**		**830**			**830**		**860**		**1000**	B
P07S41	L. LICK CREEK AT NEY, UPST. RR	**605**		**660**		**1100**			**410**		**210**		**1300**	B
P07S36	LICK CREEK AT NEY @ THE BEND RD.	**615**		**280**			**1400**		**1800**		**540**		**230**	B
P07W12	PRAIRIE CREEK NE OF NEY @ FLICKINGER RD. (LOWER CROSSING)	**348**		**1100**		**670**			**410**		**120**		**140**	B
500310	LICK CREEK N OF OXBOW LAKE @ TRINITY RD.	**559**		**450**		**500**			**670**		**490**		**740**	B
P07S04	MUD CREEK NW OF BRUNERSBURG @ TRINITY RD.	**432**		**340**		**710**			**820**		**400**		**190**	B
302204	WEBB RUN @ FLORY RD.	**241**		**270**		**370**			**1500**		**74**		**74**	B
P07K11	BUCKSKIN CREEK NW OF BRUNERSBURG @ ST. RT. 15	**140**		**140**		**1200**			**82**		**44**		**90**	B

	E. coli result was reported as "Not detected". Method reporting level (RL) is 2 colonies per 100 ml. One half the RL is used to calculate the geometric mean.
	Geometric Mean exceedance of recreation criteria

2012 E. coli sampling Results

Station I.D.	Sample Location	Geomean	5/23/12	6/25/12	7/16/12	8/13/12	9/4/12
500300	TIFFIN R. AT EVANSPORT @ ST. RT. 191	**269.22**	**180**	**120**	**310**	**480**	**440**
P07K01	TIFFIN R. S OF EVANSPORT @ STEVER RD.	**254.07**	**82**	**160**	**82**	**410**	**2400**
P07S05	TIFFIN R. NE OF DEFIANCE AIRPORT @ EVANSPORT RD.	**211.19**	**140**	**70**	**84**	**580**	**880**
500160	TIFFIN R. NEAR DEFIANCE@ DEY RD.	**104.94**	**84**	**98**	**24**	**140**	**460**

E. coli result was reported as "Not detected". Method reporting level (RL) is 2 colonies per 100 ml. One half the RL is used to calculate the geometric mean.

Geometric Mean exceedance of recreation criteria

Appendix J – Fish Tissue Sampling Results

Wednesday, December 10, 2014

Tiffin River

Fish tissue summary for 2015 SFCA

Data filters: * or xxx 2004 to 2013

species * basin 4 stream 600 excluding xxx xxx

Species	Sample Size Metals	Sample Size PCBs	As	Cd	Pb	Hg	Se	PCBs
WHITE CRAPPIE	5	5	0.097	0.002	0.019	0.152	0.462	0.000
SMALLMOUTH BUFFALO	1	1	0.058	0.002	0.020	0.078	0.802	0.000
SMALLMOUTH BASS	2	2	0.068	0.002	0.019	0.427	0.593	0.000
SAUGER X WALLEYE	2	2	0.050	0.002	0.019	0.200	0.511	0.000
ROCK BASS	1	1	0.024	0.002	0.044	0.134	0.431	0.000
NORTHERN PIKE	5	5	0.024	0.002	0.019	0.297	0.481	0.000
FRESHWATER DRUM	10	10	0.074	0.002	0.026	0.437	0.692	0.000
FLATHEAD CATFISH	3	3	0.024	0.002	0.020	0.335	0.276	0.000
COMMON CARP	9	9	0.066	0.005	0.020	0.184	0.792	0.000
CHANNEL CATFISH	13	13	0.025	0.002	0.020	0.173	0.343	0.028
BLUEGILL SUNFISH	1	1	0.025	0.002	0.020	0.069	0.877	0.000
BLACK CRAPPIE	1	1	0.058	0.002	0.020	0.129	0.612	0.000
BIGMOUTH BUFFALO	1	1	0.025	0.008	0.020	0.219	0.412	0.072

Non-detect handling:
Metals assigned 1/2 detection limit.
PCBs assigned 1/2 detection limit for any Aroclors detected in any samples of a given species. Assigned zero if Aroclor not detected in any samples of that species.
PCBs reported as the sum of 7 Aroclors (1016, 1221, 1232, 1242, 1248, 1254, 1260)

Pesticides subreport

Wednesday, December 10, 2014

Project_name	2015 SFCA	Waterbody	Tiffin River
Data filters: waterbody*	*	start_year	2004
		end_year	2013
excluding*	xxx	waterbody2*	xxx
excluding2*	xxx	species*	*

Species	Avg Aldrin	Avg Lindane	Avg Sum DDTs	Avg Dieldrin	Avg Sum Endosulfans	Avg Endrin
	Avg Heptachlor	Avg Heptachlor Epoxide		Avg HCB	Avg Methoxychlor	Avg Mirex
WHITE CRAPPIE	0.005	0.005	0.015	0.006	0.015	0.005
Samples: 5	0.005	0.005		0.005	0.005	0.005
SMALLMOUTH BUFFALO	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 1	0.005	0.005		0.005	0.005	0.005
SMALLMOUTH BASS	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 2	0.005	0.005		0.005	0.005	0.005
SAUGER X WALLEYE	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 2	0.005	0.005		0.005	0.005	0.005
ROCK BASS	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 1	0.005	0.005		0.005	0.005	0.005
NORTHERN PIKE	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 5	0.005	0.005		0.005	0.005	0.005
FRESHWATER DRUM	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 10	0.005	0.005		0.005	0.005	0.005
FLATHEAD CATFISH	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 3	0.005	0.005		0.005	0.005	0.005
COMMON CARP	0.005	0.005	0.018	0.009	0.015	0.005
Samples: 9	0.005	0.005		0.005	0.005	0.005

Species	Avg Aldrin	Avg Lindane	Avg Sum DDTs	Avg Dieldrin	Avg Sum Endosulfans	Avg Endrin
	Avg Heptachlor	Avg Heptachlor Epoxide		Avg HCB	Avg Methoxychlor	Avg Mirex
CHANNEL CATFISH	0.005	0.005	0.015	0.007	0.015	0.005
Samples: 13	0.005	0.005		0.005	0.005	0.005
BLUEGILL SUNFISH	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 1	0.005	0.005		0.005	0.005	0.005
BLACK CRAPPIE	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 1	0.005	0.005		0.005	0.005	0.005
BIGMOUTH BUFFALO	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 1	0.005	0.005		0.005	0.005	0.005

Non-detect handling: Pesticides ND assigned 1/2 detection limit

Lick Creek | Fish tissue summary for | 2015 SFCA

Data filters: * or xxx excluding xxx 2004 to 2013

species * basin 4 stream 609 Tuesday, December 09, 2014

Species	Sample Size Metals	Sample Size PCBs	As	Cd	Pb	Hg	Se	PCBs
FRESHWATER DRUM	1	1	0.060	0.002	0.020	0.159	0.502	0.000
CHANNEL CATFISH	3	3	0.024	0.007	0.020	0.129	0.366	0.000

Non-detect handling:
Metals assigned 1/2 detection limit.
PCBs assigned 1/2 detection limit for any Aroclors detected in any samples of a given species. Assigned zero if Aroclor not detected in any samples of that species.
PCBs reported as the sum of 7 Aroclors (1016, 1221, 1232, 1242, 1248, 1254, 1260)

Pesticides subreport

Tuesday, December 09, 2014

Project_name	2015 SFCA	Waterbody	Lick Creek
Data filters:		start_year	2004 end_year 2013
waterbody*	*	waterbody2*	xxx
excluding*	xxx	species*	*

Species	Avg Aldrin	Avg Lindane	Avg Sum DDTs	Avg Dieldrin	Avg Sum Endosulfans	Avg Endrin
	Avg Heptachlor	Avg Heptachlor Epoxide		Avg HCB	Avg Methoxychlor	Avg Mirex
FRESHWATER DRUM	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 1	0.005	0.005		0.005	0.005	0.005
CHANNEL CATFISH	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 3	0.005	0.005		0.005	0.005	0.005

Non-detect handling: Pesticides ND assigned 1/2 detection limit

Wednesday, December 10, 2014

Mud Creek | Fish tissue summary for | 2015 SFCA

Data filters: Mud Cr* or xxx 2004 to 2013

species * basin * stream * excluding xxx xxx

Species	Sample Size Metals	Sample Size PCBs	As	Cd	Pb	Hg	Se	PCBs
YELLOW BULLHEAD	2	2	0.025	0.005	0.020	0.139	0.388	0.000
GREEN SUNFISH	1	1	0.025	0.002	0.020	0.134	0.537	0.000
CHANNEL CATFISH	1	1	0.025	0.018	0.020	0.157	0.279	0.000

Non-detect handling:
Metals assigned 1/2 detection limit.
PCBs assigned 1/2 detection limit for any Aroclors detected in any samples of a given species. Assigned zero if Aroclor not detected in any samples of that species.
PCBs reported as the sum of 7 Aroclors (1016, 1221, 1232, 1242, 1248, 1254, 1260)

Pesticides subreport

Wednesday, December 10, 2014

Project_name: 2015 SFCA | Waterbody: Mud Creek
Data filters: waterbody*: Mud Cr* | start_year: 2004 | end_year: 2013
excluding*: xxx | waterbody2*: xxx
excluding2*: xxx | species*: *

Species	Avg Aldrin	Avg Lindane	Avg Sum DDTs	Avg Dieldrin	Avg Sum Endosulfans	Avg Endrin
YELLOW BULLHEAD	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 2	Avg Heptachlor: 0.005	Avg Heptachlor Epoxide: 0.005		Avg HCB: 0.005	Avg Methoxychlor: 0.005	Avg Mirex: 0.005
GREEN SUNFISH	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 1	Avg Heptachlor: 0.005	Avg Heptachlor Epoxide: 0.005		Avg HCB: 0.005	Avg Methoxychlor: 0.005	Avg Mirex: 0.005
CHANNEL CATFISH	0.005	0.005	0.015	0.005	0.015	0.005
Samples: 1	Avg Heptachlor: 0.005	Avg Heptachlor Epoxide: 0.005		Avg HCB: 0.005	Avg Methoxychlor: 0.005	Avg Mirex: 0.005

Non-detect handling: Pesticides ND assigned 1/2 detection limit

Appendix K – Public Drinking Water Supply Sampling Results

Nutrient & Herbicides

APPENDIX TABLE . **2013 Tiffin River Watershed Water Quality Data**

Public Water System Nutrient and Herbicide Data

		Site Location: TIFFIN R. NW OF ARCHBOLB @ CO. RD. G **River Mile: 47.54**									
PARAMETER	UNITS	04/24/13		5/22/13		6/25/13		7/10/13		7/24/13	
Acetochlor	ug/L	<0.21		<0.21		0.37		0.26		0.24	
Alachlor	ug/L	<0.21		<0.21		<0.21		<0.22		0.21	
Atrazine	ug/L	<0.21		<0.21		1.99		0.51		<0.21	
Benzo[a]pyrene	ug/L	<0.52		<0.53	UJ	<0.53		<0.54		<0.53	
bis(2-Ethylhexyl)adipate	ug/L	<0.52		<0.53		<0.53		0.62	J-	0.53	
bis(2-Ethylhexyl)phthalate	ug/L	0.53		<0.53		<0.53		<0.54		<0.53	
Butachlor	ug/L	<0.21		<0.21		<0.21		<0.22		0.28	
Metolachlor	ug/L	<0.21		<0.21		2.51		1.03		0.37	
Metribuzin	ug/L	<0.21		<0.21		<0.21		<0.22		<0.21	
Pentachlorophenol	ug/L	<5.24		<5.32		<5.32		<5.38		<5.26	
Propachlor	ug/L	<0.21		<0.21		<0.21		<0.22		0.21	
Simazine	ug/L	<0.21		<0.21	UJ	<0.21		<0.22		<0.21	
Ammonia	mg/L	0.067		0.105		0.088		0.069		1.62	
Nitrate+nitrite	mg/L	5.33		1.46		9.21		6.46		2.32	
Total Phosphorus	mg/L	0.089		0.023		0.051		0.154		0.425	
Temperature	° C	10.3		21.4		24.2		22.6		21.6	
pH		7.85		8.01		7.92		7.97		8.03	

Surface Water Chemistry

		Stream Location:				**TIFFIN R. NW OF ARCHBOLD @ CO. RD. G**																		
		River Mile:				47.54																		
PARAMETER	UNITS	12/18/12		01/10/13		3/13/13		4/24/13		5/22/13		6/25/13		7/10/13		7/24/13		8/1/13		8/6/13		8/21/13		9/11/13
CBOD20	mg/L	<3.0		3.7		7.7		6.6		5.6		6.7		7.9		4.7		5.2		<3.0		3		5.5
Total Dissolved Solids	mg/L	416		458		316		318		388		426		374		410		402		444		420		384
Total Suspended Solids	mg/L	<5		<5		47		22		26		68		110		17		16		23		17		27
Arsenic	ug/L	<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		2.1		2.5		<2.0		<2.0		<2.0		2.1
Cadmium	ug/L	<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20
Chromium	ug/L	<2.0		<2.0		3.4		<2.0		<2.0		<2.0		2.3		<2.0		<2.0		<2.0		<2.0		<2.0
Copper	ug/L	<2.0		<2.0		4.7		3.4		2		3.5		4.5		2.3		<2.0		<2.0		<2.0		<2.0
Lead	ug/L	<2.0		<2.0		2.6		<2.0		<2.0		<2.0		2		<2.0		<2.0		<2.0		<2.0		<2.0
Nickel	ug/L	2.3		2.2		5.7		3.9		3.9		4.3		5.1		3.3		3.2		3.2		3		3.2
Selenium	ug/L	<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0
Aluminum	ug/L	<200		<200		3810		1220		447		1480		2710		555		436		507		401		563
Barium	ug/L	86		84		61		52		76		68		74		71		74		80		81		84
Calcium	mg/L	91		91		57		68		90		76		76		83		86		93		87		86
Hardness, Total	mg/L	347		347		204		240		328		280		276		306		322		348		333		322
Iron	ug/L	329		330		5140		1790		922		2330		4010		894		714		873		701		902
Magnesium	mg/L	29		29		15		17		25		22		21		24		26		28		28		26
Manganese	ug/L	31		36		87		39		83		102		119		90		100		124		134		91
Potassium	mg/L	3		3		5		4		3		4		5		4		4		4		4		4
Sodium	mg/L	23		31		8		9		17		13		13		19		21		23		23		19
Strontium	ug/L	1330		1370		264		360		818		606		548		822		1010		1120		1160		1060
Zinc	ug/L	<10		<10		21		<10		<10		<10		18		11		<10		<10		<10		<10
Alkalinity	mg/L	----		----		----		165		245		188		186		257		----		220		258		281
Ammonia	mg/L	0.06		0.203		0.089		0.067		0.105		0.088		0.069		1.62		<0.050		<0.050		0.064		<0.050
COD	mg/L	----		----		----		23		<20		<20		22		<20		----		<20		<20		<20
Chloride	mg/L	34.5		48.2		24.9		22.2		32.4		27.5		27.2		35.5		38.1		36.3		36.7		32.9
Conductivity	umhos/cm	----		----		----		486		659		576		546		646		----		685		669		649
Nitrate+nitrite	mg/L	0.75		1.06		7.56		5.33		1.46		9.21		6.46		2.32		0.42		0.41		0.23		0.27
Nitrite	mg/L	0.02		<0.020		<0.020		0.036		0.041		0.127		0.095		0.033		<0.020		<0.020		<0.020		<0.020
Orthophosphate, dissolved	mg/L	<0.010		0.019		0.073		0.031		0.014		0.04		0.071		0.295		0.035		0.029		0.046		0.019
Sulfate	mg/L	75.1		79		43.9		43.8		59.6		58.1		6.8		57.3		63.3		63.5		61.3		56
TKN	mg/L	0.37		0.65		1.41		0.92		0.61		1.14		1.01		3.5		0.52		0.42		0.4		0.38
Total Phosphorus	mg/L	0.017		0.067		0.263		0.089		0.023		0.051		0.154		0.425		0.062		0.042		0.041		0.085
FIELD PARAMETERS																								
Time	hhmmss	----		----		----		11:15:14		----		11:19:00		11:41:51		11:37:00		----		11:04:00		11:10:42		11:19:32

Conductivity	uS/cm	----		----		----		325.4		----		545		505		580		----		601		627		623
Conductivity @ 25C	uS/cm	----		----		----		452.2		----		553		529		621		----		671		659		641
Dissolved Oxygen	mg/L	----		----		----		10.87		----		6.63		6.64		9.24		----		9.9		7.41		7.01
Dissolved Oxygen	%	----		----		----		97.2		----		79.2		77		105		----		108.1		85.5		82.6
pH	s.u.	----		----		----		7.85		----		7.92		7.97		8.03		----		8.08		8.07		8.23
Temperature	°C	----		----		----		10.3		----		24.2		22.6		21.6		----		19.6		22.4		23.5

Microcystin

Station	Station Name	Sample No.	External Id	Sample Date	Collector	Collection Type	Matrix	Sample Type	Field Qc	CAS No.	Parameter	Result	Remark	Qualifier	Units	RL	MRL	Field Comments
204363	ARCHBOLD RESERVOIR #2, L-1	153599	101528	6/13/2013	KUENZLI, BRENT	G	SW	SURVEY		101043-37-2	Microcystins	0.3	K		ug/L	0.3	0.3	Surface 0.5 (m)
204363	ARCHBOLD RESERVOIR #2, L-1 Dup - B	170279	129326	9/30/2014	KUENZLI, BRENT	G	SW	SURVEY	FD	101043-37-2	Microcystins	0.3	K	UJ	ug/L	0.3	0.3	Surface 0.5 (m)
204363	ARCHBOLD RESERVOIR #2, L-1 Dup - A	170278	129323	9/30/2014	KUENZLI, BRENT	G	SW	SURVEY	FD	101043-37-2	Microcystins	0.3	K	UJ	ug/L	0.3	0.3	Surface 0.5 (m)
204363	ARCHBOLD RESERVOIR #2, L-1	164440	117375	5/28/2014	KUENZLI, BRENT	G	SW	SURVEY		101043-37-2	Microcystins	0.3	K		ug/L	0.3	0.3	Surface 0.5 (m)
204363	ARCHBOLD RESERVOIR #2, L-1	165291	118905	6/19/2014	KUENZLI, BRENT	G	SW	SURVEY		101043-37-2	Microcystins	0.3	K		ug/L	0.3	0.3	Surface 0.5 (m)
204363	ARCHBOLD RESERVOIR #2, L-1	166358	120748	7/14/2014	KUENZLI, BRENT	G	SW	SURVEY		101043-37-2	Microcystins	0.3	K		ug/L	0.3	0.3	Surface 0.5 (m)
204363	ARCHBOLD RESERVOIR #2, L-1	168678	126243	8/21/2014	KUENZLI, BRENT	G	SW	SURVEY		101043-37-2	Microcystins	0.3	K		ug/L	0.3	0.3	Surface 0.5 (m)

Appendix L – Inland Lakes Sampling Results

Surface Water Chemistry

ARCHBOLD RESERVOIR #2 L-1 STATION 204363

		0.5 METERS BELOW SURFACE									
PARAMETER	UNITS	5/22/13	6/13/13	7/18/13	8/12/13	9/18/13	5/28/14	6/19/14	7/14/14	8/21/14	9/30/14
Acetochlor	ug/L	---	<0.22	<0.23	<0.22	<0.21	---	---	---	---	---
Alachlor	ug/L	---	<0.22	<0.23	<0.22	<0.21	---	---	---	---	---
Alkalinity	mg/L	161	165	129	151	171	173	174	174	190	161
Aluminum	ug/L	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Ammonia	mg/L	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	ug/L	<2	<2	2.6	3.3	3.4	<2	2.7	3.2	3	2.3
Atrazine	ug/L	---	<0.22	0.42	0.33	0.27	<0.2	0.25	0.27	0.21	<0.2
Barium	ug/L	49	54	37	39	54	44	44	44	44	47
Benzo[a]pyrene	ug/L	---	<0.54	<0.56	<0.54	<0.53	---	---	---	---	---
Bicarbonate	mg/L	150	160	125	141	167	173	174	169	184	161
bis(2-Ethylhexyl)adipate	ug/L	---	<0.54	0.62J	<0.54	<0.53	---	---	---	---	---
bis(2-Ethylhexyl)phthalate	ug/L	---	0.57J	1.08J	<0.54	<0.53	---	---	---	---	---
Butachlor	ug/L	---	<0.22	<0.23	<0.22	<0.21	---	---	---	---	---
Cadmium	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Calcium	mg/L	58	62	38	44	48	57.4	55.5	52.4	48	41.6
Carbonate	mg/L	11.3	<5.1	<5	9.9	<5	<5	<5	<5	6.5	<5
Chloride	mg/L	34.7	33.1	31.9	33.9	33.5	31.8	32	32	33.1	33.9
Chlorophyll_a	ug/L	36.1	17.2	27.3	8.1	85.6	11.8	37.7J	35.1	49.5	22.5
Chromium	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Copper	ug/L	3.4	4.8	2.7	3	3.6	2.7	3.5	7.9	2.7	4
Cylindrospermopsin	ug/L	---	---	---	---	---	<0.05	<0.05	<0.05	<0.05	<0.05
Hardness, Total	mg/L	240	254	190	209	219	233	230	226	215	208
Iron	ug/L	72	174	<50	113	187	<50	90	119	85	145
Lead	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Magnesium	mg/L	23	24	23	24	24	21.8	22.2	23.1	23.1	25.3
Manganese	ug/L	53	98	97	97	139	44	104	112	105	67
Metolachlor	ug/L	---	0.28	0.26	<0.22	<0.21	---	---	---	---	---
Metribuzin	ug/L	---	<0.22	<0.23	<0.22	<0.21	---	---	---	---	---
Microcystins	ug/L	---	<0.3	---	---	---	<0.3	<0.3	<0.3	<0.3	<0.3UJ
Nickel	ug/L	2.3	2.6	<2	<2	<2	2	2.1	2	<2	2
Nitrate+nitrite	mg/L	0.47	0.94	<0.1	<0.1	<0.1	0.43	0.15	0.12	0.53	<0.1
Nitrite	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Orthophosphate, dissolved	mg/L	<0.01	<0.01	0.01	<0.01	<0.01	0.0052	0.0156	<0.01	0.0159	0.0102
Pentachlorophenol	ug/L	---	<5.38	<5.62	<5.38	<5.32	---	---	---	---	---
Pheophytin_a	ug/L	7.2J	4.4J	<6UJ	<0.3	13	2.7	9.5	7.5	15	<5.6UJ
Potassium	mg/L	3	3	3	3	4	3	3.2	3.4	3.3	3.7
Propachlor	ug/L	---	<0.22	<0.23	<0.22	<0.21	---	---	---	---	---
Saxitoxin	ug/L	---	---	---	---	---	0.024	<0.022	<0.022	<0.022	<0.022
Selenium	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Simazine	ug/L	---	<0.22	<0.23	<0.22	<0.21	---	---	---	---	---
Sodium	mg/L	17	17	17	18	18	15	15.7	16.8	17.7	21.4
Strontium	ug/L	732	756	664	718	743	623	647	660	691	790
Sulfate	mg/L	84	72.1	62.4	49.3	47.9	49.6	46.1	42.1	38.9	42.1
TKN	mg/L	0.63	0.65	<0.2	0.76	0.49	0.66	0.63	0.92	0.59	0.42
TOC	mg/L	5.9	5.7	7.02	6.26	6.25	6.49	6.54	7.21	6.56	5.67
Total Dissolved Solids	mg/L	310	316	282	262	300	304	296	316	304	290
Total Phosphorus	mg/L	0.018	0.034	1.88	0.029	0.087	0.0199	0.0225	0.07	0.0507PT	0.0187
Total Suspended Solids	mg/L	9	9	6	10	15	<5	8	6	5	9
Turbidity	ntu	6.06	9.08	3.95	7.19	6.5	3.52	6.74	6.27	5.78	5.93

Volatile Suspended Solids	mg/L	<5	7	---	---	---	---	---	---	---	---
Zinc	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
E. coliform, bacteria	#/100 ml.	2	5	<2	6	<2	3	6	2	<2	15

		0.5 METERS ABOVE BOTTOM									
PARAMETER	UNITS	5/22/13	6/13/13	7/18/13	8/12/13	9/18/13	5/28/14	6/19/14	7/14/14	8/21/14	9/30/14
Acetochlor	ug/L	---	---	---	---	---	---	---	---	---	---
Alachlor	ug/L	---	---	---	---	---	---	---	---	---	---
Alkalinity	mg/L	163	161	156	156	176	177	172	173	192	161
Aluminum	ug/L	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Ammonia	mg/L	<0.05	0.104	0.128	<0.05	<0.05	0.057	<0.05	<0.05	<0.05	<0.05
Arsenic	ug/L	2	2	4.1	3.7	3.4	<2	2.8	3.2	3.1	2.3
Atrazine	ug/L	---	---	---	---	---	---	---	---	---	---
Barium	ug/L	50	54	56	68	55	46	45	47	47	47
Benzo[a]pyrene	ug/L	---	---	---	---	---	---	---	---	---	---
Bicarbonate	mg/L	151	161	156	156	176	177	172	170	190	161
bis(2-Ethylhexyl)adipate	ug/L	---	---	---	---	---	---	---	---	---	---
bis(2-Ethylhexyl)phthalate	ug/L	---	---	---	---	---	---	---	---	---	---
Butachlor	ug/L	---	---	---	---	---	---	---	---	---	---
Cadmium	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Calcium	mg/L	59	61	49	49	48	59.3	56.8	53.6	49.3	42.6
Carbonate	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloride	mg/L	34.3	33.4	33	34.4	33.2	31.2	32.1	31.9	33.3	34
Chlorophyll_a	ug/L	---	---	---	---	---	---	---	---	---	---
Chromium	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Copper	ug/L	3.3	5	4.1	4.3	4	2.7	3.4	4	3.2	3.9
Cylindrospermopsin	ug/L	---	---	---	---	---	---	---	---	---	---
Hardness, Total	mg/L	246	251	221	221	219	237	235	228	220	210
Iron	ug/L	88	201	248	250	216	75	101	213	134	151
Lead	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Magnesium	mg/L	24	24	24	24	24	21.5	22.6	22.9	23.6	25.2
Manganese	ug/L	58	107	301	160	141	65	109	136	112	70
Metolachlor	ug/L	---	---	---	---	---	---	---	---	---	---
Metribuzin	ug/L	---	---	---	---	---	---	---	---	---	---
Microcystins	ug/L	---	---	---	---	---	---	---	---	---	---
Nickel	ug/L	2.2	2.6	<2	2	<2	2	2.1	2	<2	2
Nitrate+nitrite	mg/L	0.47	0.93	<<0.1	<0.1	<0.1	0.48	0.15	0.11	<0.1	<0.1
Nitrite	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Orthophosphate, dissolved	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Pentachlorophenol	ug/L	---	---	---	---	---	---	---	---	---	---
Pheophytin_a	ug/L	---	---	---	---	---	---	---	---	---	---
Potassium	mg/L	3	3	3	3	4	2.9	3.2	3.4	3.4	3.6
Propachlor	ug/L	---	---	---	---	---	---	---	---	---	---
Saxitoxin	ug/L	---	---	---	---	---	---	---	---	---	---
Selenium	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Simazine	ug/L	---	---	---	---	---	---	---	---	---	---

Sodium	mg/L	17	18	17	19	18	14.5	15.9	16.7	18.2	21
Strontium	ug/L	740	758	718	756	743	613	658	659	707	789
Sulfate	mg/L	69.3	72.3	59.1	45.8	47.9	49.1	46.3	42.2	38.1	41.5
TKN	mg/L	0.66	0.89	0.65	0.72	0.72	0.63	0.63	0.73	0.55	0.6
TOC	mg/L	5.9	5.7	6.43	6.1	6.16	6.43	6.42	6.26	6.56	5.73
Total Dissolved Solids	mg/L	308	318	298	282	284	312	302	304	302	284
Total Phosphorus	mg/L	0.017	0.037	0.15	0.031	0.027	0.016	0.024	0.044	0.036	0.033
Total Suspended Solids	mg/L	10	10	16	17	15	<5	10	10	11	8
Turbidity	ntu	5.17	9.84	10.5	11.9	8.01	4.1	5.05	7.26	7.49	5.72
Volatile Suspended Solids	mg/L	---	---	---	---	---	---	---	---	---	---
Zinc	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
E. coliform, bacteria	#/100 ml.	---	---	---	---	---	---	---	---	---	---

Field Parameters

ARCHBOLD RESERVOIR # 2 L-1 - STATION 204363 FIELD MEASUREMENT PROFILES								
Date/Time	Conductivity (uS/cm)	Specific Conductance (uS/cm)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	pH (su)	Temperature (C)	Depth (m)	Secchi (m)
5/22/2013 9:43:00	495.2	533	106.5	9.43	8.33	21.3	0.5	0.8
5/22/2013 9:44:00	495.3	533	110	9.74	8.33	21.3	1	
5/22/2013 9:44:00	495.4	534	109.8	9.73	8.34	21.3	1.5	
5/22/2013 9:44:00	495.5	534	110	9.75	8.34	21.3	2	
5/22/2013 9:45:00	495.6	534	109.2	9.67	8.34	21.3	2.5	
5/22/2013 9:45:00	495.6	536	106.1	9.44	8.31	21.1	3	
5/22/2013 9:45:00	492.9	551	97.1	8.9	8.25	19.5	3.4	
6/13/2013 9:37:00	506	537	86.4	7.54	8.15	22	0.5	0.7
6/13/2013 9:38:00	506	537	84	7.33	8.19	22	1	
6/13/2013 9:38:00	506	537	83.5	7.29	8.21	22	1.5	
6/13/2013 9:38:00	506	537	83.2	7.26	8.21	22	2	
6/13/2013 9:38:00	507	538	82.7	7.22	8.2	22	2.5	
6/13/2013 9:39:00	507	538	82.4	7.19	8.2	22	3	
6/13/2013 9:39:00	507	546	73.7	6.53	8.11	21.3	3.4	
7/18/2013 9:04:00	479.4	446.8	63.5	4.9	8.69	28.8	0.5	1.09
7/18/2013 9:05:00	479.5	447.2	73	5.63	8.68	28.8	1	
7/18/2013 9:06:00	492.6	470.5	79.7	6.29	8.36	27.5	1.5	
7/18/2013 9:06:00	488.5	462.6	85	6.65	8.46	27.9	2	
7/18/2013 9:06:00	496.5	480.9	82.9	6.63	8.31	26.7	2.5	
8/12/2013 10:10:00	---	455.9	49.4	4.15	8.56	24	0.5	0.66
8/12/2013 10:11:00	---	458.6	49.5	4.17	8.55	23.9	1	
8/12/2013	---	466.6	50	4.23	8.48	23.6	1.5	

10:11:00								
8/12/2013 10:11:00	---	487.2	48.6	4.15	8.22	23.2	2	
8/12/2013 10:11:00	---	489.7	46.8	4	8.06	23.1	2.5	
8/12/2013 10:12:00	---	491	39.2	3.37	7.86	22.9	3.1	
9/18/2013 10:25:00	469.3	525	90.7	8.32	8.37	19.5	0.5	0.52
9/18/2013 10:26:00	469.6	525	87.7	8.05	8.34	19.5	1	
9/18/2013 10:27:00	469.6	525	87.5	8.03	8.33	19.5	1.5	
9/18/2013 10:27:00	469.7	525	87.4	8.02	8.33	19.5	2	
9/18/2013 10:28:00	469.8	525	86.2	7.91	8.32	19.5	2.5	
9/18/2013 10:29:00	469.8	525	86	7.89	8.32	19.5	3	
9/18/2013 10:30:00	469.8	525	85	7.8	8.31	19.5	3.4	
5/28/2014 10:49:00	498.8	520	100.2	8.6	8.23	22.9	0.5	1.41
5/28/2014 10:50:00	497.7	519	109.9	9.45	8.22	22.8	1	
5/28/2014 10:50:00	497.3	521	107.2	9.26	8.2	22.6	1.5	
5/28/2014 10:51:00	499.3	525	100.5	8.7	8.15	22.4	2	
5/28/2014 10:52:00	496.2	525	95.9	8.36	8.1	22.1	2.5	
5/28/2014 10:52:00	502	536	81.2	7.14	7.94	21.6	3	
5/28/2014 10:53:00	483.6	533	56.2	5.09	7.61	20.1	3.3	
7/14/2014 10:24:35	503	503	101	8.33	8.29	25	0.5	0.8
7/14/2014 10:25:15	502	503	92.2	7.63	8.27	24.9	1	
7/14/2014 10:25:39	502	504	88.6	7.33	8.24	24.8	1.5	
7/14/2014 10:26:08	504	507	79.2	6.56	8.18	24.8	2	
7/14/2014 10:26:37	505	507	73.9	6.13	8.14	24.7	2.5	
7/14/2014 10:27:27	505	508	70.7	5.86	8.09	24.7	3	
7/14/2014 10:27:51	506	509	65.8	5.46	8.05	24.6	3.5	
8/21/2014 9:58:34	544	556	95.7	8.06	8.28	23.9	0.5	0.8
8/21/2014 9:58:50	543	556	95.9	8.09	8.26	23.8	1	
8/21/2014 9:59:04	543	556	92.4	7.81	8.23	23.7	1.5	
8/21/2014 9:59:16	542	556	90.4	7.65	8.22	23.7	2	
8/21/2014 9:59:29	543	557	88.7	7.5	8.2	23.7	2.5	
8/21/2014 10:00:08	546	561	76.4	6.47	8.11	23.6	3	
8/21/2014 10:00:44	545	561	71.5	6.06	8.07	23.5	3.5	
9/30/2014 10:12:28	473.1	532	95.7	8.83	8.05	19.2	0.5	1.03
9/30/2014 10:12:40	474	533	98.7	9.11	8.02	19.2	1	

9/30/2014 10:12:51	474.7	534	98	9.05	8	19.2	1.5	
9/30/2014 10:13:01	475.4	535	96.1	8.88	7.99	19.1	2	
9/30/2014 10:13:16	475.8	536	96	8.87	7.99	19.1	2.5	
9/30/2014 10:13:28	476.4	537	96.3	8.89	7.99	19.1	3	
9/30/2014 10:13:39	476.7	537	95.7	8.84	7.99	19.1	3.4	

Phytoplankton Enumeration Data

STATION	SAMPLE DATE	SAMPLE TIME	GENUS	DIVISION	TALLY REP 1	DENSITY (cells/L) REP 1	TOTAL BV um^3/L
Archbold Reservoir #2, L-1	5/28/2014	10:49	cf. Achnanthes rossii	Bacillariophyta	1	1.07E+05	3.02E+06
Archbold Reservoir #2, L-1	5/28/2014	10:49	Achnanthidium minutissimum	Bacillariophyta	1	1.07E+05	5.54E+06
Archbold Reservoir #2, L-1	5/28/2014	10:49	Aulacoseira alpigena	Bacillariophyta	1	1.07E+05	1.81E+07
Archbold Reservoir #2, L-1	5/28/2014	10:49	Ankistrodesmus nannoselene	Chlorophyta	3	3.21E+05	4.03E+06
Archbold Reservoir #2, L-1	5/28/2014	10:49	Chlamydomonas globosa	Chlorophyta	7	7.49E+05	4.90E+07
Archbold Reservoir #2, L-1	5/28/2014	10:49	Chlorella ellipsoidea	Chlorophyta	97	1.04E+07	2.44E+08
Archbold Reservoir #2, L-1	5/28/2014	10:49	Chlorella spp.	Chlorophyta	47	5.03E+06	4.11E+07
Archbold Reservoir #2, L-1	5/28/2014	10:49	Monoraphidium minutum	Chlorophyta	3	3.21E+05	4.03E+06
Archbold Reservoir #2, L-1	5/28/2014	10:49	Oocystis sp.	Chlorophyta	22	2.35E+06	4.62E+07
Archbold Reservoir #2, L-1	5/28/2014	10:49	Scenedesmus sp.	Chlorophyta	12	1.28E+06	1.61E+07
Archbold Reservoir #2, L-1	5/28/2014	10:49	Mallomonas sp.	Chrysophyta	1	1.07E+05	1.34E+08
Archbold Reservoir #2, L-1	5/28/2014	10:49	Cryptomonas erosa	Cryptophyta	1	1.07E+05	2.82E+07
Archbold Reservoir #2, L-1	5/28/2014	10:49	Cryptomonas sp.	Cryptophyta	8	8.56E+05	4.87E+08
Archbold Reservoir #2, L-1	5/28/2014	10:49	Rhodomonas sp.	Cryptophyta	113	1.21E+07	2.23E+09
Archbold Reservoir #2, L-1	5/28/2014	10:49	Aphanocapsa spp.	Cyanobacteria	240	2.57E+07	1.34E+07
Archbold Reservoir #2, L-1	5/28/2014	10:49	Aphanothece clathrata	Cyanobacteria	350	3.74E+07	7.35E+06
Archbold Reservoir #2, L-1	5/28/2014	10:49	Planktothrix suspensa	Cyanobacteria	376	4.02E+07	4.93E+08
			TOTAL		1283	1.37E+08	3.82E+09
Archbold Reservoir #2, L-1	7/14/2014	10:24	Aulacoseira alpigena	Bacillariophyta	2	2.85E+05	4.84E+07
Archbold Reservoir #2, L-1	7/14/2014	10:24	Cyclotella spp.	Bacillariophyta	14	2.00E+06	4.01E+08
Archbold Reservoir #2, L-1	7/14/2014	10:24	Chlorella minutissima	Chlorophyta	12	1.71E+06	7.17E+06
Archbold Reservoir #2, L-1	7/14/2014	10:24	Chlorella vulgaris	Chlorophyta	5	7.13E+05	2.39E+07
Archbold Reservoir #2, L-1	7/14/2014	10:24	Scenedesmus sp.	Chlorophyta	4	5.70E+05	5.97E+06
Archbold Reservoir #2, L-1	7/14/2014	10:24	Cryptomonas erosa	Cryptophyta	1	1.43E+05	3.76E+07
Archbold Reservoir #2, L-1	7/14/2014	10:24	Rhodomonas sp.	Cryptophyta	254	3.62E+07	5.12E+08
Archbold Reservoir #2, L-1	7/14/2014	10:24	Microcystis aeruginosa	Cyanobacteria	90	1.28E+07	4.30E+08
			TOTAL		382	5.45E+07	1.47E+09
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Aulacoseira alpigena	Bacillariophyta	41	7.97E+06	3.38E+08
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Aulacoseira granulata	Bacillariophyta	59	1.15E+07	7.14E+09
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Cyclotella sp.	Bacillariophyta	41	7.97E+06	1.35E+09
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Rhoicosphenia curvata	Bacillariophyta	1	1.94E+05	3.75E+07
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Stephanodiscus sp.	Bacillariophyta	1	1.94E+05	1.41E+09
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Synedra tenera	Bacillariophyta	8	1.56E+06	1.71E+08
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Chlamydomonas globosa	Chlorophyta	8	1.56E+06	4.17E+08
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Chlorella spp.	Chlorophyta	43	8.36E+06	1.18E+08
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	cf. Kirchneriella sp.	Chlorophyta	6	1.17E+06	1.47E+07
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Scenedesmus sp.	Chlorophyta	4	7.78E+05	3.67E+07

Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Mallomonas sp.	Chrysophyta	8	1.56E+06	4.11E+08
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	cf. Synura sp.	Chrysophyta	1	1.94E+05	4.76E+07
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Cryptomonas erosa	Cryptophyta	13	2.53E+06	6.67E+08
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Rhodomonas sp.	Cryptophyta	44	8.56E+06	7.26E+08
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Aphanocapsa sp.	Cyanobacteria	74	1.44E+07	7.53E+06
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Chroococcus microscopicus	Cyanobacteria	48	9.33E+06	4.89E+06
Archbold Reservoir #2, L-1 Dup-A	9/30/2014	10:25	Pseudanabaena sp.	Cyanobacteria	504	9.80E+07	1.23E+09
			TOTAL		904	1.76E+08	1.41E+10
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Aulacoseira alpigena	Bacillariophyta	35	2.67E+06	6.05E+08
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Aulacoseira granulata	Bacillariophyta	67	5.12E+06	1.61E+10
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Cyclotella spp.	Bacillariophyta	25	1.91E+06	1.50E+09
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Nitzschia fruticosa	Bacillariophyta	14	1.07E+06	1.03E+08
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Chlamydomonas globosa	Chlorophyta	3	2.29E+05	3.84E+07
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Chlamydomonas sp.	Chlorophyta	6	4.58E+05	1.20E+08
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Chlorella spp.	Chlorophyta	79	6.03E+06	8.53E+07
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Pediastrum duplex	Chlorophyta	1	7.64E+04	1.62E+09
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Cryptomonas spp.	Cryptophyta	21	1.60E+06	9.14E+08
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Rhodomonas sp.	Cryptophyta	32	2.44E+06	2.53E+08
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Anabaena spp.	Cyanobacteria	178	1.36E+07	3.20E+08
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Aphanizomenon sp.	Cyanobacteria	11	8.40E+05	5.28E+06
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Aphanocapsa sp.	Cyanobacteria	392	2.99E+07	1.57E+07
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Planktothrix agardhii	Cyanobacteria	152	1.16E+07	1.64E+08
Archbold Reservoir #2, L-1 Dup-B	9/30/2014	10:25	Pseudanabaena limnetica	Cyanobacteria	337	2.57E+07	2.43E+08
			TOTAL		1353	1.03E+08	2.20E+10

Sediment Chemistry Data

ARCHBOLD RESERVOIR # 2 L-1 -
STATION 204363 SEDIMENT 10/2/13

PARAMETER	UNITS	RESULT	PARAMETER	UNITS	RESULT	PARAMETER	UNITS	RESULT	PARAMETER	UNITS	RESULT
% Solids	%	32.4	a-BHC	ug/kg	<12.3	Heptachlor	ug/kg	<12.3	% Solids	%	26.8
1,2,4,5-Tetrachlorobenzene	mg/kg	<1.23	Acenaphthene	mg/kg	<1.23	Heptachlor epoxide	ug/kg	<12.3	Aluminum	mg/kg	12700
1,2,4-Trichlorobenzene	mg/kg	<1.23	Acenaphthylene	mg/kg	<1.23	Hexachlorobenzene	ug/kg	<12.3	Arsenic	mg/kg	5.82
1,2-Dichlorobenzene	mg/kg	<1.23	Acetophenone	mg/kg	<1.23	Hexachlorobenzene	mg/kg	<1.23	Barium	mg/kg	165
1,3-Dichlorobenzene	mg/kg	<1.23	Aldrin	ug/kg	<12.3	Hexachlorobutadiene	mg/kg	<1.23	Cadmium	mg/kg	0.659
1,3-Dinitrobenzene	mg/kg	<1.23	Aniline	mg/kg	6.2	Hexachlorocyclopentadiene	mg/kg	<1.23	Calcium	mg/kg	181000
1,4-Dichlorobenzene	mg/kg	<1.23	Anthracene	mg/kg	<1.23	Hexachloroethane	mg/kg	<1.23	Chromium	mg/kg	20.4
1,4-Naphthoquinone	mg/kg	<1.23	b-BHC	ug/kg	<12.3	Hexachloropropene	mg/kg	<1.23	Copper	mg/kg	451
2,3,4,6-Tetrachlorophenol	mg/kg	<1.23	Benz[a]anthracene	mg/kg	<1.23	Indeno[1,2,3-cd]pyrene	mg/kg	<1.23	Iron	mg/kg	20400
2,4,5-Trichlorophenol	mg/kg	<1.23	Benzo[a]pyrene	mg/kg	<1.23	Isophorone	mg/kg	<1.23	Lead	mg/kg	13.8
2,4,6-Trichlorophenol	mg/kg	<1.23	Benzo[b]fluoranthene	mg/kg	<1.23	Methoxychlor	ug/kg	<12.3	Magnesium	mg/kg	10500
2,4-Dichlorophenol	mg/kg	<1.23	Benzo[g,h,i]perylene	mg/kg	<1.23	Methyl methanesulfonate	mg/kg	<1.23	Manganese	mg/kg	1370
2,4-Dimethylphenol	mg/kg	<1.23	Benzo[k]fluoranthene	mg/kg	<1.23	Mirex	ug/kg	<12.3	Mercury	mg/kg	<0.063
2,4-Dinitrophenol	mg/kg	<6.2	Benzyl alcohol	mg/kg	<1.23	Naphthalene	mg/kg	<1.23	Nickel	mg/kg	26.5
2,4-Dinitrotoluene	mg/kg	<1.23	bis(2-Chloroethoxy)methane	mg/kg	<1.23	Nitrobenzene	mg/kg	<1.23	Potassium	mg/kg	<2760
2,6-Dichlorophenol	mg/kg	<1.23	bis(2-Chloroethyl)ether	mg/kg	<1.23	N-Nitroso-di-n-butylamine	mg/kg	<1.23	Selenium	mg/kg	<2.76
2,6-Dinitrotoluene	mg/kg	<1.23	bis(2-Chloroisopropyl)ether	mg/kg	<1.23	N-Nitroso-di-n-propylamine	mg/kg	<1.23	Sodium	mg/kg	<6900
2-Acetylaminofluorene	mg/kg	<1.23	bis(2-Ethylhexyl)phthalate	mg/kg	<1.23	N-Nitrosomorpholine	mg/kg	<1.23	Strontium	mg/kg	536
2-Chloronaphthalene	mg/kg	<1.23	Butylbenzylphthalate	mg/kg	<1.23	N-Nitrosopiperidine	mg/kg	<1.23	TOC	%	3
2-Chlorophenol	mg/kg	<1.23	Chrysene	mg/kg	<1.23	N-Nitrosopyrrolidine	mg/kg	<1.23	Zinc	mg/kg	80
2-Methylnaphthalene	mg/kg	<1.23	d-BHC	ug/kg	<12.3	PCB-1016	ug/kg	<61.6			
2-Methylphenol	mg/kg	<1.23	Dibenz[a,h]anthracene	mg/kg	<1.23	PCB-1221	ug/kg	<61.6			
2-Nitroaniline	mg/kg	<1.23	Dibenzofuran	mg/kg	<1.23	PCB-1232	ug/kg	<61.6			
2-Nitrophenol	mg/kg	<1.23	Dieldrin	ug/kg	<12.3	PCB-1242	ug/kg	<61.6			
2-Picoline	mg/kg	<1.23	Diethylphthalate	mg/kg	<1.23	PCB-1248	ug/kg	<61.6			
3&4-Methylphenol	mg/kg	<1.23	Dimethylphthalate	mg/kg	<1.23	PCB-1254	ug/kg	<61.6			
3,3'-Dichlorobenzidine	mg/kg	<6.2	Di-n-butylphthalate	mg/kg	<1.23	PCB-1260	ug/kg	<61.6			

3-Methylcholanthrene	mg/kg	<1.23	Di-n-octylphthalate	mg/kg	<1.23	p-Dimethylaminoazobenzene	mg/kg	<1.23
4,4'-DDD	ug/kg	<12.3	Dinoseb	mg/kg	<1.23	Pentachlorobenzene	mg/kg	<1.23
4,4'-DDE	ug/kg	<12.3	Diphenylamine	mg/kg	<1.23	Pentachlorophenol	mg/kg	<1.23UJ
4,4'-DDT	ug/kg	<12.3	Endosulfan I	ug/kg	<12.3	Phenacetin	mg/kg	<1.23
4,6-Dinitro-2-methylphenol	mg/kg	<1.23UJ	Endosulfan II	ug/kg	<12.3	Phenanthrene	mg/kg	<1.23
4-Bromophenyl-phenylether	mg/kg	<1.23	Endosulfan sulfate	ug/kg	<12.3	Phenol	mg/kg	<1.23
4-Chloro-3-methylphenol	mg/kg	<1.23	Endrin	ug/kg	<12.3	Pronamide	mg/kg	<1.23
4-Chlorophenyl-phenylether	mg/kg	<1.23	Endrin aldehyde	ug/kg	<12.3	Pyrene	mg/kg	<1.23
4-Nitroaniline	mg/kg	<1.23	Ethyl methanesulfonate	mg/kg	<1.23	Safrole	mg/kg	<1.23
4-Nitrophenol	mg/kg	<6.2	Fluoranthene	mg/kg	<1.23	y-BHC	ug/kg	<12.3
7,12-Dimethylbenz[a]anthracene	mg/kg	<6.2	Fluorene	mg/kg	<1.23			