Level 3 Project Study Plan

For the

Clermont County, Ohio
2010 Water Quality Sampling Program

Date: June 29th, 2010

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1. OBJECTIVES

As it has for the past 14 years, the Clermont County Office of Environmental Quality (OEQ) will be conducting a multi-faceted water quality sampling program in 2010. The program will involve collecting field data, water samples, and biological assessments from a number of locations around the County in support of various initiatives, and data collected from each site is specific to those initiatives (Table 1). Data will be used for estimation purposes, i.e. to ascertain contaminant concentrations and loadings at various locations and within various watersheds, and may provide support to total maximum daily load (TMDL) determinations in the East Fork of the Little Miami River (EFLMR). According to the latest U.S. EPA guidelines, projects generating newly-collected data require a set of performance criteria that are of sufficient quality and quantity to address the project's goals (EPA/240/B-06/001). Clermont County OEQ has developed such performance criteria in the form of Data Quality Objectives for laboratory accuracy, laboratory precision, field accuracy, and field precision (See attached Quality Assurance Project Plan).

1.1. Continuous Water Quality Monitoring Stations

Stream level, precipitation, temperature, pH, specific conductance, and dissolved oxygen (D.O.) will be recorded every 15 minutes at monitoring stations so that staff can identify any potential water quality issues in the watersheds of these sites and monitor long term changes in water quality.

1.2. Diurnal D.O. Profiles

Data collected from multi-parameter water quality sondes for periods of 24 hours (diurnal profiles) will be used to determine impacts of wastewater treatment plant effluent on in-stream dissolved oxygen concentrations.

1.3. Event-Based Sampling

Samples collected during wet weather and dry weather events will be used to characterize loadings to the East Fork of the Little Miami River from headwater tributaries with agricultural land use. These data are being collected to support source water protection initiatives and TMDL development.

1.4. Biological Assessments

Fish and macroinvertebrate communities from five headwater tributaries to the EFLMR will be assessed to determine whether these streams are meeting biological criteria.

TABLE 1. List of sample identifications and field, laboratory, and biological measurements for each sampling location.

Location	Sample ID	Field Parameters	Laboratory Parameters	Biological Indices
Continuous Water Quality Monitoring Stations				
EFLMR RM 34.8 at Main St.	EFRM34.8[1]	level, precipitation, D.O., specific conductance, temperature, pH	N/A	N/A
Grassy Fork RM 0.2 at Glancy Corner-Marathon Rd.	GRSSY0.2[2]	level, precipitation, D.O., specific conductance, temperature, pH	N/A	N/A
Diurnal DO Profiles				
EFLMR Upstream Batavia WWTP	USBAT14.3, USBAT13.5	Dissolved Oxygen (D.O.)	ortho-P, TP, NH_3, NO_3, NO_2	N/A
EFLMR Downstream Batavia WWTP	DSBAT12.6[3]	Dissolved Oxygen (D.O.)	ortho-P, TP, NH_3, NO_3, NO_2	N/A
EFLRM Upstream Middle East Fork WWTP	USMEF12.6[3]	Dissolved Oxygen (D.O.)	ortho-P, TP, NH_3, NO_3, NO_2	N/A
EFLMR Downstream Middle East Fork WWTP	DSMEF11.9, DSMEF11.2	Dissolved Oxygen (D.O.)	ortho-P, TP, NH_3, NO_3, NO_2	N/A
EFLMR Upstream Lower East Fork WWTP	USLEF5.2	Dissolved Oxygen (D.O.)	ortho-P, TP, NH_3, NO_3, NO_2	N/A
EFLMR Downstream Lower East Fork WWTP	DSLEF4.0, DSLEF3.6	Dissolved Oxygen (D.O.)	ortho-P, TP, NH_3, NO_3, NO_2	N/A
EFLMR Upstream Milford WWTP	USMIL2.1	Dissolved Oxygen (D.O.)	ortho-P, TP, NH_3, NO_3, NO_2	N/A
EFLMR Downstream Milford WWTP	DSMIL0.8, DSMIL0.2	Dissolved Oxygen (D.O.)	ortho-P, TP, NH_3, NO_3, NO_2	N/A
O'Bannon Creek Upstream O'Bannon WWTP	USOB3.1	Dissolved Oxygen (D.O.)	ortho-P, TP, NH_3, NO_3, NO_2	N/A
O'Bannon Creek Downstream O'Bannon WWTP	DSOB2.4, DSOB1.9	Dissolved Oxygen (D.O.)	ortho-P, TP, NH_3, NO_3, NO_2	N/A
Event Based Sampling				
Ulrey Run RM 1.3 at St.Rt. 125	ULREY1.3[4]	discharge, level, D.O., specific conductance, temperature, pH	ortho-P, TP, NH_3, NO_2, NO_3, TKN, DOC, TOC, SS, *E.coli*	N/A
Slab Camp Run RM 0.5 at Greenbriar Rd.	SLAB0.5	discharge, level, D.O., specific conductance, temperature, pH	ortho-P, TP, NH_3, NO_2, NO_3, TKN, DOC, TOC, SS, *E.coli*	N/A
Poplar Creek RM 2.1 at Macedonia	POPLR2.1[5]	discharge, level, D.O., specific conductance, temperature, pH	ortho-P, TP, NH_3, NO_2, NO_3, TKN, DOC, TOC, SS, *E.coli*	N/A
Cabin Run RM 1.5 at State Park Loop G	CABIN1.5	discharge, level, D.O., specific conductance, temperature, pH	ortho-P, TP, NH_3, NO_2, NO_3, TKN, DOC, TOC, SS, *E.coli*	N/A
EFLMR RM 34.8 at Main St.	EFRM34.8[1]	discharge, level, D.O., specific conductance, temperature, pH	ortho-P, TP, NH_3, NO_2, NO_3, TKN, DOC, TOC, SS, *E.coli*	N/A
Pleasant Run RM 0.2 at Hutchinson Property	PLEAS0.2[6]	discharge, level, D.O., specific conductance, temperature, pH	ortho-P, TP, NH_3, NO_2, NO_3, TKN, DOC, TOC, SS, *E.coli*	N/A
Five Mile Creek RM 0.5 at Blue Sky Park Rd.	5MILECR0.5	discharge, level, D.O., specific conductance, temperature, pH	ortho-P, TP, NH_3, NO_2, NO_3, TKN, DOC, TOC, SS, *E.coli*	N/A
Howard Run RM 0.4 at Burdsall Rd.	HWRD0.4	discharge, level, D.O., specific conductance, temperature, pH	ortho-P, TP, NH_3, NO_2, NO_3, TKN, DOC, TOC, SS, *E.coli*	N/A
Grassy Fork RM 0.2 at Glancy Corner-Marathon Rd.	GRSSY0.2[2]	discharge, level, D.O., specific conductance, temperature, pH	ortho-P, TP, NH_3, NO_2, NO_3, TKN, DOC, TOC, SS, *E.coli*	N/A
Stonelick Creek RM 17.3 at Stonelick Trace	ST17.3[7]	discharge, level, D.O., specific conductance, temperature, pH	ortho-P, TP, NH_3, NO_2, NO_3, TKN, DOC, TOC, SS, *E.coli*	N/A
Biological Assessments				
Ulrey Run RM 1.3 at St.Rt. 125	ULREY1.3[4]	D.O., specific conductance, temperature, pH, Habitat	N/A	IBI, ICI, MIwb
Poplar Creek RM 2.1 at Macedonia	POPLR2.1[5]	D.O., specific conductance, temperature, pH, Habitat	N/A	IBI, ICI, MIwb
Pleasant Run RM 0.2 at Hutchinson Property	PLEAS0.2[6]	D.O., specific conductance, temperature, pH, Habitat	N/A	IBI, ICI, MIwb
Grassy Fork RM 0.2 at Glancy Corner-Marathon Rd.	GRSSY0.2[2]	D.O., specific conductance, temperature, pH, Habitat	N/A	IBI, ICI, MIwb
Stonelick Creek RM 17.3 at Stonelick Trace	ST17.3[7]	D.O., specific conductance, temperature, pH, Habitat	N/A	IBI, ICI, MIwb

2. POINT AND NONPOINT SOURCE ISSUES

Table 2 provides a summary of the point and nonpoint sources of pollution in the watersheds of each sampling location

TABLE 2. Summary of point and nonpoint sources of pollution for each sampling location

Sample ID	Figure No.	Point Source Issues	Non-Point Source Issues
Continous Water Quality Monitoring Stations			
EFRM34.8	1	WWTPs	HSTS, urban stormwater, agriculture, livestock, wildlife
GRSSY0.2	2	N/A	agriculture, HSTSs, wildlife
Diurnal DO Profiles			
USBAT14.3, USBAT13.5	3	Harsha Lake	I/I, urban stormwater, agriculture, wildlife
DSBAT12.6[1]	3	WWTP, Harsha Lake	I/I, urban stormwater, agriculture, wildlife
USMEF12.6[1]	4	WWTP, Harsha Lake	I/I, urban stormwater, agriculture, wildlife
DSMEF11.9, DSMEF11.2	4	WWTP, Harsha Lake	I/I, urban stormwater, agriculture, wildlife
USLEF5.2	5	WWTP, Harsha Lake	HSTSs, gravel mining, agriculture, urban stormwater, wildlife
DSLEF4.0, DSLEF3.6	5	WWTP, ESF, Harsha Lake	HSTSs, gravel mining, agriculture, urban stormwater, wildlife
USMIL2.1	6	MHP WWTP, WWTP, ESF, Harsha Lake	HSTSs, gravel mining, agriculture, urban stormwater, wildlife
DSMIL0.8, DSMIL0.2	6	MHP WWTP, WWTP, ESF, Harsha Lake	HSTSs, gravel mining, agriculture, urban stormwater, wildlife
USOB3.1	7	N/A	HSTSs, I/I, agriculture, construction, golf courses, wildlife
DSOB2.4, DSOB1.9	7	WWTP	HSTSs, I/I, agriculture, construction, golf courses, wildlife
Event Based Sampling			
ULREY1.3	8	WWTP	HSTS, agriculture, urban stormwater, wildlife
SLAB0.5	9	N/A	HSTS, agriculture, urban/industrial stormwater, wildlife
POPLR2.1	10	N/A	HSTS, urban stormwater, agriculture, wildlife
CABIN1.5	11	N/A	HSTSs, wildlife
EFRM34.8	1	WWTPs	HSTS, urban stormwater, agriculture, livestock, wildlife
PLEAS0.2	12	HW landfill	agriculture, HSTSs, livestock, wildlife
5MILECR0.5	13	N/A	agriculture, HSTSs, livestock, wildlife
HWRD0.4	14	N/A	agriculture, HSTSs, wildlife
GRSSY0.2	2	N/A	agriculture, HSTSs, wildlife
ST17.3	15	N/A	agriculture, HSTSs, livestock, wildlife
Biological Assessment			
ULREY1.3	8	WWTP	HSTS, agriculture, urban stormwater, wildlife
POPLR2.1	10	N/A	HSTS, urban stormwater, agriculture, wildlife
PLEAS0.2	12	HW landfill	agriculture, HSTSs, livestock, wildlife
GRSSY0.2	2	N/A	agriculture, HSTSs, wildlife
ST17.3	15	N/A	agriculture, HSTSs, livestock, wildlife

2.1. Continuous Water Quality Monitoring Stations

OEQ will maintain water quality monitoring stations at two locations in the county. These stations will record stream level, rainfall, temperature, pH, specific conductance, and D.O from April through October every 15 minutes. These data are then examined by OEQ personnel in an effort to identify any potential water quality issues in these

watersheds. Data from these stations will be used to further understand source water protection issues and to monitor long term changes in water quality. Rainfall data from these stations will also assist in getting relevant hydrological data during the event based sampling study.

Table 2 summarizes the possible point and nonpoint sources of pollution in the watersheds of each sampling location. The site in the EFLMR at river mile 34.8 has a wide variety of point and nonpoint sources in the watershed as this site drains a catchment over 237 square miles. The East Fork LMR watershed upstream from this site is primarily rural and receives runoff from agriculture, livestock, and Home Sewage Treatment Systems (HSTSs). There is some urban storm water runoff from villages such as the Village of Williamsburg where the EFRM34.8 sampling site is located. The site in Grassy Fork receives runoff from agriculture and may drain failing HSTSs.

Point sources in the EFLMR upstream from river mile 34.8 include discharge from five WWTPs (New Vienna, Lynchburg, St. Martin, Fayetteville-Perry, and Williamsburg), one package WWTP (Snow Hill Country Club), and a water treatment plant (New Vienna). There are no known point sources in the Grassy Fork watershed.

Figure 1

2010 Water Quality Monitoring Program
Continuous Water Quality Monitoring Stations, Event Based Sampling, & Biological Assessments
East Fork of the Little Miami River

Figure 2

2010 Water Quality Monitoring Program
Continuous Water Quality Monitoring Stations & Event Based Sampling
Grassy Fork

2.2. Diurnal D.O. Profiles

In 2007, 2008, and 2009, OEQ monitored DO profiles upstream and downstream from WWTPs that discharge to the East Fork of Little Miami River or O'Bannon Creek to record the effect, if any, nutrient loading or organic enrichment from the plants may have had on DO levels in the river (visit www.oeq.net for reports). These sites were monitored during summer low-flow conditions to maximize the effect from WWTP loads and temperature on DO concentrations. Regardless of weather conditions, flow in the EFLMR downstream of the Harsha Lake Dam (River Mile 20.5) is maintained at a minimum of 30 cubic feet per second (c.f.s.) by the Army Corp of Engineers (ACOE) in order to support aquatic life. In 2009, DO concentrations upstream and downstream of the WWTPs' outfalls always remained above 6 mg/l, well above the in-stream criteria value of 5 mg/l for Exceptional Warm Water Habitats (EWH).

Contingent upon a normal dry summer (EFLRM Perintown discharge readings <35 c.f.s), OEQ will continue DO monitoring in 2010. OEQ will monitor DO in the EFLMR and O'Bannon Creek both upstream and downstream of the outfalls from the Batavia (BAT), Middle East Fork (MEF), Lower East Fork (LEF), Milford (MIL), and O'Bannon (OB) WWTPs. Two models of YSI data sondes with internal memory will be used, the 600 XLM and the 600 XLM V2, to monitor stream DO concentrations over 24-hours at each sampling location.

The downstream sites are all situated downstream of a WWTP, however some upstream sites are situated downstream from WWTPs located further upstream. For example the USLEF and USMIL sites are downstream from the Batavia and Middle East Fork WWTPs and the USMIL site is also downstream from the LEF WWTP. Royal Hills and Orchard Lake Mobile Home Park WWTPs also contribute pollutants to the USMIL and DSMIL. Other point and nonpoint sources for the EFLMR DO sites are listed in section 2.2 below. Table 2 summarizes the possible point and nonpoint sources of pollution in the watersheds of each sampling location.

Agriculture is the dominant nonpoint source in the O'Bannon Creek watershed, however sites may also be susceptible to some residential storm water and construction site runoff. Much of the watershed is also serviced by HSTSs, which may be contributing additional nutrient loadings. Three golf courses, the O'Bannon Creek Golf Club, Hickory Woods Golf Course, and Eagles Nest Golf Course, are located in the watershed as well.

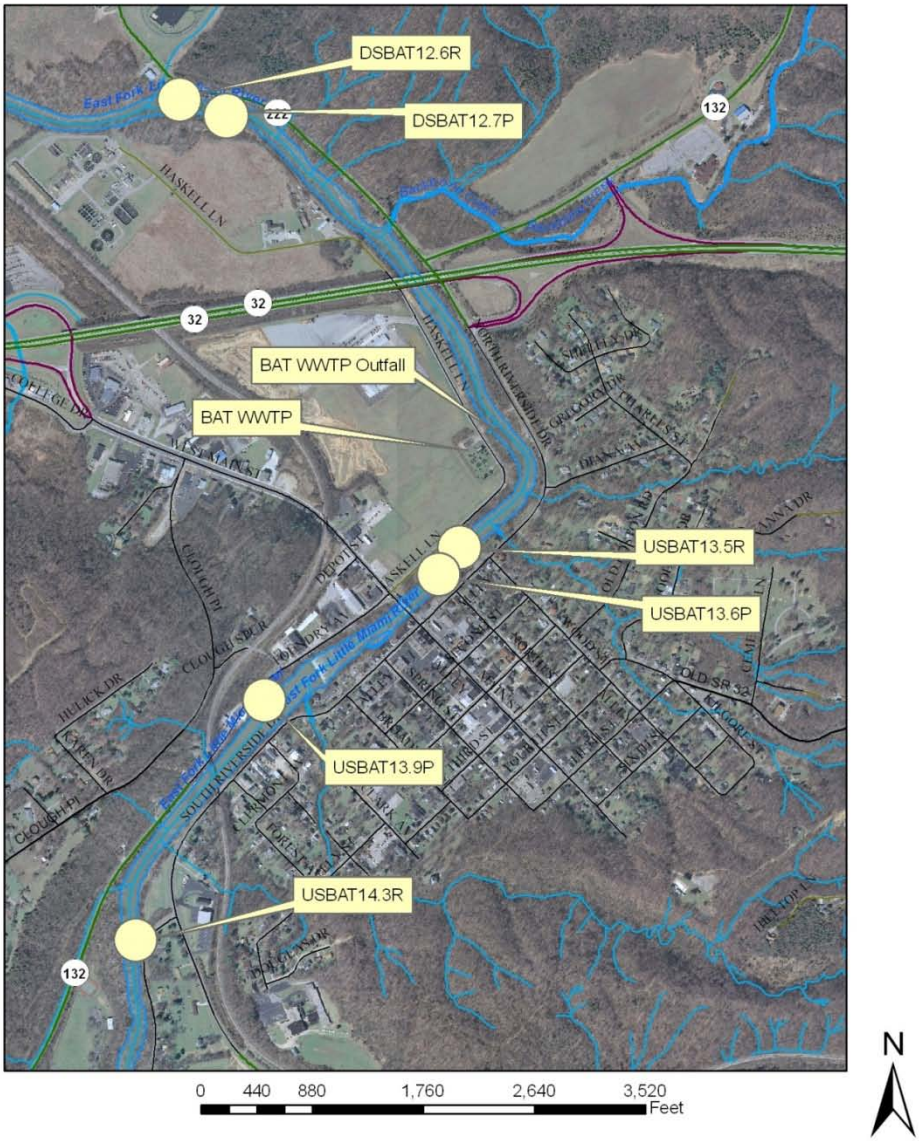

Figure 3

2010 Water Quality Monitoring Program
24-Hour D.O. Profiles
East Fork LMR-Upstream and Downstream of BAT WWTP

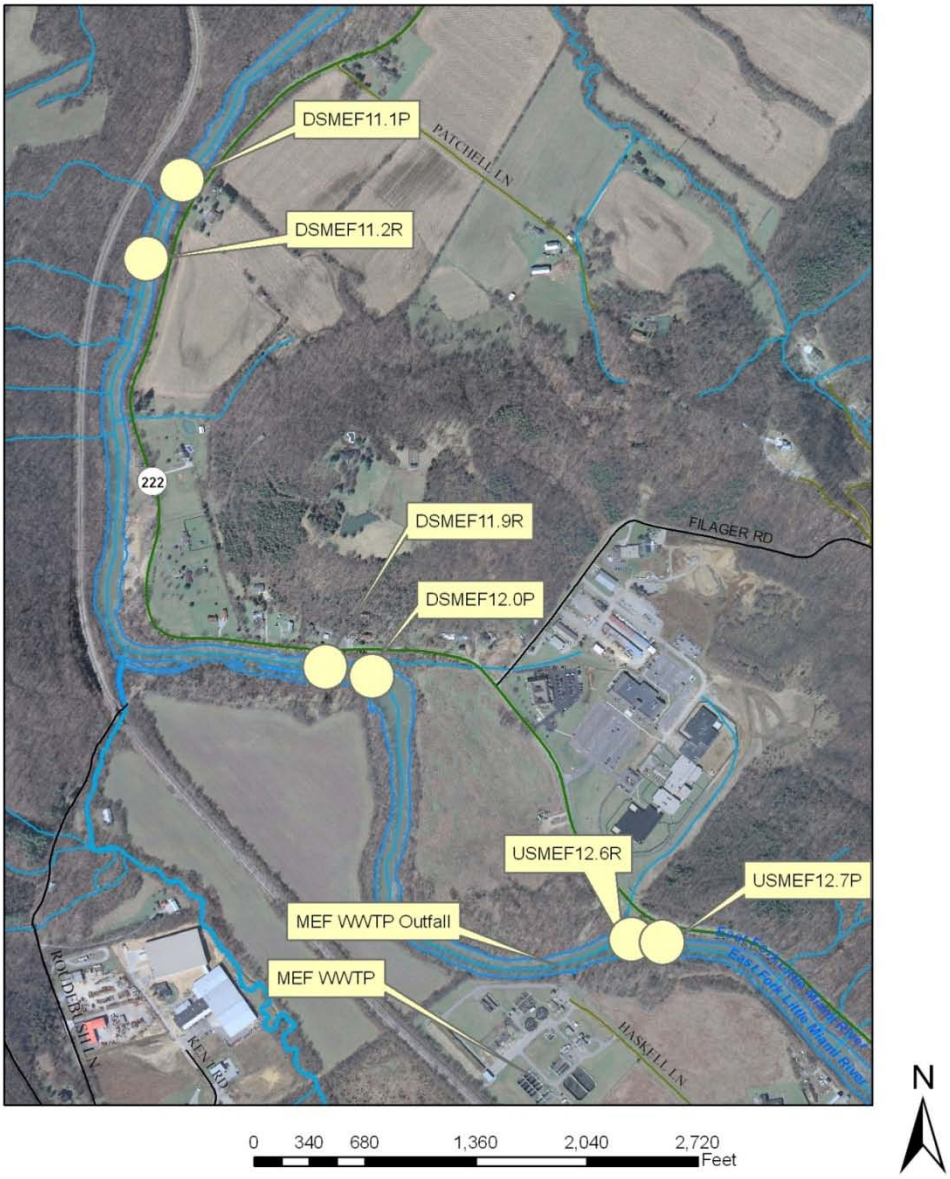

Figure 4

2010 Water Quality Monitoring Program
24-Hour D.O. Profiles
East Fork LMR-Upstream and Downstream of MEF WWTP

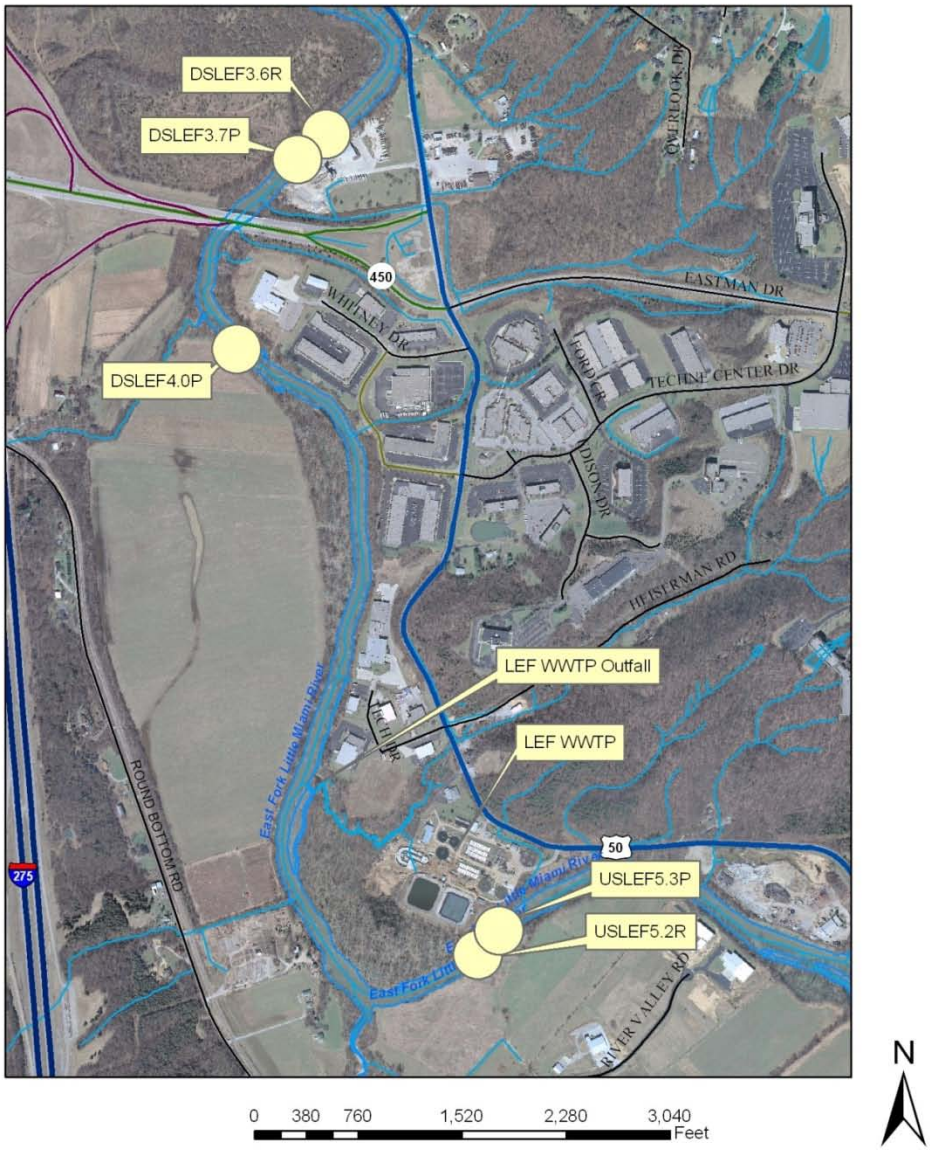

Figure 5

2010 Water Quality Monitoring Program
24-Hour D.O. Profiles
East Fork LMR-Upstream and Downstream of LEF WWTP

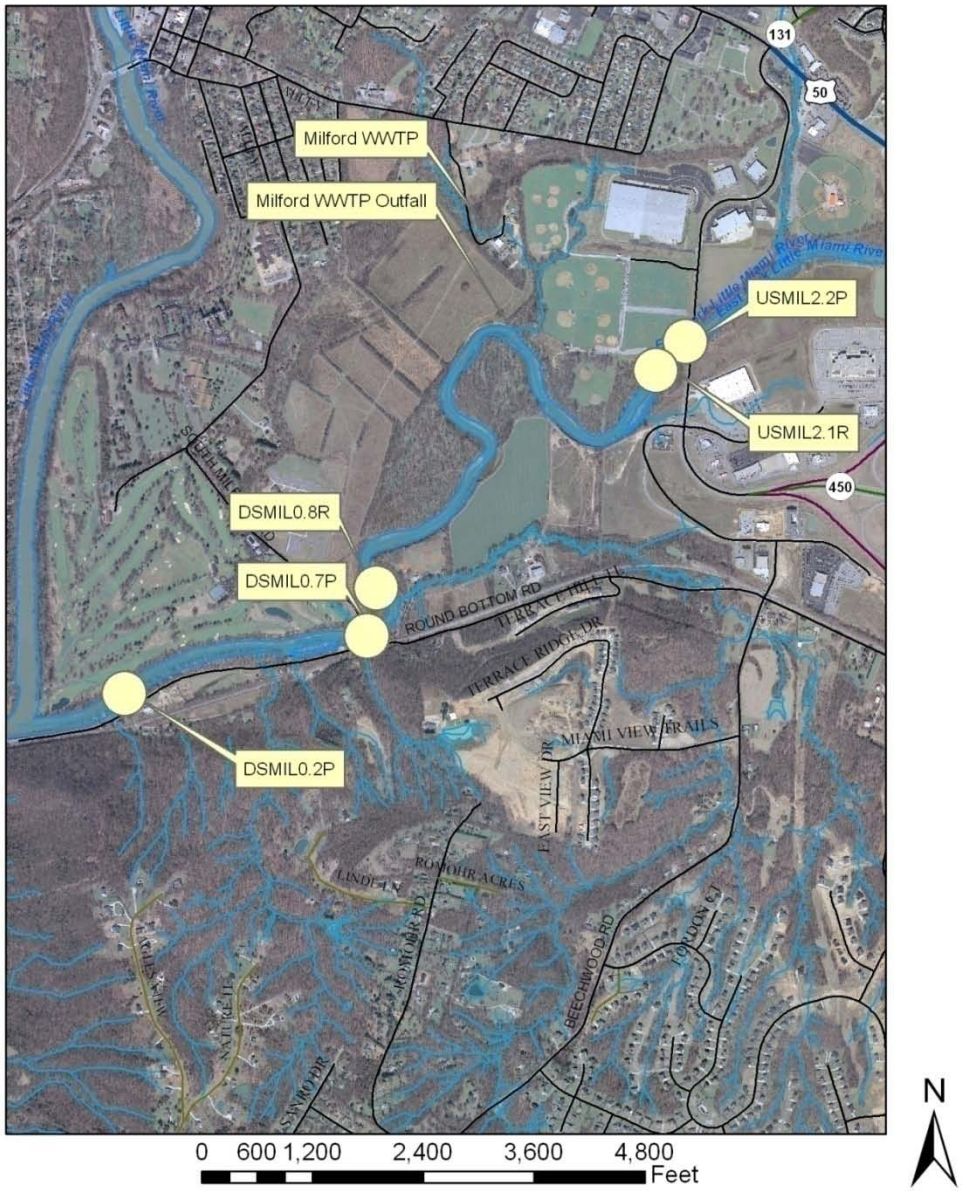

Figure 6

2010 Water Quality Monitoring Program
24-Hour D.O. Profiles
East Fork LMR-Upstream and Downstream of MIL WWTP

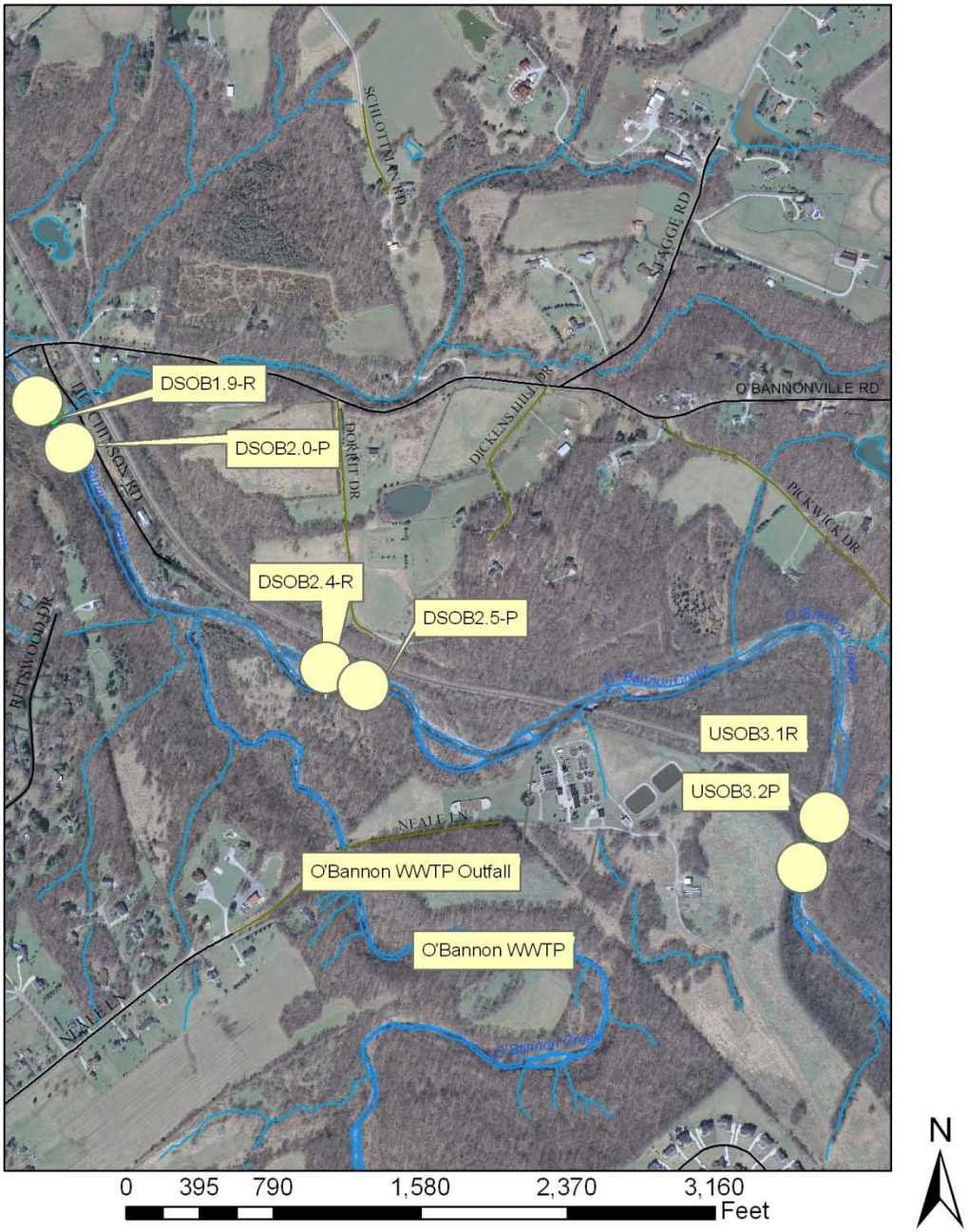

Figure 7

2010 Water Quality Monitoring Program
24-Hour D.O. Profiles
East Fork LMR-Upstream and Downstream of OB WWTP

2.3. Event Based Sampling

Ambient sampling in the summer of 2009 revealed very high phosphorus concentrations in certain agricultural tributaries during both wet and dry periods. Additionally, the U.S. Army Corp of Engineers (USACE) shared with the County that cyanobacteria blooms are occurring earlier every year and D.O. takes longer to recover in the East Fork Lake than in other USACE lakes in Ohio. In an effort to better characterize loading to the East Fork Lake, OEQ will conduct sampling during both wet and dry weather events. Nutrient and bacterial loading should be highest during wet weather events in all streams due to agricultural nonpoint sources, but conducting extensive wet weather surveys may identify specific tributaries contributing exceptionally high nutrient loads to the EFLMR. Dry weather sampling events may assist in identifying a point source of pollution or failing septic systems in the watershed. In addition to monitoring water quality, event sampling data will be shared with USEPA and USACE to assist in the development of empirical models of organic carbon dynamics and harmful algal blooms in the East Fork Lake. Event-based sampling sites are shown in Figures 1, 2, & 8-15.

Table 2 summarizes the possible point and nonpoint sources of pollution in the watersheds of each sampling location. The site in the EFLMR at river mile 34.8 has a wide variety of point and nonpoint sources in the watershed as this site drains a catchment over 237 square miles. The upper East Fork watershed is primarily rural and receives runoff from agriculture, livestock, and Home Sewage Treatment Systems (HSTSs). There is some urban storm water runoff from villages such as the Villages of Williamsburg and Bethel at the EFRM34.8 and POPLR2.1 sites are located. Sampling sites in Ulrey Run and Slabcamp Run may also receive some urban storm water runoff due to residential and industrial developments in the watersheds. All sites except Cabin Run receive runoff from agriculture and may drain failing HSTSs. Five Mile Creek, Pleasant Run, and Stonelick Creek are also susceptible to pollution from livestock facilities.

Point sources in the EFLMR upstream from river mile 34.8 include discharge from five WWTPs (New Vienna, Lynchburg, St. Martin, Fayetteville-Perry, and Williamsburg), one package WWTP (Snow Hill Country Club), and a water treatment plant (New Vienna). The sampling site in Ulrey Run receives effluent from the Forest Creek Wastewater Treatment Plant. Sites PLEAS0.2 and EFRM34.8 are downstream from Pleasant Run which receives effluent from the storm water pond at the CECOs hazardous waste landfill and possibly other contaminants associated with this facility.

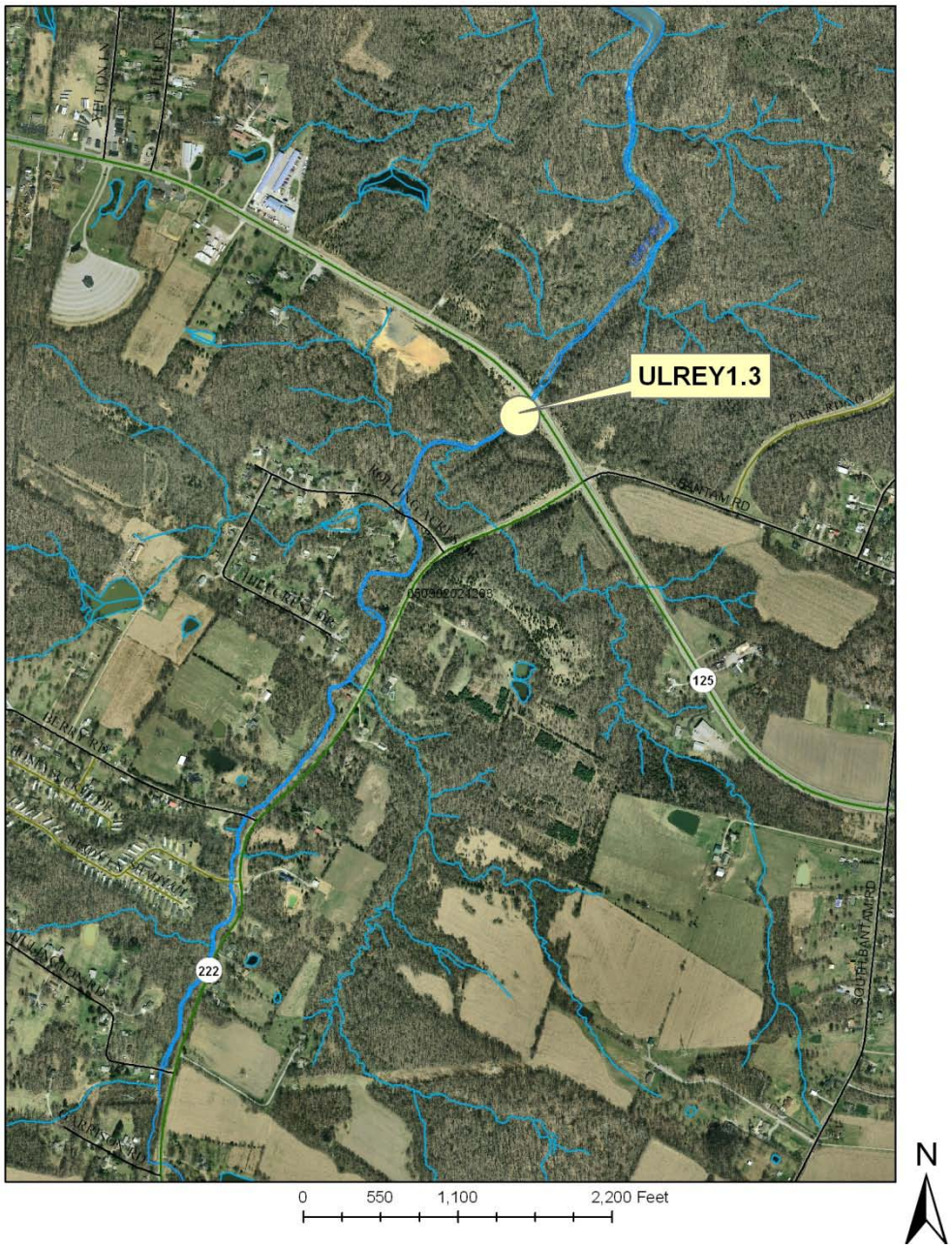

Figure 8

2010 Water Quality Monitoring Program
Event-Based Sampling
Ulrey Run

Figure 9

2010 Water Quality Monitoring Program
Event-Based Sampling
Slabcamp Run

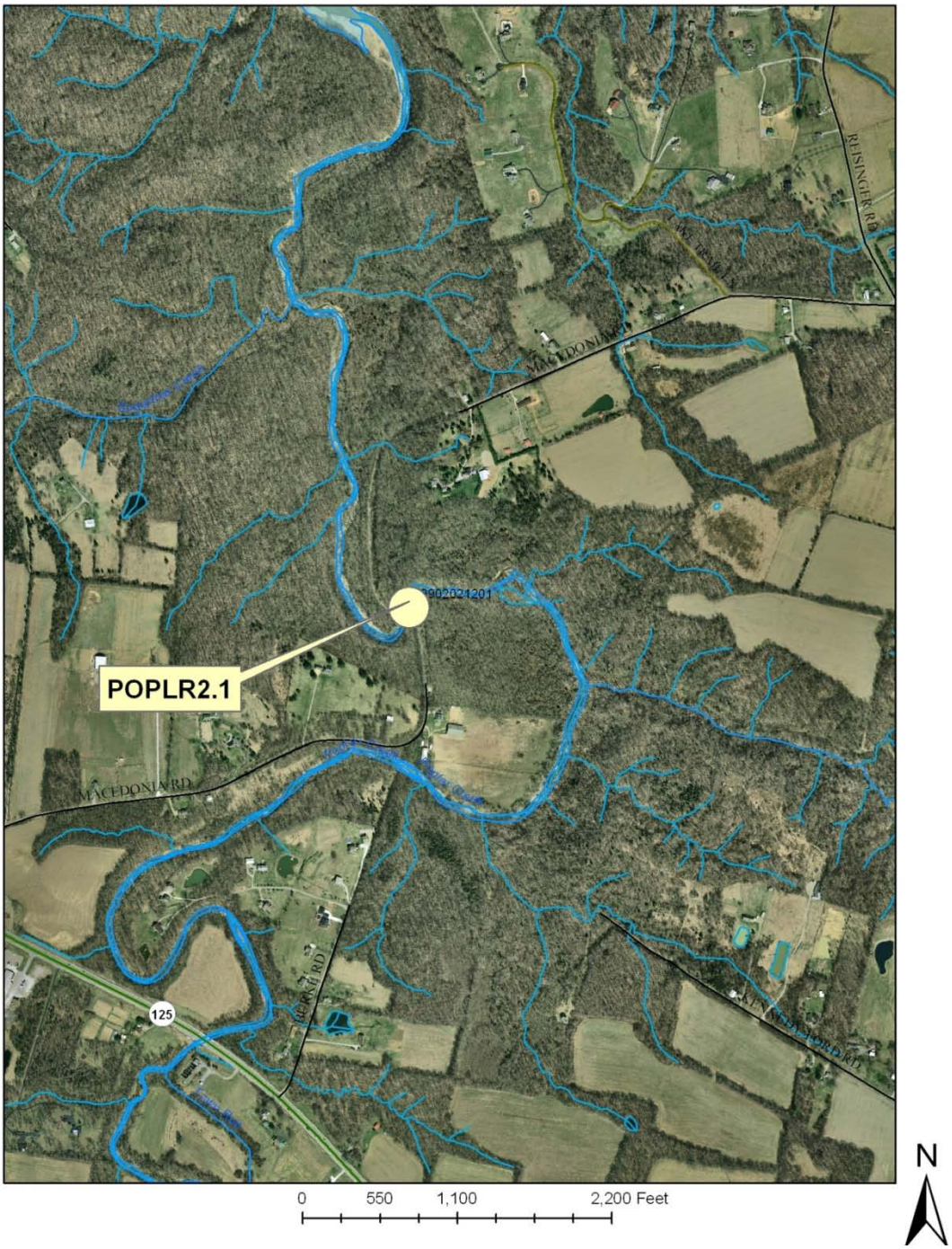

Figure 10

2010 Water Quality Monitoring Program
Event-Based Sampling
Poplar Creek

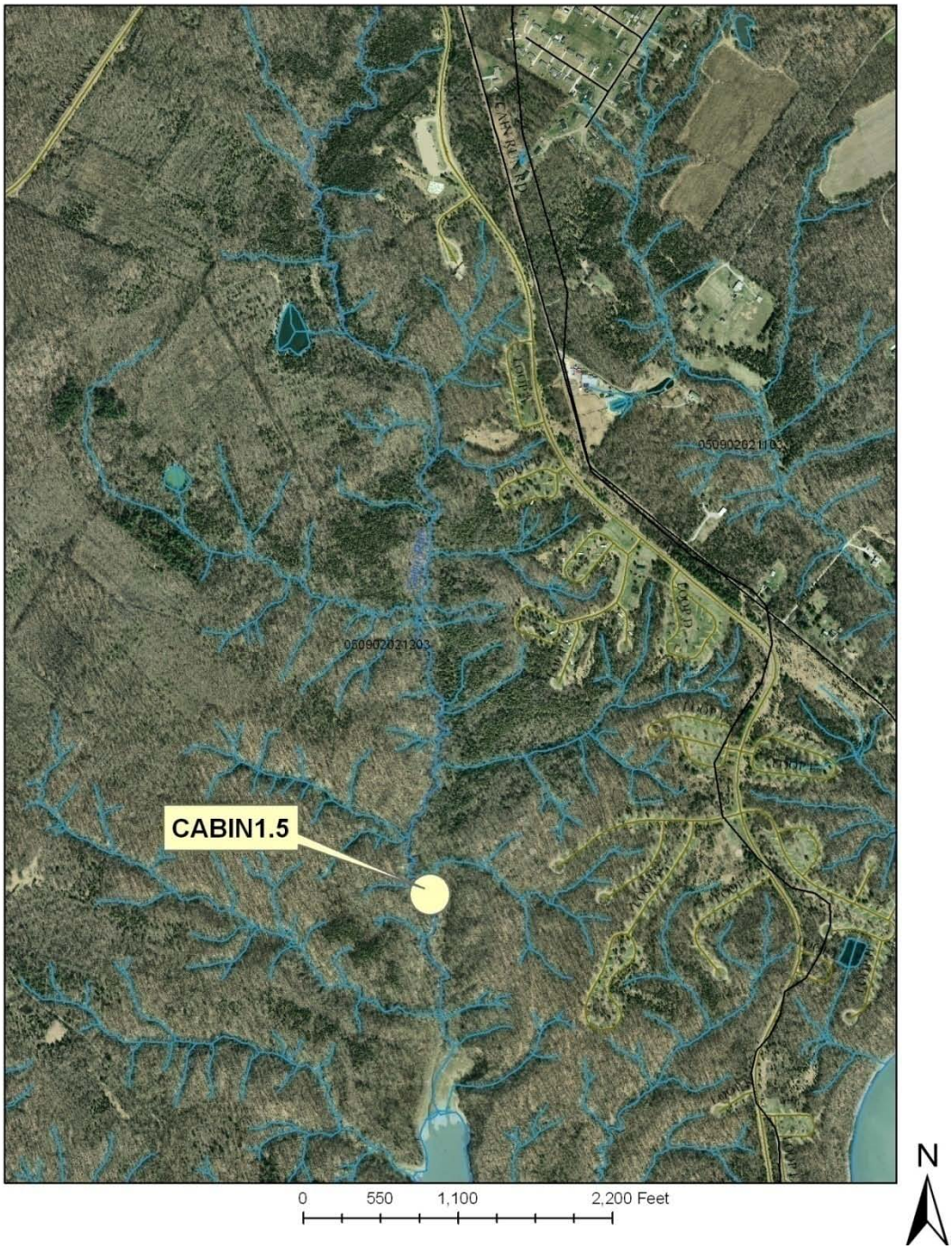

Figure 11

2010 Water Quality Monitoring Program
Event-Based Sampling
Cabin Run

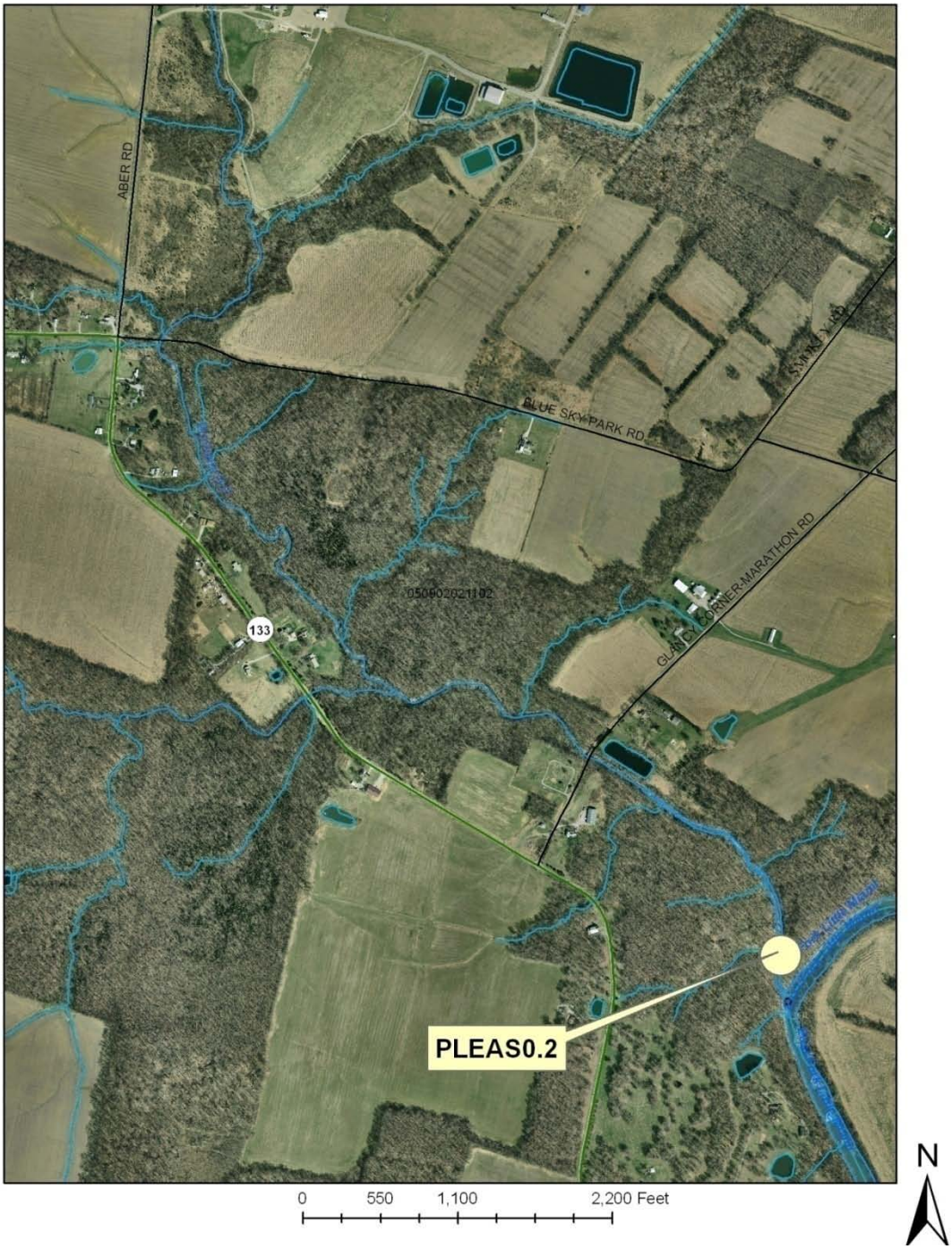

Figure 12

2010 Water Quality Monitoring Program
Event-Based Sampling
Pleasant Run

Figure 13

2010 Water Quality Monitoring Program
Event-Based Sampling
Five Mile Creek

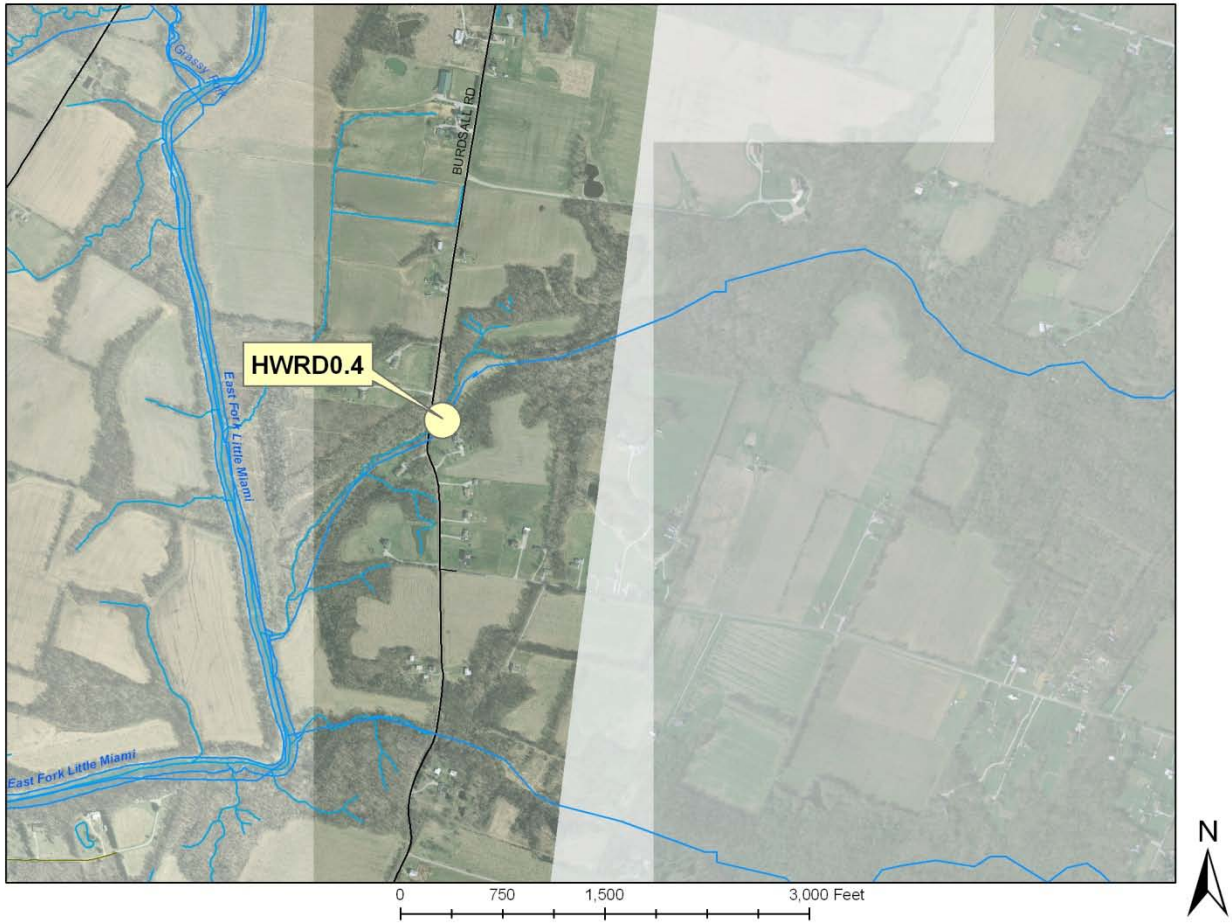

Figure 14

2010 Water Quality Monitoring Program
Event-Based Sampling
Howard Run

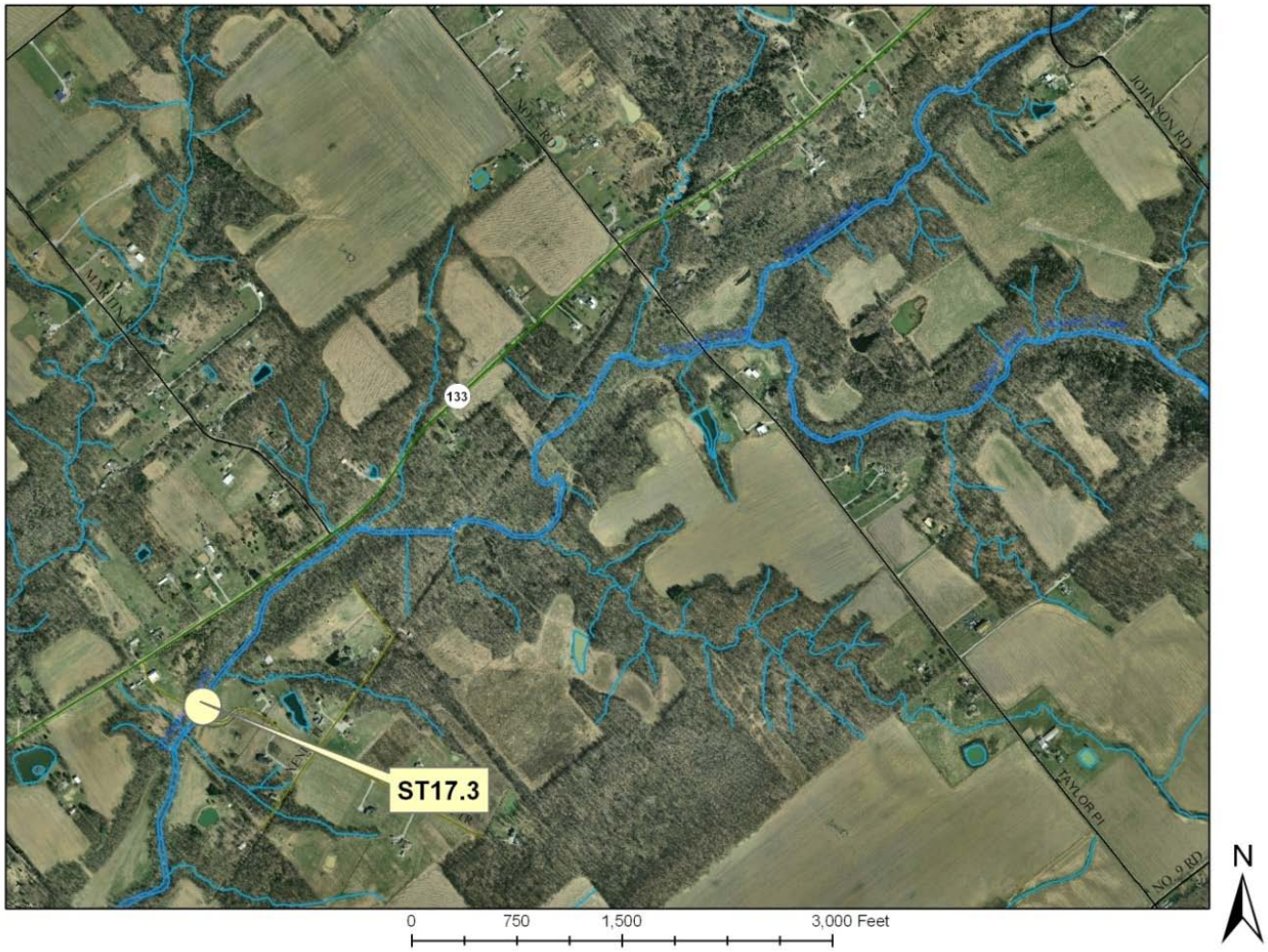

Figure 15

2010 Water Quality Monitoring Program
Event-Based Sampling
Stonelick Creek

2.4. Biological Assessments

OEQ will hire a consulting firm to assess whether five different streams are meeting biological criteria for fish and macroinvertebrates. The sites chosen for assessment have primarily agricultural watersheds and are tributaries to either Stonelick or East Fork Lake. Event based sampling and habitat assessments will also be conducted at these sites and should assist in pinpointing the causes of any observed biological impairment.

Table 2 summarizes the possible point and nonpoint sources of pollution in the watersheds of each sampling location. Sites being assessed for biological impairment all have primarily agricultural watersheds and thus very similar nonpoint sources of pollutants. Fecal and nutrient loadings from failing HSTSs are a common concern in rural streams. Livestock waste and over application of fertilizers also contribute to fecal and nutrient contamination.

Point sources upstream from biological sampling locations include the effluent from the Forest Creek Wastewater Treatment Plant in Ulrey Run. The PLEAS0.2 site in Pleasant Run receives effluent from the storm water pond at the CECOs hazardous waste landfill and possibly other contaminants associated with this facility.

3. PARAMETERS FOR EACH SAMPLING LOCATION

A list of field measurements and analytes for each sampling location is presented in Table 1.

4. IDENTIFICATION OF FIELD AND LABORATORY METHODS

Standard Operating Procedure (SOP) documents have been developed for all of the field sampling and data collection activities associated with this study except for biological assessments. These SOPs are included in Appendices B, C, & D of this Study Plan, along with a Quality Assurance Plan that lists all of the analytical methods used by the laboratory, including detection limits (Appendix A & D). Field measurements and sample collection techniques were developed in accordance with the “Manual of Ohio EPA Surveillance Methods and Quality Assurance Practices”. Biological Assessments are being conducted by the Midwest Biodiversity Institute (MBI) and in adherence to Ohio EPA methods (Ohio EPA 1987, 1988, 1989a, and 1989b). Any habitat assessments conducted will follow Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (Ohio EPA, 2006).

The Clermont County Water and Sewer District laboratory, which is also responsible for NPDES permit testing for all of the County’s Waste Water Treatment Plants, will be analyzing ortho-phosphorus, suspended solids, *E. coli*, ammonia, nitrite, and nitrate samples. Belmont Laboratories, a NELAC accredited lab in Englewood Ohio (See

QAP in Appendix D), will be analyzing TOC, DOC, total phosphorus, and TKN. Both laboratories have a complete set of SOPs on file for all laboratory procedures (Clermont SOP: Appendix B; Belmont QAM/SOP: Appendix D). Analytical procedures were developed from either the 18th Edition of the Standard Methods for the Examination of Water and Wastewater, Methods for Chemical Analysis of Water and Waste (USEPA, 1983), or Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846 (USEPA 2008).

5. EXPLANATION OF PLANNED SAMPLING LOCATIONS

A detailed explanation of planned sampling locations for 2010 is provided in Section 2 and Table 3. Detailed maps of the sampling locations are provided in Figures 1-15. Georeferencing data, i.e. boundaries for each map (north and south latitudes and east and west longitudes) are provided in Table 4. Figures 16 and 17 are maps of the scale in Figures 1, 2 & 8-15 and Figures 3-7, respectively.

TABLE 3. Georeferencing Data for Sampling Locations

SampleID	Waterbody	River Mile	Latitude (decimal degrees)	Longitude (decimal degrees)	USGS	Township
Continuous Water Quality Monitoring Stations						
EFRM34.8	East Fork LMR	34.8	-84.0504	39.0525	Newtonsville	Jackson
GRSSY0.2	Grassy Fork	0.2	-84.0153	39.1329	Williamsburg	Williamsburg
D.O. Sampling						
USBAT14.3R	East Fork LMR	14.3	-84.1865	39.0709	Batavia	Batavia
USBAT13.5R	East Fork LMR	13.5	-84.1777	39.0795	Batavia	Batavia
DSBAT12.6R	East Fork LMR	12.6	-84.1858	39.0893	Batavia	Batavia
USMEF12.6R	East Fork LMR	12.6	-84.1858	39.0893	Batavia	Batavia
DSMEF11.9R	East Fork LMR	11.9	-84.1926	39.0938	Batavia	Batavia
DSMEF11.2R	East Fork LMR	11.2	-84.1967	39.1007	Batavia	Batavia
USLEF5.2R	East Fork LMR	5.2	-84.2534	39.1445	Madeira	Miami
DSLEF3.6R	East Fork LMR	3.6	-84.2583	39.1604	Madeira	Miami
DSLEF4.0P	East Fork LMR	4.0	-84.2604	39.1561	Madeira	Miami
USMIL2.1R	East Fork LMR	2.1	-84.2775	39.1634	Madeira	Miami
DSMIL0.8R	East Fork LMR	0.8	-84.2883	39.1566	Madeira	Miami
DSMIL0.2P	East Fork LMR	0.2	-84.2975	39.1533	Madeira	Miami
USOB3.1R	O'Bannon Creek	3.3	-84.2167	39.2583	South Lebanon	Goshen
DSOB1.9R	O'Bannon Creek	1.9	-84.2318	39.2644	South Lebanon	Goshen
DSOB2.4R	O'Bannon Creek	2.4	-84.2259	39.2602	South Lebanon	Goshen
Event Based Sampling						
ULREY1.3	Ulrey Run	1.3	-84.1515	39.0017	Batavia	Tate
SLAB0.5	Slabcamp Run	0.5	-84.1290	39.0511	Batavia	Batavia
POPLR2.1	Poplar Creek	2.1	-84.1010	38.9820	Bethel	Tate
CABIN1.5	Cabin Run	1.5	-84.1019	39.0327	Williamsburg	Williamsburg
EFRM34.8	East Fork LMR	34.8	-84.0504	39.0525	Williamsburg	Williamsburg
PLEAS0.2	Pleasant Run	0.2	-84.0374	39.1084	Williamsburg	Jackson
5MILECR0.5	Five Mile Creek	0.5	-84.0203	39.1136	Williamsburg	Jackson
HWRD0.4	Howard Run	0.4	-84.0073	39.1239	Wiliamsburg	Jackson
GRSSY0.2	Grassy Fork	0.2	-84.0153	39.1329	Newtonsville	Jackson
ST17.3	Stonelick Creek	17.3	-84.0440	39.2320	Newtonsville	Wayne
Biological Assessments						
ULREY1.3	Ulrey Run	1.3	-84.1515	39.0017	Batavia	Tate
POPLR2.1	Poplar Creek	2.1	-84.1010	38.9820	Bethel	Tate
PLEAS0.2	Pleasant Run	0.2	-84.0374	39.1084	Williamsburg	Jackson
GRSSY0.2	Grassy Fork	0.2	-84.0153	39.1329	Newtonsville	Jackson
ST17.3	Stonelick Creek	17.3	-84.0440	39.2320	Newtonsville	Wayne

TABLE 4. Georeferencing Data for Figures

site	North	South	East	West
	Decimal Degrees	Decimal Degrees	Decimal Degrees	Decimal Degrees
Figure 1	39.065	39.042	-84.052	-84.039
Figure 2	39.152	39.129	-84.030	-84.007
Figure 3	39.092	39.068	-84.190	-84.167
Figure 4	39.105	39.087	-84.200	-84.181
Figure 5	39.163	39.142	-84.266	-84.245
Figure 6	39.174	39.141	-84.302	-84.269
Figure 7	39.270	39.253	-84.232	-84.216
Figure 8	39.010	38.987	-84.164	-84.142
Figure 9	39.067	39.044	-84.135	-84.113
Figure 10	38.994	38.971	-84.111	-84.089
Figure 11	39.050	39.027	-84.113	-84.091
Figure 12	39.127	39.104	-84.057	-84.035
Figure 13	39.118	39.101	-84.030	-84.000
Figure 14	39.132	39.115	-84.018	-83.988
Figure 15	39.246	39.228	-84.049	-84.019
Figure 16	39.244	38.979	-83.927	-84.208
Figure 17	39.284	38.987	-84.011	-84.333

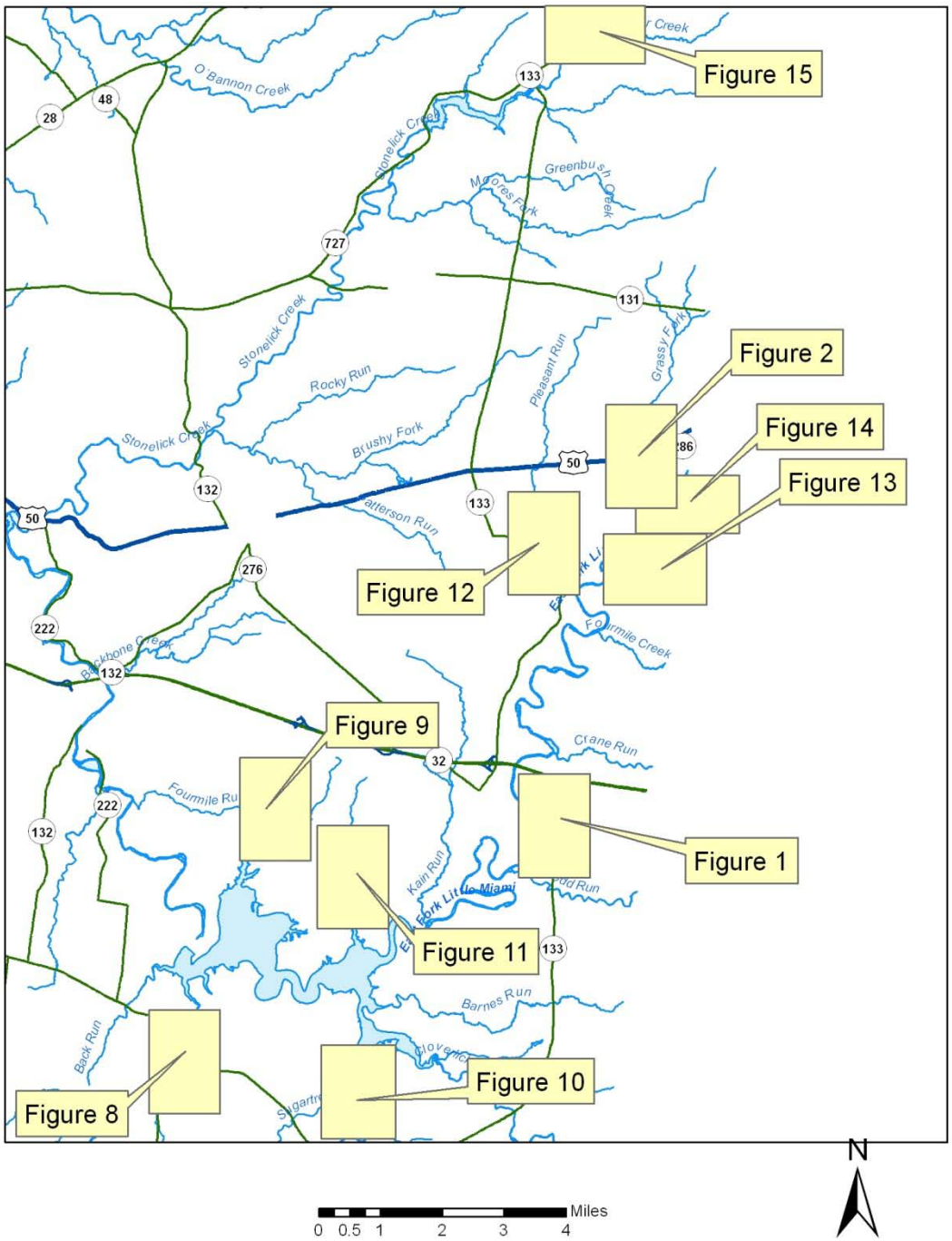

Figure 16

Water Quality Monitoring Program
Continuous Monitoring Stations, Event-Based Sampling, & Biological Assessments

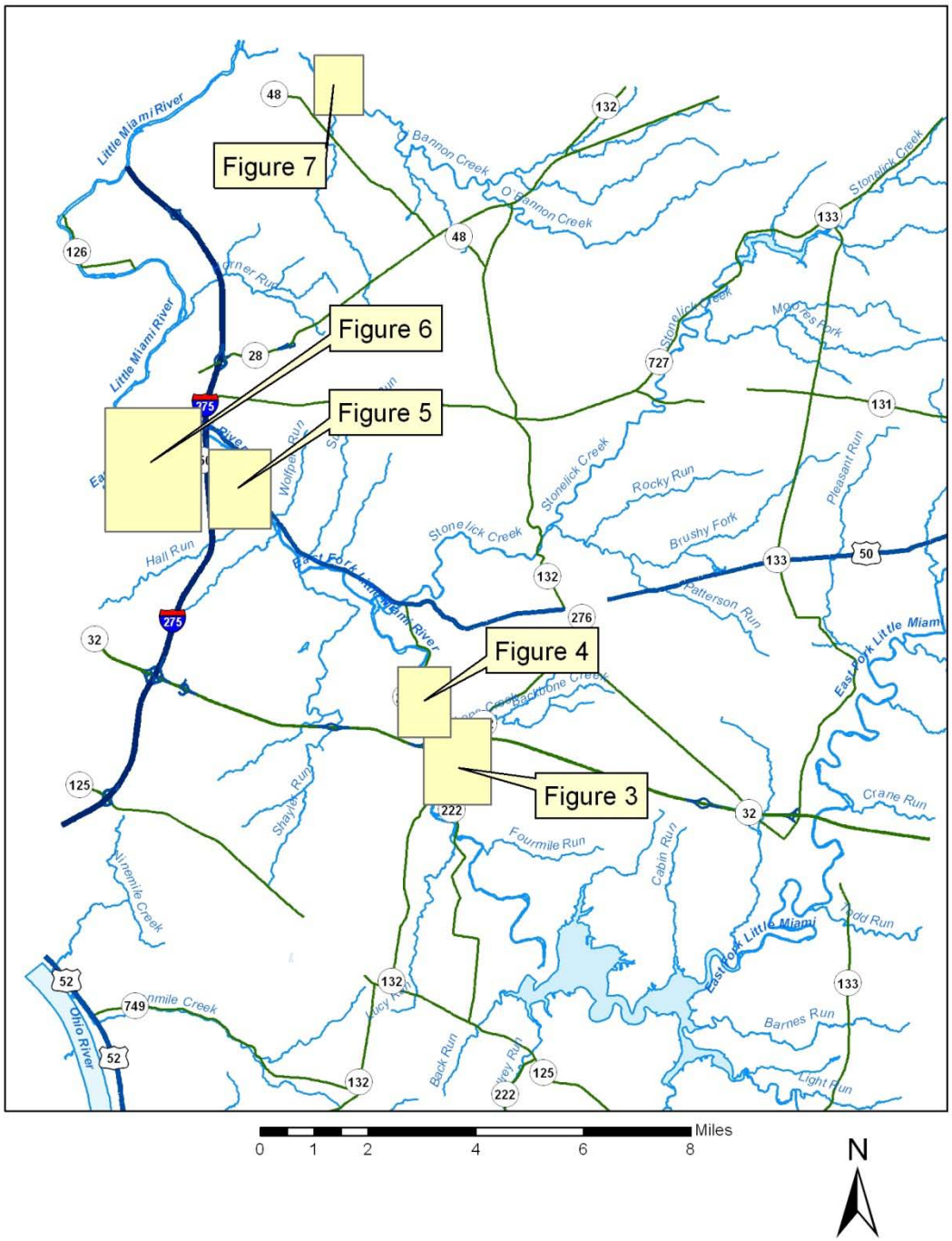

Figure 17

2010 Water Quality Monitoring Program
24-Hour D.O. Profiles

5.1. Continuous Water Quality Monitoring Stations

The monitoring station located on the EFLMR at river mile 34.8 was owned and operated by the United States Geological Survey prior to its use by OEQ. This location is close to the inflow at East Fork Lake and represents a large portion of the loading to the lake, making it an ideal source water monitoring location. Grassy Fork was chosen as a representative agricultural watershed for source water monitoring and will also be identified as a target watershed in applications for Conservation Reserve Enhancement Programs and Environmental Quality Incentives Programs. The County hopes to observe water quality improvements in Grassy Fork as BMPs are applied in the watershed.

5.2. Diurnal D.O. Profiles

The purpose of conducting the diurnal DO studies is to determine if nutrients and organic loads from WWTPs have an impact on DO concentrations in the East Fork River or O'Bannon Creek. Sondes will be placed in a habitat that is representative of the whole river segment. To determine if organic enrichment and nutrient loading from WWTPs affect stream diurnal DO concentrations, 24-hour DO profiles will be monitored simultaneously upstream and downstream from each WWTP and water samples to be analyzed for total phosphorus, ortho-phosphorus, nitrate, nitrite, and ammonia will be collected at the time of sonde deployment and sonde retrieval at each site.

The typical monitoring design will consist of one site upstream of each WWTP, and two sites downstream of each WWTP. Only one site was included downstream of the Batavia WWTP because of the close proximity between the Batavia and Middle East Forks' outfalls. Consequentially, DO will be monitored at two sites upstream of the Batavia WWTP; a site downstream of the Batavia lowhead dam and at a site upstream of the Batavia lowhead dam. A site was placed upstream of the dam in order to have a comparison to the highly aerated sites downstream of the dam and to begin collecting data in support of a future lowhead dam removal project.

5.3. Event Based Sampling

Ambient sampling conducted in 2009 revealed phosphorus concentrations at or above 1.0 mg/l in Five Mile Creek and Howard Run on numerous site visits. OEQ decided to do more intensive event-based sampling in these streams and other highly agricultural dominated watersheds in 2010 to identify streams with high nutrients loads to the EFLMR. OEQ will also be collecting samples to be analyzed for DOC and TOC to obtain a better understanding of the sources of organic carbon in the East Fork Lake. Wet and dry weather event sampling will be coordinated with lake sampling conducted by the USACE to coordinate efforts in comprehending lake dynamics and how they relate to drinking water treatment.

5.4. Biological Assessments

The five sites chosen for biological assessment were chosen for numerous reasons. OEQ is collaborating with The East Fork Watershed Collaborative, USDA, and NRCS to incentivize agricultural land in certain impaired watersheds for BMP projects. Collecting biological data in agricultural watersheds will identify streams which should be focused on for implementing BMP projects. Collecting data in Grassy Fork, Pleasant Run, and Stonelick Creek will provide baseline data for documenting any improvements in water quality due to the implementation of any future BMP projects. Pleasant Run was also chosen because it drains CECOS Hazardous Waste Facility and the County likes to periodically collect data here for long term management purposes. Poplar Creek was chosen to compare biological index scores to Stonelick Creek as these two streams have similar land use in the watershed, yet very different instream habitat quality. Ulrey Run was chosen to identify any impacts from the Forest Hills Wastewater Treatment Plant on biological integrity and will also act as an interesting comparison to Grassy Fork.

6. SCHEDULE OF PLANNED SAMPLING ACTIVITIES

6.1. Continuous Water Quality Monitoring Stations

OEQ will maintain water quality monitoring stations at two locations in the county. The station at Grassy Fork is planned for construction by the end of April; however, it could be installed as late as May of 2010. These stations each contain an ISCO Model 4220 Flow Meter with a submerged pressure transducer to measure stream level and a tipping bucket rain gage. From April through October, OEQ will also have YSI 600-series datasondes deployed at these stations to measure temperature, pH, specific conductance, and D.O. The flow meter is programmed to collect these data every 15 minutes. Data from the station is downloaded via telephone model to a computer using ISCO's Flowlink software. The data are then examined by OEQ personnel in an effort to identify any potential water quality issues in these watersheds.

6.2. Diurnal D.O. Profiles

Diurnal dissolved oxygen profiles will be collected during summer, low-flow conditions. While a continuous discharge from the Harsha Lake dam of a minimum of 30 cubic feet per second (c.f.s) might prevent the East Fork Little Miami River from reaching true "low-flow" conditions, care will be taken to avoid sampling within 72 hours of any rain events, to avoid rainwater runoff from tributaries below the dam or releases from the lake above the 30 c.f.s. minimum that are occasionally made by the Corp of Engineers after significant rain events to maintain pool in the lake.

6.3. Event-Based Sampling

Pending acceptable weather conditions, OEQ will conduct three sampling events immediately following or during rain events and three sampling events after 72 hours with no precipitation at the ten sites identified in Table 1. This sampling will begin on

April 1st with the goal of capturing the spring rain events. Samples will be analyzed for the parameters identified in Table 1. After each grab sample has been collected, cross sections, stream level, and velocity will be measured, where possible, in each sampling location.

6.4. Biological Assessments

OEQ is contracted with MBI to sample fish and macroinvertebrates in 2010 in five headwater streams in Clermont County. Sampling will be conducted between June 16th and October 15th, with concrete dates dependent upon weather conditions. Fish populations will be sampled during two different field visits, with MIwb and IBI scores being an average of the two sampling events. Quantitative assessments of macroinvertebrates will be made using Hester Dendy samplers, which will be deployed during the first field visit and retrieved during the second field visit. Qualitative assessments of macroinvertebrates will be made during both the first and second field visit.

7. QUALITY ASSURANCE/QUALITY CONTROL PLAN

A detailed Quality Assurance Plan for OEQ, which applies to all chemical and physical sampling and all analytes being processed in the Clermont County Wastewater Lab, is included in Appendix A of this Study Plan. A QAP for Belmont Labs, which covers samples being analyzed for DOC, TOC, total phosphorus, and TKN, is included in Appendix C.

8. WORK PRODUCTS

Results of Clermont County's 2010 sampling program will be summarized in a "2010 Water Quality Sampling Final Report". This report is produced annually and posted on the OEQ website (www.oeq.net). The report will present 2010 sampling data relative to existing or proposed OEPA water quality standards in an effort to identify and quantify the extent of water quality problems in the sampled watersheds. MBI will also provide a report summarizing the findings from the Biological Assessments. Copies of these reports will be submitted to OEPA upon request and all data will be entered into the Credible Data database. Eventually, data from the 2010 sampling may be used in conjunction with other data in the development of loading models for the East Fork TMDL.

9. LIST OF QUALITY DATA COLLECTORS AND OTHER PERSONNEL

Hannah Lubbers, Project Manager for the Clermont County Office of Environmental Quality, has been certified by the Ohio EPA as a Level 3 Quality Data Collector (QDC) for Chemical Water Quality Assessment (QDC No. 274), effective December 18, 2009. She will be the lead project manager, responsible for all data collection activities associated with Clermont County's 2010 sampling program, either by personally collecting samples or supervising those individuals involved in sample collection

activities. These individuals may include personnel from the Clermont County Soil and Water Conservation District, the Clermont County General Health District, the Clermont County Stormwater Department, and/or MBI staff. Contact information for Ms. Lubbers is provided below:

Hannah Lubbers, Project Manager
Clermont County Office of Environmental Quality
4400 Haskell Lane
Batavia, Ohio 45103
Phone: (513) 732-7894
Email: hlubbers@co.clermont.oh.us

John McManus, Program Manager for the Clermont County Stormwater Department, has been certified by the Ohio EPA as a Level 3 Quality Data Collector for Chemical Water Quality Assessment (QDC No. 079), effective June 13, 2007. He will be the QA Officer, responsible for auditing field sampling procedures for the event-based sampling and diurnal D.O. profile projects to ensure SOP are being followed. Contact information for John McManus is provided below:

John McManus
Clermont County Stormwater Department
4400 Haskell Lane
Batavia, Ohio 45103
Phone: (513) 732-7880
Email: jmcmanus@co.clermont.oh.us

Chris Yoder, Research Director for the Midwest Biodiversity Institute, has been certified by the Ohio EPA as a Level 3 Quality Data Collector for Fish and Habitat Assessments (QDC No. 234). He will serve as the fish and habitat project leader for the biological assessment study and will directly conduct all habitat assessments associated with this study. Contact information for Chris Yoder is provided below:

Chris Yoder, Research Director
Center for Applied Bioassessment & Biocriteria
Midwest Biodiversity Institute
P.O. Box 21561
Columbus, OH 43221-0561
Phone: (614) 457-6000
Email: yoder@rrohio.com

Martin Knapp, Macroinvertebrate Project Leader for the Midwest Biodiversity Institute is certified by the Ohio EPA as a Level 3 Quality Data Collector for Macroinvertebrates (QDC No. 300). He will oversee all sampling activities associated with macroinvertebrate assessments and will quality control check all voucher specimens collected in association with this study. Contact information for Martin Knapp is provided below:

Martin Knapp, Macroinvertebrate Project Leader
Midwest Biodiversity Institute
P.O. Box 21561
Columbus, OH 43221-0561
Phone: (614) 457-6000

Supervision of non-Level 3 QDCs will include the following:

- A thorough review of the Project Study Plan and the sampling locations prior to any sample collection activities. Each sample site will be visited once before sampling by both the Level 3 QDC project manager and any non-level 3 QDC sample collectors.
- A thorough review of all relevant Standard Operating Procedures and Ohio EPA references by the Level 3 QDC project manager with any non-level 3 QDC sample collectors prior to any sample collection activities
- Training of the non-level 3 QDCs by the Level 3 QDC project manager in the use of all sampling equipment, including, but not limited to, the YSI data sondes, current meter, and electro-fishing equipment, prior to any sample collection activities. One training will be conducted in the office and one in the field.
- Direct supervision by the Level 3 QDC project manager of the individual's initial sample collection activities during the first sample round to ensure compliance with the SOPs and Study Plan.
- Direct supervision of the Level 3 QDC fish project leader will occur during all biological sampling.
- The Level 3 QDC Macroinvertebrate Project Leader will collect all qualitative macroinvertebrate samples, verify all quantitative sampling locations, and verify all voucher specimens collected during this project.
- The Level 3 QDC QA Officer will also perform a subsequent field audit of the project manager and other personnel performing event-based sampling and collecting diurnal D.O. profiles once during the sampling season.

10. DOCUMENTATION OF LEVEL 3 QDC STATUS

Figure 18 is a copy of the certified letter from OEPA Director Chris Korleski to Hannah Lubbers approving Ms. Lubbers as a Level 3 Quality Data Collector for Stream Chemical Water Quality Assessment

Figure 19 is a copy of the certified letters from OEPA Director Chris Korleski to John McManus approving Mr. McManus as a Level 3 Quality Data Collector for Chemical Water Quality Assessment.

OhioEPA

State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

DEC 18 2009
ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

Effective Date: December 18, 2009
Expiration Date: December 17, 2011

CERTIFIED MAIL

Hannah Lubbers
Clermont County - OEQ
4400 Haskell Lane
Batavia, Ohio 45103

Date 12-18-09

Re: Qualified Data Collector Approval, Surface Water Volunteer Monitoring Program

Dear Hannah:

The Division of Surface Water Volunteer Monitoring (Credible Data) Program has reviewed your Qualified Data Collector (QDC) application. Pursuant to Ohio Revised Code (ORC) 6111.53 and Ohio Administrative Code (OAC) 3745-4-03, you are approved as a QDC for the following level and specialty:

QDC Level: 3
QDC Specialty: Chemical Water Quality Assessment
QDC number: **274**

Please use this QDC number on all correspondence, study plans, etc. submitted to Ohio EPA.

As noted at the top of this letter, this status is effective as of the date of this letter and expires two years from that date. You may now submit study plans to the Volunteer Monitoring Program.

A renewal application must be submitted in accordance with OAC 3745-4-03(C). As provided in this rule, renewal of status is contingent upon active participation in the Volunteer Monitoring Program at the designated level and specialty. Lack of such participation will prevent you from renewing your status, but you may re-apply for initial QDC status.

As a reminder, your status is contingent upon the absence of any trespassing violation (within the previous five years) by you or any person sampling under your supervision. Always obtain land owner permission prior to sampling.

Additionally, collection (and retention) of aquatic biological samples (this includes fish, macroinvertebrates, mollusks, and shells) requires a collector's permit from the Ohio Department of Natural Resources/Division of Wildlife. Obtain this permit prior to collection of any biological samples.

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

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Qualified Data Collector Approval
Page Two

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of seventy dollars ($70.00) which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal must be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Commission at the following address: 309 South Fourth Street, Room 222, Columbus, Ohio 43215.

Sincerely,

Chris Korleski
Director

Figure 18

Documentation for Level 3 Qualified Data Collector
Lubbers: Chemical Water Quality

OhioEPA

State of Ohio Environmental Protection Agency

OHIO E.P.A.

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

JUN 13 2007

ENTERED DIRECTOR'S JOURNAL

MAILING ADDRES

P.O. Box 1(
Columbus, OH 43216-1(

Effective Date: 6/13/2007
Expiration Date: 6/12/2009

I certify this to be a true and accurate copy of the ATTACHED official documents as filed in the records of the Ohio Environmental Protection Agency.

By: _____ Date: 6-13-07

John McManus
2379 Clermont Center Drive
Batavia, Ohio 45103

Re: Qualified Data Collector Approval, Surface Water Volunteer Monitoring Program

Dear John:

The Division of Surface Water Volunteer Monitoring (Credible Data) Program has reviewed your Qualifi Data Collector (QDC) application. Pursuant to Ohio Revised Code (ORC) 6111.53 and Ohio Administrative Code (OAC) 3745-4-03, you are approved as a QDC for the following level and specialty:

QDC Level: 3
QDC Specialty: Chemical Water Quality
QDC number: 079

Please use this QDC number on all correspondence, study plans, etc. submitted to Ohio EPA.

As noted at the top of this letter, this status is effective as of the date of this letter and expires two years from that date. You may now submit study plans to the Volunteer Monitoring Program.

A renewal application must be submitted in accordance with OAC 3745-4-03(C). As provided in this rul renewal of status is contingent upon active participation in the Volunteer Monitoring Program at the designated level and specialty. Lack of such participation will prevent you from renewing your status, bu you may re-apply for initial QDC status.

As a reminder, your status is contingent upon the absence of any trespassing violation (within the previou five years) by you or any person sampling under your supervision. Always obtain land owner permission prior to sampling.

Additionally, collection (and retention) of aquatic biological samples (this includes fish, macroinvertebrates, mollusks, and shells) requires a collector's permit from the Ohio Department of Natu Resources/Division of Wildlife. Obtain this permit prior to collection of any biological samples.

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

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Page Two

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of seventy dollars ($70.00) which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal must be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Commission at the following address: 309 South Fourth Street, Room 222, Columbus, Ohio 43215.

Sincerely,

Chris Korleski
Director

Figure 19.

Documentation for Level 3 Qualified Data Collector
McManus: Chemical Water Quality

11. IDENTIFICATION OF CONTRACT LABORATORIES

2010 Ortho-phosphorus, *E. coli*, suspended solids, ammonia, nitrite, and nitrate analyses will be performed by the Clermont County Water and Sewer District laboratory, under the supervision of Mr. William Johnson.

William D. Johnson, Laboratory Manager
Clermont County Water and Sewer District
1003 U.S. Route 50
Milford, Ohio 45150
Phone: (513) 965-4800
Email: wdjohnson@co.clermont.oh.us

The analyses for DOC, TOC, TKN, and total phosphorus will be conducted by Belmont Laboratories under the supervision of the Laboratory Manager, Chris Parsons.

Belmont Labs
25 Holiday Drive
Englewood, Ohio 45322
Phone: (800) 723-5227
Fax: (937) 832-8242

12. SCIENTIFIC COLLECTORS PERMIT

Midwest Biodiversity Institute will be collecting all biological samples. See Figure 20 for their scientific collector's permit.

DIVISION OF WILDLIFE

Ohio Department of Natural Resources

Division of Wildlife Headquarters
2045 Morse Road, Bldg. G
Columbus, Ohio 43229-6693
1-800-WILDLIFE

WILD ANIMAL PERMIT: 11-236
SCIENTIFIC COLLECTION

David M Graham
Chief, Division of Wildlife

DATE ISSUED
7/9/2009

Others authorized on permit
YES (SEE ATTACHMENT)

CHRIS O. YODER
7845 DARBY RD.
CIRCLEVILLE, OH 43113

SOCIAL SECURITY NUMBER: XXX-XX-1007

is hereby granted permission to take, possess, and transport at any time and in any manner specimens of wild animals, subject to the conditions and restrictions listed below or any documents accompanying this permit.

This permit, unless revoked earlier by the Chief, Division of Wildlife, is effective
from: 5/12/2008 to: 3/15/2011

This permit must be carried while collecting wild animals and be exhibited to any person on demand.

THIS PERMIT IS RESTRICTED TO THE FOLLOWING:

1. Permittee may collect fish and macroinvertebrates for survey and inventory. No endangered species may be collected. Specimens must be immediately released after identification unless required as voucher specimens.
2. Permittee must contact local wildlife officer or nearest wildlife district office twenty-four hours prior to sampling to advise location(s) and duration of sampling. Contact the Division of Wildlife if undocumented aquatic invasive species are discovered.
3. All voucher specimens are to be deposited at the OSU Museum of Biological Diversity, OSU, Museum of Biological Diversity or the Cleveland Museum of Natural History.
4. Collection is prohibited in the Killbuck, Chagrin River, Fish Creek (Williams County) and Division of Wildlife Property without explicit written permission from the Division of Wildlife.
5. Permittee must provide an annual report of collecting activities to the Division of Wildlife. Report shall provide species, quantity and locations of collection.

Locations of Collecting

STATEWIDE (WITH NOTED EXCEPTIONS)

Equipment and method used in collection:

ELECTROSHOCKER, SEINE, NET, TRAWL, HAND, AND HESTER DENDY SUBSTRATES

Name and number of each species to be collected:

FISH AND MACROINVERTEBRATES FOR SURVEY PURPOSES

RESTRICTIVE DOCUMENTS ACCOMPANYING THIS PERMIT? NO

This permit is not valid for collecting migratory birds, their nests, or eggs unless a current permit from the U.S. Fish and Wildlife Service has been obtained.

NO ENDANGERED SPECIES MAY BE TAKEN WITHOUT WRITTEN PERMISSION FROM THE CHIEF

ATTACHMENT

This attachment to Scientific Collecting Permit # 11-236 authorizes the following persons to conduct the activities listed on the permit, within the conditions and restrictions set forth. Each person must carry and exhibit upon request, a copy of the permit and this attachment when conducting any of the listed activities. The person named on the permit assumes full responsibility for the actions of the persons on this list and for completing and submitting all required reports.

Name	SSN or Driver License
VICKIE GORDON	RJ262274
LON HERSHA	RS199141
MARTY KNAPP	RR320540
BOB MUELLER	M00-7636-1105
JOSH SCHIERING	RW039470
LAUREN BLYTH	SB656406
SAM FRYMAN	RS707626
MATT HALFHILL	RQ248174
DEB HERSHA	RP701483
TRAVIS SMITH	RV077904

Figure 20

Scientific Collector's Permit for MBI

13. DIGITAL PHOTO CALALOG

A digital photo catalog of all sampling locations will be maintained for ten years including photos of the specific sampling location, riparian zone adjacent to the sampling location, and general land use in the immediate vicinity of the sampling location. See Figure 21 for certification letter.

14. VOUCHER SPECIMENS

See Figure 22 for the letter certifying the MBI will maintain voucher specimens and provide them upon request.

15. STATEMENT REGARDING CRIMINAL TRESPASSING

Ms. Lubbers, Mr. McManus, Mr. Yoder, and Mr. Knapp have not been convicted of or pleaded guilty to a violation of section 2911.21 of the Revised Code (criminal trespass) or a substantially similar municipal ordinance within the previous five years. See Figures 21 and 22 for the criminal trespassing statements.

BOARD OF COUNTY COMMISSIONERS

CLERMONT COUNTY, OHIO

ROBERT L. PROUD R. SCOTT CROSWELL III EDWIN H. HUMPHREY

June 24th, 2010

Jeff Reynolds
Ohio EPA, Division of Surface Water
Standards and Technical Support Section
P.O. Box 1049
122 S. Front Street
Columbus, Ohio 43215-1049

Dear Mr. Reynolds,

Pursuant to the requirements outlined in Appendix A of Section 3745-4-06 of the Ohio Administrative Code describing the requirements of a Level 3 Study Plan, the purpose of this letter is to certify that the Clermont County Office of Environmental Quality will create a digital photo catalog of all sampling locations in its Habitat Assessment Program, and maintain that catalog for ten years. The catalog will include photos of the specific sampling location, riparian zone adjacent to the sampling location, and general land use in the vicinity of the sampling location.

This letter further certifies that Ms. Lubbers nor Mr. McManus have never been convicted of or pleaded guilty to a violation of Section 2911.21 of the Ohio Revised Code (criminal trespass) or a substantially similar municipal ordinance.

Sincerely,

Hannah Lubbers, Project Manager
Clermont County Office of Environmental Quality

John McManus, Program Manager
Clermont County Stormwater Department

OFFICE OF ENVIRONMENTAL QUALITY
4400 HASKELL LANE BATAVIA, OHIO 45103
TELEPHONE: (513) 732-7745 FAX: (513) 732-7310

Figure 21.
Lubbers & McManus Tresspassing and Digital Photo Catalog Certification Letter

Midwest Biodiversity Institute, Inc.
P.O. Box 21561
Columbus, OH 43221-0561
Phone: 614-457-6000
Fax: 614-457-6005
E-mail: mbi@mwbinst.com

March 12, 2010

Hannah Lubbers
Clermont County Office of Environmental Quality
4400 Haskell Lane
Batavia, OH 45103

Re: Certification letter

Dear Ms. Lubbers,

Please find two signed originals of the requested certification letter, and contact me with any questions.

Thank you!

Allison Boehler-Graves

Allison Boehler-Graves
MBI Administrative Manager

Figure 22.

Yoder & Knapp (MBI) Tresspassing and Voucher Certification Letter