

Jennie Morgan
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April 8, 2010

Jeff Reynolds
Ohio EPA, Division of Surface Water
Standards & Technical Support Section
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

Subject: Revised Ohio EPA Qualified Data Collector Level 3 Study Plan

Please find enclosed a revised QDC Level 3 Study for renewal of Jennie Morgan's level 3 QDC status for stream habitat. Revisions have been made to sections 2, 4, 5, 7, 8, and 9 based on your comments received April 5, 2010. In addition, section 13 has been inserted.

If you have any questions regarding this plan, please call me at (614) 818-9156 (office) or e-mail questions or comments to jenniemorgan2002@yahoo.com. Thank you for your consideration of this plan.

Best Regards,

Jennie Morgan, PhD
Sr. Environmental Scientist

Level 3 Project Study Plan

2010 Blacklick Creek Habitat Assessment

(1) Study Objectives: The objective of the proposed study is to evaluate the current health of stream habitat along a section of Blacklick Creek that was determined to be in non-attainment of its designated use criteria by the Ohio EPA in 2000. A report of the results will be provided to Friends of Blacklick Creek to assist them in monitoring the watershed and implementing a watershed management plan.

(2) Non-point/Point Sources: The health of Blacklick Creek was assessed in 2000 by the Ohio EPA and was determined to be mostly in full attainment of its warmwater habitat status. Approximately four miles was determined to be in partial attainment and 6.6 miles was in non-attainment. The primary source of pollution in Blacklick Creek, leading to partial and non-attainment status, was determined to be the failure of home sewage treatment plants and manure spills from Hendren Farms in the creek's headwaters, and discharge from small wastewater treatment plants (WWTPs) along the length of the stream. The proposed study plan will therefore target the headwaters of Blacklick Creek and will sample an area that was determined to be in non-attainment in 2000.

Point Source Locations:

- Jefferson Water and Sewer District, Wengert Road WWTP discharges through an Unnamed Tributary to Blacklick Creek at RM 18.10, at N40°0.142, W82°48.437
- Modern Mobile Home Park (Unnamed Trib. RM 1.15 to Blacklick Creek RM 12.89) located at 8910 E. Main Street in Etna Township, Licking County, N39° 57.361, W 82° 46.548
- Tussing Road WWTP (Blacklick Creek RM 11.15) Fairfield County, N39° 55.735, W82° 47.640
- Blacklick Estates WWTP (Blacklick Creek RM 4.85) Lat/Long 39°53'43", 82°51'32"

Nonpoint Sources

- Runoff from Hendren Farms enters Blacklick Creek at RM 26 near College Rd, N40 °5.783, W82°46.752
- Shown in Appendix A is a figure from the Blacklick Creek Watershed Action Plan that depicts the locations of home sewage treatment systems located in Big Walnut watershed. Failing home sewage treatment systems are a primary source of impairment in the headwaters of Blacklick Creek.

(3) Parameters Covered: Stream habitat quality including substrate, instream cover, channel morphology, riparian development, pool/glide features, and riffle/run features will be assessed along a 200 meter section of stream at each sampling point.

(4) Methods: Stream habitat will be assessed using the "Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI)" 2006 revision,

as described here:

<http://www.epa.ohio.gov/dsw/bioassess/BioCriteriaProtAqLife.aspx>.

(5) Sampling Locations: Three (3) stream segments are to be sampled under this PSP. All are located near the headwaters of Blacklick Ck. in an area determined to be in non-attainment of its designated aquatic life use (WWH) in 2000. All sites will be scored independently by each QDC present. Specific location information is detailed in Table 1 and Appendix B.

Table 1. Blacklick Creek stream sampling locations for QDC Level 3 sample plan.

Stream River Mile	Lat/Long	General location	USGS 7.5 Minute Quadrangle
27.1	N40°06'40", W82°46'22"	Walnut St.	New Albany
24.7	N40°04'47", W82°47'05"	SR 161	New Albany
22.4	N40°03'09", W82°48'11"	Morse Rd.	New Albany

(6) Schedule: Sampling will be conducted during normal flow events to provide an indication of the water quality conditions that are generally present in the stream. Normal conditions will be determined based on stream gauging data from station number 03228500 located on Big Walnut Creek at Central College, OH (Lat 40°06'13", Long 82°53'03"). Based on USGS methods, conditions will be considered normal when the percentile is between 25 and 75.

(7) No QAPP is needed for habitat (QHEI) assessments.

(8) Work Products: Following completion of sampling and analysis data collected will be submitted to the Ohio EPA through the Credible Data Online Application (see: http://www.epa.ohio.gov/dsw/volunteermonitoring/submission_of_data.aspx). In addition, a report will be prepared that discusses the QHEI scores, as well as fish data collected separately by Mark Dilley, and an assessment of whether the sampled stream segment meets its beneficial use category. This report will be provided to Friends of Blacklick Creek to assist them in developing a watershed management plan.

(9) Qualified Data Collectors: The following scientists from MAD Scientist and Associates may be involved in the outlined study:

- Jennie Morgan, Lead Project Manager, QDC 3 for QHEI and Water Chemistry
jennie@madscientistassociates.net
- Mark Dilley, QDC 3 for Fish and Habitat
mark@madscientistassociates.net
- Kashmira Asnani
- David Strong

Company Address and Phone Number:

MAD Scientist & Associates LLC
253 N. State Street
Suite 101
Westerville, OH 43081
Phone: (614) 818-9156

Either Mark, Kahsmira or David will be present during the habitat assessment as a safety measure but will not participate in the data collection.

(10) Documentation: Copies of the original level 3 QDC certifications for Jennie Morgan are included with this submission.

(12) N/A

(13) Digital Photograph Catalog: A digital photograph catalog of all sampling locations will be maintained for ten (10) years and will include photographs of the specific sampling locations, adjacent riparian zones, and general land use in the immediate vicinity of the sampling locations.

Printed Name/Signature: _____ Date: _____

(14) N/A

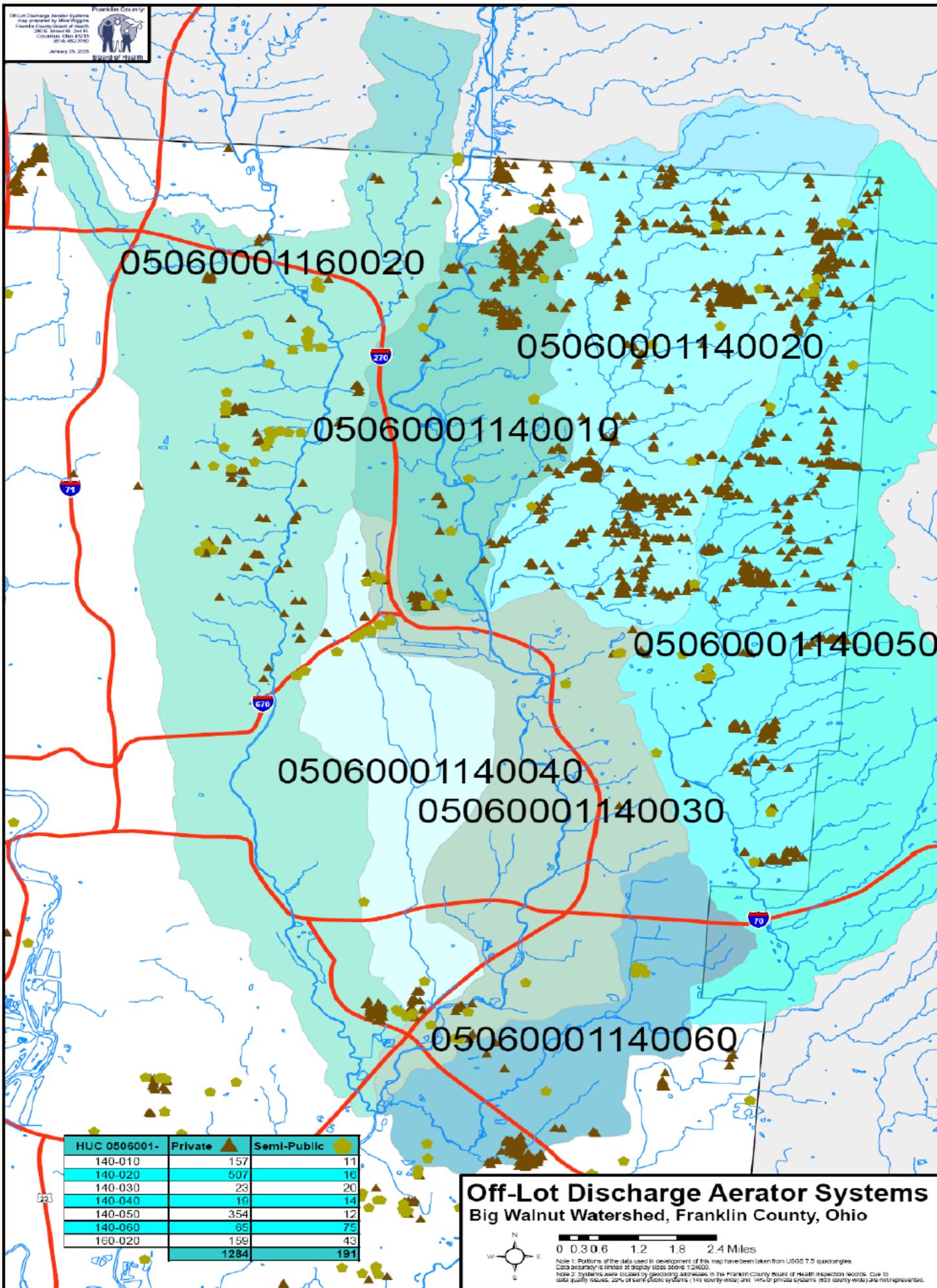
(15) I, Jennifer A. Morgan, have not been convicted or of plead guilty to a violation of section 2911.21 of the Revised Code (Criminal Trespass) or a substantially similar municipal ordinance within the previous five years.

Signed _____ Date _____

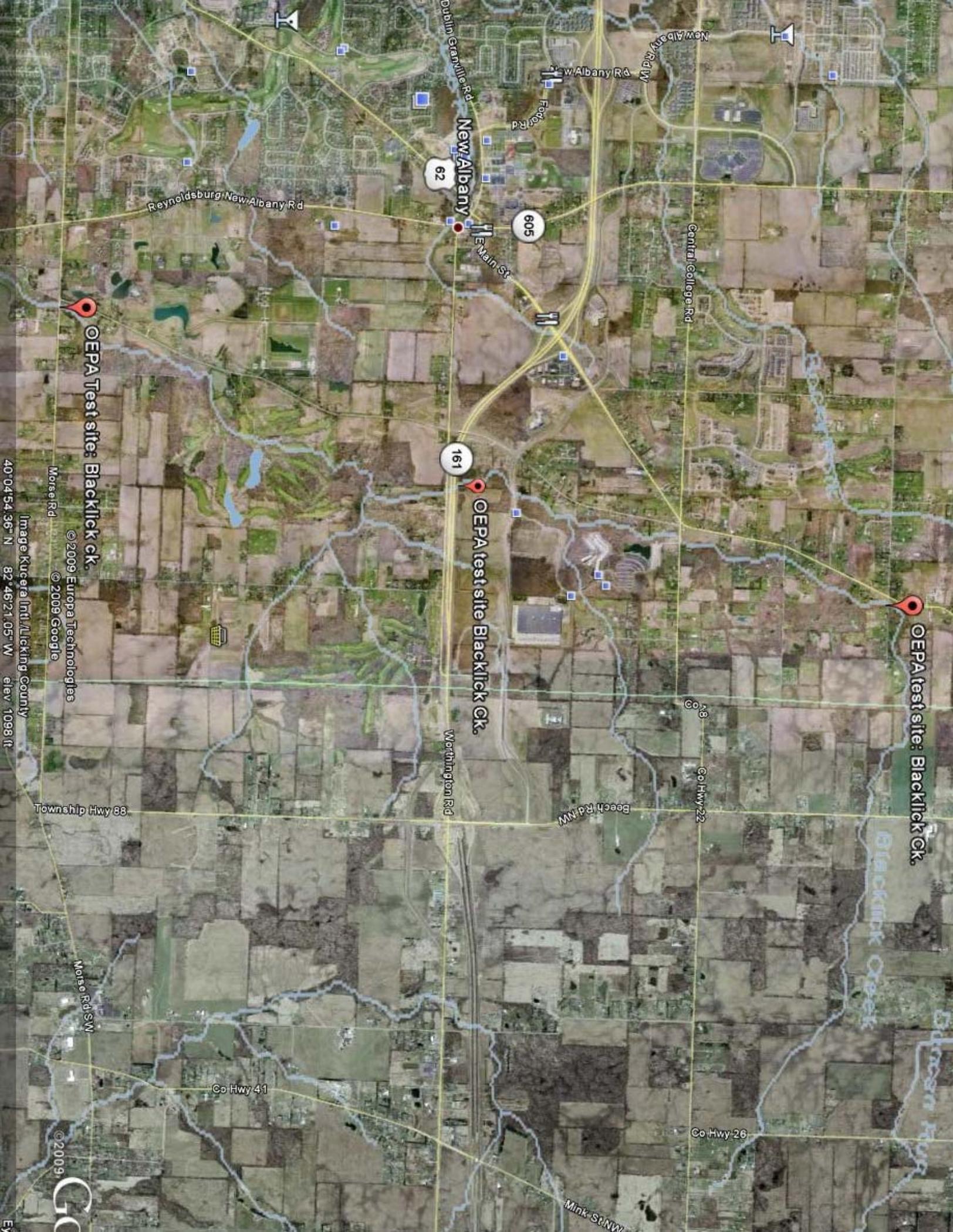
Appendix A

Location of Home Sewage Treatment Systems in Big Walnut Creek watershed as shown in the Blacklick Creek Watershed Action Plan.

Figure 18: Home Sewage Treatment Systems Map.



Appendix B
Location of sample sites for the Blacklick Creek habitat
assessment PSP.



ODEPA test site: Blacklick Ck.

ODEPA test site Blacklick Ck.

ODEPA Test site: Blacklick ck.

New Albany

62

605

161

Central College Rd

Reynoldsburg New Albany Rd

Worthington Rd

Beech Rd NW

Co Hwy 22

Co Hwy 41

Co Hwy 26

Morse Rd

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Image Kuceraj Intl, Allegheny County

40°04'54.36" N 82°46'21.05" W elev 1098 ft

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